PRELIMINARY LAND DEVELOPMENT PLANS

PREPARED FOR

COBBLESTONE VILLAGE CROSSING

SITUATED IN

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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SITE LOCATION MAP

SCALE: 1" = 1,000'

DATE: OCTOBER 30, 2026

PARCEL INFORMATION AND RECORD OWNER & APPLICANT:

TAX PARCEL NO: 32-00-06129-13
OWNER OF RECORD: COBBLESTONE VILLAGE CROSSING, LLC
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062
DEED BOOK 6249, PAGE 00204
SITUATE: 1590 E. PHILADELPHIA ROAD, GILBERTSVILLE, PA 19525

PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

INTENT OF PLAN:

THIS PLAN PROPOSES TO DEVELOP THE PROPERTY FOR A SENIOR LIVING COMMUNITY UTILIZING THE AAC-ACTIVE ADULT COMMUNITY OVERLAY DISTRICT TO CONSTRUCT FIFTY (50) TOWNHOUSES WITH AN INTERNAL CUL-DE-SAC ACCESS ROAD, PARKING AREAS, EMERGENCY ACCESS, TRAILS, AND THREE (3) AMENITY BUILDINGS. THE TOWNHOUSES WILL BE SERVED BY PUBLIC WATER AND SANITARY SEWER FACILITIES.

Van Cleef
ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 EAST HIGH STREET, POTTSTOWN, PA 19464
WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

WAIVERS

ON BEHALF OF COBBLESTONE VILLAGE CROSSING, LLC (APPLICANT) IN COORDINATION WITH THE PRELIMINARY LAND DEVELOPMENT PLANS FILED FOR THE ABOVE REFERENCED PROJECT, THE FOLLOWING WAIVERS ARE REQUESTED FROM THE REQUIREMENTS OF THE DOUGLASS TOWNSHIP STORMWATER MANAGEMENT ORDINANCE (CHAPTER 222) AND SUBDIVISION AND LAND DEVELOPMENT ORDINANCE (CHAPTER 230):

- §230-28 - A WAIVER FROM PROVIDING A 26 FOOT HALF-WIDTH CARTWAY FROM CENTERLINE, AND CURBS, ALONG THE SITE FRONTAGE OF E. PHILADELPHIA AVENUE (S.R. 0073). THE CURB RADII FOR THE PROPOSED ACCESS HAVE BEEN SETBACK 16 FEET FROM THE EXISTING DOUBLE YELLOW LINE OF SR 0073, WHICH IS CONSISTENT WITH THE EXISTING ROAD EDGES. THE TIA INDICATED THAT AUXILIARY LANES WERE NOT WARRANTED. THE LANE CONFIGURATION AS SHOWN WAS ACCEPTABLE BY PENNDOT PER THEIR SCOPING APPLICATION REVIEW. CURBING IS ALSO NOT NEEDED ALONG SR 0073 AS PROPER DRAINAGE IS ACHIEVED BY ROADSIDE SWALES.
- §230-56 - A WAIVER FROM INSTALLING SIDEWALK ALONG THE SITE FRONTAGE OF E. PHILADELPHIA AVENUE (S.R. 0073). A PAVED TRAIL IS PROVIDED WITHIN THE SITE RUNNING PARALLEL WITH ROUTE 73 CONNECTING THE SIDEWALK AT THE PROPOSED ROAD A INTERSECTION W/ ROUTE 73 TO ELM STREET.
- §230-69.G.(2).(C).A WAIVER FROM PROVIDING EARTHEN DETENTION EMBANKMENTS WITH A MAXIMUM SLOPE OF FOUR HORIZONTAL TO ONE VERTICAL (4:1) FOR THE PROPOSED BASINS. SCM1 IS PROPOSED TO HAVE 3:1 EXTERIOR SIDE SLOPES AND 2:1 SLOPE UPSLOPE OF THE LEVEL SPREADER; SCM2 AND SCM3 ARE PROPOSED TO HAVE 3: 1 SLOPES. THIS IS TO MAXIMIZE THE BASIN BOTTOM SURFACE AREA TO MEET NPDES SWM REQUIREMENTS, AND THE SLOPES WILL BE STABILIZED W/ EROSION CONTROL MATTING TO PROMOTE VEGETATIVE GROWTH.
- §230-69.G.(2).(H). & §222-64.B - A WAIVER FROM PROVIDING A MINIMUM FREEBOARD OF ONE (1) FOOT ABOVE THE 100-YEAR STORM MAXIMUM FLOOD ELEVATION IN THE BASIN TO THE SPILLWAY INVERT SCM1. A FREEBOARD OF 0.52' IS PROVIDED. ALSO, A WAIVER FROM PROVIDING ONE (1) FOOT OF FREEBOARD FOR FLOW THROUGH THE EMERGENCY SPILLWAY. WHERE 0.76 FEE IS PROVIDED. THE STORMWATER CALCULATIONS DEMONSTRATE THE PROPOSED DESIGN MAINTAINS ADEQUATE STORMWATER MANAGEMENT CAPACITY, SAFE OVERFLOW CONVEYANCE, EMBANKMENT STABILITY, AND PROTECTION OF ADJACENT PROPERTIES. THE PROPOSED REDUCTION WILL NOT COMPROMISE THE BASIN'S INTENDED FUNCTION OR PERFORMANCE
- §222-64.B - A WAIVER IS REQUESTED FROM THE REQUIREMENT THAT A STORMWATER MANAGEMENT FACILITY PROVIDE A SPILLWAY WITH AN INVERT ELEVATION TWO (2) FEET BELOW THE TOP OF BERM ELEVATION. THE PROVIDED FREEBOARD FOR SCM1 IS 1', SCM2 IS 1.26' AND SCM3 IS 1.25'. THE STORMWATER CALCULATIONS DEMONSTRATE THE PROPOSED DESIGN MAINTAINS ADEQUATE STORMWATER MANAGEMENT CAPACITY, SAFE OVERFLOW CONVEYANCE, EMBANKMENT STABILITY, AND PROTECTION OF ADJACENT PROPERTIES. THE PROPOSED REDUCTION WILL NOT COMPROMISE THE BASINS INTENDED FUNCTION OR PERFORMANCE
- §222-65.A.(3). - A WAIVER IS REQUESTED FROM THE REQUIREMENT THAT THE SIDE SLOPES OF A STORMWATER MANAGEMENT FACILITY NOT EXCEED FIVE (5) HORIZONTAL TO ONE (1) VERTICAL. REFER TO WAIVER FROM §230-69.G.(2).(C). ABOVE.

CERTIFICATE OF OWNERSHIP

COBBLESTONE VILLAGE CROSSING, LLC.:

BY: _____
SIGNATURE

_____
NAME, TITLE

NOTARY ACKNOWLEDGEMENT

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS _____DAY OF _____ , 20__, BEFORE ME THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, WHO BEING DULY SWORN ACCORDING TO LAW, ACKNOWLEDGED _____TO BE THE _____ _____, AND THAT SHE AS SUCH BEING AUTHORIZED TO DO SO DEPOSES AND SAYS THAT THE PLAN THEREOF WAS MADE AT ___DIRECTION, THAT ___ACKNOWLEDGES THE SAME TO BE _____ACT AND PLAN AND THAT ___DESIRES THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.

IN WITNESS WHEREOF, I HAVE SET MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

RECORDER OF DEEDS

RECORDED THIS _DAY OF _____, 20___, IN THE OFFICE FOR THE RECORDING OF DEEDS, IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PENNSYLVANIA IN PLAN BOOK ___, PAGE.

SURVEYOR'S CERTIFICATION

I, _____ HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS PLAN AND SURVEY WAS PERFORMED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR BOUNDARY SURVEY SECTION OF THE MANUAL OF PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA, AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS ON JULY 10, 1998, THAT THIS PLAN REPRESENTS A FIELD SURVEY MADE BY ME OR UNDER MY DIRECTION, THAT THE EXISTING PERIMETER MONUMENTS SHOWN HEREON HAVE BEEN LOCATED AS PART OF THE SURVEY, AND ALL OTHER PROPOSED PERIMETER MONUMENTS SHALL BE SET.

_____ _____
PROFESSIONAL SURVEYOR SIGNATURE DATE
PLS NO.

ENGINEER'S CERTIFICATE OF CONFORMANCE

I, NICHOLAS E. FEOLA, P.E., HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, THESE PLANS DESCRIBED HEREON, AS WELL AS OTHER DRAWINGS WHICH ARE PART OF THIS PLAN SET, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE, AND WERE PREPARED BY ME OR UNDER MY DIRECTION FOR WHICH I ACCEPT FULL RESPONSIBILITY.

_____ _____
PROFESSIONAL ENGINEER SIGNATURE DATE
PE No. PE046396E

DOUGLASS TOWNSHIP PLANNING AGENCY

THIS PLAN WAS APPROVED AS TO LAYOUT AND LOCATION BY THE DOUGLASS TOWNSHIP PLANNING AGENCY OF DOUGLASS TOWNSHIP AT A MEETING HELD ON THE __ DAY OF _____, 20_

_____
CHAIRPERSON

_____
ATTEST: TOWNSHIP SECRETARY

DOUGLASS TOWNSHIP BOARD OF SUPERVISORS

THIS PLAN WAS APPROVED AS TO LAYOUT AND LOCATION BY THE DOUGLASS TOWNSHIP BOARD OF SUPERVISORS AT A MEETING HELD ON THE __ DAY OF _____, 20__

_____
CHAIRPERSON

_____
ATTEST: TOWNSHIP SECRETARY

DOUGLASS TOWNSHIP ENGINEER REVIEW

REVIEWED THIS __ DAY OF _____, 20_ BY THE TOWNSHIP ENGINEER FOR DOUGLASS TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA.

_____
TOWNSHIP ENGINEER

FOR USE BY MCPC ONLY

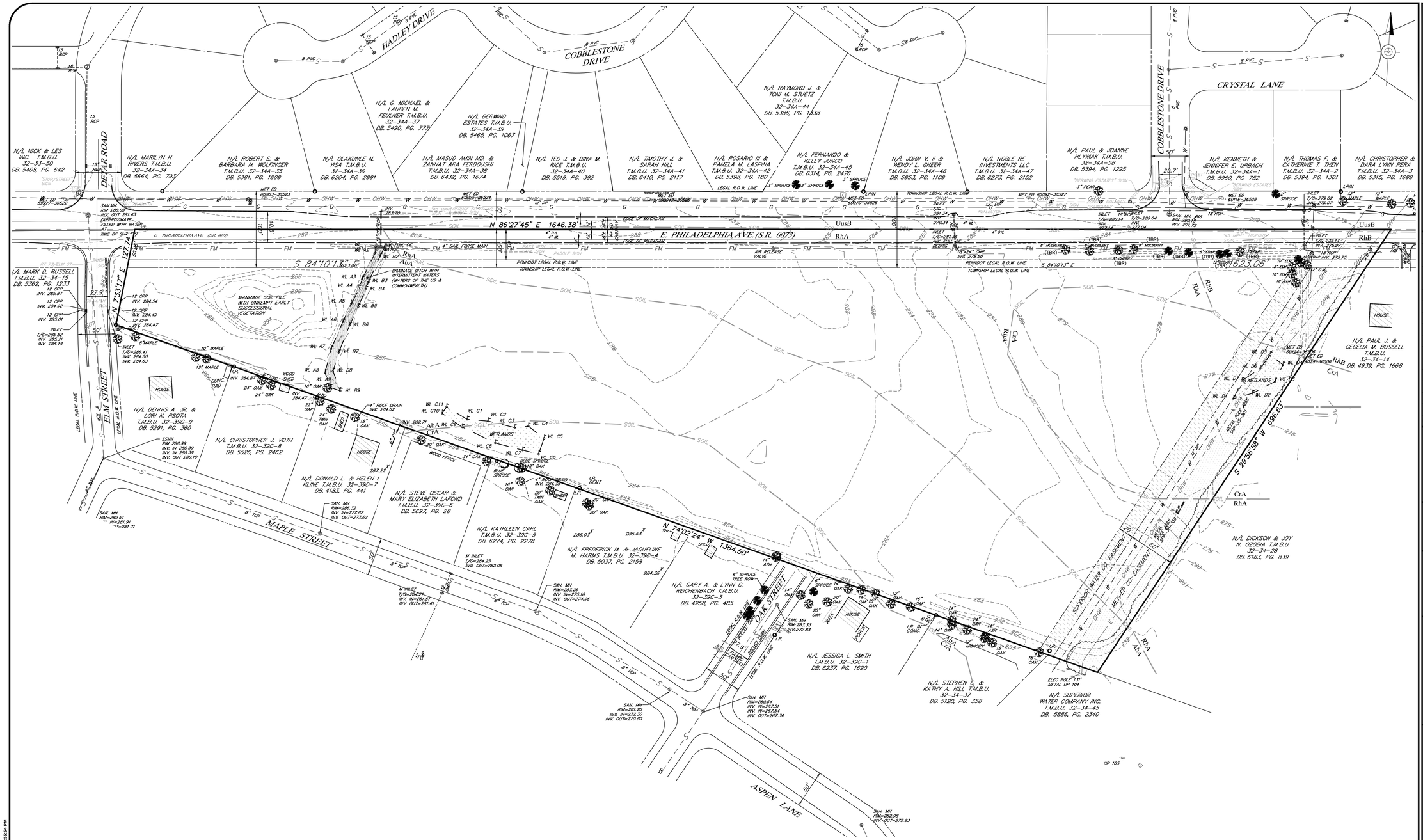
MCPC NO. _____

PROCESSED and REVIEWED. A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _____

_____
For the Director
Montgomery County Planning Commission

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MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	O/⊡
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	▭ / ▬
EASEMENT LINE		DRAINAGE MANHOLE	Ⓓ
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE	-x-x-x-x-x-	FIRE HYDRANT	
SPLIT RAIL FENCE LINE	-o-o-o-o-o-	WATER VALVE	⋈ WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E M
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UusB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Residential Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 30 60 120
1 INCH = 60 FT

PLAN NOTATION

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS

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2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEFENGINEERING.COM
PHONE (610) 323-4040

EXISTING RESOURCES & SITE ANALYSIS MAP (ERSAM) & DEMOLITION PLAN

FOR

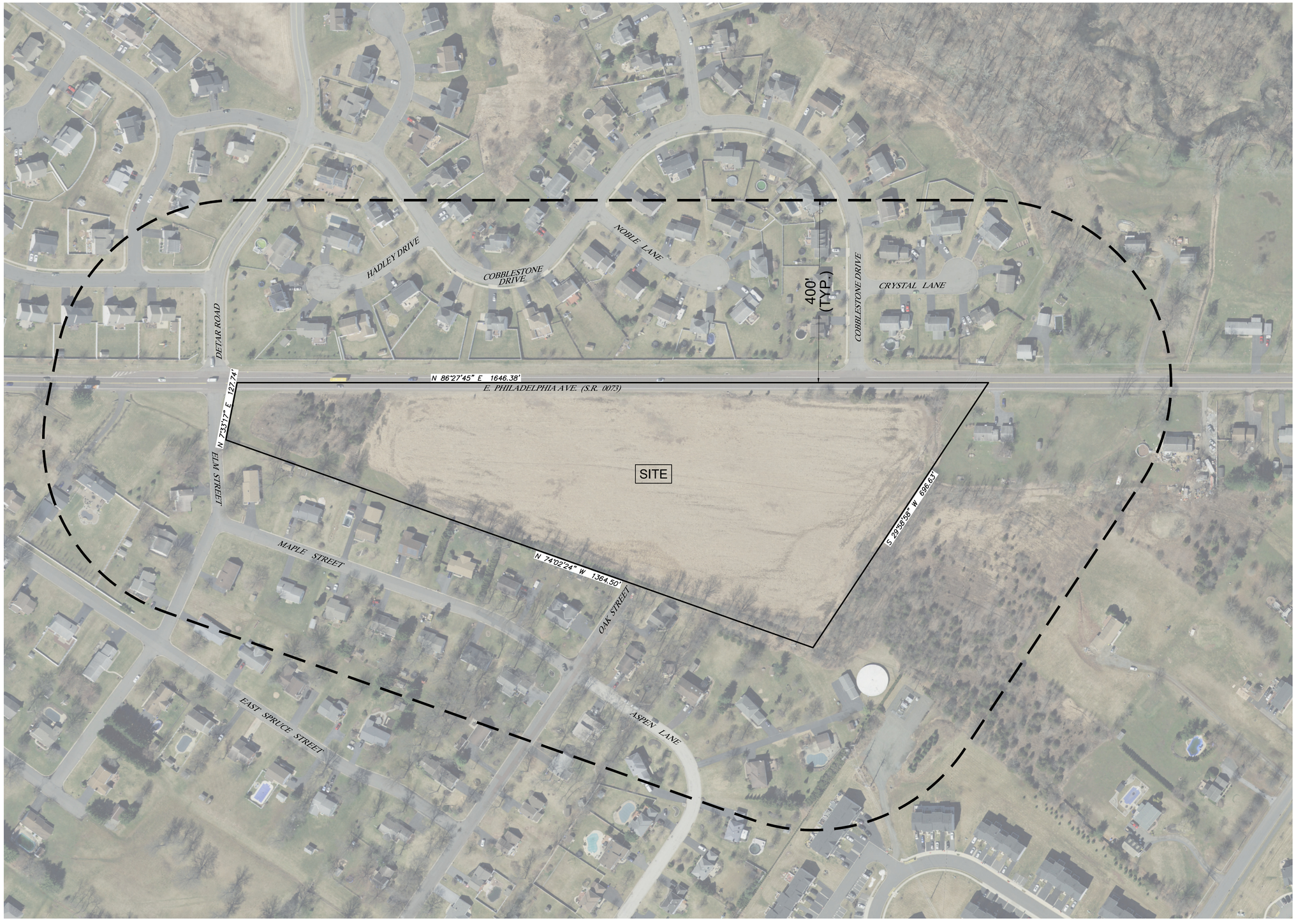
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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AERIAL PLAN NOTES:

1. AERIAL IMAGE SHOWN TAKEN FROM "PASDA - PENNSYLVANIA SPATIAL DATA ACCESS" WEBSITE: http://www.pasda.psu.edu

2. THE INTENT OF THIS PLAN IS TO SHOW EXISTING FEATURES WITHIN 400 FEET OF THE SUBJECT PROPERTY.

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Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776 or 811
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 50 100 200
1 INCH = 100 FT

PLAN NOTATION
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
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2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

SURROUNDING FEATURES AERIAL PLAN

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 100'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
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2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

GENERAL NOTES

1. BOUNDARY RETRACEMENT AND TOPOGRPAHIC INFORMATION SHOWN IS FROM A FIELD SURVEY PERFORMED BY VAN CLEEF ENGINEERING ASSOCIATES IN MARCH, 2026.
2. HORIZONTAL DATUM: NORTH AMERICAN DATUM (NAD) 83 (PA STATE PLANE SOUTH)
3. VERTICAL DATUM: NAVD 88
4. SITE BENCH MARK: SANITARY SEWER MANHOLE #46 IN THE CENTERLINE OF COBBLESTONE DRIVE ON THE NORTHERLY EDGE OF EAST PHILADELPHIA AVENUE (S.R. 0073), RIM ELEVATION 280.18'.
5. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE PLAN(S):
   - COBBLESTONE COMMONS BY BURSICH ASSOCIATES INC, DATED 10-16-2004 AND LAST REVISED 5-15-2007.
6. THE EXISTING PENNDOT LEGAL RIGHT OF WAY FOR EAST PHILADELPHIA AVENUE (SR 0073) IS BASED UPON A PLAN
7. THE LOCATION OF ALL EXISTING UTILITIES SHOWN HEREIN HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH, OR HORIZONTAL OR VERTICAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION IN ACCORANCE WITH PENNSYLVANIA ACT 38 "ONE CALL" SYSTEM. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY THEIR WORKFORCE.
8. A PA ONE CALL WAS PERFORMED FOR DESIGN PURPOSES, SERIAL NUMBER 2026020213.
9. THE SURVEY WAS PERFORMED UTILIZING A COMMITMENT FOR TITLE INSURANCE PROVIDED TO OUR FIRM BY CLIENT, PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NO. C22102, COMMITMENT DATE: JULY 22, 2021.
10. BASED ON FEMA FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NOS. 42091C0078G & 42091C0079G, EFFECTIVE DATE: 03/02/2016, FOR THE COUNTY OF MONTGOMERY, PENNSYLVANIA, THE SUBJECT PROPERTY LIES WITHIN A ZONE X: AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN (0.2 PERCENT CHANCE ANNUAL OCCURANCE).
11. A WETLAND/WATERS DETERMINATION FOR THE SUBJECT SITE WAS PERFORMED BY SETH BACON SOIL & WETLAND CONSULTING, POTTSTOWN PA, AND DOCUMENTED IN A REPORT DATED NOVEMBER 11, 2023. ASSOCIATED FLAGGING WAS FIELD LOCATED AND PLOTTED BY OUR FIRM.
12. SOILS INFORMATION SHOWN FROM INFORMATION CONTAINED ON THE USDA - NRCS WEB SOIL SURVEY.
13. IT IS NOT THE INTENT OF THIS PLAN TO ILLUSTRATE ANY SUBSURFACE CONDITIONS SHOULD THEY EXIST, I.E. BURIED TANKS, SEEPAGE BEDS, TILE FIELDS, ETC.
14. THE AREA BETWEEN THE TITLE LINE OR LEGAL RIGHT OF WAY LINE AND THE ULTIMATE RIGHT OF WAY LINE FOR ELM STREET IS HEREBY OFFERED FOR DEDICATION TO DOUGLASS TOWNSHIP, MONTGOMERY CO., PA OR GOVERNING BODY HAVING JURISDICTION AT THE TIME OF DEDICATION.
15. THE PROPOSED ON-SITE ACCESS ROAD IS PRIVATE AND IS NOT OFFERED FOR DEDICATION TO THE TOWNSHIP.
16. A HOMEOWNER'S ASSOCIATION (HOA) WILL BE RESPONSIBLE FOR THE MAINTENANCE, REPAIR, AND/OR REPLACEMENT OF THE INTERNAL ACCESS ROAD, EMERGENCY ACCESS, PARKING AREAS, LIGHTING (IF PROVIDED), SIGNAGE, SIDEWALKS, TRAIL, OPEN SPACES, SITE AMENITIES, STORMWATER MANAGEMENT FACILITIES, AND OTHER IMPROVEMENTS NOT DEDICATED TO THE TOWNSHIP OR OTHER AGENCY.
17. ALL PROPOSED DWELLING UNITS WILL BE SERVED WITH PUBLIC SEWER SERVICE TO BE PROVIDED BY THE BERKS-MONTGOMERY MUNICIPAL AUTHORITY (BMMA). ALL PROPOSED SANITARY SEWER EASEMENTS WILL BE DEDICATED TO THE BMMA ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE RULES, REGULATIONS, AND SPECIFICATIONS OF THE BMMA AND THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
18. ALL PROPOSED DWELLING UNITS WILL BE SERVED WITH PUBLIC WATER SERVICE INTENDED TO BE PROVIDED BY AQUA, PA. ALL WATER FACILITIES MUST BE CONSTRUCTED IN ACCORDANCE WITH RULES, REGULATIONS, AND SPECIFICATIONS OF AQUA, PA.
19. THE PROPOSED SANITARY SEWER MAINS LOCATED WITHIN PUBLIC RIGHTS OF WAY AND/OR DEDICATED EASEMENTS ARE OFFERED FOR DEDICATION TO THE BERKS-MONTGOMERY MUNICIPAL AUTHORITY IN PERPITUITY.
20. THE PROPOSED WATER MAINS LOCATED WITHIN PUBLIC RIGHTS OF WAY AND/OR DEDICATED EASEMENTS ARE OFFERED FOR DEDICATION TO AQUA PA IN PERPITUTIY.
21. A PUBLIC ACCESS EASEMENT TO THE BENEFIT OF DOUGLASS TOWNSHIP IS GRANTED IN PERPITUITY OVER ALL THE WALKING TRAILS, AND SIDEWALKS (IF NOT WITHIN RIGHT OF WAY DEDICATED TO THE TOWNSHIP), THROUGHOUT THE PROPOSED DEVELOPMENT.
22. ALL PROPOSED UTILTIES, INCLUDING GAS, ELECTRIC, TELEPHONE, COMMUNICATIONS, CABLE TV, FOR ALL UNITS WITHIN THE DEVELOPMENT SHALL BE PROVIDED BY UNDERGROUND SERVICE. INSTALLATION OF THE UTILITIES SHALL BE DONE IN STRICT ACCORDANCE WITH THE ENGINEERING STANDARDS AND SPECIFICATIONS OF THE TOWNSHIP, AUTHORITY, OR OTHER PUBLIC UTIITY CONCERNED.
23. CONCRETE MONUMENTS SHALL BE SET AS SHOWN ON THE PLANS.
24. THE HOMEOWNER'S ASSOCIATION (HOA) SHALL BE RESPONSIBLE FOR THE PERPETUAL MAINTAINANCE OF THE PERMANENT STORMWATER MANAGEMENT FACILITIES AND STORMWATER CONTROL MEAURES (SCMs) LOCATED WITHIN THE PROPERTY BOUNDARY OUTSIDE OF ANY DEDICATED STREETS OR EASEMENTS. NO CHANGES SHALL BE MADE TO THE FACILTIES, PIPES, STRUCTURES, OR FINISHED GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE MUNICIPALITY AND ANY APPLICABLE GOVERNMENTAL REGULATORY AGENCIES. REPRESENTATIVES OF THE MUNICIPALITY AND/OR OTHER APPLICABLE GOVERMENTAL AGENCIES SHALL HAVE PERMISSION TO ACCESS THE STORMWATER MANAGEMENT FACILITIES THROUGH A BLANKET EASEMENT OVER THE SUBJECT PROPERTY TO ALLOW ENTRY TO PERFORM INSPECTIONS, AND TO ALLOW ENTRY AND EXECUTION OF ALL NECESSARY REPAIRS TO THE FACILITIES SHOULD THE HOMEOWNER'S ASSOCIATION FAIL TO MAINTAIN THE FACILITIES IN ACCORDANCE WITH THE APPROVED PLAN.
25. ANY EXISTING FLOODPLAINS OR WETLANDS, AS APPLICABLE, SHALL NOT BE PIPED, FILLED, GRADED, OR DISTURBED, EXCEPT AS ALLOWED UNDER LOCAL, STATE, OR FEDERAL REGULATIONS.
26. THE HOMEOWNER'S ASSOCIATION (HOA) WILL BE RESPONSIBLE TO HAVE A CONTRCTED PRIVATE SERVICE FOR THE SOLID WASTE AND DISPOSAL NEEDS OF THE RESIDENTIAL COMMUNITY. EACH UNIT OWNER WILL UTILIZE INDIVIDUAL WASTE CAN(S) TO PLACE CURBSIDE FOR PICKUP BY THE HOA CONTRACTED SERVICE.
27. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
28. UNLESS NOTED OTHERWISE NO THE PLANS OR IN THE PERMITS GOVERNING THE WORK, ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING APPROPRIATE STANDARDS AND SPECIFICATIONS:
   a. DOUGLASS TOWNSHIP (MONTGOMERY CO., PA) SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND AMENDMENTS, AND CONSTRUCTION SPECIFICATIONS.
   b. PENNDOT PUBLICATION 408 SPECIFICATIONS, LATEST EDITION AND ALL ADDENDA.
28. ALL TRAFFIC CONTROL SIGNS SHALL BE POSTED IN ACCORDANCE WITH THE MOST CURRENT VERSIONS OF PADOT TITLE 67, CHAPTER 211, THE MUTCD, AND PENNDOT PUBLICATION 236M, "HANDBOOK OF APPROVED SIGNS".
29. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH MUTC AND PENNDOT PUBLICATION 111M "TRAFFIC CONTROL - PAVEMENT MARKINGS AND SIGNING STANDARDS".
30. ANY WORK WITHIN A HIGHWAY OR RIGHT OF WAY UNDER THE JURISDICTION OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION REQUIRES A HIGHWAY OCCUPANCY PERMIT PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE STATE HIGHWAY LAW", BEFORE ANY WORK CAN BE DONE.
31. THIS PLAN IS PREPARED FOR LAND DEVELOPMENT PURPOSES ONLY. ADDITIONAL DATA MAY BE NECESSARY FOR CONSTRUCTION.
32. THE PROPOSED DWELLING UNITS DEPICTED ON THE PLANS ARE SUBJECT TO ALL APPLICABLE TOWNSHIP ORDINANCES AND REGULATION. INDIVIDUAL DWELLING UNIT FOOTPRINTS ARE APPROXIMATE. FINAL DWELLING UNIT FOOTPRINTS AND ELEVATIONS WILL BE SUBMITTED DURING THE BUILDING PERMIT APPLICATION PHASE AS DETERMINED AT THE TIME OF INDIVIDUAL UNIT SALES.
33. ALL ADA ACCESSIBLE CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT VERSIONS OF PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M AND PENNDOT DESIGN MANUAL, CHAPTER 6.
34. CONTRACTOR SHALL VERIFY THAT ALL RAMPS AND SIDEWALKS MEET ADA REQUIREMENTS AND CODES PRIOR TO POURING OF CONCRETE. IF ANY DISCREPENCIES ARE FOUND, THE CONTRACTOR SHOULD NOTIFY THE ENGINEER OF RECORD IMMEDIATELY.
35. DEVELOPER SHALL COORDINATE ANY REQUIRED PERMITS FOR ALL GRADING OPERATIONS WITH THE TOWNSHIP ZONING OFFICER/CODE OFFICIAL FOR EACH LOT, TRACT, OR SITE WHICH COMPRISES A SEPARATE OPERATION (INCLUDES SITE WORK AS WELL AS INDIVIDUAL LOTS).
36. SUBDIVISION AND LAND DEVELOPMENT PLANS WILL NOT BE RECORDED AND NO PERMIT SHALL BE ISSUED FOR ANY INDIVIDUAL BUILDING UNITS OR SITE IMPROVEMENTS UNTIL DEVELOPMENT AGREEMENTS, STORMWATER MANAGEMENT OPERATIONS & MAINTENANCE AGREEMENTS HAVE BEEN EXECUTED AND DULY RECORDED WITH THE TOWNSHIP.
37. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OR BURSICH ASSOCIATES, INC. IF ANY DISCREPENCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PROVIDED TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADE SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. ENGINEER RESERVES THE RIGHT TO CORRECT THESE DRAWINGS.
38. DEBRIS SHALL NOT BE BURIED ON THE SITE. ALL EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. CONTRACTOR SHALL PROPERLY REMOVE AND DISPOSE HAZARDOUS/UNSUITABLE MATERIAL OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS.
39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURENT OSHA STANDARS, AS WELL AS ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
40. CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURE, ETC. TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRITE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF PAVEMENT AND SIDEWALKS TO REMAIN, AND PROVIDE A SAFE WORK AREA.
41. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LOCAL AUTHORITY OR GOVERNING AGENCIES OF THE BEGINNING DATE OF CONSTRUCTION AND IS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT NO WORK IS DONE WITHOUT THE PROPER INSPECTIONS BY LOCAL AUTHROITY OR GOVERNING AGENCIES.
42. THE ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS /MEANS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS, NOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM THE SAME. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING METHODS/MEANS FOR COMPLETION OF IDENTIFIED WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFICATION OF OWNER AND ENGINEER OF RECORD WHEN A CONFLICT IS IDENTIFIED.
43. THE PROPOSED SEWAGE FLOWS FOR THIS DEVELOPMENT WILL CONTAIN DOMESTIC SEWAGE ONLY.
44. NO FLOOR DRAINS OR YARD DRAINS (FOR STORMWATER OR DRAINAGE SYSTEMS) SHALL BE CONNECTED TO THE SANITARY SEWER SYSTEM.
45. IF ANY DWELLING UNIT IS PLANNED WITH AN AUTOMATIC FIRE ALARM OR BURGLAR ALARM, A KNOX BOX SHALL BE INSTALLED PRIOR TO A USE AND OCCUPANCY PERMIT BEING ISSUED.
46. MAILBOX CLUSTER TYPE, LOCATION, ETC. TO BE COORDINATED BY DEVELOPER WITH THE US POST OFFICE/ LOCAL POSTMASTER PROVIDING SERVICE TO THE DEVELOPMENT.
47. ALL PROPOSED PEDESTRIAN FACILITIES REFLECTED ON THESE PLANS SHALL BE CONSTUCTED TO COMPLY WITH THE FOLLOWING STANDARDS:
   - PENNDOT DESIGN MANUAL 2, CHAPTER 6.
   - PENNDOT STANDARDS FOR ROADWAY CONSTRUCTION, PUBLICATION 72M, RC-67M.
   - U.S. ACCESS BOARD, PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ADA ACCESSBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (ADAAG).
48. ANY UTILITY POLES THAT MUST BE RELOCATED SHALL BE A MINIMUM OF FOUR (4) FEET FROM THE EDGE OF TRAVEL LANE OR SHOULDER PAVING OR AS CLOSE TO THE LEGAL RIGHT OF WAY LINE AS POSSIBLE. THE POLES MUST BE SETBACK A MINIMUM OF TWO (2) FEET BEHIND CURB LINES.
49. THIS PLAN IS NOT VALID UNLESS EMBOSSED OR STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
50. THE TOWNSHIP ENGINEER OR THEIR DESIGNATED REPRESENTATIVE SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF THE COMMENCEMENT OF ANY CONSTRUCTION OPERATION, THAT PROVISION CAN BE MADE FOR INSPECTION BY THE TOWNSHIP.
51. STREET SIGNS ARE TO BE POSTED AT THE TIME OF THE STREET BINDER COURSE INSTALLATION OR AT THE TIME OF THE ISSUANCE OF THE FIRST DWELLING UNIT OCCUPANCY PERMIT, WHICHEVER COMES FIRST. STREET NAME SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE CONSISTENT IN DESIGN AND SPECIFICATION WITH THOSE IN GENERAL USE BY DOUGLASS TOWNSHIP. SIGN TYPES, LOCATIONS, AND INSTALLATION SHALL BE SUBJECT TO THE DETERMINATON, APPROVAL, AND INSPECTION OF THE MUNICIPAL ENGINEER AND INSTALLED AT THE COST OF THE DEVELOPER. ALL TRAFFIC CONTROL SIGNS MUST INCLUDE HIGH INTENSITY BACKING.

GENERAL GRADING & DRAINAGE NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO DOUGLASS TOWNSHIP AND PENNDOT STANDARDS AND SPECIFICATIONS. INTERPRETATION SHALL REST WITH THE MUNICIPAL ENGINEER OR THEIR REPRENTATIVE IN THE FIELD.
2. COMPACTION CRITERIA FOR FILL PLACEMENT SHALL MEET OR EXCEED THE FOLLOWING MINIMUM PERCENTAGE OF MAXIMUM MODIFIED PROCTOR DRY DENSITY AS DETERMINED BY ASTM D-1557 USED ON REPRESENTATIVE SOIL SAMPLES, UNLESS MORE STRINGENT CRITERIA IS GIVEN ELSEWHERE:

FILL AREA	% OF MAX. MODIFIED PROCTOR DRY DENSITY
BUILDING FOOTPRINT	95%
PAVEMENT, ROADWAYS, DRIVEWAYS	95%
SIDEWALKS	95%
LANDSCAPE AREAS	93%
TRENCH BACKFILL	SAME AS SURROUNDING AREA

CONTRACTOR SHALL SUBMIT COMPACTION REPORT PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS BEING DONE, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN ANY BUILDING PAD, AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THE NOTED REQUIREMENTS.

3. PROTECT SUBGRADE FROM EXCESSIVE WHEEL LOADING DURING CONSTRUCTION, INCLUDING CONCRETE TRUCKS AND DUMP TRUCKS.
4. REMOVE AREAS OF FINISHED SUBGRADE FOUND TO HAVE INSUFFICIENT COMPACTING DENSITY TO DEPTH NECESSSARY AND REPLACE IN A MANNER THATN WILL COMPLY WITH COMPACTION REQUIREMENTS BY USE OF MATERIAL EQUAL TO OR BETTER THAN BEST SUBGRADE MATERIAL ONSITE. SURFACE OF SUBGRDE AFTER COMPACTION SHALL BE HARD, SMOOTH, STABLE, AND TRUE TO GRADE AND CROSS SECTION.
5. ALL SPOT ELEVATIONS SHOWN ON THE PLANS ARE BOTTOM FACE OF CURB OR TOP OF FINISHED PAVING UNLESS OTHERWISE NOTED.
6. THE MINIMUM SLOPE IN GRASSED AREAS SHALL NOT BE LESS THAN 2 PERCENT, AND THE MINIMUM IN PAVED AREAS SHALL NOT BE LESS THAN 1 PERCENT. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE (2 PERCENT MIN.) IN ALL PROPOSED GRASSED AREAS AWAY FROM ALL BUILDINGS OR STRUCTURES.
7. MAXIMUM SLOPES WITHIN LAWN AREAS ARE 3 HORIZONATL TO 1 VERTICAL, UNLESS STABILIZED BY A RETAINING WALL OR CRIBBING.
8. THE CONTRACTOR SHALL COMPLY, TO THE FULLEST EXTENT, WITH THE LASTEST STANDARDS OF OSHA OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINT THE MEANS AND METHODS REQUIRD TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES.

STORM SEWER GENERAL NOTES

1. STORM SEWER SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUNICIPAL, COUNTY, PADEP, AND PENNDOT STANDARDS AND REGULATIONS AS APPLICABLE.
2. WHEN REINFORCED CONCRETE PIPE (RCP) IS SPECIFIED ON THE PLANS, IT SHALL HAVE RUBBER O-RING GASKETS, AND SHALL COMPLY WITH ASTM C76 STANDARDS FOR CLASS III WALL B PIPE, UNLESS OTHERWISE NOTED.
3. WHEN HIGH DENSITY POLYETHYLENE PIPE (HDPE) IS SPECIFIED, IT SHALL BE SMOOTH LINED CORRUGATED, AND CONFORM TO AASHTO M294 AND TYPE S WITH GASKET OR SOIL TYPE JOINT, UNLESS OTHERWISE NOTED.
4. ALL OUTLET PIPES THROUGH BASIN BERM SHALL BE REINFORCED CONCRETE PIPE WITH WATERTIGHT JOINTS USING O-RING JOINT PIPE. OUTLET PIPE SHALL BE BACKFILLED WITH MATERIAL SIMILAR TO THE CORE MATERIAL (SEMI-IMPERVIOUS).
5. ALL STORM DRAINAGE FACILITIES AND CONSTUCTION PROCEDURES SHALL BE IN CONFORMANCE WITH PENNDOT ROADWAY CONSTRUCTION STANDARD DRAWINGS RC-72M, LATEST REVISION AND PUBLICATION 408, LATEST REVISION.
6. CONTRACTOR SHALL REVIEW THE STORM DRAINAGE CONNECTIONS TO THE INLETS, MANHOLES, ETC. AND PROVIDE APPROPRIATE BOX SIZE, MANHOLE SIZE, TOP UNITS, ETC. AS NECESSARY TO PROPERTY ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
7. ALL INLETS LOCATED IN PAVED AREAS OR NEAR PEDESTRIAN ACCESSWAYS SHALL BE FURNISHED WITH BICYCLE SAFE GRATES.
8. STORM SEWER MANHOLES SHALL BE FABRICATED OF REINFORCED CONCRETE EXCEPT WHERE OTHERWISE NOTED. ALL STRUCTURES SHALL BE DESIGNED FOR HS-25 HIGHWAY LOADING.
9. STORM INLETS SPECIFYING A "SNOUT" WITH WATER QUALITY INSERT OR SEPARATOR SHALL BE PROVIDED WITH THE REQUIRED SUMP DEPTH TO INSTALL THE SNOUT OR APPROVED EQUAL HOOD IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
10. PIPE LENGTHS ARE COMPUTED FROM THE CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
11. TOP OF GRATE ELEVATIONS FOR INLETS ALONG THE CURB ARE COMPUTED TO THE CENTER OF THE INLET AT THE GUTTER LINE. IN NON-CURBED AREAS, THEY ARE COMPUTED TO THE CENTER OF THE INLET IN BOTH DIMENSIONS.
12. ALL PRECAST INLET TOP UNITS SHALL HAVE A TROUT LOGO PLATE CAST INTO THEM PRIOR TO DELIVERY TO THE PROJECT SITE.
13. WHERE DUAL INLETS ARE SPECIFIED, INLETS SHALL BE PLACED DIRECTLY ADJACENT TO EACH OTHER WITH A 12-INCH LENGTH PIECE OF PIPE IN BETWEEN.

GENERAL UTILITY NOTES

1. THE CONTRACTOR SHALL COMPLY, TO THE FULLEST EXTENT, WITH THE LASTEST STANDARDS OF OSHA OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINT THE MEANS AND METHODS REQUIRD TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES.
2. THE CONTRACTOR IS SPECIFCALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY A MIMUMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT THE EXISTING USERS OF THESE UTILITIES.
3. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND DOCUMENTS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCE LOCATIONS TO INCLUDE SANITARY SEWER LATERALS, WATER SERVICES, ELECTRICAL, TELEPHONE, GAS, AND CABLE SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
4. THE LOCATION OF EXISTING GAS MAINS ARE APPROXIMATE ONLY. THE CONTRACTOR SHOULD CONSULT WITH THE GAS UTILITY COMPANY FOR ADDITIONAL INFORMATION.
5. THE LOCATION OF EXISTING ELECTRIC, COMMUNICIATION, ETC. LINES ARE APPROXIMATE ONLY. THE CONTRACTOR SHOULD CONSULT WITH THE APPLICABLE UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
6. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD IN WRITING.
7. ALL UTILITIES SHALL BE PLACED UNDERGROUND, UNLESS REQUIRED BY THE PROVIDER AND ACCEPTABLE TO THE MUNICIPALITY. CONSTRUCTION OF UTILITIES SHALL BE TO THE PROPER STANDARDS OF THE APPLICABLE UTILITY AUTHORITY.
8. ALL SANITARY SEWER FACILITIES AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH BERKS MONTGOMERYMUNICIUPAL AUTHORITY, INC.'S STANDARD SPECIFICATIONS AND DETAILS.
9. ALL WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AQUA PAWATER REQUIREMENTS, STANDARD SPECIFICATIONS AND DETAILS. REFER TO ADDITIONAL NOTES WITHIN THIS PLAN SET.
10. THE BARREL OF ALL FIRE HYDRANTS SHALL BE SET PERPINDICULAR TO THE GROUND WITH THE LOWEST DISCHARGE OUTLET AT 15-INCHES FROM THE FINISHED GRADE. LARGE HYDRANT OUTLETS SHOULD FACE TOWARD THE STREET OR ROAD TOWARD THE PUMPER.
11. WHERE POSSIBLE, THERE SHALL BE A FIVE FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LATERALS AND LANDSCAPING, TREES, AND SHRUBS.
12. PROVIDE A MINIMUM HORIZONATAL CLEARANCE OF TEN (10) FEET BETWEEN SANITARY SEWER SERVICES AND WATER SERVICES. PROVIDE A MINIMUM FIVE FOOT HORIZONTAL CLEARANCE BETWEEN SANTIARY SEWER SERVICES AND ALL OTHER UTILITIES. PROVIDE A 5-FT. MINIMUM HORIZONTAL CLEARANCE BETWEEN SANITARY SEWER MAINS AND CURB.
13. AT ALL LOCATIONS WHERE PROPOSED SANITARY SERVICES HAVE A VERTICAL CLEARANCE LESS THAN 18-INCHES VERTICAL CLEARANCE WITH WATER LINES OR STORMWATER FACILITIES, THE SANITARY LATERAL SHALL BE CONCRETE ENCASED TO A DISTANCE OF 10 FEET MINIMUM ON EACH SIDE OF THE CROSSING. IN CASES WHERE THE UTILITY IS A SANITARY OR STORM SEWER OR LATERAL AND THE CLEARANCE CANNOT BE MAINTAINED, THEN THE SEWER SHALL ALSO BE ENCASED.
14. CLEANOUTS AND CURB BOXES LOCATED WITHIN PAVED AREAS SHALL HAVE TRAFFIC RATED FRAMES AND COVERS.

ZONING VARIANCES GRANTED

APPLICATION NO. 0420-2026
HEARING DATE: 06/01/2026
VERBAL DECISION RENDERED: 06/01/2026
WRITTEN DECISION DATED: 07/14/2026

THE DOUGLASS TOWNSHIP ZONING HEARING BOARD VOTED UNANIMOUSLY TO GRANT ALL OF THE FOLLOWING REQUESTED ZONING RELIEF SUBJECT TO THE CONDITIONS MORE FULLY SET IN THE ORDER:

1. A VARIANCE TO PERMIT THE THREE 600 SQ. FT. AMENITY BUILDING, ALONG WITH A RECREATIONAL TRAIL, IN LIUE OF PROVIDING ONE BALLFIELD, ONE TOT LOT, AND ONE GAZEBO/PICNIC AREA;
2. A VARIANCE FROM SECTION 265-30C TO PERMIT FRONT ENTRY GARAGES AND/OR DRIVEWAYS ON ALL UNITS TO BE THE DOMINANT ASPECT OF THE BUILDING DESIGN AS SEEN FROM THE STREET;
3. A VARIANCE FROM SECTION 265-30F(6)(A) TO ALLOW FRONT ENTRY GARAGES ON THE END UNITS WITHOUT ANY SETBACK FROM THE FRONT FAÇADE;
4. A VARIANCE FROM SECTION 265-30(F)(6)(B) TO PERMIT UNENCLOSED PARKING SPACES IN THE FRONT YARD IF THE DRIVEWAY AREA BETWEEN THE DWELLING AND THE INTEMAL ROAD IS CONSIDERED TO BE THE FRONT YARD;
5. A VARIANCE FROM SECTION 265-31C TO PERMIT A CUL-DE-SAC LENGTH OF 1,103 FT., WITH AN EMERGENCY ACCESS TO ANOTHER ROAD (ELM STREET), WHEN THE ORDINANCE LIMITS CUL-DE-SAC LENGTH TO 350 FT.; AND
6. A VARIANCE FROM SECTION 265-32B(2)(B) TO PERMIT MULTIPLE REAR FACADES WITHOUT PROTRUSIONS OR VISUAL BREAKS.

PARKING DATA

PROPOSED USE: C-3 SINGLE-FAMILY ATTACHED DWELLING (TOWNHOUSE)

REQUIREMENTS:
PRIMARY PARKING:
MIN. 2 SPACES PER DWELLING UNIT (FIRST SPACE IN GARAGE SHALL NOT BE COUNTED).
VISITOR PARKING:
0.2 SPACES PER DWELLING UNIT

REQUIRED:
PRIMARY: 2 SPACES X 50 UNITS = 100 SPACES
VISITOR: 0.2 SPACES X 50 UNITS = 10 SPACES
TOTAL: = 110 SPACES

PROVIDED: 1 GARAGE SPACE/UNIT[1] = 50 SPACES
2 DRIVEWAY SPACES/UNIT = 100 SPACES
VISITOR = 28 SPACES
TOTAL = 178 SPACES

NOTE:
1. EACH UNIT HAS A 2-CAR GARAGE, HOWEVER, ONLY 1 GARAGE SPACE IS COUNTED IN THE PARKING CALCULATIONS.

ZONING REQUIREMENTS

ZONING DISTRICT(S): R-2 RESIDENTIAL W/ AAC ACTIVE ADULT COMMUNITY OVERLAY
PROPOSED USE: C-3: SINGLE-FAMILY ATTACHED DWELLINGS
SEWER & WATER FACILITIES: PUBLIC

	REQUIRED/PERMITTED	PROPOSED
MIN. TRACT SIZE (NET DEVELOPABLE ACRES)	5	11.07
MAX. DENSITY (UNITS/NET DEVELOPABLE ACRE)	4	4.52
MIN. LOT SIZE (SQUARE FEET PER UNIT)	2,000	N/A[5]
MIN. LOT WIDTH (FEET)	40	N/A[5]
MIN FRONT YARD (FEET)	25	26 (To Cartway)
MIN. SIDE YARD/AGGREGRATE (FEET)	15 (end)	N/A[5]
MIN. REAR YARD (FEET)	25	N/A[5]
MAX. BUILDING COVERGE (% OF LOT AREA)	40	17.60%
MAX. IMPERVIOUS SURFACE COVERGE (% OF LOT AREA)	60	41.36%
MAX. PRINCIPAL BUILDING HEIGHT (FEET)	35	≤35
MAX. ACCESSORY BUILDING HEIGHT (FEET)	20	≤20
MIN. LOT SIZE FOR CONDOMINIUM LOTS	EQUAL TO THE AREA OF THE BLDG. FOOTPRINT	EQUAL TO THE AREA OF THE BLDG. FOOTPRINT
MIN. BUILDING SEPARATION (FEET)	25 OR BLDG. HT. + 5[1]	35
MIN. TRACT BUILDING SETBACKS (FEET)	25 OR BLDG. HT. + 5[2]	>35'
ELEVATOR ACCESS [3]	REQUIRED	NO[4]
MIN. SETBACK FROM ROUTE 73 (FEET)	50	28 (Deck)[4] 40 (Dwelling)[4]
REQUIRED OPEN SPACE (% OF THE NET DEVELOPABLE ACREAGE)	30	35.96

NOTES:
1. For buildings in excess of 25 feet in height, building separation shall equal the height of the taller building plus 5 feet.
2. For buildings in excess of 25 feet in height, minimum tract boundary setback shall equal the height of the building along the setback plus 5 feet.
3. Each residential unit shall provide for access to any floor below or above ground level by an elevator in addition to such stairways as are required under the applicable building code.
4. Deviation requested per §265-163.E.(1).
5. Units are condominium lots. Refer to Minimum Lot Size for Condominium Lots requirement.

NET DEVELOPABLE ACREAGE CALCULATIONS[1]

GROSS TRACT AREA (acres)	12.950
Less lands within public rights of ways (acres)	1.876
Less lands within wetlands (acres)	0.140
Less lands within floodplain, floodways (includes waters)	0.549
NET DEVELOPABLE ACREAGE (acres)	10.385

Notes:
1. Per the requirements of §265-156.B.
2. Includes lands within existing utility easements.
3. Any overlapping areas are only included in one category

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Van Cleef ENGINEERING WITH FOCUS
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere In... PENNSYLVANIA
Know what's below. Call before you dig.
STOP! CALL 1-800-242-1776 TOLL FREE
PA Law requires 3 working days notice before you excavate
PA ONE CALL SYSTEM, INC.

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

PROJECT DATA & NOTES

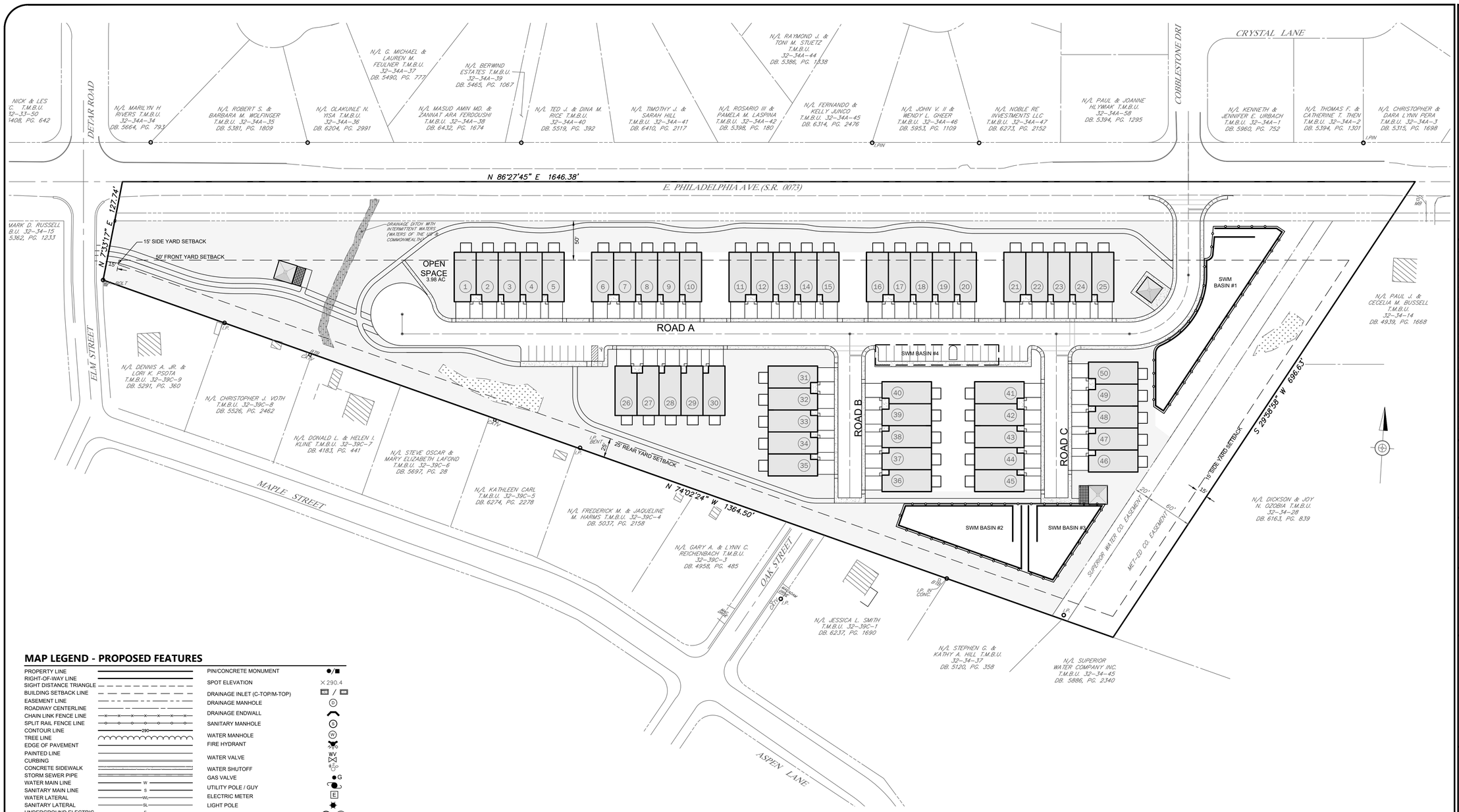
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	●/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	/
BUILDING SETBACK LINE		DRAINAGE MANHOLE	D
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE		WATER MANHOLE	W
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	●G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	/
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	/
SANITARY MAIN LINE	S	STRAIGHT TEXT DENOTES PROPOSED FEATURES	
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			
OPENSPACE			

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	○/⊡
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	/
EASEMENT LINE		DRAINAGE MANHOLE	Ⓓ
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE		FIRE HYDRANT	
SPLIT RAIL FENCE LINE		WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	/
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	F.M.		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

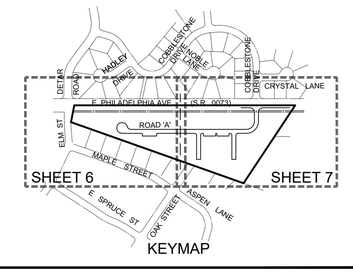
SLANTED TEXT DENOTES EXISTING FEATURES

SIGN TABLE

PLAN SYMBOL	DESCRIPTION	SERIES	SIZE
A	STOP	R1-1	30" x 30"
B	STREET NAME [2]	N/A	VAR. x 6"
C	SPEED LIMIT - 25 MPH	R2-1	24" x 30"
D	NO PARKING[3]	R8-3	12" x 12"
E	PEDESTRIAN WARNING	W11-2	18" x 18"
F	DIAGONAL DOWNWARD POINTING ARROW	W16-7P	24" x 12"
G	ADA RESERVED PARKING	R7-8	12" x 18"
H	VAN ACCESSIBLE	R7-8B	12" x 6"
I	PENALTY SIGN	R7-8F	12" x 18"

NOTES

1. ALL TRAFFIC CONTROL SIGNS SHALL HAVE HIGH-INTENSITY REFLECTORIZED BACKING.
2. STREET SIGNS SHALL BE REFLECTORIZED WITH A WHITE LEGEND ON A GREEN BACKGROUND AND SHALL BE SIZED IN ACCORDANCE WITH CURRENT TOWNSHIP STANDARDS. EACH POST SHALL HAVE TWO SIGNS, NAMING EACH STREET.
3. NO PARKING SIGNS SHALL BE DOUBLE SIDED FOR THE SIGNS TO READ IN BOTH DIRECTIONS.



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Van Cleef ENGINEERING WITH FOCUS

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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 30 60 120
1 INCH = 60 FT

PLAN NOTATION
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

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VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

OVERALL SITE PLAN

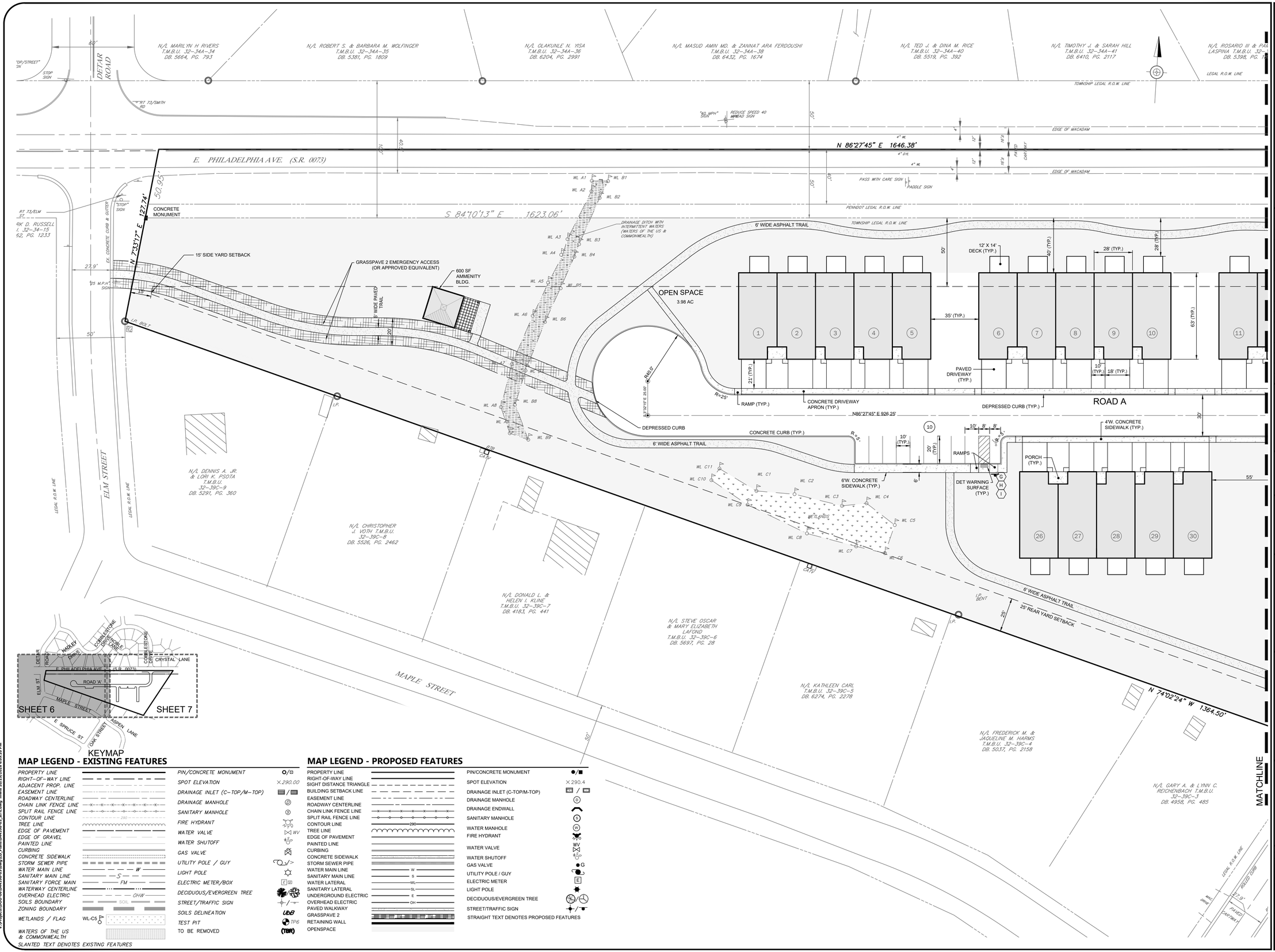
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	○/□
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	▭ / ▭
EASEMENT LINE		DRAINAGE MANHOLE	Ⓓ
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE	-x-x-x-x-x-x-x-	FIRE HYDRANT	
SPLIT RAIL FENCE LINE	-o-o-o-o-o-o-o-	WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	●/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	▭ / ▭
BUILDING SETBACK LINE		DRAINAGE MANHOLE	Ⓓ
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE	-x-x-x-x-x-x-x-	WATER MANHOLE	Ⓦ
SPLIT RAIL FENCE LINE	-o-o-o-o-o-o-o-	FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	
SANITARY MAIN LINE	S		
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			
OPENSPACE			

STRAIGHT TEXT DENOTES PROPOSED FEATURES

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REV	DESCRIPTION	AUTH	DATE

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1 INCH = 30 FT

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SITE PLAN (1)

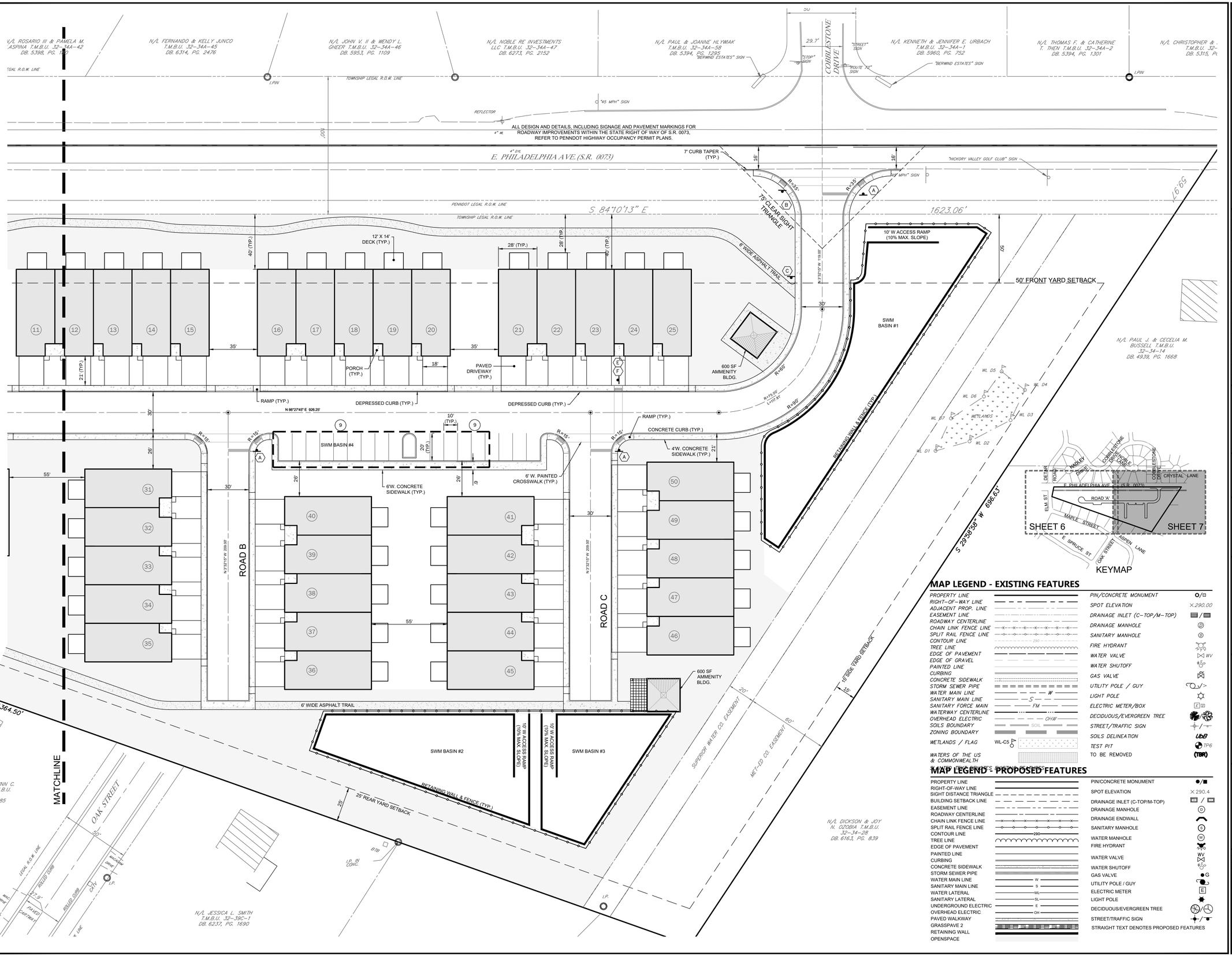
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	
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CURBING		DECIDUOUS/EVERGREEN TREE	
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WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	
RIGHT-OF-WAY LINE		SPOT ELEVATION	× 290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	
BUILDING SETBACK LINE		DRAINAGE MANHOLE	D
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE		WATER MANHOLE	W
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	
SANITARY MAIN LINE	S	STRAIGHT TEXT DENOTES PROPOSED FEATURES	
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			
OPENSPACE			

Van Cleef ENGINEERING WITH FOCUS

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REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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GRAPHIC SCALE
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WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

SITE PLAN (2)

FOR

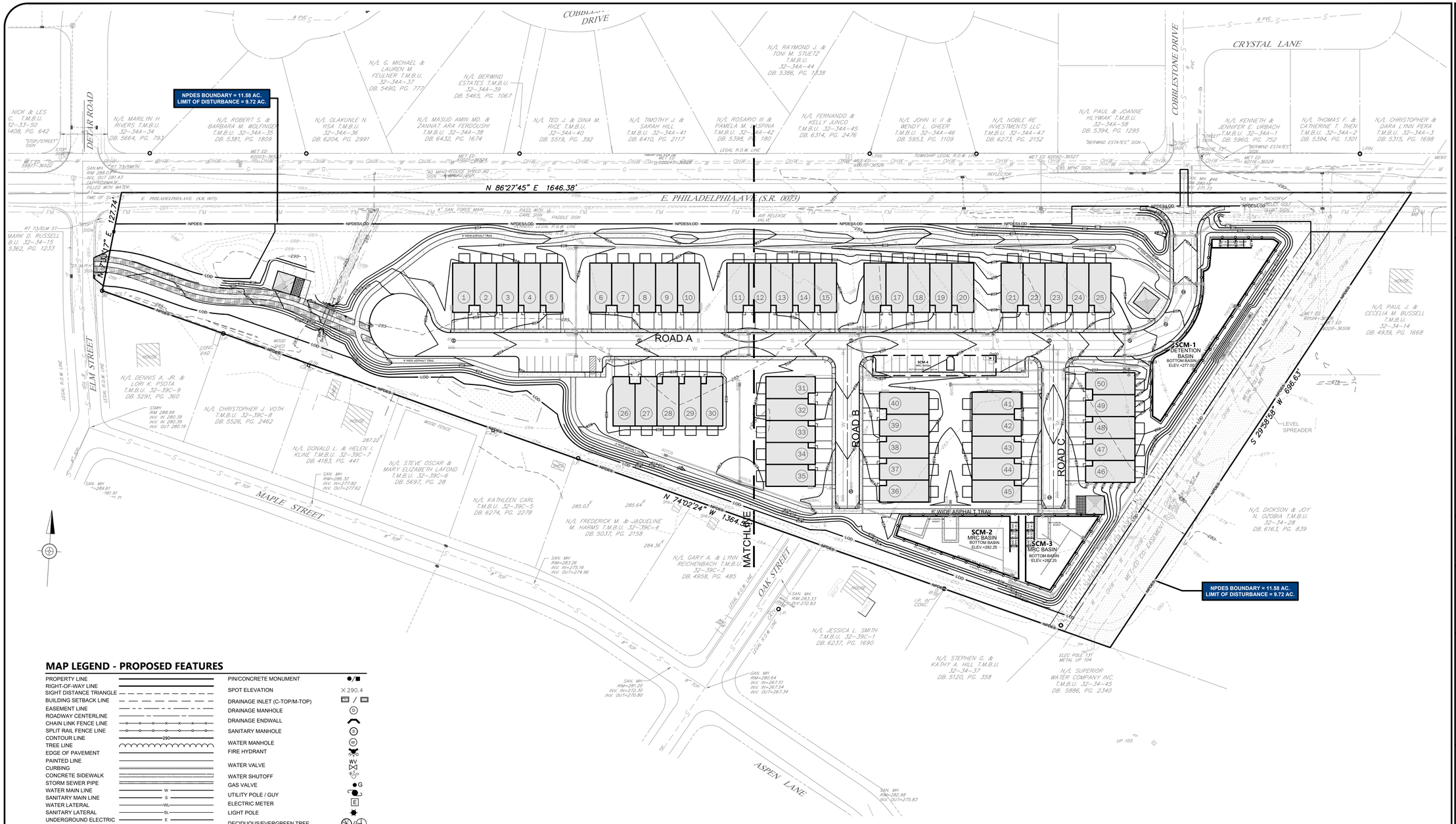
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
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2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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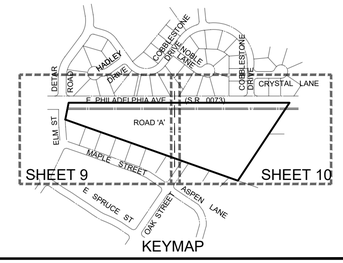
MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	●/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	/
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CHAIN LINK FENCE LINE		WATER MANHOLE	W
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	●G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	/
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	/
SANITARY MAIN LINE	S	STRAIGHT TEXT DENOTES PROPOSED FEATURES	
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		*PIN/CONCRETE MONUMENT*	○/□
RIGHT-OF-WAY LINE		*SPOT ELEVATION*	×290.00
ADJACENT PROP. LINE		*DRAINAGE INLET (C-TOP/M-TOP)*	/
EASEMENT LINE		*DRAINAGE MANHOLE*	D
ROADWAY CENTERLINE		*SANITARY MANHOLE*	S
CHAIN LINK FENCE LINE		*FIRE HYDRANT*	
SPLIT RAIL FENCE LINE		*WATER VALVE*	WV
CONTOUR LINE	290	*WATER SHUTOFF*	
TREE LINE		*GAS VALVE*	
EDGE OF PAVEMENT		*UTILITY POLE / GUY*	/
EDGE OF GRAVEL		*LIGHT POLE*	
PAINTED LINE		*ELECTRIC METER/BOX*	E
CURBING		*DECIDUOUS/EVERGREEN TREE*	/
CONCRETE SIDEWALK		*STREET/TRAFFIC SIGN*	/
STORM SEWER PIPE		*SOILS DELINEATION*	UbB
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WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES



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Municipal Inspection
Environmental
Geotechnical/Dams
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PHONE (610) 323-4040

OVERALL GRADING PLAN

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
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2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

NPDES BOUNDARY = 11.58 AC.
LIMIT OF DISTURBANCE = 9.72 AC.

N/L MARILYN H RIVERS
T.M.B.U. 32-34A-34
DB. 5664, PG. 793

N/L ROBERT S. & BARBARA M. WOLFINGER
T.M.B.U. 32-34A-35
DB. 5381, PG. 1809

N/L OLAKUNLE N. YISA
T.M.B.U. 32-34A-36
DB. 6204, PG. 2991

N/L MASUD AMIN MD. & ZANNAT ARA FERDOUSHI
T.M.B.U. 32-34A-39
DB. 6432, PG. 1674

N/L TED J. & DINA M. RICE
T.M.B.U. 32-34A-40
DB. 5519, PG. 392

N/L TIMOTHY J. & SARAH HILL
T.M.B.U. 32-34A-41
DB. 6410, PG. 2117

N/L ROSARIO W. & PAT LASPINA T.M.B.U. 32-
DB. 5398, PG.

DET-AR ROAD

MET ED 60003-36523

MET ED 60025-36524

TOWNSHIP LEGAL R.O.W. LINE
MET ED 60047-36525

LEGAL R.O.W. LINE

E. PHILADELPHIA AVE. (S.R. 0073)

N 86°27'45" E 1646.38'

N 33°17' E 122.74'

PENNDOT LEGAL R.O.W. LINE

TOWNSHIP LEGAL R.O.W. LINE

RK D. RUSSELL
I. 32-34-15
62, PG. 1233

NPDES
NPDES/LOD
LOD

6' WIDE ASPHALT TRAIL

FF=288.50

FF=289.94 GF=288.24
FF=289.94 GF=288.24
FF=289.94 GF=287.57
FF=289.27 GF=287.57
FF=289.27 GF=287.07
FF=288.77 GF=287.07
FF=288.77 GF=287.07
FF=289.44 GF=287.74
FF=289.44 GF=287.74
FF=289.44 GF=287.74
FF=289.19 GF=287.49

ROAD A

8" PVC SDR 26

8" DIP WATER MAIN

8"XBTEE

2"BLOWOFF AND VALVE

FF=289.95 GF=287.58
FF=289.95 GF=287.58
FF=289.95 GF=288.25
FF=289.95 GF=288.25
FF=289.95 GF=288.25

6' WIDE ASPHALT TRAIL

N 74°02'24" W 1364.50'

N/L DENNIS A. JR. & LORI K. PSOTA
T.M.B.U.
32-39C-9
DB. 5291, PG. 360

N/L CHRISTOPHER J. VOTH T.M.B.U.
32-39C-8
DB. 5526, PG. 2462

N/L DONALD L. & HELEN I. KLINE
T.M.B.U. 32-39C-7
DB. 4183, PG. 441

N/L STEVE OSCAR & MARY ELIZABETH LAFOND
T.M.B.U. 32-39C-6
DB. 5697, PG. 28

N/L KATHLEEN CARL
T.M.B.U. 32-39C-5
DB. 6274, PG. 2278

N/L FREDERICK M. & JAQUELINE M. HARMS
T.M.B.U. 32-39C-4
DB. 5037, PG. 2158

N/L GARY A. & LYNN C. REICHENBACH T.M.B.U.
32-39C-3
DB. 4958, PG. 485

ELM STREET

MAPLE STREET

CONC. PAD

HOUSE

SHED

WOOD FENCE

287.22

285.03

285.64

284.36

MATCHLINE

KEYMAP

SHEET 9

SHEET 10

DETAR ROAD
MADLEY DRIVE
COBBLESTONE DRIVE
CRYSTAL LANE
E. PHILADELPHIA AVE. (S.R. 0073)
ELM ST
ROAD 'A'
MAPLE STREET
E. SPRUCE ST
OAK STREET
ASPEN LANE

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PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE

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PLAN NOTATION

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

GRADING PLAN (1)

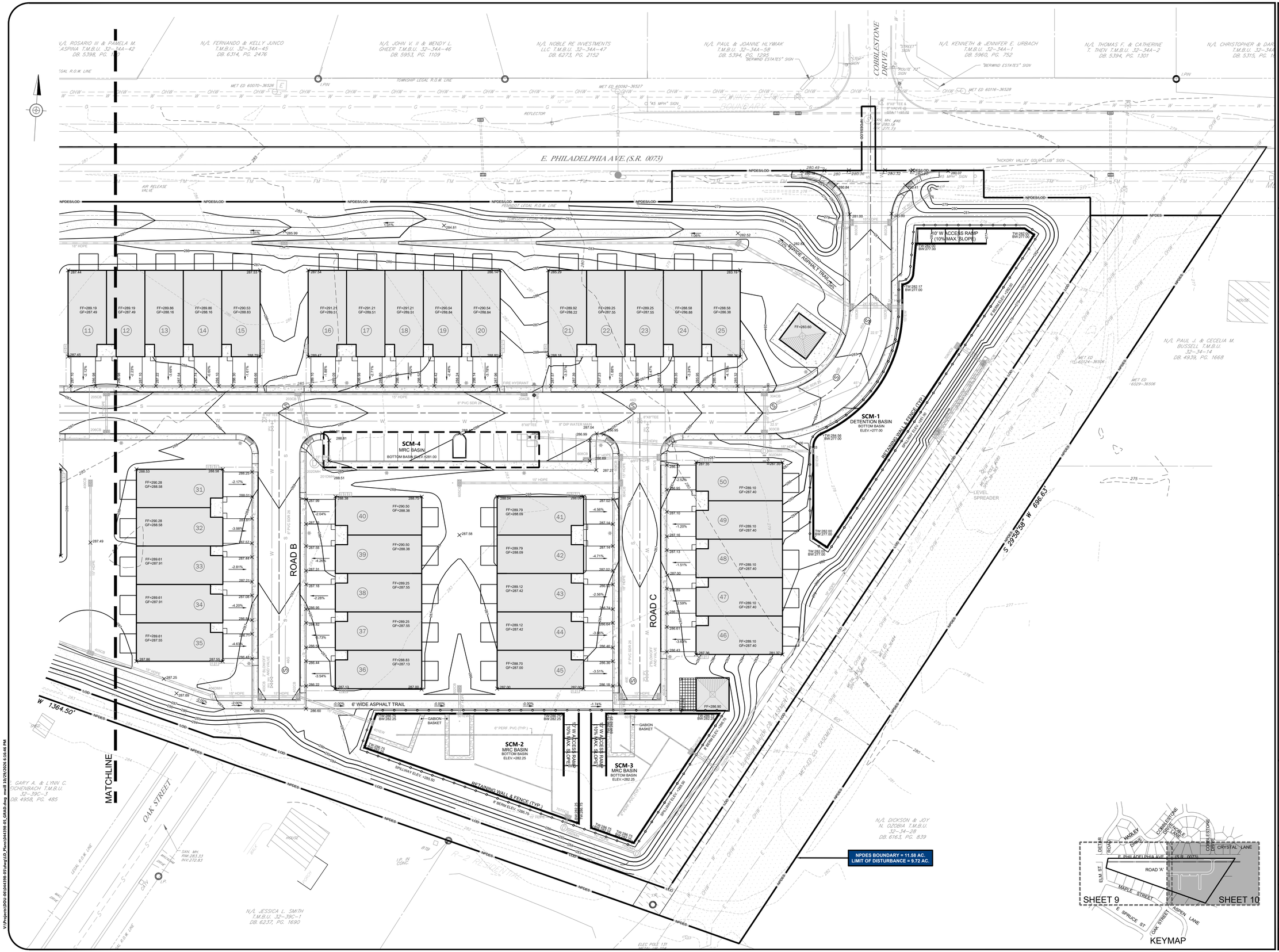
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



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Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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GRADING PLAN (2)

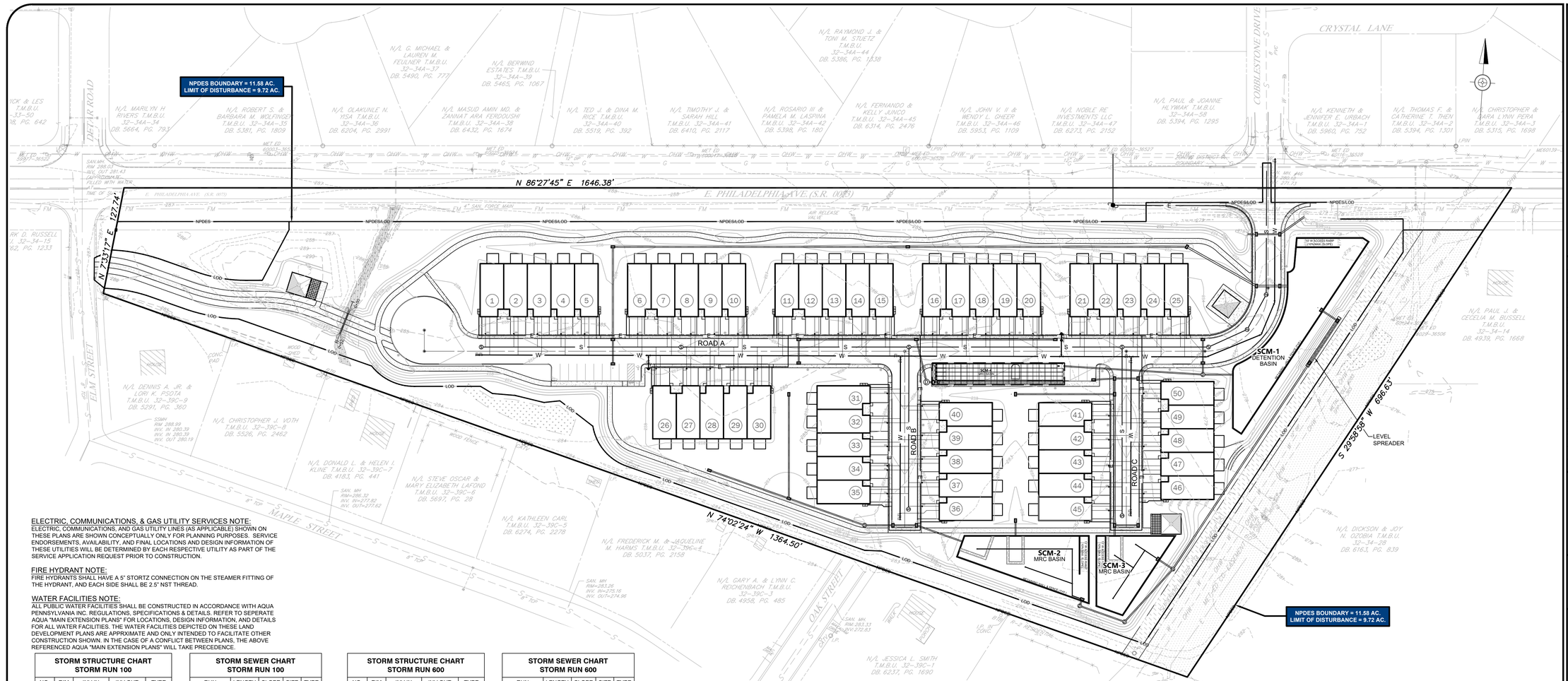
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STORM STRUCTURE CHART STORM RUN 100

NO.	RIM	INV IN	INV OUT	TYPE
101EW	280.00	277.00 (102CB)		ENDWALL
102CB	281.92	277.15 (103CB)	277.05 (101EW)	TYPE C
103CB	281.92	277.39 (104CB)	277.29 (102CB)	TYPE C
104CB	281.53	278.36 (105CB)	277.86 (103CB)	TYPE M
105CB	284.77	280.12 (106CB)	280.02 (104CB)	TYPE M
106CB	285.50	281.97 (107CB)	281.87 (105CB)	TYPE M
107CB	286.13	282.77 (108CB)	282.52 (106CB)	TYPE C
108CB	286.13		282.91 (107CB)	TYPE M

STORM SEWER CHART STORM RUN 100

RUN	LENGTH	SLOPE	SIZE	TYPE
102CB TO 101EW	9'	0.52%	24"	HDPE
103CB TO 102CB	28'	0.50%	24"	HDPE
104CB TO 103CB	95'	0.50%	24"	HDPE
105CB TO 104CB	331'	0.50%	18"	HDPE
106CB TO 105CB	350'	0.50%	18"	HDPE
107CB TO 106CB	110'	0.50%	18"	HDPE
108CB TO 107CB	29'	0.50%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 200

NO.	RIM	INV IN	INV OUT	TYPE
201DMH	289.13	282.50 (202DMH)		MANHOLE
202DMH	288.88	282.54 (203CB)	282.54 (201DMH)	MANHOLE
203CB	288.85	282.90 (205CB) 283.40 (204CB)	282.80 (202DMH)	TYPE C
204CB	287.56		284.22 (203CB)	TYPE C
205CB	286.76	283.70 (206CB)	283.60 (203CB)	TYPE C
206CB	286.76		283.84 (205CB)	TYPE C

STORM SEWER CHART STORM RUN 200

RUN	LENGTH	SLOPE	SIZE	TYPE
202DMH TO 201DMH	8'	0.50%	15"	HDPE
203CB TO 202DMH	52'	0.50%	15"	HDPE
204CB TO 203CB	165'	0.50%	15"	HDPE
205CB TO 203CB	140'	0.50%	15"	HDPE
206CB TO 205CB	28'	0.50%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 300

NO.	RIM	INV IN	INV OUT	TYPE
301EW	280.00	277.00 (302DMH)		ENDWALL
302DMH	286.43	280.88 (303CB) 281.00 (305OCS)	277.71 (301EW)	MANHOLE
303CB	284.68	281.40 (304CB)	281.30 (302DMH)	TYPE C
304CB	284.68		281.68 (303CB)	TYPE C
305OCS	287.43		282.00 (302DMH)	OCS

STORM SEWER CHART STORM RUN 300

RUN	LENGTH	SLOPE	SIZE	TYPE
302DMH TO 301EW	36'	1.98%	15"	HDPE
303CB TO 302DMH	14'	2.96%	15"	HDPE
304CB TO 303CB	28'	0.99%	15"	HDPE
305OCS TO 302DMH	167'	0.60%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 400

NO.	RIM	INV IN	INV OUT	TYPE
401EW	285.25	282.25 (402CB)		ENDWALL
402CB	285.94	282.64 (403CB)	282.54 (401EW)	TYPE C
403CB	285.94	282.88 (404DMH)	282.78 (402CB)	TYPE C
404DMH	287.03	283.15 (405CB)	283.05 (403CB)	MANHOLE
405CB	286.70	283.72 (407CB) 283.72 (406CB)	283.62 (404DMH)	TYPE M
406CB	287.08		284.34 (405CB)	TYPE M
407CB	287.20		284.22 (405CB)	TYPE M

STORM SEWER CHART STORM RUN 400

RUN	LENGTH	SLOPE	SIZE	TYPE
402CB TO 401EW	58'	0.50%	15"	HDPE
403CB TO 402CB	28'	0.50%	15"	HDPE
404DMH TO 403CB	34'	0.50%	15"	HDPE
405CB TO 404DMH	95'	0.50%	15"	HDPE
406CB TO 405CB	124'	0.50%	15"	HDPE
407CB TO 405CB	100'	0.50%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 500

NO.	RIM	INV IN	INV OUT	TYPE
501EW	285.25	282.25 (502CB)		ENDWALL
502CB	285.62		282.61 (501EW)	TYPE M

STORM SEWER CHART STORM RUN 500

RUN	LENGTH	SLOPE	SIZE	TYPE
502CB TO 501EW	18'	2.02%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 600

NO.	RIM	INV IN	INV OUT	TYPE
601EW	285.25	282.25 (602CB)		ENDWALL
602CB	285.91	282.41 (604CB) 282.66 (603CB)	282.31 (601EW)	TYPE C
603CB	285.91		282.91 (602CB)	TYPE C
604CB	286.70	283.44 (605CB) 283.44 (606CB)	283.19 (602CB)	TYPE C
605CB	287.22		284.22 (604CB)	TYPE M
606CB	286.52	283.63 (607CB) 283.63 (608CB)	283.53 (604CB)	TYPE C
607CB	286.52		283.77 (606CB)	TYPE C
608CB	286.69		283.76 (606CB)	TYPE C

STORM SEWER CHART STORM RUN 600

RUN	LENGTH	SLOPE	SIZE	TYPE
602CB TO 601EW	13'	0.48%	18"	HDPE
603CB TO 602CB	28'	0.87%	15"	HDPE
604CB TO 602CB	156'	0.50%	18"	HDPE
605CB TO 604CB	118'	0.66%	15"	HDPE
606CB TO 604CB	19'	0.49%	15"	HDPE
607CB TO 606CB	28'	0.50%	15"	HDPE
608CB TO 606CB	25'	0.50%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 700

NO.	RIM	INV IN	INV OUT	TYPE
701CB	277.03	274.20 (708OCS)	273.95 (702CB)	TYPE M
702CB	277.03	273.95 (703DMH) 273.95 (701CB)		TYPE M
703DMH	283.08	278.57 (704OCS) 276.55 (705DMH)	276.30 (702CB)	MANHOLE
704OCS	285.00		279.00 (703DMH)	TYPE M
705DMH	286.75	277.93 (706DMH)	277.83 (703DMH)	MANHOLE
706DMH	286.75	278.87 (707OCS)	278.77 (705DMH)	MANHOLE
707OCS	285.00		279.00 (706DMH)	TYPE M
708OCS	281.00		274.43 (701CB)	TYPE M

STORM SEWER CHART STORM RUN 700

RUN	LENGTH	SLOPE	SIZE	TYPE
701CB TO 702CB	60'	0.00%	18"	PERF. HDPE
703DMH TO 702CB	294'	0.80%	18"	HDPE
704OCS TO 703DMH	21'	2.05%	15"	HDPE
705DMH TO 703DMH	85'	1.50%	15"	HDPE
706DMH TO 705DMH	56'	1.51%	15"	HDPE
707OCS TO 706DMH	8'	1.59%	15"	HDPE
708OCS TO 701CB	23'	1.00%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 800

NO.	RIM	INV IN	INV OUT	TYPE
801EW	279.88	277.13 (802CB)		ENDWALL
802CB	280.61	277.56 (803CB)	277.31 (801EW)	TYPE C
803CB	280.61	277.80 (804HW)	277.70 (802CB)	TYPE C
804HW	280.60		277.85 (803CB)	HEADWALL

STORM SEWER CHART STORM RUN 800

RUN	LENGTH	SLOPE	SIZE	TYPE
TO	227'	0.43%	18"	RCP Pipe
802CB TO 801EW	36'	0.50%	18"	RCP
803CB TO 802CB	28'	0.50%	15"	HDPE
804HW TO 803CB	11'	0.48%	15"	HDPE

STORM STRUCTURE CHART STORM RUN 900

NO.	RIM	INV IN	INV OUT	TYPE
901EW	288.46	283.71 (902HW)		ENDWALL
902HW	288.62		283.87 (901EW)	HEADWALL

STORM SEWER CHART STORM RUN 900

RUN	LENGTH	SLOPE	SIZE	TYPE
902HW TO 901EW	32'	0.50%	18"	HDPE

SANITARY STRUCTURE CHART SANITARY SEWER

NO.	RIM	INV IN	INV OUT	TYPE
46A	282.42	274.00 (46B)	273.80 (EX. SAN MH 46)	MANHOLE
46B	283.48	274.44 (46C)	274.24 (46A)	MANHOLE
46C	284.72	274.89 (46D)	274.69 (46B)	MANHOLE
46D	286.92	275.60 (46F) 277.74 (46E)	275.40 (46C)	MANHOLE
46E	286.22		279.24 (46D)	MANHOLE
46F	288.97	277.06 (46H) 278.41 (46G)	276.86 (46D)	MANHOLE
46G	286.38		279.37 (46F)	MANHOLE
46H	286.95	278.61 (46I)	278.41 (46F)	MANHOLE
46I	287.70		280.98 (46H)	MANHOLE
EX. SAN MH 46	280.27	271.93 (46A)	271.83 ()	FM MANHOLE

SANITARY PIPE CHART SANITARY SEWER

RUN	LENGTH	SLOPE	SIZE	TYPE
46A TO EX. SAN MH 46	147'	1.27%	8"	PVC SDR 26
46B TO 46A	47'	0.50%	8"	PVC SDR 26
46C TO 46B	50'	0.50%	8"	PVC SDR 26
46D TO 46C	102'	0.50%	8"	PVC SDR 26
46E TO 46D	200'	0.75%	8"	PVC SDR 26
46F TO 46D	253'	0.50%	8"	PVC SDR 26
46G TO 46F	193'	0.50%	8"	PVC SDR 26
46H TO 46F	270'	0.50%	8"	PVC SDR 26
46I TO 46H	237'	1.00%	8"	PVC SDR 26

MAP LEGEND - PROPOSED FEATURES

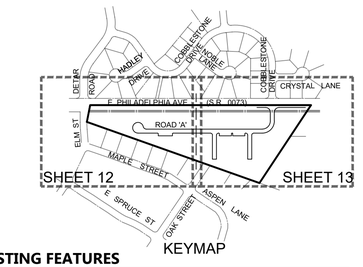
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ROADWAY CENTERLINE
CHAIN LINK FENCE LINE
SPLIT RAIL FENCE LINE
CONTOUR LINE
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EDGE OF PAVEMENT
PAINTED LINE
CURBING
CONCRETE SIDEWALK
STORM SEWER PIPE
WATER MAIN LINE
SANITARY MAIN LINE
WATER LATERAL
SANITARY LATERAL
UNDERGROUND ELECTRIC
OVERHEAD ELECTRIC
PAVED WALKWAY
GRASSPAVE 2
RETAINING WALL

PIN/CONCRETE MONUMENT
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WATER MANHOLE
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ELECTRIC METER
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SANITARY FORCE MAIN
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TO BE REMOVED



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OVERALL UTILITY PLAN

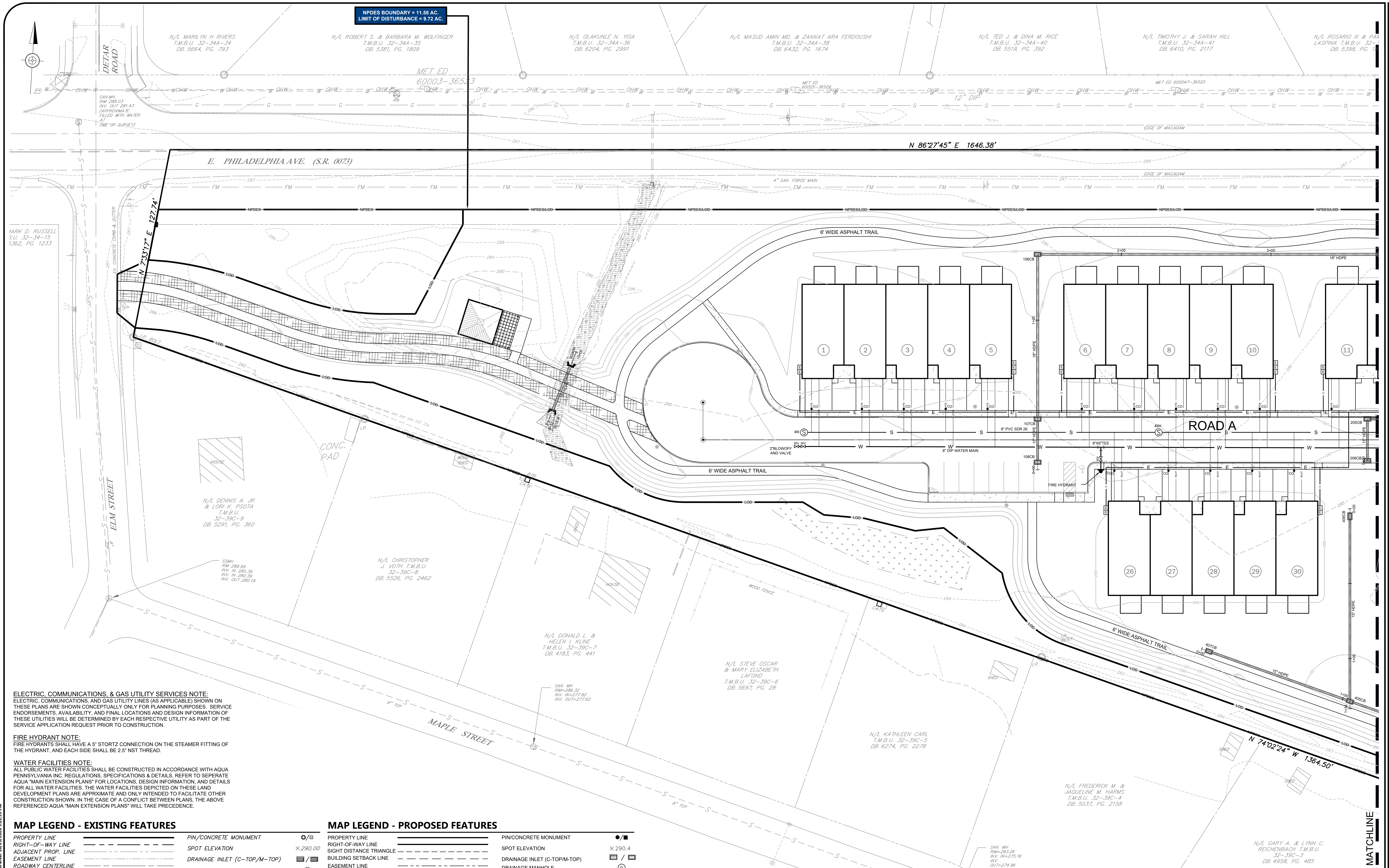
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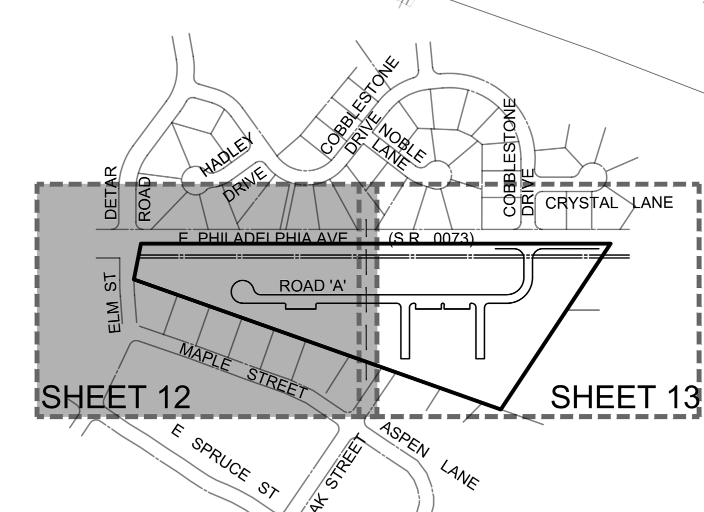
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SANITARY MAIN LINE (S)
SANITARY FORCE MAIN (FM)
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TEST PIT (TP6)
TO BE REMOVED (TBR)

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WATER LATERAL (WL)
SANITARY LATERAL (SL)
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STRAIGHT TEXT DENOTES PROPOSED FEATURES



KEYMAP

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

UTILITY PLAN (1)

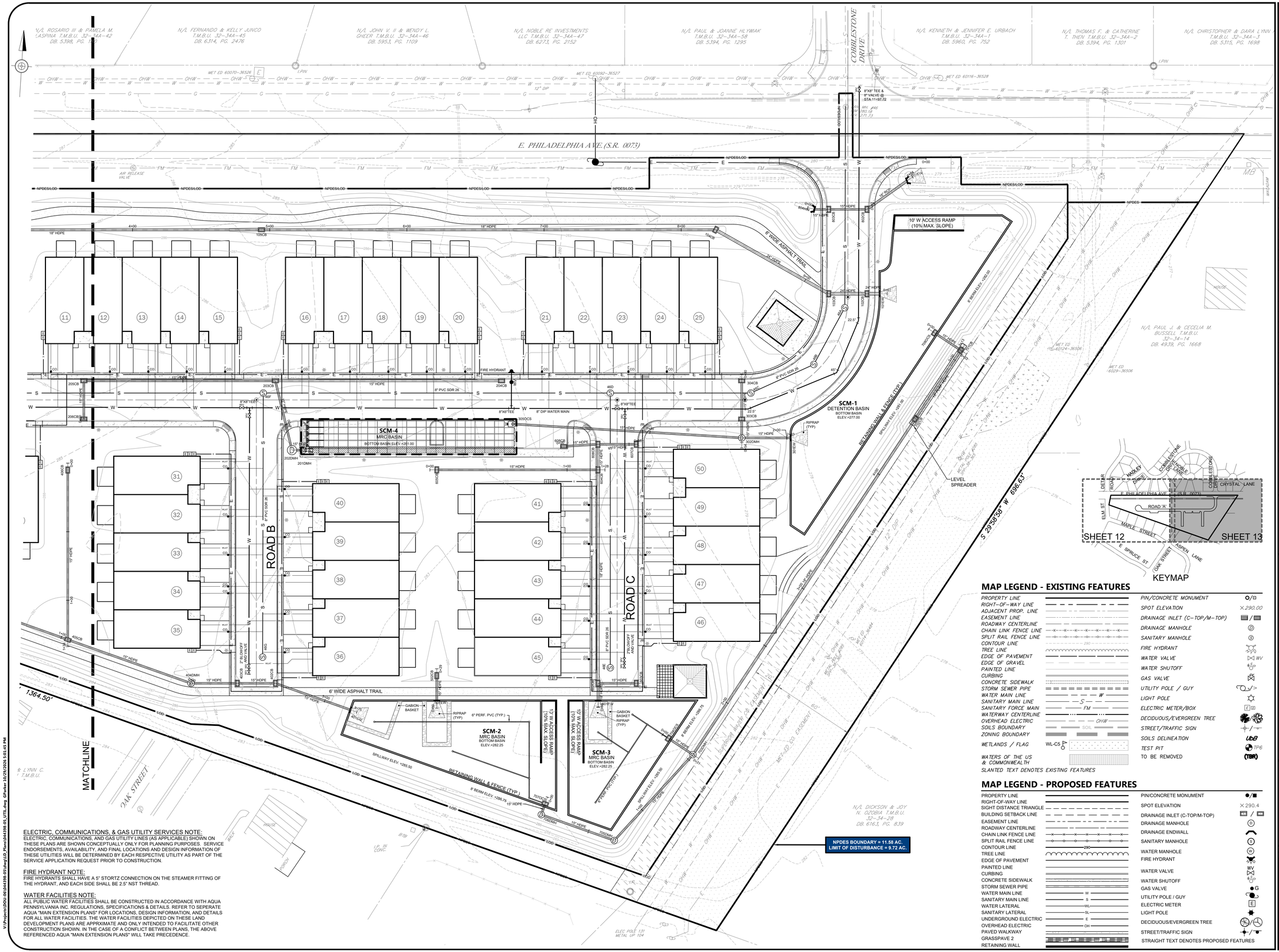
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



ELECTRIC, COMMUNICATIONS, & GAS UTILITY SERVICES NOTE:

ELECTRIC, COMMUNICATIONS, AND GAS UTILITY LINES (AS APPLICABLE) SHOWN ON THESE PLANS ARE SHOWN CONCEPTUALLY ONLY FOR PLANNING PURPOSES. SERVICE ENDORSEMENTS, AVAILABILITY, AND FINAL LOCATIONS AND DESIGN INFORMATION OF THESE UTILITIES WILL BE DETERMINED BY EACH RESPECTIVE UTILITY AS PART OF THE SERVICE APPLICATION REQUEST PRIOR TO CONSTRUCTION.

FIRE HYDRANT NOTE:

FIRE HYDRANTS SHALL HAVE A 5" STORTZ CONNECTION ON THE STEAMER FITTING OF THE HYDRANT, AND EACH SIDE SHALL BE 2.5" NST THREAD.

WATER FACILITIES NOTE:

ALL PUBLIC WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AQUA PENNSYLVANIA INC. REGULATIONS, SPECIFICATIONS & DETAILS. REFER TO SEPERATE AQUA "MAIN EXTENSION PLANS" FOR LOCATIONS, DESIGN INFORMATION, AND DETAILS FOR ALL WATER FACILITIES. THE WATER FACILITIES DEPICTED ON THESE LAND DEVELOPMENT PLANS ARE APPRXIMATE AND ONLY INTENDED TO FACILITATE OTHER CONSTRUCTION SHOWN. IN THE CASE OF A CONFLICT BETWEEN PLANS, THE ABOVE REFERENCED AQUA "MAIN EXTENSION PLANS" WILL TAKE PRECEDENCE.

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	
EASEMENT LINE		DRAINAGE MANHOLE	
ROADWAY CENTERLINE		SANITARY MANHOLE	
CHAIN LINK FENCE LINE		FIRE HYDRANT	
SPLIT RAIL FENCE LINE		WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	CM / CM
BUILDING SETBACK LINE		DRAINAGE MANHOLE	D
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE		WATER MANHOLE	W
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WV	
TREE LINE		WATER VALVE	
EDGE OF PAVEMENT		WATER SHUTOFF	
PAINTED LINE		GAS VALVE	G
CURBING		UTILITY POLE / GUY	
CONCRETE SIDEWALK		ELECTRIC METER	E
STORM SEWER PIPE		LIGHT POLE	
WATER MAIN LINE	W	DECIDUOUS/EVERGREEN TREE	
SANITARY MAIN LINE	S	STREET/TRAFFIC SIGN	
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2		STRAIGHT TEXT DENOTES PROPOSED FEATURES	
RETAINING WALL			

Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. STOP! CALL 1-800-242-1776
PA Law requires 3 working days notice before you excavate
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 15 30 60
1 INCH = 30 FT

PLAN NOTATION
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2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

UTILITY PLAN (2)

FOR

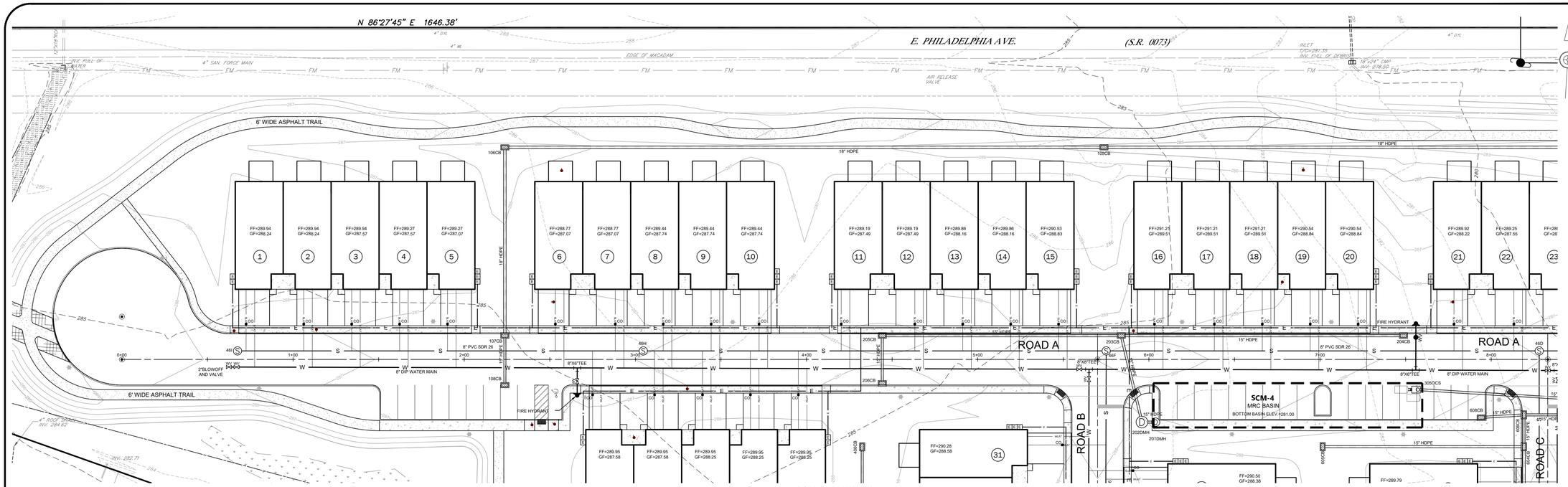
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

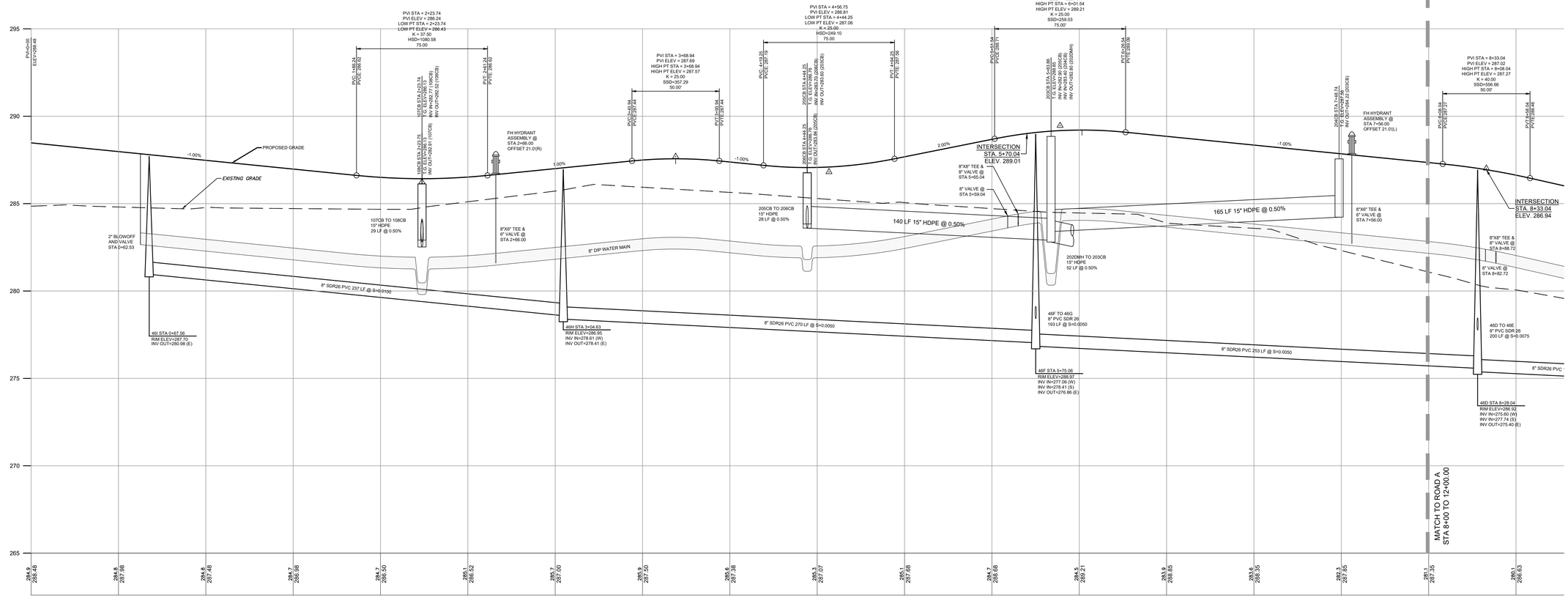
CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

V:\Projects\DOU-00\044398-05\dwg\LD_Plans\044398-05_UTIL.dwg GP=ker 10/29/2026 5:01:45 PM



ROAD A - PLAN VIEW
(STA: 0+00.00 TO 8+00.00)
SCALE: 1" = 30'



ROAD A
(STA: 0+00.00 TO 8+00.00)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 265.00

GRAPHIC SCALE
0 1.5 3 6
1 INCH = 3 FT

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Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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STOP! CALL 1-800-242-1776 or 811
PA ONE CALL SYSTEM, INC.

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PHONE (610) 323-4040

ROAD A PLAN & PROFILE

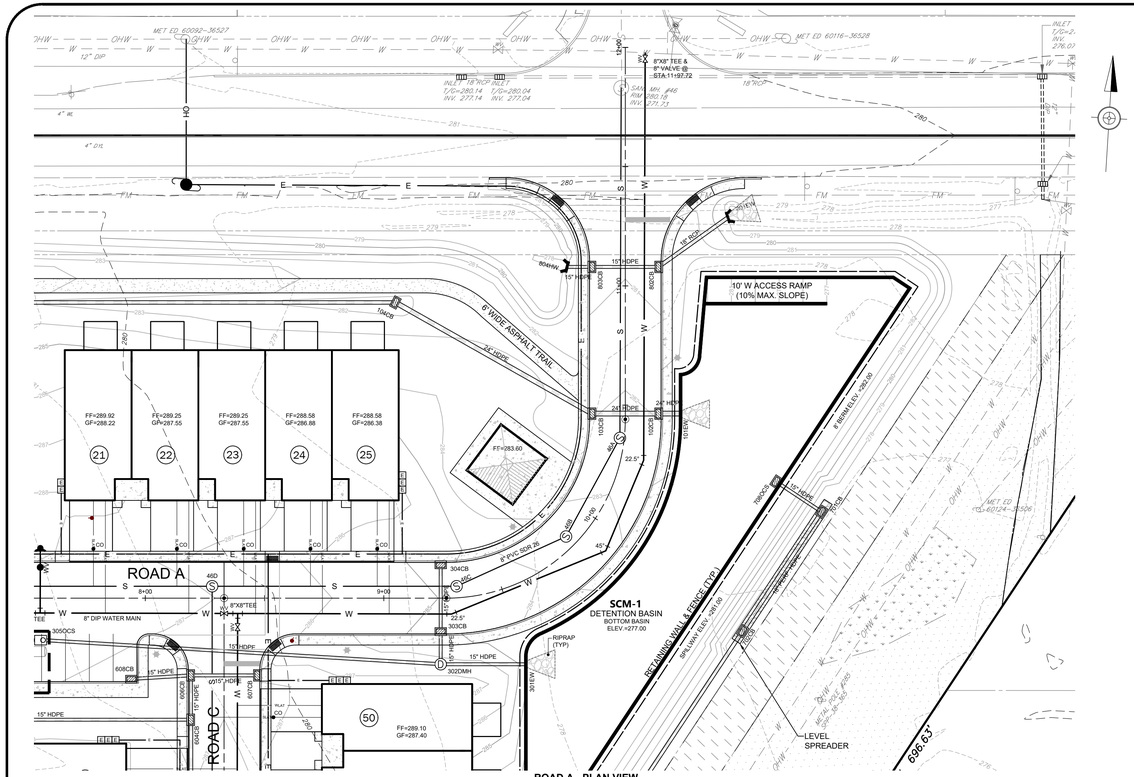
FOR

COBBLESTONE VILLAGE CROSSING

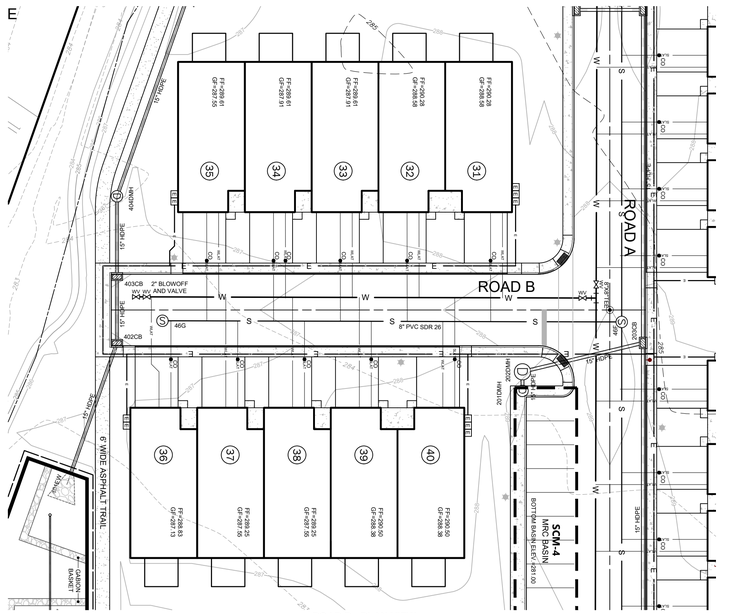
DATE:	10/30/2026
SCALE:	AS NOTED
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

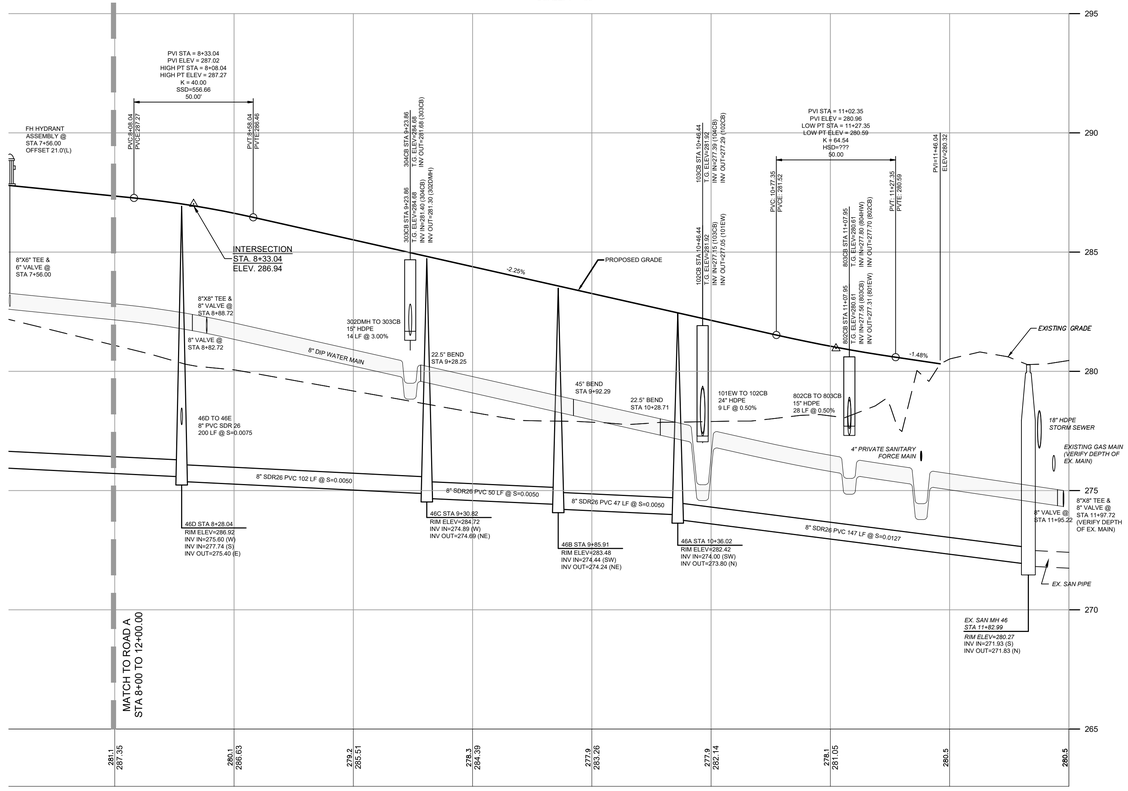
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



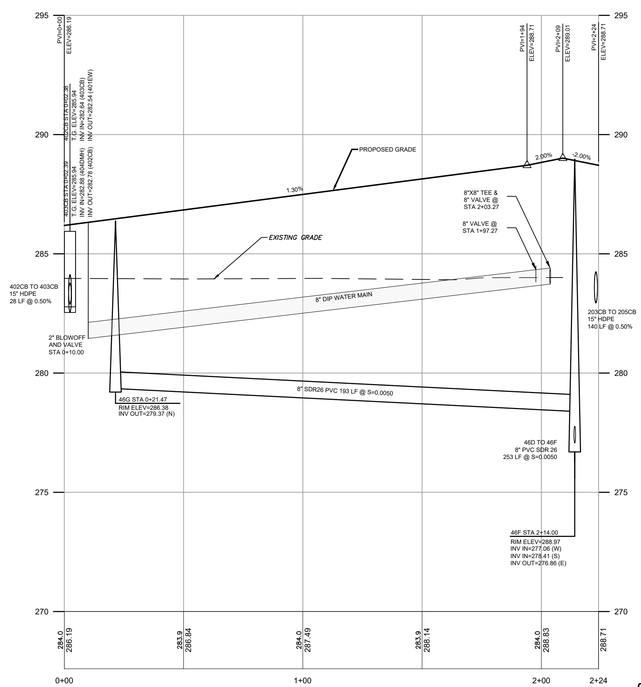
ROAD A - PLAN VIEW
(STA: 8+00.00 TO 12+00.00)
SCALE: 1" = 30'



ROAD B - PLAN VIEW
(STA: 0+00.00 TO 2+09.00)
SCALE: 1" = 30'



ROAD A
(STA: 8+00.00 TO 12+00.00)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 265.00



ROAD B
(STA: 0+00.00 TO 2+09.00)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 270.00

GRAPHIC SCALE
0 1.5 3 6
1 INCH = 3 FT

Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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ENGINEER NUMBER PE046396E

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VAN CLEEF ENGINEERING ASSOCIATES, LLC
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WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

ROAD A & B PLAN & PROFILE

FOR

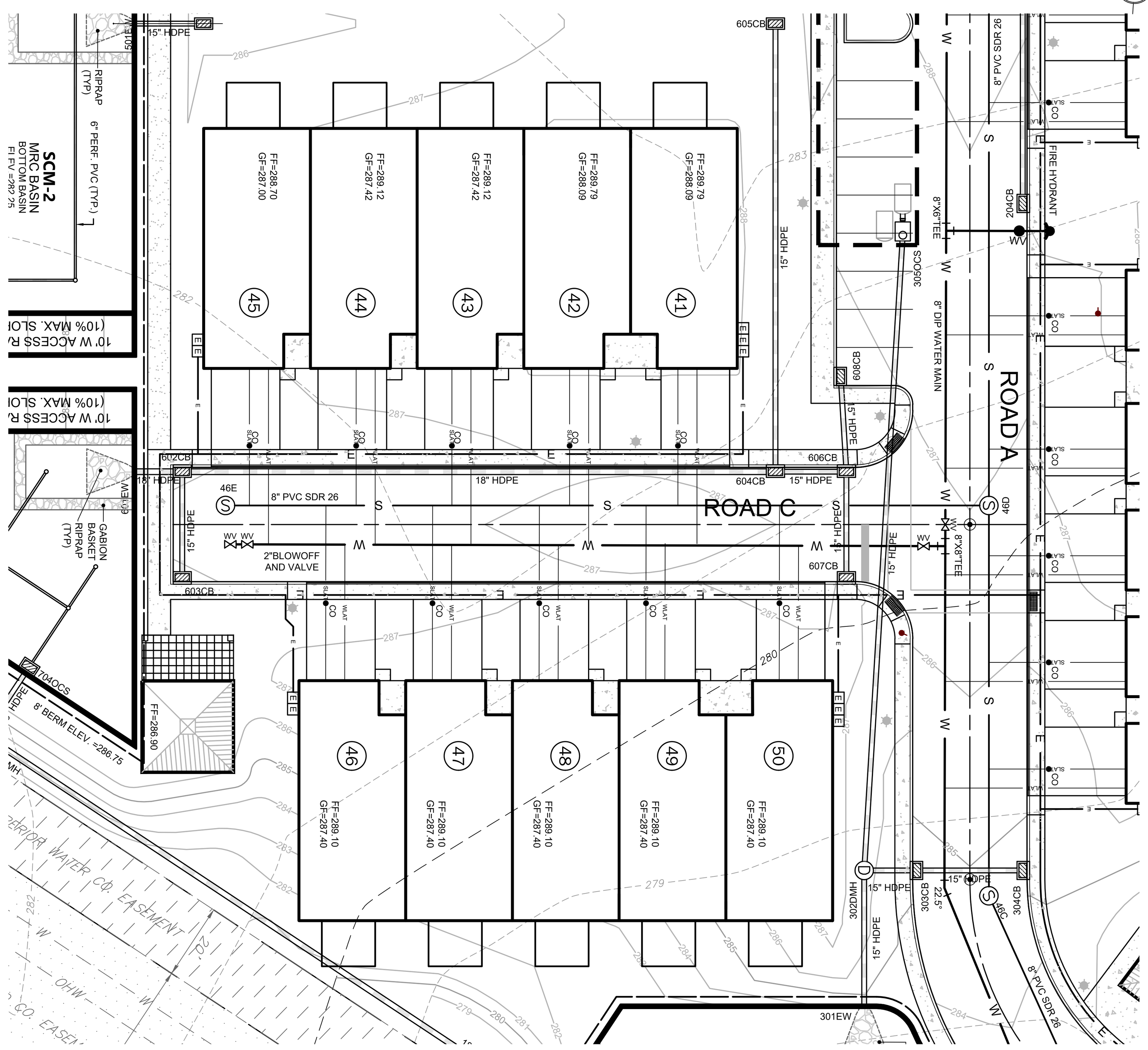
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	AS NOTED
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

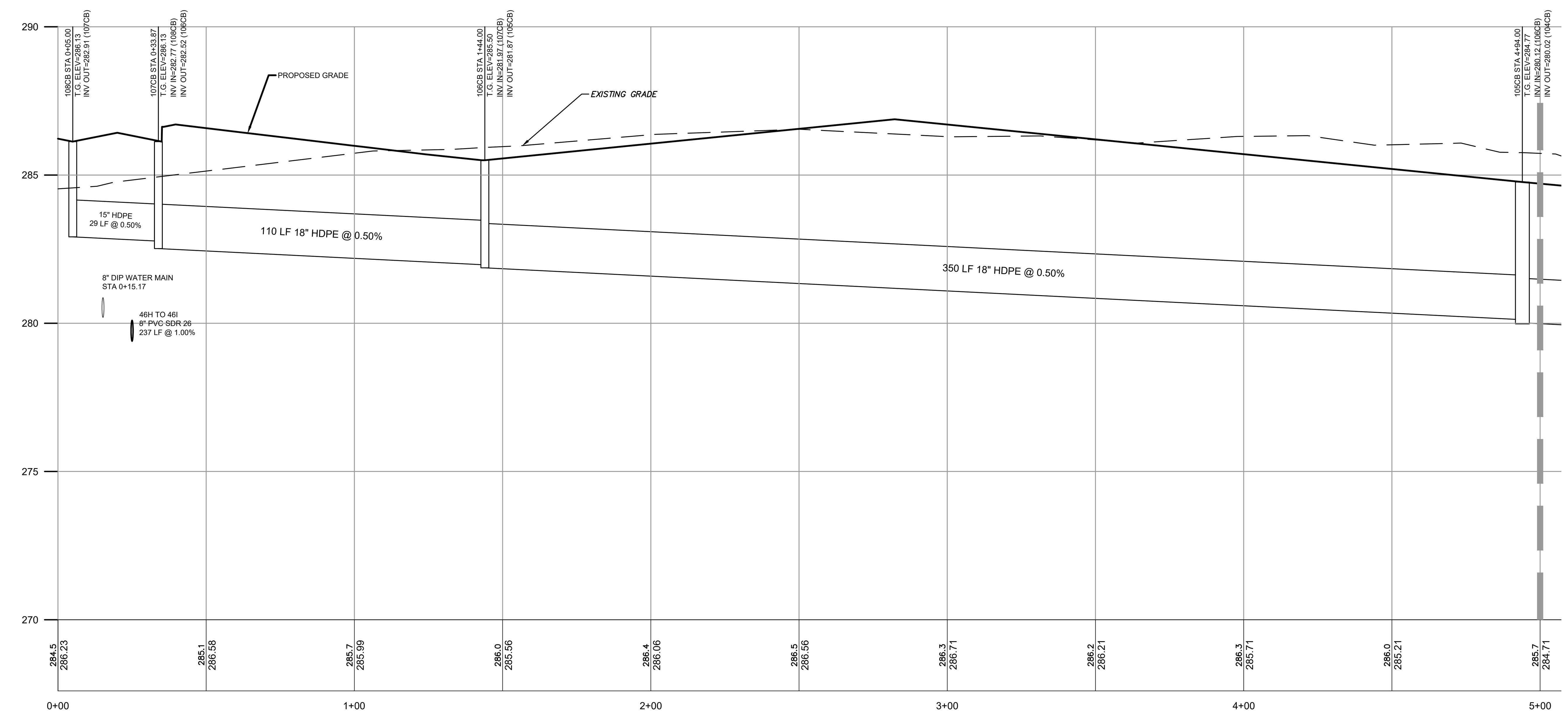
CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

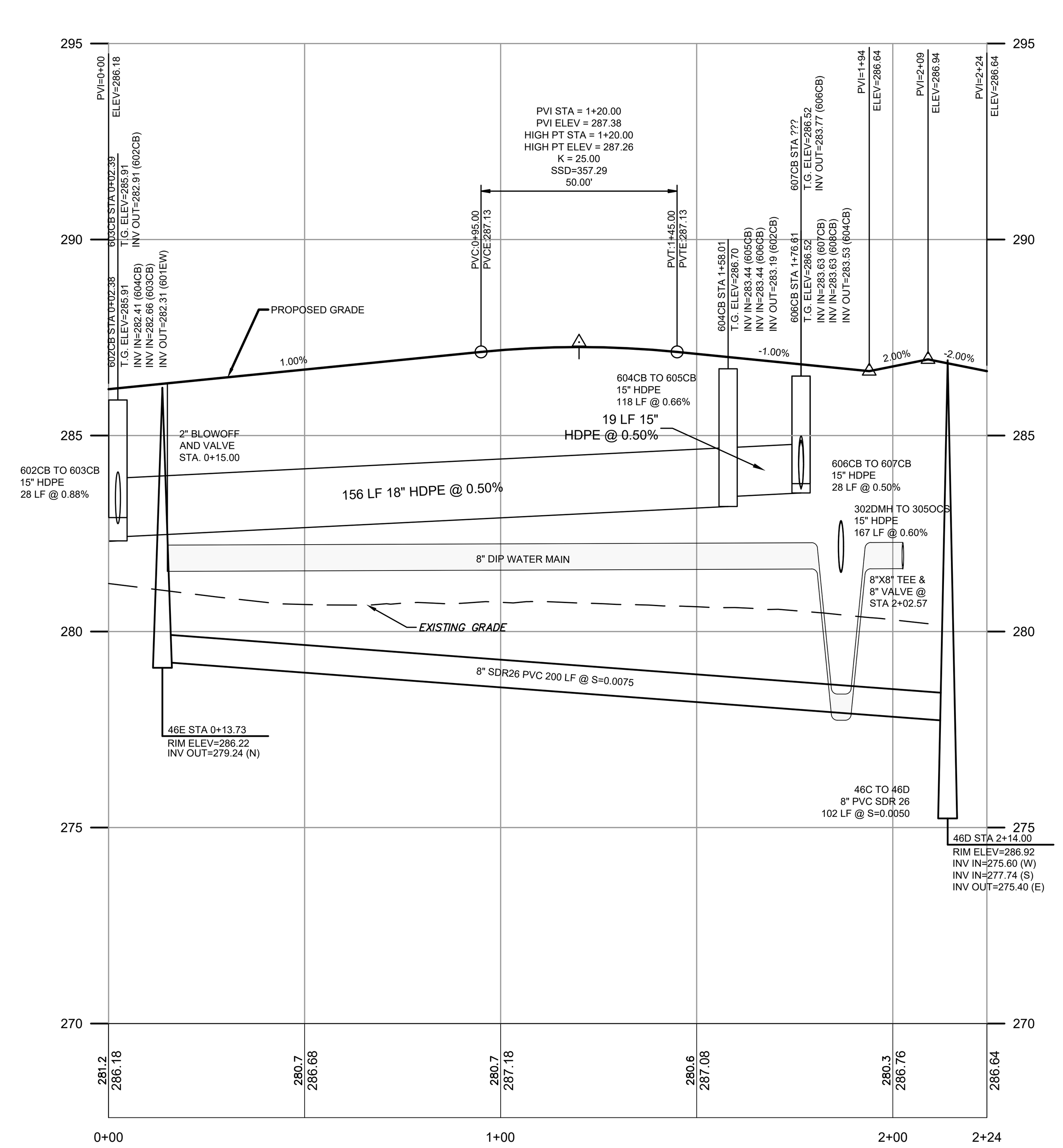
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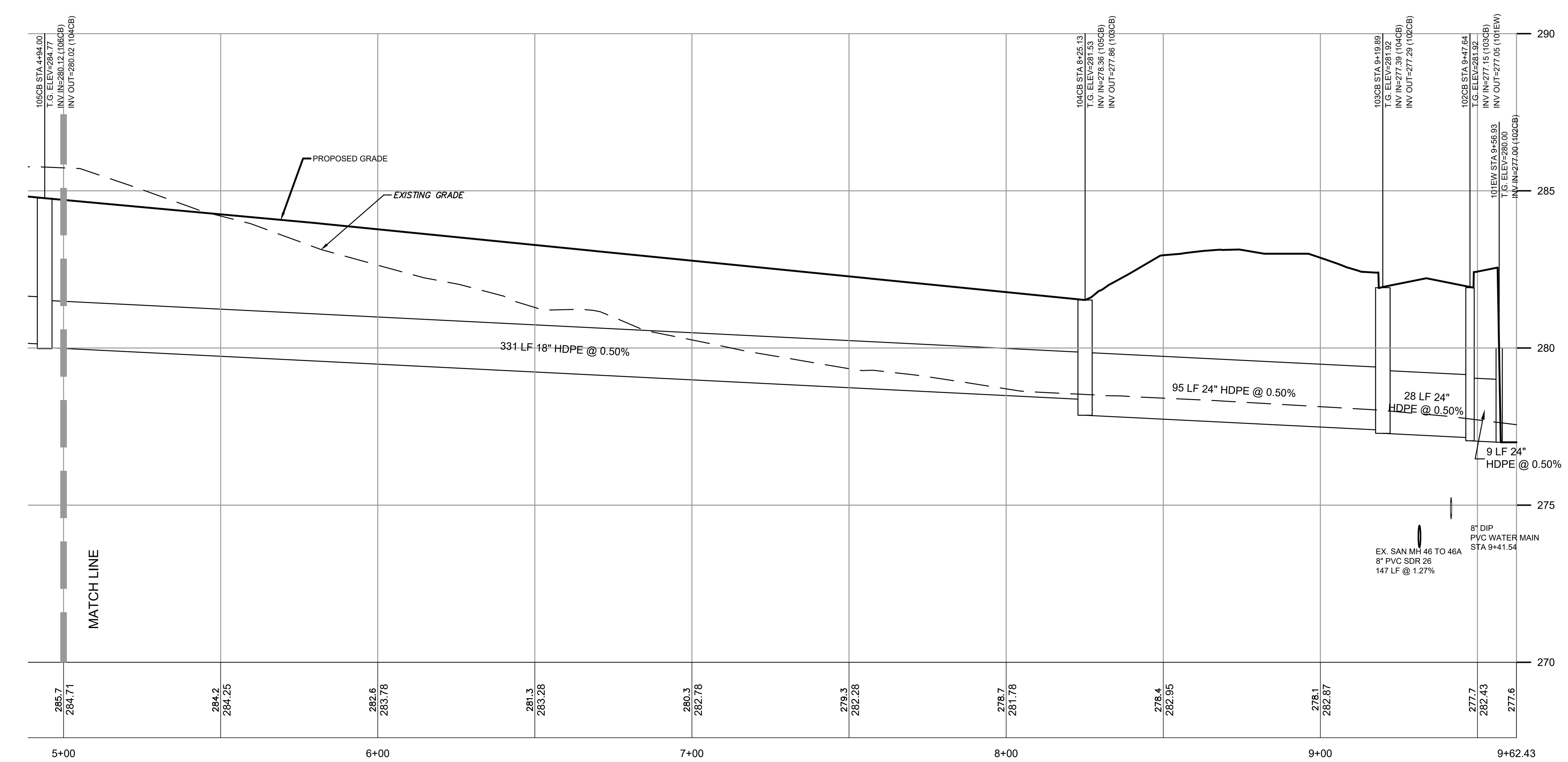
ROAD C - PLAN VIEW
(STA: 0+00.00 TO 2+09.00)
SCALE: 1" = 30'



108CB TO EW 101CB
(STA: 0+00.00 TO 5+00.00)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 270.00



ROAD C
(STA: 0+00.00 TO 2+09.00)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 270.00



108CB TO EW 101CB
(STA: 5+00.00 TO 9+62.43)
HORIZ SCALE: 1" = 30' VERT SCALE: 1" = 3'
DATUM ELEV: 270.00

GRAPHIC SCALE
0 1.5 3 6
1 INCH = 3 FT

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Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

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Municipal Engineering
Site Development
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Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

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VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

ROAD C PLAN & PROFILE & BASELINE PROFILE

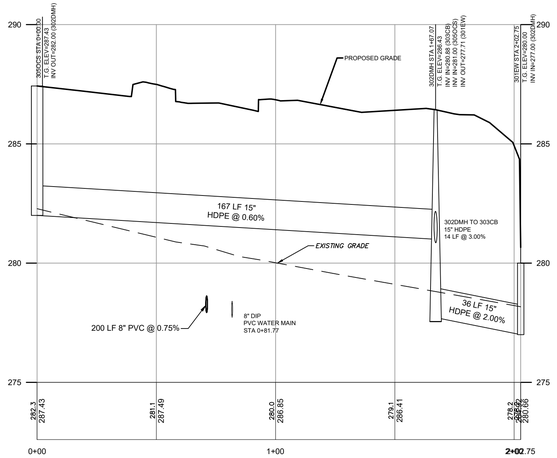
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	AS NOTED
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

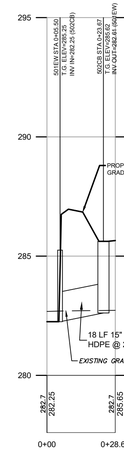
CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



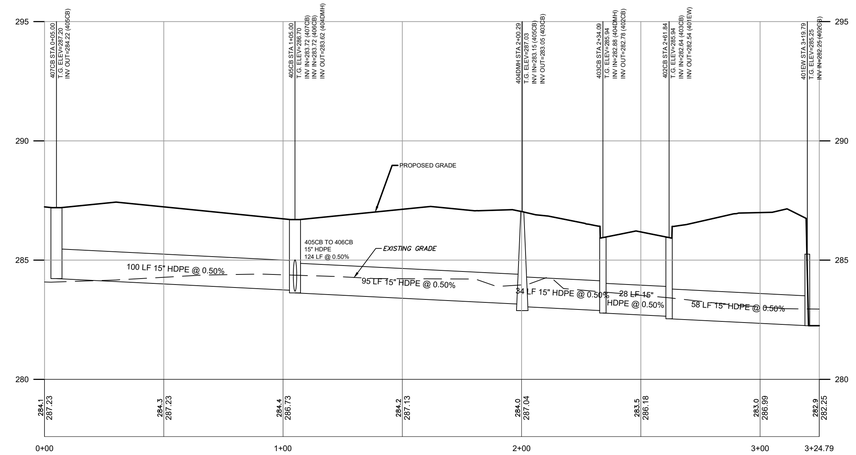
305OCS TO 301EW

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DATUM ELEV: 275.00



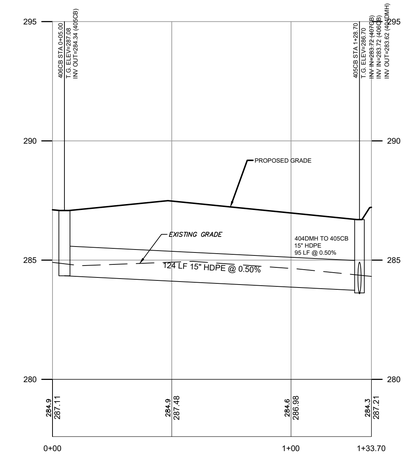
501EW TO 502CB

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DATUM ELEV: 280.00



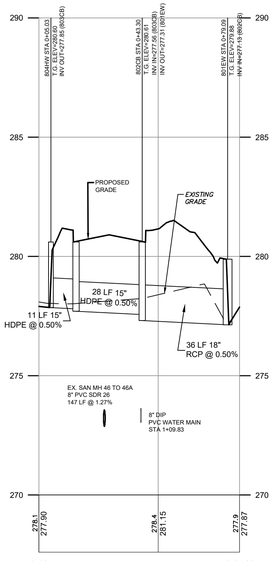
407CB TO 401EW

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DATUM ELEV: 280.00



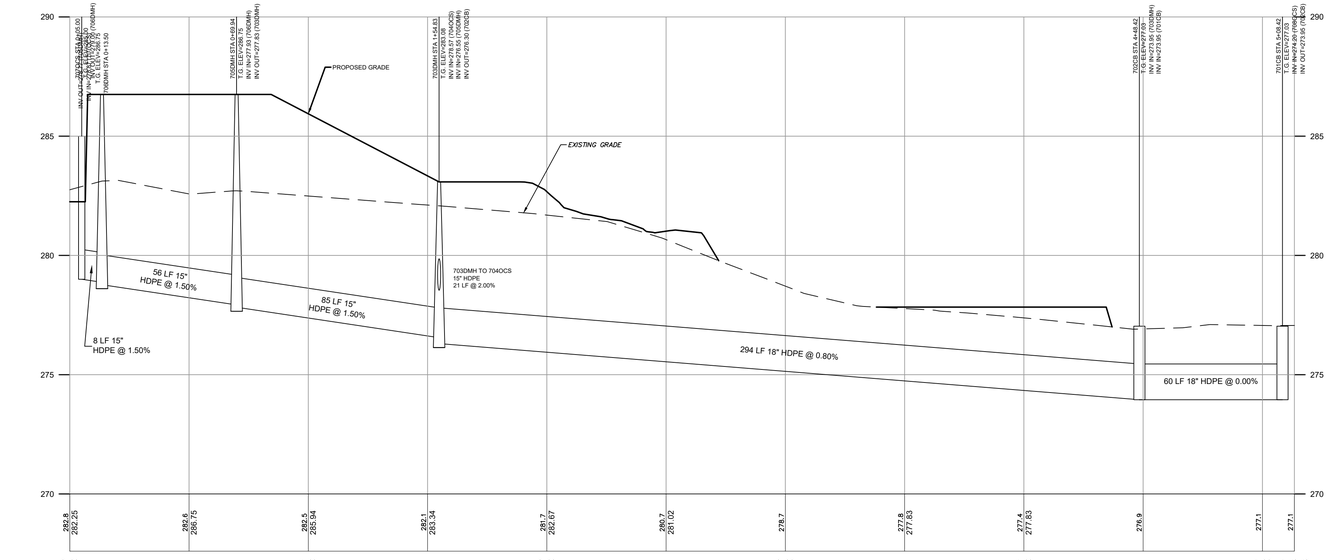
406CB TO 405CB

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DATUM ELEV: 280.00



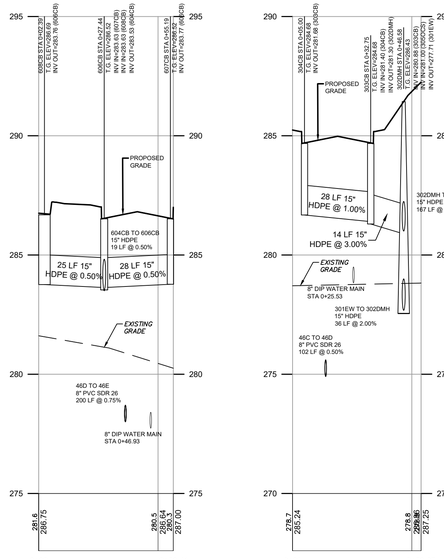
804HW TO 801EW

STA. 0+00.00 TO STA. 0+84.09
HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 270.00



707OCS OUTFALL TO 701CB

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DATUM ELEV: 270.00

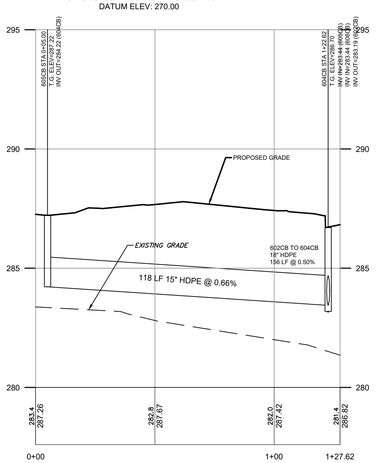


608CB TO 607CB

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DATUM ELEV: 275.00

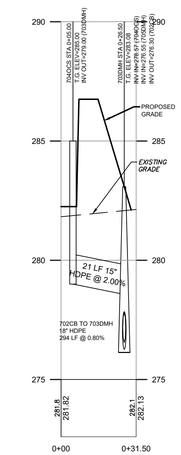
304CB TO 302DMH

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HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 270.00



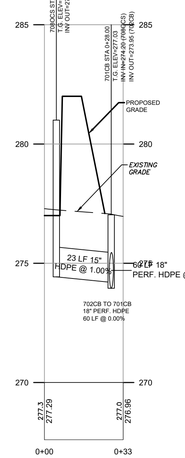
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DATUM ELEV: 280.00



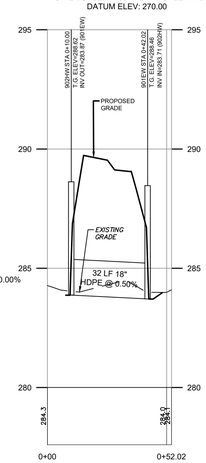
704OCS TO 703DMH

STA. 0+00.00 TO STA. 0+31.50
HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 275.00



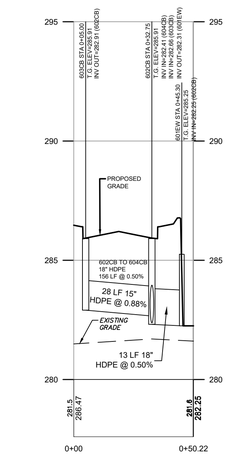
708OCS TO 701CB

STA. 0+00.00 TO STA. 0+33.00
HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 270.00



902HW TO 901EW

STA. 0+00.00 TO STA. 0+52.02
HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 280.00



603CB TO 601EW

STA. 0+00.00 TO STA. 0+50.22
HORIZ SCALE: 1"=30' VERT SCALE: 1"=3'
DATUM ELEV: 280.00

Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

STORM SEWER PROFILES

FOR

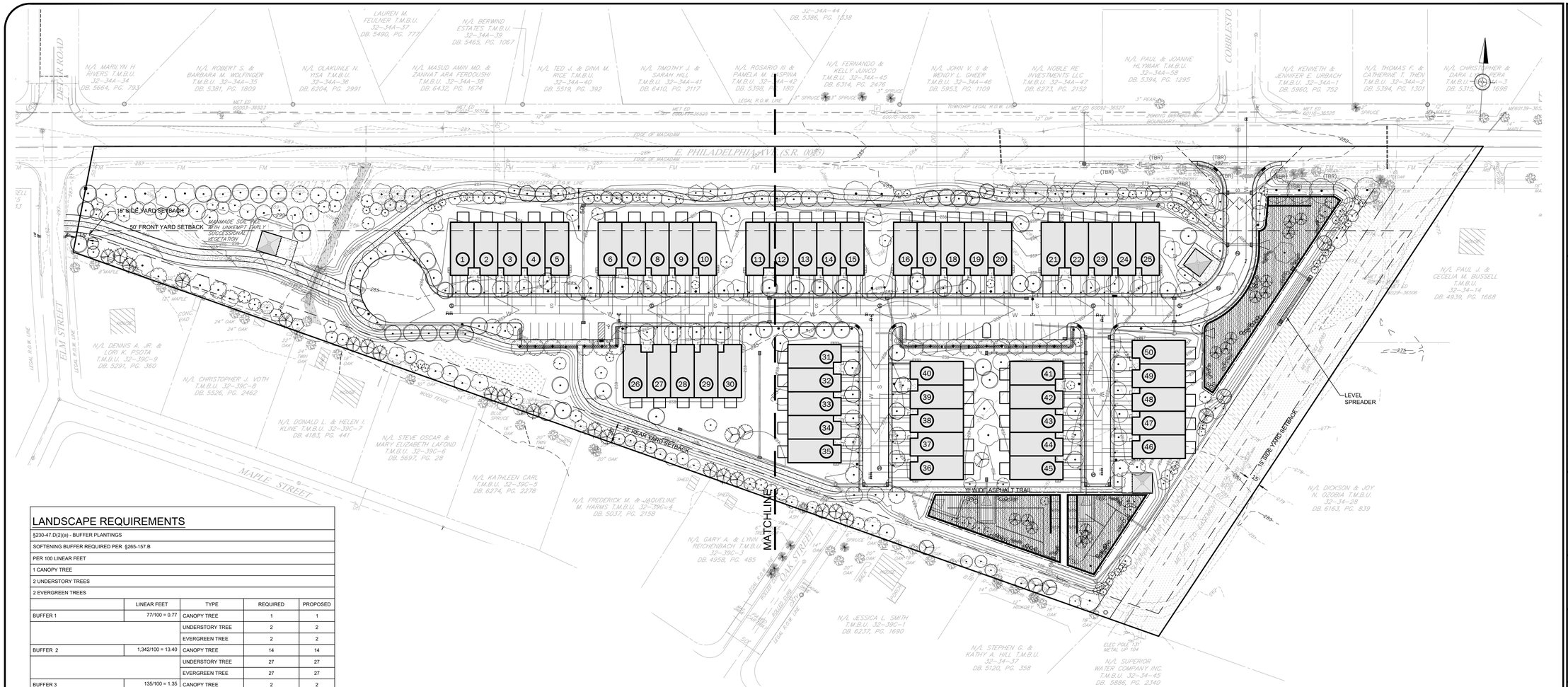
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	AS NOTED
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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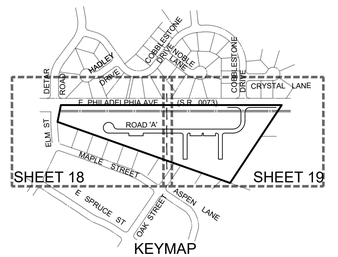


LANDSCAPE REQUIREMENTS

§230-47.D(2)(a) - BUFFER PLANTINGS				
SOFTENING BUFFER REQUIRED PER §265-157.B				
PER 100 LINEAR FEET				
1 CANOPY TREE				
2 UNDERSTORY TREES				
2 EVERGREEN TREES				
	LINEAR FEET	TYPE	REQUIRED	PROPOSED
BUFFER 1	77/100 = 0.77	CANOPY TREE	1	1
		UNDERSTORY TREE	2	2
		EVERGREEN TREE	2	2
BUFFER 2	1,342/100 = 13.40	CANOPY TREE	14	14
		UNDERSTORY TREE	27	27
		EVERGREEN TREE	27	27
BUFFER 3	135/100 = 1.35	CANOPY TREE	2	2
		UNDERSTORY TREE	3	3
		EVERGREEN TREE	3	3
BUFFER 4	584/100 = 5.84	CANOPY TREE	6	6
		UNDERSTORY TREE	12	12
		EVERGREEN TREE	12	12
BUFFER 5	1,365/100 = 13.65	CANOPY TREE	14	14
		UNDERSTORY TREE	28	28
		EVERGREEN TREE	28	28
§230-48.D(1)(a) - PARKING LOT SCREENING - ALL SIDES OF PARKING LOT				
PER 25 LINEAR FEET				
1 CANOPY TREE				
10 SHRUBS				
	LINEAR FEET	TYPE	REQUIRED	PROPOSED
PARKING LOT WEST	140/25 = 5.6	CANOPY TREE	6	6
		SHRUB	56	56
PARKING LOT EAST	233/25 = 9.32	CANOPY TREE	10	10
		SHRUB	94	94
§230-49.C- ADDITIONAL PLANTINGS				
1 CANOPY TREE PER (2) ATTACHED DWEILLING UNITS				
50 DWELLING UNITS		CANOPY TREE	25	25
§230-50 - BASIN PLANTING*				
PER 100 LF OF BASIN PERIMETER				
2 CANOPY TREE				
10 SHRUBS				
	LINEAR FEET	TYPE	REQUIRED	PROPOSED
SCM BASIN #1	625/100 = 6.25	CANOPY TREE	13	13
		SHRUB	63	63
SCM BASIN #2	415/100 = 4.15	CANOPY TREE	9	9
		SHRUB	42	42
SCM BASIN #3	318/100 = 3.18	CANOPY TREE	7	7
		SHRUB	32	32
*SEE DETAIL SHEET FOR SEEDING AND PLUG PLANTING				
		TOTAL LANDSCAPE	REQUIRED	PROPOSED
		CANOPY TREE	107	107
		UNDERSTORY TREE	72	72
		EVERGREEN	72	72
		SHRUB	287	287

LANDSCAPE REQUIREMENTS

§ 230-45.B - STREET TREESTREE REPLACEMENT:				
EACH TREE 12-18" DBH TO BE REPLACED BY ONE 2.5 INCH CALIPER TREE.				
EACH TREE >18" DBH TO BE REPLACED BY TOTAL DBH EQUAL TO REMOVED (MIN 2.5IN CALIPER TREE)				
TREES TO BE REMOVED:				
2 - 12" CAL. *JUNIPERUS VIRGINIANA*				
1 - 12" CAL. *PYRUS CALLERYANA*				
1 - 12" CAL. *ELMUS sp.*				
REQUIRED REPLACEMENT TREES = 4 TREES				
PROVIDED REPLACEMENT TREES = 4 TREES				
§ 230-46.C.(5) - STREET TREES:				
STREET TREE AT NO LESS THEN A CALIPER OF 2.5"				
1 STREET TREE PER 35' LINEAR FEET OF PROPOSED ROAD FRONTAGE AND EXISTING PUBLIC OR PRIVATE STREETS FRONTED BY THE NEW DEVELOPMENT.				
(LENGTH / 435) X 2 = REQUIRED STREET TREES (PROPOSED ROADS WITHIN THE DEVELOPMENT)				
ROAD	LENGTH - LF	NO. PLANTS	REQUIRED	PROPOSED
ROAD A	1,156	33	66	66
ROAD B	209	6	12	12
ROAD C	209	6	12	12
ELM STREET	102	3	3	3
EAST PHILADELPHIA AVE. (S.R.0073)	1,623	47	47	47
		TOTAL STREET TREES	140	140



KEYMAP

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	O/□
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	/
EASEMENT LINE		DRAINAGE MANHOLE	D
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE	-x-x-x-x-x-x-x-x-	FIRE HYDRANT	
SPLIT RAIL FENCE LINE	-o-o-o-o-o-o-o-o-	WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	/
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

GRAPHIC SCALE
0 30 60 120
1 INCH = 60 FT

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OVERALL LANDSCAPE PLAN

FOR

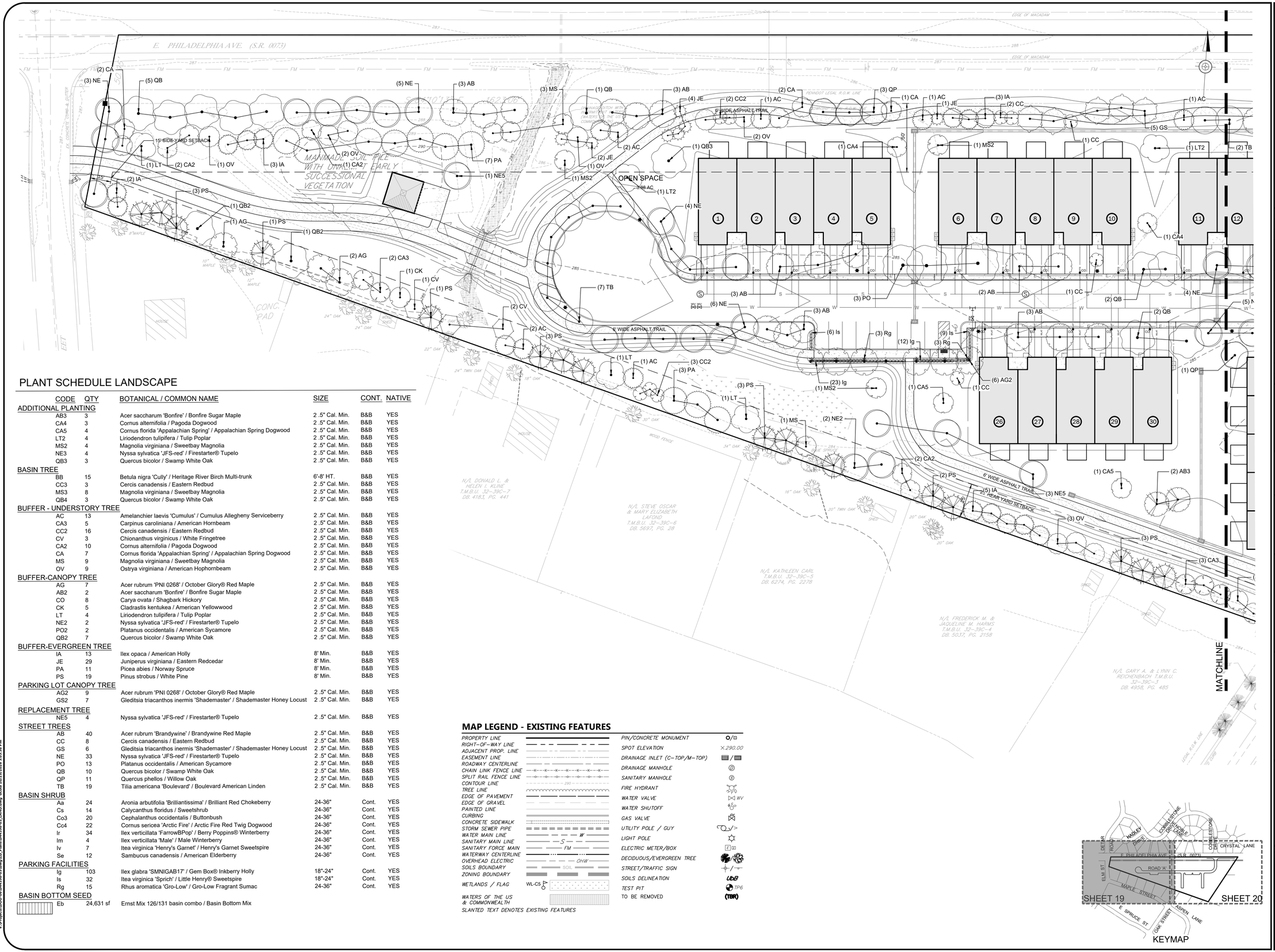
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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PLANT SCHEDULE LANDSCAPE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	NATIVE
ADDITIONAL PLANTING					
AB3	3	Acer saccharum 'Bonfire' / Bonfire Sugar Maple	2.5" Cal. Min.	B&B	YES
CA4	3	Cornus alternifolia / Pagoda Dogwood	2.5" Cal. Min.	B&B	YES
CA5	4	Cornus florida 'Appalachian Spring' / Appalachian Spring Dogwood	2.5" Cal. Min.	B&B	YES
LT2	4	Liriodendron tulipifera / Tulip Poplar	2.5" Cal. Min.	B&B	YES
MS2	4	Magnolia virginiana / Sweetbay Magnolia	2.5" Cal. Min.	B&B	YES
NE3	4	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2.5" Cal. Min.	B&B	YES
QB3	3	Quercus bicolor / Swamp White Oak	2.5" Cal. Min.	B&B	YES
BASIN TREE					
BB	15	Betula nigra 'Cully' / Heritage River Birch Multi-trunk	6'-8' HT.	B&B	YES
CC3	3	Cercis canadensis / Eastern Redbud	2.5" Cal. Min.	B&B	YES
MS3	8	Magnolia virginiana / Sweetbay Magnolia	2.5" Cal. Min.	B&B	YES
QB4	3	Quercus bicolor / Swamp White Oak	2.5" Cal. Min.	B&B	YES
BUFFER - UNDERSTORY TREE					
AC	13	Amelanchier laevis 'Cumulus' / Cumulus Allegheny Serviceberry	2.5" Cal. Min.	B&B	YES
CA3	5	Carpinus caroliniana / American Hornbeam	2.5" Cal. Min.	B&B	YES
CC2	16	Cercis canadensis / Eastern Redbud	2.5" Cal. Min.	B&B	YES
CV	3	Chionanthus virginicus / White Fringetree	2.5" Cal. Min.	B&B	YES
CA2	10	Cornus alternifolia / Pagoda Dogwood	2.5" Cal. Min.	B&B	YES
CA	7	Cornus florida 'Appalachian Spring' / Appalachian Spring Dogwood	2.5" Cal. Min.	B&B	YES
MS	9	Magnolia virginiana / Sweetbay Magnolia	2.5" Cal. Min.	B&B	YES
OV	9	Ostrya virginiana / American Hophornbeam	2.5" Cal. Min.	B&B	YES
BUFFER-CANOPY TREE					
AG	7	Acer rubrum 'PNI 0268' / October Glory® Red Maple	2.5" Cal. Min.	B&B	YES
AB2	2	Acer saccharum 'Bonfire' / Bonfire Sugar Maple	2.5" Cal. Min.	B&B	YES
CO	8	Carya ovata / Shagbark Hickory	2.5" Cal. Min.	B&B	YES
CK	5	Cladrastis kentukea / American Yellowwood	2.5" Cal. Min.	B&B	YES
LT	4	Liriodendron tulipifera / Tulip Poplar	2.5" Cal. Min.	B&B	YES
NE2	2	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2.5" Cal. Min.	B&B	YES
PO2	2	Platanus occidentalis / American Sycamore	2.5" Cal. Min.	B&B	YES
QB2	7	Quercus bicolor / Swamp White Oak	2.5" Cal. Min.	B&B	YES
BUFFER-EVERGREEN TREE					
IA	13	Ilex opaca / American Holly	8' Min.	B&B	YES
JE	29	Juniperus virginiana / Eastern Redcedar	8' Min.	B&B	YES
PA	11	Picea abies / Norway Spruce	8' Min.	B&B	YES
PS	19	Pinus strobus / White Pine	8' Min.	B&B	YES
PARKING LOT CANOPY TREE					
AG2	9	Acer rubrum 'PNI 0268' / October Glory® Red Maple	2.5" Cal. Min.	B&B	YES
GS2	7	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	2.5" Cal. Min.	B&B	YES
REPLACEMENT TREE					
NE5	4	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2.5" Cal. Min.	B&B	YES
STREET TREES					
AB	40	Acer rubrum 'Brandywine' / Brandywine Red Maple	2.5" Cal. Min.	B&B	YES
CC	8	Cercis canadensis / Eastern Redbud	2.5" Cal. Min.	B&B	YES
GS	6	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	2.5" Cal. Min.	B&B	YES
NE	33	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2.5" Cal. Min.	B&B	YES
PO	13	Platanus occidentalis / American Sycamore	2.5" Cal. Min.	B&B	YES
QB	10	Quercus bicolor / Swamp White Oak	2.5" Cal. Min.	B&B	YES
QP	11	Quercus phellos / Willow Oak	2.5" Cal. Min.	B&B	YES
TB	19	Tilia americana 'Boulevard' / Boulevard American Linden	2.5" Cal. Min.	B&B	YES
BASIN SHRUB					
Aa	24	Aronia arbutifolia 'Brilliantissima' / Brilliant Red Chokeberry	24-36"	Cont.	YES
Cs	14	Calycanthus floridus / Sweetshrub	24-36"	Cont.	YES
Co3	20	Cephalanthus occidentalis / Buttonbush	24-36"	Cont.	YES
Cc4	22	Cornus sericea 'Arctic Fire' / Arctic Fire Red Twig Dogwood	24-36"	Cont.	YES
Ir	34	Ilex verticillata 'FarrowBPop' / Berry Poppins® Winterberry	24-36"	Cont.	YES
Im	4	Ilex verticillata 'Male' / Male Winterberry	24-36"	Cont.	YES
Iv	7	Itea virginica 'Henry's Garnet' / Henry's Garnet Sweetspire	24-36"	Cont.	YES
Se	12	Sambucus canadensis / American Elderberry	24-36"	Cont.	YES
PARKING FACILITIES					
Ig	103	Ilex glabra 'SMNIGAB17' / Gem Box® Inkberry Holly	18"-24"	Cont.	YES
Is	32	Itea virginica 'Sprich' / Little Henry® Sweetspire	18"-24"	Cont.	YES
Rg	15	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	24-36"	Cont.	YES
BASIN BOTTOM SEED					
Eb	24,631 sf	Ernst Mix 126/131 basin combo / Basin Bottom Mix			

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	O/□
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	▭ / ▭
EASEMENT LINE		DRAINAGE MANHOLE	Ⓓ
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE	-x-x-x-x-x-x-x-x-	FIRE HYDRANT	
SPLIT RAIL FENCE LINE	-o-o-o-o-o-o-o-o-	WATER VALVE	⋈ WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	/
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

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Site Development
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LANDSCAPE PLAN (1)

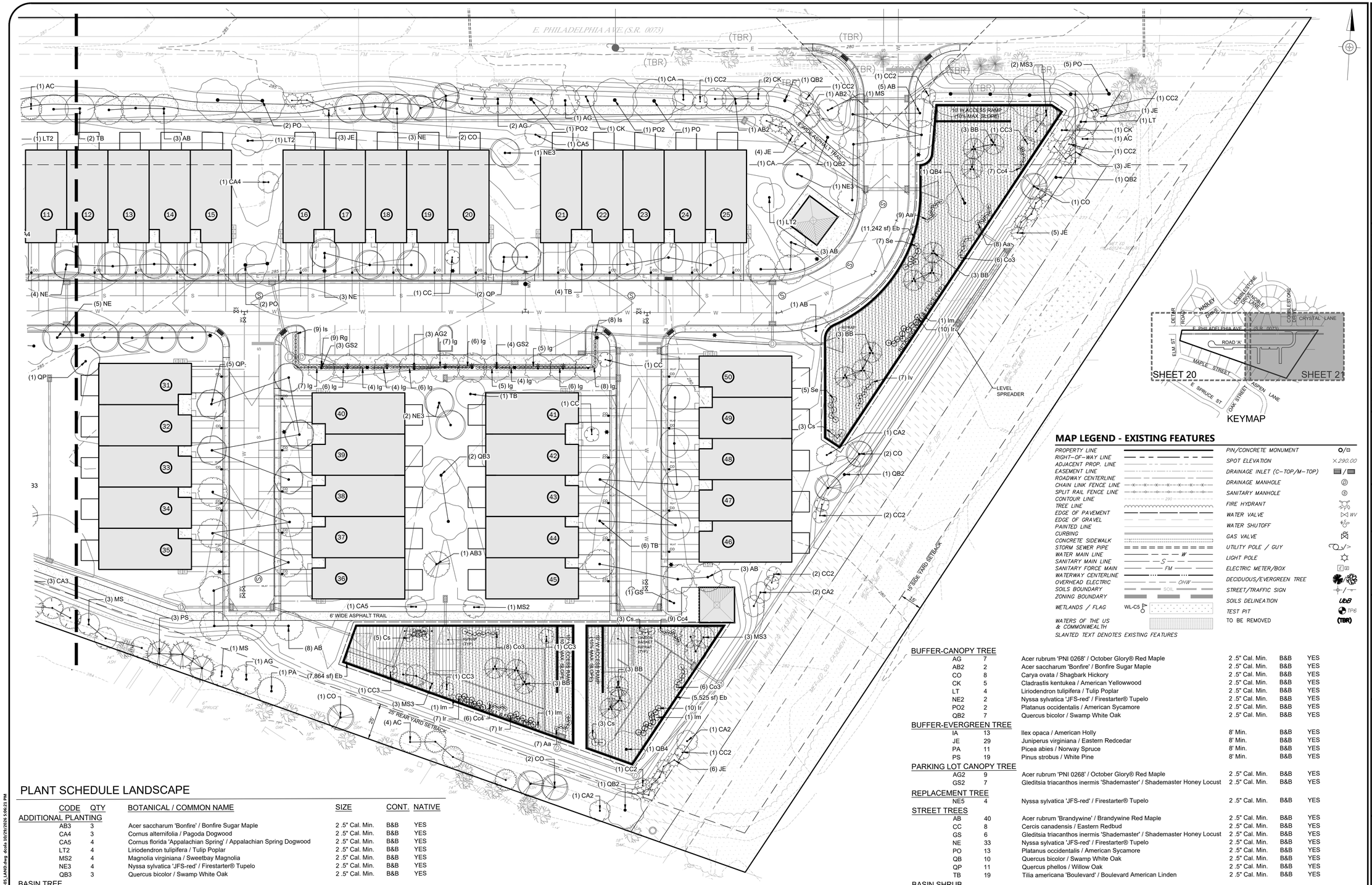
FOR

COBBLESTONE VILLAGE CROSSING

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POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
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MAP LEGEND - EXISTING FEATURES

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RIGHT-OF-WAY LINE	SPOT ELEVATION ×290.00
ADJACENT PROP. LINE	
EASEMENT LINE	DRAINAGE INLET (C-TOP/M-TOP)
ROADWAY CENTERLINE	
CHAIN LINK FENCE LINE	DRAINAGE MANHOLE
SPLIT RAIL FENCE LINE	SANITARY MANHOLE
CONTOUR LINE 285	FIRE HYDRANT
TREE LINE	
EDGE OF PAVEMENT	WATER VALVE WV
EDGE OF GRAVEL	
PAINTED LINE	WATER SHUTOFF
CURBING	GAS VALVE
CONCRETE SIDEWALK	
STORM SEWER PIPE	UTILITY POLE / GUY
WATER MAIN LINE W	
SANITARY MAIN LINE S	LIGHT POLE
SANITARY FORCE MAIN FM	ELECTRIC METER/BOX
WATERWAY CENTERLINE	
OVERHEAD ELECTRIC OHW	DECIDUOUS/EVERGREEN TREE
SOILS BOUNDARY SOIL	STREET/TRAFFIC SIGN
ZONING BOUNDARY	SOILS DELINEATION UbB
WETLANDS / FLAG WL-CS	TEST PIT TP6
WATERS OF THE US & COMMONWEALTH	TO BE REMOVED (TBR)

SLANTED TEXT DENOTES EXISTING FEATURES

PLANT SCHEDULE LANDSCAPE

CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	NATIVE
ADDITIONAL PLANTING					
AB3	3	Acer saccharum 'Bonfire' / Bonfire Sugar Maple	2 .5" Cal. Min.	B&B	YES
CA4	3	Cornus alternifolia / Pagoda Dogwood	2 .5" Cal. Min.	B&B	YES
CA5	4	Cornus florida 'Appalachian Spring' / Appalachian Spring Dogwood	2 .5" Cal. Min.	B&B	YES
LT2	4	Liriodendron tulipifera / Tulip Poplar	2 .5" Cal. Min.	B&B	YES
MS2	4	Magnolia virginiana / Sweetbay Magnolia	2 .5" Cal. Min.	B&B	YES
NE3	4	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2 .5" Cal. Min.	B&B	YES
QB3	3	Quercus bicolor / Swamp White Oak	2 .5" Cal. Min.	B&B	YES
BASIN TREE					
BB	15	Betula nigra 'Cully' / Heritage River Birch Multi-trunk	6'-8' HT.	B&B	YES
CC3	3	Cercis canadensis / Eastern Redbud	2 .5" Cal. Min.	B&B	YES
MS3	8	Magnolia virginiana / Sweetbay Magnolia	2 .5" Cal. Min.	B&B	YES
QB4	3	Quercus bicolor / Swamp White Oak	2 .5" Cal. Min.	B&B	YES
BUFFER - UNDERSTORY TREE					
AC	13	Amelanchier laevis 'Cumulus' / Cumulus Allegheny Serviceberry	2 .5" Cal. Min.	B&B	YES
CA3	5	Carpinus caroliniana / American Hornbeam	2 .5" Cal. Min.	B&B	YES
CC2	16	Cercis canadensis / Eastern Redbud	2 .5" Cal. Min.	B&B	YES
CV	3	Chionanthus virginicus / White Fringetree	2 .5" Cal. Min.	B&B	YES
CA2	10	Cornus alternifolia / Pagoda Dogwood	2 .5" Cal. Min.	B&B	YES
CA	7	Cornus florida 'Appalachian Spring' / Appalachian Spring Dogwood	2 .5" Cal. Min.	B&B	YES
MS	9	Magnolia virginiana / Sweetbay Magnolia	2 .5" Cal. Min.	B&B	YES
OV	9	Ostrya virginiana / American Hophornbeam	2 .5" Cal. Min.	B&B	YES
BUFFER-CANOPY TREE					
AG	7	Acer rubrum 'PNI 0268' / October Glory® Red Maple	2 .5" Cal. Min.	B&B	YES
AB2	2	Acer saccharum 'Bonfire' / Bonfire Sugar Maple	2 .5" Cal. Min.	B&B	YES
CO	8	Carya ovata / Shagbark Hickory	2 .5" Cal. Min.	B&B	YES
CK	5	Cladrastis kentukea / American Yellowwood	2 .5" Cal. Min.	B&B	YES
LT	4	Liriodendron tulipifera / Tulip Poplar	2 .5" Cal. Min.	B&B	YES
NE2	2	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2 .5" Cal. Min.	B&B	YES
PO2	2	Platanus occidentalis / American Sycamore	2 .5" Cal. Min.	B&B	YES
QB2	7	Quercus bicolor / Swamp White Oak	2 .5" Cal. Min.	B&B	YES
BUFFER-EVERGREEN TREE					
IA	13	Ilex opaca / American Holly	8' Min.	B&B	YES
JE	29	Juniperus virginiana / Eastern Redcedar	8' Min.	B&B	YES
PA	11	Picea abies / Norway Spruce	8' Min.	B&B	YES
PS	19	Pinus strobus / White Pine	8' Min.	B&B	YES
PARKING LOT CANOPY TREE					
AG2	9	Acer rubrum 'PNI 0268' / October Glory® Red Maple	2 .5" Cal. Min.	B&B	YES
GS2	7	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	2 .5" Cal. Min.	B&B	YES
REPLACEMENT TREE					
NE5	4	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2 .5" Cal. Min.	B&B	YES
STREET TREES					
AB	40	Acer rubrum 'Brandywine' / Brandywine Red Maple	2 .5" Cal. Min.	B&B	YES
CC	8	Cercis canadensis / Eastern Redbud	2 .5" Cal. Min.	B&B	YES
GS	6	Gleditsia triacanthos inermis 'Shademaster' / Shademaster Honey Locust	2 .5" Cal. Min.	B&B	YES
NE	33	Nyssa sylvatica 'JFS-red' / Firestarter® Tupelo	2 .5" Cal. Min.	B&B	YES
PO	13	Platanus occidentalis / American Sycamore	2 .5" Cal. Min.	B&B	YES
QB	10	Quercus bicolor / Swamp White Oak	2 .5" Cal. Min.	B&B	YES
QP	11	Quercus phellos / Willow Oak	2 .5" Cal. Min.	B&B	YES
TB	19	Tilia americana 'Boulevard' / Boulevard American Linden	2 .5" Cal. Min.	B&B	YES
BASIN SHRUB					
Aa	24	Aronia arbutifolia 'Brilliantissima' / Brilliant Red Chokeberry	24-36"	Cont.	YES
Cs	14	Calycanthus floridus / Sweetshrub	24-36"	Cont.	YES
Co3	20	Cephalanthus occidentalis / Buttonbush	24-36"	Cont.	YES
Cc4	22	Cornus sericea 'Arctic Fire' / Arctic Fire Red Twig Dogwood	24-36"	Cont.	YES
Ir	34	Ilex verticillata 'FarrowBPop' / Berry Poppins® Winterberry	24-36"	Cont.	YES
Im	4	Ilex verticillata 'Male' / Male Winterberry	24-36"	Cont.	YES
Iv	7	Itea virginica 'Henry's Garnet' / Henry's Garnet Sweetspire	24-36"	Cont.	YES
Se	12	Sambucus canadensis / American Elderberry	24-36"	Cont.	YES
PARKING FACILITIES					
Ig	103	Ilex glabra 'SMNIGAB17' / Gem Box® Inkberry Holly	18"-24"	Cont.	YES
Is	32	Itea virginica 'Sprich' / Little Henry® Sweetspire	18"-24"	Cont.	YES
Rg	15	Rhus aromatica 'Gro-Low' / Gro-Low Fragrant Sumac	24-36"	Cont.	YES
BASIN BOTTOM SEED					
Eb	24,631 sf	Ernst Mix 126/131 basin combo / Basin Bottom Mix			

Van Cleef ENGINEERING WITH FOCUS
Local/Regional Planning
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV | DESCRIPTION | AUTH | DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
In... PENNSYLVANIA
STOP! CALL 1-800-242-1776
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 15 30 60
1 INCH = 30 FT

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

LANDSCAPE PLAN (2)

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

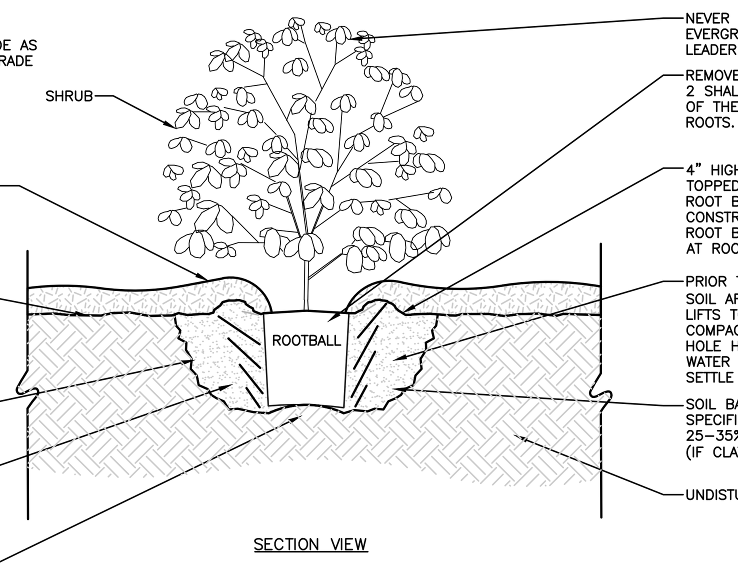
CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

V:\Projects\DOU-00\044398-05\dwg\LD_Plans\044398-05_LAND.dwg dcoli 10/29/2026 5:06:21 PM

GENERAL LANDSCAPING NOTES

1. THIS PLAN IS TO BE USED FOR LANDSCAPE PURPOSES ONLY. ALL SITE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, BUILDING LOCATIONS, CURBING, SIDEWALK, UTILITIES, AND THEIR ANCILLARY APPURTENANCES, ARE SHOWN FOR INFORMATION PURPOSES ONLY AND ARE SUBJECT TO MODIFICATION AND REVISION.
2. IT IS IMPERATIVE THAT UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND/OR CONSTRUCTION. CALL 1-800-242-1776 (PA) AND 1-800-272-1000 (NJ) TO ORDER UTILITY MARKOUTS BY OTHERS. PRIOR TO ANY DIGGING OPERATIONS, ALL UNDERGROUND UTILITIES MUST BE VISIBLY MARKED IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS TO ANY UTILITY DAMAGES ASSOCIATED WITH EXCAVATION AND PLANTING.
3. THE CONTRACTOR, DURING THE PERFORMANCE OF ALL WORK ASSOCIATED WITH THE CONSTRUCTION OF THE PROJECT, IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.
4. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN THE DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S OWN RISK.
5. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE BEGINNING OF ANY SITE CONSTRUCTION. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED OR STOCKPILED WITHIN THE TREE PROTECTION AREA. (SEE EXISTING TREE PROTECTION DETAIL AND SPECIFICATIONS.)
6. ALL CONSTRUCTION DEBRIS, INCLUDING EXCESS EXCAVATED MATERIAL, SCRAP WOOD, BRICKS, ETC. SHALL BE DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.
7. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY; AND SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND VIGOROUS FIBROUS ROOT SYSTEMS. ALL PLANTS SHALL BE NURSERY-GROWN OF SPECIMEN QUALITY, UNLESS OTHERWISE STATED; THEY SHALL HAVE BEEN GROWING UNDER THE SAME CLIMATE CONDITIONS AS THE MUNICIPALITY FOR AT LEAST TWO (2) YEARS PRIOR TO DATE OF PLANTING AND FREE OF INSECT, PESTS AND DISEASE PROBLEMS OR OBJECTIONABLE DISFIGUREMENTS. ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR CONDITION OR WHICH ARE NOT TRUE TO NAME SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE PLANTS. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
8. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE SIZING, GRADING, QUALITY AND OTHER STANDARDS SPECIFIED IN THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.2.2025) AND THE HEIGHT, SPREAD AND/OR CALIPER REQUIREMENTS FOR TREES AND SHRUBS LISTED IN UNION TOWNSHIP'S RECOMMENDED PLANT LIST.
9. ALL BALLED AND BURLAPPED PLANTS SHALL BE PROPERLY DUG WITH FIRM, NATURAL BALLS OF SOIL RETAINING AS MANY FIBROUS ROOTS AS POSSIBLE. BURLAP AND BINDINGS SHALL BE COMPRISED OF NATURAL MATERIALS AND SHALL BE BIODEGRADABLE. CONTAINER STOCK SHALL HAVE A WELL-ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL WHEN THE CONTAINER IS REMOVED, BUT SHALL NOT HAVE EXCESSIVE ROOT GROWTH ENCIRCLING THE INSIDE OF THE CONTAINER.
10. PLANTS SHALL BE PACKED, TRANSPORTED AND HANDLED WITH UTMOST CARE TO INSURE ADEQUATE PROTECTION AGAINST INJURY. ALL PRECAUTIONS CUSTOMARY IN GOOD TRADE PRACTICE SHALL BE TAKEN IN PREPARING PLANTS FOR MOVING.
11. MAINTAIN A MINIMUM SIX (6) FOOT SEPARATION DISTANCE BETWEEN TREES AND UNDERGROUND UTILITIES AND FIFTEEN (15) FEET OF OVERHEAD UTILITIES. THIS INCLUDES WATER AND SEWER MAIN EASEMENTS.
12. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
13. CANOPY (SHADE) TREES SHALL BE A MINIMUM OF TWO AND ONE HALF (2.5") INCHES IN DIAMETER, MEASURED AT SIX (6) INCHES ABOVE GRADE, AND HAVE A UNIFORM CANOPY AND SPREAD AT THE TIME OF PLANTING. CANOPY TREES SHALL HAVE A MINIMUM HEIGHT OF SEVEN (7) FEET ABOVE GRADE BEFORE BRANCHING BEGINS. SMALL CANOPY TREES SHALL BE A MINIMUM OF TWO AND ONE HALF (2.5"), 8'-10' HT., AND HAVE MINIMUM CLEARANCE OF FIVE (5') FEET ABOVE GRADE BEFORE BRANCHING BEGINS. ANY TREES INSTALLED WHICH DO NOT MEET THESE REQUIREMENTS SHALL BE REPLACED UPON NOTICE FROM THE TOWNSHIP. ANY TREES LARGER THAN 4" CALIPER SHALL BE MEASURED 12" ABOVE GROUND LEVEL IN ACCORDANCE WITH ANSI Z60.2.2025.
14. ALL SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL SHRUBBERY MATERIAL LOCATED WITHIN SIGHT TRIANGLES SHALL NOT EXCEED A MATURE HEIGHT OF 3' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL SHADE TREES, PLANTED OR EXISTING, IN SIGHT TRIANGLES SHALL BE PRUNED SO AS NOT TO HAVE BRANCHES BELOW 7'-0".
15. PLANT MATERIAL SHALL BE PRUNED IN ACCORDANCE WITH ANSI A300 PRUNING STANDARDS. TREES SHALL HAVE ONE CENTRAL LEADER UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANS. PRUNING AT THE TIME OF PLANTING SHALL BE LIMITED TO THE REMOVAL OF DEAD, DAMAGED, DISEASED, OR CROSSING BRANCHES AND SUCKER GROWTH, TO MEET LIMB HEIGHT REQUIREMENTS, OR TO PRESERVE THE NATURAL CHARACTER AND SHAPE OF THE TREE. CENTRAL LEADERS SHALL NOT BE PRUNED.
16. SHOULD PLANT SUBSTITUTIONS BE REQUIRED, ALL PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING TO THE TOWNSHIP AND LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO PLANTING.
17. PLANTINGS AND OTHER MATERIALS SHALL NOT BE INSTALLED UNTIL FINISHED GRADING HAS BEEN COMPLETED.
18. ALL PLANTING BEDS SHALL BE MULCHED TO THREE INCHES (3") IN DEPTH WITHIN THREE DAYS OF PLANTING WITH UNDYED, DOUBLE SHREDDED HARDWOOD MULCH. MULCH SHALL NOT BE APPLIED TO THE TRUNKS OF TREES OR TO THE TRUNKS OR BRANCHES OF SHRUBS. "VOLCANO MULCHING" SHALL NOT BE PERMITTED.
19. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.
20. STAKING OF TREES SHALL NOT BE REQUIRED, AND IS RECOMMENDED ONLY WHERE SITE CONDITIONS OR CONDITIONS OF THE TREE ARE SUCH THAT THE TREE IS ANTICIPATED TO BE UNSTABLE. IN NO INSTANCE SHALL STABILIZATION METHODS BE USED TO COMPENSATE FOR IMPROPERLY DUG OR POOR QUALITY PLANT MATERIAL. ALL STAKING AND GUYING MATERIALS SHALL BE REMOVED PRIOR TO THE END OF THE MAINTENANCE PERIOD.
21. ANY PLANT MATERIAL WHICH DOES NOT SURVIVE, EXHIBITS POOR GROWTH HABITS, IS DISEASED, IS MISSING, OR IS DAMAGED BY DEER OR NATURAL CAUSES WITHIN EIGHTEEN (18) MONTHS FROM THE DATE OF ACCEPTANCE BY UNION TOWNSHIPY, OR EIGHTEEN (18) MONTHS FOLLOWING INSTALLATION OF REPLACEMENT LANDSCAPE MATERIAL, WHICHEVER IS LATER, SHALL BE REPLACED BY THE OWNER. FINANCIAL SECURITY SHALL BE POSTED WITH UNION TOWNSHIP IN AN AMOUNT EQUAL TO THE ESTIMATED COST OF TREES AND PLANTINGS, TO BE RELEASED EIGHTEEN (18) MONTHS FROM UNION TOWNSHIP'S ACCEPTANCE OF THE INSTALLATION AND SATISFACTORY REPLACEMENT OF ALL DEAD PLANTINGS.
22. ANY OPEN SPACE PLANT MATERIAL WHICH DOES NOT SURVIVE, EXHIBITS POOR GROWTH HABITS, OR IS DAMAGED BY DEER OR NATURAL CAUSES WITHIN FIVE (5) YEARS FOLLOWING INSTALLATION, SHALL BE REPLACED BY THE OWNER WITHIN SIX (6) MONTHS FOLLOWING NOTIFICATION BY UNION TOWNSHIP.
23. ANY PLANT MATERIAL 25% OR MORE OF WHICH IS DEAD SHALL BE CONSIDERED DEAD. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED OR 25% OF THE CROWN IS DEAD. ANY DEAD PLANT MATERIAL SHALL BE REPLACED AND INSTALLED ACCORDING TO THE APPROVED PLANTING PRACTICES.
24. TREE WRAP SHALL BE USED ONLY WHEN NECESSARY FOR THE PROTECTION OF THIN AND/OR SMOOTH-BARKED TREES FROM SUNSCALD OR FROST CRACKS. TREE WRAP SHALL BE LIGHT IN COLOR AND COMPLETELY BIODEGRADABLE. TREE WRAP SHALL BE REMOVED PRIOR TO THE END OF THE MAINTENANCE PERIOD.
25. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH A SOIL MIX OF IMPORTED SANDY LOAM TOPSOIL BLENDED WITH ORGANIC MATTER (10-15% ORGANIC CONTENT). MIX SHOULD BE FREE OF DEBRIS, HAVE A pH OF 5.5-7.0, AND BE PLACED OVER LOOSENED SUBSOIL TO PREVENT COMPACTION. TEST EXISTING SOIL FOR pH AND NUTRIENT LEVELS. FOR PLANTING BEDS AND LAWN AREAS USE A WELL-BLENDED SOIL MIX OF EXISTING NATIVE SOIL (75-80%) AND WELL-ROTTED ORGANIC MATTER (25-30%). (SCREEN OUT LARGE ROCKS AND DEBRIS IN EXISTING NATIVE SOIL PRIOR TO MIXING.) MAKE NECESSARY ADJUSTMENTS TO SOIL MIX AS INDICATED BY SOIL TEST. IF WET OR CLAY SOIL CONDITIONS EXIST, INSTALL A 4" PERFORATED DRAIN. RUN TO GRADE OR CATCH BASIN.
26. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO THE FINISHED GRADE AS IT DID TO EXISTING GRADE IN THE NURSERY.
27. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING OF ALL PLANT MATERIAL SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS. A MINIMUM OF WEEKLY WATERING IS REQUIRED DURING PERIODS OF DROUGHT CONDITIONS.
28. REMOVAL OF ALL PLANTING DEBRIS IS REQUIRED. THE PROPERTY MUST BE LEFT IN A NEAT AND ORDERLY CONDITION IN ACCORDANCE WITH GOOD AND ACCEPTED PLANTING PRACTICES.
29. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED. TEST EXISTING SOIL FOR pH AND NUTRIENT LEVELS. SEED MIXTURE SHALL BE AS LISTED IN THE SEEDING SCHEDULE ON THE SOIL EROSION AND SEDIMENT CONTROL NARRATIVE. ALL DISTURBED LAWN AREAS SHALL BE TOP-SOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.
30. PRIOR TO THE END OF THE GUARANTEE PERIOD, IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR OR THE OWNER, TO ADEQUATELY MAINTAIN THE LANDSCAPE AREAS, INCLUDING WATERING, WEEDING, PRUNING, CLEANING DEBRIS AND FERTILIZING TO MAINTAIN HEALTHY GROWTH.
31. ALL LANDSCAPING SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN. ANY REMOVAL, RELOCATION, OR SUBSTITUTION IN PLANT MATERIALS, SHALL BE AUTHORIZED BY UNION TOWNSHIPAND THE LANDSCAPE ARCHITECT.
32. THE OMISSION, REMOVAL, REPLACEMENT, RELOCATION, OR SUBSTITUTION OF APPROVED PLANT MATERIALS, DEPICTED ON THE APPROVED LANDSCAPE PLAN, WITHOUT PRIOR APPROVAL SHALL BE REPLACED AT THE OWNER'S EXPENSE AND SUBJECT TO REVIEW BY UNION TOWNSHIP.
33. PLANTINGS SHALL BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO THE ISSUANCE OF AN OCCUPANCY PERMIT.
34. THE OWNER SHALL CONTACT THE TOWNSHIP IN WRITING TO REQUEST A FINAL INSPECTION FOR ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THESE INSPECTIONS WILL BE PERFORMED WHEN PLANT MATERIALS ARE IN FULL LEAF ONLY (MAY 1 THROUGH NOVEMBER 15). ALL GUARANTEE ESCROW FUNDS WILL BE RELEASED UPON ACCEPTANCE AT THE END OF THE GUARANTEE PERIOD. THE GUARANTEE WILL BE EXTENDED UNTIL 30 DAYS AFTER RECEIPT OF THE REQUEST LETTER FOLLOWING MAY 1. SHOULD THE END OF THE GUARANTEE PERIOD OCCUR AFTER NOVEMBER 15, THE GUARANTEE PERIOD SHALL BE EXTENDED TO MAY 15.
35. THE LOCATIONS OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT PRIOR TO FINAL INSTALLATION.
36. BUFFER PLANTINGS, STREET TREES, AND STORMWATER PLANTINGS SHALL BE INSTALLED PRIOR TO OCCUPANCY OR INITIATION OF USE.
37. ALL GRADING, SEEDING, MULCHED BEDS AND PLANTING IN NONRESIDENTIAL DEVELOPMENTS MUST BE INSTALLED AND MAINTAINED BY THE OWNER WITH THE APPROVED LANDSCAPE PLANS.
38. GRADE CHANGES AND EXCAVATIONS SHALL NOT ENCROACH UPON THE TREE PROTECTION AREA.
39. ANY EXISTING TREE THAT IS ENCROACHED ON BY MORE THAN ONE QUARTER (¼) OF THE TOTAL ROOT AREA SHALL BE REMOVED AND REPLACED IN COMPLIANCE WITH THE UNION TOWNSHIP'S TREE REPLACEMENT CALCULATIONS.



TYPICAL SHRUB PLANTING DETAIL
NOT TO SCALE

SCM 1,2,3 BASIN SEED MIX

BASIN BOTTOM:
EQUAL MIX OF
- ERNST SEED MIX 126 RETENTION BASIN FLOOR MIX-LOW MAINTENANCE (ERNMX-126)
- ERNST SEED MIX 131 OBL WETLAND MIX (ERNMX-131)

ERNST CONSERVATION SEEDS
9006 MERCER PIKE
MEADVILLE, PA 16335
(800)873-3321
WWW.ERNSTSEED.COM

RETENTION BASIN FLOOR MIX: ERNMX-126

20%	Panicum clandestinum, Tioga	Deertongue, Tioga
20%	Puccinellia distans, Fults	Alkaligrass, Faltz
18%	Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
15%	Agrostis stolonifera, "PC 2.0"	Creeping Bentgrass, PC '2.0'
15%	Poa palustris	Fowl Bluegrass
10%	Carex vulpinoidea, PA Ecotype	Fox Sedge, PA Ecotype
1%	Juncus effusus	Soft Rush
0.5%	Carex lurida, PA Ecotype	Lurid Sedge, PA Ecotype
0.5%	Panicum rigidulum, PA Ecotype	Redtop Panigrass, PA Ecotype

SEEDING RATE: 20-40 lb Per acre, or ½ - 1 lb per 1,000 sq.ft. with cover crop.
For cover crop use one of the following:
- grain rye (1 Sept. to 30 April; 30 lb per acre)
- Japanese millet (1 May 20 31 Aug; 10 lb per acre)
- barnyard grass (1 May 20 31 Aug; 10 lb per acre)

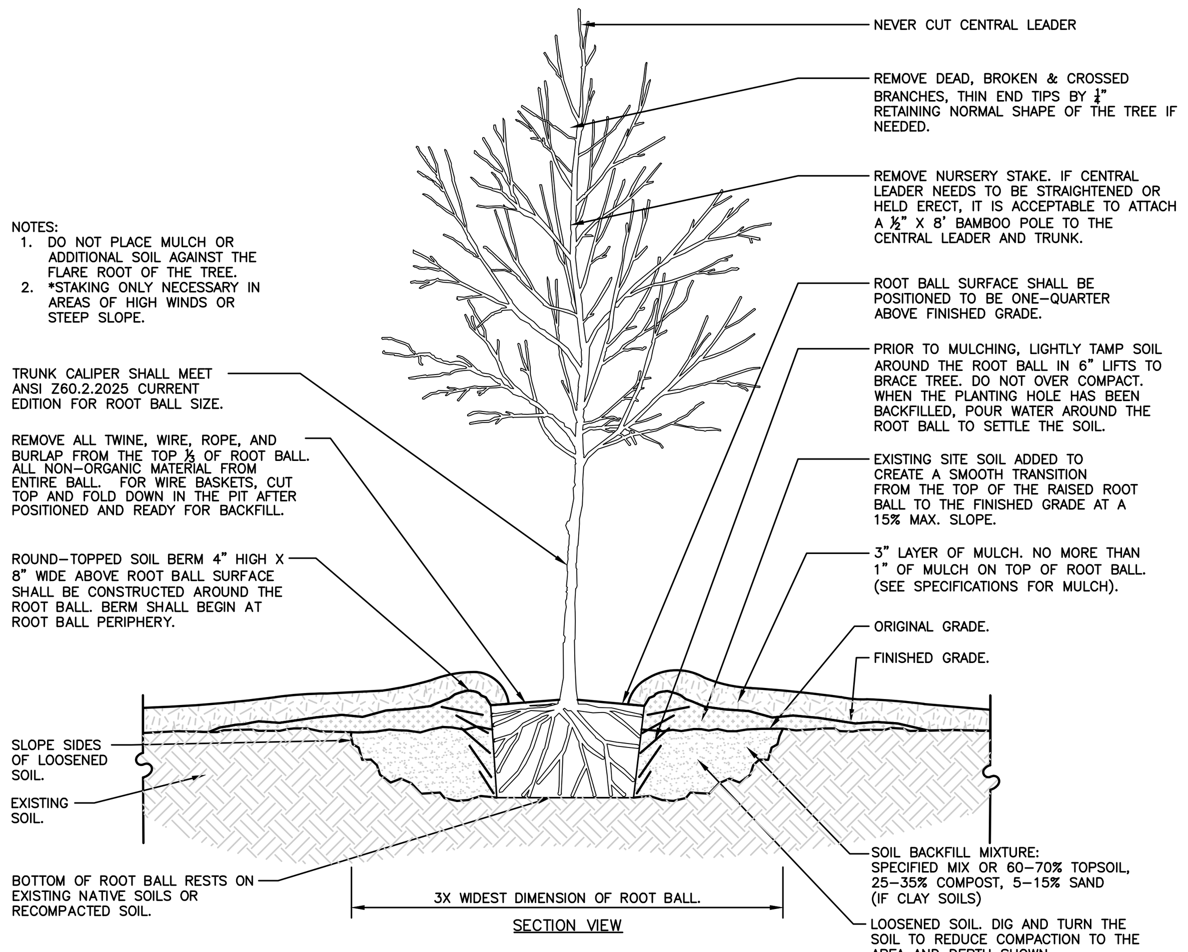
Mix formulations are subject to change without notice depending on the availability of existing and new products. while the formula may change, the guilding philosophy and function of the mix will not. (ernstseed.com)

OBL WETLAND MIX: ERNMX-131

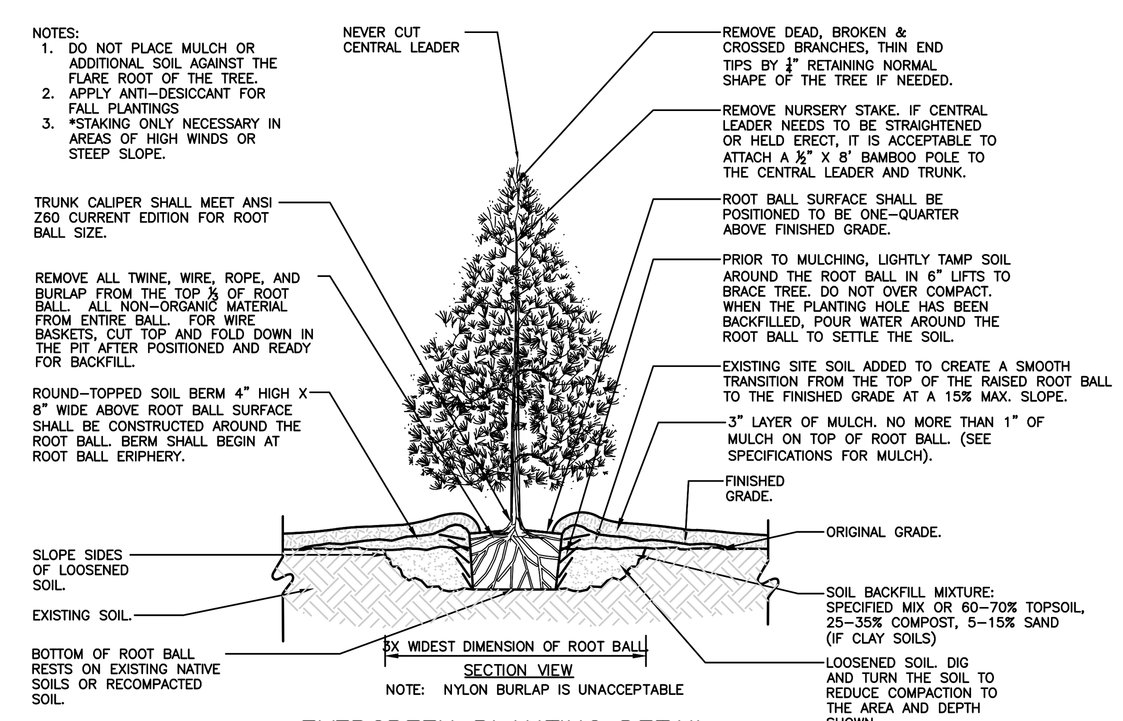
25%	Carex vulpinoidea	Fox Sedge
20%	Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
17.5%	Carex lurida, PA Ecotype	Lurid Sedge, PA Ecotype
17.5%	Carex scoparia, PA Ecotype	Blunt Broom Sedge, PA Ecotype
3%	Juncus effusus	Soft Rush
3%	Verbena hastata, PA Ecotype	Blue Vervain, PA Ecotype
2%	Sparganium americanum	Easturn Bur Reed
2%	Asclepias incarnata, PA Ecotype	Swamp Milkweed, PA Ecotype
1%	Carex crinita, PA Ecotype	Fringed (Nodding) Sedge, PA Ecotype
1%	Bidens cernua, PA Ecotype	NoddingBur Marigold, PA Ecotype
1%	Carex lupulina, PA Ecotype	HopSedge, PA Ecotype
1%	Onoclea sensibilis	Sensitive Fern
0.7%	Helenium autumnale, PA-Ecotype	Common Sneezeweed, PA Ecotype
0.7%	Aster puniceus,PA Ecotype	Purplestem Aster, PA Ecotype
0.7%	Aster umbellatus, PA Ecotype	Flat Topped White Aster, PA Ecotype
0.5%	Carex stricta, PA Ecotype	Tussock Sedge, PA Ecotype
0.5%	Eupatorium perfoliatum, PA Ecotype	Boneset, PA Ecotype
0.5%	Alisma subcordatum	Mud Plantain
0.5%	Scirpus cyperinus PA Ecotype	Woolgrass, PA Ecotype
0.5%	Scirpus validus, PA Ecotype	Softstem Bulrush, PA Ecotype
0.5%	Solidago rugosa, PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype
0.5%	Glycera striata	Fowl Mannagrass
0.4%	Mimulus ringens, PA-Ecotype	Square Stemmed Monkey Flower, PA Ecotype

SEEDING RATE: 20 lb Per acre, or ½ lb per 1,000 sq.ft. with cover crop.
For cover crop use one of the following:
- grain rye (1 Sept. to 30 April; 30 lb per acre)
- Japanese millet (1 May 20 31 Aug; 10 lb per acre)
- barnyard grass (1 May 20 31 Aug; 10 lb per acre)

Mix formulations are subject to change without notice depending on the availability of existing and new products. while the formula may change, the guilding philosophy and function of the mix will not. (ernstseed.com)



TYPICAL PLANTING FOR TREES TO 3 1/2" CAL.
NOT TO SCALE



EVERGREEN PLANTING DETAIL
NOT TO SCALE

SITE PREPARATION-BASIN BOTTOM

SPRAY GLYPHOSATE (RODEO) OR A SIMILAR AQUATIC HERBICIDE FORMULATION TO CONTROL UNDESIRABLE VEGETATION. SOME PERSISTENT SPECIES MAY NEED MULTIPLE APPLICATIONS. SOILS ARE OFTEN TOO WET TO TILL. NEWLY-CONSTRUCTED WETLANDS, RETENTION BASINS AND WET CONSTRUCTION SITES SHOULD BE SEEDED AS SOON AFTER CONSTRUCTION AS POSSIBLE. LEAVING THE SURFACE ROUGH BY CREATING MOUNDS OF KETTLES FOR A VARIABLE MICROTOPOGRAPHY CAN BE VERY BENEFICIAL.

GENERAL MAINTENANCE
SPOT TREAT INVASIVES WITH APPROPRIATE HERBICIDES EVERY YEAR.

NOTES:
- THE DETENTION BASIN SHOULD BE MONITORED DURING CONSTRUCTION AND PRIOR TO VEGETATION INSTALLATION TO DETERMINE ITS HYDROLOGY AND THE EXACT LOCATIONS FOR EACH OF THE SPECIFIED MIXES.
- SEEDING OF BASIN/SWALE SIDESLOPES OR MEADOW AREAS SHOULD BE COMPLETED ONLY FROM MARCH TO JUNE, UNLESS APPROVED BY THE TWP. ENVIRONMENTAL CONSULTANT. IF STABILIZATION IS REQUIRED DURING ANOTHER SEASON, A TEMPORARY (I.E. ANNUAL) COVER SHOULD BE USED AS SPECIFIED BY THE COUNTY CONSERVATION DISTRICT TO PROVIDE COVERAGE UNTIL THE NEXT SPRING PLANTING SEASON.
  IF AN ANNUAL COVER IS USED, TILL OR REGRADE THE SURFACE BEFORE INSTALLING THE SPECIFIED MIXES AS DESCRIBED BELOW.
- LIME AS PER SOIL TEST TO ACHIEVE PH 6.5.
- SEEDED WILDFLOWERS CAN BE APPLIED IN DRIFTS (I.E., HAND SEEDED) BY INDIVIDUAL SPECIES AT THE RATE OF 1.5 LBS PER ACRE.
- HYDROSEED GRASS. USE HARROW OR HAND RAKE SEED INTO TOP 0.5 INCHES OF SOIL.
- STRAW MULCH AT 1 TON PER ACRE AND APPLY MULCH TACKIFIER USING THE HYDROSEEDER.

BASIN BOTTOM PLANT SPECIFICATION

NOTES:
1. USE THIS SPECIFICATION (I.E.,LIVE PLANTS) IN ALL FOREBAYS AND CHANNELS AND IN DETENTION BASIN BOTTOMS THAT ARE EITHER TOO FREQUENTLY INUNDATED OR SUBJECT TO FLOWS THAT PRECLUDE SUCCESSFUL PLANT ESTABLISHMENT BY SEEDING ALONE.
2. FIRST, DETERMINE THE SQUARE FOOT AREA OF THE AREAS WITHIN THE FOREBAY(S) AND BASIN BOTTOM(S) TO BE PLANTED. CALCULATE THE QUANTITIES OF PLANTS REQUIRED.
3. SECOND, DIVERT INCOMING FLOWS TO THE FOREBAY TO THE MAIN PORTION OF THE DETENTION BASIN. THIS IS TYPICALLY ACHIEVED BY PLACING A PLATE OVER THE ORIFICE TO THE FOREBAY WITHIN THE UPGRADIANT MANHOLE.
4. THIRD, INSTALL SEED MIXES AS SPECIFIED WITHIN THE FOREBAY AND BASIN BOTTOM.
5. FOURTH, INSTALL EROSION CONTROL BLACKETS (E.Q., BONTERRA CS-2, EXCELSIOR, ETC.) OR TURF REINFORCEMENT MATS(TRM"S) IN ALL FOREBAY, CHANNELS, AND BASIN BOTTOMSAS SPECIFIED, OR AS DIRECTED BY THE TOWNSHIP ENGINEER AND/OR ENVIRONMENTAL CONSULTANT TO STABILIZE THE PLANTING AREA.
6. THEN INSTALL PLUGS/ROOTSTOCK OF THE SPECIFIED MATERIAL THROUGH THE INSTALLED BLANKETS AT THE SPECIFIED DENSITY. IF EROSION CONTROL BLANKETS ARE NOT REQUIRED IN THE BASIN BOTTOM, PLANT DIRECTLY INTO THE SUBSTRATE.

SCM 1 PLUGS :

BASIN BOTTOM PLANT SPECIFICATION

PLUG/ROOTSTOCK QUANTITIES BASIN 11,258 SF	%*	SIZE	SCIENTIFIC NAME	COMMON NAME
73	5%	Plug	Asclepias incarnata	Swamp Milkweed
73	5%	Plug	Carex crinita	Fringed Sedge
73	5%	Plug/Bare Root	Carix strticta	Tussock Sedge
73	5%	Plug	Glyceria stiatus	Fowl Mannagrass
146	10%	Plug	Iris versicolor	Blue Flag
73	5%	Plug/Bare Root	Juncus effusus	Soft Rush
146	10%	Plug	Leersia oryzoides	Rice Cut Grass
73	5%	Plug	Lobelia cardinalis	Cardinal Flower
146	10%	Plug	Panicum virgatum	Switchgrass
74	5%	Plug	Pontederia cordata	Pickeralweed
146	10%	Plug	Scirpus cyperinus	Woolgrass
146	10%	Rootstock/plug	Scirpus pungens	Common 3-square
74	5%	Rootstock/Plug	Scirpus validus	Softstem bulrush
74	5%	Rootstock/plug	Sparganium eurycarpum	Giant Burreed
74	5%	Plug	Vernonia noveboracensis	New York Ironweed
1,464 TOTAL PLANTS				

*All species to be planted 3' o.c. (0.13 X Area = required Plant quantity)

SCM 2 PLUGS (MRC BASIN):

BASIN BOTTOM PLANT SPECIFICATION

PLUG/ROOTSTOCK QUANTITIES BASIN 7,878 SF	%*	SIZE	SCIENTIFIC NAME	COMMON NAME
52	5%	Plug	Asclepias incarnata	Swamp Milkweed
52	5%	Plug	Carex crinita	Fringed Sedge
52	5%	Plug/Bare Root	Carix strticta	Tussock Sedge
52	5%	Plug	Glyceria stiatus	Fowl Mannagrass
101	10%	Plug	Iris versicolor	Blue Flag
52	5%	Plug/Bare Root	Juncus effusus	Soft Rush
101	10%	Plug	Leersia oryzoides	Rice Cut Grass
52	5%	Plug	Lobelia cardinalis	Cardinal Flower
101	10%	Plug	Panicum virgatum	Switchgrass
52	5%	Plug	Pontederia cordata	Pickeralweed
101	10%	Plug	Scirpus cyperinus	Woolgrass
101	10%	Rootstock/plug	Scirpus pungens	Common 3-square
52	5%	Rootstock/Plug	Scirpus validus	Softstem bulrush
52	5%	Rootstock/plug	Sparganium eurycarpum	Giant Burreed
52	5%	Plug	Vernonia noveboracensis	New York Ironweed
1,025 TOTAL PLANTS				

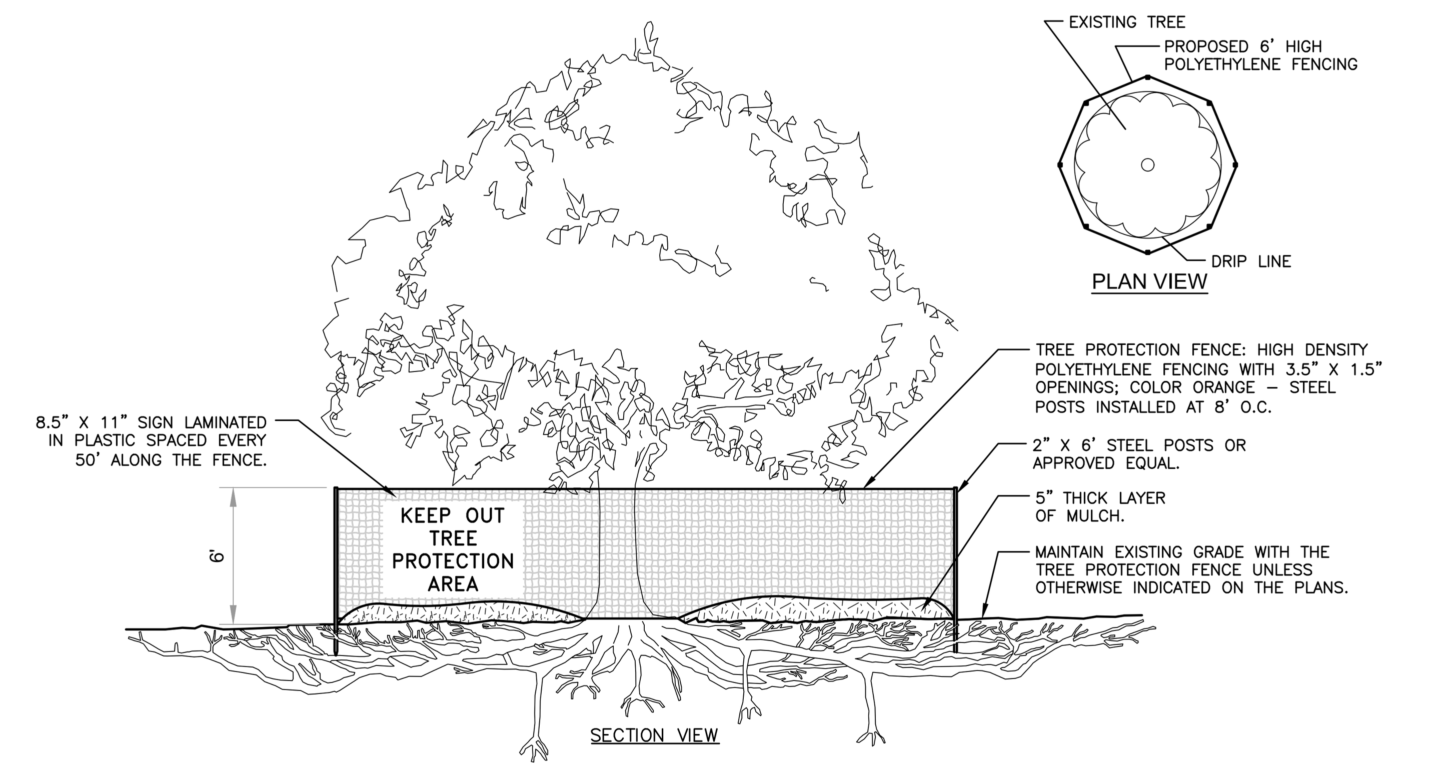
*All species to be planted 3' o.c. (0.13 X Area = required Plant quantity)

SCM 3 PLUGS (MRC BASIN):

BASIN BOTTOM PLANT SPECIFICATION

PLUG/ROOTSTOCK QUANTITIES BASIN 5,539 SF	%*	SIZE	SCIENTIFIC NAME	COMMON NAME
36	5%	Plug	Asclepias incarnata	Swamp Milkweed
36	5%	Plug	Carex crinita	Fringed Sedge
36	5%	Plug/Bare Root	Carix strticta	Tussock Sedge
36	5%	Plug	Glyceria stiatus	Fowl Mannagrass
72	10%	Plug	Iris versicolor	Blue Flag
36	5%	Plug/Bare Root	Juncus effusus	Soft Rush
72	10%	Plug	Leersia oryzoides	Rice Cut Grass
36	5%	Plug	Lobelia cardinalis	Cardinal Flower
72	10%	Plug	Panicum virgatum	Switchgrass
36	5%	Plug	Pontederia cordata	Pickeralweed
72	10%	Plug	Scirpus cyperinus	Woolgrass
72	10%	Rootstock/plug	Scirpus pungens	Common 3-square
36	5%	Rootstock/Plug	Scirpus validus	Softstem bulrush
36	5%	Rootstock/plug	Sparganium eurycarpum	Giant Burreed
36	5%	Plug	Vernonia noveboracensis	New York Ironweed
720 TOTAL PLANTS				

*All species to be planted 3' o.c. (0.13 X Area = required Plant quantity)



TREE PROTECTION
NOT TO SCALE

NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
3. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
4. SEE SITE PREPARATION PLAN FOR ANY MODIFICATIONS WITH THE TREE PROTECTION AREA.

EXISTING TREE PROTECTION SPECIFICATIONS:

DEVELOPER/CONTRACTOR SHALL EXERCISE CARE TO PROTECT TREES TO REMAIN DURING CONSTRUCTION FROM DAMAGE. THE FOLLOWING PROCEDURES SHALL BE ADHERED TO IN ORDER TO PRESERVE/PROTECT THE REMAINING TREES AS NOTED ON THE APPROVED PLANS. ALL REMEDIAL WORK SHALL BE PERFORMED BY QUALIFIED PERSONNEL.

1. CONTRACTORS WILL BE MADE AWARE ABOUT PROTECTING TREES DURING PRECONSTRUCTION MEETINGS AND SITE VISITS.
2. ALL TREES SCHEDULED TO REMAIN SHALL BE CLEARLY IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING OR CLEARING. WHERE GROUPS OF TREES EXIST, ONLY THE TREES ON THE EDGE NEED TO BE MARKED
3. ALL EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY TREE PROTECTION FENCING PER THE TOWNSHIP'S ORDINANCE. ALL FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY, OR 15 FEET FROM THE TRUNK OF THE TREE TO BE RETAINED, WHICHEVER IS GREATER. AT THE SPECIFIC LOCATION DETERMINED APPROPRIATE BY THE LANDSCAPE ARCHITECT OR TOWNSHIP ARBORIST. ALL EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREE-LINE SHALL BE PRUNED AND TRIMMED TO REMOVE DEAD OR DAMAGED BRANCHES.
4. THOSE TREES WHICH HAVE BEEN DELINEATED ON THE PLAN AND ARE WITHIN 25 FEET OF A PROPOSED BUILDING EXCAVATION OR OTHER LOCATIONS DEEMED APPROPRIATE BY UNION TOWNSHIP ENGINEER SHALL BE PROTECTED BY INSTALLING AND MAINTAINING A FENCE TO THE DRIP LINE.
5. WHEN THE FENCING HAS BEEN INSTALLED, PER THE DETAILS ON THE APPROVED PLAN, IT SHALL BE INSPECTED AND APPROVED BY THE TOWNSHIP PRIOR TO COMMENCING WITH CLEARING, GRADING AND FURTHER CONSTRUCTION. THE FENCING ALONG THE PROTECTION AREA SHALL BE MAINTAINED UNTIL ALL WORK AND CONSTRUCTION HAS BEEN COMPLETED AND APPROVED BY THE TOWNSHIP AUTHORITIES. ANY DAMAGES TO THE PROTECTIVE FENCING SHALL BE REPLACED AND REPAIRED BEFORE FURTHER CONSTRUCTION SHALL CONTINUE.
6. SIGNAGE TO "KEEP OUT OF TREE PROTECTION AREA", TO BE PLACED EVERY 50' OF THE TREE PROTECTION FENCE AND ON AREAS TO REMAIN UNDISTURBED TO DENOTE THESE AREAS AS PROTECTED AND TO REMIND WORKERS AND ANYONE ON SITE, TO STAY OUT OF THE TREE PROTECTION AREAS AND ZONES.
7. NO BOARDS OR OTHER MATERIAL SHALL BE NAILED TO TREES DURING CONSTRUCTION.
8. TREES SHALL NOT BE USED FOR ROPING, CABLES, SIGNS OR FENCING. NAILS AND SPIKES SHALL NOT BE DRIVEN INTO TREES.
9. HEAVY EQUIPMENT OPERATORS SHALL AVOID DAMAGING EXISTING TREE TRUNKS AND ROOTS. FEEDER ROOTS SHALL NOT BE CUT CLOSER THAN 25 FEET FROM TREE TRUNKS.
10. TREES BEING REMOVED SHALL NOT BE FELLED, PUSHED OR PULLED INTO A TREE PROTECTION AREA OR INTO TREES THAT ARE TO BE RETAINED.
11. GRADE CHANGES AND EXCAVATIONS SHALL NOT ENCROACH UPON THE TREE PROTECTION AREA. IF NECESSARY, KEEP DEPTH CHANGES TO A MAXIMUM OF 3"
12. NO TOXIC MATERIALS SHALL BE STORED WITHIN ONE HUNDRED (100) FEET OF A TREE PROTECTION AREA INCLUDING PETROLEUM BASED AND/OR DERIVED PRODUCTS.
13. THE AREA WITHIN THE TREE PROTECTION AREA SHALL NOT BE BUILT UPON NOR SHALL ANY MATERIALS BE STORED THERE EITHER TEMPORARILY OR PERMANENTLY. VEHICLES AND EQUIPMENT SHALL NOT BE PARKED IN THE TREE PROTECTION AREA.
14. IF SOIL EXCAVATION IS TO OCCUR WITHIN THE TREE PROTECTION ZONE, TRY TO CLEAR AROUND LARGER ROOTS BY HAND AND LEAVE AS MANY INTACT AS POSSIBLE. IDEALLY, USE AN AIR-SPADE™ OR SIMILAR EQUIPMENT TO REMOVE SOIL FROM AROUND THE ROOTS, AS AN ALTERNATIVE TO EXCAVATING WITH POWERED EQUIPMENT OR HAND DIGGING. IF ROOTS MUST BE EXPOSED TO THE AIR, THEY SHOULD BE KEPT MOIST BY INSTALLING AND USING TEMPORARY IRRIGATION OR MIST SYSTEM WHILE SITE CONSTRUCTION IS UNDERWAY AND UNTIL THE EXPOSED ROOTS CAN BE RECOVERED WITH SOIL.
15. ANY SEVERED ROOTS AS A RESULT OF EXCAVATION SHALL BE TRIMMED SO THAT THEIR EDGES ARE SMOOTH AND CUTBACK TO A LATERAL ROOT IF EXPOSED.
16. ROOT PRUNING SHOULD NOT BE DONE ON MORE THAN ONE "SIDE" OF THE ROOT SYSTEM IN A GIVEN YEAR. DELAY ADDITIONAL PRUNING FOR AT LEAST TWO YEARS FOLLOWING INITIAL PRUNING. OPTIMUM TIMING IS AUTUMN.
17. A CERTIFIED ARBORIST WILL PERFORM ANY ROOT PRUNING, AND AIR SPADING IF NEEDED.
18. TREE TRUNKS AND EXPOSED ROOTS DAMAGED DURING CONSTRUCTION SHALL BE PROTECTED FROM FURTHER DAMAGE. DAMAGED BRANCHES SHALL BE PRUNED ACCORDING TO NATIONAL ARBORIST ASSOCIATION STANDARDS. ALL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LIMB BUT WITHOUT CUTTING INTO THE BRANCH COLLAR OR LEAVING A PROTRUDING STUB. ALL NECESSARY PRUNING CUTS MUST BE MADE TO PREVENT BARK FROM BEING TORN FROM THE TREE AND TO FACILITATE RAPID HEALING.
19. WHEN TREE STUMPS ARE LOCATED WITHIN TEN (10) FEET OF THE TREE PROTECTION AREA, THE STUMPS SHALL BE REMOVED BY MEANS OF A STUMP GRINDER TO MINIMIZE THE EFFECT ON THE SURROUNDING ROOT SYSTEMS.
20. TREE LIMBS THAT HAVE BEEN DAMAGED, BROKEN OR TORN OFF DURING CONSTRUCTION SHOULD BE PRUNED ACCORDING TO RECOGNIZED STANDARDS BY A QUALIFIED ARBORIST. IF A TREE TRUNK OR BUTT HAS BEEN DAMAGED, THE WOUND CAN BE TREATED BY REMOVING DEAD AND INJURED BARK FROM AROUND THE WOUND WITH A SHARP KNIFE. CUT THE LOOSE BARK AWAY FROM THE WOUND TO FORM A CLEAN, SMOOTH SURFACE OF HEALTHY WOOD AND BARK. TAKE CARE NOT TO DAMAGE HEALTHY TISSUE AND DO NOT WIDEN THE WOUND ANY MORE THAN NECESSARY TO REMOVE DAMAGED BARK. TREE WOUND DRESSING DOES NOT STOP DECAY AND SHOULD NEVER BE USED ON ROOT, LIMB, OR TRUNK WOUNDS.
21. ALL TREES WHICH HAVE BEEN DISTURBED OR HAVE EXPERIENCED DAMAGE TO THEIR ROOTS OR BRANCHES SHALL BE FERTILIZED. TREES SHALL BE FERTILIZED IN EARLY FALL OR MID-SPRING. FERTILIZER GRADE SHALL HAVE APPROXIMATELY THREE (3) PARTS NITROGEN TO ONE (1) PART PHOSPHOROUS AND ONE (1) PART POTASSIUM [RATIO OF 3:1:1]. FERTILIZER SHALL BE BROADCAST OVER THE SOIL SURFACE IN AN AREA TWICE THE SIZE OF THE TREE PROTECTION AREA AT A RATE OF ONE (1) POUND OF FERTILIZER PER ONE THOUSAND (1000) SQUARE FEET.
22. IRRIGATION-DURING PERIODS OF HOT WEATHER AND LITTLE RAIN, IRRIGATION CAN BE USED ALONE OR IN COMBINATION WITH FERTILIZING TO IMPROVE THE HEALTH OF A TREE THAT HAS BEEN HEAVILY DAMAGED BY SOIL COMPACTION OR ROOT REMOVAL. IN THE NORTHEASTERN UNITED STATES, A THOROUGH SOAKING BY RAIN EVERY TWO WEEKS DURING THE GROWING SEASON IS MORE THAN ADEQUATE TO MEET THE NEEDS OF INJURED TREES. IRRIGATION IS NOT NECESSARY WHEN RAINFALL IS ADEQUATE.
23. TRENCHING AND ROOT PRUNING SHALL NOT TAKE PLACE WITHIN THE FENCED AREA AT THE TREE DRIP LINE.
24. WHEN THERE IS NO ALTERNATIVE BUT TO LOCATE AN ELECTRICAL OR OTHER SMALL UTILITY LINE WITHIN A TREE PROTECTION AREA, THE TOWNSHIP SHALL DETERMINE THE MOST DESIRABLE LOCATION FOR THE LINE AND THE FOLLOWING GUIDELINES AND PRECAUTIONS SHALL BE USED:
    a. TRENCHES SHALL BE NO CLOSER TO THE TRUNK THAN HALF THE DISTANCE FROM THE DRIP LINE
    b. WHERE POSSIBLE TRENCHES SHOULD BYPASS THE ROOT AREA.
    c. CUT AS FEW ROOTS AS POSSIBLE
    d. IF ROOTS HAVE TO BE CUT, CUT THEM AS CLEANLY AS POSSIBLE
    e. BACKFILL THE TRENCH AS SOON AS POSSIBLE, AVOIDING SOIL COMPACTION
25. WHERE EXISTING GROUND LEVELS ARE RAISED, DRAINAGE TILE WILL BE PLACED AT THE OLD SOIL LEVEL AND OPEN INTO A WELL BUILT AROUND THE BASE OF THE TREE. SUCH WELLS MAY BE LEFT OPEN OR CAN BE FILLED WITH COARSE STONES OR GRAVEL. TILES MAY BE INSTALLED IN A RADIATING PATTERN OR LAID IN PARALLEL LINES. WHERE EXISTING GROUND LEVELS ARE TO BE LOWERED, A RETAINING WALL MUST BUILT AROUND THE TREE.
26. THE OPERATION OF HEAVY EQUIPMENT OVER ROOT SYSTEMS OF SUCH TREES SHALL BE MINIMIZED IN ORDER TO PREVENT SOIL COMPACTION. THE USE OF GEOTEXTILES, MULCH OR STRAW, IS REQUIRED TO PROTECT ROOTS FROM COMPACTION WHEN MACHINERY CANNOT AVOID PASSING UNDER TREES,
27. CONSTRUCTION DEBRIS SHALL NOT BE DISPOSED OF NEAR OR AROUND THE BASES OF SUCH TREES.

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Van Cleef ENGINEERING WITH FOCUS
Bridges/Highways · Construction Inspection · Environmental · Geotechnical/Dams · Landscape Architecture
Local/Regional Planning · Municipal Engineering · Site Development · Surveying/Aerial Drones/GIS · Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

LANDSCAPE DETAILS

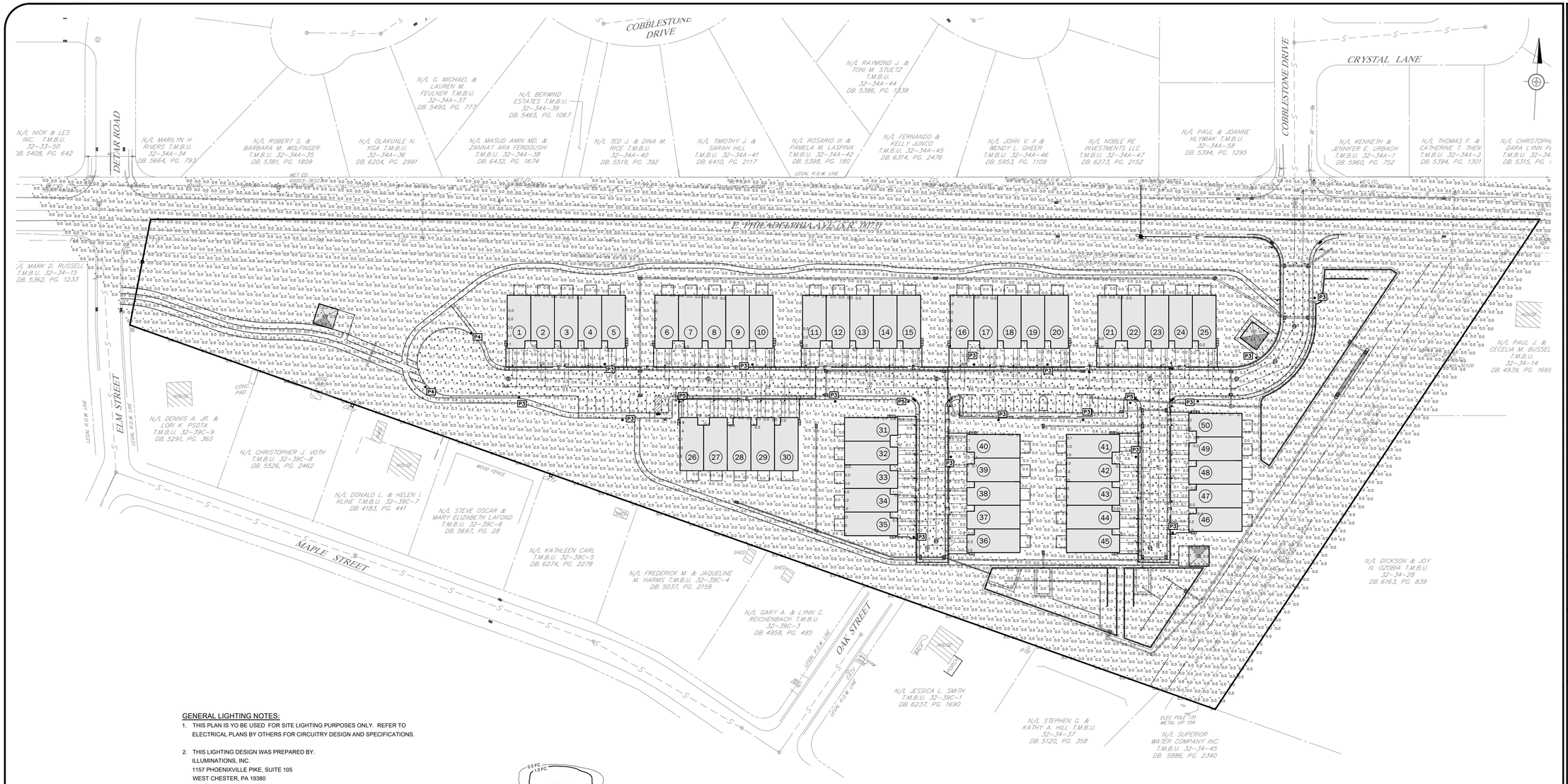
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

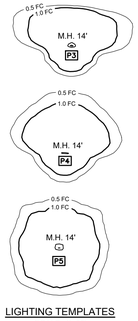
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



SEE SHEET 23 FOR LIGHTING DETAILS & SPECIFICATIONS

GENERAL LIGHTING NOTES:

1. THIS PLAN IS YO BE USED FOR SITE LIGHTING PURPOSES ONLY. REFER TO ELECTRICAL PLANS BY OTHERS FOR CIRCUITRY DESIGN AND SPECIFICATIONS.
2. THIS LIGHTING DESIGN WAS PREPARED BY.
   ILLUMINATIONS, INC.
   1157 PHOENIXVILLE PIKE, SUITE 105
   WEST CHESTER, PA 19380
   610-325-2220
3. THE DESIGN MEETS THE REQUIREMENT THAT THE SOURCE OF ILLUMINATION IS NOT VISIBLE FROM OFF THE PREMISES (EXCEPT REQUIRED STREET LIGHTS).
4. POST-APPROVAL ALTERATIONS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL.
5. THE TOWNSHIP RESERVES THE RIGHT TO CONDUCT POST-INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION AND AS OTHERWISE AGREED UPON BY THE TOWNSHIP AND, IF APPROPRIATE, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE TOWNSHIP.
6. ALL EXTERIOR LIGHTING, INCLUDING BUILDING-MOUNTED LIGHTING, SHALL MEET IESNA FULL CUT-OFF OR FULLY-SHIELDED CRITERIA.
7. THE INSTALLER SHALL NOTIFY THE PROPER MUNICIPAL OFFICIAL TO ARRANGE FOR - INSPECTION AND APPROVAL OF ALL EXTERIOR LIGHTING EQUIPMENT, INCLUDING BUILDING-MOUNTED LIGHTING, PRIOR TO ITS INSTALLATION.



LIGHTING TEMPLATES
SCALE: 1"=60'

Lighting Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
ROAD_A	+	1.2 fc	3.0 fc	0.3 fc	10.0:1	4.0:1
ROAD_B	+	1.2 fc	2.7 fc	0.4 fc	6.8:1	3.0:1
ROAD_C	+	1.1 fc	2.6 fc	0.3 fc	8.7:1	3.7:1
SITE	+	0.2 fc	3.0 fc	0.0 fc	N/A	N/A

Lighting Schedule

Label	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage	Mounting Height
P3	16	Cyclone Lighting	HUDT4A-FGC-T3MHS-P50-30K	Hudson Post Top	Orion	1	5197	0.9	66.7	14 feet
P4	2	Cyclone	HUDT4A-FGC-T4-P50-30K	Hudson Post Top	Orion	1	5802	0.9	63.5	14 feet
P5	3	Cyclone	HUDT4A-FGC-T5-P50-30K	Hudson Post Top	Orion	1	6117	0.9	63.5	14 feet

MAP LEGEND - EXISTING FEATURES

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROP. LINE
- EASEMENT LINE
- CHAIN LINK FENCE LINE
- TREE LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE — W
- SANITARY MAIN LINE — S
- SANITARY FORCE MAIN — FM
- WATERWAY CENTERLINE
- OVERHEAD ELECTRIC — OHW
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE — WV
- WATER SHUTOFF
- GAS VALVE
- UTILITY POLE / GUY
- LIGHT POLE
- ELECTRIC METER/BOX
- STREET/TRAFFIC SIGN
- WATERS OF THE US

MAP LEGEND - PROPOSED FEATURES

- SPLIT RAIL FENCE LINE
- TREE LINE
- EDGE OF PAVEMENT
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE — W
- SANITARY MAIN LINE — S
- WATER LATERAL — WL
- SANITARY LATERAL — SL
- UNDERGROUND ELECTRIC — E
- DRAINAGE INLET (C-TOP/M-TOP) — DI / DI
- DRAINAGE MANHOLE — D
- DRAINAGE ENDWALL
- SANITARY MANHOLE — S
- WATER MANHOLE — W
- FIRE HYDRANT
- WATER VALVE — WV
- WATER SHUTOFF
- GAS VALVE — G
- UTILITY POLE / GUY
- ELECTRIC METER — E
- LIGHT POLE
- STREET/TRAFFIC SIGN
- STRAIGHT TEXT DENOTES PROPOSED FEATURES

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Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV | DESCRIPTION | AUTH | DATE

SERIAL NO. 20262020213

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GRAPHIC SCALE
0 30 60 120
1 INCH = 60 FT

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WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

LIGHTING PLAN

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
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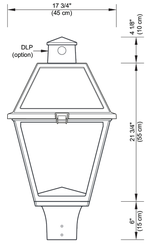
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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cyclone

Hudson HUDT4A
Approval – Specification

Project: **Order:**
Qty: **Luminaire:** HUDT4A **Type:**



EPA: 1.44 ft² **Weight:** 29.3 lbs / 13.3 kg

Roof module: Square shaped classic lantern style housing made from die cast A360 aluminum. The roof module is mechanical assembled to the cage module by two hinges, and a latch that allows tool-free access to the driver.

Cage module: The die cast A360 aluminum cage module is mechanically assembled to the base module for easy replacement. The luminaire is without a lens or with a flat lens attached to the optical module.

Base module: The pole-top fitter is self-leveling and retained using set screws. It slip fits on a 4˝ (10cm) outside diameter x 3˝ (7cm) long tenon. The top of the fitter is square and is screwed to the bottom of the cage module, and is closed by a mechanically-attached cover. Once removed the cover gives access to the connections.

Optical module: The die cast A380 aluminum heat sink is designed to minimize the temperature of the LEDs, increasing their longevity and efficiency. The optical module is mechanically assembled to the heat-sink for easy replacement. The optical module is sealed with a molded silicone gasket, achieving an IP66 weatherproof protection. The high efficiency Orion LED optical engine is mechanically assembled on the heat sink. The lifetime of the LEDs is 100,000 hours. It is based on the LM-80 test and extrapolated with TM-21. This data is calculated when 50% of the LEDs produce 70% of their initial luminous flux (L70). The minimum color rendering index (CRI) is 70. The optical acrylic lenses are sealed on the LED board and are designed to illuminate only where needed while achieving excellent uniformity with maximum spacing. The available light distribution types are T1, T1A, T1AHS, T2, T2HS, T2M, T2MHS, T3, T3HS, T3M, T3MHS, T4, T4HS, T5. A white decorative acrylic protection plate is mechanically assembled under the optical module. The combination of two distribution types (backward optics) is also available in the same optical module as well as the integration of crosswalk optics (TCWR and TCWL) for pedestrian crossing.

Driver module: Class 1 (P70 and P80) or Class 2 (P10 to P60). Primary tension is of 120 to 480VAC Volts, 50/60Hz, THD max 20% with a high-power factor of 90%. Operating temperature is -40°F (-40°C) to 131°F (55°C). The regulator offers an output of 0-10 Volts and is ROHS compliant. Assembled with pull-out connectors. Complete with 10kV/5kA or 20kV/10kA tripolar surge protection for live-MALT, live-neutral and neutral-MALT lines according to IEEE/ANSI C62.41 2002 C.

Wiring / Hardware: Type TEWT 14-7 AWG, 12˝ (30.5cm) minimum exceeding luminaire. All electrical connections between the modules are provided with quick-disconnect connectors for easy maintenance. All outside accessible hardware is made of 304 stainless steel.

Color: All Cyclone colors are available in textured (TX) or smooth (SM) finish, unless otherwise specified. A durable polyester powder coating is applied and meets the AAMA 2604 requirements (5 years exposure to all weather conditions). The finish meets the ASTM G7, B117, D1654 and D2247 requirements relative to salt spray and humidity resistance. **Cyclone recommends a textured finish for this product**.

cULus: According to standard C22.2 / UL1598

Warranty: 5-year limited warranty. Complete warranty terms located at: www.cyclonelighting.com/assets/Legal/Cyclone-Sales-TermsConditions-en.pdf

Stamp/Approval:
Name: **Date:**

Name: **Date:**

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Hudson HUDT4A
Approval – Specification

Project: **Order:**
Qty: **Luminaire:** HUDT4A **Type:**

Ordering Code

Model	Lens	Distribution	Performance Package[3]	CCT	Volts	Surge Protector
HUDT4A						
HUDT4A	**FGC** Flat Glass Clear **NL** No Lens	**T1** Type 1 **T1A** Type 1A **T1AHS** Type 1A with HS **T2** Type 2 **T2HS** Type 2 with HS **T2M** Type 2M **T2MHS** Type 2M with HS **T3** Type 3 **T3HS** Type 3 with HS **T3M** Type 3M **T3MHS** Type 3M with HS **T4** Type 4 **T4HS** Type 4 with HS **T5** Type 5 **TCWR**[1] Crosswalk right **TCWL**[1] Crosswalk left BACKWARD OPTICS[1]	**P10** (2800lm) **P20** (4400lm) **P30** (5200lm) **P40** (6300lm) **P50** (7300lm) **P60** (9600lm) **P70** (12200lm) **P80** (13800lm)	**30K** 3000K **40K** 4000K	**MVOLT** 120-277/VAC **HVOLT** 347-480/VAC **120** **208** **240** **277** **347** **480**	**10KV** 10kV/5kA **20KV** 20kV/10kA

Reducer	Photocell	Dimming	Color	Texture	Pre-finish
- Fits Ø 4˝ (10cm) X 3˝ (7.5cm) long tenon **R28** Reducer Ø 4˝ (10cm) Ø to2 7/8˝ (7cm) Ø x 3˝ (7.5cm) long tenon **R30** Reducer Ø 4˝ (10cm) Ø to 3˝ (7.5cm) Ø x 3˝ (7.5cm) long tenon	**-** **PC** Button-type photocell **PT** Photocell WIT-PIN receptacle (ANSI C136.41) **PX** Shorting cap WIT-PIN receptacle (ANSI C136.41) **PTL** Long life photocell WIT-PIN receptacle (ANSI C136.41) **PTDR** 7-PIN receptacle (ANSI C136.41) **DLP** Cast -Aluminum cover available only with photocell or 7-pin receptacle (ANSI C136.41)	**-** **PND506**[4] Program 50% for 6 hours (1/3PM to 5AM) **PND508**[4] Program 50% for 8 hours (5PM to 5AM) **SD**[4] Field adjustable 10% increment step-dimming switch	**BK** Black RAL9005 **DG** Dark green RAL6012 **MA** Marine blue RAL5013 **SI** Metallic silver RAL9006 (smooth only) **BZ** Dark bronze RAL8019 **BG** Burgundy RAL3005 **GM** Moss green RAL6005 **PG** Pale grey RAL7040 **WH** White RAL9003 **SG**[5] Steel Gray **BKH**[6] Black Holophane **SZH**[6] Dark bronze Holophane **GNH**[6] Green Holophane **GHH**[6] Graphite Holophane **GRH**[6] Gray Holophane **SLH**[6] Silver Holophane **WHH**[6] White Holophane	**TX** Textured **SM** Smooth **SX**[7] Textured, matt (Sandtex)	**-** **MG** Marine-grade pre-finish

1 - Available only with a clear flat glass lens (FGC) or with the no lens (NL) option.
2 - Backward optic: The Orion light engine features 180° orientable optics that can be customized as needed. This makes it a simple matter to combine two distribution types in a single light engine, simultaneously lighting a road and a bike path or sidewalk, for instance. Contact factory for more information.
3 - Values shown represent the maximum lumen output, which may vary depending on the selected configuration or options.
4 - Only one of the following options may be selected: SD, PND506, or PND508. These options cannot be combined.
5 - Available in SX finish only
6 - Holophane colors are only available in Smooth (SM) finish
7 - SX finish only available with SD color.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice. Please consult our web site for up-to-date product information and IES files.



EPA: 1.44 ft² **Weight:** 29.3 lbs / 13.3 kg

Stamp/Approval:
Name: **Date:**

Name: **Date:**

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Photometric Data Tables
Hudson - HUDT4A-NL (Post Top - No Lens)

Performance Package	Watts System	Optic	30K Lumen Output	30K Efficacy (LM/W)	30K B	30K U	30K G	Optic	40K Lumen Output	40K Efficacy (LM/W)	40K B	40K U	40K G	LLD @ 25C 25K Hours	LLD @ 25C 50K Hours	LLD @ 25C 75K Hours	LLD @ 25C 100K Hours
P10	22.6	T1	2614	115	1	0	1	T1	2745	120	1	0	1	0.99	0.98	0.98	0.98
		T1A	2586	114	1	0	1	T1A	2716	119	1	0	1				
		T2	2590	114	1	0	1	T2	2721	119	1	0	1				
		T2M	2659	118	1	0	1	T2M	2814	124	1	0	1				
		T3	2618	115	1	0	1	T3	2749	121	1	0	1				
		T3M	2638	115	1	0	1	T3M	2760	121	1	0	1				
		T4	2717	119	1	0	1	T4	2853	125	1	0	1				
		T5	2844	125	2	0	1	T5	2986	131	2	0	1				
		TCWL	3360	141	1	0	0	TCWR	3360	141	1	0	0				
P20	33.4	T1	3737	112	2	0	2	T1	3924	117	2	0	2	0.99	0.98	0.98	0.98
		T1A	3697	111	1	0	1	T1A	3882	116	1	0	1				
		T2	3702	111	1	0	1	T2	3888	116	1	0	1				
		T2M	3859	116	1	0	1	T2M	4052	121	1	0	1				
		T3	3742	112	1	0	1	T3	3929	118	1	0	1				
		T3M	3767	112	1	0	1	T3M	3945	118	1	0	1				
		T4	3884	116	1	0	1	T4	4078	122	1	0	1				
		T5	4066	122	2	0	1	T5	4269	128	2	0	1				
		TCWL	4781	126	1	0	1	TCWR	4781	126	1	0	1				
P30	43.8	T1	4819	110	2	0	2	T1	5060	116	2	0	2	0.99	0.98	0.98	0.98
		T1A	4769	109	1	0	1	T1A	5007	114	1	0	1				
		T2	4775	109	1	0	1	T2	5014	114	1	0	1				
		T2M	4977	114	1	0	1	T2M	5226	119	1	0	1				
		T3	4826	110	1	0	1	T3	5068	116	1	0	1				
		T3M	4846	111	2	0	1	T3M	5086	116	2	0	1				
		T4	5009	114	1	0	2	T4	5260	120	1	0	2				
		T5	5243	120	3	0	1	T5	5506	126	3	0	1				
		TCWL	6160	134	1	0	0	TCWR	6160	134	1	0	0				
P40	55.1	T1	5861	106	2	0	2	T1	6154	112	2	0	2	0.97	0.97	0.96	0.95
		T1A	5799	105	2	0	2	T1A	6089	111	2	0	2				
		T2	5807	105	1	0	1	T2	6098	111	1	0	1				
		T2M	6053	110	1	0	1	T2M	6356	116	1	0	1				
		T3	5870	107	1	0	1	T3	6163	112	1	0	1				
		T3M	5893	107	2	0	2	T3M	6188	112	2	0	2				
		T4	6092	111	1	0	2	T4	6397	116	1	0	2				
		T5	6377	116	3	0	2	T5	6696	122	3	0	2				
		TCWL	7437	135	1	0	1	TCWR	7437	135	1	0	1				
P50	63.5	T1	6883	105	2	0	2	T1	7020	111	2	0	2	0.97	0.97	0.96	0.95
		T1A	6615	104	2	0	2	T1A	6945	109	2	0	2				
		T2	6624	104	1	0	1	T2	6955	110	1	0	2				
		T2M	6904	109	2	0	1	T2M	7249	114	2	0	1				
		T3	6695	105	1	0	2	T3	7030	111	1	0	2				
		T3M	6722	106	2	0	2	T3M	7058	111	2	0	2				
		T4	6949	109	1	0	2	T4	7298	115	1	0	2				
		T5	7274	115	3	0	1	T5	7637	120	3	0	1				
		TCWL	8747	131	2	0	1	TCWR	8747	131	2	0	1				
P60	85.3	T1	8926	105	3	0	3	T1	9372	110	3	0	3	0.97	0.97	0.96	0.95
		T1A	8832	104	2	0	2	T1A	9273	109	2	0	2				
		T2	8844	104	2	0	2	T2	9286	109	2	0	2				
		T2M	9218	108	2	0	2	T2M	9679	113	2	0	2				
		T3	8939	105	2	0	2	T3	9386	110	2	0	2				
		T3M	8974	105	2	0	2	T3M	9423	110	2	0	2				
		T4	9278	109	2	0	2	T4	9741	114	2	0	2				
		T5	9711	114	3	0	2	T5	10197	120	3	0	2				
		TCWL	10735	124	2	0	1	TCWR	10735	124	2	0	1				
P70	110.9	T1	11619	105	3	0	3	T1	12200	110	3	0	3	0.97	0.97	0.96	0.95
		T1A	11497	104	3	0	3	T1A	12071	109	3	0	3				
		T2	11512	104	2	0	2	T2	12088	109	2	0	2				
		T2M	11999	108	2	0	2	T2M	12599	114	2	0	2				
		T3	11636	105	2	0	2	T3	12218	110	2	0	2				
		T3M	11682	105	3	0	3	T3M	12266	111	3	0	3				
		T4	12077	109	2	0	2	T4	12681	114	2	0	2				
		T5	12642	114	4	0	2	T5	13274	120	4	0	2				
		TCWL	13147	101	3	0	3	TCWR	13600	106	3	0	3				
P80	129.7	T1A	13009	100	3	0	3	T1A	13659	105	3	0	3	0.97	0.97	0.96	0.95
		T2	13026	100	2	0	2	T2	13677	105	2	0	2				
		T2M	13577	105	2	0	2	T2M	14256	110	2	0	2				
		T3	13166	102	2	0	2	T3	13828	107	2	0	2				
		T3M	13219	102	3	0	3	T3M	13880	107	3	0	3				
		T4	13666	105	2	0	3	T4	14348	111	2	0	3				
		T5	14304	110	4	0	2	T5	15019	116	4	0	2				

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Lumen ratio for different CCT

PC Amber	2200K	2700K	3000K	4000K	5000K
0.6	0.75	0.95	0.95	1.00	1.00

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Photometric Data Tables
Hudson - HUDT4A-FGC (Post Top - Flat Glass Clear)

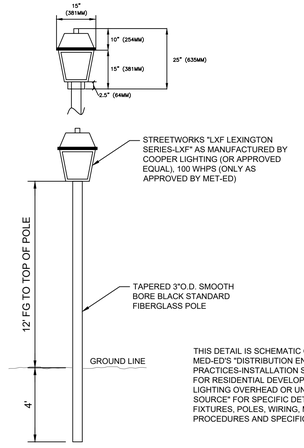
Performance Package	Watts System	Optic	30K Lumen Output	30K Efficacy (LM/W)	30K B	30K U	30K G	Optic	40K Lumen Output	40K Efficacy (LM/W)	40K B	40K U	40K G	LLD @ 25C 25K Hours	LLD @ 25C 50K Hours	LLD @ 25C 75K Hours	LLD @ 25C 100K Hours
P10	22.8	T1	2379	104	1	0	1	T1	2498	110	1	0	1	0.99	0.98	0.98	0.98
		T1A	2333	102	1	0	1	T1A	2450	107	1	0	1				
		T2	2318	102	1	0	1	T2	2437	106	1	0	1				
		T2M	2515	110	1	0	1	T2M	2644	116	1	0	1				
		T3	2375	100	1	0	1	T3	2389	105	1	0	1				
		T3M	2293	101	1	0	1	T3M	2407	106	1	0	1				
		T4	2368	99	1	0	1	T4	2381	104	1	0	1				
		T5	2397	105	1	0	1	T5	2511	110	1	0	1				
		TCWL	3186	133	1	0	0	TCWR	3186	133	1	0	0				
P20	33.4	T1	3460	102	1	0	1	T1	3572	107	1	0	1	0.99	0.98	0.98	0.98
		T1A	3335	100	1	0	1	T1A	3502	105	1	0	1				
		T2	3304	99	1	0	1	T2	3470	104	1	0	1				
		T2M	3602	108	1	0	1	T2M	3780	113	1	0	1				
		T3	3253	97	1	0	1	T3	3415	102	1	0	1				
		T3M	3278	98	1	0	1	T3M	3442	103	1	0	1				
		T4	3242	97	1	0	1	T4	3404	102	1	0	1				
		T5	3419	102	2	0	1	T5	3589	107	2	0	1				
		TCWR	4534	132	1	0	0	TCWR	4534	132	1	0	0				
P30	43.8	T1	4387	100	2	0	2	T1	4606	105	2	0	2	0.99	0.98	0.98	0.98
		T1A	4301	98	1	0	1	T1A	4516	103	1	0	1				
		T2	4261	97	1	0	1	T2	4475	102	1	0	1				
		T2M	4643	106	1	0	1	T2M	4875	111	1	0	1				
		T3	4195	96	1	0	1	T3	4405	101	1	0	1				
		T3M	4227	97	1	0	1	T3M	4439	101	1	0	1				
		T4	4181	95	1	0	1	T4	4390	100	1	0	1				
		T5	4409	101	2	0	1	T5	4629	106	2	0	1				
		TCWR	5843	127	1	0	0	TCWR	5843	127	1	0	0				
P40	55.1	T1	5335	97	2	0	2	T1	5602	102	2	0	2	0.97	0.97	0.96	0.95
		T1A	5231	95	2	0	1	T1A	5493	100	2	0	1				
		T2	5183	94	1	0	1	T2	5442	99	1	0	1				
		T2M	5647	102	1	0	1	T2M	5929	108	1	0	1				
		T3	5102	93	1	0	1	T3	5357	97	1	0	1				
		T3M	5141	93	1	0	1	T3M	5398	98	1	0	1				
		T4	5085	92	1	0	2	T4	5340	97	1	0	2				
		T5	5362	97	3	0	1	T5	5630	102	3	0	1				
		TCWL	7053	128	1	0	1	TCWR	7053	128	1	0	1				
P50	63.5	T1	6085	96	2	0	2	T1	6390	101	2	0	2	0.97	0.97	0.96	0.95
		T1A	5966	94	2	0	2	T1A	6265	99	2	0	2				
		T2	5911	93	1	0	1	T2	6207	98	1	0	1				
		T2M	6441	101	2	0	1	T2M	6763	107	2	0	1				
		T3	5819	92	1	0	1	T3	6110	96	1	0	1				
		T3M	5864	92	2	0	1	T3M	6157	97	2	0	1				
		T4	5800	91	1	0	2	T4	6090	96	1	0	2				
		T5	6116	96	3	0	1	T5	6421	101	3	0	1				
		TCWL	8286	124	2	0	1	TCWR	8286	124	2	0	1				
P60	85.3	T1	8125	95	2	0	2	T1	8531	100	2	0	2	0.97	0.97	0.96	0.95
		T1A	7966	93	2	0	2	T1A	8364	98	2	0	2				
		T2	7893	93	1	0	1	T2	8287	97	1	0	1				
		T2M	8600	101	2	0	2	T2M	9030	106	2	0	2				
		T3	7769	91	1	0	2	T3	8158	96	1	0	2				
		T3M	7829	92	2	0	2	T3M	8221	96	2	0	2				
		T4	7744	91	1	0	2	T4	8132	95	1	0	2				
		T5	8165	96	3	0	1	T5	8574	101	3	0	1				
		TCWL	10181	117	2	0	1	TCWR	10181	117	2	0	1				
P70	110.9	T1	10877	95	3	0	3	T1	11105	100	3	0	3	0.97	0.97	0.96	0.95
		T1A	10370	94	2	0	2	T1A	10888	98	2	0	2				
		T2	10274	93	2	0	2	T2	10788	97	2	0	2				
		T2M	11194	101	2	0	2	T2M	11754	106	2	0	2				
		T3	10114	91	2	0	2	T3	10619	96	2	0	2				
		T3M	10192	92	2	0	2	T3M	10701	96	2	0	2				
		T4	10081	91	2	0	2	T4	10585	95	2	0	2				
		T5	10629	96	3	0	2	T5	11161	101	3	0	2				
		TCWL	11968	92	3	0	3	T1	12986	97	3	0	3				
P80	129.7	T1A	11734	90	3	0	3	T1A	12320	95	3	0	3	0.97	0.97	0.96	0.95
		T2	11625	90	2	0	2	T2	12207	94	2	0	2				
		T2M	12966	98	2	0	2	T2M	13299	103	2	0	3				
		T3	11444	88	2	0	2	T3	12016	93	2	0	2				
		T3M	11532	89	2	0	2	T3M	12108	93	2	0	2				
		T4	11407	88	2	0	2	T4	11977	92	2	0	2				
		T5	12207	93	3	0	1	T5	12628	97	3	0	1				

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Lumen ratio for different CCT

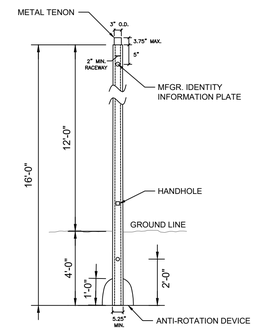
PC Amber	2200K	2700K	3000K	4000K	5000K
0.6	0.75	0.95	0.95	1.00	1.00

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THIS DETAIL IS SCHEMATIC ONLY. REFER TO MED-ED'S "DISTRIBUTION ENGINEERING PRACTICES-INSTALLATION SPECIFICATION FOR RESIDENTIAL DEVELOPMENT STREET LIGHTING OVERHEAD OR UNDERGROUND SOURCE" FOR SPECIFIC DETAILS FOR FIXTURES, POLES, WIRING, MOUNTING AND PROCEDURES AND SPECIFICATIONS.

STREET LIGHT DETAIL
NOT TO SCALE



SMOOTH BLACK FIBERGLASS POLE 16' POST TOP EMBEDDED BASE APPROVED STANDARD
NOT TO SCALE

Van Cleef ENGINEERING WITH FOCUS
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In . . . PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before any excavation
STOP! CALL 1-800-242-1776 TOLL FREE
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 40 80 160
1 INCH = 80 FT

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

LIGHTING DETAILS

FOR

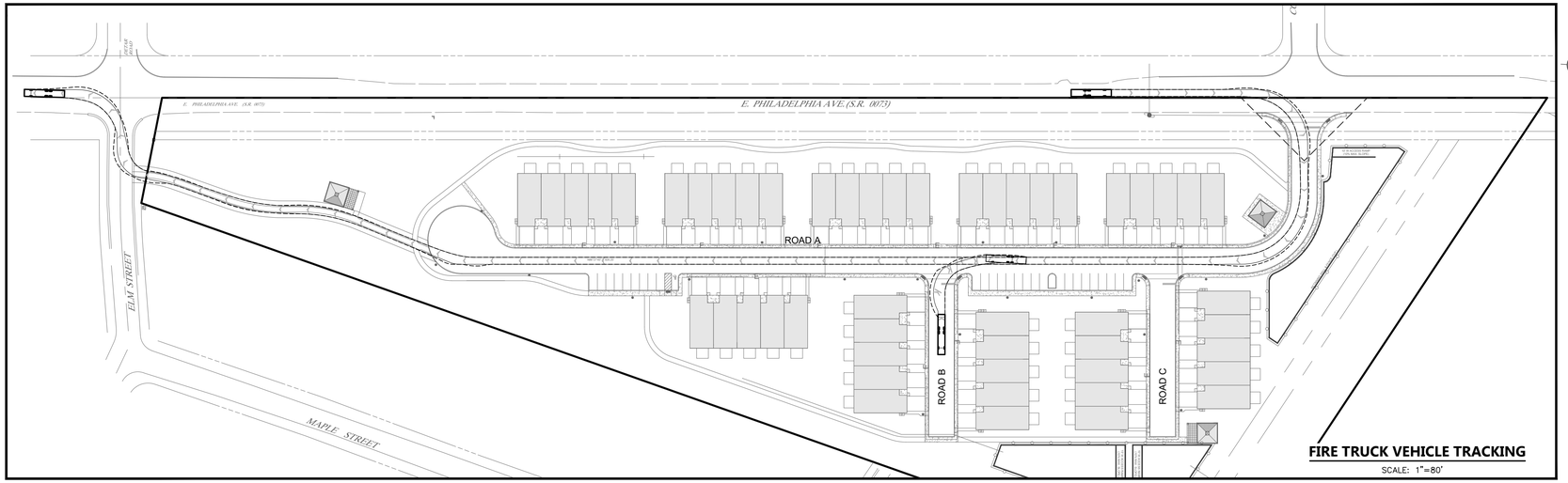
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NOT TO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

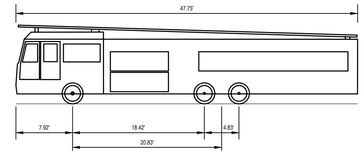
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

V:\Projects\DOU\-05\044398-05\dwg\10_Plans\044398-05_LITE.dwg dcobb 10/29/2026 5:07:32 PM



FIRE TRUCK VEHICLE TRACKING

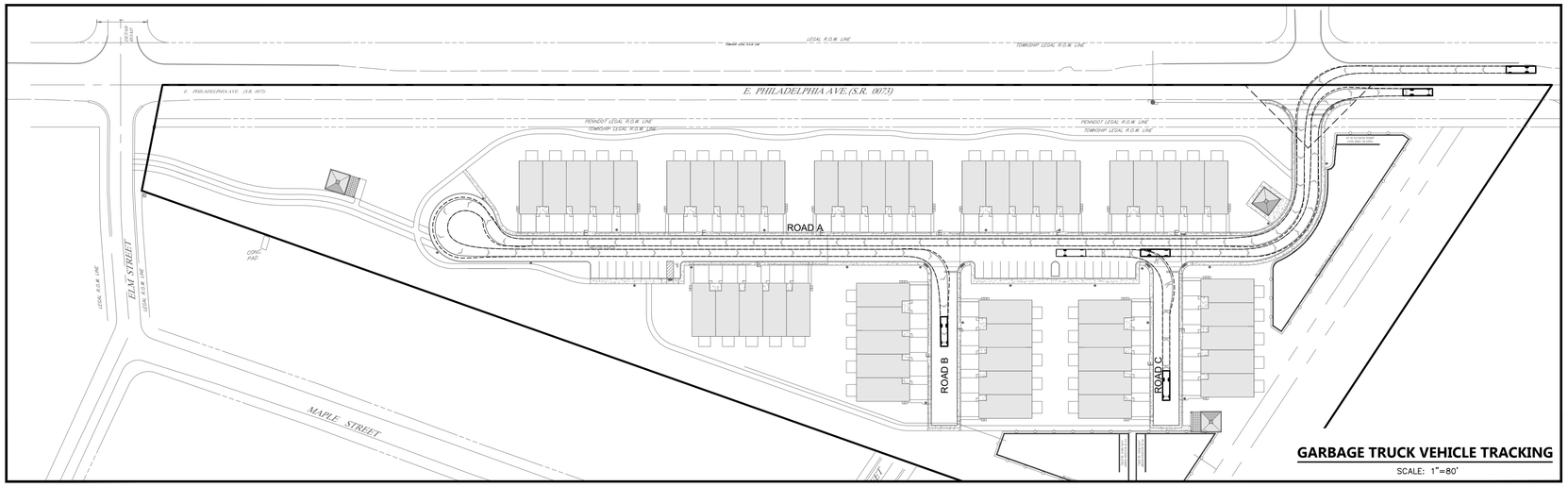
SCALE: 1"=80'



E-ONE HP95 Mid Mount	
Overall Length	47.750ft
Overall Width	8.333ft
Overall Body Height	11.000ft
Min Body Ground Clearance	1.393ft
Track Width	8.333ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

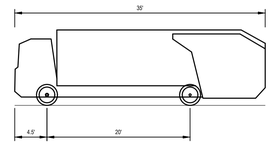
VEHICLE PROFILE: FIRE TRUCK

NOT TO SCALE



GARBAGE TRUCK VEHICLE TRACKING

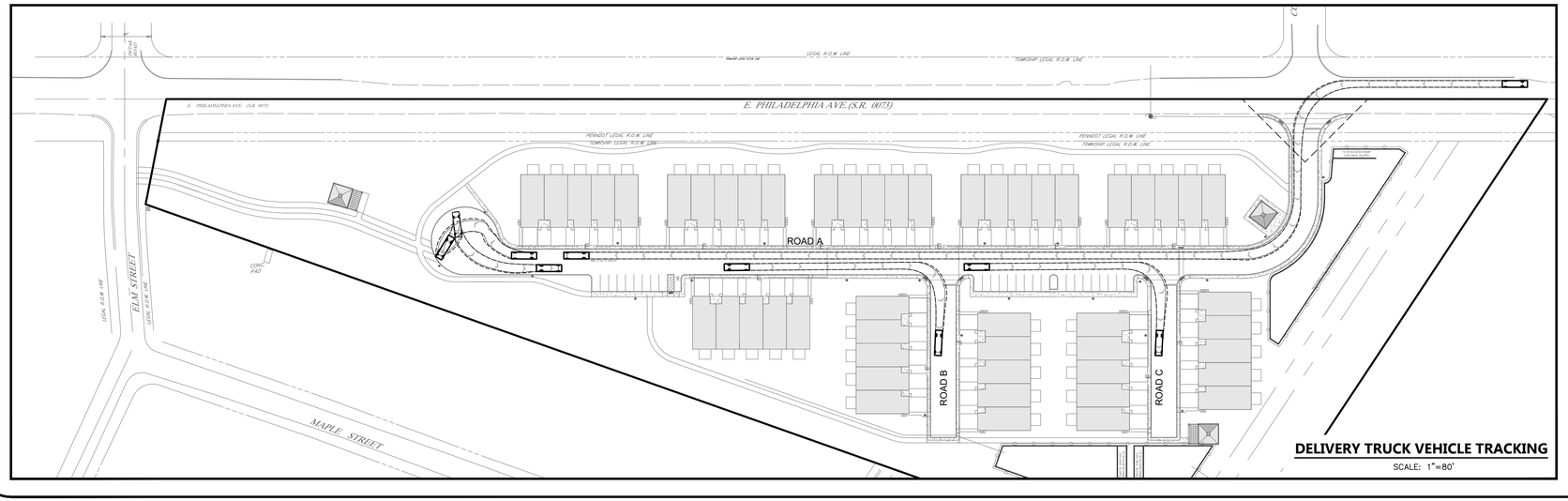
SCALE: 1"=80'



Rear-Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.546ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	29.300ft

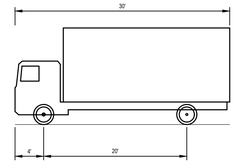
REAR-LOAD GARBAGE TRUCK

NOT TO SCALE



DELIVERY TRUCK VEHICLE TRACKING

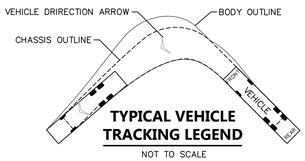
SCALE: 1"=80'



SU-30 - Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

SINGLE UNIT DELIVERY TRUCK

NOT TO SCALE



TYPICAL VEHICLE TRACKING LEGEND

NOT TO SCALE

V:\Projects\DOU-00\044398-05\dwg\LD_Plans\044398-05_TRCK.dwg, SGonsales 10/29/2026 5:08:31 PM

Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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GRAPHIC SCALE

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1 INCH = 80 FT

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TRUCK CIRCULATION PLAN

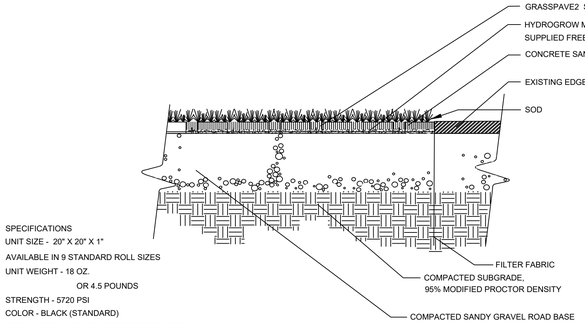
FOR

COBBLESTONE VILLAGE CROSSING

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SCALE:	
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CHECKED BY:	NEF
JOB NUMBER:	044398.05

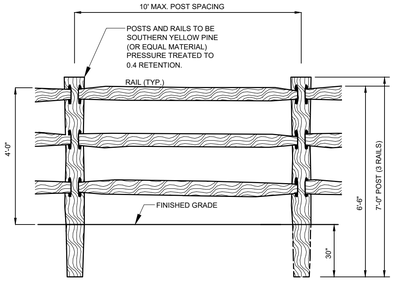
CLIENT
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POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

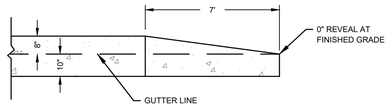


SPECIFICATIONS
UNIT SIZE - 20" X 20" X 1"
AVAILABLE IN 9 STANDARD ROLL SIZES
UNIT WEIGHT - 18 OZ.
OR 4.5 POUNDS
STRENGTH - 5720 PSI
COLOR - BLACK (STANDARD)
RESIN - HDPE (WITH SOME POST-CONSUMER RECYCLED CONTENT)

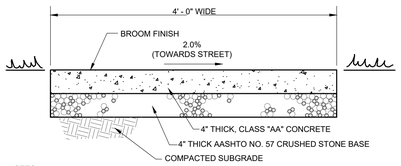
GRASS PAVER AT ASPHALT EDGE FOR EMERGENCY ACCESS DRIVE
NO SCALE



WOODEN SPLIT RAIL FENCE DETAIL NOT TO SCALE

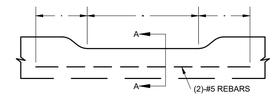


END CURB TREATMENT DETAIL
NOT TO SCALE

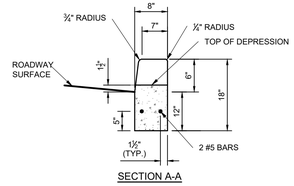


NOTES:
1. EXPANSION JOINTS SHALL BE 1/2" WIDE PRE-FORMED, NON-EXTRUDING AND RESILIENT BITUMINOUS MATERIAL SHALL BE PLACED AT 20' INTERVALS TO THE FULL DEPTH OF THE SIDEWALK AND WHERE THE SIDEWALK MEETS THE OUTSIDE FACE OF A WALL AND/OR CURBING. CONTRACTION JOINTS TO BE SPACED AT EQUAL INTERVALS, 4' MAXIMUM LENGTH.
2. ALL CONCRETE SIDEWALKS SHALL HAVE A MINIMUM THICKNESS OF 4" EXCEPT UNDER DRIVEWAYS WHERE THEY SHALL HAVE A MINIMUM THICKNESS OF 6". THE CONCRETE APRON IN THE DRIVEWAY AREA SHALL BE REINFORCED WITH WELDED WIRE FABRIC 10 GAUGE 6X6. TWO LAYERS OF THIS WIRE SHALL BE UTILIZED WITH A MINIMUM OF 2" SPACING BETWEEN LAYERS. THE WIRE SHALL BE INSTALLED SO THAT IT IS NOT CLOSER THAN ½" FROM THE TOP OR BOTTOM SURFACE OF THE DRIVEWAY.
3. SURFACES OF ALL CONCRETE SIDEWALKS AND DRIVEWAY APRONS SHALL BE TREATED WITH A NON-DISCOLORATION SEALING COMPOUND FOR THE PREVENTION OF DAMAGE FROM SALT. SEALING COMPOUND SHALL BE SEAL TIGHT CS 309-25, AS MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUA, AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



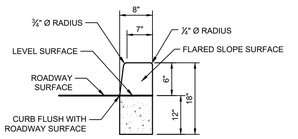
ELEVATION VIEW



SECTION A-A

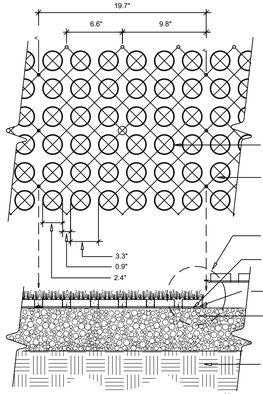
DEPRESSED CURB FOR DRIVEWAYS
NOT TO SCALE

NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB GUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE (½") THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL SHALL BE PLACED EVERY 20 FEET, AT STRUCTURES, AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
4. SEE RC-50M FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.

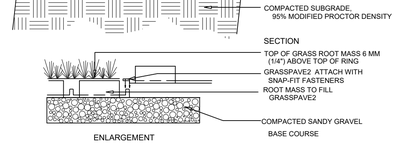


CURB DEPRESSIONS FOR ADA RAMPS
NOT TO SCALE

NOTE:
1. REFER TO PENNDOT DETAIL PUB. RC-64M, FOR ADDITIONAL APPLICABLE INFORMATION.

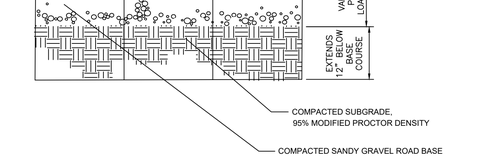


SPECIFICATIONS
UNIT SIZE - 20" X 20" X 1"
AVAILABLE IN 9 STANDARD ROLL SIZES
UNIT WEIGHT - 510 GRAMS (18 OZ.) OR 2.0 KG (4.5 POUNDS)
STRENGTH - 402 KG/CM (5720 PSI)
COLOR - BLACK (STANDARD)
RESIN - HDPE (WITH SOME POST-CONSUMER RECYCLED CONTENT)

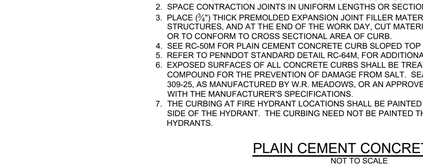


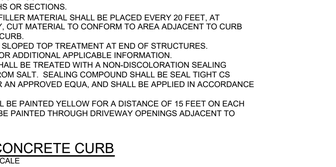
ALTERNATIVE #2 - TYPICAL GRASSPAVE2 DETAIL
(NOT TO SCALE)

1600 Jackson St., Ste. 310
GOLDEN, COLORADO 80401
800-233-1510 OR 303-233-8383
FAX: 800-233-1522 OR 303-233-8282
www.invisiblestructures.com
rev. 08/04



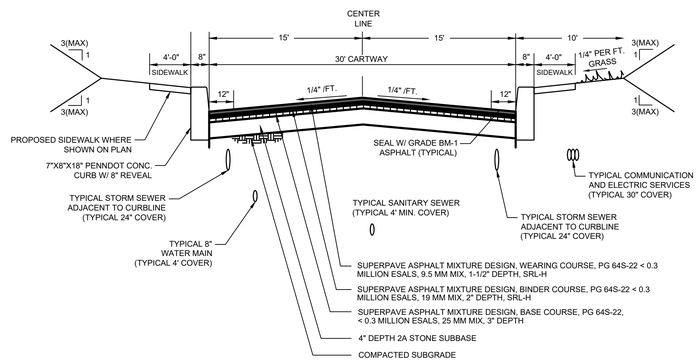
EMERGENCY ACCESS TRAIL SECTION
NO SCALE



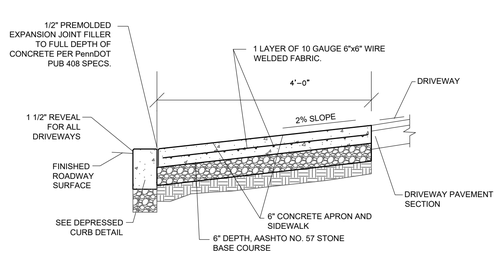


NOTES:
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2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE (½") THICK PREMOLDED EXPANSION JOINT FILLER MATERIAL SHALL BE PLACED EVERY 20 FEET, AT STRUCTURES, AND AT THE END OF THE WORK DAY, CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
4. SEE RC-50M FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.
5. REFER TO PENNDOT STANDARD DETAIL RC-64M, FOR ADDITIONAL APPLICABLE INFORMATION.
6. EXPOSED SURFACES OF ALL CONCRETE CURBS SHALL BE TREATED WITH A NON-DISCOLORATION SEALING COMPOUND FOR THE PREVENTION OF DAMAGE FROM SALT. SEALING COMPOUND SHALL BE SEAL TIGHT CS 309-25, AS MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUA, AND SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
7. THE CURBING AT FIRE HYDRANT LOCATIONS SHALL BE PAINTED YELLOW FOR A DISTANCE OF 15 FEET ON EACH SIDE OF THE HYDRANT. THE CURBING NEED NOT BE PAINTED THROUGH DRIVEWAY OPENINGS ADJACENT TO HYDRANTS.

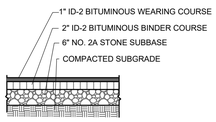
PLAIN CEMENT CONCRETE CURB
NOT TO SCALE



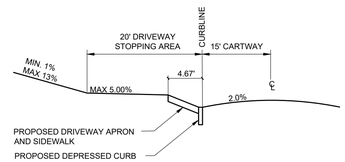
TYPICAL INTERNAL ROADWAY CROSS-SECTION
NOT TO SCALE



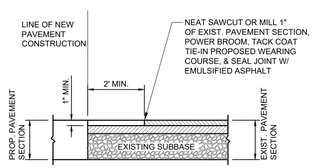
SECTION



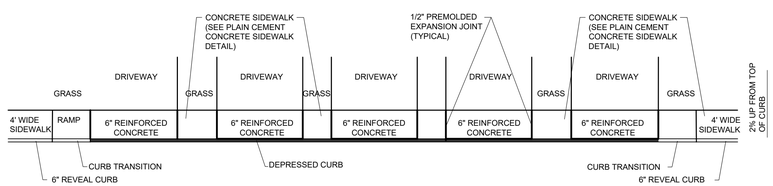
INDIVIDUAL TOWNHOUSE DRIVEWAY PAVEMENT SECTION
NOT TO SCALE



DRIVEWAY STOPPING AREA
NOT TO SCALE



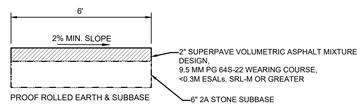
PAVEMENT TIE-IN DETAIL
NOT TO SCALE



PLAN VIEW

NOTES:
1. CONCRETE SHALL BE PENNDOT CLASS AA. IF NECESSARY, SIDEWALK MAY BE WARPED TO FORM PART OF THE RAMP.
2. STRUCTION SHALL BE IN ACCORDANCE WITH DOUGLASS TOWNSHIP STANDARD CONSTRUCTION & MATERIAL SPECIFICATIONS AND PennDOT PUBLICATION 408, LATEST EDITION, WHICH EVER IS MORE RESTRICTIVE.
3. DRIVEWAY WIDTH SHALL BE 18'.

INDIVIDUAL DRIVEWAY APRON DETAIL
NO SCALE



ASPHALT TRAIL DETAIL
NOT TO SCALE

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WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

CONSTRUCTION DETAILS (1)

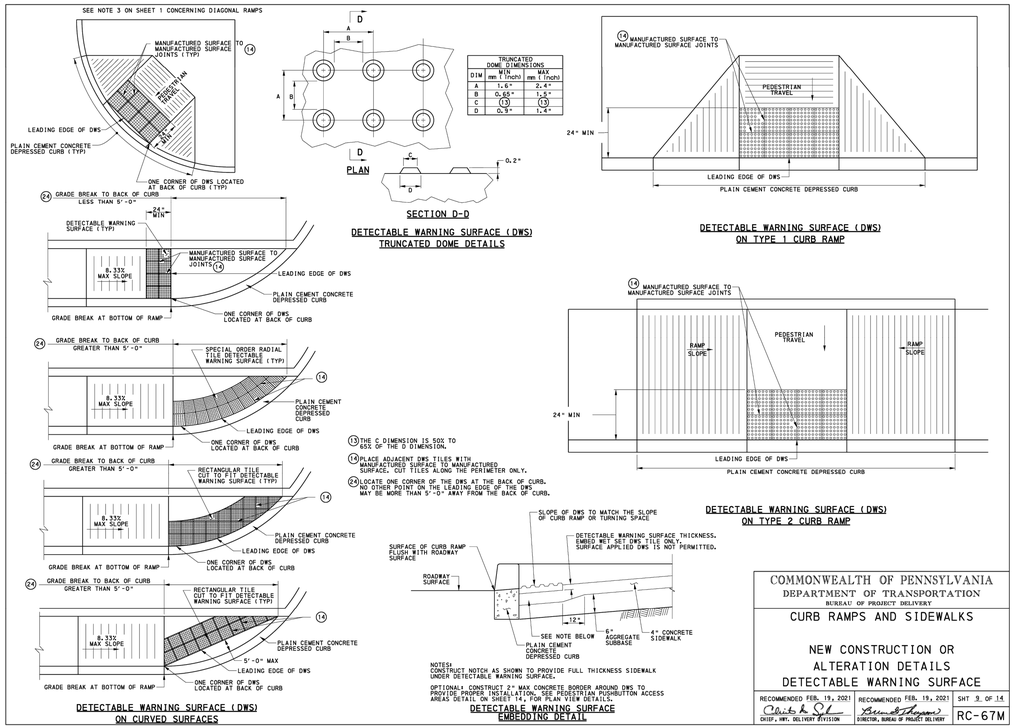
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
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DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

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POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

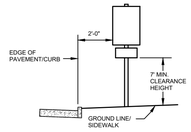


COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

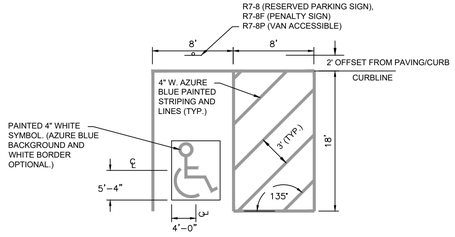
NEW CONSTRUCTION OR ALTERATION DETAILS DETECTABLE WARNING SURFACE

RECOMMENDED FEB. 19, 2021	RECOMMENDED FEB. 19, 2021	SHT 9 OF 14
Chris L. Ott CHIEF, MVT. DELIVERY DIVISION	Kenneth Shearer DIRECTOR, BUREAU OF PROJECT DELIVERY	RC-67M



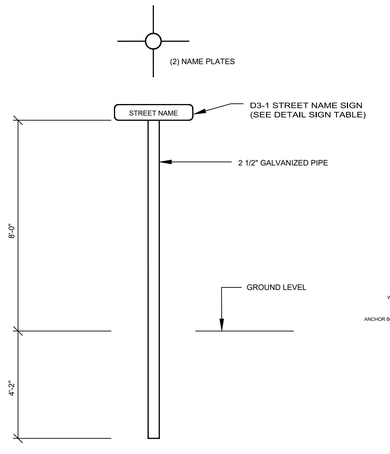
NOTES:
1. ALL SIGN INSTALLATION SHALL CONFORM TO P.A.D.O.T. STD SPECIFICATIONS, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.
2. ALL SIGNS SHALL BE INSTALLED ON STANDARD PADOT BREAKAWAY POSTS.

WARNING AND/OR REGULATORY SIGNS
NOT TO SCALE

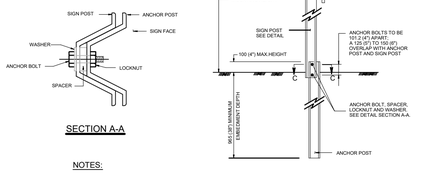


NOTES:
1. CURB RAMPS MAY NOT EXTEND INTO ANY PORTION OF THE PARKING SPACE OR ASSOCIATED STRIPED ISLAND.
2. CURB RAMPS, PAVEMENT MARKINGS, AND APPLICABLE SIGNAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST PENNDOT STANDARDS AND ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
3. CROSS SLOPE OF ACCESSIBLE PARKING SPACE AND ACCESS AISLE SHALL NOT EXCEED 2% IN ANY DIRECTION.

ADA VAN ACCESSIBLE PARKING SPACE DETAIL
NO SCALE



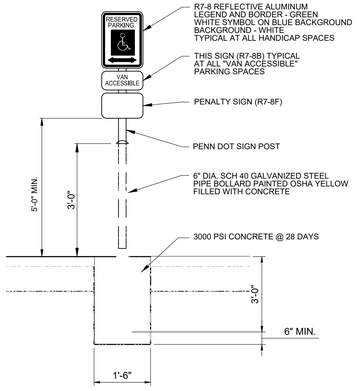
STREET SIGN DETAIL NOT TO SCALE



SECTION A-A

NOTES:
1. TO BE USED FOR ALL NEW SIGN INSTALLATIONS
2. REFER TO PENNDOT PUB. 111M, TC-8600 STANDARD DETAILS FOR ADDITIONAL APPLICABLE INFORMATION.

BREAKAWAY SIGN POST (TYPE B) DETAIL
NOT TO SCALE

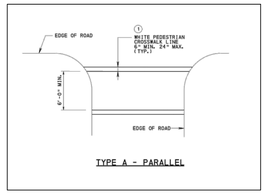


1. PLACE ONE SIGN AT EACH HANDICAP SPACE.
2. WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES.

HANDICAP PARKING SIGN DETAIL
NOT TO SCALE



STOP BAR (WHITE)
NOT TO SCALE



NOTES:
1. REFER TO PENNDOT STANDARD DRAWINGS TC-8600, CURRENT REVISION, FOR FURTHER DETAIL INFORMATION AND NOTES.
2. LONGITUDINAL LINES SHALL BE PERPENDICULAR TO THE TRAVELED WAY AND EXTEND ACROSS THE FULL WIDTH OF PAVEMENT OR TO THE EDGE OF THE INTERSECTING CROSSWALK TO DISCOURAGE DIAGONAL WALKING BETWEEN CROSSWALKS.
3. THE SPACING OF THE LINES SHALL BE SELECTED TO AVOID VEHICLE WHEEL PATHS, TO THE EXTENT POSSIBLE.
4. MATERIAL SHALL BE WHITE REFLECTIVE THERMOPLATIC STRIPING MATERIAL AS PROVIDED BY AN APPROVED MANUFACTURER LISTED IN PENNDOT BULLETIN 15. ALL LINES AND NEUTRAL AREAS SHALL BE OF EQUAL WIDTHS.

CROSSWALK PAVEMENT MARKINGS
NOT TO SCALE

D3-1
STREET NAME SIGN

The Street Name Sign (D3-1) shall be authorized for use as a post-mounted sign to identify names of streets for motorists and pedestrians. The D3-1 sign, or other official type of street name sign, should be placed at all street intersections regardless of other route marking that may be present.

When the D3-1 signs are used in business districts, they should be placed at least on the diagonally opposite corners so that they will be on the far right-hand side of the intersection for traffic on the more important street. Signs naming both streets should be erected at each location. They should be mounted with their faces parallel to the streets they name, as close to the corner as practical with the nearest part of the each sign not less than 1', and preferably 2', back from both curb lines.

In residential districts, D3-1 signs should be mounted as in business districts, but a single location at each intersection shall ordinarily suffice on all but the most important thoroughfares.

Lettering on post-mounted D3-1 signs should be composed of 6" UCLC letters. On multi-lane streets with speed limits greater than 40 MPH the lettering on post-mounted D3-1 signs should be composed of initial upper-case letters at least 8 inches in height and lower-case letters at least 6 inches in height. The overall width of the sign is variable. Except when necessary to avoid confusion, suffixes such as "ST, "DR", and "RD", or sections of the city such as "NW" should not be used. When used, this supplemental lettering may be in smaller lettering, composed of 3" UCLC letters. For roads functionally classified as local with speed limits of 25 MPH or less, the lettering may be 4" UCLC letters.

A pictograph may be used on a D3-1 sign. If a pictograph is used, the height and width of the pictograph shall not exceed the upper-case letter height of the principal legend of the sign.

The street name sign should be reflectorized or illuminated and should have a white legend on a green background, white legend on a brown background, white legend on a blue background, or black legend on a white background. Borders are not required. The same background color for D3-1 signs should be applied to all signs on roadways under the jurisdiction of a particular highway agency.

SIGN SIZE A x B	C	D	E	F	G
VAR. x 6"	4"	1	3"	2	1
VAR. x 9"	6"	1.5	4.5"	3	1.4
VAR. x 12"	8"	2	6"	4	2

* CHOOSE UPPER / LOWER CASE CLEARVIEWHWY FONT FOR BEST FIT

NOTE: WHEN DESCENDING LOWER-CASE LEGEND OF A, J, L, Q, AND Y CANNOT BE ACCOMMODATED ON A STANDARD SIZE SIGN BLANK, THE HEIGHT OF THE BLANK SHOULD BE INCREASED TO ACCOMMODATE THESE LETTERS.

COLOR:
LEGEND: WHITE (REFLECTORIZED)
BACKGROUND: GREEN (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 11-07-13
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R3_D3N

R2-1
SPEED LIMIT SIGN

The Speed Limit Sign (R2-1) shall be authorized for use to display the maximum legal-speed limit on a highway. When used as a variable speed limit sign, speed display module(s) may be attached to the sign or inserted through cut-outs in the sign substrate.

The R2-1 Sign shall be placed at intervals as specified in Department regulations. The standard size signs shall be as follows:

(1) 24" x 30". All single lane conventional highways having any speed limit.
(2) 30" x 36". Multi-lane conventional highways regardless of speed limit.
(3) 48" x 60". Expressways and freeways.

SIGN SIZE A x B	C	D	E	F	G	H	I	MAR-GIN	BOR-DER	BLANK STD.
24" x 30"	4E	2	10E	4	9.6	7.3	0.4	0.6	85-3024
30" x 36"	5E	2	12E	5	12	9.1	0.6	0.8	85-3630
48" x 60"	8E	4	20E	6	19.1	14.6	0.8	1.2	85-4048

* OFFICIALLY SPACE NUMERALS ABOUT VERTICAL ℄

COLOR:
LEGEND AND BORDER: BLACK (NON-REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 03-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R2_D6N

R7-8
RESERVED PARKING SIGN

The Reserved Parking Sign (R7-8) is authorized to mark the location of a parking space which is reserved for handicapped persons or severely disabled veterans.

When used the R7-8 sign should generally be installed at the front of each reserved parking stall; except in the case of parallel parking, it should be installed at intervals not greater than 50' along the side of the stalls. When installed at the front of the parking stalls, the single or double headed arrow may be deleted from the R7-8 sign and the message may be spaced accordingly.

The Reserved Parking Penalties Sign (R7-8F) shall be posted in conjunction with the R7-8 sign. When used, the R7-8F sign shall be placed below the R7-8 sign.



SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	N	P	Q	MAR-GIN	BOR-DER	BLANK STD.
12" x 18"	2	2C	1	6	1.6	2.4	4.9	4.3	3	0.4	4	3.8	0.8	0.4	0.4	85-1218

* REDUCE SPACING 50%
** REDUCE SPACING 33%

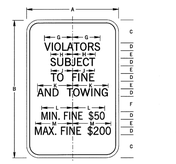
COLOR:
LEGEND, ARROW AND BORDER: GREEN (REFLECTORIZED)
BACKGROUND AND SYMBOL: WHITE (REFLECTORIZED)
SYMBOL BACKGROUND: BLUE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R7_8N

R7-8F
RESERVED PARKING PENALTIES SIGN

The Reserved Parking Penalties Sign (R7-8F) shall be installed with the Reserved Parking Sign (R7-8). When used, the R7-8F sign shall be placed below the R7-8 Sign. In order to improve visibility of signs installed at the front of reserved stalls, a substandard height to the bottom of the sign of approximately 3'-6" above the parking stall elevation may be used.



SIGN SIZE A x B	C	D	E	F	G	H	J	K	L	M	MAR-GIN	BOR-DER	BLANK STD.
12" x 18"	3	1C	1	2	3	2.4	2.3	3.6	4	4.6	0.4	0.4	85-1218

COLOR:
LEGEND AND BORDER: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

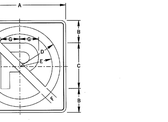
R7_8FN

R8-3
NO PARKING SYMBOL SIGN

(a) Justification. The No Parking Symbol Sign (R8-3) shall be authorized for use to prohibit parking along a given highway. If the restriction applies to a limited area or zone, supplemental signs or messages shall be authorized to show the limits of the restriction. Authorized supplemental signs include, but are not limited to the Pennsylvania Fines Double (R8-3FD), Pennsylvania Fines Double Hours Please (R8-3FDH), No Parking On Pavement Symbol (R8-3C), No Parking Arrow Please (R7-3011), No Parking Zone Sign (R7-3SIGN) and No Parking On Pavement Sign (R8-3CPC). As an alternate to the use of supplemental signs, the appropriate supplemental message and the no parking symbol may be incorporated into a single sign.

(b) Size. The standard size R8-3 sign shall be 12" x 12" in business, residential, or park areas and 24" x 24" in rural areas. The standard size for expressways shall be 36" x 36", and on freeways shall be 48" x 48".

(c) Placement. Signs should be set at an angle of not less than 90° or more than 45° with a line parallel to the flow of traffic so as to be visible to approaching traffic. Care should be taken to ensure that supplemental arrows point in the proper direction to indicate the regulated area. Signs shall be placed at the beginning of and at reasonable intervals throughout the restriction.



SIGN SIZE A x B	B	C	D	E	F	G	MAR-GIN	BOR-DER	BLANK STD.
12" x 12"	3	6EIN	4.9	3.9	1	2.4	0.4		———
24" x 24"	6	12EIN	10.5	8.5	2	4.8	0.4	0.6	83-24
36" x 36"	9	18EIN	15.8	12.8	3	7.2	0.6	0.8	83-36
48" x 48"	12	24EIN	21	17	4	9.6	0.8	1.2	83-48

COLOR:
SYMBOL AND BORDER: BLACK (NON-REFLECTORIZED)
CIRCLE AND DIAGONAL: RED (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R8_D6N

R7-8P
VAN ACCESSIBLE SIGN

The Van Accessible Sign (R7-8P) may be used as a supplemental sign to indicate that a parking space signed with the Reserved Parking Sign (R7-8) is of sufficient size for use by the disabled to accommodate vans displaying a handicapped or severely disabled veteran registration plate or placard.

One in every eight reserved parking spaces for the disabled, but not less than one, shall be designated with the R7-8P sign. When used, the R7-8P sign shall be placed immediately below the Reserved Parking Sign (R7-8).



SIGN SIZE A x B	C	D	E	F	G	H	MAR-GIN	BOR-DER	BLANK STD.
12" x 6"	1.4	1.6D	0.6	1D	2.1	4	0.4	0.4	85-1206

* INCREASE SPACING 50%

COLOR:
LEGEND AND BORDER: GREEN (REFLECTORIZED)
BACKGROUND: WHITE (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R7_8PN

R1-1
STOP SIGN

(a) Justification. The Stop Sign (R1-1) is authorized for use on those streets or highways which intersect with a through highway or which have an intersection where the right-of-way is not clearly assigned. The Stop sign may also be used at mid-block crossings of highways with reference to highways under their jurisdiction. The R1-1 sign is also authorized for use in work zones involving one-lane, two-way roadways. At intersections where all approaches are controlled by an R1-1 sign, a supplemental ALL-WAY plaque (R1-3P) shall be mounted below each R1-1 sign.

(b) Authorization. Before local authorities designate any highway as a through highway or stop intersection which will intersect or affect a State-designated highway, approval of such designation shall first be obtained from the Department, except where the conditions included in the Department's Temporary Traffic Control Guidelines are satisfied.

(c) Size. The standard size R1-1 sign shall be 30" x 30" for single lane conventional highways and 36" x 36" for multi-lane conventional highways. The 24" x 24" size shall only be used for alleys with restrictive physical conditions and vehicle usage that prohibits the installation of the standard size R1-1. A sign that is mounted back-to-back with a R1-1 sign should stay within the edges of the R1-1 sign. If necessary, the size of the R1-1 sign should be increased so that any other sign installed back-to-back with it remains within the edges of the R1-1 sign.



SIGN SIZE A x A	B	C	D	BOR-DER	BLANK STD.
18" x 18"	6	6C	6	0.4	———
24" x 24"	8	8C	10	0.6	85-24
30" x 30"	10	10C	12.6	0.8	85-30
36" x 36"	12	12C	15	0.8	85-36
48" x 48"	16	16C	20	1.2	85-48

* REDUCE SPACING 40%

COLOR:
LEGEND AND BORDER: WHITE (REFLECTORIZED)
BACKGROUND: RED (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: John C. Reese Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R1_1N

Van Cleef ENGINEERING WITH FOCUS
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776 or 811
PA ONE CALL SYSTEM, INC.

PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

CONSTRUCTION DETAILS (2)

FOR

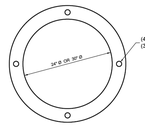
COBBLESTONE VILLAGE CROSSING

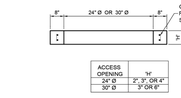
DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

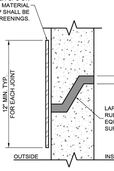
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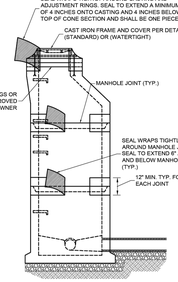


GRADE RINGS MEET THE REQUIREMENTS OF ASTM C478

PRECAST MANHOLE GRADE DETAIL

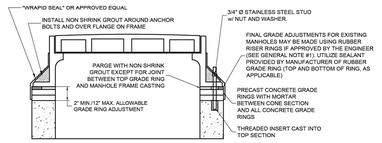


MANHOLE JOINT DETAIL



NOTES:
1. MANHOLE SEAL TO BE "WRAPID SEAL" AS MANUFACTURED BY CANUSA-CPS OR APPROVED EQUAL.
2. MANHOLE JOINT SEALS INSTALLED AS DIRECTED BY THE ENGINEER AND ON ALL JOINTS BELOW FINISHED GRADE. CRETEX OR APPROVED EQUAL.

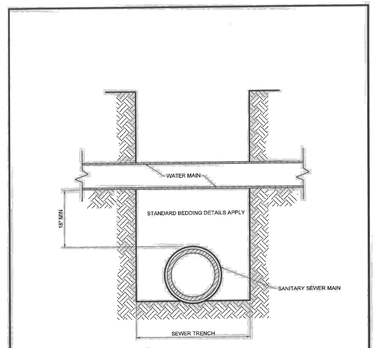
HEAT SHRINKABLE MANHOLE SEAL DETAIL



MANHOLE GRADE RING DETAIL

GENERAL NOTES:
1. GRADE ADJUSTMENTS TO BE MADE USING CONCRETE RISER RINGS OR RUBBER RISER RINGS (INFRA-RISER AS MANUFACTURED BY CAM TECHNOLOGIES) AS APPROVED BY ENGINEER/OWNER.
2. MINIMUM ADJUSTMENT BY GRADE RINGS IS 2", MAXIMUM IS 12".
3. ALL NON-SHRINK CONCRETE GROUT SHALL BE TROWELED SMOOTH.
4. CONCRETE SURFACES SHALL BE CLEAN AND DRY PRIOR TO PARGING.
5. FRAME SHALL BE SET SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED SURFACES. FOR UNPAVED AREAS, FRAME TO HAVE 18" HEIGHT FROM EXISTING GRADE. GRADE RINGS ARE NOT REQUIRED IN UNPAVED AREAS.
6. ALL CONCRETE SURFACES SHALL BE COATED WITH WATERPROOFING BLACK ASPHALTIC COATING, AS APPROVED BY ENGINEER/OWNER.

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	PRECAST MANHOLE GRADE RING/JOINT DETAIL	S15
		LAST REVISED JULY 10 2019

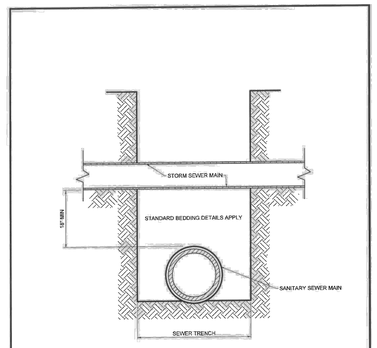


WHEN IT IS IMPOSSIBLE TO MEET THE ABOVE CONDITION, THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL BE MET:

1. IF CLEARANCE IS LESS THAN 18", SEWER LINE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE w/ MSCR JOINTS OR PVC, C900 PIPE.
2. WATER LINE MUST CROSS BENEATH SANITARY SEWER LINE:
   A. THE BOTTOM OF THE SEWER LINE SHALL BE A MINIMUM OF 18" ABOVE THE TOP OF THE WATER LINE.
   B. A PIPE SECTION OF WATER LINE SHALL BE CENTERED OVER THE SEWER LINE.
   C. THE SEWER LINE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE, OR PVC, C900 PIPE.

* DUCTILE IRON PIPE OR PVC, C900 PIPE, TIE-IN POINTS SHALL BE A MINIMUM OF 10'-0" ON EITHER SIDE OF CROSSING WHERE POSSIBLE.

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	WATER AND SANITARY SEWER CROSSING DETAIL	S21
		LAST REVISED JULY 10 2019

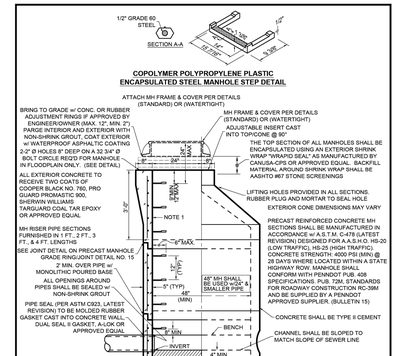


WHEN IT IS IMPOSSIBLE TO MEET THE ABOVE CONDITION, THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL BE MET:

1. IF CLEARANCE IS LESS THAN 18", SEWER LINE SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE OR PVC, C900 PIPE

* DUCTILE IRON PIPE OR PVC, C900 PIPE, TIE-IN POINTS SHALL BE A MINIMUM OF 10'-0" ON EITHER SIDE OF CROSSING WHERE POSSIBLE.

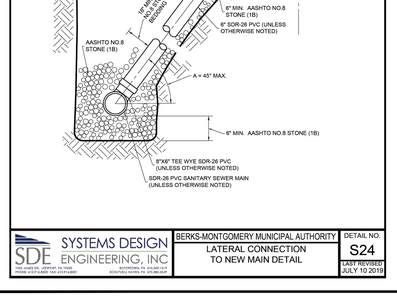
SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	STORM SEWER AND SANITARY SEWER CROSSING	S22
		LAST REVISED JULY 10 2019



SECTION / ELEVATION

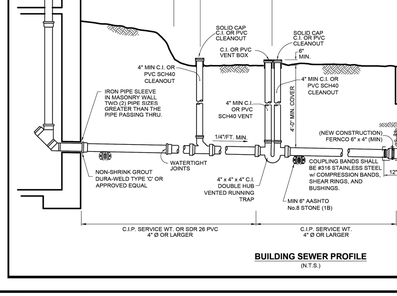
NOTES:
1. ALL MANHOLES SHALL HAVE A FACTORY APPLIED CORROSION RESISTANT INTERIOR COATING. DURA-PLATE 100 OR APPROVED EQUAL APPROVED BY ENGINEER.
2. ALL OPENINGS AROUND PIPES SHALL BE SEALED WITH NON-SHRINK GROUT. MAINTAIN POSITIVE GRADE THROUGH MANHOLE.
3. ALL HARDWARE TO BE STAINLESS STEEL.
4. SEE DETAIL 15 FOR ADDITIONAL JOINT/SEALANT DETAILS

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	PRECAST REINFORCED CONCRETE MANHOLE DETAIL	S1
		LAST REVISED JULY 10 2019



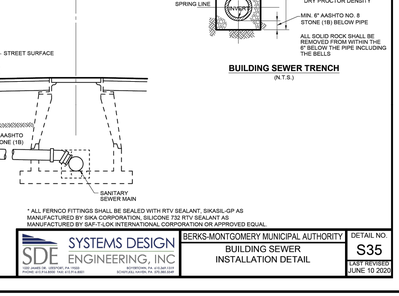
NOTE:
AASHTO NO. 57 STONE (2B) TO BE USED AT THE DISCRETION OF THE MUNICIPALITY ENGINEER DUE TO WET OR MUDDY CONDITIONS

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	TYPICAL TRENCH BEDDING FOR GRAVITY/FORCE MAIN AND LATERAL DETAIL	S19
		LAST REVISED JULY 10 2019



PROCEDURE:
1. INSTALL MANHOLE.
2. PLACE FRAME AND COVER; ADJUST w/ RISER RINGS TO MATCH FINAL GRADE.
3. PLACE SUPERPAVE BASE / BINDER COURSE AROUND FRAME.
4. INSTALL WEARING COURSE.

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	ADJUSTING MANHOLE TO FINISHED GRADE IN PAVED AREAS DETAIL	S14
		LAST REVISED JULY 10 2019



SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	STANDARD MANHOLE FRAME AND COVER DETAIL	S10
		LAST REVISED JULY 10 2019

CHANNELS SHALL BE CONSTRUCTED USING A TEM-PLATE TO ENSURE THAT CHANNEL CROSS-SECTION WILL ALLOW INSERTION OF TESTING, CLEANING AND INSPECTION EQUIPMENT.
CONC. CHANNELS SHALL BE 3000 PSI TYPE II CEMENT (MIN)

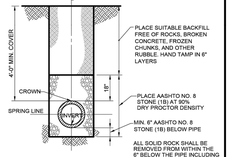
SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	MANHOLE CHANNEL LAYOUT DETAIL	S16
		LAST REVISED JULY 10 2019

NOTE:
METHODS, 1, 2, & 3, LISTED ABOVE ARE ACCEPTABLE MANHOLE/PIPE ADAPTER INSTALLATIONS

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	EXISTING MANHOLE (CORE-BORE) WALL PIPE PENETRATION DETAIL	S18
		LAST REVISED JULY 10 2019

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	LATERAL CONNECTION TO NEW MAIN DETAIL	S24
		LAST REVISED JULY 10 2019

BUILDING SEWER PROFILE
(N.T.S.)



BUILDING SEWER TRENCH
(N.T.S.)

NOTES:
1. CONTINUOUS SUPPORT OF BARREL OF PIPE TO BE MAINTAINED. PIPE SHALL NOT BE SUPPORTED ON BLOCKS TO GRADE.
2. ANY PLUMBING PASSING UNDER A FOOTING SHALL BE PROVIDED WITH A RELIEVING ARCH.
3. WHENEVER THE SANITARY LATERAL IS OF SUFFICIENT DEPTH, THE BUILDING DRAIN SHALL BE AT LEAST TWELVE (12) INCHES BELOW THE CELLAR FLOOR FOR A DISTANCE OF FIVE (5) FEET INSIDE THE CELLAR WALL.
4. WHEN THE RUNNING TRAP FALLS UNDER A SIDEWALK AREA OR UNDER ANY SLAB CONSTRUCTED OF A PERMANENT MATERIAL, THE VENT AND CLEANOUT FOR THE RUNNING TRAP SHALL BE EXTENDED TO GRADE LEVEL AND FITTED WITH ADJUSTABLE BOXES WITH BRASS COVERS NOT LESS THAN ONE-QUARTER (1/4) INCH THICK AND HELD IN PLACE WITH FIVE-SIXTEENTH (5/16) INCH BRASS SCREWS. THE VENT COVER SHALL BE GRATED AND CONTAIN AN INSERT MANUFACTURED BY PARSONS ENVIRONMENTAL OR APPROVED EQUAL AND THE CLEANOUT SHALL BE SOLID.
5. CLEANOUTS SHALL BE INSTALLED IN THE BUILDING SEWER IN SUCH MANNER, NUMBER AND POSITION AS TO PERMIT CLEANING SUCH LINES IN THEIR ENTIRE LENGTH, BUT IN NO CASE SHALL THERE BE LESS THAN TWO (2) CLEANOUTS IN EACH BUILDING SEWER EXCEEDING FIFTY (50) FEET IN LENGTH, NOR SHALL THEY BE SPACED MORE THAN FIFTY (50) FEET APART.
6. JOINTS FOR BELL AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MADE BY APPROVED COMPRESSION GASKETS THAT ARE COMPRESSED WHEN THE SPIGOT IS INSERTED INTO THE HUB OF THE PIPE. EVERY JOINT IN PLASTIC PIPE SHALL BE MADE WITH APPROVED FITTINGS BY SOLVENT WELDING.
7. SIZES AND MATERIALS FOR DOUBLE VENTED TRAP CLEANOUT/VENT, AND RISER PIPES TO BE DETERMINED BY MUNICIPALITY.

* ALL FERNCO FITTINGS SHALL BE SEALED WITH RTV SEALANT, SIKASIL-GP AS MANUFACTURED BY SIKA CORPORATION, SILICONE 732 RTV SEALANT AS MANUFACTURED BY SAF-T-LOK INTERNATIONAL CORPORATION OR APPROVED EQUAL

SDE SYSTEMS DESIGN ENGINEERING, INC	BERKS-MONTGOMERY MUNICIPAL AUTHORITY	DETAIL NO.
	BUILDING SEWER INSTALLATION DETAIL	S35
		LAST REVISED JUNE 10 2020

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Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE084619E

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

CONSTRUCTION DETAILS (3)

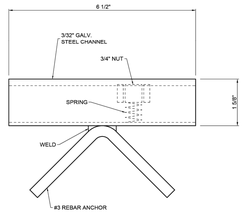
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



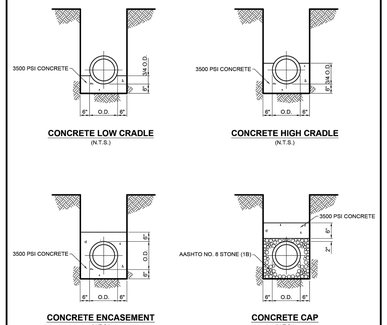
ADJUSTABLE INSERTS SHALL BE CAST INTO CONE TOPS OR FLAT TOPS FOR ATTACHMENT OF CAST IRON FRAME AND COVER. (2 @ 180° OR 4 @ 90°)

SYSTEMS DESIGN ENGINEERING, INC

BERKS-MONTGOMERY MUNICIPAL AUTHORITY

MANHOLE ADJUSTABLE INSERT DETAIL

DETAIL NO. S13 LAST REVISED JULY 10 2019



NOTES:

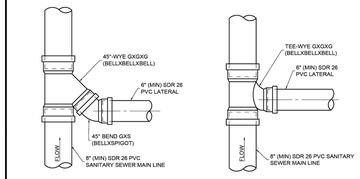
1. CONCRETE CAP SHALL BE USED FOR STREAM CROSSINGS. EXTEND 10' BEYOND STREAM BANKS. (IF APPROVED BY MUNICIPALITY'S ENGINEER).
2. DUCTILE IRON PIPE SHALL BE INSTALLED BETWEEN MANHOLES ON EITHER SIDE OF STREAM.
3. ALL CONCRETE SHALL BE 3500 PSI (UNLESS NOTED OTHERWISE).
4. POUR CONCRETE AGAINST UNDISTURBED EARTH. REMOVE SHEETING BEFORE POURING CONCRETE OR PULL SHEETING UP ABOVE THE POURED CONCRETE. (IF APPROVED BY MUNICIPALITY'S ENGINEER)
5. ANCHOR ALL PIPE PRIOR TO POURING CONCRETE TO INSURE THAT THE PIPE DOES NOT FLOAT. (IF APPROVED BY MUNICIPALITY'S ENGINEER)
6. CONCRETE ENCASEMENT SHALL ONLY BE USED IF APPROVED BY ENGINEER/OWNER.

SYSTEMS DESIGN ENGINEERING, INC

BERKS-MONTGOMERY MUNICIPAL AUTHORITY

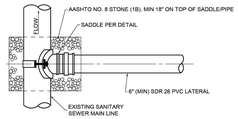
CONCRETE ENCASEMENT, CRADLE, AND CAP DETAIL

DETAIL NO. S23 LAST REVISED JULY 10 2019



NEW CONSTRUCTION
(N.T.S.)

NOTE:
BOTH METHODS (1 & 2) LISTED ABOVE ARE ACCEPTABLE LATERAL CONNECTIONS TO THE MAIN DURING NEW CONSTRUCTION.



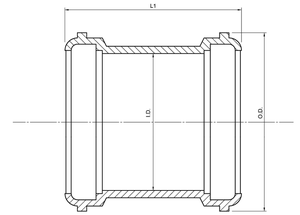
ADDING LATERAL TO EXISTING MAIN
(N.T.S.)

SYSTEMS DESIGN ENGINEERING, INC

BERKS-MONTGOMERY MUNICIPAL AUTHORITY

LATERAL CONNECTION TO SANITARY MAIN DETAIL

DETAIL NO. S30 LAST REVISED JULY 10 2019



REPAIR COUPLING G x G				
PART NO.	SIZE	L1	O.D.	I.D.
52661	4"	5.750	5.237	4.235
52662	6"	8.250	7.439	6.305
52663	8"	10.000	9.804	8.424

REPAIR COUPLING TO BE MANUFACTURED BY HARCO, INC., OR APPROVED EQUAL AND SHALL MEET ASTM D-1784, D-3034, F-477, AND D-3212-81.

** NOTE: DURING NEW CONSTRUCTION ONLY TWO (2) REPAIR COUPLINGS PER REPAIR IS PERMITTED. IF MORE THAN ONE (1) REPAIR IS NEEDED THE LINE SHALL BE DUG UP AND REPLACED **

SYSTEMS DESIGN ENGINEERING, INC

BERKS-MONTGOMERY MUNICIPAL AUTHORITY

SANITARY MAIN REPAIR (PVC) DETAIL

DETAIL NO. S32 LAST REVISED JULY 10 2019

EXISTING STREETS AND PROPOSED STREETS

NOT TO SCALE

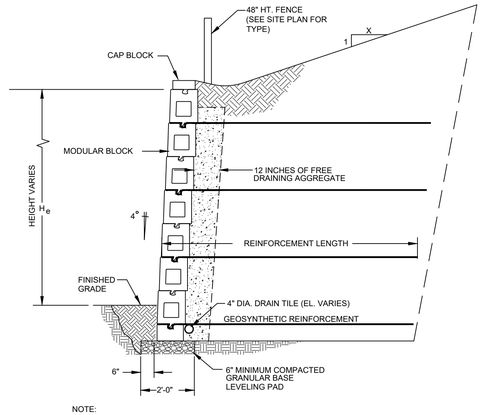
LAWN AREAS

NOT TO SCALE

NOTES:
1.COMPACTION/DENSITY TESTING SHALL BE DONE EVERY 50 FEET.
2.MATERIALS FOR TRENCH BACKFILL SHALL CONFORM TO THE FOLLOWING:
a. GENERAL: SUITABLE MATERIAL CAPABLE OF BEING COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.
b. TYPE 1 MATERIAL: EXCAVATED MATERIAL FROM THE TRENCH OR MATERIALS FROM OUTHER SOURCES WHICH ARE FREE FROM CLODS, ROOTS, OR STONES LARGER THAN 2-INCHES.
c. TYPE 2 MATERIAL: EXCAVATED MATERIAL FROM THE TRENCH OR MATERIALS FROM OUTHER SOURCES WHICH ARE FREE FROM CLODS, ROOTS, OR STONES LARGER THAN 8-INCHES.
SELECT BACKFILL: SELECTED GRANULAR MATERIAL IN ACCORDANCE WITH SECTION 703.3 OF PADOT PUBLICTION 408, LATEST EDITION, EXCEPTING THE USE OF SLAG

TYPICAL TRENCH RESTORATION DETAILS

NOT TO SCALE



NOTE:
1. RETAINING WALL MANUFACTURER SHALL BE APPROVED BY THE DEVELOPER.
2. SHOP DRAWINGS WITH SEALED STRUCTURAL CALCULATIONS, PREPARED BY A QUALIFIED STRUCTURAL ENGINEER, SHALL BE SUBMITTED AND APPROVED BY THE TOWNSHIP ENGINEER FOR WALLS OVER 4' IN HEIGHT.
3. FENCE SHALL BE PROVIDED FOR ALL WALLS 30 INCHES IN HEIGHT OR GREATER, OR WHERE SITE CONDITIONS WARRANT. STRUCTURAL ENGINEER SHALL INCLUDE FENCE POST INSTALLATION & DETAILS AS PART OF THEIR SHOP DRAWINGS.

CONCEPTUAL MODULAR BLOCK RETAINING WALL DETAIL

NOT TO SCALE

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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

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CONSTRUCTION DETAILS (4)

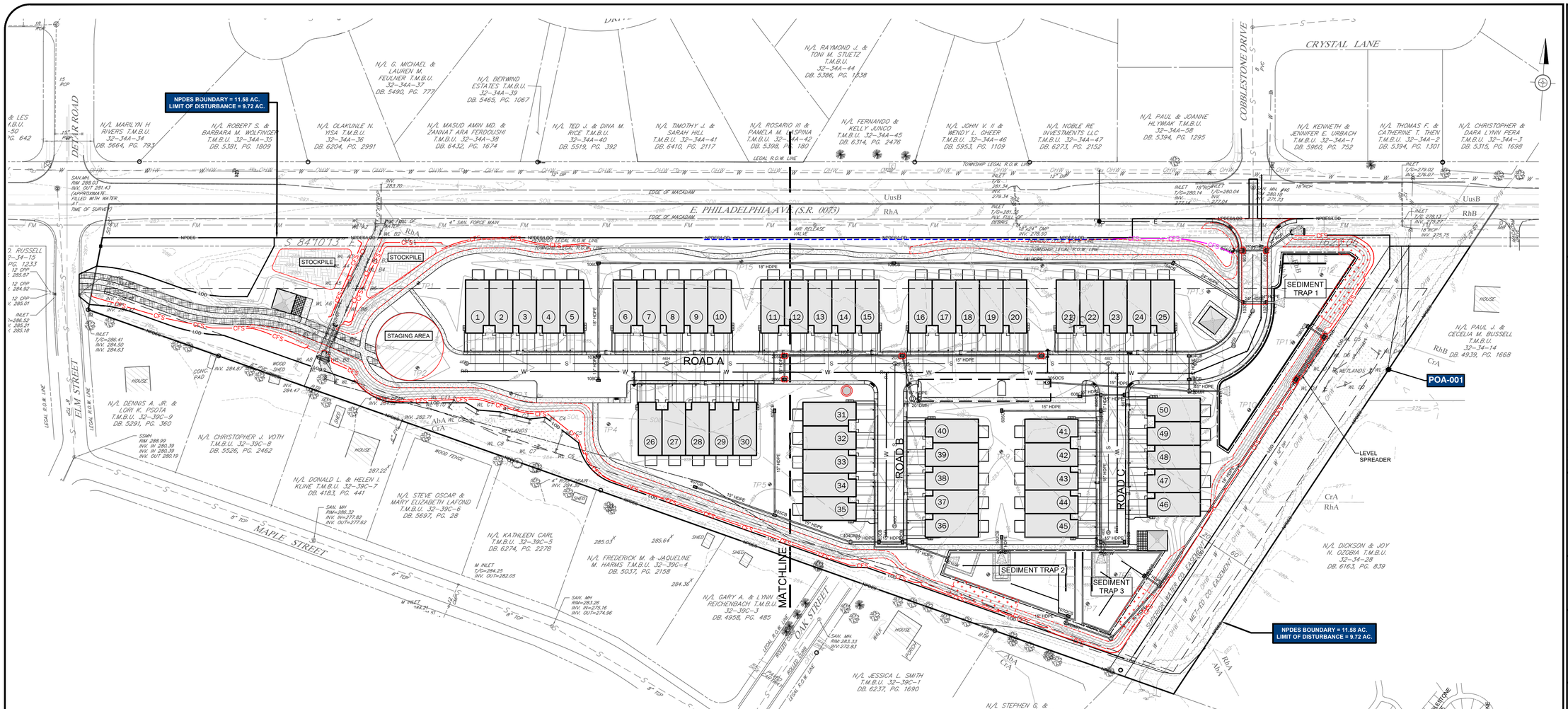
FOR

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2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MAP LEGEND - PROPOSED FEATURES

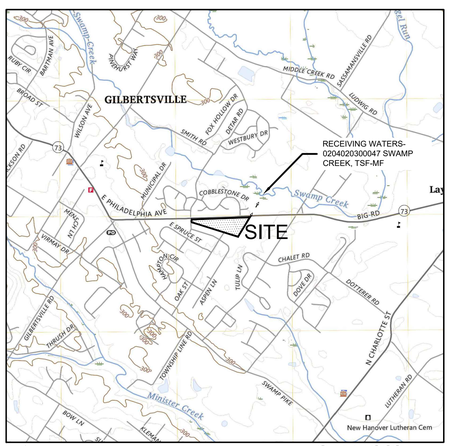
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SIGHT DISTANCE TRIANGLE
- BUILDING SETBACK LINE
- EASEMENT LINE
- ROADWAY CENTERLINE
- CHAIN LINK FENCE LINE
- SPLIT RAIL FENCE LINE
- CONTOUR LINE (290)
- TREE LINE
- EDGE OF PAVEMENT
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE (W)
- SANITARY MAIN LINE (S)
- WATER LATERAL (WL)
- SANITARY LATERAL (SL)
- UNDERGROUND ELECTRIC (E)
- OVERHEAD ELECTRIC (OH)
- PAVED WALKWAY
- GRASSPAVE 2
- RETAINING WALL
- PIN/CONCRETE MONUMENT
- SPOT ELEVATION (×290.4)
- DRAINAGE INLET (C-TOP/M-TOP)
- DRAINAGE MANHOLE (D)
- DRAINAGE ENDWALL
- SANITARY MANHOLE (S)
- WATER MANHOLE (W)
- FIRE HYDRANT
- WATER VALVE (WV)
- WATER SHUTOFF
- GAS VALVE (G)
- UTILITY POLE / GUY
- ELECTRIC METER (E)
- LIGHT POLE
- DECIDUOUS/EVERGREEN TREE
- STREET/TRAFFIC SIGN
- STRAIGHT TEXT DENOTES PROPOSED FEATURES

MAP LEGEND - EXISTING FEATURES

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROP. LINE
- EASEMENT LINE
- ROADWAY CENTERLINE
- CHAIN LINK FENCE LINE
- SPLIT RAIL FENCE LINE
- CONTOUR LINE (290)
- TREE LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE (W)
- SANITARY MAIN LINE (S)
- SANITARY FORCE MAIN (FM)
- WATERWAY CENTERLINE
- OVERHEAD ELECTRIC (OHW)
- SOILS BOUNDARY (SOIL)
- ZONING BOUNDARY
- WETLANDS / FLAG (WL-C5)
- WATERS OF THE US & COMMONWEALTH
- SLANTED TEXT DENOTES EXISTING FEATURES
- PIN/CONCRETE MONUMENT
- SPOT ELEVATION (×290.00)
- DRAINAGE INLET (C-TOP/M-TOP)
- DRAINAGE MANHOLE (D)
- SANITARY MANHOLE (S)
- FIRE HYDRANT
- WATER VALVE (WV)
- WATER SHUTOFF
- GAS VALVE
- UTILITY POLE / GUY
- LIGHT POLE
- ELECTRIC METER/BOX (E)
- DECIDUOUS/EVERGREEN TREE
- STREET/TRAFFIC SIGN
- SOILS DELINEATION (UsB)
- TEST PIT (TP6)
- TO BE REMOVED (TBR)

E&S LEGEND

- NPDES BOUNDARY/LIMIT OF DISTURBANCE (NPDES/LOD)
- PROTECTION FENCE
- COMPOST FILTER SOCK & ID (CFS)
- COMPOST FILTER SOCK TRAP (CFS)
- FILTREXX RUNOFF DIVERSION SOCK
- EROSION CONTROL BLANKET (SLOPES 3:1 OR GREATER AS NOTED)
- SPILLWAY REINFORCEMENT MATTING
- STOCKPILE (SOIL & TOPSOIL)
- EQUIPMENT/MATERIAL STORAGE AREA
- ROCK CONSTRUCTION ENTRANCE (RCE)
- COMPOST SOCK CONCRETE WASHOUT (CW)
- ROCK FILTER (RF)



LOCATION MAP
SASSAMANSVILLE, PA USGS QUAD MAP
SCALE: 1"=2000'

GRAPHIC SCALE
0 1000 2000 4000
1 INCH = 2000 FT

GENERAL NOTES

1. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
2. ANY DAMAGE THAT OCCURS AS A RESULT OF THE BASIN OR TRAP DISCHARGE WILL BE REPAIRED IN A PERMANENT MANNER THAT IS SATISFACTORY TO THE MUNICIPALITY, CONSERVATION DISTRICT AND DOWN SLOPE LANDOWNER(S).
3. ANY OFFSITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE MCCD PRIOR TO BEING ACTIVATED.
4. THE PCSM PLANS, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MONTGOMERY COUNTY CONSERVATION DISTRICT AND DOUGLASS TOWNSHIP.

EROSION POTENTIAL ANALYSIS

AN EROSION POTENTIAL ANALYSIS HAS BEEN COMPLETED FOR THE SITE AND ALL WATERSHEDS WILL HAVE A DECREASE IN STORMWATER FLOWS AND DISCHARGES FOLLOW EXISTING FLOW PATHS, THEREFORE THE APPLICANT HAS THE RIGHT TO DISCHARGE AND WILL NOT CAUSE A NUISANCE TO DOWNSLOPE PROPERTIES.

ASBUILT REQUIREMENTS

APPLICANT SHALL PROVIDE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND DOUGLASS TOWNSHIP FINAL AS-BUILT PLANS (SIGNED AND SEALED BY A QUALIFIED LICENSED PROFESSIONAL) OF ALL SCMS, CONVEYANCES, OTHER STORMWATER FACILITIES AND RELATED IMPROVEMENTS SHOWN IN THE FINAL APPROVED SWM SITE SITE.

RE-VEGETATE AND RE-FOREST DISTURBED AREAS, PART 2

REFER TO PCSM LANDSCAPING PLANS FOR PLANTING SPECIFICATIONS

CRITICAL STAGES (SEE SCHEDULE OF INSPECTIONS)

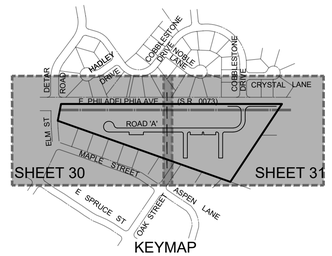
1. SCM #1 - DRY EXTENDED DETENTION BASIN
2. SCM #2 - MRC BASIN
3. SCM #3 - MRC BASIN
4. SCM #4 - MRC BASIN
5. SCM #5 - REVEGETATE & REFOREST DISTURBED AREAS, PART 2
6. SCM #6 - ROOFTOP DISCONNECTION

CRITICAL STAGES SCHEDULE OF INSPECTIONS

1. ABOVE GROUND BASINS
   - 1.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 1.2. COMPLETION OF BERM, INSTALLATION OF CLAY CORE, RISER, OUTLET PIPE, CONCRETE CRADLE, AND ANTI-SEEP COLLARS.
   - 1.3. STABILIZATION MEETING TO APPROVE CONVERSION FROM SEDIMENT FACILITY.
   - 1.4. PLANTING SOIL AND UNDERDRAIN INSTALLATION.
   - 1.5. CONVERSION OF OUTLET STRUCTURE TO PERMANENT CONDITION.
   - 1.6. STABILIZATION CONFIRMATION.
2. RE-VEGETATE AND RE-FOREST DISTURBED AREAS, PART 2
   - 2.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 2.2. EXCAVATED HOLE AND INSTALLATION OF SOIL ADDITIVES AND FERTILIZER.
   - 2.3. CONFIRM TREE IS ADEQUATE SIZE PER LANDSCAPE SCHEDULE.
   - 2.4. TREE TUBES/STAKING AS INDICATED ON LANDSCAPE PLANTING DETAILS.
   - 2.5. MULCHING/STABILIZATION CONFIRMATION.
3. ROOFTOP DISCONNECTION
   - 3.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 3.2. CHECK TO ENSURE ALL ROOFDRAINS ARE DISCONNECTED AND NO EROSION IS OCCURING DOWNSLOPE OF DISCHARGE.
4. DISCONNECTION FROM STORM SEWERS
   - 4.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 4.2. CHECK TO ENSURE IMPERVIOUS AREAS ARE GRADED TO ROUTE STORMWATER TO VEGETATED AREAS.
5. THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF THE CRITICAL STAGES SHALL VERIFY THAT ALL PCSM BMPS HAVEN'T BEEN IMPACTED BY CONSTRUCTION ACTIVITIES AND ARE FUNCTIONING PROPERLY.

SOILS LEGEND:

- AbA - ABBOTTSTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES
- CrA - CROTON SILT LOAM, 0 TO 3 PERCENT SLOPES
- RhA - REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
- RhB - REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
- UusB - URBAN LAND - UDORTHENTS, 0 TO 8 PERCENT SLOPES



Van Cleef ENGINEERING WITH FOCUS
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV | DESCRIPTION | AUTH | DATE

SERIAL NO. 20262020213

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PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 30 60 120
1 INCH = 60 FT

PLAN NOTATION
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

OVERALL E&S PLAN

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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NPDES BOUNDARY = 11.58 AC.
LIMIT OF DISTURBANCE = 9.72 AC.

E. PHILADELPHIA AVE. (S.R. 0073)

DETAR ROAD

ELM STREET

N/L MARILYN H RIVERS
T.M.B.U. 32-34A-34
DB. 5664, PG. 793

N/L ROBERT S. & BARBARA M. WOLFINGER
T.M.B.U. 32-34A-35
DB. 5381, PG. 1809

N/L OLAKUNLE N. YISA
T.M.B.U. 32-34A-36
DB. 6204, PG. 2991

N/L MASUD AMIN MD. & ZANNAT ARA FERDOUSHI
T.M.B.U. 32-34A-38
DB. 6432, PG. 1674

N/L TED J. & DINA M. RICE
T.M.B.U. 32-34A-40
DB. 5819, PG. 392

N/L TIMOTHY J. & SARAH HILL
T.M.B.U. 32-34A-41
DB. 6410, PG. 2117

N/L ROSARIO III & PA... LASPINA T.M.B.U. 32-...
DB. 5398, PG. 1...

MARK D. RUSSELL
T.B.U. 32-34-15
5362, PG. 1233

N/L DENNIS A. JR. & LORI K. PSOTA
T.M.B.U. 32-39C-9
DB. 5291, PG. 360

N/L CHRISTOPHER J. VOTH T.M.B.U. 32-39C-8
DB. 5526, PG. 2462

N/L DONALD L. & HELEN I. KUNE
T.M.B.U. 32-39C-7
DB. 4183, PG. 441

N/L STEVE OSCAR & MARY ELIZABETH LAFOND
T.M.B.U. 32-39C-6
DB. 5697, PG. 28

N/L KATHLEEN CARL
T.M.B.U. 32-39C-5
DB. 6274, PG. 2278

N/L FREDERICK M. & JAQUELINE M. HARMS
T.M.B.U. 32-39C-4
DB. 5037, PG. 2158

N/L GARY A. & LYNN C. REICHENBACH T.M.B.U. 32-39C-3
DB. 4958, PG. 485

S 84°10'13" E 1623.06'

NAG S75 SLOPE MATTING (TYP.)

6' WIDE ASPHALT TRAIL

STOCKPILE

STAGING AREA

CFS #1 CFS #2 CFS #3 CFS #4 CFS #5 CFS #6

RF-2

TP1 TP2 TP3 TP4 TP5 TP15

ROAD A

FF=288.52

FF=289.94 GF=288.24 (1)
FF=289.94 GF=288.24 (2)
FF=289.94 GF=287.57 (3)
FF=289.27 GF=287.57 (4)
FF=289.27 GF=287.07 (5)
FF=288.77 GF=287.07 (6)
FF=288.77 GF=287.07 (7)
FF=289.44 GF=287.74 (8)
FF=289.44 GF=287.74 (9)
FF=289.44 GF=287.74 (10)
FF=289.19 GF=287.49 (11)
FF=289.95 GF=287.58 (26)
FF=289.95 GF=287.58 (27)
FF=289.95 GF=288.25 (28)
FF=289.95 GF=288.25 (29)
FF=289.95 GF=288.25 (30)

106CB 107CB 108CB 205CB 206CB 400CB 401CB 405CB

18" HDPE 15" HDPE 8" HDPE 6" PVC

4" SAN. FORCE MAIN

6" WATER

6" PVC

4" ROOF DRAIN INV. 284.38

SAN. MH RIM=288.32 INV. IN=277.83 INV. OUT=277.62

SAN. MH RIM=288.26 INV. IN=275.16 INV. OUT=274.96

M INLET T/G=284.25 INV. OUT=282.05

INLET T/G=286.41 INV. 284.50 INV. 284.63

SSMH RIM 288.99 INV. IN 280.39 INV. IN 280.39 INV. OUT 280.19

SAN.MH. RIM 288.03 INV. OUT 281.43 (APPROXIMATE. FILLED WITH WATER AT TIME OF SURVEY)

12 CPP INV. 285.87
12 CPP INV. 284.92
12 CPP INV. 285.01
T/G=286.52 INV. 285.21 INV. 285.18

12" DIP INV. 284.27
12" DIP INV. 284.27

CONC. PAD INV. 284.87

WOOD SHED INV. 284.47

SHED

HOUSE

WOOD FENCE

WETLANDS

DRAINAGE DITCH WITH INTERMITTENT WATERS (WATERS OF THE US & COMMONWEALTH)

CONCRETE CURB & GUTTER

LEGAL R.O.W. LINE

TOWNSHIP LEGAL R.O.W. LINE

PENNDOT LEGAL R.O.W. LINE

EDGE OF MACADAM

NPDES/LOD

LOD

CFS

SOIL

MATCHLINE

KEYMAP

SHEET 30

SHEET 31

E. PHILADELPHIA AVE. (S.R. 0073)

DETAR ROAD

ELM ST.

HARLEY DRIVE

COBBLESTONE DRIVE NORTH

COBBLESTONE DRIVE SOUTH

CRYSTAL LANE

ROAD 'A'

MAPLE STREET

E. SPRUCE ST.

OAK STREET

ASPEN LANE

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	●/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	C / M
BUILDING SETBACK LINE		DRAINAGE MANHOLE	D
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE		WATER MANHOLE	W
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	●G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	
SANITARY MAIN LINE	S	STRAIGHT TEXT DENOTES PROPOSED FEATURES	
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	○/□
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	C / M
EASEMENT LINE		DRAINAGE MANHOLE	D
ROADWAY CENTERLINE		SANITARY MANHOLE	S
CHAIN LINK FENCE LINE		FIRE HYDRANT	
SPLIT RAIL FENCE LINE		WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

E&S LEGEND

NPDES BOUNDARY/LIMIT OF DISTURBANCE	NPDES/LOD
PROTECTION FENCE	
COMPOST FILTER SOCK & ID	CFS
COMPOST FILTER SOCK TRAP	CFS
FILTREXX RUNOFF DIVERSION SOCK	
EROSION CONTROL BLANKET (SLOPES 3:1 OR GREATER AS NOTED)	
SPILLWAY REINFORCEMENT MATTING	
STOCKPILE (SOIL & TOPSOIL)	
EQUIPMENT/MATERIAL STORAGE AREA	RCE
ROCK CONSTRUCTION ENTRANCE	CW
COMPOST SOCK CONCRETE WASHOUT	RF
ROCK FILTER	

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Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV | DESCRIPTION | AUTH | DATE

SERIAL NO. 20262020213

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In... PENNSYLVANIA
STOP! CALL 1-800-242-1776
www.paonecall.com
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 15 30 60
1 INCH = 30 FT

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PHONE (610) 323-4040

E&S PLAN (1)

FOR

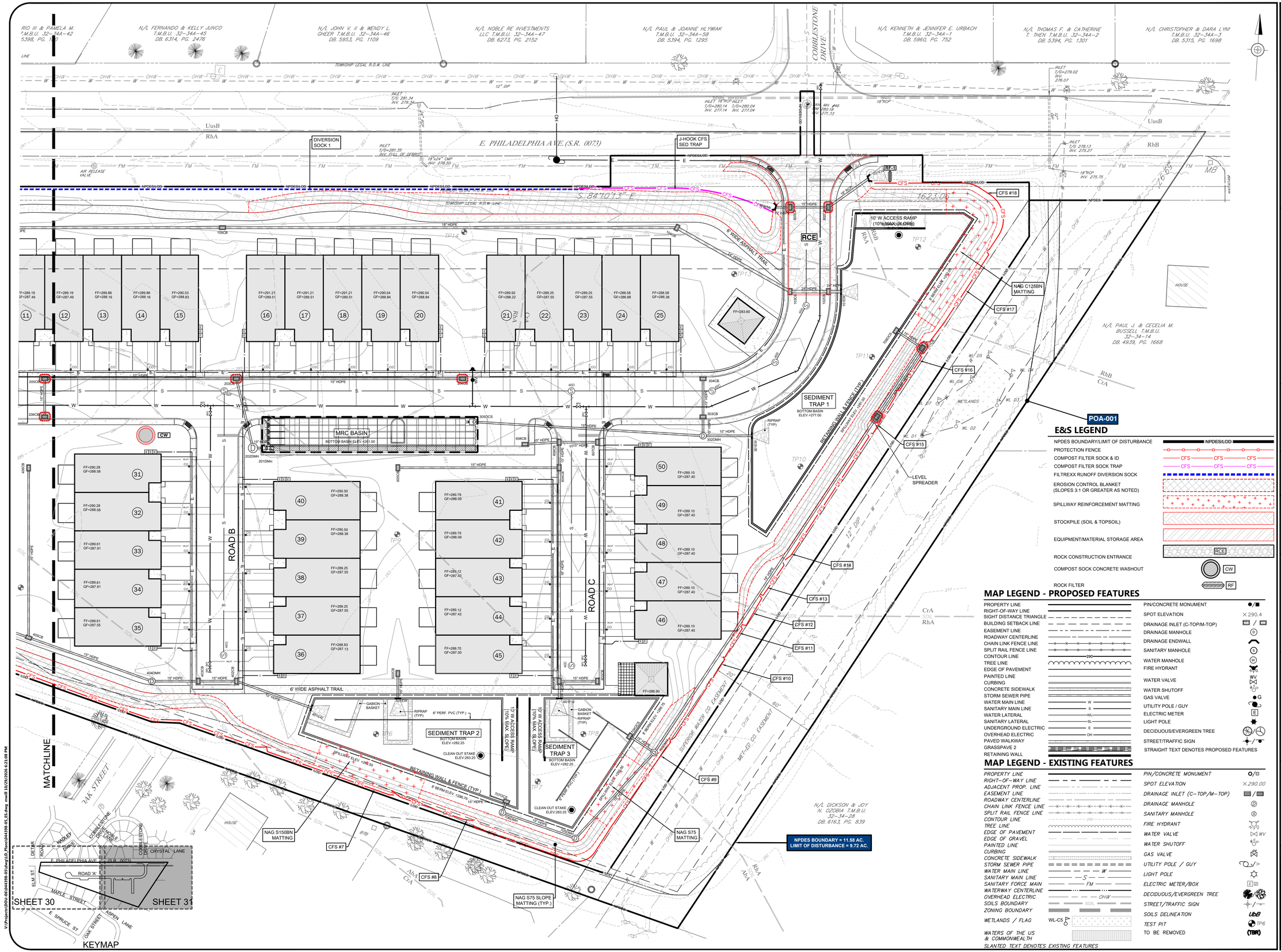
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
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2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

30 of 44



E&S LEGEND

NPDES BOUNDARY/LIMIT OF DISTURBANCE	NPDES/LOD
PROTECTION FENCE	
COMPOST FILTER SOCK & ID	CFS
COMPOST FILTER SOCK TRAP	CFS
FILTREXX RUNOFF DIVERSION SOCK	
EROSION CONTROL BLANKET (SLOPES 3:1 OR GREATER AS NOTED)	
SPILLWAY REINFORCEMENT MATTING	
STOCKPILE (SOIL & TOPSOIL)	
EQUIPMENT/MATERIAL STORAGE AREA	
ROCK CONSTRUCTION ENTRANCE	RCE
COMPOST SOCK CONCRETE WASHOUT	CW
ROCK FILTER	RF

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
SIGHT DISTANCE TRIANGLE	DRAINAGE INLET (C-TOP/M-TOP)
BUILDING SETBACK LINE	DRAINAGE MANHOLE
EASEMENT LINE	DRAINAGE ENDWALL
ROADWAY CENTERLINE	SANITARY MANHOLE
CHAIN LINK FENCE LINE	WATER MANHOLE
SPLIT RAIL FENCE LINE	FIRE HYDRANT
CONTOUR LINE	WATER VALVE
TREE LINE	WATER SHUTOFF
EDGE OF PAVEMENT	GAS VALVE
PAINTED LINE	UTILITY POLE / GUY
CURBING	ELECTRIC METER
CONCRETE SIDEWALK	LIGHT POLE
STORM SEWER PIPE	DECIDUOUS/EVERGREEN TREE
WATER MAIN LINE	STREET/TRAFFIC SIGN
SANITARY MAIN LINE	STRAIGHT TEXT DENOTES PROPOSED FEATURES
WATER LATERAL	
SANITARY LATERAL	
UNDERGROUND ELECTRIC	
OVERHEAD ELECTRIC	
PAVED WALKWAY	
GRASSPAVE 2	
RETAINING WALL	

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
ADJACENT PROP. LINE	DRAINAGE INLET (C-TOP/M-TOP)
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EDGE OF GRAVEL	LIGHT POLE
PAINTED LINE	ELECTRIC METER/BOX
CURBING	DECIDUOUS/EVERGREEN TREE
CONCRETE SIDEWALK	STREET/TRAFFIC SIGN
STORM SEWER PIPE	SOILS DELINEATION
WATER MAIN LINE	TEST PIT
SANITARY MAIN LINE	TO BE REMOVED
SANITARY FORCE MAIN	
WATERWAY CENTERLINE	
OVERHEAD ELECTRIC	
SOILS BOUNDARY	
ZONING BOUNDARY	
WETLANDS / FLAG	WL-C5
WATERS OF THE US & COMMONWEALTH	

SLANTED TEXT DENOTES EXISTING FEATURES

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Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOCK CALL 1-800-242-1776
PA ONE CALL SYSTEM, INC.

GRAPHIC SCALE
0 15 30 60
1 INCH = 30 FT

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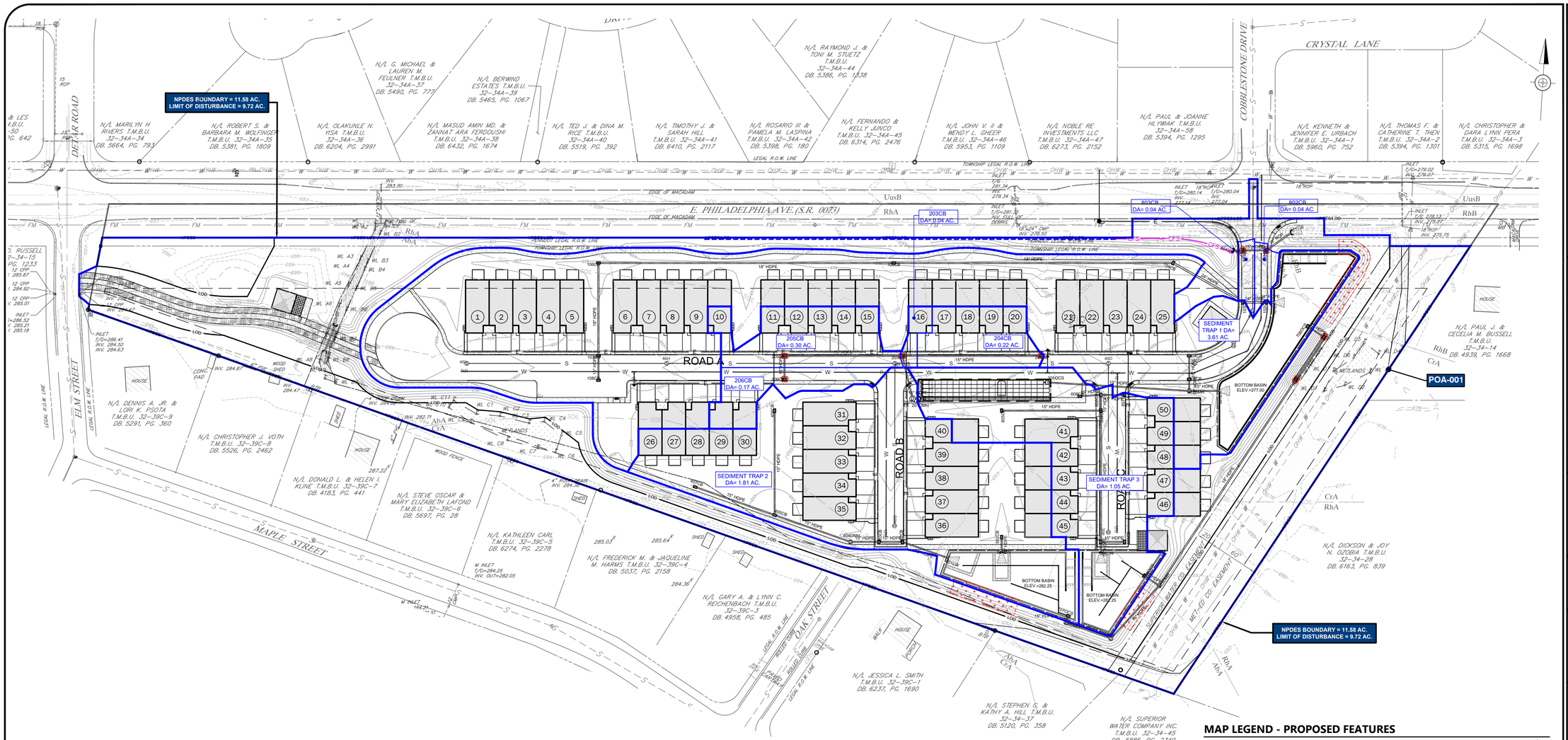
E&S PLAN (2)

FOR

COBBLESTONE VILLAGE CROSSING

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E&S LEGEND

NPDES BOUNDARY/LIMIT OF DISTURBANCE	NPDES/LOD
PROTECTION FENCE	
COMPOST FILTER SOCK & ID	CFS
COMPOST FILTER SOCK TRAP	CFS
FILTREXX RUNOFF DIVERSION SOCK	
EROSION CONTROL BLANKET (SLOPES 3:1 OR GREATER AS NOTED)	
SPILLWAY REINFORCEMENT MATTING	
STOCKPILE (SOIL & TOPSOIL)	
EQUIPMENT/MATERIAL STORAGE AREA	
ROCK CONSTRUCTION ENTRANCE	RCE
COMPOST SOCK CONCRETE WASHOUT	CW
ROCK FILTER	RF
DRAINAGE AREA	

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
SIGHT DISTANCE TRIANGLE	DRAINAGE INLET (C-TOP/M-TOP)
BUILDING SETBACK LINE	DRAINAGE MANHOLE
EASEMENT LINE	DRAINAGE ENDWALL
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PAINTED LINE	UTILITY POLE / GUY
CURBING	ELECTRIC METER
CONCRETE SIDEWALK	LIGHT POLE
STORM SEWER PIPE	DECIDUOUS/EVERGREEN TREE
WATER MAIN LINE	STREET/TRAFFIC SIGN
SANITARY MAIN LINE	STRAIGHT TEXT DENOTES PROPOSED FEATURES
WATER LATERAL	
SANITARY LATERAL	
UNDERGROUND ELECTRIC	
OVERHEAD ELECTRIC	
PAVED WALKWAY	
GRASSPAVE 2	
RETAINING WALL	

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
ADJACENT PROP. LINE	DRAINAGE INLET (C-TOP/M-TOP)
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CONCRETE SIDEWALK	STREET/TRAFFIC SIGN
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WATER MAIN LINE	TEST PIT
SANITARY MAIN LINE	TO BE REMOVED
SANITARY FORCE MAIN	
WATERWAY CENTERLINE	
OVERHEAD ELECTRIC	
SOILS BOUNDARY	
ZONING BOUNDARY	
WETLANDS / FLAG	
WATERS OF THE US & COMMONWEALTH	

SLANTED TEXT DENOTES EXISTING FEATURES

Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
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E&S MAXIMUM DRAINAGE AREA PLAN

FOR

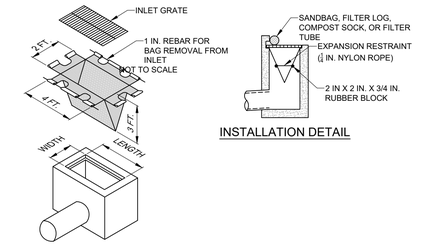
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
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JOB NUMBER:	044398.05

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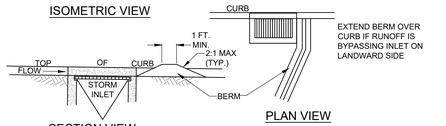
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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INSTALLATION DETAIL

ISOMETRIC VIEW



SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
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.

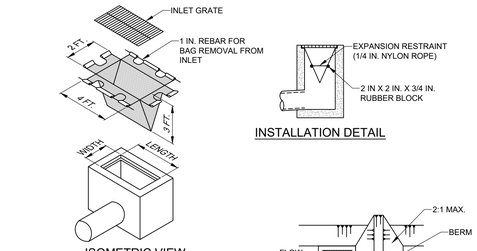
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION - TYPE C INLET

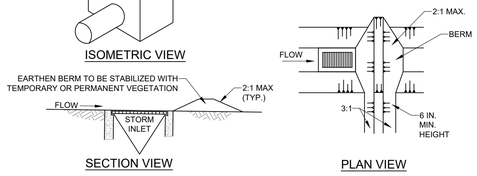
NOT TO SCALE

ABACT BMP FOR HQ WATERSHEDS



INSTALLATION DETAIL

ISOMETRIC VIEW



SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

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.

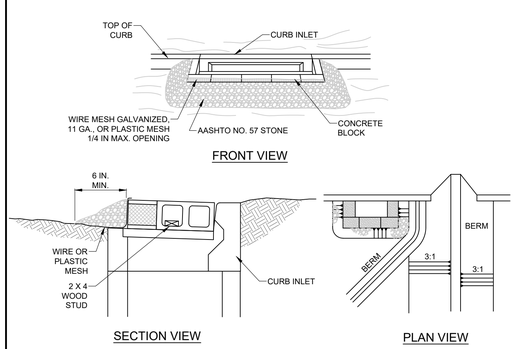
INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

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

STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET

NOT TO SCALE

ABACT BMP FOR HQ WATERSHEDS



FRONT VIEW

SECTION VIEW

PLAN VIEW

NOTES:

MAXIMUM DRAINAGE AREA = 1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

ROLLED EARTHEN BERM SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

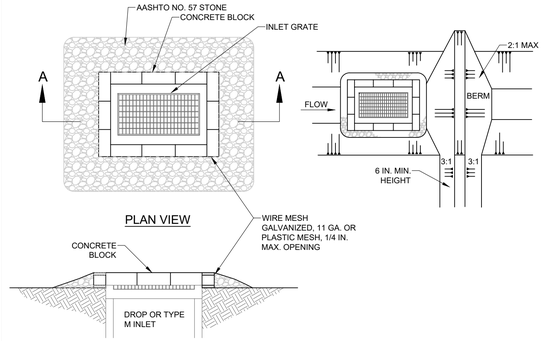
FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE.

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

STANDARD CONSTRUCTION DETAIL #4-17
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE C INLET

NOT TO SCALE

ABACT BMP FOR HQ WATERSHEDS
(WITH 6" LAYER OF COMPOST ANCHORED AROUND OUTSIDE OF STONE)



PLAN VIEW

SECTION A-A

NOTES:

MAXIMUM DRAINAGE AREA =1 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS NOT LOCATED AT A LOW POINT.

ROLLED EARTHEN BERM IN ROADWAY SHALL BE PROVIDED AND MAINTAINED IMMEDIATELY DOWN GRADIENT OF THE PROTECTED INLET UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR TO REMAIN PERMANENTLY.

TOP OF BLOCK SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.

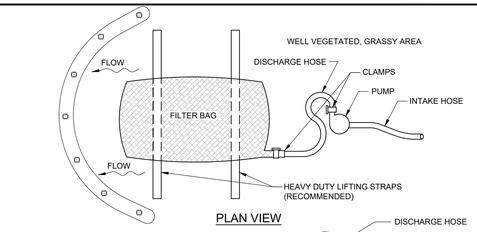
SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE HEIGHT OF THE STONE. DAMAGED OR CLOGGED INSTALLATIONS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

FOR SYSTEMS DISCHARGING TO HQ OR EV SURFACE WATER, A 6 INCH THICK COMPOST LAYER SHALL BE SECURELY ANCHORED ON OUTSIDE AND OVER TOP OF STONE. COMPOST SHALL MEET THE STANDARDS IN TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

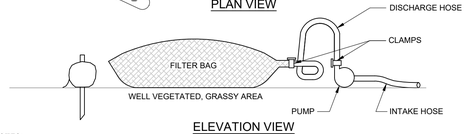
STANDARD CONSTRUCTION DETAIL #4-18
STONE AND CONCRETE BLOCK INLET PROTECTION - TYPE M INLET

NOT TO SCALE

ABACT BMP FOR HQ WATERSHEDS
(WITH 6" LAYER OF COMPOST ANCHORED AROUND OUTSIDE OF STONE)



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.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

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.

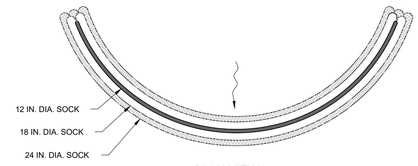
THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

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

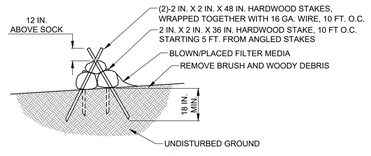
STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NOT TO SCALE

ABACT BMP
(IF SURROUNDED BY A COMPOST SOCK RING OR OPERATED IN CONJUNCTION WITH A SUMP PIT)



PLAN VIEW



STAKING DETAIL

DESIGN NOTES:

1. COMPOST SOCK SEDIMENT TRAP SHALL BE SIZED TO PROVIDE 2000 CUBIC FEET OF STORAGE CAPACITY FOR EACH ACRE TRIBUTARY TO THE TRAP.
2. MINIMUM BASE WIDTH IS EQUAL TO THE HEIGHT.
3. SEDIMENT ACCUMULATION SHALL NOT EXCEED 1/3 THE TOTAL HEIGHT OF THE TRAP.
4. SOCKS SHALL BE OF LARGER DIAMETER AT THE BASE OF THE TRAP AND DECREASE IN DIAMETER FOR SUCCESSIVE LAYERS AS SHOWN ON THE PLAN VIEW.
5. ENDS OF THE TRAP SHALL BE A MINIMUM OF 1 FOOT HIGHER IN ELEVATION THAN THE MID-SECTION, WHICH SHALL BE LOCATED AT THE POINT OF DISCHARGE.

NOTES:

SOCK MATERIAL SHALL MEET THE STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST SOCK SEDIMENT TRAPS SHALL NOT EXCEED THREE SOCKS IN HEIGHT AND SHALL BE STACKED IN PYRAMIDAL FORM AS SHOWN ABOVE. MINIMUM TRAP HEIGHT IS ONE 24" DIAMETER SOCK. ADDITIONAL STORAGE MAY BE PROVIDED BY MEANS OF AN EXCAVATED SUMP 12" DEEP EXTENDING 1 TO 3 FEET UPSLOPE OF THE SOCKS ALONG THE LOWER SIDE OF THE TRAP.

COMPOST SOCK SEDIMENT TRAPS SHALL PROVIDE 2,000 CUBIC FEET STORAGE CAPACITY WITH 12" FREEBOARD FOR EACH TRIBUTARY DRAINAGE ACRE. (SEE MANUFACTURER FOR ANTICIPATED SETTLEMENT.)

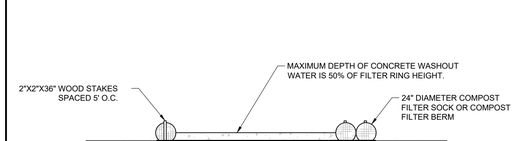
THE MAXIMUM TRIBUTARY DRAINAGE AREA IS 5.0 ACRES. SINCE COMPOST SOCKS ARE "FLOW-THROUGH," NO SPILLWAY IS REQUIRED.

COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 THE HEIGHT OF THE SOCKS.

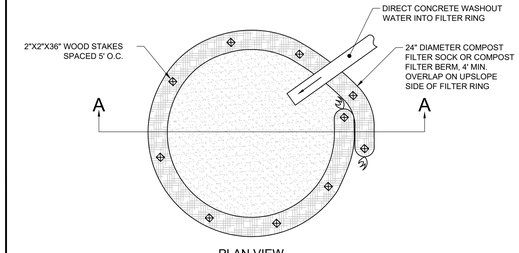
PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR.

STANDARD CONSTRUCTION DETAIL #3-11
COMPOST SOCK SEDIMENT TRAP

NOT TO SCALE



SECTION A-A

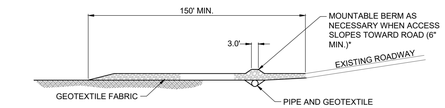


PLAN VIEW

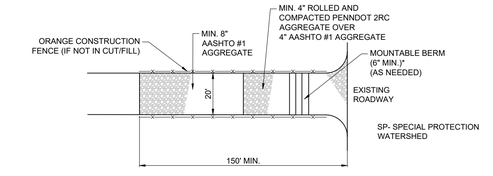
NOTES:
1. INSTALL ON FLAT GRADE (2% MAXIMUM SLOPE) FOR OPTIMAL PERFORMANCE
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER FILTER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. COMPOST SOCK MUST REMAIN IN CONTINUOUS CONTACT WITH THE GEOMEMBRANE AT ALL LOCATIONS. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
4. ACCUMULATED MATERIALS TO BE REMOVED WHEN THEY REACH 50% CAPACITY.

TYPICAL COMPOST SOCK CONCRETE WASHOUT

PA DEP FIGURE 3.18
NOT TO SCALE



PROFILE VIEW



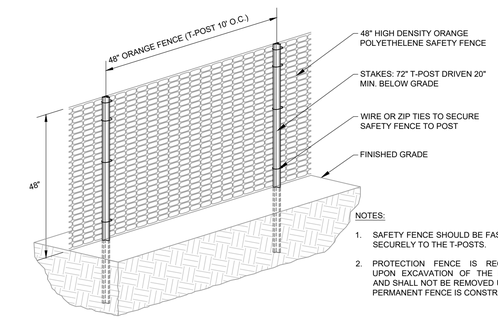
*MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE.

PLAN VIEW

ALTERNATIVE ROCK CONSTRUCTION ENTRANCE (SP)

NOT TO SCALE

PROJECT SITE IS LOCATED WITHIN A SPECIAL PROTECTION WATERSHED; THEREFORE, A MINIMUM OF 150 FOOT LONG ROCK CONSTRUCTION ENTRANCE IS REQUIRED.



NOTES:

1. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
2. PROTECTION FENCE IS REQUIRED UPON EXCAVATION OF THE BASINS AND SHALL NOT BE REMOVED UNTIL A PERMANENT FENCE IS CONSTRUCTED.

PROTECTION FENCE DETAIL

NOT TO SCALE

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Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776 Dial 811
PA ONE CALL SYSTEM, INC.

PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

E&S DETAILS (1)

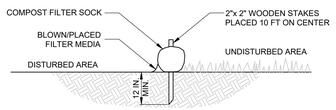
FOR

COBBLESTONE VILLAGE CROSSING

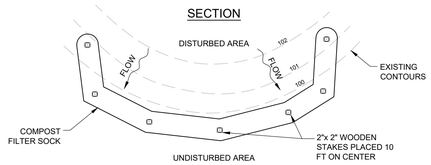
DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



SECTION



PLAN VIEW

NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER 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.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

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.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK

NOT TO SCALE

ABACT BMP

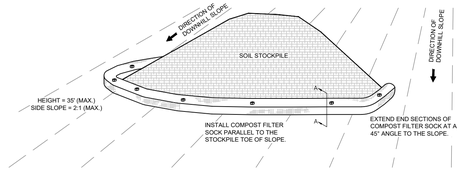
TABLE 4.1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
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)	% AT 1000 HR	23% AT 1000 HR		100% AT 1000 HR	100% AT 1000 HR
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 & 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					

* MULTI-FILAMENT POLYPROPYLENE (MFPP) SOCK TO BE USED.

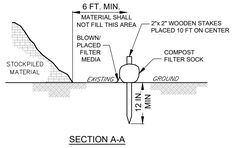
TABLE 4.2 – COMPOST STANDARDS

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	5.0dS/m (mmhos/cm) MAXIMUM

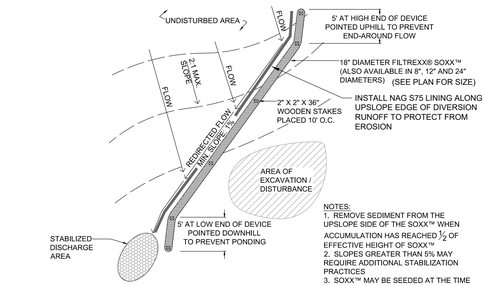


SOIL STOCKPILE PROTECTION ILLUSTRATION

NOT TO SCALE

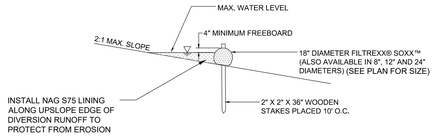


SECTION A-A



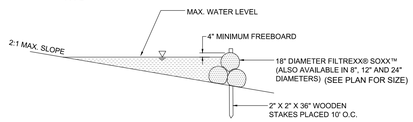
NOTES:
1. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF THE SOXX™ WHEN ACCUMULATION HAS REACHED ½ OF EFFECTIVE HEIGHT OF SOXX™
2. SLOPES GREATER THAN 5% MAY REQUIRE ADDITIONAL STABILIZATION PRACTICES
3. SOXX™ MAY BE SEEDED AT THE TIME OF INSTALLATION

FILTREXX® RUNOFF DIVERSION



SINGLE INSTALLATION SECTION

NTS



PYRAMID INSTALLATION SECTION

NTS

FILTREXX® RUNOFF DIVERSION SECTIONS

NTS

STANDARD WORKSHEET #21
Temporary and Permanent Vegetative Stabilization Specifications

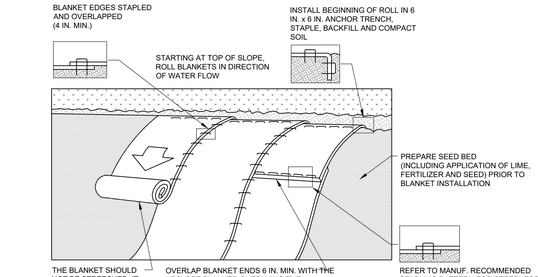
PROJECT NAME: COBBLESTONE VILLAGE CROSSING
LOCATION: DOUGLASS TOWNSHIP, MONTGOMERY COUNTY, PA
PREPARED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

SPECIFICATIONS: The Department recommends the use of the Penn State publication "Erosion Control & Conservation Plantings on Noncropland" as the standard to use for the selection of species, seed specifications, mixtures, liming and fertilizing, time of seeding, and seeding methods. Specifications for these items may also be obtained from Penn DOT's Publication # 408, Section 804 or by contacting the applicable county conservation district. Upon selection of a reference, that reference should be used to provide all specifications for seeding, mulching, and soil amendments. The following specification will be used for this project.

(TEMPORARY)	*SPECIES:	ANNUAL RYEGRASS
	% PURE LIVE SEED:	88.20 %
	APPLICATION RATE:	48.4 LB./ACRE
	FERTILIZER TYPE:	10-10-10 (X-X-X)
	FERTILIZER APPL. RATE:	500 LB./ACRE
	LIMING RATE:	1 T./ACRE
	MULCH TYPE:	STRAW OR HAY
	MULCHING RATE:	1 T./ACRE
(PERMANENT)	TOPSOIL PLACEMENT DEPTH:	6 MINIMUM IN.
	*SPECIES:	CREEPING, HYBRID, MOWING-CREEPING FESCUE OR CHEWINGS FESCUE/KENTUCKY BLUEGRASS MIXTURE
	% PURE LIVE SEED:	68.2/83.3/78.4 %
	APPLICATION RATE:	18.4/29.0/53.2 LB./ACRE
	FERTILIZER TYPE:	10-10-20 (X-X-X)
	FERTILIZER APPL. RATE:	1000 LB./ACRE
	LIMING RATE:	6 T./ACRE
	MULCH TYPE:	STRAW OR HAY
	MULCHING RATE:	3 T./ACRE
	ANCHOR MATERIAL:	CELLULOSE FIBER
	ANCHORING METHOD:	SPRAYED
	RATE OF ANCHOR MATERIAL APPL.:	1800 LB./ACRE
	SEEDING SEASON DATES:	MARCH 15–JUNE 1) & (AUGUST 1–OCTOBER 15)
(PERMANENT – STEEP SLOPE)	TOPSOIL PLACEMENT DEPTH:	6 MINIMUM IN.
	*SPECIES:	TALL FESCUE/CREEPING FESCUE OR CHEWINGS FESCUE/ANNUAL RYEGRASS
	% PURE LIVE SEED:	83.3/83.3/88.2 %
	APPLICATION RATE:	61.0/30.5/10.2 LB./ACRE
	FERTILIZER TYPE:	10-10-20 (X-X-X)
	FERTILIZER APPL. RATE:	1000 LB./ACRE
	LIMING RATE:	6 T./ACRE
	MULCH TYPE:	STRAW OR HAY
	MULCHING RATE:	3 T./ACRE
	ANCHOR MATERIAL:	CELLULOSE FIBER
	ANCHORING METHOD:	SPRAYED
	RATE OF ANCHOR MATERIAL APPL.:	2000 LB./ACRE
	SEEDING SEASON DATES:	FESCUE (MARCH 15–JUNE 1) & (AUGUST 1–OCTOBER 15) (ML-3/1 - 10/15)

*If more than one species is used, indicate application rate for each species.
Note: This worksheet should be added to the plan drawings.

NOTES:
1. 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 OF 6 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING.
2. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
3. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. 4. SOIL TESTING SHOULD BE COMPLETED PRIOR TO SEEDING AND MULCHING TO DETERMINE THE PROPER SOIL AMENDMENTS AND APPLICATION RATES FOR THE PROPOSED SEED MIXTURES.
5. STRAW OR HAY MULCH SHOULD BE ANCHORED OR TACKIFIED 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 SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING.



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

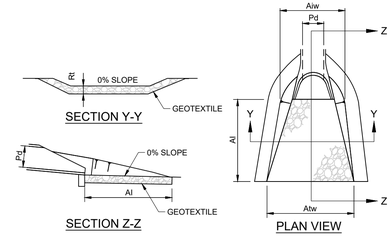
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

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 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-_	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
101EW	24	3	9	10	6	10
301EW	15	3	9	6	3.75	6.15
401EW	15	3	9	6	3.75	6.15
501EW	15	3	9	6	3.75	6.15
601EW	18	3	9	7	4.5	7.3
801EW	18	3	9	8	4.5	7.7
901EW	18	4	18	8	4.5	7.7

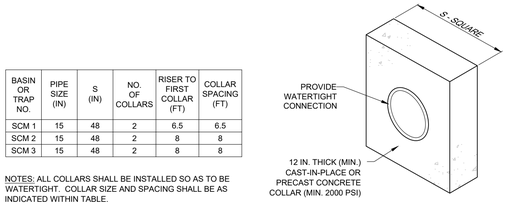
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE

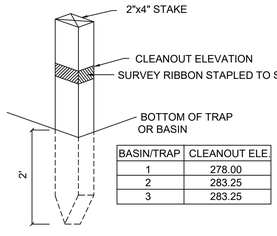


BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
SCM 1	15	48	2	6.5	6.5
SCM 2	15	48	2	8	8
SCM 3	15	48	2	8	8

NOTES: ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT. COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL #7-16
CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

NOT TO SCALE

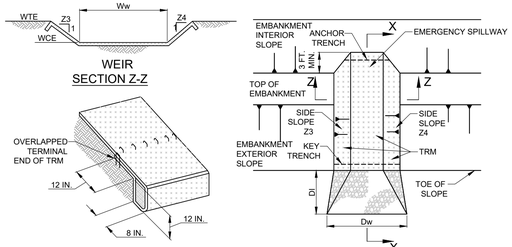


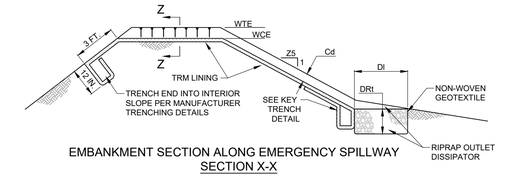
BASIN/TRAP	CLEANOUT ELE.
1	278.00
2	283.25
3	283.25

1. CLEANOUT STAKES MUST BE PLACED AT A HALF DISTANCE FROM CONCENTRATED INFLOWS TO THE OUTLET STRUCTURE.
2. WHEN ACCUMULATED SEDIMENT HAS REACHED THE SEDIMENT CLEANOUT ELEVATION THE SEDIMENT MUST BE REMOVED AND THE BASIN RETURNED TO ITS ORIGINAL DIMENSIONS.
3. THE SEDIMENT CLEANOUT ELEVATION SHALL BE INDICATED BY USE OF SURVEY RIBBON STAPLED TO THE STAKE.

CLEANOUT STAKE

NOT TO SCALE





EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY
SECTION X-X

BASIN NO.	WEIR Z3 (FT)	WEIR Z4 (FT)	WEIR TOP ELEV WTE (FT)	WEIR CREST ELEV WCE (FT)	WEIR WIDTH Ww (FT)	LINING TRM TYPE	LINING STAPLE PATTERN	CHANNEL Z5 (FT)	CHANNEL DEPTH Cd (FT)	DISSIPATOR LENGTH DI (FT)	DISSIPATOR WIDTH Dw (FT)	DISSIPATOR RIPRAP SIZE (R-_)	DISSIPATOR RIPRAP THICK. DRI (IN)
SCM 1	3	3	282.00	281.00	100	NAG C125BN	D	2	1.50	15	60	3	9
SCM 2	3	3	286.75	285.50	80	NAG S150BN	D	3	1.50	15	85	3	9
SCM 3	3	3	286.75	285.50	50	NAG S75	D	3	1.50	15	87	3	9

NOTES:

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR.

THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-13
SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING

NOT TO SCALE

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Local/Regional Planning
Municipal Consulting
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

E&S DETAILS (2)

FOR

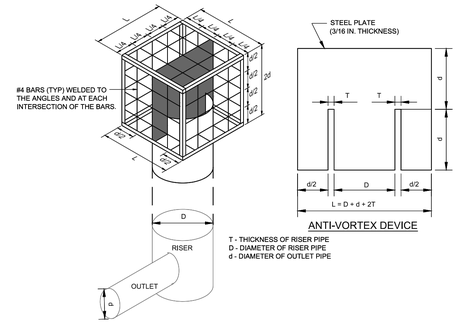
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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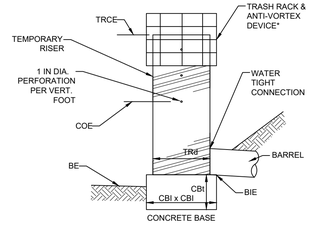
ANTI-VORTEX DEVICE

T - THICKNESS OF RISER PIPE
D - DIAMETER OF RISER PIPE
d - DIAMETER OF OUTLET PIPE

STANDARD CONSTRUCTION DETAIL #7-5
TRASH RACK AND ANTI-VORTEX DEVICE

NOT TO SCALE

** DURING THE E&S STAGE ONLY THE TEMPORARY RISER SHALL BE INSTALLED. DURING THE CONVERSION THE TEMPORARY RISER SHALL BE REMOVED AND THE PERMANENT INSTALLED.



* SEE STANDARD CONSTRUCTION DETAIL #7-5, TRASH RACK AND ANTI-VORTEX DEVICE
** LOWEST HOLE AT SEDIMENT CLEAN-OUT ELEVATION

TRAP NO.	TEMPORARY RISER				CONCRETE BASE			BARREL
	DIA TRd (IN)	CREST ELEV TRCE (FT)	MAT'L	CLEAN OUT ELEV. COE (FT)	LENGTH CBl (IN)	WIDTH CBw (IN)	THICK. CBt (IN)	INLET ELEV BIE (FT)
1	18	280.00	CMP	278.00	36	36	18	274.43
2	18	285.00	CMP	283.25	36	36	18	279.00
3	18	285.00	CMP	283.25	36	36	18	279.00

NOTES:

A MINIMUM OF 2-#8 REBAR SHALL BE PLACED AT RIGHT ANGLES AND PROJECTING THROUGH SIDES OF RISER TO ANCHOR IT TO CONCRETE BASE. REBAR SHALL PROJECT A MINIMUM OF 1/4 RISER DIAMETER BEYOND OUTSIDE OF RISER.

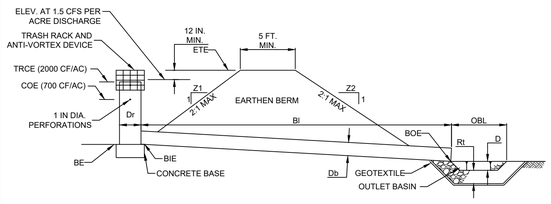
CONCRETE BASE SHALL BE POURED IN SUCH A MANNER SO AS TO INSURE THAT CONCRETE FILLS BOTTOM OF RISER TO INVERT OF THE OUTLET PIPE TO PREVENT RISER FROM BREAKING AWAY FROM THE BASE. MINIMUM BASE WIDTH EQUALS 2 TIMES RISER DIAMETER.

EMBEDDED SECTION OF ALUMINUM OR ALUMINIZED PIPE SHALL BE PAINTED WITH ZINC CHROMATE OR EQUIVALENT.

CLOGGED OR DAMAGED SPILLWAYS SHALL BE REPAIRED IMMEDIATELY. TRASH AND OTHER DEBRIS SHALL BE REMOVED FROM THE BASIN AND RISER.

STANDARD CONSTRUCTION DETAIL #8-3
SEDIMENT TRAP TEMPORARY RISER

NOT TO SCALE



TRAP NO.	Z1 (FT)	Z2 (FT)	RISER				BARREL					EMBANKMENT		CLEAN OUT ELEV COE (FT)	BOTTOM ELEV BE (FT)
			MAT'L	DIA Dr (IN)	CREST ELEV RCE (FT)	BOT PERF ELEV (FT)	MAT'L	DIA Bd (IN)	INLET ELEV BIE (FT)	LENGTH BI (FT)	OUTLET ELEV BOE (FT)	TOP ELEV ETE (FT)	TOP WIDTH Etw (FT)		
88	88	88	12345	88	8888.88	8888.88	12345	88	8888.88	88	8888.88	8888.88	88	8888.88	8888.88

TRAP NO.	CONCRETE BASE			OUTLET BASIN				
	LENGTH CBl (IN)	WIDTH CBw (IN)	THICK. CBt (IN)	RIPRAP SIZE (R-_)	ROCK THICK Rt (IN)	DEPTH D (IN)	WIDTH OBW (FT)	LENGTH OBL (FT)
1	36	36	18	SEE	RIPRAP	APRON	DETAIL	
2	36	36	18	SEE	RIPRAP	APRON	DETAIL	
3	36	36	18	SEE	RIPRAP	APRON	DETAIL	

NOTES:

SEE DETAIL #8-3 TEMPORARY RISER FOR DETAILS OF THE TEMPORARY RISER CONSTRUCTION.

FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS.

ALL SEDIMENT TRAPS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT.

ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES SHALL BE PROVIDED.

A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH TRAP. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE TRAP IN THE MANNER DESCRIBED IN THE E&S PLAN.

CHECK EMBANKMENTS, SPILLWAYS, AND OUTLETS FOR EROSION, PIPING AND SETTLEMENT. CLOGGED OR DAMAGED SPILLWAYS AND/OR EMBANKMENTS SHALL BE IMMEDIATELY RESTORED TO THE DESIGN SPECIFICATIONS. DISPLACED RIPRAP WITHIN THE OUTLET PROTECTION SHALL BE REPLACED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE TRAP SHALL BE STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. TO ASSIST IN REMOVING SEDIMENT, WHICH MAY BE SATURATED, A DEVICE SUCH AS IS SHOWN IN STANDARD CONSTRUCTION DETAIL #7-18 MAY BE USED TO DEWATER THE SEDIMENT PRIOR TO ITS REMOVAL.

STANDARD CONSTRUCTION DETAIL #8-2
BARREL/RISER SEDIMENT TRAP

(NOT TO SCALE)

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Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

E&S DETAILS (3)

FOR

COBBLESTONE VILLAGE CROSSING

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DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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SOIL LIMITATIONS AND RESOLUTIONS

CUTBANKS CAVE - SLOPE LAY-BACKS OR SHORE/TRENCH BOX SHALL BE UTILIZED FOR ALL TRENCH EXCAVATIONS TO MEET OSHA REGULATIONS.
CORROSIVE TO CONCRETE STEEL - PIPE ALTERNATIVES HAVE BEEN PROVIDED.
DROUGHTY - SEEDING AND SOIL SUPPLEMENTS SHALL BE APPLIED AT THE RECOMMENDED RATES TO ENSURE PROPER VEGETATIVE COVER, MULCHING SHALL ALSO BE APPLIED AT THE RECOMMENDED RATES TO RETAIN MOISTURE.
EASILY ERODIBLE - ROLLED EROSION CONTROL PRODUCTS SHALL BE PROVIDED ON ALL SEEDED AND MULCHED SLOPES 3H: 1V OR STEEPER.
FLOODING - SHOULD NOT AFFECT CONSTRUCTION; MINIMIZE DISTURBED AREAS DURING CONSTRUCTION; PROVIDE PROPER COMPACTION OF MATERIAL. REFER TO RESOLUTIONS TO OTHER LIMITATIONS FOR FURTHER DETAILS.
DEPTH TO SATURATED ZONE/ SEASONAL HIGH WATER TABLE - PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER EXCAVATION AREAS WHERE STANDING WATER OCCURS DURING CONSTRUCTION.
HYDRIC / HYDRIC INCLUSIONS - WETLANDS, IF PRESENT, HAVE BEEN IDENTIFIED, PROTECTED AND/OR MITIGATED WHERE NECESSARY.
LOW STRENGTH / LANDSLIDE PRONE - ALL SLOPES (CUT OR FILL) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS; GEOTECHNICAL ANALYSIS HAS BEEN PERFORMED IF DEEMED NECESSARY.
SLOW PERCOLATION - INFILTRATION TESTING HAS BEEN PERFORMED AT INFILTRATION BMP LOCATIONS.
PIPING - ANTI-SEEP COLLARS HAVE BEEN PROVIDED FOR THE BASIN OUTLET TO PREVENT EMBANKMENT FAILURE.
POOR SOURCE OF TOPSOIL - TOPSOIL SHALL BE APPLIED AT A MINIMUM THICKNESS OF 6 INCHES. IF THE PROJECT SITE DOES NOT HOLD THE REQUIRED AMOUNT, TOPSOIL SHALL BE SUPPLIED FROM AN OUTSIDE SOURCE MEETING THE FOLLOWING SPECIFICATIONS. SEEDING AND SOIL SUPPLEMENTS SHALL BE APPLIED AT THE RECOMMENDED RATES PER STANDARD WORKSHEET 21, TEMPORARY & PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS ON SHEET 33 OF THIS PLANSET. TOPSOIL SHALL HAVE A PH LEVEL OF 6-7.5, HAVE A MINIMUM OF 4% ORGANIC MATERIAL AND A MAXIMUM ROCK SIZE OF 1 INCH. THE CONTRACTOR SHALL FOLLOW THE GUIDANCE OF A DIRECTED SOIL TEST TO ENSURE PROPER TOPSOIL ADDITIVES FOR VEGETATIVE COVER.
FROST ACTION - ROADWAY SUBBASE SHALL DRAIN TO A SLOPE OR SHALL BE DRAINED WITH PAVEMENT BASE DRAIN, ALSO, THE BULK OF CONSTRUCTION ACTIVITIES SHALL BE PERFORMED DURING THE CONSTRUCTION SEASON.
PONDING - SHOULD NOT AFFECT CONSTRUCTION; IF ENCOUNTERED, USE DEWATERING DEVICE - PUMP WATER FROM EXCAVATION TO A FILTER BAG.
WETNESS - PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER EXCAVATION AREAS WHERE STANDING WATER OCCURS DURING CONSTRUCTION.

PROPOSED GRADING

THE ATTACHED SOIL EROSION CONTROL PLANS INDICATE THE PROPOSED GRADING FOR THE ENTIRE SITE TO BE DEVELOPED. ALL PERMANENT GRADING SHALL BE GRADED AT SLOPES NOT STEEPER THAN 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL. TEMPORARY GRADING CAN BE GRADED AT SLOPES NOT STEEPER THAN 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL.

HYDROLOGIC INFORMATION

THE DESIGN OF THE FACILITIES WITHIN THIS DEVELOPMENT ARE CONSISTENT WITH THE TOWNSHIP'S AND DEP'S REQUIREMENTS FOR STORM DRAINAGE DESIGN, WHICH MITIGATE ANY INCREASE IN STORMWATER RATE OR VOLUME, ULTIMATELY RESULTING IN NO NEGATIVE IMPACTS TO THE DOWNSTREAM WATERCOURSES.

STABILIZATION

THE DEVELOPMENT 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 PERENNIAL 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 PERCENT ACROSS THE DISTURBED AREA.

GENERAL EROSION CONTROL 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, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT 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 LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT 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 LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
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 OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE SITE ONTO TOWNSHIP, COUNTY OR STATE ROADS EXCEPT THROUGH A ROCK CONSTRUCTION ENTRANCE.
15. 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.
16. 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.
17. 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.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. 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 6 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20. 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.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. 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.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26. 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.
27. 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.
28. 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.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31. 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.
32. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
34. 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.
35. 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.
36. UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
37. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
38. SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
39. SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
40. ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
41. UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
42. 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.
43. 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 INCH LAYERED LIFTS AT 95% DENSITY.

SEQUENCE OF CONSTRUCTION

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 LANDOWNERS, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, AND A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

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

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.

MONTGOMERY COUNTY CONSERVATION DISTRICT
143 LEVEL ROAD
COLLEGEVILLE, PA 19426
610-489-4506

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

STORWMATER FACILITIES SHALL NOT BE CONVERTED UNTIL UPSTREAM TRIBUTARY AREA HAS BEEN STABILIZED. SEE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES SECTION OF THIS NARRATIVE. EXTREME CARE SHOULD BE TAKEN TO AVOID SEDIMENTATION AND COMPACTION IN PROPOSED STORMWATER FACILITIES.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HYDROSEEDING IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.

THE PROJECT WILL BE CONSTRUCTED IN ONE STAGE.

STAGE 1 - CONSTRUCTION OF PROPOSED IMPROVEMENTS

1. AFTER THE PRE-CONSTRUCTION MEETING, INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS. CONSTRUCTION ACCESS FOR CONSTRUCTION OF THE SEDIMENT FACILITIES AND OTHER SITE WORK SHALL ONLY USE THIS ACCESS.

2. STAKEOUT LIMITS OF DISTURBANCE WITH STAKES AND ROPE, OR ORANGE CONSTRUCTION FENCING.

3. INSTALL COMPOST SOCKS, SILT SOCK SEDIMENT TRAPS ALONG WITH SUMPED AREA, ALONG WITH ACCOMPANYING RUNOFF DIVERSION SOCKS AS SHOWN ON THE PLANS. IMMEDIATELY INSTALL EROSION CONTROL MATTING AND PERMANENTLY SEED RUNOFF DIVERSION SOCKS AFTER INSTALLATION. CLEARING AND GRUBBING SHALL ONLY OCCUR IN AREAS NECESSARY TO INSTALL PERIMETER CONTROLS. INSTALL CONCRETE WASHOUT AREAS AS SHOWN ON THE PLANS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS. SILT SOCKS MUST BE MAINTAINED THROUGHOUT THE SITE UNTIL ALL AREAS TRIBUTARY TO THE SILT SOCK ARE PERMANENTLY STABILIZED PER THE STABILIZATION CRITERIA OUTLINED IN THIS PLAN.

4. AFTER ALL BMPS REFERENCED IN STEPS 1-3 ARE INSTALLED AND FUNCTIONING PROPERLY BEGIN DEMOLITION OF EXISTING FEATURES AS NOTED ON THE PLAN, NOTE THE EXISTING FEATURES TO REMAIN AS NOTED ON THE PLANS. IMMEDIATELY AFTER REMOVAL TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE DISTURBED WITHIN 4 DAYS.

5. AFTER ALL BMPS REFERENCED IN STEPS 1-3 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN CLEARING AND GRUBBING AREAS NECESSARY FOR CONSTRUCTION OF THE PROPOSED SEDIMENT BASIN. THIS WORK SHALL NOT OCCUR UNTIL THE WEATHER FORECAST PROVIDES ENOUGH TIME FOR THE CONTRACTOR TO GET THE BERM INSTALLED TO ENSURE THE SLOPE LENGTH TO THE DOWNSLOPE SILT SOCKS IS TO THE TOP OF THE BERM. PROGRESSIVE CLEARING AND GRUBBING IN THE REMAINDER OF THE SITE IS NOT ALLOWED. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

NO EARTH DISTURBANCE BEYOND THE AREAS NECESSARY TO INSTALL THE SEDIMENT BASINS SHALL COMMENCE UNTIL THE SEDIMENT BASINS ARE INSTALLED, STABILIZED AND FUNCTIONING PROPERLY. UPON INSTALLATION OF THE SEDIMENT BASINS, AN IMMEDIATE INSPECTION SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND WRITTEN NOTIFICATION SHALL BE PROVIDED TO MONTGOMERY COUNTY CONSERVATION DISTRICT THAT THE BASIN HAS BEEN INSTALLED PER PLAN.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADES THEY MUST BE STABILIZED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING.

FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS, 15-25 FEET MAXIMUM, AS THE FILL IS BEING CONSTRUCTED.

ANY WATER THAT IS PUMPED FROM WORK AREAS SHALL BE TREATED FOR SEDIMENT REMOVAL BEFORE DISCHARGING OFF-SITE. THIS CAN BE COMPLETED BY PUMPING WATER INTO THE SEDIMENT BASIN OR TRAP THE DISTURBANCE IS LOCATED WITHIN AS LONG AS THE MAXIMUM WATER LEVEL IN THE BASIN DOES NOT EXCEED THE CLEANOUT ELEVATION. IT CAN ALSO BE TREATED BY PUMPING WATER THROUGH A PUMPED WATER FILTER BAG FOLLOWING THE DETAIL.

6. AFTER ALL BMPS REFERENCED IN STEPS 1-5 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN CONSTRUCTING THE SEDIMENT BASIN USING THE FOLLOWING PROCEDURE: THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. REFER TO BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTE 2.C ON THIS SHEET, THE LICENSED PROFESSIONAL WILL DETERMINE IF GROUNDWATER IS NOT ENCOUNTERED THEN THE IMPERMEABLE LINER WILL NOT BE REQUIRED IN THIS BASIN. IF CUT/FILL DOES NOT BALANCE FOR INSTALLATION OF THE SEDIMENT BASIN, CONTRACTOR SHALL OBTAIN OR PLACE FILL UPSLOPE OF THE BASIN TO ENSURE ANY EROSION OF THESE AREAS IS CAPTURED BY THE SEDIMENT BASIN. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.
   a. CLEAR AND GRUB BASIN AREA, STRIP TOPSOIL AND STOCKPILE AT ONE OF THE DESIGNATED STOCKPILE LOCATIONS.
   b. EXCAVATE BASIN AND PLACE COMPACTED EMBANKMENT FILL, INSTALL BASIN OUTLET PIPE AND STORM SEWER SYSTEM TO ENDWALL, CONCRETE CRADLE, ANTI-SEEP COLLARS, TEMPORARY RISERS, SKIMMERS, TRASH RACKS, RIPRAP APRONS, FOREBAYS AND EMERGENCY SPILLWAYS.
   c. INSTALL CLEANOUT STAKES AND MARK THE CLEANOUT ELEVATION ON THE STAKES.
   d. SPREAD TOPSOIL ON THE BASIN BERM AND SIDE SLOPES AND IMMEDIATELY PERMANENTLY SEED AND MATT THE OUTSIDE SLOPES, TOP OF BERM AND INSIDE SLOPES ABOVE THE CLEANOUT ELEVATION. IMMEDIATELY STABILIZE ALL DISTURBED AREAS.

7. AFTER ALL BMPS REFERENCED IN STEPS 1-6 ARE INSTALLED AND FUNCTIONING PROPERLY, INSTALL RUNOFF DIVERSION SOCKS AS SHOWN ON THE PLANS TO DIRECT SEDIMENT LADEN WATER TO SEDIMENT BASINS AND TRAP FACILITIES. IMMEDIATELY INSTALL EROSION CONTROL MATTING AND PERMANENTLY SEED RUNOFF SWALE AND DIVERSION SOCKS AFTER INSTALLATION. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

8. AFTER ALL BMPS REFERENCED IN STEPS 1-7 ARE INSTALLED AND FUNCTIONING PROPERLY, CLEAR, GRUB AND ROUGH GRADE AREAS NECESSARY FOR CONSTRUCTION OF THE ROAD, ADJOINING CUTS/FILLS AND BUILDING PADS. STRIP AND STOCKPILE TOPSOIL IN AREA INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. MAXIMUM HEIGHT IS THIRTY-FIVE (35) FEET AND SIDE SLOPES SHALL BE 2:1 OR FLATTER. PLACE 12 INCH SILT SOCK BELOW THE STOCKPILES PRIOR TO STOCKPILE OPERATIONS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

ANY WATER THAT IS PUMPED FROM WORK AREAS SHALL BE TREATED FOR SEDIMENT REMOVAL BEFORE DISCHARGING OFF-SITE. THIS CAN BE COMPLETED BY PUMPING WATER INTO THE SEDIMENT BASIN OR TRAP THE DISTURBANCE IS LOCATED WITHIN AS LONG AS THE MAXIMUM WATER LEVEL IN THE BASIN DOES NOT EXCEED THE CLEANOUT ELEVATION. IT CAN ALSO BE TREATED BY PUMPING WATER THROUGH A PUMPED WATER FILTER BAG FOLLOWING THE DETAIL.

9. AFTER STEPS 1-8 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-7 ARE INSTALLED AND FUNCTIONING PROPERLY, AND ROADS HAVE BEEN CLEARED, GRUBBED AND ROUGH GRADED BEGIN CONSTRUCTION OF CURBING, SIDEWALKS AND UTILITIES INCLUDING WATERLINES, SEWER LINES, ELECTRIC, TELECOMMUNICATIONS AND STORM SEWERS FOLLOWING THE UTILITY LINE TRENCH EXCAVATION NOTES ON THIS SHEET. INLETS WITHIN THE ROADWAY SHALL BE TEMPORARILY INSTALLED FOLLOWING THE TYPE C TEMPORARY INLET INSTALLATION-NOT AT GRADE DETAIL UNTIL THE ROAD IS PAVED AND INLETS ARE ABLE TO CAPTURE FLOWS, THIS SHALL BE COMPLETED TO ENSURE FLOWS ARE ROUTED TO THE RESPECTIVE SEDIMENT FACILITY THEY ARE INTENDED TO DRAIN TOO. STORM SEWERS SHALL TEMPORARILY HAVE FILL PLACED ABOVE THEM TO ACHIEVE A MINIMUM OF 1 FOOT OF COVER TO AVOID THE CRUSHING OF STORM SEWERS. INLET PROTECTION SHALL BE INSTALLED ON INLETS IMMEDIATELY AFTER INSTALLATION. AREAS DISTUBED AS PART OF UTILITY INSTALLATION SHALL BE IMMEDIATED STABILIZED WITH STONE IF WITHIN THE ROADWAY OR TEMPORARY SEED AND MULCH IF IN VEGETATIVE AREAS THAT WILL NOT BE DISTURBED WITHIN 4 DAYS. CONTRACTOR SHOULD USE CAUTION TO ENSURE ALL SEDIMENT LADEN STORMWATER IS ROUTED INTO A SEDIMENT BASIN OR TO ANOTHER EROSION CONTROL DEVICE. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS. UPON STABILIZATION OF TRIBUTARY AREA TO THE UNDERGROUND BASIN, BEGIN CONSTRUCTION OF THE UNDERGROUND BASIN. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION, REFER TO THE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES.

10. AFTER STEPS 1-9 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-8 ARE INSTALLED AND FUNCTIONING PROPERLY, CLEAR, GRUB AND ROUGH GRADE AREAS NECESSARY FOR CONSTRUCTION OF THE DWELLINGS AND OPEN SPACE AREAS. STRIP AND STOCKPILE TOPSOIL IN AREAS INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. MAXIMUM HEIGHT IS THIRTY-FIVE (35) FEET AND SIDE SLOPES SHALL BE 2:1 OR FLATTER. PLACE 12 INCH SILT SOCK BELOW THE STOCKPILES PRIOR TO STOCKPILE OPERATIONS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

11. AFTER STEPS 1-10 HAVE BEEN COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-9 HAVE BEEN INSTALLED AND ARE FUNCTIONING PROPERLY, BEGIN CONSTRUCTION OF DWELLINGS, OPEN SPACE IMPROVEMENTS, DRIVEWAYS AND DWELLING UTILITIES INCLUDING WATER SERVICES, SEWER LATERALS, ELECTRIC AND TELECOMMUNICATIONS FOLLOWING THE UTILITY LINE TRENCH EXCAVATION NOTES ON THIS SHEET. STRIP AND STOCKPILE TOPSOIL IN AREA INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. IT IS ANTICIPATED THAT ALL THE DWELLINGS WILL NOT BE CONSTRUCTED AT THE SAME TIME; ALL BUILDING PADS THAT WILL NOT BE IMMEDIATELY CONSTRUCTED SHALL BE IMMEDIATELY STABILIZED. CONTRACTOR SHOULD USE CAUTION TO ENSURE ALL SEDIMENT LADEN STORMWATER IS ROUTED INTO A SEDIMENT BASIN OR TO ANOTHER EROSION CONTROL DEVICE. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

AFTER SITE BULK SITE GRADING OCCURS ALL AREAS WHICH WILL NOT BE RE-DISTURBED PROMPTLY, SPECIFICALLY E&S BMPS, LAWN AREAS, BUILDING PADS AND SURROUNDING AREAS, TOPSOIL SHALL BE PLACED AND PERMANENTLY SEEDED UNTIL HOME CONSTRUCTION COMMENCES.

12. AFTER STEPS 1-9 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-8 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN FINE GRADING OF STONE BASE IN PREPARATION FOR PAVING THE ROADS. PAVE THE ROAD WITH THE BINDER COURSE AND IMMEDIATELY STABILIZE ANY DISTURBED AREAS. IMMEDIATELY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

13. AFTER STEPS 1-12 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-12 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN FINAL GRADING OF ALL DISTURBED LAWN AREAS, THIS SHALL BE DONE WITH CARE TO AVOID COMPACTION IN LAWN AND LANDSCAPED AREAS. ALL LAWN AND LANDSCAPED AREAS SHALL BE DRESSED WITH AT LEAST 6" OF TOPSOIL, REFER TO SOIL RESOLUTIONS AND THE TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS DETAIL FOR TOPSOIL SPECIFICATIONS AND DIRECTION ON SOIL TESTS TO DETERMINE LIME AND FERTILIZER RATES. THE CONTRACTOR SHOULD SCARIFY THE SUBSOIL 6 TO 12 INCHES ALONG THE CONTOUR BEFORE PLACEMENT OF TOPSOIL TO PERMIT THE BONDING OF TOPSOIL AND PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE. IMMEDIATELY AFTER TOPSOIL PLACEMENT SEED AND MULCH DISTURBED AREAS AND PLACE EROSION CONTROL BLANKET OVER 3:1 SLOPES. CAUTION SHOULD BE USED TO ENSURE THE SOILS ARE NOT COMPACTED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING. AFTER THE SITE IS AT FINAL GRADE INSTALLATION OF THE PROPOSED TREES (RE-VEGETATE & RE-FOREST DISTURBED AREAS) SHALL BE COMPLETED. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

14. AFTER STEPS 1-13 HAVE BEEN COMPLETED AND FINAL SITE STABILIZATION HAS BEEN ACHIEVED TO EACH RESPECTIVE BASIN (FOR VEGETATED AREAS UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, FOR IMPERVIOUS AREAS ALL AREAS SHALL BE STONED, PAVED OR ROOFED), BEGIN CONVERSION AND INSTALLATION OF MRC BASINS TO ITS FINAL CONDITION INCLUDING PERMANENT OUTLET STRUCTURES, UNDERDRAINS, PLANTING SOIL, STONE AND PIPING, ETC AS REQUIRED ON THE PCSM PLAN AND DETAILS FOLLOWING BMP AREA CONSTRUCTION/ CONVERSION/REMOVAL NOTES ON THIS PLAN. EXTREME CARE SHOULD BE TAKEN TO ENSURE SILTATION AND COMPACTION OF THESE FACILITIES DOES NOT OCCUR, CONSTRUCTION SHALL BE COMPLETED FROM THE SIDES OF THE FACILITY AND HEAVY EQUIPMENT SHALL NOT COMPACT THE FACILITY BOTTOMS. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. REFER TO BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTE 2.C ON THIS SHEET, THE LICENSED PROFESSIONAL WILL DETERMINE IF GROUNDWATER IS NOT ENCOUNTERED THEN THE IMPERMEABLE LINER WILL NOT BE REQUIRED IN THIS BASIN. ALL LAWN AND LANDSCAPED AREAS SHALL BE DRESSED WITH AT LEAST 6" OF TOPSOIL, REFER TO SOIL RESOLUTIONS AND THE TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS DETAIL FOR TOPSOIL SPECIFICATIONS AND DIRECTION ON SOIL TESTS TO DETERMINE LIME AND FERTILIZER RATES. THE CONTRACTOR SHOULD SCARIFY THE SUBSOIL 6 TO 12 INCHES ALONG THE CONTOUR BEFORE PLACEMENT OF TOPSOIL TO PERMIT THE BONDING OF TOPSOIL AND PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE. IMMEDIATELY AFTER TOPSOIL PLACEMENT SEED AREAS AND PLACE EROSION CONTROL BLANKET OVER 3:1 SLOPES. CAUTION SHOULD BE USED TO ENSURE THE SOILS ARE NOT COMPACTED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

15. AFTER COMPLETION AND STABILIZATION OF STEPS 1-14 HAVE BEEN COMPLETED, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF THE CRITICAL STAGES SHALL VERIFY THAT ALL PCSM BMPS HAVEN'T BEEN IMPACTED BY CONSTRUCTION ACTIVITIES AND ARE FUNCTIONING PROPERLY. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE.

16. AFTER STEPS 1-15 HAVE BEEN COMPLETED AND FINAL SITE STABILIZATION HAS BEEN ACHIEVED (FOR VEGETATED AREAS UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, FOR IMPERVIOUS AREAS ALL AREAS SHALL BE STONED, PAVED OR ROOFED), ALL TEMPORARY EROSION AND SEDIMENT BMP'S REFERENCED IN THIS SEQUENCE INCLUDING BUT NOT LIMITED TO SILT SOCKS, J-HOOK SILT SOCK SEDIMENT TRAPS, RUNOFF DIVERSION SOCKS, BROAD BASED DIPS, INLET PROTECTION, CONCRETE WASHOUTS, ETC MUST BE REMOVED. SEE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES ON THIS PLAN. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE IMMEDIATELY PERMANENTLY STABILIZED. UPON PERMANENT STABILIZATION ACROSS THE ENTIRE SITE AND INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH 25 PA. CODE 102.4 AND 102.8, THE PERMITTEE AND/OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES

1. FOR ABOVE GROUND BASINS AND BIO-RETENTION, THE FOLLOWING CONDITIONS SHALL BE IMPLEMENTED:
   1.a. THE EXCAVATION SHALL BE COMPLETED FROM THE SIDES OF THE BMP. THE CONTRACTOR MAY DRIVE OVER THE FACILITY AS LONG AS A MINIMUM OF 3 FEET OF SEPARATION IS PROVIDED FROM THE BOTTOM OF THE BED TO THE GROUND ELEVATION TO ENSURE THE SOILS ARE NOT COMPACTED.
   1.b. ANY STANDING WATER SHALL BE DEWATERED THROUGH A PUMPED WATER FILTER BAG.
   1.c. PRE CONSTRUCTION SOIL TESTING FOUND SHALLOW RIPPABLE ROCK AT TESTPIT 12 WHICH PRECLUDED OUR ABILITY TO CONFIRM THERE IS NO WATER ENCOUNTERED AS YOU DIG INTO THE ROCK. THEREFORE A LINER IS PROPOSED BENEATH THE BASIN. HOWEVER DURING EXCAVATION OF THE BASIN AN ANALYSIS SHALL BE COMPLETED BY THE LICENSED PROFESSIONAL PROVIDING OVERSIGHT TO DETERMINE IF WATER IS ENCOUNTERED. IF A SEASONAL HIGH WATER TABLE IS NOT ENCOUNTERED THE IMPERMEABLE LINER BENEATH THE FACILITY MAY BE ELIMINATED FROM THE INSTALLATION.
   1.d. THE LICENSED PROFESSIONAL SHALL BE INCLUDED IN THE INSTALLATION FROM THE BEGINNING TO ENSURE THE TRIBUTARY AREA MEETS THE STABILIZATION CRITERIA BEFORE INITIATING CONSTRUCTION.
   1.e. THE BOTTOM OF THE FACILITY SHALL BE IMMEDIATELY SEEDED AND MULCHED ONCE FINAL GRADES HAVE BEEN ACHIEVED.

2. FOR COMPOST SOCK SEDIMENT TRAPS, THE FOLLOWING CONDITIONS SHALL BE IMPLEMENTED:
   2.a. ANY STANDING WATER SHALL BE DEWATERED THROUGH A PUMPED WATER FILTER BAG.
   2.b. THE COMPOST SOCK AND RESPECTIVE DIVERSION SOCK SHALL BE REMOVED FROM THE SITE. THE COMPOST AND GROWING MEDIA IN THE SOCKS MAY BE LEFT IN PLACE AND SPREAD OUT TO ALLOW POSITIVE DRAINAGE.
   2.c. ALL DISTURBED AREAS, INCLUDING AREAS OF COMPOST/GROWING MEDIA SHALL BE IMMEDIATELY SEEDED AND MULCHED.

UTILITY LINE TRENCH EXCAVATION NOTES

1. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
2. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
3. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
4. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
5. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

TEMPORARY CONTROL MEASURES

TEMPORARY CONTROL MEASURES WHICH WERE PREVIOUSLY DISCUSSED ARE AS FOLLOWS:

1. SILT SOCKS BARRIERS SHALL BE PROVIDED TO RETARD RUNOFF AND COLLECT SEDIMENT.
2. TEMPORARY SEEDING OF TOPSOIL STOCKPILE AREA AND BARE EARTH SHALL BE PROVIDED FOR AREAS WHICH WILL REMAIN UNSTABILIZED.
3. TEMPORARY STONE BALLAST TIRE CLEANERS SHALL BE PROVIDED AT CONSTRUCTION ENTRANCES.
4. SHOULD WORK BE EXTENDED INTO WINTER MONTHS, AND IF TEMPORARY SEEDING IS NOT FEASIBLE, EROSION MAY BE CONTROLLED BY PLACING STRAW MULCH OVER DISTURBED AREAS. THIS MULCH WILL BE MAINTAINED UNTIL WEATHER CONDITIONS PERMIT SEEDING.
5. SEDIMENT BASINS TO SETTLE THE SEDIMENT OUT OF STORMWATER RUNOFF.
6. EROSION CONTROL BLANKETS AND SPILLWAY MATTING ARE PROVIDED TO MITIGATE EROSION WHILE VEGETATION IS ESTABLISHED.
7. CONCRETE WASHOUT AREAS ARE PROVIDED FOR CONCRETE TRUCKS TO EMPTY THEIR LOADS.
8. SEDIMENT FOREBAY'S ARE PROPOSED TO PRE-TREAT STORMWATER AND ALLOW SEDIMENT TO DROP OUT BEFORE THE STORMWATER IS ROUTED INTO THE SEDIMENT TRAP.

PERMANENT CONTROL MEASURES
PERMANENT CONTROL MEASURES WHICH ARE DESIGNED TO CONTROL SEDIMENT AND EROSION AND RUNOFF FROM THE SITE ARE AS FOLLOWS:

1. PAVED STREETS.
2. ALL LAWN AREAS SHALL BE ADEQUATELY SEEDED AND STABILIZED TO PROVIDE PERMANENT CONTROL OF EROSION AFTER COMPLETION OF CONSTRUCTION. 70% UNIFORM VEGETATIVE STABILIZATION IS REQUIRED.
3. PERMANENT STORMWATER DETENTION BASIN, MRC BASINS, AND SWALES SHALL CONTROL THE RATE AND VOLUME OF DISCHARGE FROM THE SITE AT BETTER THAN PRE-DEVELOPED CONDITIONS.

MAINTENANCE OF EROSION CONTROL FACILITIES
THE GENERAL CONTRACTOR, OR IN THE ABSENCE OF A GENERAL CONTRACTOR, THE OWNER, SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ALL SOIL EROSION CONTROLS.

THE CONTRACTOR SHALL, AT THE END OF EACH WEEK AS WELL AS EACH RUNOFF EVENT (AT LEAST 0.25 INCH OF RAIN OR EQUIVALENT SNOWMELT), INSPECT ALL DRAINAGE AND EROSION CONTROL FACILITIES TO DETERMINE IF THEY STILL FUNCTION. THE INSPECTION SHALL BE COMPLETED WITHIN 24 HOURS OF THE RUNOFF EVENT AND REPAIRS SHALL BE MADE PROMPTLY. THE INSPECTIONS SHALL BE DOCUMENTED ON DEP FORM 3800-FM-BCW0271D LAST REVISED AND BE KEPT ONSITE AT ALL TIMES.

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. ANY SILT OR SEDIMENT MAY BE PLACED IN LANDSCAPED AREAS AND IMMEDIATELY STABILIZED.

ROCK CONSTRUCTION ENTRANCES 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.

COMPOST FILTER SOCKS (FOR J-HOOK INSTALLATIONS SEE ADDITIONAL REQUIREMENTS IN COMPOST SOCK SEDIMENT TRAP AND FILLTREX RUNOFF DIVERSION MAINTENANCE NOTES) SHALL BE CLEARED OF ACCUMULATED SEDIMENT WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED OF AS SPECIFIED IN GENERAL NOTES. 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. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER RECOMMENDATIONS.

CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 50% CAPACITY. IMPERVIOUS GEOMEMBRANE LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

PUMPED WATER FILTER BAGS SHALL BE INSPECTED DAILY, IF ANY PROBLEM IS DETECTED PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF 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.

RIPRAP APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY. ANY SEDIMENT COLLECTED WITHIN THE APRON SHALL BE REMOVED IMMEDIATELY.

LEVEL SPREADERS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED STONE WITHIN THE LEVEL SPREADER SHALL BE REPLACED IMMEDIATELY. ANY SEDIMENT COLLECTED WITHIN THE LEVEL SPREADER SHALL BE REMOVED IMMEDIATELY. ANY EROSION DOWNSLOPE OF LEVEL SPREADER SHALL BE IMMEDIATELY REPAIRED BY PLACING TOPSOIL AND EROSION CONTROL MATTING.

EROSION CONTROL BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% VEGETATIVE COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

VEGETATIVE STABILIZATION SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. ANY AREAS THAT DO NOT MEET UNIFORM 70% VEGETATIVE COVERAGE SHALL BE RE-SEEDED AND FERTILIZED FOLLOWING THE SEEDING SPECIFICATIONS DETAIL. ANY EROSION ENCOUNTERED SHALL BE IMMEDIATELY REPAIRED BY ADDING TOPSOIL, SEEDING AND MULCH.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE GENERAL NOTES.

SEDIMENT BASINS, FOREBAYS AND SEDIMENT TRAPS SHALL BE INSPECTED ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN; ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT LEVEL MARKED ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE GENERAL NOTES. BASIN EMBANKMENTS, SPILLWAYS, AND OUTLETS SHALL BE CHECKED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY, DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY, ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS INSIDE THE BASIN STABILIZED BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. CLOGGED OR DAMAGED SPILLWAYS SHALL BE REPAIRED IMMEDIATELY, TRASH AND OTHER DEBRIS SHALL BE REMOVED FROM THE BASIN AND RISER. ACCESS TO THE BASINS/TRAPS SHALL BE MAINTAINED IN PERPETUITY THROUGH THE ROADS, AND FOLLOWING STORM SEWER EASEMENTS INTO THE BASINS/TRAPS.

COMPOST SOCK SEDIMENT TRAPS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED ONE THIRD THE HEIGHT OF THE SOCKS AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE GENERAL NOTES. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION. PHOTODEGRADABLE AND BIODEGRADABLE SOCKS SHALL NOT BE USED FOR MORE THAN 1 YEAR, THEY SHALL BE REPLACED WHEN DAMAGED OR AFTER 1 YEAR OF SERVICE.

BROAD BASED DIPS SHALL BE INSPECTED DAILY. DAMAGED OR NON-FUNCTIONING DIPS SHALL BE REPAIRED BY THE END OF THE WORKING DAY, BY RESTORING THE DIP TO THE DESIGN CONDITION.

CHANNEL DIMENSIONS, INCLUDING FILTREXX RUNOFF DIVERSION SOCKS, SHALL BE CONSTANTLY MAINTAINED. CHANNELS SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION. SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. IF DIVERSION SOCKS ARE DAMAGED THEY SHALL BE REPAIRED PER MANUFACTURERS SPECIFICATIONS OR REPLACED IMMEDIATELY DAMAGED LININGS SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

IF ADDITIONAL SILT SOCK, SEDIMENT TRAPS, SEDIMENT BASINS, OR SWALE DIVERSIONS ARE NECESSARY, THEY SHALL BE PROVIDED AS DIRECTED BY THE TOWNSHIP ENGINEER. ALL CHANGES MUST BE REVIEWED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT. SEDIMENT DEPOSITED BEHIND SILT BARRIERS, AND THE SEDIMENT BASINS SHALL BE REMOVED AND INCORPORATED INTO THE FINAL GRADING OPERATIONS ON THE SITE. IT IS NOT TO BE TAKEN OFF SITE.

WHEN THE ENTIRE PROJECT HAS BECOME STABILIZED, ANY TEMPORARY SEDIMENT AND EROSION CONTROLS SHALL BE REMOVED AND THE AREAS STABILIZED.

NPDES PERMIT NOTES
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 DEVELOPER.

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 POLICY "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 .

CONSTRUCTION NOTICE
THIS NARRATIVE SHALL HANG ON A PEG ABOVE OR ALONG SIDE THE DRAWING/SHEET BOARD SO THAT IT WILL BE A READY REFERENCE TO ALL PARCEL ACTIVITY.

REPORT
THESE PLANS ACCOMPANY A SEDIMENTATION AND EROSION CONTROL REPORT AS PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES, LLC, POTTSTOWN, PENNSYLVANIA.

REVISIONS
IF ANY CHANGES ARE TO BE MADE TO THE LIMITS OF DISTURBANCE OR TO THE EROSION AND SEDIMENT CONTROL PLAN, THE BUILDER OR LANDOWNER WILL CONTACT THE MONTGOMERY COUNTY CONSERVATION DISTRICT AT 610-489-4506, AS WELL AS LIMERICK TOWNSHIP AT 610-933-9179 FOR THE ADEQUACY OF THESE CHANGES.

PLAN PREPARER
THIS PLAN WAS PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES, LLC HAVING EXPERIENCE PREPARING SOIL EROSION CONTROL PLANS OF SMALLER, SIMILAR AND LARGER SIZES. IF THERE ARE ANY QUESTIONS REGARDING THE E&S PLANS CONTACT VAN CLEEF ENGINEERING ASSOCIATES,LLC AT 610-323-4040.

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Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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STOP! CALL 1-800-242-1776 TOLL FREE
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL
ENGINEER NUMBER PE046396E

Van Cleef
ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

E&S NOTES

FOR

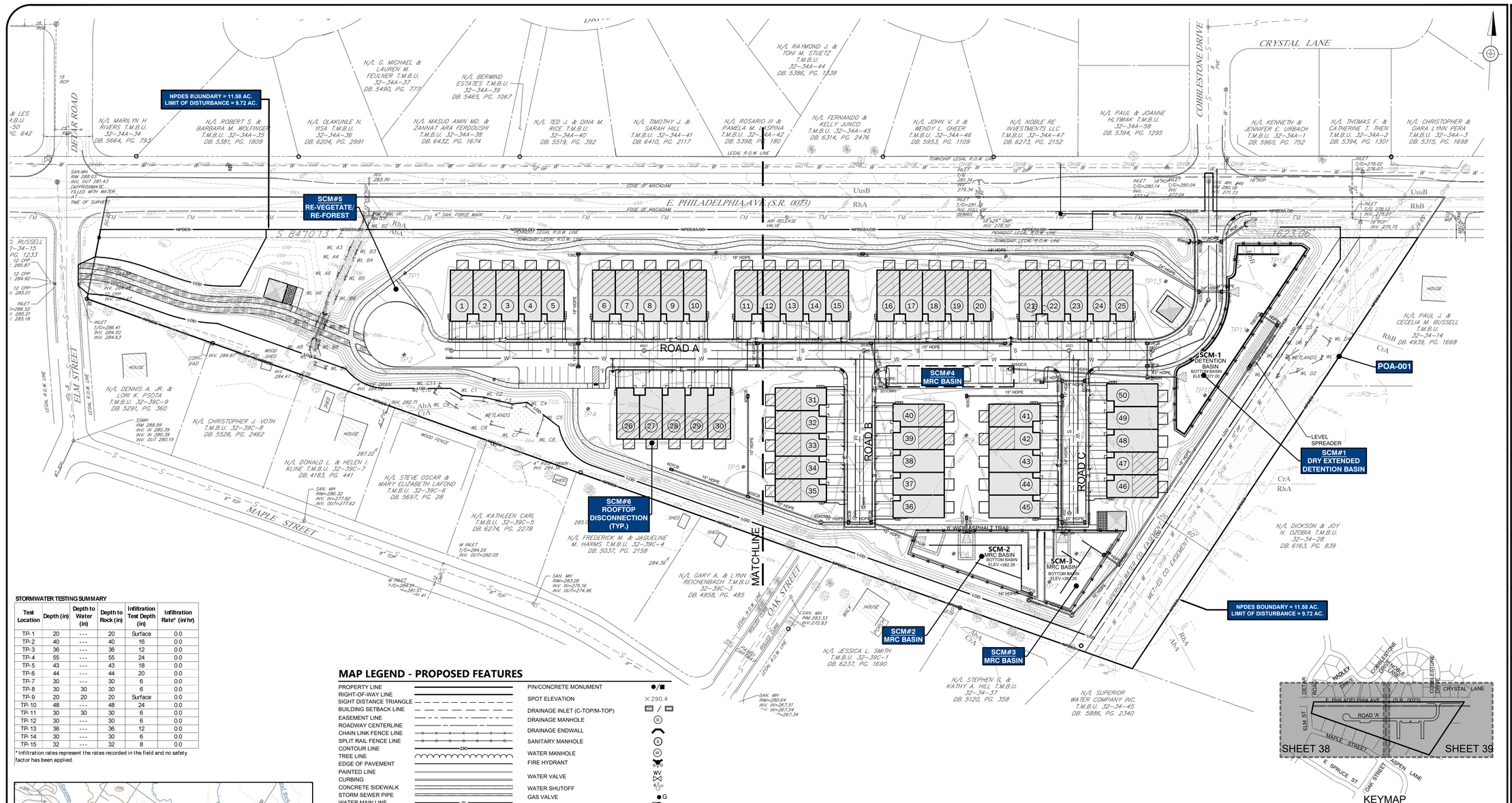
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

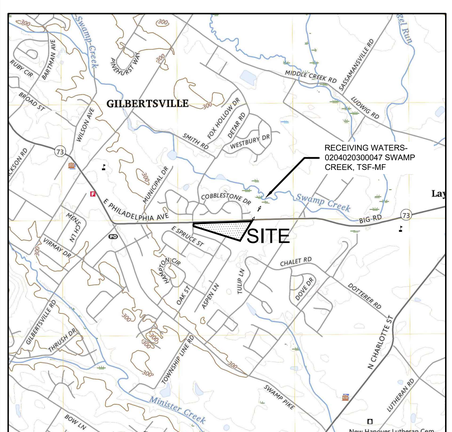
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STORMWATER TESTING SUMMARY

Test Location	Depth (in)	Depth to Water (in)	Depth to Rock (in)	Infiltration Test Depth (in)	Infiltration Rate* (in/hr)
TP- 1	20	---	20	Surface	0.0
TP- 2	40	---	40	16	0.0
TP- 3	36	---	36	12	0.0
TP- 4	55	---	55	24	0.0
TP- 5	43	---	43	18	0.0
TP- 6	44	---	44	20	0.0
TP- 7	30	---	30	6	0.0
TP- 8	30	30	30	6	0.0
TP- 9	20	20	20	Surface	0.0
TP- 10	48	---	48	24	0.0
TP- 11	30	30	30	6	0.0
TP- 12	30	---	30	6	0.0
TP- 13	36	---	36	12	0.0
TP- 14	30	---	30	6	0.0
TP- 15	32	---	32	8	0.0

* Infiltration rates represent the rates recorded in the field and no safety factor has been applied.



LOCATION MAP
SASSAMANSVILLE, PA USGS QUAD MAP
SCALE: 1"=2000'

GRAPHIC SCALE
0 1000 2000 4000
1 INCH = 2000 FT

MAP LEGEND - PROPOSED FEATURES

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- SIGHT DISTANCE TRIANGLE
- BUILDING SETBACK LINE
- EASEMENT LINE
- ROADWAY CENTERLINE
- CHAIN LINK FENCE LINE
- SPLIT RAIL FENCE LINE
- CONTOUR LINE (290)
- TREE LINE
- EDGE OF PAVEMENT
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE (W)
- SANITARY MAIN LINE (S)
- WATER LATERAL (WL)
- SANITARY LATERAL (SL)
- UNDERGROUND ELECTRIC (E)
- OVERHEAD ELECTRIC (OH)
- PAVED WALKWAY
- GRASSPAVE 2
- RETAINING WALL
- NPDES BOUNDARY/LOD
- LIMIT OF DISTURBANCE (LOD)
- PIN/CONCRETE MONUMENT
- SPOT ELEVATION (× 290.4)
- DRAINAGE INLET (C-TOP/M-TOP)
- DRAINAGE MANHOLE
- DRAINAGE ENDWALL
- SANITARY MANHOLE
- WATER MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER SHUTOFF
- GAS VALVE
- UTILITY POLE / GUY
- ELECTRIC METER
- LIGHT POLE
- DECIDUOUS/EVERGREEN TREE
- STREET/TRAFFIC SIGN
- STRAIGHT TEXT DENOTES PROPOSED FEATURES
- ROOFTOP DISCONNECTION

MAP LEGEND - EXISTING FEATURES

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROP. LINE
- EASEMENT LINE
- ROADWAY CENTERLINE
- CHAIN LINK FENCE LINE
- SPLIT RAIL FENCE LINE
- CONTOUR LINE (290)
- TREE LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- PAINTED LINE
- CURBING
- CONCRETE SIDEWALK
- STORM SEWER PIPE
- WATER MAIN LINE (W)
- SANITARY MAIN LINE (S)
- SANITARY FORCE MAIN (FM)
- WATERWAY CENTERLINE
- OVERHEAD ELECTRIC (OHW)
- SOILS BOUNDARY (SOIL)
- ZONING BOUNDARY
- WETLANDS / FLAG (WL-C5)
- WATERS OF THE US & COMMONWEALTH
- SLANTED TEXT DENOTES EXISTING FEATURES
- PIN/CONCRETE MONUMENT
- SPOT ELEVATION (× 290.00)
- DRAINAGE INLET (C-TOP/M-TOP)
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- FIRE HYDRANT
- WATER VALVE (WV)
- WATER SHUTOFF
- GAS VALVE
- UTILITY POLE / GUY
- LIGHT POLE
- ELECTRIC METER/BOX
- DECIDUOUS/EVERGREEN TREE
- STREET/TRAFFIC SIGN
- SOILS DELINEATION (UbB)
- TEST PIT (TP6)
- TO BE REMOVED (TBR)

GENERAL NOTES

1. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
2. ANY DAMAGE THAT OCCURS AS A RESULT OF THE BASIN OR TRAP DISCHARGE WILL BE REPAIRED IN A PERMANENT MANNER THAT IS SATISFACTORY TO THE MUNICIPALITY, CONSERVATION DISTRICT AND DOWN SLOPE LANDOWNER(S).
3. ANY OFFSITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE MCCD PRIOR TO BEING ACTIVATED.
4. THE PCSM PLANS, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MONTGOMERY COUNTY CONSERVATION DISTRICT AND DOUGLASS TOWNSHIP.

EROSION POTENTIAL ANALYSIS

AN EROSION POTENTIAL ANALYSIS HAS BEEN COMPLETED FOR THE SITE AND ALL WATERSHEDS WILL HAVE A DECREASE IN STORMWATER FLOWS AND DISCHARGES FOLLOW EXISTING FLOW PATHS, THEREFORE THE APPLICANT HAS THE RIGHT TO DISCHARGE AND WILL NOT CAUSE A NUISANCE TO DOWNSLOPE PROPERTIES.

ASBUILT REQUIREMENTS

APPLICANT SHALL PROVIDE TO THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND DOUGLASS TOWNSHIP FINAL AS-BUILT PLANS (SIGNED AND SEALED BY A QUALIFIED LICENSED PROFESSIONAL) OF ALL SCMS, CONVEYANCES, OTHER STORMWATER FACILITIES AND RELATED IMPROVEMENTS SHOWN IN THE FINAL APPROVED SWM SITE SITE.

RE-VEGETATE AND RE-FOREST DISTURBED AREAS, PART 2

REFER TO PCSM LANDSCAPING PLANS FOR PLANTING SPECIFICATIONS

CRITICAL STAGES (SEE SCHEDULE OF INSPECTIONS)

1. SCM #1 - DRY EXTENDED DETENTION BASIN
2. SCM #2 - MRC BASIN
3. SCM #3 - MRC BASIN
4. SCM #4 - MRC BASIN
5. SCM #5 - REVEGETATE & REFOREST DISTURBED AREAS, PART 2
6. SCM #6 - ROOFTOP DISCONNECTION

CRITICAL STAGES SCHEDULE OF INSPECTIONS

1. ABOVE GROUND BASINS
   - 1.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 1.2. COMPACTION OF BERM, INSTALLATION OF CLAY CORE, RISER, OUTLET PIPE, CONCRETE CRADLE, AND ANTI-SEEP COLLARS.
   - 1.3. STABILIZATION MEETING TO APPROVE CONVERSION FROM SEDIMENT FACILITY.
   - 1.4. PLANTING SOIL AND UNDERDRAIN INSTALLATION.
   - 1.5. CONVERSION OF OUTLET STRUCTURE TO PERMANENT CONDITION.
   - 1.6. STABILIZATION CONFIRMATION.
2. RE-VEGETATE AND RE-FOREST DISTURBED AREAS, PART 2
   - 2.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 2.2. EXCAVATED HOLE AND INSTALLATION OF SOIL ADDITIVES AND FERTILIZER.
   - 2.3. CONFIRM TREE IS ADEQUATE SIZE PER LANDSCAPE SCHEDULE.
   - 2.4. TREE TUBES/STAKING AS INDICATED ON LANDSCAPE PLANTING DETAILS.
   - 2.5. MULCHING/STABILIZATION CONFIRMATION.
3. ROOFTOP DISCONNECTION
   - 3.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 3.2. CHECK TO ENSURE ALL ROOFDRAINS ARE DISCONNECTED AND NO EROSION IS OCCURING DOWNSLOPE OF DISCHARGE.
4. DISCONNECTION FROM STORM SEWERS
   - 4.1. MEETING TO DISCUSS CONSTRUCTION PROCEDURES.
   - 4.2. CHECK TO ENSURE IMPERVIOUS AREAS ARE GRADED TO ROUTE STORMWATER TO VEGETATED AREAS.
5. THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF THE CRITICAL STAGES SHALL VERIFY THAT ALL PCSM BMPS HAVEN'T BEEN IMPACTED BY CONSTRUCTION ACTIVITIES AND ARE FUNCTIONING PROPERLY

SOILS LEGEND:

AbA	-	ABBOTTSTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES
CrA	-	CROTON SILT LOAM, 0 TO 3 PERCENT SLOPES
RhA	-	REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
RhB	-	REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES
UusB	-	URBAN LAND - UDORTHENTS, 0 TO 8 PERCENT SLOPES

POST CONSTRUCTION STORMWATER MANAGEMENT (PCSM) PLAN SHEET INDEX

PCSM PLAN No.	SHEET No.	TITLE
1 OF 8	37	OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
2 OF 8	38	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (1)
3 OF 8	39	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (2)
4 OF 8	40	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (1)
5 OF 8	41	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (2)
6 OF 8	42	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (3)
7 OF 8	43	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (4)
8 OF 8	44	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS NOTES
9 OF 12	18	OVERALL LANDSCAPE PLAN
10 OF 12	19	LANDSCAPE PLAN (1)
11 OF12	20	LANDSCAPE PLAN (2)
12 OF 12	21	LANDSCAPE DETAILS

DESIGN ENGINEER STORMWATER PLAN CERTIFICATION

I, NICHOLAS E. FEOLA, P.E. ON THIS DATE _____ , 20_____ HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE DOUGLASS TOWNSHIP STORMWATER MANAGEMENT ORDINANCE.

SIGNATURE OF ENGINEER _____ DATE _____

APPLICANT STORMWATER PLAN ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED POST-CONSTRUCTION STORMWATER MANAGEMENT PLAN MUST BE APPROVED BY DOUGLASS TOWNSHIP AND THE COUNTY CONSERVATION DISTRICT AND/OR PADEP (IF GREATER THAN 1 ACRE OF LAND DISTURBED), AND THAT A REVISED EROSION AND SEDIMENTATION CONTROL PLAN MUST BE SUBMITTED TO THE COUNTY CONSERVATION DISTRICT FOR A DETERMINATION OF ADEQUACY.

APPLICANT SIGNATURE _____ DATE _____

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Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

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GRAPHIC SCALE
0 30 60 120
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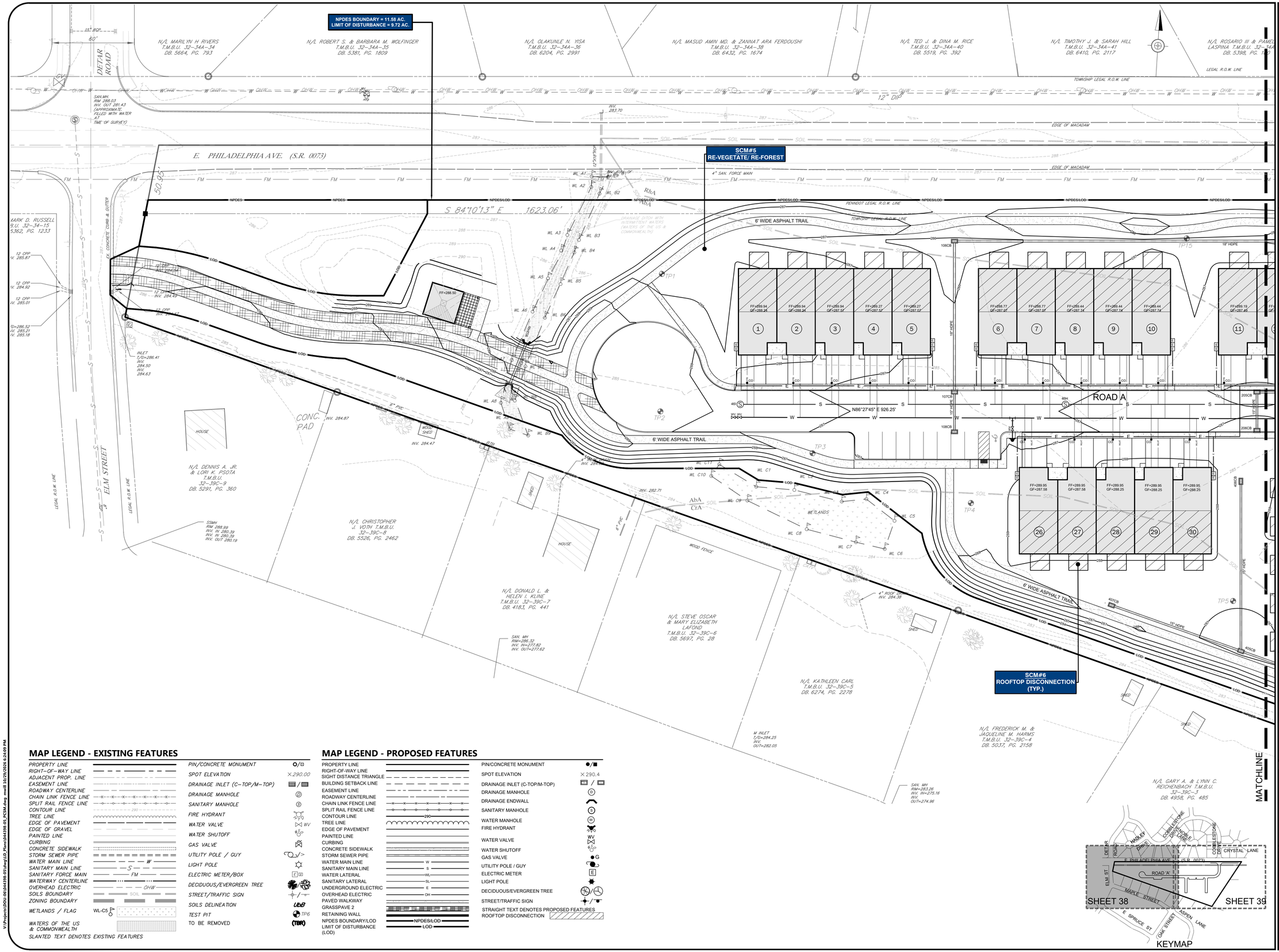
OVERALL POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
FOR
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 60'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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MAP LEGEND - EXISTING FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	○/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.00
ADJACENT PROP. LINE		DRAINAGE INLET (C-TOP/M-TOP)	
EASEMENT LINE		DRAINAGE MANHOLE	Ⓓ
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE		FIRE HYDRANT	
SPLIT RAIL FENCE LINE		WATER VALVE	WV
CONTOUR LINE	290	WATER SHUTOFF	
TREE LINE		GAS VALVE	
EDGE OF PAVEMENT		UTILITY POLE / GUY	
EDGE OF GRAVEL		LIGHT POLE	
PAINTED LINE		ELECTRIC METER/BOX	E
CURBING		DECIDUOUS/EVERGREEN TREE	
CONCRETE SIDEWALK		STREET/TRAFFIC SIGN	
STORM SEWER PIPE		SOILS DELINEATION	UbB
WATER MAIN LINE	W	TEST PIT	TP6
SANITARY MAIN LINE	S	TO BE REMOVED	(TBR)
SANITARY FORCE MAIN	FM		
WATERWAY CENTERLINE			
OVERHEAD ELECTRIC	OHW		
SOILS BOUNDARY	SOIL		
ZONING BOUNDARY			
WETLANDS / FLAG	WL-C5		
WATERS OF THE US & COMMONWEALTH			

SLANTED TEXT DENOTES EXISTING FEATURES

MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE		PIN/CONCRETE MONUMENT	●/■
RIGHT-OF-WAY LINE		SPOT ELEVATION	×290.4
SIGHT DISTANCE TRIANGLE		DRAINAGE INLET (C-TOP/M-TOP)	
BUILDING SETBACK LINE		DRAINAGE MANHOLE	Ⓓ
EASEMENT LINE		DRAINAGE ENDWALL	
ROADWAY CENTERLINE		SANITARY MANHOLE	Ⓢ
CHAIN LINK FENCE LINE		WATER MANHOLE	Ⓦ
SPLIT RAIL FENCE LINE		FIRE HYDRANT	
CONTOUR LINE	290	WATER VALVE	WV
TREE LINE		WATER SHUTOFF	
EDGE OF PAVEMENT		GAS VALVE	G
PAINTED LINE		UTILITY POLE / GUY	
CURBING		ELECTRIC METER	E
CONCRETE SIDEWALK		LIGHT POLE	
STORM SEWER PIPE		DECIDUOUS/EVERGREEN TREE	
WATER MAIN LINE	W	STREET/TRAFFIC SIGN	
SANITARY MAIN LINE	S		
WATER LATERAL	WL		
SANITARY LATERAL	SL		
UNDERGROUND ELECTRIC	E		
OVERHEAD ELECTRIC	OH		
PAVED WALKWAY			
GRASSPAVE 2			
RETAINING WALL			
NPDES BOUNDARY/LOD	NPDES/LOD		
LIMIT OF DISTURBANCE (LOD)	LOD		

STRAIGHT TEXT DENOTES PROPOSED FEATURES

ROOFTOP DISCONNECTION

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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (1)

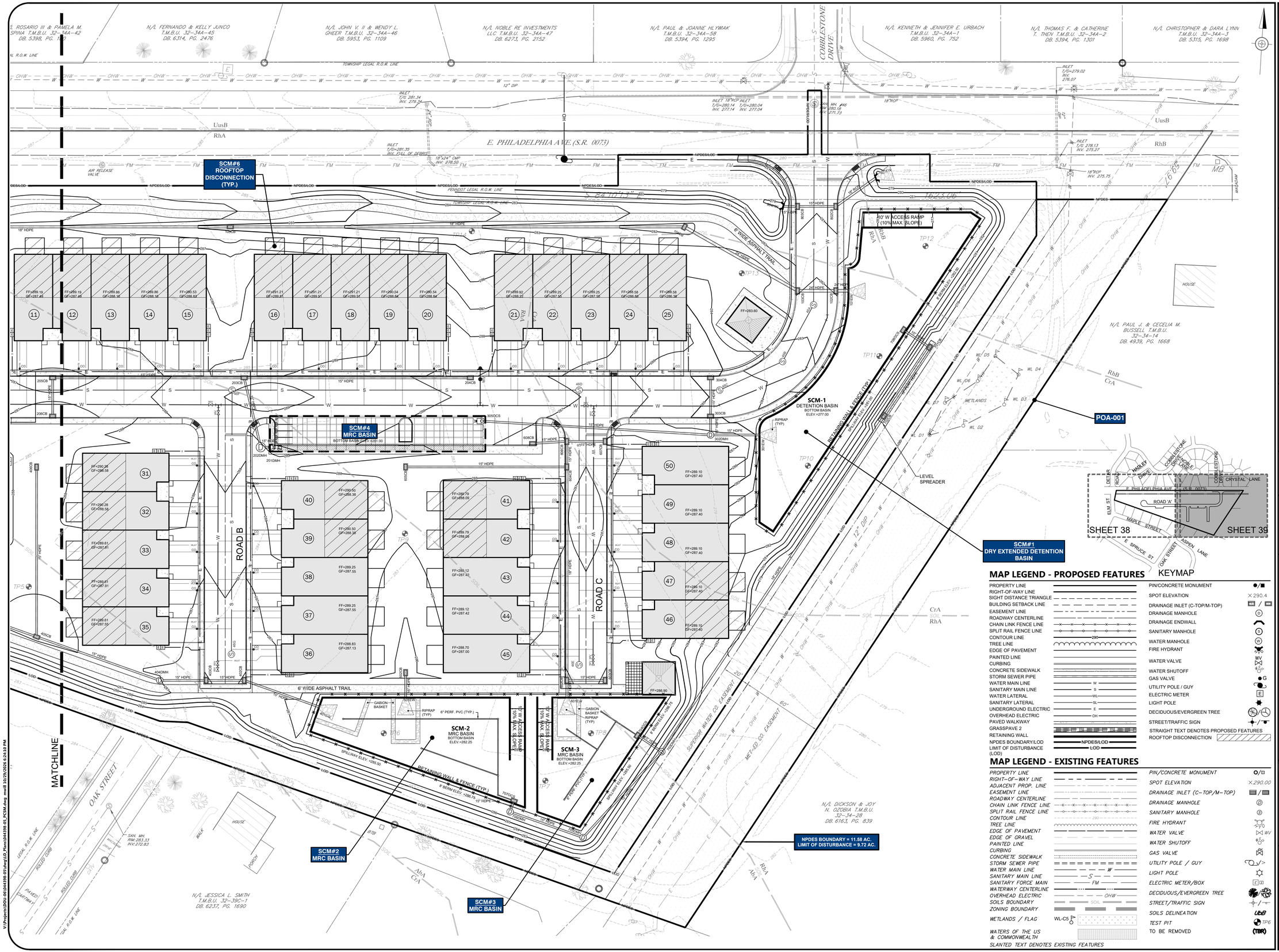
FOR

COBBLESTONE VILLAGE CROSSING

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DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MAP LEGEND - PROPOSED FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
SIGHT DISTANCE TRIANGLE	DRAINAGE INLET (C-TOP/M-TOP)
BUILDING SETBACK LINE	DRAINAGE MANHOLE
EASEMENT LINE	DRAINAGE ENDWALL
ROADWAY CENTERLINE	SANITARY MANHOLE
CHAIN LINK FENCE LINE	WATER MANHOLE
SPLIT RAIL FENCE LINE	FIRE HYDRANT
CONTOUR LINE	WATER VALVE
TREE LINE	WATER SHUTOFF
EDGE OF PAVEMENT	GAS VALVE
PAINTED LINE	UTILITY POLE / GUY
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SANITARY MAIN LINE	STRAIGHT TEXT DENOTES PROPOSED FEATURES
WATER LATERAL	ROOFTOP DISCONNECTION
SANITARY LATERAL	
UNDERGROUND ELECTRIC	
OVERHEAD ELECTRIC	
PAVED WALKWAY	
GRASSPAVE 2	
RETAINING WALL	
NPDES BOUNDARY/LOD	
LIMIT OF DISTURBANCE (LOD)	

MAP LEGEND - EXISTING FEATURES

PROPERTY LINE	PIN/CONCRETE MONUMENT
RIGHT-OF-WAY LINE	SPOT ELEVATION
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STORM SEWER PIPE	SOILS DELINEATION
WATER MAIN LINE	TEST PIT
SANITARY MAIN LINE	TO BE REMOVED
SANITARY FORCE MAIN	
WATERWAY CENTERLINE	
OVERHEAD ELECTRIC	
SOILS BOUNDARY	
ZONING BOUNDARY	
WETLANDS / FLAG	
WATERS OF THE US & COMMONWEALTH	

SLANTED TEXT DENOTES EXISTING FEATURES

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POST CONSTRUCTION STORMWATER MANAGEMENT PLAN (2)
FOR
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	1" = 30'
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

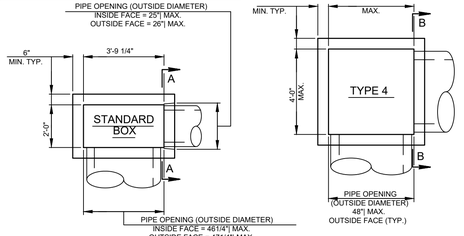
CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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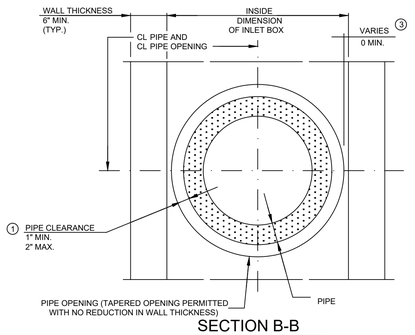
PENNDOT STANDARD STORMWATER DETAIL NOTE:
STORMWATER DETAIL, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS CONTAINED IN PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, MOST RECENT EDITION:

RC-31M	ENDWALLS
RC-39M	STORM WATER MANHOLES
RC-45M	INLET TOPS, GRATES, AND FRAMES
RC-46M	INLET BOXES



PRECAST CONCRETE INLET BOXES DETAIL

NOT TO SCALE
(SEE PENNDOT RC-46M, LATEST EDITION FOR ADDITIONAL DETAILS)



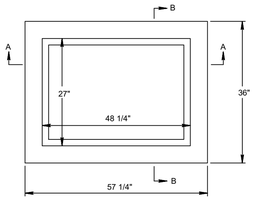
SECTION B-B

(TYPICAL ALL TYPES EXCEPT STANDARD)

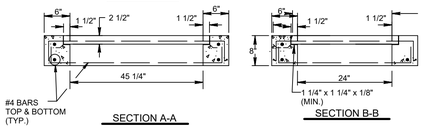
LEGEND

1. OUTSIDE DIAMETER OF PIPE TO PIPE OPENING
2. REDUCTION IN WALL THICKNESS DIMENSION
3. INSIDE FACE OF BOX WALL TO OUTSIDE DIAMETER OF PIPE OPENING

NOTE:
COST OF NO. 2A COARSE AGGREGATE IS INCIDENTAL TO THE INLET BOX.



PLAN VIEW

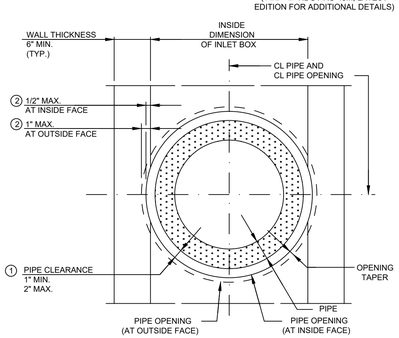


SECTION A-A

SECTION B-B

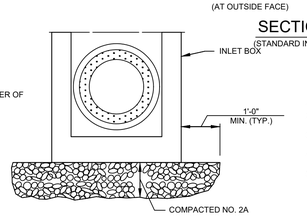
TYPE M TOP UNIT DETAIL

NOT TO SCALE
(SEE PENNDOT RC-45M, LATEST EDITION FOR ADDITIONAL DETAILS)



SECTION A-A

(STANDARD INLET BOX ONLY)



INLET BOX SUBBASE PREPARATION DETAIL

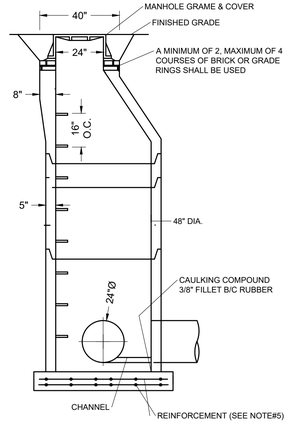
NOT TO SCALE

NOTES:

1. FOR ADDITIONAL NOTES, SEE SHEETS 1 - 3.
2. STANDARD INLET BOXES SHOWN, PROVIDE TOP SLABS FOR OTHER INLET BOX TYPES.
3. SEE RC-45M FOR DETAILS FOR THE CONCRETE TOP UNITS, FRAMES, AND GRATES.
4. PROVIDE GRADE ADJUSTMENT RINGS WHEN REQUIRED. SEE RC-45M FOR DETAILS.
5. REFER TO CONTRACT DRAWINGS FOR CURB HEIGHT.

GENERAL NOTES:

1. DESIGN SPECIFICATIONS AND REQUIREMENTS:
   * AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND AS SUPPLEMENTED BY THE DESIGN MANUAL, PART 4, STRUCTURES.
   * DESIGN IS IN ACCORDANCE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD).
   * INLET BOXES ARE DESIGNED FOR AN ALLOWABLE FOUNDATION PRESSURE EQUAL TO 2.0 TONS/SQ. FT. AT THE SERVICE LIMIT STATE.
2. CONSTRUCTION SPECIFICATIONS:
   * PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE CURRENT VERSION OF THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408 AND THE CONTRACT SPECIAL PROVISIONS.
3. SHOP DRAWINGS FOR INLET BOXES, TOP SLABS, AND TRANSITION SLABS ARE NOT REQUIRED IF THE ITEM IS CONSTRUCTED/FABRICATED IN ACCORDANCE WITH THIS STANDARD.
4. THIS STANDARD DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. FOR DEVIATIONS OR MODIFICATIONS OF THE STANDARDS, SUBMIT SHOP DRAWINGS TO THE BUREAU OF PROJECT DELIVERY, HIGHWAY DELIVERY DIVISION CHIEF FOR REVIEW AND ACCEPTANCE.
5. THE DESIGNER IS RESPONSIBLE FOR DETERMINING THE TYPE OF INLET BOX REQUIRED BASED ON THE REQUIRED PIPE SIZE(S) AND PIPE OPENING(S). REFER TO TABLES A AND B ON SHEET 34 FOR ADDITIONAL INFORMATION. THE DESIGNER IS ALSO RESPONSIBLE TO DETERMINE THE REQUIRED PAY ITEM FOR AN INSTALLATION BASED ON THE OVERALL INSTALLATION HEIGHT.
6. THE SELECTION OF COMPONENTS TO ACHIEVE A SPECIFIED INLET ASSEMBLY IS THE CONTRACTOR'S RESPONSIBILITY, UNLESS OTHERWISE INDICATED ON THE CONTRACT DOCUMENTS.
7. THE SIZE OF THE INLET TOP UNITS, PER RC-45M, ARE BASED ON THE MINIMUM DIMENSIONS INDICATED FOR THE STANDARD INLET BOX.
8. MINIMUM PIPE DIAMETERS [INSIDE]:
   * FILL HEIGHT LESS THAN OR EQUAL TO 25': 18" FOR
   * CIRCULAR PIPE (OR EQUIVALENT SIZE PIPE ARCH)
   * FILL HEIGHTS GREATER THAN 25': 24"
9. INSIDE INLET BOX DIMENSIONS ARE BASED ON PROVIDING A PIPE OPENING TO ACCOMMODATE A MINIMUM 18" PIPE TO A MAXIMUM 96" PIPE. IF A LARGER PIPE SIZE IS REQUIRED, THE DESIGNER IS RESPONSIBLE FOR PROVIDING DESIGN AND DETAILS IN ACCORDANCE WITH PENNDOT REQUIREMENTS.
10. INLETS THAT EXCEED THE MAXIMUM HEIGHT INDICATED REQUIRE SPECIAL DESIGN AND DETAILS. DESIGNER IS RESPONSIBLE FOR PROVIDING DESIGN AND DETAILS IN ACCORDANCE WITH PENNDOT REQUIREMENTS.
11. SHOW ORIENTATION OF INLET BOXES ON THE CONTRACT DRAWINGS.
12. THE TOP SLAB IS NOT PERMITTED TO BE POURED MONOLITHICALLY WITH THE ADJACENT BOX SECTION.
13. PROVIDE 2" DIAMETER WEEPHOLES IN THE WALLS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 10'-0".
    * VERTICAL PLACEMENT: 5'-0" MAXIMUM SPACING
    * HORIZONTAL PLACEMENT: PLACE WEEPHOLES IN THE SIDE WALLS THAT ARE PERPENDICULAR TO TRAFFIC.
    * LOCATE WEEPHOLES A MINIMUM OF 6" FROM PIPE OPENINGS OR JOINTS.
    * LOCATE WEEPHOLES A MINIMUM OF 1'-0" ABOVE OUTLET PIPE INVERT.
14. PROVIDE MANHOLE STEPS WHEN THE DEPTH BETWEEN THE FINISHED GRADE ELEVATION AND THE TOP OF BOTTOM SLAB ELEVATION IS GREATER THAN 5'-0". LOCATE THE TOP STEP 6" MINIMUM BELOW THE TOP OF THE INLET BOX. SHALLOW RECESSES, ON THE INSIDE FACE OF THE INLET, NOT GREATER THAN 3/8" IN DEPTH, FORMED BY MAGNETIC STEP FORMERS ARE ACCEPTABLE AND DO NOT REQUIRE PATCHING. FOR DETAILS, REFER TO RC-39M.
15. IF A REQUIRED DETAIL IS NOT FOUND IN THIS STANDARD OR ON THE CONTRACT DRAWINGS A SPECIAL SUBMISSION REQUESTING ACCEPTANCE FOR SPECIFIC DETAILS MUST BE MADE TO THE BUREAU OF PROJECT DELIVERY, HIGHWAY DELIVERY DIVISION CHIEF.
16. FOR INLET TOPS, GRATES, GRADE ADJUSTMENT RINGS AND FRAMES, REFER TO RC-45M.

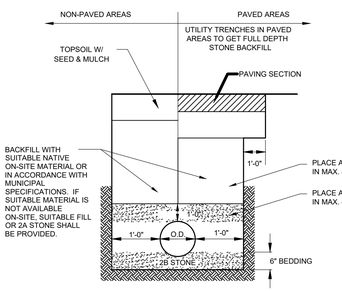


STORMWATER MANHOLE DETAIL

NOT TO SCALE

NOTES:

1. MANHOLE FRAME SHALL BE SET IN A BED OF MORTAR SO THAT THE TOP OF THE FRAME CONFORMS WITH THE SLOPE OF PAVED STREET SURFACE.
2. MANHOLE SECTIONS SHALL BE TONGUE & GROOVE WITH APPROVED RUBBER RING GASKET.
3. AFTER MANHOLE IS SET THE ENTIRE OUTER SURFACE SHALL BE COATED WITH BITUMASTIC, EXCEPT STORM SEWERS.
4. IF PRE-CAST BASE IS USED PROVIDE A MINIMUM OF 4" #2B STONE BASE TO LEVEL.
5. BASE REINFORCMENT:
   TOP H=12'-30', #5 @ 12" OR .18SI/FT. WWF
   H=30'-60', #6 @ 12" OR .22SI/FT. WWF
   BOTTOM H=12'-60', #4 @ 12" OR .28SI/FT. WWF



STORM SEWER TRENCH BACKFILL & RESTORATION DETAIL

NOT TO SCALE

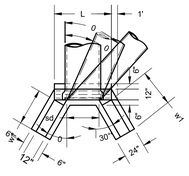
NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL COMPLY WITH PENNDOT SPECIFICATIONS, PUB. 408, CURRENT EDITION.
2. ALL TRENCHES WITHIN EXISTING MUNICIPAL ROADWAYS MUST BE BACKFILLED WITH FULL DEPTH 2A STONE AFTER BEDDING, AND MECHANICALLY COMPACTED IN 8" MAX. LIFTS.
3. ALL TRENCHES WITH A STATE HIGHWAY RIGHT OF WAY SHALL BE BACKFILLED AND RESTORED IN ACCORDANCE WITH PENNDOT SPECIFICATIONS AND DETAILS PER THE APPROVED HIGHWAY OCCUPANCY PERMIT PLANS.
4. FINAL RESTORATION/PERMANENT PAVING IN EXISTING MUNICIPAL ROADWAYS SHOULD BE DONE NO SOONER THAN 30 DAYS AFTER BACKFILL COMPACTION. COLD PATCH TEMPORARY PAVEMENT SHALL BE INSTALLED UNTIL THE PERMANENT PAVING IS INSTALLED.

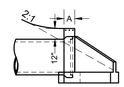
NOTES

1. PREPARE BEDDING: BEDDING MATERIAL AROUND THE END SECTION MAY BE THE SAME AS THE MATERIAL AROUND THE PIPE. PLACE A FEW INCHES OF BEDDING MATERIAL IN THE TRENCH OR DITCH WHERE THE END SECTION WILL BE PLACED. COMPACT AND CONTOUR THIS MATERIAL TO GENERALLY MATCH THE END SECTION: EXCAVATE AN AREA IN THE BEDDING WHERE THE TOE TROUGH WILL SEAT SO THAT THE END SECTION WILL ALIGN TO PROPER GRADE IN THE FINISHED INSTALLATION.
1. PLACE END SECTION ON PIPE: OPEN THE END SECTION COLLAR AND SEAT IT OVER THE LAST TWO PIPE CORRUGATIONS. ONCE THE END SECTION IS POSITIONED. CHECK TO MAKE SURE THE INVERT OF THE END SECTION MATCHES THE INVERT OF THE PIPE AND THAT THE END SECTION IS ALIGNED TO THE PROPER GRADE.
2. SECURE THE END SECTION: SLIP THE STAINLESS STEEL ROD THROUGH THE PRE-DRILLED HOLES AT THE TOP OF THE COLLAR. THE ROD SHOULD BE BETWEEN THE CROWNS OF THE TWO CORRUGATIONS AT THE END OF THE PIPE. PLACE A WASHER ON EITHER END OF THE ROD. PLACE A NUT ON EITHER END OF THE ROD AND HAND TIGHTEN WITH A WRENCH UNTIL THE COLLAR IS TIGHT AROUND THE PIPE. DO NOT OVER-TIGHTEN.
3. SECURE TOE TROUGH: TO PREVENT WASHOUTS FROM HIGH VELOCITY FLOW. IT IS RECOMMENDED THAT THE TOE TROUGH BE SECURED WITH CONCRETE. POUR CONCRETE IN THE TROUGH UP TO THE LEVEL OF THE TRENCH OR DITCH BOTTOM AND ALONG THE ENTIRE LENGTH OF THE TROUGH.
4. FINISH BACKFILL: SHOVEL BACKFILL AROUND THE END SECTION IN 6-TO 9-INCH LAYERS EQUALLY ON BOTH SIDES. KNIFING IT IN TO ELIMINATE VOIDS. TAMP WITH A SMALL-FACED COMPACTOR OR OTHER EQUIPMENT SUITABLE FOR SMALL AREAS. CONTINUE PLACING, KNIFING AND COMPACTING BACKFILL MATERIAL IN LAYERS TO THE TOP OF THE END SECTION TO SEAT IT WELL INTO THE BACKFILL.

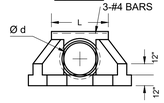
PIPE DIA.	L	W	A
18"	4.0'	4.0'	12"
24"	4.3'	4.25'	12"
36"	5.5'	4.7'	12"
42"	6.0'	5.8'	12"
48"	6.5'	7.0'	12"
54"	7.0'	8.1'	12"
60"	7.5'	9.25'	12"
72"	8.5'	11.5'	12"



TOP VIEW



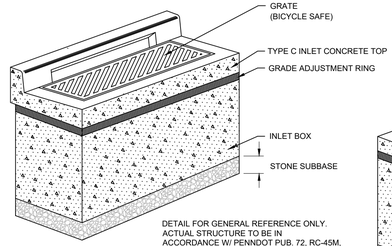
SIDE VIEW



END VIEW

TYPE D-W INLET DETAIL

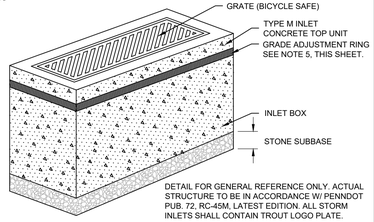
NOT TO SCALE



DETAIL FOR GENERAL REFERENCE ONLY. ACTUAL STRUCTURE TO BE IN ACCORDANCE W/ PENNDOT PUB. 72, RC-45M, LATEST EDITION. ALL STORM INLETS SHALL CONTAIN TROUT LOGO PLATE.

TYPE C INLET DETAIL

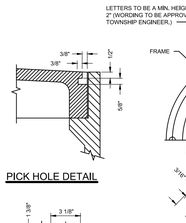
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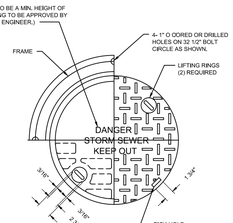
DETAIL FOR GENERAL REFERENCE ONLY. ACTUAL STRUCTURE TO BE IN ACCORDANCE W/ PENNDOT PUB. 72, RC-45M, LATEST EDITION. ALL STORM INLETS SHALL CONTAIN TROUT LOGO PLATE.

TYPE M INLET DETAIL

NOT TO SCALE



PICK HOLE DETAIL



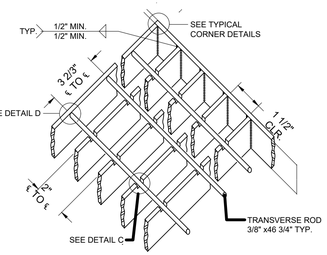
PLAN

LIFTING RING DETAIL

SECTION

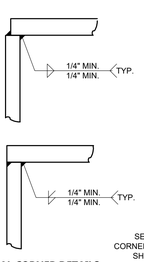
CAST IRON MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE



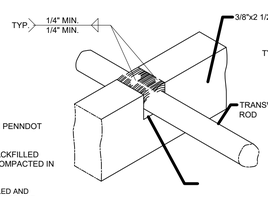
BAR AND ROD SPACER DETAIL

NOT TO SCALE



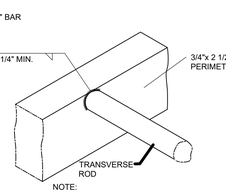
TYPICAL CORNER DETAILS

NOT TO SCALE



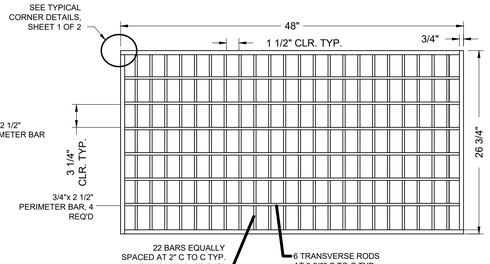
DETAIL C

NOT TO SCALE



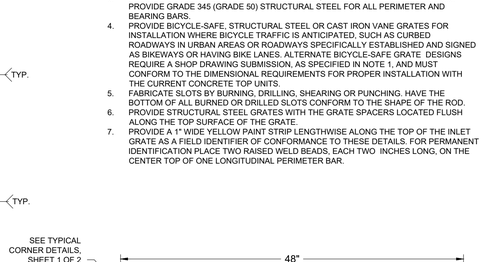
DETAIL D

NOT TO SCALE



STRUCTURAL STEEL GRATE BICYCLE SAFE DETAIL

NOT TO SCALE



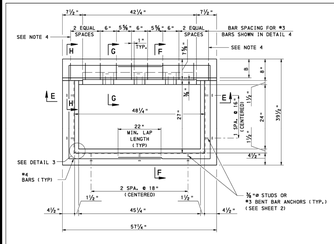
MANHOLE/INLET STEP DETAIL

NOT TO SCALE

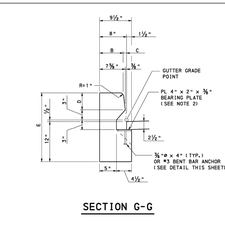
NOTES:
1. STEPS TO BE POLYPROPYLENE PLASTIC COATED 1/2" DIAMETER GRADE 60 STEEL.
2. DISTANCE FROM RIM OF MANHOLE/ INLET TO TOP STEP SHALL NOT BE GREATER THAN 2 FT.
3. DISTANCE FROM BOTTOM STEP TO FLOOR OF MANHOLE/INLET SHALL NOT BE GREATER THAN 2 FT.
4. EMBEDDED PORTION OF STEP TO BE COATED WITH ASPHALT CON- FORMING TO AASHO TM-190.
5. CONSTRUCT MANHOLES/INLETS THAT EXCEED 4 FT. IN HEIGHT WITH STEPS AS SHOWN IN THIS DETAIL.

NOTES

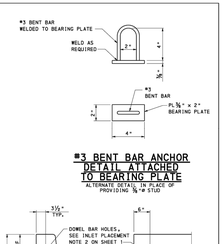
1. THESE DETAILS DEPICTS THE DIMENSIONS REQUIRED FOR UNIFORMITY AND INTERCHANGEABILITY. IT DOES NOT INCLUDE DETAILS REQUIRED FOR FABRICATION OR MANUFACTURING. FOR DEVIATIONS OR MODIFICATIONS OF THE STANDARDS SUBMIT SHOP DRAWING FOR APPROVAL.
2. WELD STRUCTURAL STEEL GRATES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTION 1105.
3. PROVIDE TRANSVERSE BARS MEETING THE REQUIREMENTS OF PUBLICATION 408. PROVIDE GRADE 345 (GRADE 50) STRUCTURAL STEEL FOR ALL PERIMETER AND BEARING BARS.
4. PROVIDE BICYCLE-SAFE, STRUCTURAL STEEL OR CAST IRON VANE GRATES FOR INSTALLATION WHERE BICYCLE TRAFFIC IS ANTICIPATED, SUCH AS CURBED ROADWAYS IN URBAN AREAS OR ROADWAYS SPECIFICALLY ESTABLISHED AND SIGNED AS BIKEWAYS OR HAVING BIKE LANES. ALTERNATE BICYCLE-SAFE GRATE DESIGNS REQUIRE A SHOP DRAWING SUBMISSION, AS SPECIFIED IN NOTE 1, AND MUST CONFORM TO THE DIMENSIONAL REQUIREMENTS FOR PROPER INSTALLATION WITH THE CURRENT CONCRETE TOP UNITS.
5. FABRICATE SLOTS BY BURNING, DRILLING, SHEARING OR PUNCHING. HAVE THE BOTTOM OF ALL BURNED OR DRILLED SLOTS CONFORM TO THE SHAPE OF THE ROD.
6. PROVIDE STRUCTURAL STEEL GRATES WITH THE GRATE SPACERS LOCATED FLUSH ALONG THE TOP SURFACE OF THE GRATE.
7. PROVIDE A 1" WIDE YELLOW PAINT STRIP LENGTHWISE ALONG THE TOP OF THE INLET GRATE AS A FIELD IDENTIFIER OF CONFORMANCE TO THESE DETAILS. FOR PERMANENT IDENTIFICATION PLACE TWO RAISED WELD BEADS, EACH TWO INCHES LONG, ON THE CENTER TOP OF ONE LONGITUDINAL PERIMETER BAR.



PLAN VIEW - TYPE C

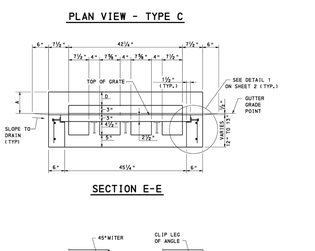


SECTION G-G

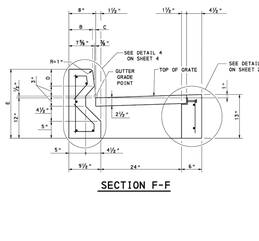


#3 BENT BAR ANCHOR DETAIL ATTACHED TO BEARING PLATE

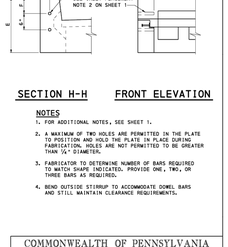
ALTERNATE DETAIL IN PLACE OF PROVIDING 3/8"ø STUD



SECTION E-E



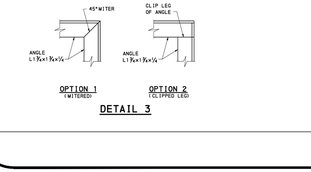
SECTION F-F



SECTION H-H FRONT ELEVATION

NOTES

1. FOR ADDITIONAL NOTES, SEE SHEET 1.
2. A MAXIMUM OF TWO HOLES ARE PERMITTED IN THE PLATE TO POSITION AND HOLD THE PLATE IN PLACE DURING FABRICATION. HOLES ARE NOT PERMITTED TO BE GREATER THAN 1/4" DIAMETER.
3. FABRICATOR TO DETERMINE NUMBER OF BARS REQUIRED TO MATCH SKAPE INDICATED, PROVIDE ONE, TWO, OR THREE BARS AS REQUIRED.
4. BEND OUTSIDE STIRRUP TO ACCOMMODATE DOWEL BARS AND STILL MAINTAIN CLEARANCE REQUIREMENTS.



OPTION 1 (MITERED) OPTION 2 (CLIPPED LEG)

DETAIL 3

TABLE OF DIMENSIONS					
CURB HEIGHT A	B	C	D	E	F
8"	7"	1"	5"	20 5/8"	6"
6"	7 1/4"	3/4"	3"	18 5/8"	4"
4"	7 1/2"	1/2"	1"	16 5/8"	4"

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

INLET TOPS, GRATES, AND FRAMES
CONCRETE TOP UNITS
TYPE C - 1

RECOMMENDED FEB. 19, 2021	RECOMMENDED FEB. 19, 2021	SHT .3 OF 24
CHIEF, HWY. DELIVERY DIVISION	DIRECTOR, BUREAU OF PROJECT DELIVERY	RC-45M

V:\Projects\DOU-06\044398-05\dwg\LD_Plans\044398-05_PCSM.dwg mwill 10/29/2026 6:26:20 PM

Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

Before You Dig Anywhere
811 In... PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776 TOLL FREE
PA ONE CALL SYSTEM, INC.

PLAN NOTATION
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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (1)

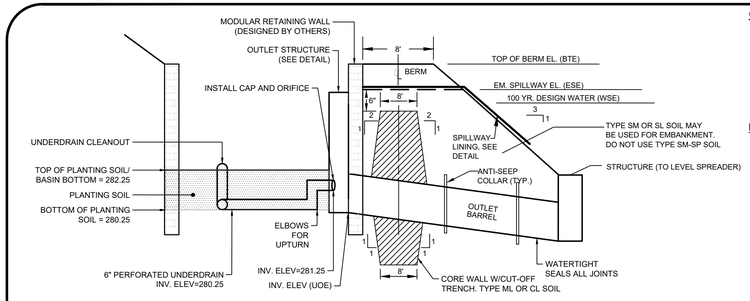
FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA



MANAGED RELEASE BASIN (SCM #2 & #3) DETAIL

NOT TO SCALE

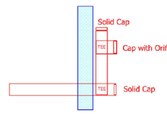
BASIN NO.	OUTLET STRUCTURE TOP ELEV OTE (FT)	BERM					OUTLET BARREL				SPILLWAY			WSE	
		TOP BERM ELEV BTE (FT)	CORE WALL WIDTH BCw (FT)	CORE WALL DEPTH BCd (IN)	MRC ORIFICE SIZE (IN)	INVERT ELEV UOE (FT)	DIA Bd (IN)	LENGTH (FT)	SLOPE (FT/FT)	MAT'L	EM SPL WIDTH (FT)	EM SPL ELEV ESE (FT)	100 YR. WTR. ELEV WSE (FT)	1.2"/2HR WTR. ELEV (FT)	2YR. WTR ELEV (FT)
SCM2	284.50	286.75	8	6	1.20	279.00	15	8.5	0.015	HDPE	80	285.50	284.24	282.07	282.75
SCM3	284.50	286.75	8	6	1.00	279.00	15	21.5	0.020	HDPE	50	285.50	284.25	282.10	282.82

CONSTRUCTION NOTES:

1. SOILS USED FOR THE CONSTRUCTION OF BASINS SHALL HAVE LOW ERODIBILITY FACTORS ("K" FACTORS). ALL DETENTION AND RETENTION BASIN EMBANKMENTS SHALL BE PLACED IN EIGHT-INCH MAXIMUM LIFTS TO A MINIMUM 95% DRY DENSITY. PRIOR TO PROCEEDING TO THE NEXT LIFT, COMPACTION SHALL BE CHECKED BY THE TOWNSHIP ENGINEER OR AN APPROVED SOILS ENGINEER WHO SHALL PROVIDE THE TOWNSHIP ENGINEER WITH A WRITTEN REPORT.
2. COMPACTION TESTS SHALL BE PERFORMED USING THE MODIFIED PROCTOR METHOD IN ACCORDANCE WITH ASTM D-1577. COMPACTION TESTS SHALL BE RUN ON THE LEADING AND TRAILING EDGE AS WELL AS THE TOP OF THE BERM.
3. REMOVE ALL TOPSOIL OVER EMBANKMENT PRIOR TO PLACING FILL.

PLANTING SOILS NOTES:

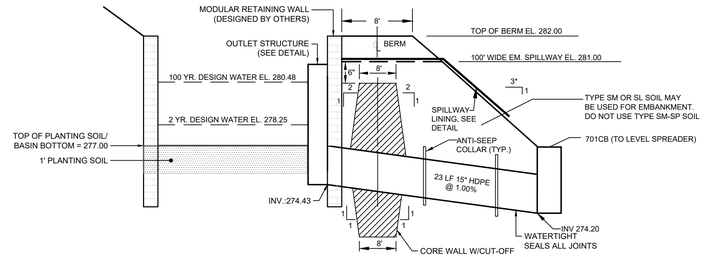
1. SHALL BE A LOAM/SAND MIX CAPABLE OF SUPPORTING A HEALTHY VEGETATIVE COVER. ON SITE TOPSOIL, FREE OF CLAY (MAX 10% VOLUME CLAY) AND DEBRIS MAY BE AMENDED WITH A SAND/ORGANIC MIX COMBINING 15% VOLUME ORGANIC MATERIAL (COMPOST), AND 30% VOLUME CONSTRUCTION (COARSE GRAINED) SAND.
2. BEFORE PLACEMENT OF PLANTING SOILS IN BASIN A BULK DENSITY FIELD TEST SHALL BE COMPLETED TO ENSURE PLANTING SOILS MEET THE MAXIMUM IDEAL BULK DENSITY OF 1.4 GRAM/CM3 IF THE IDEAL BULK DENSITY IS NOT MET TOPSOIL WHICH MEETS THE IDEAL BULK DENSITY SHALL BE IMPORTED AND MIXED WITH SAND AND COMPOST AS SPECIFIED ABOVE. ONCE THE IDEAL BULK DENSITY IS MET INSTALL PLANTING SOIL IN 18-INCHES MAXIMUM LIFTS AND LIGHTLY COMPACTED (TAMP WITH BACKHOE BUCKET OR BY HAND). DO NOT ALLOW EQUIPMENT MOVEMENT OVER PLANTING SOIL - DO NOT OVER COMPACT.
3. FURNISH & PLACE 8" MINIMUM TOPSOIL, SOIL SUPPLEMENTS, FORMULA "B" SEED, MULCH, PER LATEST PENNDOT SPECIFICATIONS.



ORIFICE SHALL BE CLEAN, SMOOTH, AND SANDED SO THAT NO BURS OR IRREGULARITIES ARE PRESENT

UPTURNED ELBOW DETAIL

NOT TO SCALE



*BASIN EMBANKMENT SIDE SLOPES UPSTREAM OF THE LEVEL SPREADER SHALL BE 2:1. REFER TO PLAN VIEW

DRY EXTENDED DETENTION ET BASIN (SCM #1) DETAIL

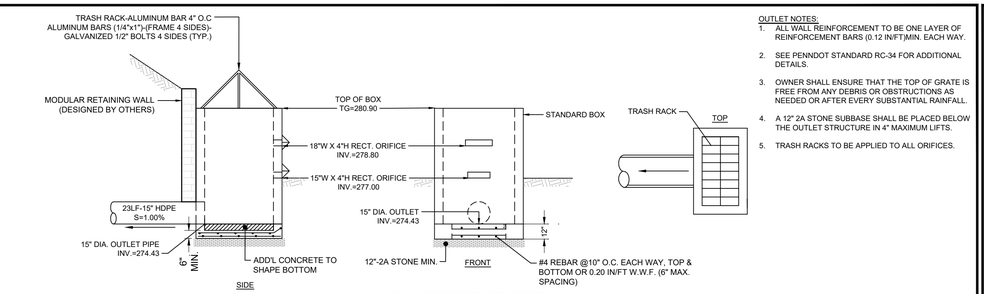
NOT TO SCALE

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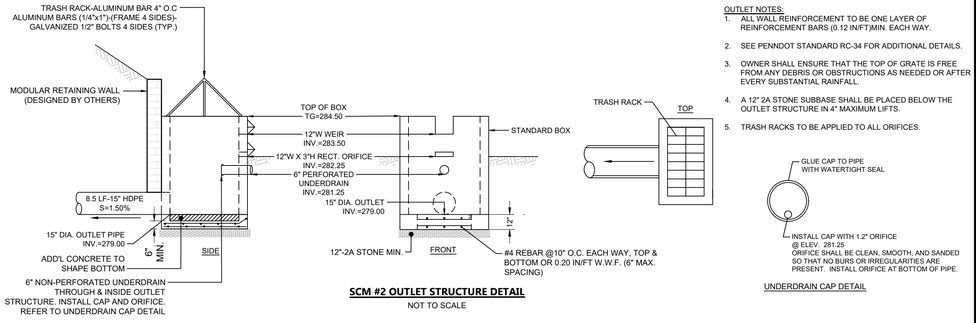


OUTLET NOTES:

1. ALL WALL REINFORCEMENT TO BE ONE LAYER OF REINFORCEMENT BARS (0.12 IN/FT)MIN. EACH WAY.
2. SEE PENNDOT STANDARD RC-34 FOR ADDITIONAL DETAILS.
3. OWNER SHALL ENSURE THAT THE TOP OF GRATE IS FREE FROM ANY DEBRIS OR OBSTRUCTIONS AS NEEDED OR AFTER EVERY SUBSTANTIAL RAINFALL.
4. A 12" 2A STONE SUBBASE SHALL BE PLACED BELOW THE OUTLET STRUCTURE IN 4" MAXIMUM LIFTS.
5. TRASH RACKS TO BE APPLIED TO ALL ORIFICES.

SCM #1 OUTLET STRUCTURE DETAIL

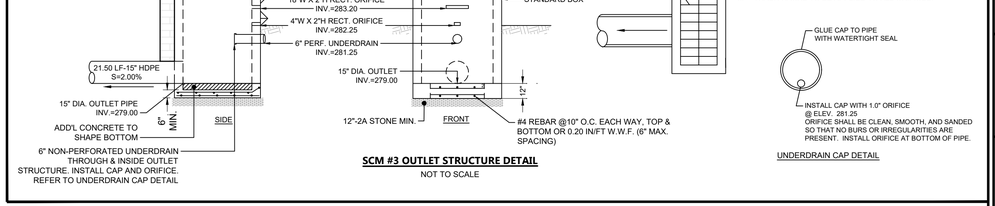
NOT TO SCALE



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UNDERDRAIN CAP DETAIL



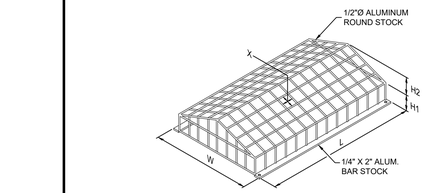
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UNDERDRAIN CAP DETAIL

SCM #3 OUTLET STRUCTURE DETAIL

NOT TO SCALE

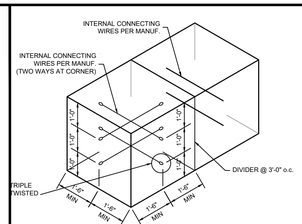


NOTES:
1. ORIFICE RACK IS TO BE CONSTRUCTED OF ALUMINUM
2. DIMENSIONS REQUIRED:

H1 =	9 INCHES
H2 =	12 INCHES
L =	48 INCHES
W =	24 INCHES
X =	6 INCHES

OCS TOP-MOUNTED TRASH RACK

OR APPROVED EQUIVALENT
NOT TO SCALE

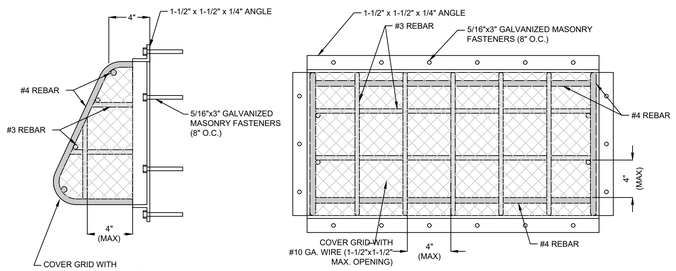


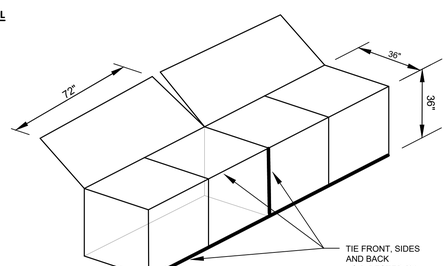
INTERIOR BASKET WIRING DIAGRAM

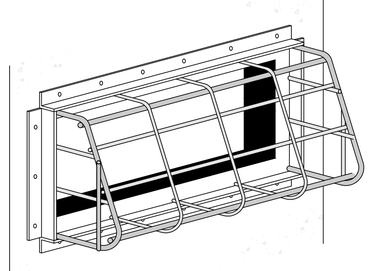
THE HEIGHT OF BASKETS FROM BASIN BOTTOM TO TOP OF BASKET SHALL BE 2FT.

GABION BASKET TYING DETAIL

NOT TO SCALE







ORIFICE GRATE PROTECTION

OR APPROVED EQUIVALENT
NOT TO SCALE

Van Cleef ENGINEERING WITH FOCUS

Local/Regional Planning
Municipal Consulting
Site Development
Surveying/Aerial Drones/GIS
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Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS

VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (2)

FOR

COBBLESTONE VILLAGE CROSSING

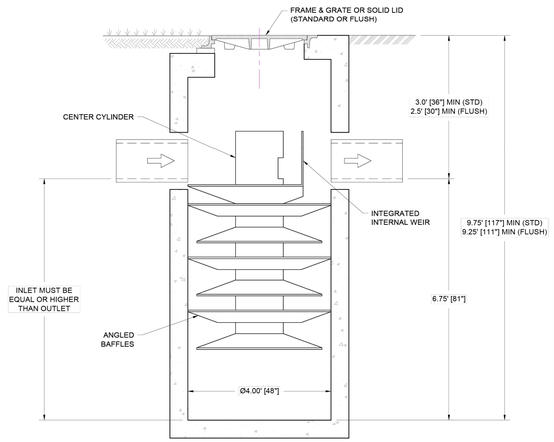
DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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ARCADIA AR4PC



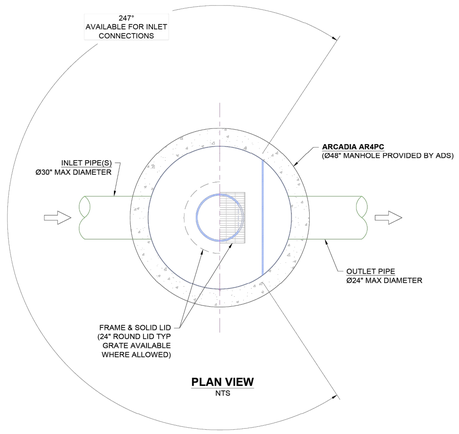
PROFILE VIEW
NTS

PRODUCT SPECIFICATIONS

- THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIC RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
- THE ARCADIA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY VERIFIED TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 MG/L INFLUENT CONCENTRATION. FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

  -OR -

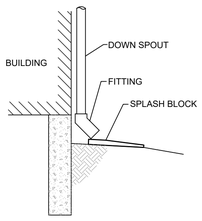
  THE ARCADIA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 50% OF TSS USING A MEDIA MIX WITH D50=75 MICRON AND 200 MG/L INFLUENT CONCENTRATION PER CURRENT NJDEP/NJCAT HDS PROTOCOL.



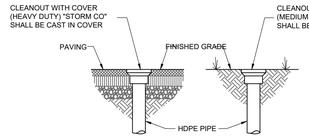
PLAN VIEW
NTS

NOTES:

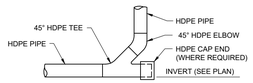
- ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS AND APPLICABLE ADAPTERS.
- CONTRACTOR IS RESPONSIBLE FOR MATERIAL AND LABOR TO BRING CASTINGS TO FINISHED GRADE.
- CONTRACTOR TO MEASURE HEIGHT OF STRUCTURE TO ENSURE THAT DEPTH OF EXCAVATION IS CORRECT.
- UNIT SHALL CONFORM TO HS20-44 LOAD RATINGS.



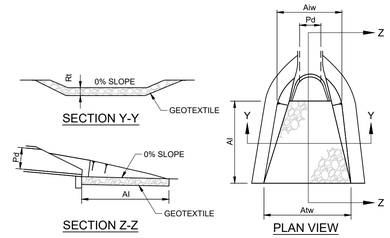
ROOFTOP DISCONNECT DETAIL
NOT TO SCALE



PAVED AREA LAWN AREA



STORM CLEANOUT DETAIL
NOT TO SCALE



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP		APRON		
		SIZE R-_	THICK. Rt (IN)	LENGTH Al (FT)	INITIAL WIDTH Aiw (FT)	TERMINAL WIDTH Atw (FT)
101EW	24	3	9	10	6	10
301EW	15	3	9	6	3.75	6.15
401EW	15	3	9	6	3.75	6.15
501EW	15	3	9	6	3.75	6.15
601EW	18	3	9	7	4.5	7.3
801EW	18	3	9	8	4.5	7.7
901EW	18	4	18	8	4.5	7.7

NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

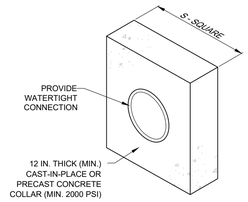
ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET WITH FLARED END SECTION OR ENDWALL

NOT TO SCALE

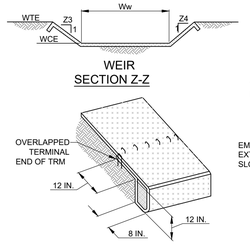
BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
SCM 1	15	48	2	6.5	6.5
SCM 2	15	48	2	8	8
SCM 3	15	48	2	8	8

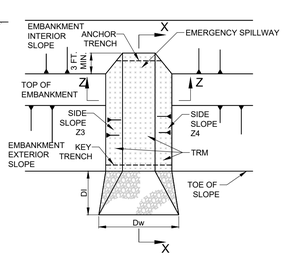
NOTES: ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT. COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

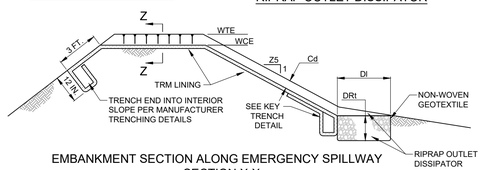


STANDARD CONSTRUCTION DETAIL #7-16
CONCRETE ANTI-SEEP COLLAR FOR PERMANENT BASINS OR TRAPS

NOT TO SCALE







EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY
SECTION X-X

BASIN NO.	WEIR					LINING		CHANNEL		DISSIPATOR			
	Z3 (FT)	Z4 (FT)	TOP ELEV WTE (FT)	CREST ELEV WCE (FT)	WIDTH Ww (FT)	TRM TYPE	STAPLE PATTERN	Z5 (FT)	DEPTH Cd (FT)	LENGTH DI (FT)	WIDTH Dw (FT)	RIPRAP SIZE (R-_)	RIPRAP THICK. DRt (IN)
SCM 1	3	3	282.00	281.00	100	NAG C125BN	D	2	1.50	15	60	3	9
SCM 2	3	3	286.75	285.50	80	NAG S150BN	D	3	1.50	15	85	3	9
SCM 3	3	3	286.75	285.50	50	NAG S75	D	3	1.50	15	87	3	9

NOTES:

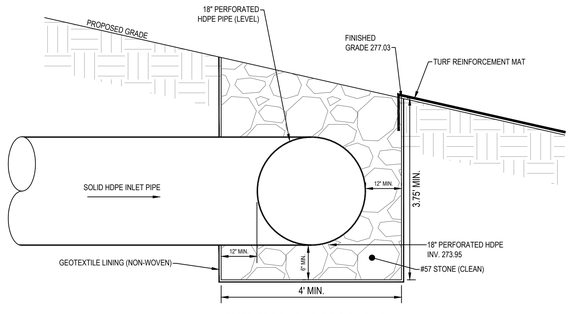
HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING. DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR.

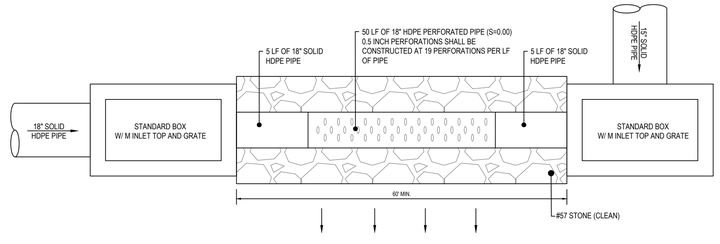
THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-13
SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING

NOT TO SCALE



LEVEL SPREADER PROFILE VIEW
NOT TO SCALE



LEVEL SPREADER PLAN VIEW
NOT TO SCALE

Van Cleef ENGINEERING WITH FOCUS

Bridges/Highways
Construction Inspection
Environmental
Geotechnical/Dams
Landscape Architecture
Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater

REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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811 In… PENNSYLVANIA
Know what's below. Call before you dig. PA Law requires 3 working days notice before you excavate
STOP! CALL 1-800-242-1776 OR 811
PA ONE CALL SYSTEM, INC.

PLAN NOTATION

ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL
ENGINEER NUMBER PE046396E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (3)

FOR

COBBLESTONE VILLAGE CROSSING

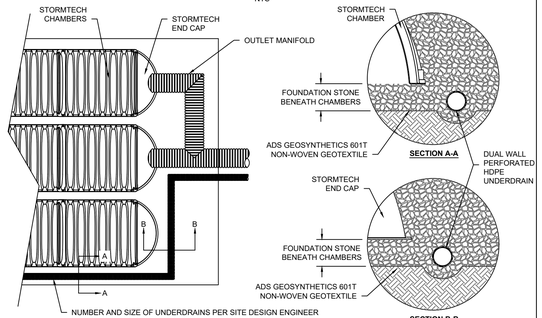
DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

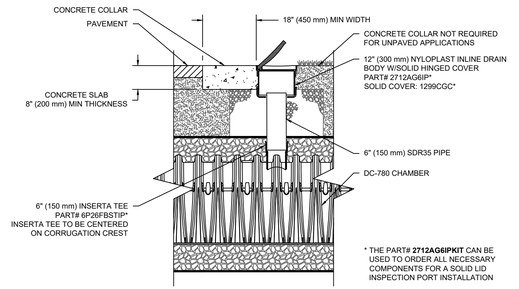
DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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UNDERDRAIN DETAIL
NTS

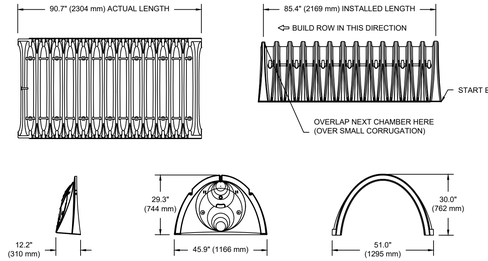


4 UNDERDRAIN DETAIL



DC-780 6" (150 mm) INSPECTION PORT DETAIL
NTS

DC-780 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

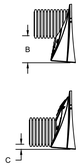
SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	46.2 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	78.4 CUBIC FEET	(2.20 m³)
WEIGHT	80.0 lbs.	(36.3 kg)

NOMINAL END CAP SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	45.9" X 29.3" X 9.6"	(1166 mm X 744 mm X 244 mm)
END CAP STORAGE	2.6 CUBIC FEET	(0.07 m³)
MINIMUM INSTALLED STORAGE**	14.4 CUBIC FEET	(0.40 m³)
WEIGHT	11.7 lbs.	(5.3 kg)

* ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW, AND 6" (152 mm) BETWEEN CHAMBERS
**ASSUMES 6" (152 mm) STONE ABOVE, 9" (229 mm) BELOW END CAPS, 6" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

PART #	STUB	B	C
SC740EPE06TPC	6" (150 mm)	18.5" (470 mm)	---
SC740EPE06BPC		---	0.5" (13 mm)
SC740EPE08TPC	8" (200 mm)	16.5" (419 mm)	---
SC740EPE08BPC		---	0.6" (15 mm)
SC740EPE10TPC	10" (250 mm)	14.5" (368 mm)	---
SC740EPE10BPC		---	0.7" (18 mm)
SC740EPE12TPC	12" (300 mm)	12.5" (318 mm)	---
SC740EPE12BPC		---	1.2" (30 mm)
SC740EPE15TPC	15" (375 mm)	9.0" (229 mm)	---
SC740EPE15BPC		---	1.3" (33 mm)
SC740EPE18TPC	18" (450 mm)	5.0" (127 mm)	---
SC740EPE18BPC		---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	---	0.1" (3 mm)



ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP.

* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

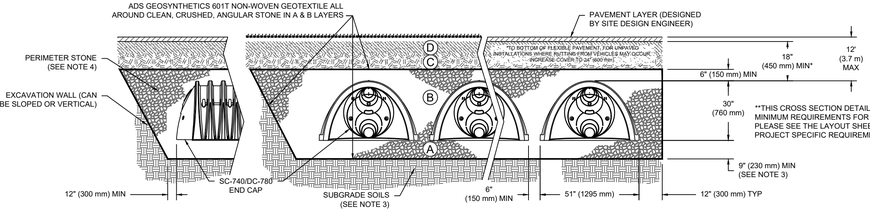
NOTE: ALL DIMENSIONS ARE NOMINAL; PRE-CORED END CAPS END WITH "PC"

2 DC-780 TECHNICAL SPECIFICATION

ACCEPTABLE FILL MATERIALS: STORMTECH DC-780 CHAMBER SYSTEMS

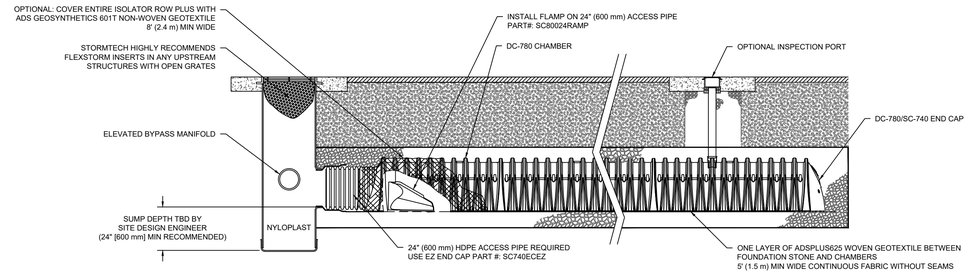
	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



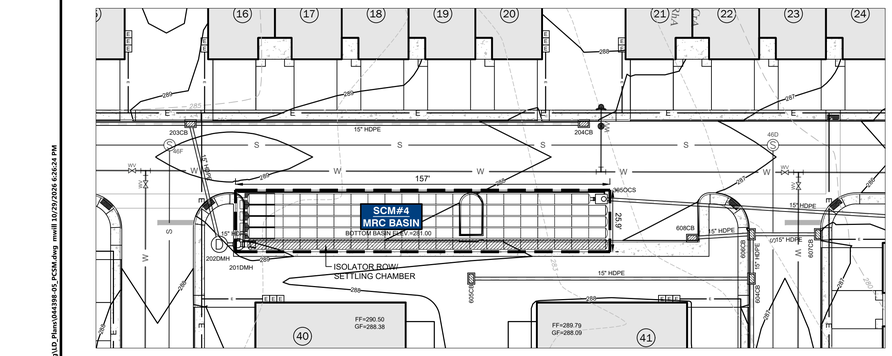
NOTES:
1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. DC-780 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 500 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 DC-780 CROSS SECTION DETAIL



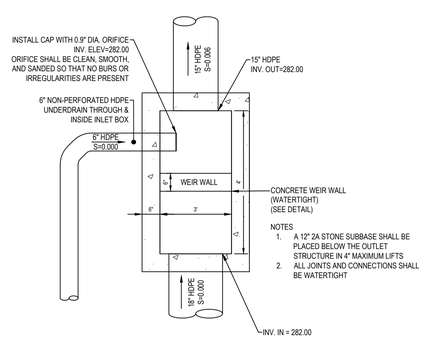
DC-780 ISOLATOR ROW PLUS DETAIL
NTS

3 DC-780 ISOLATOR ROW PLUS DETAIL

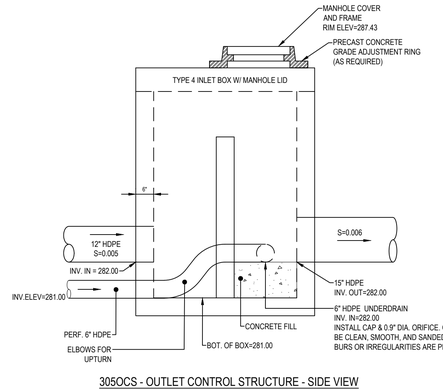


MANAGED RELEASE CONCEPT BASIN - SCM #4 (STORMTECH DC-780 CHAMBERS)
(SCALE: 1" = 30')

SUBSURFACE MRC BASIN	CHAMBER TYPE	STONE INVERT	CHAMBER INVERT	CHAMBERS PER ROW	TOP OF STONE INVERT	1.2"/2HR WATER SURFACE ELEVATION	2-YR WATER SURFACE ELEVATION	100-YR WATER SURFACE ELEVATION
SCM #4	DC-780 + CAP	281.00	283.00	21 CHAMBERS/ROW - 5 ROWS	286.00	283.19	283.72	285.40

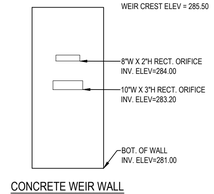


INLET BOX TOP VIEW
(NTS)



305OCS - OUTLET CONTROL STRUCTURE - SIDE VIEW
(NTS)

NOTES
1. CONCRETE WEIR WALL SHALL BE 6" THICK.
2. ALL JOINTS AND CONNECTIONS SHALL BE WATERTIGHT



CONCRETE WEIR WALL
(NTS)

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Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Land Development
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REV	DESCRIPTION	AUTH	DATE

SERIAL NO. 20262020213

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NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL ENGINEER NUMBER PE046339E

Van Cleef ENGINEERING WITH FOCUS
VAN CLEEF ENGINEERING ASSOCIATES, LLC
2129 E. HIGH STREET, POTTSTOWN, PA 19464
WEB: WWW.VANCLEEFENGINEERING.COM
PHONE (610) 323-4040

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS (4)
FOR
COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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OPERATION & MAINTENANCE NOTES:

UNTIL THE SITE IS STABILIZED AND DURING CONSTRUCTION ACTIVITIES, PCSM BMPS MUST BE MAINTAINED PROPERLY BY THE CONTRACTOR. THE HOMEOWNER'S ASSOCIATION (HOA) ESTABLISHED FOR THE DEVELOPMENT SHALL BE RESPONSIBLE FOR THE PERMANENT OPERATION AND MAINTENANCE PROCEDURES OF THE FOLLOWING PCSM BMPS ON THE SITE IN PERPETUITY PER DEED RESTRICTIONS RECORDED AT THE COUNTY.

* MANAGED RELEASE BASINS
* DRY EXTENDED DETENTION BASINS
* INLETS/STORM SEWERS
* RIPRAP APRONS
* PROPOSED TREES

THE INDIVIDUAL PROPERTY OWNERS SHALL BE RESPONSIBLE FOR THE FOLLOWING PCSM BMPS

* LAWN AREAS
* DISCONNECTED ROOF LEADERS

SITE INSPECTIONS AND REMEDIAL ACTIONS MUST BE DOCUMENTED IN A WRITTEN REPORT OR LOG KEPT FOR THIS PURPOSE DOCUMENTING EACH INSPECTION AND ALL REPAIR AND MAINTENANCE ACTIVITIES TAKEN, INCLUDING THE DATE, TIME, AND NAME OF THE PERSON CONDUCTING THE INSPECTION AND WORK.

REPRESENTATIVES OF THE MUNICIPALITY AND OTHER APPLICABLE AUTHORIZED GOVERNMENTAL AGENCIES SHALL HAVE THE RIGHT, BUT NOT THE RESPONSIBILITY, TO ACCESS THE STORMWATER BMPS THROUGH THE STORMWATER AND ACCESS EASEMENTS OVER THE SUBJECT PROPERTY TO ALLOW ENTRY TO PERFORM INSPECTIONS, AND TO ALLOW ENTRY AND EXECUTION OF ALL NECESSARY REPAIRS TO THE BMPS SHOULD THE HOA OR INDIVIDUAL PROPERTY OWNERS FAIL TO MAINTAIN THE FACILITIES IN ACCORDANCE WITH THE APPROVED PCSM PLAN. A BLANKET EASEMENT IS PROVIDED FOR THE HOA, MUNICIPALITY AND OTHER APPLICABLE AUTHORIZED GOVERNMENTAL AGENCIES TO ACCESS, PERFORM INSPECTIONS AND TO ALLOW ENTRY AND EXECUTION OF ALL NECESSARY REPAIRS TO THE PROPOSED BMPS.

LAWN AREAS (GRASS)
ALL LAWN AREAS SHOULD HAVE A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER IN ORDER TO PREVENT ACCELERATED EROSION AND ALLOW STORMWATER TO PERCOLATE INTO THE GROUND.
INSPECTION SCHEDULE

- THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL LAWN AREAS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, AND AFTER RUNOFF EVENTS TO ENSURE THE AREA IS COVERED BY AT LEAST 70% COVER AND THERE IS NO EROSION.
- THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL LAWN AREAS DURING THE GROWING SEASON A MINIMUM OF ONCE PER WEEK TO CHECK FOR LAWN HEIGHT, MOISTURE CONTENT AND THE NEED FOR WATERING AND FERTILIZER APPLICATION.

OPERATION & MAINTENANCE PROCEDURES

- THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD MOW THE LAWN ON A REGULAR BASIS THROUGHOUT THE GROWING SEASON; IT SHOULD BE MAINTAINED AT A HEIGHT OF 2 TO 3.5 INCHES.
- THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD WATER THE LAWN AS NECESSARY BASED ON WEATHER CONDITIONS. DURING THE SUMMER WHEN RAIN IS SPARSE THE LAWN SHOULD BE WATERED EVERY OTHER DAY. DURING THE SPRING AND FALL WHEN RAIN IS ABUNDANT THE LAWN WILL NOT NEED TO BE WATERED. THE LAWN SHOULD BE WATERED TO ENSURE THE GRASS IS NOT ALLOWED TO BURN OR TURN BROWN.
- THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD FERTILIZE THE LAWN USING A 10-10-20 FERTILIZER, AT 1000 POUNDS PER ACRE, A MINIMUM OF 2 TIMES PER GROWING SEASON, ONCE IN THE SPRING AND ONCE IN THE FALL. IT IS POSSIBLE TO OVER FERTILIZE SO THE MAXIMUM NUMBER OF FERTILIZER APPLICATIONS SHOULD BE 4 TIMES PER YEAR. IF THE FERTILIZER DOES NOT WORK A SOILS TEST SHOULD BE PERFORMED AND THE FERTILIZER TYPE SHOULD BE REEVALUATED.
- SPECIAL CARE SHALL BE TAKEN TO AVOID COMPACTING LAWN AREAS, VEHICLES AND OTHER HEAVY EQUIPMENT AND ITEMS SHOULD BE KEPT OFF LAWN AREAS.
- IF THE REQUIRED 70% VEGETATIVE COVER IS NOT MET THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD PERFORM A SOILS TEST AND REEVALUATE THE SEED SELECTION USED ON THE PROPERTY. THE SPARSE AREAS SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER.
- IF THERE IS EROSION IN THE LAWN AREAS, THE SOIL SHALL BE REPLACED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND THE AREA SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER. IF THE EROSION CONTINUES TO OCCUR IN THE SAME LOCATION THE PROPERTY OWNER OR THEIR DESIGNEE SHALL CONTACT AN ENGINEER TO DETERMINE AN ACCEPTABLE SOLUTION.

INLETS/STORM SEWERS/ROOF DRAINS
INLETS, STORM SEWERS AND ROOF DRAINS SHOULD BE KEPT CLEAN FROM DEBRIS AND SEDIMENT TO ALLOW STORMWATER FLOWS THE FULL CAPACITY OF THE INLET GRATE AND STORM SEWER.
INSPECTION SCHEDULE

- THE HOA, PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS, STORM SEWERS AND ROOF DRAINS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, AND AFTER RUNOFF EVENTS TO ENSURE THEY ARE NOT CLOGGED FROM TRASH, DEBRIS OR SEDIMENT.
- THE HOA, PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS, STORM SEWER AND ROOF DRAINS A MINIMUM OF ONCE PER YEAR FOR STRUCTURAL INTEGRITY.

OPERATION & MAINTENANCE PROCEDURES

- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE GRATE AND INLET BOTTOM, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER RUNOFF EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A COMMERCIAL VACUUM.
- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE STORM SEWERS, FOLLOWING CURRENT RECYCLING PROCEDURES, A MINIMUM OF 2 TIMES PER YEAR AND AFTER RUNOFF EVENTS. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH PRESSURE WATER STREAM OR EQUIVALENT MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER FACILITIES.
- THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH AND DEBRIS FROM THE ROOF DRAINS AND GUTTERS.
- THE HOA, PROPERTY OWNER OR THEIR DESIGNEE SHOULD INSPECT THE INLETS, STORM SEWERS AND ROOF DRAINS FOR STRUCTURAL INTEGRITY, SHOULD ANYTHING OUT OF THE ORDINARY BE FOUND A PROFESSIONAL SHOULD BE BROUGHT IN TO ANALYZE THE SYSTEM AND DETERMINE WHETHER REPLACEMENT IS NECESSARY.

MANAGED RELEASE/DETENTION BASIN (SCM 1,2,3 & 4)
MANAGED RELEASE BASINS /DETENTION BASINS SHOULD BE KEPT CLEAN FROM DEBRIS AND SEDIMENT TO ENSURE THE SOILS BENEATH ARE NOT ALLOWED TO BE SILTED UP OR COMPACTED AND TO ENSURE THEY DRAIN WITHIN THEIR SPECIFIC DEWATERING PERIOD, AND MAINTAIN THE REQUIRED STORAGE VOLUME.

INSPECTION SCHEDULE

- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS AND STORM SEWERS TRIBUTARY TO THE FACILITIES, AND THE STRUCTURES WITHIN THE BASIN (OUTLET STRUCTURES) A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL AND AFTER STORM EVENTS GREATER THAN 0.80 INCHES. THE INSPECTION SHALL INCLUDE LOOKING IN THE BOTTOM OF THE BASIN AND IN THE OUTLET STRUCTURE WITHIN 3 DAYS AFTER A STORM EVENT AND CHECKING IF THERE IS ANY VISUAL STANDING WATER OR SEDIMENT/DEBRIS IN THE BASIN OR IN THE OUTLET STRUCTURE ORIFICE/WEIRS/GRATES/TRASH RACKS OR OTHER OPENINGS.
- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT THE EMERGENCY SPILLWAY FOR EROSION, LINING DISPLACEMENT AND RIPRAP DISPLACEMENT A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL AND AFTER STORM EVENTS GREATER THAN 0.80 INCHES TO ENSURE THEIR IS NO EROSION OR DISPLACEMENT OF REINFORCEMENT.
- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL VEGETATED AREAS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, AND AFTER RUNOFF EVENTS TO ENSURE THE AREA IS COVERED BY AT LEAST 70% COVER AND THERE IS NO EROSION.
- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT THE BASIN DURING THE GROWING SEASON A MINIMUM OF ONCE PER WEEK TO CHECK FOR VEGETATION HEIGHT, MOISTURE CONTENT AND THE NEED FOR WATERING.
- THE HOA OR THEIR DESIGNEE SHALL INSPECT BASIN AT LEAST TWO TIMES PER YEAR, OR MORE IF HISTORICAL MAINTENANCE INDICATE IT IS NECESSARY, FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION, SIGNS OF WATER CONTAMINATION/SPILLS, AND INSTABILITY. LEAF LITTER SHALL BE REMOVED ANNUALLY.
- IF THE PROPERTY OWNER OR THEIR DESIGNEE ENTER THE OUTLET STRUCTURE, INLETS, STORM SEWERS OR ANY OTHER DANGEROUS PLACE, ALL NECESSARY SAFETY PRECAUTIONS SHALL BE FOLLOWED. INCLUDING BUT NOT LIMITED TO CONFINED SPACE ENTRY.

OPERATION & MAINTENANCE PROCEDURES

- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH, DEBRIS AND SEDIMENT FROM THE OUTLET STRUCTURES TRASH RACK, SUMP AND ORIFICES/WEIRS, FOLLOWING CURRENT RECYCLING PROCEDURES. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A COMMERCIAL VACUUM.
- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH, DEBRIS AND SEDIMENT FROM THE TRIBUTARY STORM SEWERS AND OUTLET PIPE, FOLLOWING CURRENT RECYCLING PROCEDURES, THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH PRESSURE WATER STREAM OR EQUIVALENT MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER FACILITIES.
- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH, DEBRIS AND SEDIMENT FROM THE BASIN, AS NEEDED, FOLLOWING CURRENT RECYCLING PROCEDURES. THIS CAN BE ACCOMPLISHED BY HAND OR WITH A MACHINE, HOWEVER NO HEAVY EQUIPMENT SHALL BE DRIVEN IN THE BASIN AND ALL DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED AND EROSION NETTED. RESTORE ORIGINAL CROSS-SECTION & PROPERLY DISPOSE OF SEDIMENT.
- IF THE REQUIRED 70% VEGETATIVE COVER IS NOT MET THE HOA OR THEIR DESIGNEE SHOULD PERFORM A SOILS TEST AND REEVALUATE THE SEED SELECTION USED ON THE PROPERTY. A MEADOW MIX THAT IS CAPABLE OF SUSTAINING PERIODIC INUNDATION SHOULD BE USED WITH AN ANNUAL RYE COMPANION CROP. THE SPARSE AREAS SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER.
- IF THERE IS EROSION IN THE BASIN, THE HOA OR THEIR DESIGNEE SHALL REPLACE THE SOIL WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND THE AREA SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER. IF THE EROSION CONTINUES TO OCCUR IN THE SAME LOCATION THE HOA OR THEIR DESIGNEE SHALL CONTACT AN ENGINEER TO DETERMINE AN ACCEPTABLE SOLUTION.
- THE HOA OR THEIR DESIGNEE SHOULD MOW THE BASIN ONCE OR TWICE A YEAR. CARE SHOULD BE TAKEN TO AVOID EXCESSIVE SMOTHERING BY VEGETATIVE SPECIES.
- THE HOA OR THEIR DESIGNEE SHOULD WATER THE BASIN AS NECESSARY BASED ON WEATHER CONDITIONS. DURING THE SUMMER WHEN RAIN IS SPARSE THE BASIN SHOULD BE WATERED ONCE A WEEK. DURING THE SPRING AND FALL WHEN RAIN IS ABUNDANT THE BASIN WILL NOT NEED TO BE WATERED. THE BASIN SHOULD BE WATERED TO ENSURE THE VEGETATION IS NOT ALLOWED TO BURN OR TURN BROWN.
- THE HOA OR THEIR DESIGNEE SHOULD PROHIBIT VEHICLES FROM BEING PARKED OR DRIVEN IN THE BASIN, CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
- MOSQUITO'S SHOULD NOT BE A PROBLEM IF THE WATER DRAINS WITHIN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER LEVELS.
- THE HOA OR THEIR DESIGNEE SHOULD ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS AND SLOPE STABILITY IN THE BERMS.
- THE HOA OR THEIR DESIGNEE SHOULD ENSURE THERE IS NO EROSION, DISPLACED LINING OR RIPRAP. IF THERE IS EROSION THE SOIL SHALL BE REPLACED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND LINED WITH THE SPILLWAY LINING AND IMMEDIATELY SEEDED. IF THE LINING HAS BEEN DISPLACED OR DAMAGED IT SHALL BE REPLACED FOLLOWING THE DESIGN SPILLWAY LINING. IF THE RIPRAP IS DISPLACED OR ERODED THE RIPRAP SHALL BE REMOVED AND GEOTEXTILE PLACED BENEATH THE STONE AND THE RIPRAP REPLACED.
- THE HOA OR THEIR DESIGNEE SHOULD ENSURE THE FACILITY IS FUNCTIONING PROPERLY AND THE WATER IS DRAINING TO THE SURFACE. THE FACILITY HAS BEEN DESIGNED TO DRAIN TO THE SURFACE WITHIN 57 HOURS. IF THE FACILITY IS NO LONGER DRAINING WATER IT IS PROBABLE THAT THE OUTLET STRUCTURE, PLANTING SOILS OR THE UNDERDRAIN HAVE BEEN CLOGGED WITH SILT/DEBRIS. THE ORIFICES, WEIRS, GRATES, TRASH RACKS SHOULD BE VISUALLY CHECKED FOR SEDIMENT/DEBRIS SHORTLY AFTER THE STORM EVENT AND ALL SHOULD BE REMOVED. IF MINOR AREAS OF STANDING WATER ARE FOUND, TOPSOIL SHALL BE BROUGHT IN TO ELIMINATE LOW POINTS AND IMMEDIATELY STABILIZED. GOOD VEGETATIVE COVER/TREES/SHRUBS WILL UTILIZE ANY SMALL AMOUNTS OF STANDING WATER HOWEVER EXCESSIVE STANDING WATER MAY KILL SOME SPECIES. IF THERE IS NO EVIDENT CLOGGING THEN IT IS PROBABLY THAT THE UNDERDRAIN, GEOTEXTILE AND STONE SURROUNDING IT HAS BECOME SILTED UP. IT WILL NEED TO BE EXCAVATED AND REINSTALLED PER THE DETAIL. IF THIS DOES NOT ALLOW FOR ADEQUATE DRAINING THEN THE PLANTING SOILS WILL NEED TO BE REMOVED AND REPLACED FOLLOWING THE SPECIFICATIONS IN THE DETAILS.
- THE VEGETATION (FOR THE BASIN AND CONTRIBUTING DRAINAGE AREA) SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY ANY BARE SPOTS REVEGETATED BY THE HOA OR THEIR DESIGNEE.

FOREBAY (SCM 2 & 3)
FOREBAY'S SHOULD BE KEPT CLEAN FROM DEBRIS, GARBAGE AND EXCESSIVE SEDIMENT TO ENSURE THE FACILITY HAS THE REQUIRED STORAGE VOLUME TO PROPERLY COLLECT SEDIMENT.
INSPECTION SCHEDULE

- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL INLETS AND STORM SEWERS TRIBUTARY TO THE FACILITIES, AND THE FOREBAY A MINIMUM OF FOUR TIMES A YEAR AND AFTER 0.80" OR GREATER RUNOFF EVENTS TO ENSURE THEY ARE NOT CLOGGED OR HAVE ACCUMULATED SEDIMENT REDUCING THE VOLUME BY A THIRD OF THE DESIGN VOLUME FROM TRASH, DEBRIS OR SEDIMENT.
- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT THE SPILLWAY FOR EROSION AND RIPRAP DISPLACEMENT A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL AND AFTER STORM EVENTS GREATER THAN 0.80 INCHES TO ENSURE THEIR IS NO EROSION OR DISPLACEMENT OF REINFORCEMENT.
- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL VEGETATED AREAS A MINIMUM OF TWICE A YEAR AND AFTER 0.80" OR GREATER RUNOFF EVENTS TO ENSURE THE AREA IS COVERED BY AT LEAST 70% COVER AND THERE IS NO EROSION.

OPERATION & MAINTENANCE PROCEDURES

- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH, DEBRIS AND SEDIMENT FROM THE STORM SEWERS, FOLLOWING CURRENT RECYCLING PROCEDURES. THIS CAN BE ACCOMPLISHED BY HAND OR WITH THE USE OF A HIGH PRESSURE WATER STREAM OR EQUIVALENT MEANS TO ALLOW CLEAN STORMWATER TO REACH THE STORMWATER FACILITIES.
- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL TRASH, DEBRIS AND SEDIMENT FROM THE FOREBAY, FOLLOWING CURRENT RECYCLING PROCEDURES. THIS CAN BE ACCOMPLISHED BY HAND OR WITH A MACHINE, HOWEVER NO HEAVY EQUIPMENT SHALL BE DRIVEN IN THE FOREBAY AND ALL DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED AND EROSION MATTED.
- THE HOA OR THEIR DESIGNEE SHOULD ENSURE THERE IS NO EROSION OR DISPLACED RIPRAP IN THE SPILLWAY. IF THERE IS EROSION THE SOIL THE RIPRAP SHALL BE REMOVED, THE ERODED AREA SHALL BE REPLACED WITH A MINIMUM OF 6 INCHES OF TOPSOIL, GEOTEXTILE SHALL BE PLACED AND THE RIPRAP REPLACED. IF THE RIPRAP IS DISPLACED OR ERODED THE RIPRAP SHALL BE REMOVED AND GEOTEXTILE SHALL BE PLACED BENEATH THE STONE AND THE RIPRAP REPLACED.
- IF THE REQUIRED 70% VEGETATIVE COVER IS NOT MET THE HOA OR THEIR DESIGNEE SHOULD PERFORM A SOILS TEST AND REEVALUATE THE SEED SELECTION USED ON THE PROPERTY. A MEADOW MIX THAT IS CAPABLE OF SUSTAINING PERIODIC INUNDATION SHOULD BE USED WITH AN ANNUAL RYE COMPANION CROP. THE SPARSE AREAS SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER.
- IF THERE IS EROSION IN THE FOREBAY, THE HOA SHALL REPLACE THE SOIL WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND THE AREA SHOULD BE IMMEDIATELY SEEDED AND MULCHED. IF THE SEASON PREVENTS RESEEDING, MULCH OR EROSION NETTING IS AN EFFECTIVE TEMPORARY COVER. IF THE EROSION CONTINUES TO OCCUR IN THE SAME LOCATION THE HOA OR THEIR DESIGNEE SHALL CONTACT AN ENGINEER TO DETERMINE AN ACCEPTABLE SOLUTION.
- THE HOA OR THEIR DESIGNEE SHOULD MOW THE FOREBAY ONCE OR TWICE A YEAR.
- THE HOA OR THEIR DESIGNEE SHOULD WATER THE FOREBAY AS NECESSARY BASED ON WEATHER CONDITIONS. DURING THE SUMMER WHEN RAIN IS SPARSE THE FOREBAY SHOULD BE WATERED ONCE A WEEK. DURING THE SPRING AND FALL WHEN RAIN IS ABUNDANT THE FOREBAY WILL LIKELY NOT NEED TO BE WATERED. THE FOREBAY SHOULD BE WATERED TO ENSURE THE VEGETATION IS NOT ALLOWED TO BURN OR TURN BROWN.
- THE HOA OR THEIR DESIGNEE SHOULD PROHIBIT VEHICLES FROM BEING PARKED OR DRIVEN IN THE FOREBAY, CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
- THE HOA OR THEIR DESIGNEE SHOULD ALSO INSPECT FOR DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS AND SLOPE STABILITY IN THE BERMS. IF ANY ISSUES ARE ENCOUNTERED THEY SHOULD CONTACT AN ENGINEER TO DETERMINE AN ACCEPTABLE SOLUTION.
- THE HOA OR THEIR DESIGNEE SHALL REPAIR & STABILIZE ANY EROSION CAUSED BY DISCHARGE FROM BMP'S WITHIN THE SITE.

RIPRAP STABILIZATION
RIPRAP SHOULD BE KEPT CLEAN FROM DEBRIS AND SEDIMENT TO ENSURE ADEQUATE VOID SPACE IS PROVIDED FROM STORMWATER DISSIPATION. ALL RIPRAP SHOULD BE EVENLY DISTRIBUTED AND NO EROSION SHOULD BE OCCURRING AROUND OR BELOW THE RIPRAP.
INSPECTION SCHEDULE

- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL RIPRAP A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, AND AFTER RUNOFF EVENTS TO ENSURE THEY ARE NOT CLOGGED FROM DEBRIS OR SEDIMENT, DISPLACED OR EROSION IS OCCURRING.

OPERATION & MAINTENANCE PROCEDURES

- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ALL DEBRIS AND SEDIMENT FROM THE RIPRAP, FOLLOWING CURRENT RECYCLING PROCEDURES. THIS CAN BE ACCOMPLISHED BY HAND, MACHINE OR WITH THE USE OF A COMMERCIAL VACUUM.
- THE HOA OR THEIR DESIGNEE SHOULD REPLACE ALL RIPRAP THAT HAS BEEN DISPLACED TO ENSURE EVEN DISTRIBUTION. IF RIPRAP SINKS INTO THE GROUND ADDITIONAL RIPRAP SHOULD BE PLACED TO ENSURE DISSIPATION OF STORMWATER FLOWS.
- THE HOA OR THEIR DESIGNEE SHOULD REPLACE ANY ERODED AREAS WITH GEOTEXTILE AND TOPSOIL OR RIPRAP TO STOP THE EROSION FROM CONTINUING. ALL TOPSOILED AREAS SHOULD BE IMMEDIATELY STABILIZED WITH GRASS SEED AND MULCH OR EROSION NETTING.

PROTECT EXISTING TREES/REVEGETATE & FOREST (PROPOSED TREES) (SCM 5)
ALL PROTECTED WOODED AREAS SHALL REMAIN IN THEIR NATURAL STATE SHALL NOT BE DISTURBED.
INSPECTION SCHEDULE

- THE HOA OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL WOODED AREAS AND PROPOSED TREES A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE NO PROHIBITED ACTIVITIES ARE OCCURRING INCLUDING REMOVAL OF TREES, DUMPING OF TRASH OR EROSION OF SOILS.

OPERATION & MAINTENANCE PROCEDURES

- THE HOA OR THEIR DESIGNEE SHOULD RETURN ANY WOODED AREAS TO THEIR NATURAL CONDITION IMMEDIATELY SHOULD THEY FIND ANY ILLEGAL DISTURBANCE BY PLANTING NATIVE TREES.
- THE HOA OR THEIR DESIGNEE SHOULD REMOVE ANY FOREIGN TRASH OR DEBRIS FROM THE WOODED AREAS.
- THE HOA OF THEIR DESIGNEE SHALL REPAIR ANY EROSION FOUND WITHIN THE WOODED AREAS. THE REPAIRS SHOULD INCLUDE PLACING TOPSOIL IN ERODED AREAS AND IMMEDIATELY STABILIZING WITH EROSION CONTROL MATTING AND PERMANENT SEEDING.
- THE HOA OF THEIR DESIGNEE SHALL REMOVE ANY INVASIVE SPECIES FOUND WITHIN THE WOODED AREAS. REMOVAL OF INVASIVE SPECIES MAY BE COMPLETED BY SEVERAL METHODS, INCLUDING HAND REMOVAL, SPOT SPRAYING USING AN ENVIRONMENTALLY SAFE HERBICIDE OR OTHER METHODS WITH EXPRESS AUTHORIZATION BY DEP.
- THE HOA SHALL REPLACE ALL PROPOSED TREES IN KIND SHOULD THEY DIE. THIS SHALL BE COMPLETED BY FOLLOWING THE LANDSCAPE PLANTING DETAILS.

DISCONNECT ROOF LEADERS TO VEGETATED AREAS (SCM 6)
ALL PROTECTED ROOF LEADERS SHALL DISCHARGE OVER VEGETATED AREAS AND SHALL NOT BE PIPED TO STORMWATER BASINS OR INTO STORM SEWERS.
INSPECTION SCHEDULE

- THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL ROOF DRAINS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE NO PROHIBITED ACTIVITIES ARE OCCURRING INCLUDING PIPING THEM TO STORM SEWER SYSTEMS, DIRECTLY INTO STORMWATER BASINS OR PIPING THEM TO WETLANDS OR WATERCOURSES.
- THE PROPERTY OWNER OR THEIR DESIGNEE SHALL VISUALLY INSPECT ALL DOWNSLOPE AREAS FROM ROOF DRAINS A MINIMUM OF TWICE A YEAR, IN THE SPRING AND FALL, TO ENSURE NO EROSION IS OCCURRING.

OPERATION & MAINTENANCE PROCEDURES

- THE PROPERTY OWNER OR THEIR DESIGNEE SHOULD DISCONNECT THE ROOF LEADERS IMMEDIATELY SHOULD THEY FIND ANY ILLEGAL PIPING SYSTEMS. THE PIPING SYSTEM SHALL BE REMOVED IMMEDIATELY TO PREVENT FUTURE CONNECTIONS.
- THE PROPERTY OWNER OF THEIR DESIGNEE SHALL REPAIR ANY EROSION FOUND DOWNSLOPE OF THE ROOF DRAINS. THE REPAIRS SHOULD INCLUDE PLACING TOPSOIL IN ERODED AREAS AND IMMEDIATELY STABILIZING WITH EROSION CONTROL MATTING AND PERMANENT SEEDING.

GENERAL NOTES:

1. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR PROPERLY DISPOSE OF ALL BUILDING MATERIAL 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 BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL WASTES AT THE SITE. EXPECTED CONSTRUCTION WASTE INCLUDE EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES OR ANY MATERIAL THAT COULD IMPACT WATER QUALITY.

2. THERE ARE NO KNOWN GEOLOGIC FORMATIONS OR SOIL CONDITIONS THAT HAVE THE POTENTIAL TO CAUSE POLLUTION. IF ANY GEOLOGIC OR SOIL CONDITIONS ARE ENCOUNTERED THEY SHOULD CONTACT THE PLAN PREPARER AND MONTGOMERY COUNTY CONSERVATION DISTRICT TO DETERMINE A ENVIRONMENTALLY SAFE METHOD TO DISPOSE OF THE MATERIALS.

3. * THE PROPOSED BMP'S ON THE SITE RESULT IN NO INCREASES IN THE RATE OF RUNOFF FROM THE PROPOSED DEVELOPMENT FOR THE 1, 2, 5, 10, 25, 50, AND 100-YEAR STORM EVENTS COMPARED TO PRE-CONSTRUCTION RATES UTILIZING THE SCS METHOD.

* THE PROPOSED SCMS MANAGE THE NET CHANGE FOR STORMS UP TO AND INCLUDING THE 2-YEAR/24-HOUR STORM EVENT UTILIZING THE SCS METHOD,WHEN COMPARED TO PRE-CONSTRUCTION RUNOFF VOLUME AND WATER QUALITY.
* WATER QUALITY BMP'S WERE ALSO INCORPORATED INTO THE PCSM DESIGN, THEREFORE THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAMS WILL NOT BE NEGATIVELY IMPACTED AND THE INTEGRITY OF STREAM CHANNELS WILL BE MAINTAINED.
* DIRECTION IS GIVEN ON THE E&S PLANS TO MINIMIZE SOIL COMPACTION THROUGHOUT THE SITE, EXCEPT FOR DWELLING, ROAD AND PARKING AREAS.
* MANY NON-STRUCTURAL AND STRUCTURAL BMP'S ARE PROPOSED TO PREVENT CHANGES IN STORMWATER RUNOFF FROM THE SITE, INCLUDING DISCONNECTING ROOF LEADERS FROM IMPERVIOUS SURFACES, DISCONNECTING NON-ROOF IMPERVIOUS TO VEGETATED AREAS, PROPOSED LANDSCAPING AND TREES, DETENTION BASIN AND MRC BASINS.

4. NPDES PERMIT NOTES
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 DEVELOPER.

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 POLICY "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 .

ALTERATION OF STORMWATER BMPs.

1. NO PERSON SHALL MODIFY,REMOVE, FILL, LANDSCAPE OR ALTER ANY EXISTING BMP, UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE TOWNSHIP.

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

SEQUENCE OF CONSTRUCTION

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 LANDOWNERS, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, AND A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.

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

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.

MONTGOMERY COUNTY CONSERVATION DISTRICT
143 LEVEL ROAD
COLLEGEVILLE, PA 19426
610-489-4506

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

STORWMATER FACILITIES SHALL NOT BE CONVERTED UNTIL UPSTREAM TRIBUTARY AREA HAS BEEN STABILIZED. SEE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES SECTION OF THIS NARRATIVE. EXTREME CARE SHOULD BE TAKEN TO AVOID SEDIMENTATION AND COMPACTION IN PROPOSED STORMWATER FACILITIES.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. HYDROSEEDING IS NOT CONSIDERED STABILIZATION UNTIL IT GERMINATES.

THE PROJECT WILL BE CONSTRUCTED IN ONE STAGE.

STAGE 1 - CONSTRUCTION OF PROPOSED IMPROVEMENTS

1. AFTER THE PRE-CONSTRUCTION MEETING, INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS. CONSTRUCTION ACCESS FOR CONSTRUCTION OF THE SEDIMENT FACILITIES AND OTHER SITE WORK SHALL ONLY USE THIS ACCESS.

2. STAKEOUT LIMITS OF DISTURBANCE WITH STAKES AND ROPE, OR ORANGE CONSTRUCTION FENCING.

3. INSTALL COMPOST SOCKS, SILT SOCK SEDIMENT TRAPS ALONG WITH SUMPED AREA, ALONG WITH ACCOMPANYING RUNOFF DIVERSION SOCKS AS SHOWN ON THE PLANS. IMMEDIATELY INSTALL EROSION CONTROL MATTING AND PERMANENTLY SEED RUNOFF DIVERSION SOCKS AFTER INSTALLATION. CLEARING AND GRUBBING SHALL ONLY OCCUR IN AREAS NECESSARY TO INSTALL PERIMETER CONTROLS. INSTALL CONCRETE WASHOUT AREAS AS SHOWN ON THE PLANS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS. SILT SOCKS MUST BE MAINTAINED THROUGHOUT THE SITE UNTIL ALL AREAS TRIBUTARY TO THE SILT SOCK ARE PERMANENTLY STABILIZED PER THE STABILIZATION CRITERIA OUTLINED IN THIS PLAN.

4. AFTER ALL BMPS REFERENCED IN STEPS 1-3 ARE INSTALLED AND FUNCTIONING PROPERLY BEGIN DEMOLITION OF EXISTING FEATURES AS NOTED ON THE PLAN, NOTE THE EXISTING FEATURES TO REMAIN AS NOTED ON THE PLANS. IMMEDIATELY AFTER REMOVAL TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE DISTURBED WITHIN 4 DAYS.

5. AFTER ALL BMPS REFERENCED IN STEPS 1-3 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN CLEARING AND GRUBBING AREAS NECESSARY FOR CONSTRUCTION OF THE PROPOSED SEDIMENT BASINS. THIS WORK SHALL NOT OCCUR UNTIL THE WEATHER FORECAST PROVIDES ENOUGH TIME FOR THE CONTRACTOR TO GET THE BERM INSTALLED TO ENSURE THE SLOPE LENGTH TO THE DOWNSLOPE SILT SOCKS IS TO THE TOP OF THE BERM. PROGRESSIVE CLEARING AND GRUBBING IN THE REMAINDER OF THE SITE IS NOT ALLOWED. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

NO EARTH DISTURBANCE BEYOND THE AREAS NECESSARY TO INSTALL THE SEDIMENT BASINS SHALL COMMENCE UNTIL THE SEDIMENT BASINS ARE INSTALLED, STABILIZED AND FUNCTIONING PROPERLY. UPON INSTALLATION OF THE SEDIMENT BASINS, AN IMMEDIATE INSPECTION SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND WRITTEN NOTIFICATION SHALL BE PROVIDED TO MONTGOMERY COUNTY CONSERVATION DISTRICT THAT THE BASIN HAS BEEN INSTALLED PER PLAN.

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED 4 DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. AS SOON AS SLOPES, CHANNELS, DITCHES AND OTHER DISTURBED AREAS REACH FINAL GRADES THEY MUST BE STABILIZED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING.

FILL SLOPES SHOULD BE SEEDED AND MULCHED AT REGULAR VERTICAL INCREMENTS, 15-25 FEET MAXIMUM, AS THE FILL IS BEING CONSTRUCTED.

ANY WATER THAT IS PUMPED FROM WORK AREAS SHALL BE TREATED FOR SEDIMENT REMOVAL BEFORE DISCHARGING OFF-SITE. THIS CAN BE COMPLETED BY PUMPING WATER INTO THE SEDIMENT BASIN OR TRAP THE DISTURBANCE IS LOCATED WITHIN AS LONG AS THE MAXIMUM WATER LEVEL IN THE BASIN DOES NOT EXCEED THE CLEANOUT ELEVATION. IT CAN ALSO BE TREATED BY PUMPING WATER THROUGH A PUMPED WATER FILTER BAG FOLLOWING THE DETAIL.

6. AFTER ALL BMPS REFERENCED IN STEPS 1-5 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN CONSTRUCTING THE SEDIMENT BASINS USING THE FOLLOWING PROCEDURE: THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. REFER TO BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTE 2.C ON THIS SHEET, THE LICENSED PROFESSIONAL WILL DETERMINE IF GROUNDWATER IS NOT ENCOUNTERED THEN THE IMPERMEABLE LINER WILL NOT BE REQUIRED IN THIS BASIN. IF CUT/FILL DOES NOT BALANCE FOR INSTALLATION OF THE SEDIMENT BASIN, CONTRACTOR SHALL OBTAIN OR PLACE FILL UPSLOPE OF THE BASIN TO ENSURE ANY EROSION OF THESE AREAS IS CAPTURED BY THE SEDIMENT BASIN. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.
   a. CLEAR AND GRUB BASIN AREA, STRIP TOPSOIL AND STOCKPILE AT ONE OF THE DESIGNATED STOCKPILE LOCATIONS.
   b. EXCAVATE BASIN AND PLACE COMPACTED EMBANKMENT FILL, INSTALL BASIN OUTLET PIPE AND STORM SEWER SYSTEM TO ENDDWALL, CONCRETE CRADLE, ANTI-SEEP COLLARS, TEMPORARY RISERS, SKIMMERS, TRASH RACKS, RIPRAP APRONS, FOREBAYS AND EMERGENCY SPILLWAYS.
   c. INSTALL CLEANOUT STAKES AND MARK THE CLEANOUT ELEVATION ON THE STAKES.
   d. SPREAD TOPSOIL ON THE BASIN BERM AND SIDE SLOPES AND IMMEDIATELY PERMANENTLY SEED AND MATT THE OUTSIDE SLOPES, TOP OF BERM AND INSIDE SLOPES ABOVE THE CLEANOUT ELEVATION. IMMEDIATELY STABILIZE ALL DISTURBED AREAS.

7. AFTER ALL BMPS REFERENCED IN STEPS 1-6 ARE INSTALLED AND FUNCTIONING PROPERLY, INSTALL RUNOFF DIVERSION SOCKS AS SHOWN ON THE PLANS TO DIRECT SEDIMENT LADEN WATER TO SEDIMENT BASIN AND TRAP FACILITIES. IMMEDIATELY INSTALL EROSION CONTROL MATTING AND PERMANENTLY SEED RUNOFF SWALE AND DIVERSION SOCKS AFTER INSTALLATION. IMMEDIATELY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

8. AFTER ALL BMPS REFERENCED IN STEPS 1-7 ARE INSTALLED AND FUNCTIONING PROPERLY, CLEAR, GRUB AND ROUGH GRADE AREAS NECESSARY FOR CONSTRUCTION OF THE ROAD, ADJOINING CUTS/FILLS AND BUILDING PADS. STRIP AND STOCKPILE TOPSOIL IN AREA INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. MAXIMUM HEIGHT IS THIRTY-FIVE (35) FEET AND SIDE SLOPES SHALL BE 2:1 OR FLATTER. PLACE 12 INCH SILT SOCK BELOW THE STOCKPILES PRIOR TO STOCKPILE OPERATIONS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

ANY WATER THAT IS PUMPED FROM WORK AREAS SHALL BE TREATED FOR SEDIMENT REMOVAL BEFORE DISCHARGING OFF-SITE. THIS CAN BE COMPLETED BY PUMPING WATER INTO THE SEDIMENT BASIN OR TRAP THE DISTURBANCE IS LOCATED WITHIN AS LONG AS THE MAXIMUM WATER LEVEL IN THE BASIN DOES NOT EXCEED THE CLEANOUT ELEVATION. IT CAN ALSO BE TREATED BY PUMPING WATER THROUGH A PUMPED WATER FILTER BAG FOLLOWING THE DETAIL.

9. AFTER STEPS 1-8 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-7 ARE INSTALLED AND FUNCTIONING PROPERLY, AND ROADS HAVE BEEN CLEARED, GRUBBED AND ROUGH GRADED BEGIN CONSTRUCTION OF CURBING, SIDEWALKS AND UTILITIES INCLUDING WATERLINES, SEWER LINES, ELECTRIC, TELECOMMUNICATIONS AND STORM SEWERS FOLLOWING THE UTILITY LINE TRENCH EXCAVATION NOTES ON THIS SHEET. INLETS WITHIN THE ROADWAY SHALL BE TEMPORARILY INSTALLED FOLLOWING THE TYPE C TEMPORARY INLET INSTALLATION-NOT AT GRADE DETAIL UNTIL THE ROAD IS PAVED AND INLETS ARE ABLE TO CAPTURE FLOWS, THIS SHALL BE COMPLETED TO ENSURE FLOWS ARE ROUTED TO THE RESPECTIVE SEDIMENT FACILITY THEY ARE INTENDED TO DRAIN TOO. STORM SEWERS SHALL TEMPORARILY HAVE FILL PLACED ABOVE THEM TO ACHIEVE A MINIMUM OF 1 FOOT OF COVER TO AVOID THE CRUSHING OF STORM SEWERS. INLET PROTECTION SHALL BE INSTALLED ON INLETS IMMEDIATELY AFTER INSTALLATION. AREAS DISTUBED AS PART OF UTILITY INSTALLATION SHALL BE IMMEDIATED STABILIZED WITH STONE IF WITHIN THE ROADWAY OR TEMPORARY SEED AND MULCH IF IN VEGETATIVE AREAS THAT WILL NOT BE DISTURBED WITHIN 4 DAYS. CONTRACTOR SHOULD USE CAUTION TO ENSURE ALL SEDIMENT LADEN STORMWATER IS ROUTED INTO A SEDIMENT BASIN OR TO ANOTHER EROSION CONTROL DEVICE. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS. UPON STABILIZATION OF TRIBUTARY AREA TO THE UNDERGROUND BASIN, BEGIN CONSTRUCTION OF THE UNDERGROUND BASIN. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION, REFER TO THE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES.

10. AFTER STEPS 1-9 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-8 ARE INSTALLED AND FUNCTIONING PROPERLY, CLEAR, GRUB AND ROUGH GRADE AREAS NECESSARY FOR CONSTRUCTION OF THE DWELLINGS AND OPEN SPACE AREAS. STRIP AND STOCKPILE TOPSOIL IN AREAS INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. MAXIMUM HEIGHT IS THIRTY-FIVE (35) FEET AND SIDE SLOPES SHALL BE 2:1 OR FLATTER. PLACE 12 INCH SILT SOCK BELOW THE STOCKPILES PRIOR TO STOCKPILE OPERATIONS. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

11. AFTER STEPS 1-10 HAVE BEEN COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-9 HAVE BEEN INSTALLED AND ARE FUNCTIONING PROPERLY, BEGIN CONSTRUCTION OF DWELLINGS, OPEN SPACE IMPROVEMENTS, DRIVEWAYS AND DWELLING UTILITIES INCLUDING WATER SERVICES, SEWER LATERALS, ELECTRIC AND TELECOMMUNICATIONS FOLLOWING THE UTILITY LINE TRENCH EXCAVATION NOTES ON THIS SHEET. STRIP AND STOCKPILE TOPSOIL IN AREA INDICATED ON THE PLAN OR AT OTHER FIELD ACCEPTABLE LOCATIONS AS MAY BE REQUIRED TO BALANCE EARTHWORK OPERATIONS WITH APPROVAL OF MONTGOMERY COUNTY CONSERVATION DISTRICT. IT IS ANTICIPATED THAT ALL THE DWELLINGS WILL NOT BE CONSTRUCTED AT THE SAME TIME; ALL BUILDING PADS THAT WILL NOT BE IMMEDIATELY CONSTRUCTED SHALL BE IMMEDIATELY STABILIZED. CONTRACTOR SHOULD USE CAUTION TO ENSURE ALL SEDIMENT LADEN STORMWATER IS ROUTED INTO A SEDIMENT BASIN OR TO ANOTHER EROSION CONTROL DEVICE. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

AFTER SITE BULK SITE GRADING OCCURS ALL AREAS WHICH WILL NOT BE RE-DISTURBED PROMPTLY, SPECIFICALLY E&S BMPS, LAWN AREAS, BUILDING PADS AND SURROUNDING AREAS, TOPSOIL SHALL BE PLACED AND PERMANENTLY SEEDED UNTIL HOME CONSTRUCTION COMMENCES.

12. AFTER STEPS 1-9 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-8 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN FINE GRADING OF STONE BASE IN PREPARATION FOR PAVING THE ROADS. PAVE THE ROAD WITH THE BINDER COURSE AND IMMEDIATELY STABILIZE ANY DISTURBED AREAS. IMMEDIATELY STABILIZE ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

13. AFTER STEPS 1-12 ARE COMPLETED AND ALL BMPS REFERENCED IN STEPS 1-12 ARE INSTALLED AND FUNCTIONING PROPERLY, BEGIN FINAL GRADING OF ALL DISTURBED LAWN AREAS, THIS SHALL BE DONE WITH CARE TO AVOID COMPACTION IN LAWN AND LANDSCAPED AREAS. ALL LAWN AND LANDSCAPED AREAS SHALL BE DRESSED WITH AT LEAST 6" OF TOPSOIL, REFER TO SOIL RESOLUTIONS AND THE TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS DETAIL FOR TOPSOIL SPECIFICATIONS AND DIRECTION ON SOIL TESTS TO DETERMINE LIME AND FERTILIZER RATES. THE CONTRACTOR SHOULD SCARIFY THE SUBSOIL 6 TO 12 INCHES ALONG THE CONTOUR BEFORE PLACEMENT OF TOPSOIL TO PERMIT THE BONDING OF TOPSOIL AND PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE. IMMEDIATELY AFTER TOPSOIL PLACEMENT SEED AND MULCH DISTURBED AREAS AND PLACE EROSION CONTROL BLANKET OVER 3:1 SLOPES. CAUTION SHOULD BE USED TO ENSURE THE SOILS ARE NOT COMPACTED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING. AFTER THE SITE IS AT FINAL GRADE INSTALLATION OF THE PROPOSED TREES (RE-VEGETATE & RE-FOREST DISTURBED AREAS) SHALL BE COMPLETED. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

14. AFTER STEPS 1-13 HAVE BEEN COMPLETED AND FINAL SITE STABILIZATION HAS BEEN ACHIEVED TO EACH RESPECTIVE BASIN (FOR VEGETATED AREAS UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, FOR IMPERVIOUS AREAS ALL AREAS SHALL BE STONED, PAVED OR ROOFED), BEGIN CONVERSION AND INSTALLATION OF MRC BASIN TO ITS FINAL CONDITION INCLUDING PERMANENT OUTLET STRUCTURES, UNDERDRAINS, PLANTING SOIL, STONE AND PIPING, ETC AS REQUIRED ON THE PCSM PLAN AND DETAILS FOLLOWING BMP AREA CONSTRUCTION/ CONVERSION/REMOVAL NOTES ON THIS PLAN. EXTREME CARE SHOULD BE TAKEN TO ENSURE SILTATION AND COMPACTION OF THESE FACILITIES DOES NOT OCCUR, CONSTRUCTION SHALL BE COMPLETED FROM THE SIDES OF THE FACILITY AND HEAVY EQUIPMENT SHALL NOT COMPACT THE FACILITY BOTTOMS. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE DURING CONSTRUCTION. REFER TO BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTE 2.C ON THIS SHEET, THE LICENSED PROFESSIONAL WILL DETERMINE IF GROUNDWATER IS NOT ENCOUNTERED THEN THE IMPERMEABLE LINER WILL NOT BE REQUIRED IN THIS BASIN. ALL LAWN AND LANDSCAPED AREAS SHALL BE DRESSED WITH AT LEAST 6" OF TOPSOIL, REFER TO SOIL RESOLUTIONS AND THE TEMPORARY AND PERMANENT SEEDING SPECIFICATIONS DETAIL FOR TOPSOIL SPECIFICATIONS AND DIRECTION ON SOIL TESTS TO DETERMINE LIME AND FERTILIZER RATES. THE CONTRACTOR SHOULD SCARIFY THE SUBSOIL 6 TO 12 INCHES ALONG THE CONTOUR BEFORE PLACEMENT OF TOPSOIL TO PERMIT THE BONDING OF TOPSOIL AND PREVENT TOPSOIL FROM SLIDING DOWN THE SLOPE. IMMEDIATELY AFTER TOPSOIL PLACEMENT SEED AREAS AND PLACE EROSION CONTROL BLANKET OVER 3:1 SLOPES. CAUTION SHOULD BE USED TO ENSURE THE SOILS ARE NOT COMPACTED. NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA AT FINAL GRADE SHOULD BE LEFT WITHOUT SEEDING AND MULCHING. IMMEDIATELY TEMPORARILY STABILIZE ALL DISTURBED AREAS THAT WILL NOT BE RE-DISTURBED WITHIN 4 DAYS.

15. AFTER COMPLETION AND STABILIZATION OF STEPS 1-14 HAVE BEEN COMPLETED, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF THE CRITICAL STAGES SHALL VERIFY THAT ALL PCSM BMPS HAVEN'T BEEN IMPACTED BY CONSTRUCTION ACTIVITIES AND ARE FUNCTIONING PROPERLY. THIS IS A CRITICAL STAGE OF THE PCSM PLAN AND NEEDS A LICENSED PROFESSIONAL ONSITE.

16. AFTER STEPS 1-15 HAVE BEEN COMPLETED AND FINAL SITE STABILIZATION HAS BEEN ACHIEVED (FOR VEGETATED AREAS UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA, FOR IMPERVIOUS AREAS ALL AREAS SHALL BE STONED, PAVED OR ROOFED), ALL TEMPORARY EROSION AND SEDIMENT BMP'S REFERENCED IN THIS SEQUENCE INCLUDING BUT NOT LIMITED TO SILT SOCKS, J-HOOK SILT SOCK SEDIMENT TRAPS, RUNOFF DIVERSION SOCKS, BROAD BASED DIPS, INLET PROTECTION, CONCRETE WASHOUTS, ETC MUST BE REMOVED. SEE BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES ON THIS PLAN. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE IMMEDIATELY PERMANENTLY STABILIZED. UPON PERMANENT STABILIZATION ACROSS THE ENTIRE SITE AND INSTALLATION OF PCSM BMPS IN ACCORDANCE WITH THE APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH 25 PA. CODE 102.4 AND 102.8, THE PERMITTEE AND/OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.

BMP AREA CONSTRUCTION/CONVERSION/REMOVAL NOTES

1. FOR ABOVE GROUND BASINS AND BIO-RETENTION, THE FOLLOWING CONDITIONS SHALL BE IMPLEMENTED:
   a. THE EXCAVATION SHALL BE COMPLETED FROM THE SIDES OF THE BMP. THE CONTRACTOR MAY DRIVE OVER THE FACILITY AS LONG AS A MINIMUM OF 3 FEET OF SEPARATION IS PROVIDED FROM THE BOTTOM OF THE BED TO THE GROUND ELEVATION TO ENSURE THE SOILS ARE NOT COMPACTED.
   b. ANY STANDING WATER SHALL BE DEWATERED THROUGH A PUMPED WATER FILTER BAG.
   c. THE LICENSED PROFESSIONAL SHALL BE INCLUDED IN THE INSTALLATION FROM THE BEGINNING TO ENSURE THE TRIBUTARY AREA MEETS THE STABILIZATION CRITERIA BEFORE INITIATING CONSTRUCTION.
   d. THE BOTTOM OF THE FACILITY SHALL BE IMMEDIATELY SEEDED AND MULCHED ONCE FINAL GRADES HAVE BEEN ACHIEVED.

3. FOR COMPOST SOCK SEDIMENT TRAPS, THE FOLLOWING CONDITIONS SHALL BE IMPLEMENTED:
   a. ANY STANDING WATER SHALL BE DEWATERED THROUGH A PUMPED WATER FILTER BAG.
   b. THE COMPOST SOCK AND RESPECTIVE DIVERSION SOCK SHALL BE REMOVED FROM THE SITE. THE COMPOST AND GROWING MEDIA IN THE SOCKS MAY BE LEFT IN PLACE AND SPREAD OUT TO ALLOW POSITIVE DRAINAGE.
   c. ALL DISTURBED AREAS, INCLUDING AREAS OF COMPOST/GROWING MEDIA SHALL BE IMMEDIATELY SEEDED AND MULCHED.

MANAGED RELEASE/DETENTION BASIN CONSTRUCTION SEQUENCE
CONVERSION OF THE BASINS SHOULD NOT COMMENCE UNTIL ALL TRIBUTARY AREAS HAVE BEEN STABILIZED PER THE STABILIZATION CRITERIA.

1. INSTALL TEMPORARY SEDIMENT CONTROL BMPS AS SHOWN ON THE PLANS.
2. COMPLETE SITE GRADING.
3. STABILIZE GRADING WITHIN THE LIMIT OF DISTURBANCE EXCEPT WITHIN THE BASIN AREA.
4. AFTER ENTIRE TRIBUTARY AREA HAS BEEN STABILIZED, BEGIN EXCAVATION OF BASIN TO PROPOSED INVERT DEPTH AND SCARIFY THE EXISTING SOIL SURFACES. DO NOT COMPACT IN-SITU SOILS.
5. BACKFILL BASIN WITH PLANTING SOIL AS SHOWN ON PLANS AND SPECIFICATIONS. OVERFILLING IS RECOMMENDED TO ACCOUNT FOR SETTLEMENT HOWEVER MEETING THE DESIGN VOLUMES IS REQUIRED. LIGHT HAND TAMPING IS ACCEPTABLE IF NECESSARY.
6. PRESOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION TO AID IN SETTLEMENT.
7. COMPLETE FINAL GRADING TO ACHIEVE PROPOSED DESIGN ELEVATIONS, LEAVING SPACE FOR UPPER LAYER OF COMPOST, MULCH OR TOPSOIL AS SPECIFIED ON PLANS.
8. PLANT VEGETATION ACCORDING TO PLANTING PLAN.
9. MULCH AND INSTALL EROSION PROTECTION AT SURFACE FLOW ENTRANCES WHERE NECESSARY.

CONSTRUCTION SEQUENCE (REVEGETATE & REFOREST/PROPOSED TREES) (SCM#5)

1. SOIL CONDITIONS SHALL BE TESTED PRIOR TO PLANTING AND TREATED WITH APPROPRIATE INGREDIENTS TO BALANCE THE PH.
2. PLANT MATERIAL SHALL BE OF NURSERY STOCK, BALLED AND BURLAPPED. IT SHALL BE OF SYMMETRICAL GROWTH, TYPICAL OF ITS SPECIES OR VARIETY, FREE OF INSECTS, PESTS AND DISEASE, HAVE A NORMAL GROWTH HABIT, VIGOROUS ROOT SYSTEM AND DURABLE.
3. TREES AND OTHER PLANT MATERIAL SHALL NOT BE PLANTED UNTIL FINISH GRADING HAS BEEN COMPLETED.
4. SCARIFY ANY COMPACTED SUBSOILS AT BOTTOM AND SIDES OF PLANTING PIT BEFORE INSTALLATION.
5. INSTALL TREE OR OTHER PLANT MATERIAL AND BACKFILL WITH 3 PARTS TOPSOIL AND 1 PART PEAT. LIGHTLY TAMP AND SOAK BACKFILL THOROUGHLY AFTER PLANTING.
6. INSTALL 3 INCHES OF MULCH AROUND PLANTING PIT. DO NOT PLACE MULCH AGAINST THE TRUNK OF THE TREE.
7. STAKE TREE AS NECESSARY WITH RUBBER HOSE LOOP AROUND TRUNK TO 2 INCH DIAMETER CEDAR STAKING.

DISCONNECT ROOF LEADERS NOTE (SCM#6):

ROOFTOP DISCONNECTION, ONCE DWELLING ROOF CONSTRUCTION HAS BEEN COMPLETED AND RAIN GUTTERS INSTALLED FROM PORTION OF DWELLINGS IDENTIFIED ON THE PCSM PLAN, ATTACH GUTTERS TO DOWNSPOUTS AND DISCHARGE TO SPLASH BLOCKS DIRECTED TO A LAWN AREA. DO NOT CONNECT DIRECTLY TO A STORM SEWER/PIPE SYSTEM AND DO NOT DIRECT RUNOFF ONTO IMPERVIOUS SURFACES OR PAVED AREAS.

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Local/Regional Planning
Municipal Engineering
Site Development
Surveying/Aerial Drones/GIS
Water/Wastewater
Bridges/Highways
Construction Inspection
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Geotechnical/Dams
Landscape Architecture

REV	DESCRIPTION	AUTH	DATE

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PLAN NOTATION
ONLY THOSE PLANS WHICH CONTAIN A DIGITAL, IMPRESSED, OR COLORIZED INK SEAL OF THE RESPONSIBLE PROFESSIONAL SHALL BE CONSIDERED VALID. THIS PLAN HAS BEEN SPECIFICALLY PREPARED FOR THE OWNER DESIGNATED HEREON. ANY MODIFICATION, REVISION, DUPLICATION OR USE WITHOUT THE WRITTEN CONSENT OF VAN CLEEF ENGINEERING ASSOCIATES IS PROHIBITED. RELIANCE ON THIS PLAN FOR ANY PURPOSE OTHER THAN THAT WHICH IS INTENDED SHALL BE AT THE SOLE DISCRETION AND LIABILITY OF THE APPLICABLE PARTY.

NICHOLAS E. FEOLA
PENNSYLVANIA PROFESSIONAL
ENGINEER NUMBER PE046396E

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POST CONSTRUCTION STORMWATER MANAGEMENT NOTES

FOR

COBBLESTONE VILLAGE CROSSING

DATE:	10/30/2026
SCALE:	NO SCALE
DESIGNED BY:	NEF
DRAWN BY:	GSP
CHECKED BY:	NEF
JOB NUMBER:	044398.05

CLIENT
COBBLESTONE VILLAGE CROSSING, LLC.
2303 N. RIVERSIDE DRIVE
POMPANO BEACH, FL 33062

DOUGLASS TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA

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