Planning and Zoning Department
616 Germantown Pike, Lafayette Hill, PA 19444-1821
484-594-2625
www.whitemarshtwp.org

Subdivision and Land Development Cover Page for SLD # 06-25

Project Name:
Miles Park Batting Cage Pavilion (Preliminary/Final)

Address: 303 Germantown Pike (Miles Park)

Date: 6/30/2025

Status: Under Review

Updates:

- Revised Plans- 7.9.25
- Arborist Review Memo- 7.10.25
- Rendering- 7.10.25
- Zoning Ordinance Compliance Review- 7.15.25
- Shade Tree Commission Meeting Memo- 7.18.25
- Montgomery County Planning Commission Review- 7.31.25
- Fire Marshal Review Letter- 8.5.25
- Township Engineer Review Letter- 8.7.25

This Checklist and the following items MUST be submitted to the Township, completed in their entirety, at the time of submission for the Township to accept a subdivision/land development application.

This checklist page must be filled out after printing the completed form starting on page 2 where applicable.

Applicant Initials	Required Items of Submission	Township Receipt
RS	Whitemarsh Township Checklist	
RS	Whitemarsh Township Application (Signature MUST Be Original)	
RS	Whitemarsh Township Request for Modification (Signature MUST Be Original)	
RS	Whitemarsh Time Waiver Form (Signature MUST Be Original)	
RS	Whitemarsh Township Escrow (Payable to Whitemarsh Township; credit card payment accepted in person)	
RS	Montgomery County Planning Commission Municipal Request for Review (County will request fee directly from applicant)	
RS	Shade Tree Commission Checklist for Compliance with Chapter 55 (attached)	
N/A	Transportation Impact Study [§105-21.B.(9)(c)] (if applicable)	
RS	Stormwater Management Plan & Supporting Calculations (if applicable)	
RS	Supplemental Documents Applicable to a Specific Application	
N/A	List of Encumbrances (Book & Page Numbers) (if applicable)	
RS	Three (3) Complete Sets of All Application Materials	
RS	PDF or Link to Digital File of Each Component of the Application	

WHITEMARSH TOWNSHIP
SUBDIVISION and/or LAND DEVELOPMENT APPLICATION

The applicant, or applicant's authorized agent, for the Township to accept submission of the application, must complete each Application item and each Application Submission Checklist item.

Application Type: (check one)
☐ Minor Subdivision ☑ Minor Land Development
☐ Major Subdivision ☐ Major Land Development
☐ Land Development Waiver

Plan Type:
☐ Sketch ☑ Preliminary ☑ Final

INSERT "N/A" FOR NOT APPLICABLE WHERE APPROPRIATE

Name of Subdivision/Land Development: Miles Park Proposed Batting Cage Pavilion

Location of Subdivision/Land Development: 303 Germantown Pike, Lafayette Hill, PA 19444
(Primary Access Roadway Name)

Between: Joshua Road (Roadway Name) and Fairway Road (Roadway Name)

Number of Parcels: 1 **Block Number(s):** 43 **Unit Number(s):** 4

Parcel Number(s): 65-00-06460-00-9

Acreage: 24.64 **Total Lots Proposed:** 0 **Zoning District:** A

Water Service Proposed: ☐ Public ☐ Private Sewer Service Proposed: ☐ Public ☐ Private

Applicant Name: Whitemarsh Township Little League, Inc. **Contact Name:** Robert Stokley

Phone #: [redacted] Fax #: Email: robert.stokley@rcsbuildingservices.com

Address: [redacted]

Owner of Record Name (If Different): Whitemarsh Township

Phone #: (610) 825 - 3535 Fax #: Email:

Address: 616 Germantown Pike, Lafayette Hill, PA 19444

Engineer Name: Tom Knab **Firm Name:** Bohler Engineering

Phone #: 215-996-9100 Fax #: Email: tknab@bohlereng.com

Address: 1600 Manor Drive, Suite 200, Chalfont, PA 18914

Fees and plans showing all public improvements are submitted with this application. Any additional plan information required by the Township Engineer will be submitted to the Director of Planning and Zoning for distribution. The undersigned applicant agrees to comply with all the provisions of Chapter 105 of the Code of the Township of Whitemarsh, as amended, and agrees to obtain all necessary permits in connection with the proposed subdivision and/ or land development.

Whitemarsh Township employees, or township-authorized agents, are hereby granted permission to enter upon the land, if necessary, for site inspections.

Original preliminary and/or original final subdivision and/or land development applications submitted by 4:00pm on the last business day of the month will be reviewed by the Whitemarsh Township Planning Commission at a regular meeting two (2) months following the date of submission or other appropriate meeting date depending upon the results of Township reviews.

I hereby certify, as the undersigned applicant, that I am familiar with the provisions of: [1] Chapter 105, "Subdivision and Land Development", [2] Chapter 58, "Grading, Erosion Control, Stormwater Management and Best Management Practices", and [3] Chapter 55, "Tree Protection Standards" of the Code of the Township of Whitemarsh, as amended, and, to the best of my knowledge and belief, this application and the submitted plans conform to those provisions.

Date of Submission: 6-25-2025

Signature: R. Stokley

(Original Signature must be submitted)

Printed Name: Robert Stokley

I, **(name)** Robert Stokley **(title)** Project Coordinator of

(entity submitting application) Whitemarsh Little League do hereby affirm

that I am authorized by the applicant to affix my signature to this application.

Date: 6-25-2025 Signature: R. Stokley

(Original Signature must be submitted)

WHITEMARSH TOWNSHIP
SUBDIVISION and/or LAND DEVELOPMENT
TIME WAIVER FORM

Date: 6-25-2025

Granted to: Whitemarsh Township Board of Supervisors

Name of Subdivision and/or Land Development: Miles Park Proposed Batting Cage Pavilion

On or about 6-25-2025, I/we submitted for official filing the above-reference application.

Notwithstanding any contrary provision of the Pennsylvania Municipalities Planning Code or the Code of the Township of Whitemarsh, this letter will serve as notice to Whitemarsh Township that the requirement that action be taken on this application within ninety (90) days is hereby waived, without limitation as to time. This waiver is granted to permit us to make revisions to the application during the application review process.

Further, with the understanding that this waiver is voluntarily given and will be relied upon by Whitemarsh Township, I/we will give Whitemarsh Township written notice (by certified mail or recognized overnight carrier) should we determine that limiting the time of the review process becomes necessary. Whitemarsh Township shall then have ninety (90) days from receipt of such written notice in which to act upon the application.

This waver is not transferable or assignable by the Applicants and shall apply to any and all revised submissions made in relation to the above-referenced application.

I/we represent that I/we have been duly authorized to execute this waiver on behalf of the Applicant.

Date: 6-25-2025

Signature: R. Stokley
(Original Signature must be submitted)

Printed Name: Robert Stokley

Firm Name: Whitemarsh Little League
(if applicable)

Title: Project Coordinator
(if applicable)

WHITEMARSH TOWNSHIP
REQUEST FOR MODIFICATION (WAIVER) OF
SUBDIVISION and/or LAND DEVELOPMENT ORDINANCE REQUIREMENTS

Pursuant to § 512.1.(b) of the Pennsylvania Municipalities Planning Code, all requests for a modification shall be in writing and shall accompany and be a part of the application for development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the ordinance involved and the minimum modification necessary.

Check the appropriate line:

☐ No modification (or waiver) of the Whitemarsh Township Subdivision and Land Development Ordinance is requested

☑ I/we hereby request the following modification[s] (or waiver[s]) of the Whitemarsh Township Subdivision and Land Development Ordinance. (The request must identify the applicable Section[s] of the Ordinance, modification[s] requested, and facts of unreasonableness or hardship upon which the request is made; attach additional sheets if necessary).

A waiver from §105-12.D. to permit a combined preliminary/final minor land development plan.

Justification: we request that this application be processed as a simultaneous preliminary/final plan due to the enclosed plans containing required preliminary and final plan items.

Name of Subdivision and/or Land Development: Miles Park Proposed Batting Cage Pavilion

Date: 6-25-2025

Signature: R. Slattery

(Original Signature must be submitted)

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

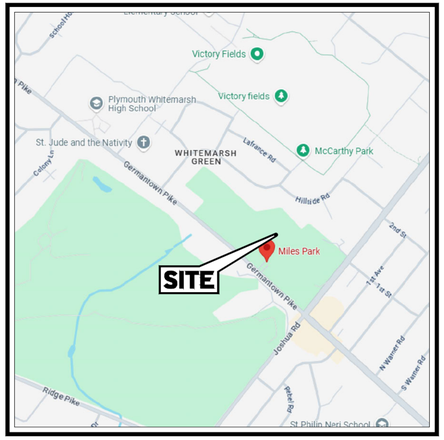
FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED

BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444



N

LOCATION MAP
SCALE: 1" = 800'
SOURCE: GOOGLE MAPS

RECORDER OF DEEDS

RECORDED N THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PA, IN PLAN BOOK NO. _____ PAGE NO. _____ ON _____ 20___.

_____
RECORDER

OWNER CERTIFICATION AND ACKNOWLEDGEMENT OF PLAN

I, _____ HEREBY CERTIFY THAT _____ IS THE REGISTERED OWNER OF THE LAND HERE N PROPOSED TO BE DEVELOPED, AND THAT SAID OWNER ADOPTS THIS PLAN AND DESIRES THE SAME TO BE RECORDED. WITNESS MY HAND AND SEAL THIS ____ DAY OF _____, 20____.

WHITEMARSH LITTLE LEAGUE, INC.
BY: WHITEMARSH LITTLE LEAGUE, INC.
MEMBER

_____ _____
NAME ATTEST

_____ _____
TITLE

COMMONWEALTH OF PENNSYLVANIA,
COUNTY OF MONTGOMERY:

ON THIS, THE _____DAY OF _____, 20____, BEFORE ME, A NOTARY PUBLIC, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____, AND THAT HE AS SUCH, BE NG AUTHORIZED TO DO SO, EXECUTED THE FOREGOING NSTRUMENT FOR THE PURPOSES THERE N CONTAINED.

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

_____
NOTARY PUBLIC

MY COMMISSION EXP RES:_____

SURVEYOR STATEMENT

I, _____ ON THIS DATE, _____ HEREBY CERTIFY TO MY USUAL AND CUSTOMARY AND PROFESSIONAL CARE THAT THIS PLAN (SHEET 4 ONLY) WAS PREPARED FROM AN ACTUAL FIELD SURVEY PREFORMED UNDER MY IMMEDIATE SUPERVISION AND IS N ACCORDANCE WITH THE "MINIMUM STANDARDS OF THE PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA" AS ADOPTED BY THE PENNSYLVANIA SOC ETY OF LAND SURVEYORS.

_____
NAME
PROFESSIONAL LAND SURVEYOR
LICENSE NO. _____

ENGINEER'S CERTIFICATION

I, WILLIAM R. REARDEN, P.E., A REGISTERED PROFESSIONAL ENGINEER OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THIS PLAN CORRECT IN ALL DETAILS AS PREPARED BY ME ON _____, 20___.

_____
WILLIAM R. REARDEN

_____
REGISTERED No.: #PE073243

_____
DATE

STORMWATER MANAGEMENT DESIGN ENGINEER CERTIFICATION

WILLIAM R. REARDEN, P.E. ON THIS DATE _____ HAS REVIEWED AND HEREBY CERT FIES THAT THE STORMWATER MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF CHAPTER 58, "GRAD NG, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICE.

_____
WILLIAM R. REARDEN

_____
REGISTERED No.: #PE073243

REVIEW OF THE TOWNSHIP ENGINEER, WHITEMARSH TOWNSHIP:

THIS SUBDIVISION AND/OR LAND DEVELOPMENT PLAN WAS REVIEWED BY THE APPOINTED TOWNSH P ENGINEER FOR WHITEMARSH TOWNSH P ON THIS _____ DAY OF _____, 20___.

_____
KRISTA HEINRICH, P E.
TOWNSH P ENGINEER

APPROVAL OF THE WHITEMARSH TOWNSHIP BOARD OF SUPERVISORS:

THIS SUBDIVISION AND/OR LAND DEVELOPMENT PLAN WAS APPROVED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF WHITEMARSH TOWNSHIP ON THIS _____ DAY OF _____, 20___.

_____ _____
CHAIRMAN

_____ _____
SECRETARY

GENERAL NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

STORMWATER MANAGEMENT OWNER CERTIFICATION

I, _____ ACKNOWLEDGE THAT THE STORMWATER BMPS ARE FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSH P.

_____
NAME

_____
TITLE

_____
DATE

OWNER
TOWNSHIP OF WHITEMARSH
616 GERMANTOWN PIKE
LAFAYETTE HILL, PA 19444
610-825-3535

DEVELOPER
WHITEMARSH LITTLE LEAGUE, INC.
27 LAURENCE PLACE
PLYMOUTH MEET NG, PA 19462
ROBERT STOKLEY
610-476-5860

PREPARED BY

BOHLER

CONTACT: TOM KNAB

REFERENCES AND CONTACTS

REFERENCES
♦ PARTIAL TOPOGRAPHIC SURVEY:
CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
DATED: 11/08/2022
02-220448-01
ELEVATIONS: NAVD 1988

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

WAIVERS REQUESTED FROM THE WHITEMARSH TOWNSHIP BOARD OF SUPERVISORS

1. A WAIVER FROM §105-12 D. TO PERMIT A COMBINED PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLAN.

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET*	1
GENERAL NOTES*	2
OVERALL SITE PLAN*	3
SITE IMPROVEMENTS PLAN*	4
EXISTING CONDITIONS & DEMOLITION PLAN	5
NOTE & DETAILS	6
NOTE & DETAILS	7

* SHEETS 1 THROUGH 4 OF THIS PLAN SET WILL BE CONSIDERED A COMPLETE RECORD PLAN SET FOR F L NG PURPOSES IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE. THE REMA N NG PLAN SHEETS, WHICH ARE NOT TO BE NG RECORDED, ON FILE AT WHITEMARSH TOWNSHIP SHALL BE CONSIDERED PART OF THE FINAL RECORD PLANS AS IF RECORDED WITH SAME.

MCPC No.: _____

PROCESSED and REVIEWED. Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _____

_____
Montgomery County Planning Commission

BOHLER
SITE CIVIL AND CO ULT EN INEER
LAND RV NG T
PROGRAM EM
LANDSCAPE AR HITE RE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES
THE INFORMATION, DESIGN AND CONTENT OF THESE PLANS ARE COPYRIGHTED AND SHALL NOT BE LOANED OR USED FOR ANY PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM BOHLER. ONLY APPROVED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © BOHLER

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	04/28/2023	PER CLIENT COMMENTS	EEL / CP
2	4/11/2025	PER CLIENT COMMENTS	EEL / WRR
3	06/26/2025	MINOR LD SUBMISSION	RMP / EEL

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NOT APPROVED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No. PAA220255.00
DRAWN BY EEL
CHECKED BY CP
DATE 01/17/2023
CAD I.D. PAA220255 00-PERMIT PLAN-3

PROJECT
PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS
FOR
WHITEMARSH LITTLE LEAGUE
PROPOSED BATTING CAGE PAVILION
MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

W. R. REARDEN — COMMONWEALTH OF PENNSYLVANIA — PROFESSIONAL — WILLIAM R. REARDEN — PROFESSIONAL ENGINEER — PE073243 — PENNSYLVANIA LICENSE NO. PE073243 — NEW JERSEY LICENSE NO. 24GE04094500

SHEET TITLE
COVER SHEET

SHEET NUMBER
1
OF 7

REVISION 3 - 06/26/2025

R:\2022\PAA220255.000-ACAD\DRAWINGS\PLAN SET\PERMIT PLAN\REV 3\PAA220255.00-PERMIT PLAN-3 — LAYOUT: 01 - COVER SHEET
ARP

GENERAL NOTES

(Rev. 1/2023)

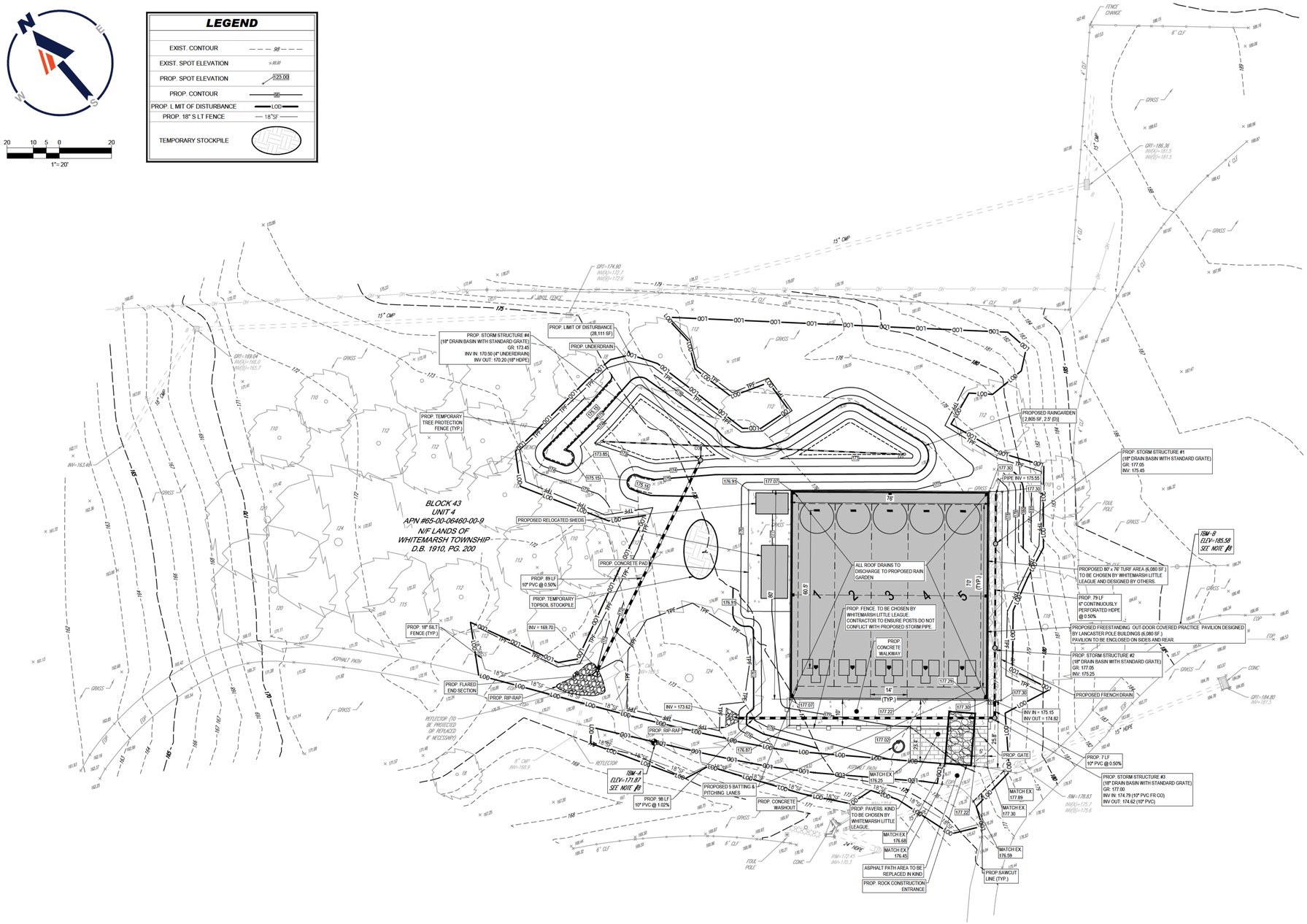
1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER , IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS, THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BE PERFORMED UNTIL THE CONTRACTOR HAS THOROUGHLY REVIEWED THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL, AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST COORDINATE THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE OR REMOVED BECAUSE ITS WAS PERFORMED INCORRECTLY OR INCONSISTENTLY WITH THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OF THE DRAWINGS DUE TO POTENTIAL INACCURACIES. ALL DIMENSIONS AND MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE CONTRACTOR PRIOR TO THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS SURVEY DOCUMENTS AND SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE PLANS, AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. PROFESSIONAL OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUSNESS OR POLLUTANTS, ABOUT OR UNDER THE SUBSTANCE, OR THE SITE.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. ALL OF THIS WORK IS TO BE PERFORMED AT THE CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST EXERCISE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND FOR PUBLIC WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL TRANSFORMER CABLE, WIRING, CONDUITS, AND ANY OTHER ELECTRICAL OR ELECTRONIC ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY MUST RESTORE SUCH CONSTRUCTION OR PROPERTY TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER IN WRITING PRIOR TO THE START OF CONSTRUCTION.
18. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE PROFESSIONAL OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF PROFESSIONAL OF RECORD'S AND BOHLER SERVICES AS RELATED TO THE PROJECT. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO OBTAIN INSURANCE FOR ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING PROFESSIONAL OF RECORD AND BOHLER , ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT PROFESSIONAL OF RECORD AND BOHLER SUFFER AND ANY AND ALL COSTS THAT PROFESSIONAL OF RECORD AND BOHLER INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO ALL UMBRELLA COVERAGES. ALL CONTRACTORS MUST NAME BOHLER AND ITS PARENT COMPANIES, AND ALL OF THEIR PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL INSUREDS ON THEIR POLICIES AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, ALL CONTRACTORS AGREE, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES, INJURIES, LIABILITIES, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY PROFESSIONAL OF RECORD, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, SUSPENSION OR CHANGE OF INSURANCE COVERAGE.
22. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION, SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION OF THE WORK CONTEMPLATED HEREIN IN THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER, NOR THE PRESENCE OF BOHLER OR ITS PARENT COMPANIES, AND ITS AND THEIR OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS (COLLECTIVELY, "BOHLER AND ITS AND THEIR RELATED ENTITIES") AT A CONSTRUCTION SITE UNDER ITS CONTRACT WITH ITS CLIENT (OWNER OR OTHER DESIGNATED PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ALL HEALTH AND SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR'S EMPLOYEES RELATING TO THEIR WORK AND ANY OF THE FOREGOING, OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FROM AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR VIOLATIONS OF THE TERMS OF THIS PLAN SET NOTE. THE CONTRACTOR MUST ENSURE THAT CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS REVIEW AND/OR DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLERS ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WITHIN THE DESIGN RECORD'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTORS PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH APPROVED PLANS. THE PROFESSIONAL OF RECORD AND BOHLER SHALL HAVE NO LIABILITY AND ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS THAT MAY OCCUR AND/OR BE INCURRED. IN THE EVENT OF NON-COMPLIANCE WITH THE PROVISIONS OF THIS NOTE, THE PROFESSIONAL OF RECORD AND BOHLER INCUR AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE PROFESSIONAL OF RECORD'S AND BOHLER KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

DEMOLITION NOTES

(Rev. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED SHALL BE IN ACCORDANCE AND CONFORMANCE WITH ALL APPLICABLE FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL ITEMS AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH THE MOST APPROPRIATE AND SAFE METHODS IN CONFORMANCE WITH ALL OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND/OR DEMOLITION. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME, TO OR NEAR THE DEMOLITION AREA.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTION

PROP. BATTING CAGE PAVILION
GERMANTOWN PIKE S.R. 3053
JOSHUA ROAD S.R. 3014
CHAINLINK OUTFIELD FENCE
GRASS
BALLFIELD FENCING
PARK DRIVE
PARKING
PROP. CONC. WALK
EXIST. CONC. WALK
EXIST. BLEACHERS
EXIST. BACKSTOP
EXIST. DUGOUT
EXIST. SCOREBOARD
EXIST. FLAGPOLE
EXIST. TREE
EXIST. SHRUB
EXIST. LIGHT POLE
EXIST. UTILITY POLE
EXIST. FIRE HYDRANT
EXIST. SIGN
EXIST. INLET
EXIST. MANHOLE
EXIST. CURB
EXIST. GUIDERAIL
EXIST. FENCE
EXIST. BUILDING
EXIST. SHED
EXIST. POOL
EXIST. DECK
EXIST. PORCH
EXIST. GAZEBO
EXIST. TENNIS COURT
EXIST. BASKETBALL COURT
EXIST. PLAYGROUND
EXIST. SWINGS
EXIST. SLIDE
EXIST. SANDBOX
EXIST. CLIMBING WALL
EXIST. PICNIC TABLE
EXIST. GRILL
EXIST. BENCH
EXIST. TRASH CAN
EXIST. RECYCLING CAN
EXIST. DOG WASTE STATION
EXIST. BIKE RACK
EXIST. PARKING LOT LIGHT
EXIST. PARKING SPACE
EXIST. HANDICAP SPACE
EXIST. HANDICAP RAMP
EXIST. CROSSWALK
EXIST. STOP BAR
EXIST. STOP SIGN
EXIST. DIRECTIONAL SIGN
EXIST. TRAFFIC SIGNAL
EXIST. TRAFFIC SIGNAL BOX
EXIST. TRAFFIC SIGNAL HEAD
EXIST. TRAFFIC SIGNAL POLE
EXIST. TRAFFIC SIGNAL MAST ARM
EXIST. TRAFFIC SIGNAL PEDESTRIAN HEAD
EXIST. TRAFFIC SIGNAL PEDESTRIAN POLE
EXIST. TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON
EXIST. TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON POLE
EXIST. TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON POLE FLASHER
EXIST. TRAFFIC SIGNAL PEDESTRIAN PUSH BUTTON POLE FLASHER BOX



IMPERVIOUS SURFACES SUMMARY

	EXISTING (SF)	REMOVED	ADDED (SF)	TOTAL (SF)
CONC./HARDSCAPE=	3,638	3,638	8,835	8,835
SHED=	307	0	0	307
TOTAL=	3,945	3,638	8,835	9,142

PROPOSED IMPERVIOUS = 8,835 SF - 3,638 SF REMOVED = 5,197 SF > 1,000 SF MAXIMUM NEW IMPERVIOUS THRESHOLD. STORMWATER MANAGEMENT PROVIDED.

RECEIVING STREAM DATA

NEAREST STREAM: UNNAMED TRIBUTARY TO SCHUYLKILL RIVER
CHAPTER 93 STREAM CLASSIFICATION: CWF (COLD WATER FISHES), MF (MIGRATORY FISHES)
WATERSHED: SCHUYLKILL RIVER

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	PUBLISHED NRCS HYDROLOGIC SOIL GROUP
DuB	- DUFFIELD SILT LOAM, 3 TO 8 PERCENT SLOPES	B
LeA	- LAWRENCEVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C
UrhB	- URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES	B

PROJECT SPECIFC SITE NOTES

(Rev. 5/2024)

1. PROPERTY OWNER:
   TOWNSHIP OF WHITEMARSH
   616 GERMANTOWN PIKE, LAFAYETTE H LL, PA 19444
2. EXIST NG PROPERTY INFORMATION:
   PART OF BLOCK 43, UNIT 4, APN #65-00-06460-00-9
   303 GERMANTOWN PIKE, LAFAYETTE H LL, PA 19444
   ZONED A RESIDENTIAL DISTRICT
3. APPLICANT/EQUITABLE OWNER:
   WHITEMARSH LITTLE LEAGUE, INC.
   C/O ROBERT STOKLEY
   27 LAURENCE PLACE, PLYMOUTH MEET NG, PA 19564
   (610) 476-5860
4. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE SOUTH COORDINATES, NAD 83. VERTICAL DATUM IS NAVD 1988, TEMPORARY BENCH MARKS SET:
   TBM-A: MAG NAIL SET IN ASPHALT PAVEMENT, LOCATED ON SURVEY ELEVATION = 171.87'
   TBM-B: MAG NAIL SET IN ASPHALT PAVEMENT, LOCATED ON SURVEY ELEVATION = 185.58'
5. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 42091C0357G, EFFECTIVE 03/02/2016.

PROJECT SPECIFC GRADING NOTES

(Rev. 9/2024)

1. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRA NAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIMUM SLOPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES, 1.5% MINIMUM N ASPHALT (EXCEPT WHERE ADA L MITS SLOPE), AND 2% IN LAWN AREAS. ANY LOCALIZED DEPRESSIONS MUST BE ELIMINATED.
3. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BU LDING ARE SCHEMATIC DUE TO A GENERIC BU LDING FOOTPRINT, THE GRADES MUST BE ADJUSTED BASED ON F NAL ARCHITECTURAL PLANS TO PROV DE THE MIN MUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIMUM SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES, AND CODES.
4. WHERE SUBGRADE BU LDING AREAS ARE PROVIDED, THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED SUBGRADE BU LDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILD NG AREA, APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTER NG THE STRUCTURE(S). F AND WHERE SUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUS NG SURFACE RUNOFF EROSION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STAB LIZATION MEASURES FOR ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.
6. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.
7. REMOVAL OF TOPSOIL IN NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITAB LITY FOR PLACEMENT.

PROJECT SPECIFIC DRAINAGE & UTILITY NOTES

(Rev. 5/2024)

1. THESE PLANS INVOLVE BU LDINGS THAT MAY BE BUILT AT A LATER DATE. THE CONTRACTOR MUST EXTEND ALL LINES, INCLUD NG, BUT NOT LIMITED TO STORM, SANITARY, TELECOM, GAS, AND ELECTRIC, AND RRIGATION L NES TO A POINT AT LEAST FIVE FEET (5') BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONS BLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF A PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF WORK.
2. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOM NAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES.
3. UNLESS OTHERWISE NOTED, ALL NEW UT LITIES/SERVICES, INCLUDING BUT NOT L MITED TO ELECTRIC, TELEPHONE, TELECOM, GAS, ETC. MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED N ACCORDANCE WITH THE UTILITY SERVICE PROVIDERS' INSTALLATION SPECIFICATIONS AND STANDARDS.
4. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXIST NG PAVED ROADWAYS, MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORD NATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.
5. VARIOUS ASPECTS OF THE UT LITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROV DE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIB LITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL SERVICE PROVIDER, OR MANUFACTURER REQUIREMENTS IN ORDER TO ACH EVE PROPER SITING, OPERATION, CONNECTIONS, SEPARATIONS, AND ACCESSES. THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL NTEGRAL COMPONENTS, SUCH AS TRASH RACKS, GATES, VALVES, NTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMPS, RESTRAINTS, STEPS, FRAMES AND GRATES, P PE/CONDUIT CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR NCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST MMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD OR BOHLER IN WRIT NG.

STORM DRAINAGE:

6. UNLESS NDICATED OTHERWISE, MAINL NE (15" OR LARGER) STORM SEWER P PE SHALL BE DUAL WALL, TYPE S, HIGH-DENSITY POLYETHYLENE (HDPE) OR POLYPROPYLENE (PP) PIPE WITH SMOOTH INTERIORS AND ANNULAR CORRUGATIONS WITH SOIL TIGHT JOINTS. FOR APPLICATIONS OUTS DE OF STATE DOT ROADWAYS, DEPENDENT UPON COST AND AVA LAB LITY, PRODUCTS USING RECYCLED RESIN ARE PREFERRED; WHEREAS IN STATE DOT APPLICATIONS, ONLY PRODUCTS WITH VIRG N RESIN ARE TO BE USED, UNLESS OTHERWISE APPROVED BY THE STATE DOT. STORM PIPES SMALLER THAN 15", SUCH AS ROOF DRAINS AND UNDERDRA NS, SHALL BE HDPE, PP, AND PVC (SDR 35 OR SCHEDULE 40), UNLESS OTHERWISE NOTED. P PE MUST CONFORM TO THE FOLLOWING: 4" TO 60" (VIRGIN RESIN) HDPE: AASHTO M252 (4" TO 12"), AASHTO M294 (12" TO 60"), 4" TO 60" (RECYCLED RESIN) HDPE: ASTM F2306 AND ASTM F2648, 12" TO 60" PP P PE MUST CONFORM TO ASTM F2881 AND AASHTO M330. JO NT GASKETS MUST CONFORM TO ASTM F477. WATER-TIGHT JOINTS ADHER NG TO ASTM D3212 SHALL BE PROV DED WHEN RECOMMENDED BY A GEOTECHNICAL ENGINEER, AND/OR WHEN SITES ARE UNDERLA N WITH KARST GEOLOGY, WHEN GROUNDWATER SEEPAGE SHOULD BE PREVENTED, AND WHERE THERE ARE ENV RONMENTAL CONCERNS.
7. A MINIMUM OF FOUR FEET (4') OF HORIZONTAL SEPARATION SHALL BE PROV DED BETWEEN STORM STRUCTURES AND OTHER UTILITIES. A M N MUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROV DED BETWEEN WATER MA N AND STORM SEWER.
8. UNLESS SPECIFIC MUNIC PAL DETAILS DICTATE OTHERWISE, ALL STORM STRUCTURES SHALL BE CONSTRUCTED N ACCORDANCE WITH THE MOST RECENT REVISION OF PENNDOT PUBLICATION 408 - "SPECIFICATIONS", PUBLICATION 72M - "STANDARDS FOR ROADWAY CONSTRUCTION".
9. ALL N LETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.
10. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT.

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
1	04/28/2023	PER CLIENT COMMENTS	EEL / CP
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PROJECT No.	PAA220255.00
DRAWN BY	EEL
CHECKED BY	CP
DATE	01/17/2023
CAD I.D.	PAA220255 00-PERMIT PLAN-3

PROJECT

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

BOHLER
1600 MANOR DRIVE, SUITE 200
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W. R. REARDEN — COMMONWEALTH OF PENNSYLVANIA — PROFESSIONAL — WILLIAM R. REARDEN — PROFESSIONAL ENGINEER — CERTIFICATE — PENNSYLVANIA LICENSE NO. PE 090443 — NEW JERSEY LICENSE NO. GE 49534500

SHEET TITLE

IMPROVEMENTS

SHEET NUMBER

4
OF 7

REVISION 3 - 06/26/2025

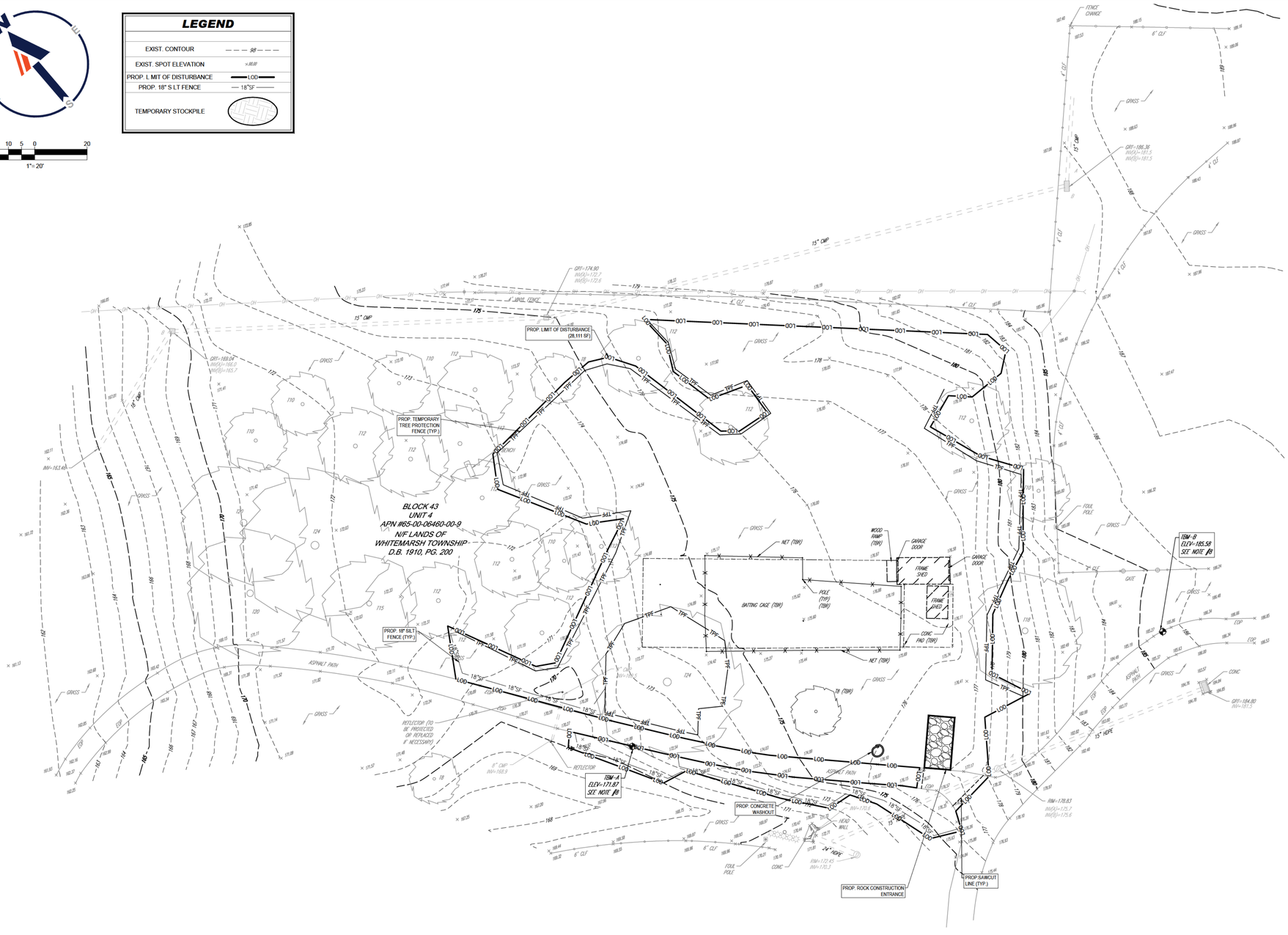
R:\2022\PAA220255.00\CAD\DRAWING\PLAN SET\PERMIT PLANS\EEL 3\PAA220255.00-PERMIT PLAN-3_—_LAYOUT 04- SITE PLAN

LEGEND

EXIST. CONTOUR	— — — 98 — — —
EXIST. SPOT ELEVATION	×86.88
PROP. LIMIT OF DISTURBANCE	LOD
PROP. 18" S.L.T. FENCE	18"SF
TEMPORARY STOCKPILE	

20 10 5 0 20

1"= 20'



R:\2022\PAA220255.00\CAD\DRAWINGS\PLAN SET\SP\PERMIT PLAN\REV 3\PAA220255.00-PERMIT PLAN-3——LAYOUT: 05- EXIST & DEMO PLAN
EEL

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PROFESSIONAL ENGINEER
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PENNSYLVANIA LICENSE NO. PE071945
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SHEET TITLE

EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER

5
OF 7

REVISION 3 - 06/26/2025

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

(Rev. 10/2024)

I. GENERAL INFORMATION

A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
B. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
C. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
D. DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.
E. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
F. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING, MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
H. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
I. CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
J. ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
K. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY, IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.
L. NPDES PERMIT REQUIRES THAT A VISUAL SITE INSPECTION REPORT USING THE CURRENT PADEP FORM BE COMPLETED BY A QUALIFIED SITE INSPECTOR AT THE FOLLOWING FREQUENCY:
   L.1. WEEKLY,
   L.2. AFTER RAINFALL EVENTS OF AT LEAST 0.25 INCH IN A 24-HOUR PERIOD, AND
   L.3. AS A FOLLOW-UP TO DEFICIENCIES FOUND.
M. THE PERMITTEE MUST TAKE COLOR PHOTOGRAPHS OF E&S BMPS AND PCSM SCMS ON THE PROJECT SITE AT LEAST MONTHLY, UNLESS OTHERWISE APPROVED IN WRITING BY DEP/CCD, AND WHEN DEFICIENCIES IN BMPS AND SCMS ARE IDENTIFIED. THE PHOTOGRAPHS MUST HAVE A DATE AND TIME STAMP AND BE MADE AVAILABLE FOR DEP/CCD REVIEW UPON REQUEST.
N. WITHIN 30 DAYS FOLLOWING COMPLETION OF A STRUCTURAL PCSM SCM, AS DEFINED IN THE REISSUED PAG-02 GENERAL PERMIT, THE PERMITTEE MUST SUBMIT THE SCM CONSTRUCTION CERTIFICATION FORM (3800-FM-BCW0271J) TO DEP/CCD, SIGNED BY THE PERMITTEE AND A LICENSED PROFESSIONAL.
O. BEGINNING DECEMBER 8, 2025, THE PERMITTEE MUST COMPLETE CONFIRMATION TESTING FOR INFILTRATION CAPACITY TO VERIFY THAT INFILTRATION SCMS WILL PERFORM AS DESIGNED. TESTING IS REQUIRED FOR BOTH THE SUBGRADE PREPARATION AND POST CONSTRUCTION CONDITION.
P. UPON THE REDUCTION, LOSS, OR FAILURE OF ANY BMP OR PCSM SCM, THE PERMITTEE AND CO-PERMITTEE(S) MUST INITIATE THE REPAIR OR REPLACEMENT OF THE BMP SCM AS FOLLOWS:
   P.1. IMMEDIATELY UPON DISCOVERY IF THE REDUCTION, LOSS, OR FAILURE OF A BMP OR SCM HAS RESULTED IN OR IS LIKELY TO RESULT IN SEDIMENT OR OTHER POLLUTANTS FLOWING OFF THE PROJECT SITE AND/OR DISCHARGING TO SURFACE WATERS. COMPLETION OF THE REPAIR OR REPLACEMENT OF THE BMP OR SCM MUST OCCUR WITHIN 24 HOURS UNLESS OTHERWISE REQUIRED BY DEP/CCD.
   P.2. WHEN FAILURE OF A BMP OR SCM IS NOT LIKELY TO CAUSE POLLUTION, THE PERMITTEE MUST INITIATE REPAIR OR REPLACEMENT WITHIN 24 HOURS OF DISCOVERY AND COMPLETE THE REPAIR OR REPLACEMENT WITHIN 7 DAYS, UNLESS OTHERWISE REQUIRED BY DEP/CCD.
Q. IF SOIL CONTAMINATION OR GROUNDWATER CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION THE PERMITTEE IS TO NOTIFY DEP AND CCD OF NEWLY DISCOVERED ON-SITE SOIL OR GROUNDWATER CONTAMINATION. NOTIFICATION IS TO BE PROVIDED WITHIN 24 HOURS OF RECEIVING THE SAMPLING RESULTS INDICATING THE CONTAMINATION.
R. BY DECEMBER 7 OF EACH YEAR, THE PERMITTEE MUST SUBMIT AN ANNUAL REPORT (3800-PM-BCW0405E) TO THE OFFICE OF DEP/CCD THAT APPROVED GENERAL PERMIT COVERAGE TO REPORT ON THE STATUS OF EARTH DISTURBANCE ACTIVITIES. THE FIRST ANNUAL REPORT FOR EXISTING PERMITTEES IS DUE DECEMBER 7, 2025.
S. RESIDENTIAL ONLY - WHENEVER A LOT OR PARCEL CONTAINING A PCSM SCM IS SOLD DURING THE TERM OF GENERAL PERMIT COVERAGE, THE PERMITTEE MUST PROVIDE THE NEW PROPERTY OWNER WITH 1) RECORD DRAWINGS OR OTHER PLANS IDENTIFYING THE SCM; 2) A LONG-TERM OPERATION AND MAINTENANCE (O&M) PLAN FOR THE SCM; AND 3) A COMPLETED NEW PROPERTY OWNER NOTIFICATION FORM (3800-FM-BCW0027J). THE PERMITTEE MUST SUBMIT COPIES OF COMPLETED NEW PROPERTY OWNER NOTIFICATION FORMS TO DEP/CCD AND TO THE MUNICIPALITY WHERE THE SCM IS LOCATED WITHIN 30 DAYS OF THE DATE OF TRANSFER OF THE PROPERTY.

II. STANDARD FOR LAND GRADING

A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
   A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES.
   A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
B. INSTALLATION REQUIREMENTS
   B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
   B.2. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
   B.3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
   B.4. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
   B.5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
B. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
C. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
D. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, PIPE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
E. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
F. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
   A.1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
   A.2. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
   A.3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
   A.4. PROTECTIVE MATERIALS TO BE USED:
   A.4.a UNROTTED SMALL-GRAIN CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
   A.4.b. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.

B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED
   B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
   B.2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
   B.3. SEEDBED PREPARATION FOR TEMPORARY SEEDING
   B.3.A PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
   B.3.B. APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE.
   B.3.C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE.
   B.3.D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
   A.1. AFTER GRADING IS COMPLETED
   A.1.a. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
   A.1.b. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
   A.1.c. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
   A.2. APPLYING TOPSOIL
   A.2.a TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
   A.2.b. REMOVAL OF TOPSOIL IS NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.
   A.3. SEEDBED PREPARATION
   A.3.a. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
   A.3.b. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
   A.3.c. SOIL MODIFICATIONS:
   A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
   A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
   A.3.d. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
   A.3.e. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
   A.3.f. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
   A.4. SEEDING: SEE SEEDING SPECIFICATIONS
   A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN

B. STANDARD FOR PERMANENT STABILIZATION WITH SOD
   B.1. METHODS AND MATERIALS
   B.1.a. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
   B.1.b. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
   B.1.c. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
   B.1.d. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
   B.1.e. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
   B.1.f. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
   B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
   B.3. SOD PLACEMENT:
   B.3.a. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
   B.3.b. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
   B.3.c. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
   B.3.d. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
   B.3.e. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
   B.3.f. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
   B.4. FOLLOW-UP INSPECTION. AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

SEEDING SPECIFICATIONS

1. SEEDING DATES
   A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH.
   B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
   A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:
      ANNUAL RYE (40 POUNDS / ACRE PLS)
      OR SPRING OATS (96 POUNDS / ACRE PLS)
      OR WINTER RYE (168 POUNDS / ACRE PLS)
      (REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)
   B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
      I. NURSE CROP (SELECT ONE):
         ANNUAL RYE (10 POUNDS / ACRE PLS)
         OR SPRING OATS (64 POUNDS / ACRE PLS)
         OR WINTER RYE (56 POUNDS / ACRE PLS)
         (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #1)
      II. PERMANENT SEED MIX:
         FINE FESCUE (35 POUNDS / ACRE PLS)
         OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS)
         OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS)
         (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #2) PER PADEP: TALL FESCUES ARE NOT TO BE USED DUE TO THEIR INVASIVE STATUS, DESPITE THE MENTION OF TALL FESCUES WITHIN THE E&S MANUAL.
3. PURE LIVE SEED: MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE ADJUSTED BASED ON THE PLS RATING OF THE SEED.
   A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. SEED SHALL NOT BE USED MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
   B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 ((%PURE X %GERMINATION) / 100)
   C. DETERMINING THE ACTUAL SEEDING RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
   A. SEEDING SHALL TAKE PLACE DURING TIMEFRAME NOTED IN THE SEEDING DATES SECTION ABOVE.
   B. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
   C. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
      I. DRILL SEEDING
      II. BROADCAST SEEDING (TWO DIRECTIONS)
      III. HYDROSEEDING (TWO DIRECTIONS)
   D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
      I. TEMPORARY STABILIZATION WITH STRAW:
         1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST).
         2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE SPECIFIED):
         1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
         2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER INSTALLATION.
         3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION.
   E. ONCE SEED HAS BEEN INSTALLED BY ANY MEANS, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED
5. IRRIGATION. NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF ½" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

PLANTING SOIL SPECIFICATION FOR INFILTRATION, BIOFILTRATION AND MRC FACILITIES

FOR MOST BIO-RETENTION, BIO-INFILTRATION AND BIO-FILTRATION FACILITIES, PLANTING SOIL SHALL BE A MANUFACTURED SOIL COMPRISED OF A CLEAN COMPOSIL SUPPLEMENTED WITH ORGANIC MATERIAL AND COARSE SAND. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A PLANTING SOIL THAT MEETS THE "TARGET TEST RESULTS OF COMPLETED PLANTING SOIL", INCLUDING THE USE OF COMPOST THAT ALSO MEETS THE INDEPENDENT REQUIREMENTS NOTED HEREIN. THE CONTRACTOR SHALL PROVIDE ALL SUBMITTALS OUTLINED BELOW TO THE PROJECT ENGINEER PRIOR TO INSTALLATION.

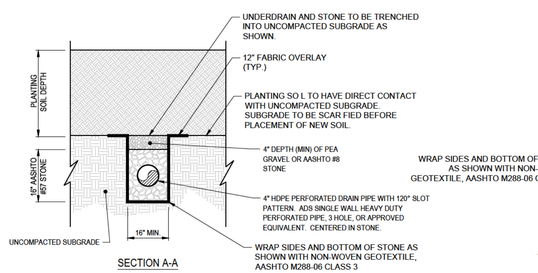
TARGET TEST RESULTS OF COMPLETED PLANTING SOIL:
THE COMPLETED PLANTING SOIL SHALL MEET, AT A MINIMUM, THE FOLLOWING SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLEMENT THE ABOVE STARTER BLEND AS NECESSARY TO ACHIEVE THIS GOAL:
- SAND: 60-80% BY WEIGHT
- SILT: 25% MAXIMUM BY WEIGHT
- CLAY: 10% MAXIMUM BY WEIGHT
- ORGANIC MATTER: 5-7% (DRY WEIGHT BASIS)
- PH: 5.5-7.2
- HYDRAULIC CONDUCTIVITY (ASTM F1815) AT 75% PROCTOR (ASTM D698): 2-6 IN/HR
- SOLUBLE SALT CONTENT (ELECTRICAL CONDUCTIVITY 1 SOIL : 2 WATER) MAXIMUM 3 MMHO/CM

TARGET TEST RESULTS OF COMPOST USED IN COMPLETED SOIL:
COMPOST USED IN THE COMPLETED SOIL MUST BE SOURCED FROM A FACILITY PARTICIPATING IN THE US COMPOSTING COUNCIL'S (USCC) SEAL OF TESTING ASSURANCE (STA) PROGRAM. OTHERWISE, COMPOST TEST RESULTS PREPARED BY AN INDEPENDENT SOIL TESTING LABORATORY SHALL BE PROVIDED MEETING OR EXCEEDING THE FOLLOWING:
- PH: 6.0-8.0
- SOLUBLE SALT CONTENT (ELECTRICAL CONDUCTIVITY 1 SOIL : 2 WATER) MAXIMUM 5 MMHO/CM, EXCEPT FOR RE-PROCESSED MUSHROOM COMPOST WHICH SHALL BE PERMITTED A MAXIMUM OF 10 MMHO/CM.
- MOISTURE CONTENT: 30-60% (WET WEIGHT BASIS)
- ORGANIC MATTER CONTENT: 30-65% (DRY WEIGHT BASIS)
- PARTICLE SIZE: 98% PASSES THROUGH ½" SCREEN
- MATURITY (BIOASSAY): SEED EMERGENCE AND SEEDING VIGOR, PERCENT RELATIVE TO POSITIVE CONTROL, SHALL BOTH BE A MINIMUM OF 80%.
- PHYSICAL CONTAMINANTS (INERTS): < 0.5% (DRY WEIGHT BASIS)
- CHEMICAL CONTAMINANTS: MEETS OR EXCEEDS US EPA CLASS A STANDARD, 40 CFR §503.13, TABLE 3
- BIOLOGICAL CONTAMINANTS, FECAL COLIFORM BACTERIA OR SALMONELLA: MEETS OR EXCEEDS US EPA CLASS A STANDARD, 40 CFR §503.32 (A)

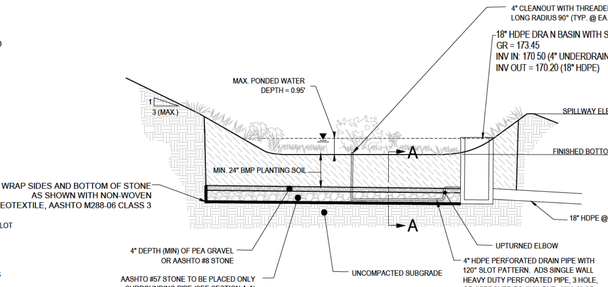
SUBMITTALS:
LAB TESTS MUST BE DATED WITHIN 6 MONTHS PRIOR TO DELIVERY TO THE WORK SITE. SUBMITTALS SHALL BE PROVIDED 3 MONTHS PRIOR TO INSTALLATION TO PREVENT DELAYS IN CONSTRUCTION. IN SUMMARY, THE CONTRACTOR MUST PROVIDE A SUBMITTAL PACKAGE CONTAINING THE FOLLOWING, AT A MINIMUM:
- IF ON-SITE SOILS ARE TO BE USED IN THE FINISHED BLEND:
  1. A REPRESENTATIVE SAMPLE SHALL BE COLLECTED FROM BORROW SOILS AND SHALL BE TESTED FOR SUITABILITY AS A TOPSOIL BASE PRIOR TO USING IN THE COMPLETED BLEND. TEST RESULTS SHOULD DEMONSTRATE COMPLIANCE WITH PENNSYLVANIA EPA'S CLEAN FILL REQUIREMENTS AND THAT THE TEXTURE IS A LOAM, SANDY LOAM OR CLAY LOAM TOPSOIL.
  2. A MOCK-UP BLENDED SAMPLE MUST BE CREATED USING THE TESTED ON-SITE SOILS FOR THE PURPOSE OF TESTING AND CONFIRMATION OF FEASIBILITY TO MEET THE COMPLETED PLANTING SOIL REQUIREMENTS NOTED ABOVE. THE MOCK-UP MUST BE APPROVED BY THE PROJECT ENGINEER PRIOR TO FINAL BLENDING AND INSTALLATION.
- SOIL TEST RESULTS OF THE COMPLETED SOIL BY AN INDEPENDENT SOIL TESTING LABORATORY MEETING OR EXCEEDING SPECIFICATIONS NOTED HEREIN (SEE SPECIFICATIONS OUTLINED IN "TEST RESULTS OF COMPLETED PLANTING SOIL" ABOVE)
- A USCC STA CERTIFICATE SHALL BE PROVIDED FOR THE COMPOST SUPPLIER; OTHERWISE, COMPOST TEST RESULTS PREPARED BY AN INDEPENDENT SOIL TESTING LABORATORY SHALL BE PROVIDED MEETING OR EXCEEDING SPECIFICATIONS NOTED HEREIN UNDER "TARGET TEST RESULTS OF COMPOST USED IN COMPLETED SOIL".

PROTECTION AND INSTALLATION:
WHERE FEASIBLE, IT IS PREFERABLE THAT THE PLANTING SOIL IS INSTALLED USING EQUIPMENT THAT CAN PLACE THE MATERIAL WITHOUT ENTERING THE LIMITS OF THE SCM FACILITY. HOWEVER, IF IT IS NECESSARY TO ENTER THE FACILITY, ALL EQUIPMENT UTILIZED TO INSTALL OR GRADE SOILS SHALL BE WIDE-TRACK OR BALLOON TIRES RATED WITH AN AVERAGE GROUND PRESSURE LESS THAN 10 PSI. THE SUBSOIL SHALL BE SCARIFIED 3-6" IN D

BMP NO.	DESCRIPTION	SCHEDULE	INSPECTION TASK	MA NTENANCE	FAILURE NDICATORS
BMP 6.4.5 RAINGARDEN/ BIORETENTION	A RA NGARDEN (ALSO CALLED BIORETENTION) IS AN EXCAVATED SHALLOW SURFACE DEPRESSION PLANTED WITH SPECIALLY SELECTED NATIVE VEGETATION TO TREAT AND CAPTURE RUNOFF.	4 TIMES PER YEAR ANNUALLY	• INSPECT FOR LITTER AND SEDIMENT ACCUMULATION • INSPECT VEGETATIVE COVER CONDITION • EVALUATE PLANT GROWTH • REMOVE DETRITUS, CUT BACK DORMANT PERENNIAL PLANTS • INSPECT FOR INVASIVE PLANT SPECIES • INSPECT MULCH LEVEL AND REPLENISH AS NECESSARY	NEEDED MAINTENANCE SHOULD BE CONDUCTED IMMEDIATELY AFTER EACH NSPECTION. THE LITTER AND SEDIMENT SHALL BE REMOVED TO RESTORE DESIGN CAPACIT ES AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.	FAILURE INDICATORS INCLUDE F THE RA NGARDEN DOES NOT DEWATER WITHIN 72 HOURS OR IF AN ABUNDANCE OF WETLAND PLANTS ARE FOUND WITHIN THE RA NGARDEN. UPON OBSERVING A FA LURE INDICATOR A QUALIF ED INDIV DUAL SUCH AS AN ENG NEER OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF FA LURE. UPON FURTHER INVESTIGATION PERFORMED BY THE QUALIFIED INDIVIDUAL A REMEDIATION PLAN SHALL BE IMPLEMENTED TO RESTORE THE RAINGARDEN TO ITS ORIGINAL DESIGN CAPACIT ES, THIS INCLUDES PERFORM NG ADDITIONAL INF LTRATION TESTING TO DETERMINE WHETHER THE FAC LITY HAS BEEN BROUGHT BACK TO ITS ORIGINAL DESIGN CAPACITIES.



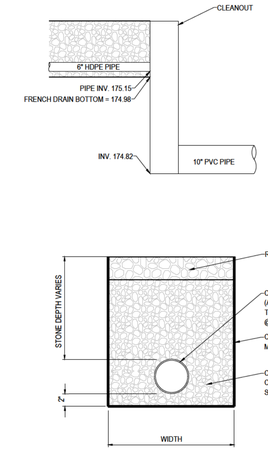
SECTION A-A



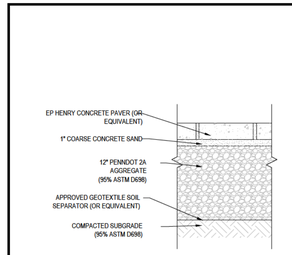
BIO-RETENTION / BIO-INFILTRATION DETAIL

SEQUENCE OF CONSTRUCTION FOR BIO-RETENTION / BIO-INFILTRATION

1. PRIOR TO AND DURING CONSTRUCTION, THE FACILITY AREA SHALL BE PROTECTED WITH A COMPLETE RING OF FILTER SOCK TO PREVENT SILT AND EROSION UNTIL THE FACILITY AND THE CONTRIBUTING DRAINAGE AREA IS FULLY STABILIZED.
2. THE BIO-RETENTION / BIO-INFILTRATION FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. THE CONTRACTOR MUST TAKE CARE NOT TO COMPACT THE IN-SITU SOILS.
3. SUBSOILS IN THE ENTIRE GARDEN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED BEFORE THE CONTRACTOR PLACES THE PLANTING SOIL MATERIAL. SCARIFYING MUST BE DONE WITH A TOOTHED BACKHOE.
4. THE FACILITY SHALL HAVE AN OVERFLOW DRAIN. THESE SHALL BE INSTALLED BEFORE PROCEEDING.
5. INSTALL PLANTING SOIL TO THE DEPTH REQUIRED. THE PLANTING SOIL SHALL MEET THE SPECIFICATIONS OUTLINED IN THE PLANTING SOIL SPECIFICATIONS FOR B.M.P. FACILITIES.
6. PRE-SOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION IN ORDER TO AID IN SETTLEMENT.
7. COMPLETE FINAL GRADING TO ACHIEVE DESIGN GRADE. LEAVE SPACE FOR UPPER LAYER OF COMPOST OR MULCH, IF REQUIRED, AS SPECIFIED ON THE PLANS.
8. UNLESS THE FACILITY IS SPECIFIED TO BE SEEDED WITH A MEADOW MIX, THE CONTRACTOR SHALL COVER THE PLANTING SOIL WITH A MAXIMUM OF 2 INCHES OF SHREDDED HARDWOOD BARK MULCH.
9. ALL PROTECTION MEASURES INSTALLED AT THE BEGINNING OF CONSTRUCTION (SEE STEP 1 ABOVE) SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL THE FACILITY AND ADJACENT AREAS ARE FULLY STABILIZED.

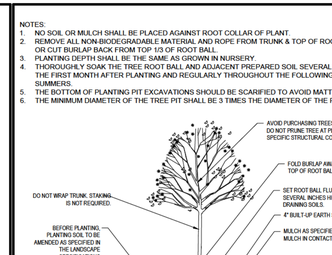


FRENCH DRAIN DETAIL
SCALE: N.T.S. REV.: 2021.12.02



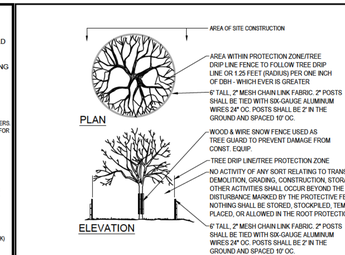
NOTES:
1. PAVEMENT SECTION SHALL BE VERIFIED AND APPROVED BY GEOTECHNICAL ENGINEER OR QUALITY CONTROL AGENCY.
2. DETAIL IS USED FOR BASIS OF DESIGN, SPECIFIC PAVER TO BE CHOSEN BY OWNER.

CONCRETE PAVER
NOT TO SCALE (PA-S010601 - 09/2023)



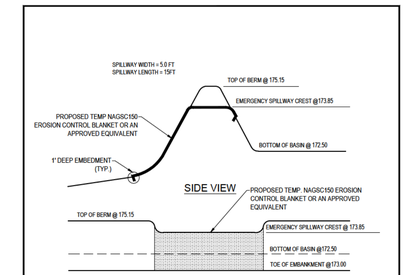
NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD OR CUT BURLAP BACK FROM TOP 1/3 OF ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE SCARIFIED TO AVOID MATTING OF SOIL.
6. THE MINIMUM DIAMETER OF THE TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL.

DECIDUOUS TREE PLANTING
NOT TO SCALE (PA-L070101 - 11/2023)

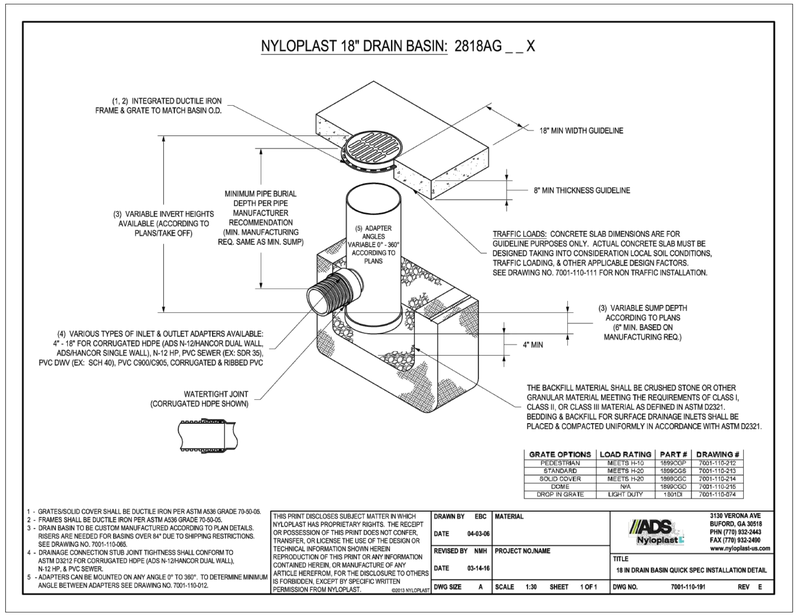


NOTES:
1.) THE PROTECTIVE FENCING SHALL BE INSTALLED WITH CARE TO AVOID ROOTS AND PLACED ENCOMPASSING THE ENTIRE ROOT PROTECTION ZONE OF INDIVIDUAL OR GROUPS OF CONTIGUOUS TREES. FENCING SHALL BE INSTALLED PRIOR TO ANY WORK BEING CONDUCTED, E.G., GRUBBING, EXCAVATION, GRADING, TRENCHING, CLEANING, OR INSTALLATION OF SILT FENCING. THE PROTECTIVE FENCING SHALL BE MAINTAINED THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION.
2.) NO FUEL STORAGE, REFUELING OR MAINTENANCE OF EQUIPMENT, OR WASH DOWN OF CEMENT HANDLING EQUIPMENT SHALL BE PERMITTED WITHIN 100 FEET OF ANY TREE TO BE PRESERVED.
3.) ANY DAMAGE TO THE FENCING OR ENCROACHMENT ON THE PROTECTED AREAS SHALL BE REMEDIED IMMEDIATELY. ANY OBSERVED DAMAGE TO THE TREES SHALL BE IMMEDIATELY REPORTED TO THE TOWNSHIP AND REMEDIED AS SOON AS IS PRACTICABLE, AT THE DISCRETION OF THE SHADE TREE COMMISSION, PRESERVED TREES THAT HAVE NOT BEEN ADEQUATELY PROTECTED OR HAVE BEEN DAMAGED MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE EXPENSE OF THE APPLICANT.

X-11 — **TREE PROTECTION DURING SITE CONSTRUCTION**
NOT TO SCALE



X-9 — **BASIN SPILLWAY LINING DETAIL**
NOT TO SCALE



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899COP	7001-110-212
STANDARD	MEETS H-20	1899CGS	7001-110-213
SOLID COVER	MEETS H-20	1899CGC	7001-110-214
DOME	N/A	1899DGO	7001-110-215
DROP IN GRATE	LIGHT DUTY	1897DI	7001-110-074

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-00-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-00-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY	EBC	MATERIAL	
DATE	04-03-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-14-16		
DWG SIZE	A	SCALE 1:30	SHEET 1 OF 1

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TITLE: 18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DWG NO. 7001-110-191 REV E

LANDSCAPE SPECIFICATIONS:

1. SCOPE OF WORK:
THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 5.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

C. LAWN - LAWN AREAS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO BELOW.
I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
II. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE-FREE TREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

E. FERTILIZER
I. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
II. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

F. PLANT MATERIAL
I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION).
II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
III. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1½", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
V. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
VI. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN

B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "ISI-FENCE", OR APPROVED EQUAL, ON METAL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

B. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
I. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
II. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 50% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).

C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS EXPECTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.

B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

D. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY SEE SPECIFICATION 6.A.):
i. 20 POUNDS 5RO-POWER OR APPROVED EQUAL SOIL CONDITIONER/FERTILIZER.
ii. 25 POUNDS NITRO-FORM (COARSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER.

E. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
A. INSOFAR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

B. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION.

C. ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

D. ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

E. POSITION TREES AND SHRUBS AT THEIR INTENDED LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

F.

Applicant Name: Whitemarsh Township Little League, Inc.

Development Name: Miles Park Proposed Batting Cage Pavilion

Location of Property: 303 Germantown Pike, Lafayette Hill, PA 19444

Date: 06/27/2025

PROJECT COVER SHEET – *Approved at June 6, 2023 Shade Tree Commission Meeting*

To verify fulfillment of Chapter 55 Ordinance requirements for:

1. *Maximum Tree Removal – 55-4B*
2. *Tree Replacement – 55-4D(6)(a)*
3. *Substitutions for Replacements – 55-4F*
4. *Replacement Tree Species – 55-4E*
5. *Tree and Shrub requirements for Chapters other than Chapter 55*

Complete the following tables, filling in data for each lettered item, and resolving each Compliance Test. In accordance with 55-4C(4)(e), provide this completed Cover Sheet together with the Landscape Plan.

Citations to Sections of Chapter 55 are provided for the convenience of the Applicant. Other Chapters of the Whitemarsh Township Code and other sections of Chapter 55, such as 55-2 Definitions, may be relevant. In the event of an inconsistency between this Cover Sheet and any provision of the Code, the language of the Code shall be controlling.

1) Calculation of Requirement for Maximum Tree Removal – 55-4B:

A.	***Total of all existing Trees on the lot with DBH of 6" or greater**, per 55-4C(3)(a).*	
B.	*33% of line (A) = **maximum existing Trees which may be Removed.***	
C.	*Provide **number of existing Trees proposed to be Removed by the Applicant,** per 55-4C(3)(a).*	
	***COMPLIANCE TEST:** If Line (C) is greater than Line (B), the Applicant's proposal is not in compliance with the requirement that no more than 33% of trees having a DBH of six inches or greater may be removed.*	

2) ***Calculation of Replacement Requirement for Removed Trees having a DBH of Six Inches or Greater 55-4D(6)(a):***

D.	***Total DBH of all existing Living and Healthy Trees*** *(as determined per 55-4A) having a DBH of 6" or greater* ***that are proposed to be Removed****, per 55-4C(3)(a).*	8"
E.	***Total DBH of all Living and Healthy Trees*** *(as determined per 55-4A) having a DBH of 6" or greater,* ***removed within five years prior to the submission of application****, per 55-4C(3)(b).*	0
F.	*Sum of line (D) and line (E) =* ***Total DBH that must be replaced for all Removed Living and Healthy Trees.***	8"
G.	***Total Caliper inches of Canopy Replacement Trees proposed to be planted*** *by the Applicant (as shown on the Landscape Plan) per 55-4D(6)(a). Each Canopy Replacement Tree shall have a minimum Caliper of three inches.*	9"
	COMPLIANCE TEST: *If Line (G) is less than Line (F), the Applicant's proposal is not in compliance with the minimum Canopy Tree Replacement Requirement.* *To comply with this requirement, the Applicant may request a waiver from the Shade Tree Commission to permit limited substitutions per 55-4F. If so, proceed to Substitution calculation (3) below.*	COMPLIES

3) ***Calculation of maximum Proposed Substitutions for Replacement Canopy Trees – 554F, subject to certain limitations and approval by the Shade Tree Commission.***

H.	*40% of line (F) (round fractions down to a whole number) =* ***maximum Caliper of required Replacement Canopy Trees that may be substituted*** *with Understory Trees and/or FIL, upon STC approval, per 55-4F.*	
I.	*Line (F) less Line (G) =* ***Shortfall in DBH compliance with the minimum Canopy Tree Replacement Requirement,*** *per 55-4D(6)(a).*	
	COMPLIANCE TEST: *If line (H) is less than line (I), the deficit of minimum Canopy Tree Replacement requirement, per 55-4D(6) cannot be fully compensated with Substitutions, per 55-4F.*	

J.	*Line (I) divided by 3" (round fractions up to a whole number) =* ***Shortfall in the number of required 3" Canopy Replacement Trees.***	
K.	*Provide the* ***total number of substitution Understory Trees proposed to be planted*** *by the Applicant, per 55-4F(1).*	
L.	*Line (K) divided by two =* ***Number of required 3"-cal. Replacement Canopy Trees being substituted with Understory Trees*** *per 55-4F(1).*	
M.	*Line (J) less Line (L) =* ***Number of required 3"-cal. Replacement Canopy Trees proposed by the Applicant to be substituted with payment of in-lieu fees****, per 55-4F(2).* ***NOTE:*** *Review proposed Landscape Plan to ensure that the use of Replacement Understory Tree substitutes has been maximized prior to calculating the number of substitutes via in-lieu fees, per 55-4F(4).*	
N.	*Sum of Line (L) and Line (M) =* ***Total proposed number of Replacement Canopy Trees being substituted per 55-4F.***	
O.	*Line (N) multiplied by 3" =* ***Total shortfall of DBH to be fulfilled with substitutions*** *as proposed by this Landscape Plan.*	
	COMPLIANCE TEST: *If (O) is greater than (H), the Applicant's proposal has exceeded the 40% maximum eligible for consideration for Replacement substitutions, per 55-4F, and is not in compliance.*	
P.	*Sum of Line (O) and (G) =* ***Total Caliper compensation for Removed Trees*** *as provided by this proposed Landscape Plan.*	
	COMPLIANCE TEST: *If (P) is less than (F), the Applicant's proposal is not in compliance with the Tree Replacement Requirement.*	

4) Compliance with Species Requirement of Replacement Trees – 55-4E:

Q.	***Total number of proposed Canopy Replacement Trees,*** *per 55-4C(4)(c).*	

R.	*75% of line (Q) (round fractions up to the next whole number) =* ***Minimum required number of Native Species Replacement Canopy Trees****, per 55-4E.*	
S.	*Provide the* ***number of proposed Native Species Canopy Replacement Trees,*** *per 55-4C(4)(c).*	
	COMPLIANCE TEST: *If Line (S) is less than Line (R), the Applicant's proposal is not in compliance with the 75% Native Species requirement for Replacement Canopy Trees, per 55-4E.*	
T.	*Provide the* ***number of proposed Native Species Understory Trees****.*	
	COMPLIANCE TEST: *If Line (T) is less than line (K), he Applicant's proposal is not in compliance with the 100% Native Species requirement for Replacement Understory Trees.*	

5) Compliance with Landscaping Requirements of Other Code Chapters. Complete the following Tables for each applicable requirement.

REQUIRED TREES:

A	B	C	D*	E	F**
Full Code Citation: Chapter; sub-chapter, etc.	Subject matter as indicated in Code caption	Required # of Trees	Credits for Preserved Trees per 55-4D(5)	Proposed # of Trees	Column (C) less Columns (D) and (E)

NOTE: Column (D) Credits are strictly limited to calculating Chapter 105-52 Buffer yards, in accordance with 55-4D(5).

****NOTE: When the result in Column (F) is greater than zero, the Applicant's proposal is not in compliance with the applicable Code requirement.***

REQUIRED SHRUBS:

A	B	C	D	E*
Full Code Citation: Chapter; sub-chapter, etc.	Subject matter as indicated in Code caption	Required # of Shrubs	Proposed # of Shrubs	Column (C) less Column (D)

NOTE: When the result in Column (E) is greater than zero, the Applicant's proposal is not in compliance with the applicable Code requirement.

1600 Manor Drive, Suite 200
Chalfont, PA 18914

Stormwater Management Calculations

Project:	**Proposed Batting Cage Pavilion** Miles Park 303 Germantown Pike Whitemarsh Township Montgomery County Pennsylvania, 19444
Client:	**Whitemarsh Little League** 303 Germantown Pike Lafayette Hill, PA 19444
Project Number:	**PAA220255.00**
Date: Revised:	**January 17, 2023** **April 28, 2023** **June 26, 2025**

Plans and Reports Referenced:

- Preliminary/Final Land Development Plans for Whitemarsh Little League by Bohler, dated 01/17/2023, revised 06/26/2025.
- Plans entitled "Miles Park Baseball Field Improvements Post Construction Stormwater Management Plan (Final Plan for Construction)" prepared by T&M Associates, dated 10/04/2017, last revised 07/27/2018
- Report entitled "Post Construction Stormwater Management Plan (Final Plan for Construction)" prepared by T&M Associates, dated May 2018.

Professional Engineer:	William R. Rearden PA License #PE073243

Table of Contents

General Project Description / Stormwater Management..... 1

DEP PSCM Volume Spreadsheet..... 2

HydroCAD Hydrographs..... 3

Spillways Worksheet 58

Runoff C Worksheet..... 59

Pipe Capacity Calculations 60

Rip-rap Calculations 61

Post Development Drainage Area Plan, prepared by Bohler

General Project Description / Stormwater Management

Whitemarsh Little League proposes to develop a northeastern portion of the existing Miles Park into a batting cage pavilion. The proposal includes the installation of landscaping and stormwater management controls necessary to support the development. In the existing condition, the project area contains an uncovered batting cage area. Pertinent data characterizing the existing and future site conditions are shown on the accompanying plans.

In 2018, development of Miles Park was approved for the reconstruction and relocation of existing baseball fields. As part of this project, an NPDES plan set and report was prepared by T&M Associates, to which this project references for modeling purposes.

In the pre-development condition, the project site area drains to the southwest to an existing culvert at the existing asphalt path. This area bypasses the existing stormwater management facilities, which includes two bioretention raingardens, of which one is a slow release BMP. These raingardens are located to the south and southeast of the project site area. Ultimately, runoff discharges at the existing culvert at the southwest corner of the property that runs beneath Germantown Pike, as identified on the NPDES plans.

The post-development condition of the site maintains the same relative drainage patters and discharge point. There is an increase in the total impervious surface coverage with a subsequent increase in runoff volume. Therefore, a slow release rain garden is proposed to manage the additional volume generated. As mentioned in the T&M report, infiltration is not feasible due to the presence of Karst topography. The area tributary to the basin has been delineated and hydrographs have been generated for 2,10, 50, and 100-year events.

The SCS Method was utilized for generating hydrographs for the pre- and post-development conditions as defined in the computer watershed software HydroCAD 10.20-2g. The Hydraflow Watershed Model Schematic found on page 92 of the T&M report was replicated in HydroCAD using the parameters provided in the Hydraflow report. As mentioned, the proposed batting cage pavilion is located within the existing 20.27 acres of bypass area. The conversion of 0.22 acres of this area to impervious does not change the CN value of 73 provided in the report. Therefore, the proposed slow release rain garden is designed to provide volume control for the difference in the 2-year storm event. Per discussion with the Township Engineer, 20% of the existing impervious was considered meadow for determination of the net change in volume to be managed. This volume accounts for 0.22 acres of impervious of which 0.20 acres is proposed. The raingarden is designed to dewater at approximately 48 hours similar to the existing slow release raingarden (Raingarden #2).

Volume Management

Project: Miles Park

Instructions | General | *Volume* | Rate | Quality

2-Year / 24-Hour Storm Event (NOAA Atlas 14): **3.28** inches

Alternative 2-Year / 24-Hour Storm Event _____ inches

Alternative Source: _____

Pre-Construction Conditions: *No. Rows:* 3 ☐ *Exempt from Meadow in Good Condition* ☑ *Automatically Calculate CN, Ia, Runoff and Volume*

Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Pervious as Meadow	0.37	B	58	1.448	0.37	497
Impervious as Meadow	0.02	B	58	1.448	0.37	23
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.08	B	98	0.041	3.05	885
TOTAL (ACRES):	**0.47**				**TOTAL (CF):**	**1,404**

Post-Construction Conditions: *No. Rows:* 2

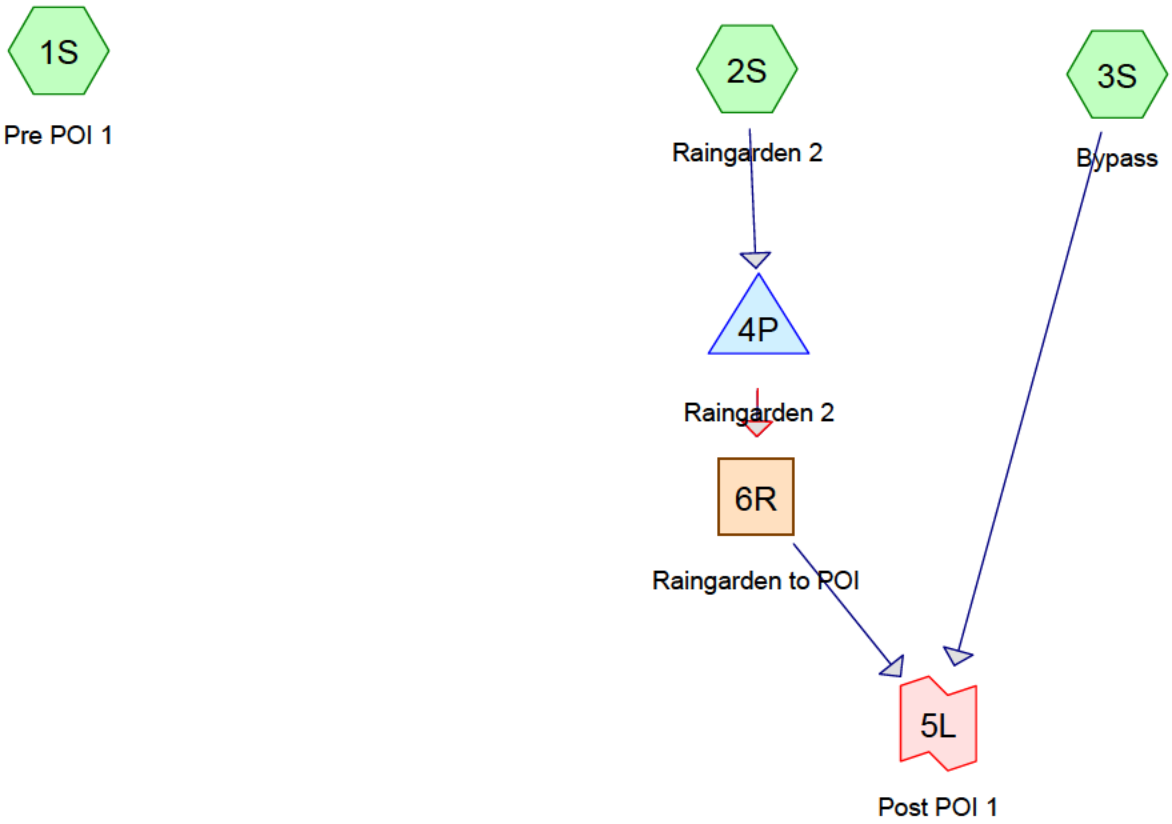
Land Cover	Area (acres)	Soil Group	CN	Ia (in)	Q Runoff (in)	Runoff Volume (cf)
Open Space (Lawns, Parks, Golf Courses, Cemeteries, Etc.) - Good Condition (Grass Cover > 75%)	0.25	B	61	1.279	0.48	433
Impervious Areas: Paved Parking Lots, Roofs, Driveways, Etc. (Excluding ROW)	0.22	B	98	0.041	3.05	2,433
TOTAL (ACRES):	**0.47**				**TOTAL (CF):**	**2,866**

NET CHANGE IN VOLUME TO MANAGE (CF): **1,462**

Non-Structural BMP Volume Credits:

☐ Tree Planting Credit

Replicated T&M Hydraflow Model



Subcat Reach Pond Link

Routing Diagram for PAA220255.00-0
Prepared by Bohler Engineers, Printed 1/17/2023
HydroCAD® 10.20-2g s/n 03478 © 2022 HydroCAD Software Solutions LLC

Summary for Subcatchment 1S: Pre POI 1

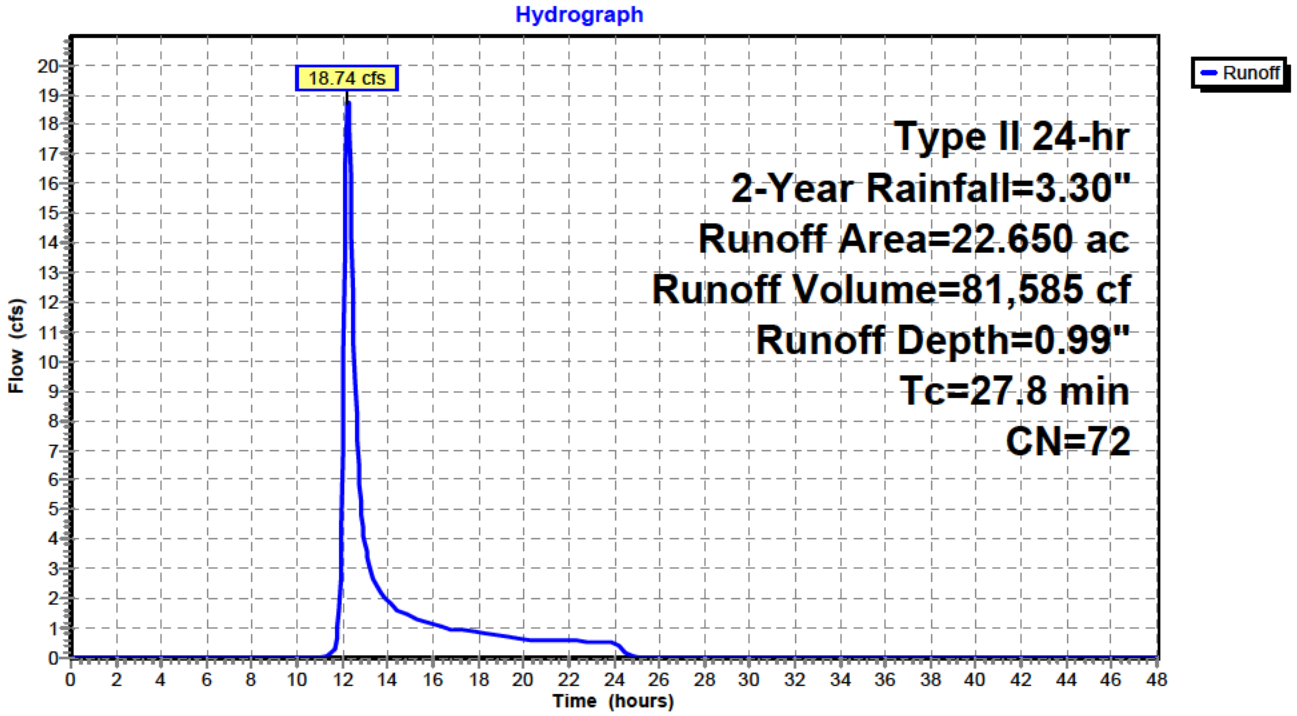
Runoff = 18.74 cfs @ 12.24 hrs, Volume= 81,585 cf, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=3.30"

	Area (ac)	CN	Description
*	22.650	72	
	22.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8					**Direct Entry,**

Subcatchment 1S: Pre POI 1



Summary for Subcatchment 2S: Raingarden 2

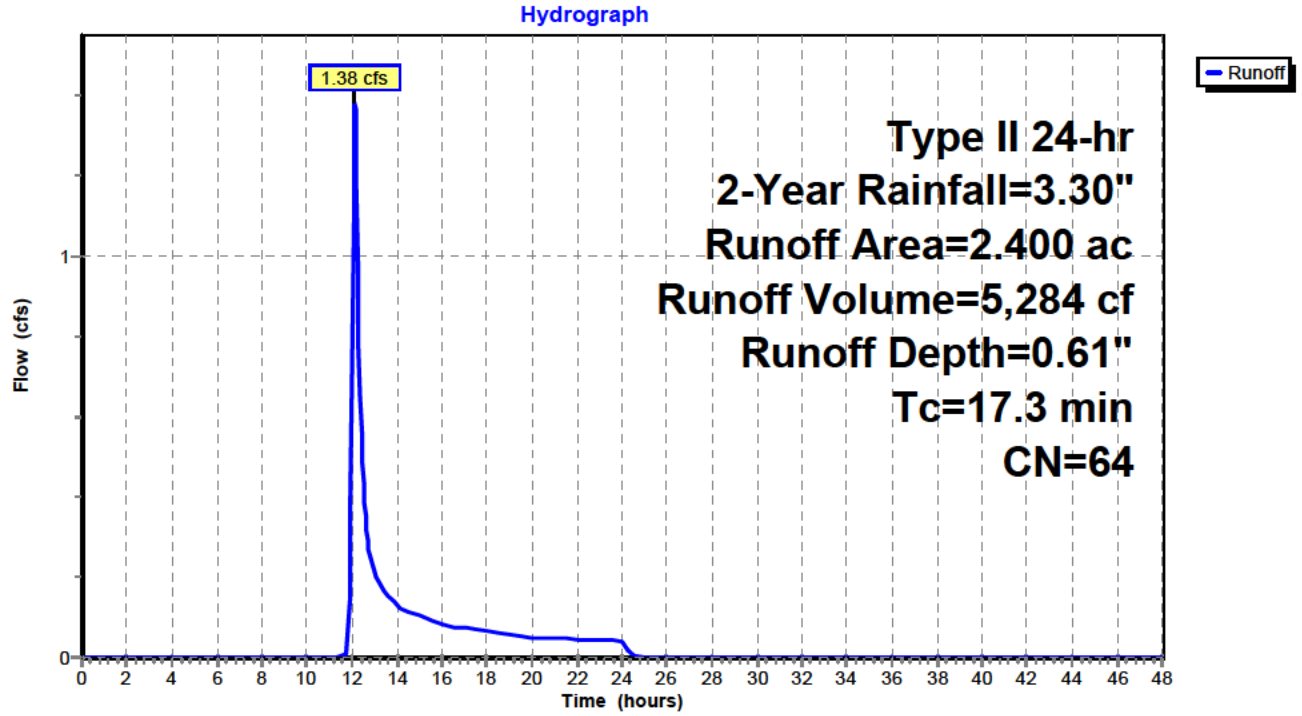
Runoff = 1.38 cfs @ 12.13 hrs, Volume= 5,284 cf, Depth= 0.61"
Routed to Pond 4P : Raingarden 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=3.30"

	Area (ac)	CN	Description
*	2.400	64	
	2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3					**Direct Entry,**

Subcatchment 2S: Raingarden 2



Summary for Subcatchment 3S: Bypass

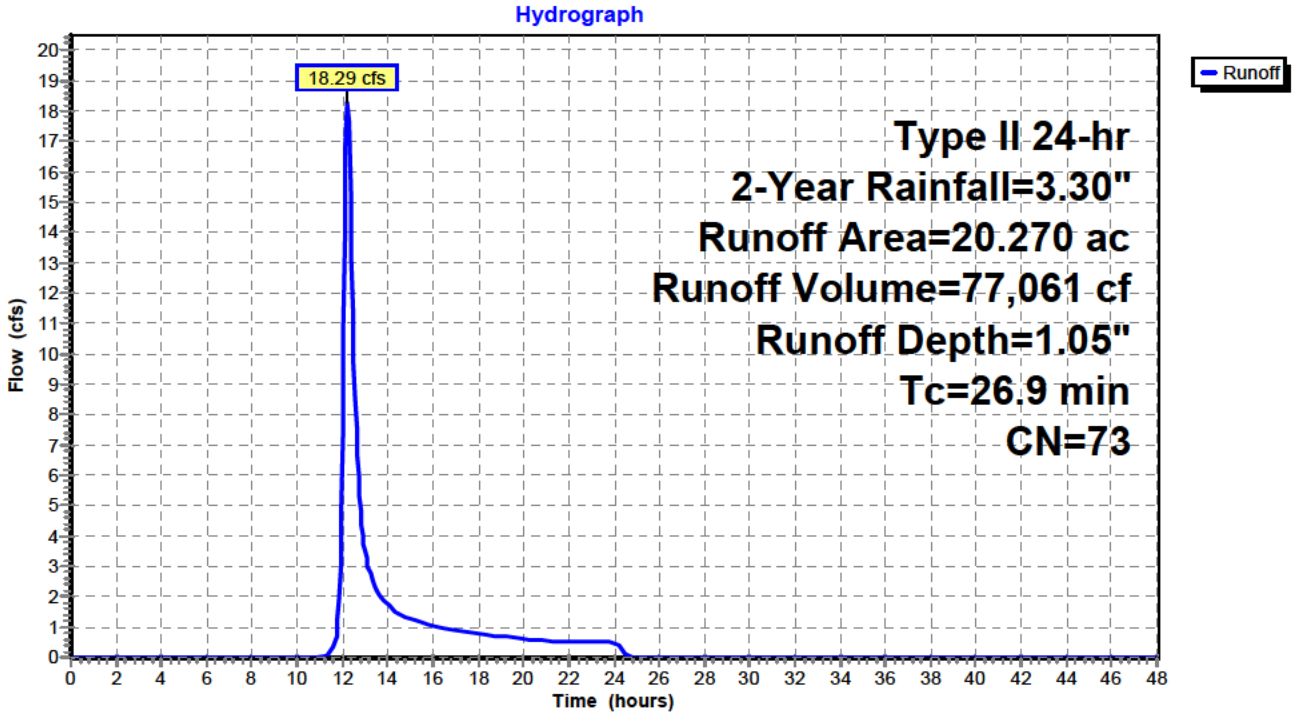
Runoff = 18.29 cfs @ 12.23 hrs, Volume= 77,061 cf, Depth= 1.05"
Routed to Link 5L : Post POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-Year Rainfall=3.30"

	Area (ac)	CN	Description
*	20.270	73	
	20.270		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9					**Direct Entry,**

Subcatchment 3S: Bypass



Summary for Reach 6R: Raingarden to POI

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth > 0.39" for 2-Year event
Inflow = 0.16 cfs @ 13.49 hrs, Volume= 3,423 cf
Outflow = 0.10 cfs @ 15.53 hrs, Volume= 3,376 cf, Atten= 42%, Lag= 122.5 min
Routed to Link 5L : Post POI 1

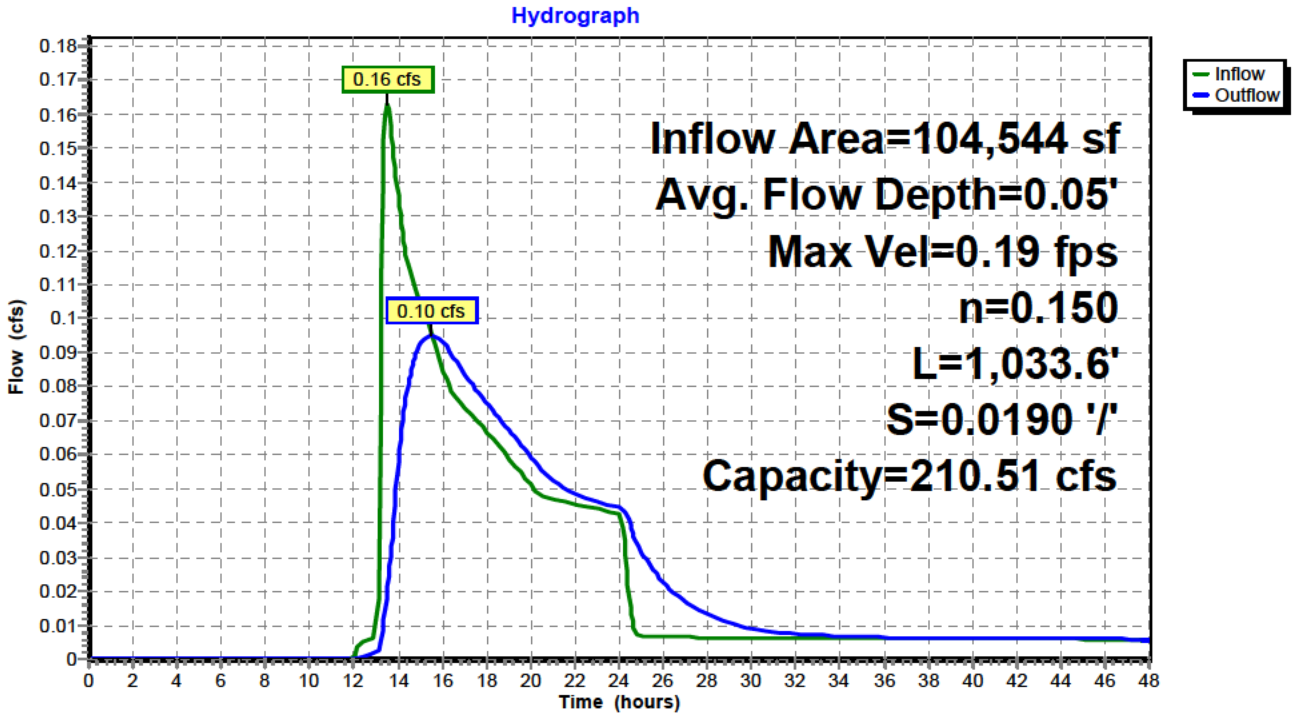
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.19 fps, Min. Travel Time= 90.0 min
Avg. Velocity = 0.14 fps, Avg. Travel Time= 122.6 min

Peak Storage= 514 cf @ 15.53 hrs
Average Depth at Peak Storage= 0.05' , Surface Width= 9.94'
Bank-Full Depth= 3.00' Flow Area= 108.0 sf, Capacity= 210.51 cfs

9.00' x 3.00' deep channel, n= 0.150 Sheet flow over Short Grass
Side Slope Z-value= 9.0 '/' Top Width= 63.00'
Length= 1,033.6' Slope= 0.0190 '/'
Inlet Invert= 171.50', Outlet Invert= 151.86'

‡

Reach 6R: Raingarden to POI



Stage-Area-Storage for Reach 6R: Raingarden to POI

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
171.50	0.0	0
171.55	0.5	490
171.60	1.0	1,025
171.65	1.6	1,605
171.70	2.2	2,234
171.75	2.8	2,909
171.80	3.5	3,628
171.85	4.3	4,397
171.90	5.0	5,211
171.95	5.9	6,070
172.00	6.8	6,979
172.05	7.7	7,932
172.10	8.6	8,930
172.15	9.7	9,979
172.20	10.7	11,072
172.25	11.8	12,209
172.30	13.0	13,397
172.35	14.2	14,630
172.40	15.4	15,907
172.45	16.7	17,235
172.50	18.0	18,607
172.55	19.4	20,023
172.60	20.8	21,490
172.65	22.3	23,002
172.70	23.8	24,558
172.75	25.3	26,165
172.80	26.9	27,816
172.85	28.6	29,512
172.90	30.2	31,258
172.95	32.0	33,049
173.00	33.8	34,884
173.05	35.6	36,770
173.10	37.4	38,700
173.15	39.4	40,675
173.20	41.3	42,700
173.25	43.3	44,770
173.30	45.4	46,884
173.35	47.5	49,049
173.40	49.6	51,258
173.45	51.8	53,512
173.50	54.0	55,816
173.55	56.3	58,165
173.60	58.6	60,559
173.65	61.0	63,002
173.70	63.4	65,491
173.75	65.8	68,024
173.80	68.3	70,607
173.85	70.9	73,235
173.90	73.4	75,908
173.95	76.1	78,630
174.00	78.8	81,398
174.05	81.5	84,210
174.10	84.2	87,072
174.15	87.1	89,979
174.20	89.9	92,931
174.25	92.8	95,933
174.30	95.8	98,979
174.35	98.8	102,071
174.40	101.8	105,212
174.45	104.9	108,398
174.50	**108.0**	**111,629**

Summary for Pond 4P: Raingarden 2

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth = 0.61" for 2-Year event
Inflow = 1.38 cfs @ 12.13 hrs, Volume= 5,284 cf
Outflow = 0.16 cfs @ 13.49 hrs, Volume= 3,423 cf, Atten= 88%, Lag= 81.5 min
Primary = 0.16 cfs @ 13.49 hrs, Volume= 3,423 cf
Routed to Reach 6R : Raingarden to POI
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Reach 6R : Raingarden to POI

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 174.28' @ 13.49 hrs Surf.Area= 2,848 sf Storage= 2,457 cf

Plug-Flow detention time= 447.0 min calculated for 3,423 cf (65% of inflow)
Center-of-Mass det. time= 313.8 min (1,218.6 - 904.8)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	4,952 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

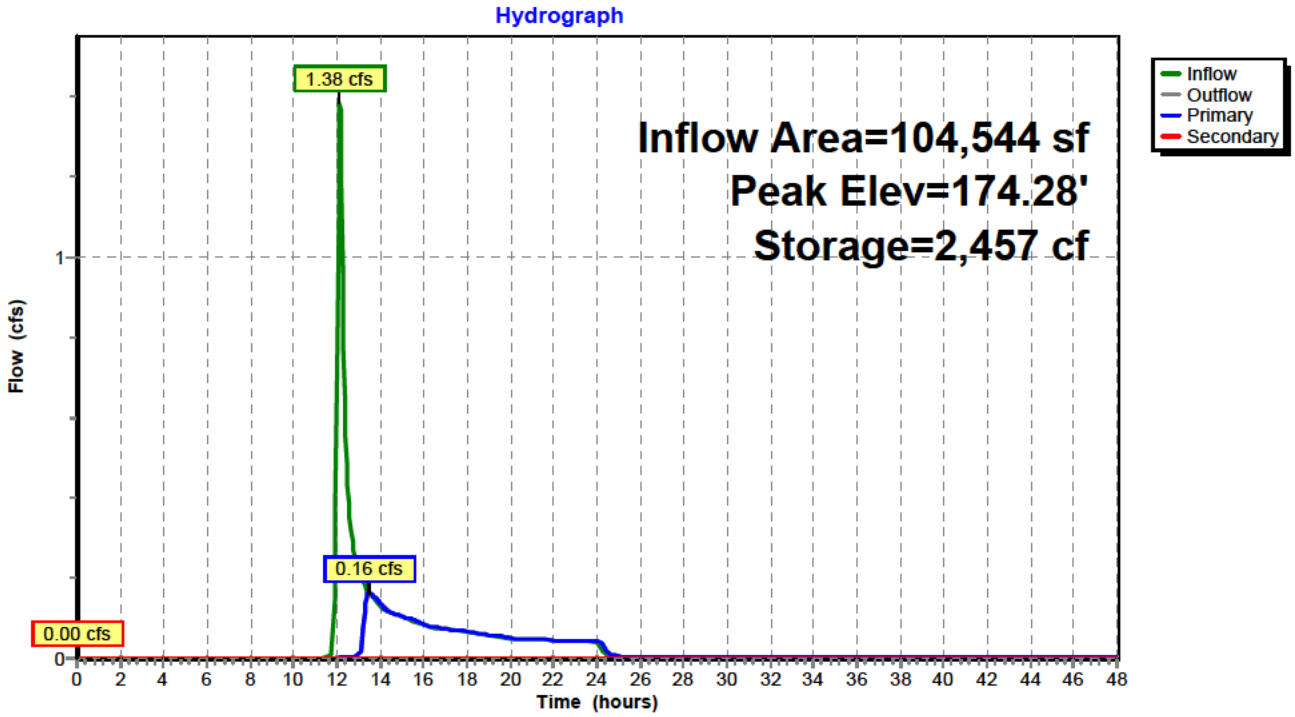
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	1,085	0	0
174.00	2,371	1,728	1,728
175.00	4,077	3,224	4,952

Device	Routing	Invert	Outlet Devices
#1	Primary	171.73'	**24.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 171.73' / 171.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	174.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.25'	**0.5" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	174.50'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.16 cfs @ 13.49 hrs HW=174.28' TW=171.52' (Dynamic Tailwater)
↑1=**Culvert** (Passes 0.16 cfs of 17.52 cfs potential flow)
↑2=**Grate** (Weir Controls 0.16 cfs @ 0.56 fps)
3=**Orifice** (Orifice Controls 0.01 cfs @ 4.84 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=173.00' TW=171.50' (Dynamic Tailwater)
↑4=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4P: Raingarden 2



Stage-Area-Storage for Pond 4P: Raingarden 2

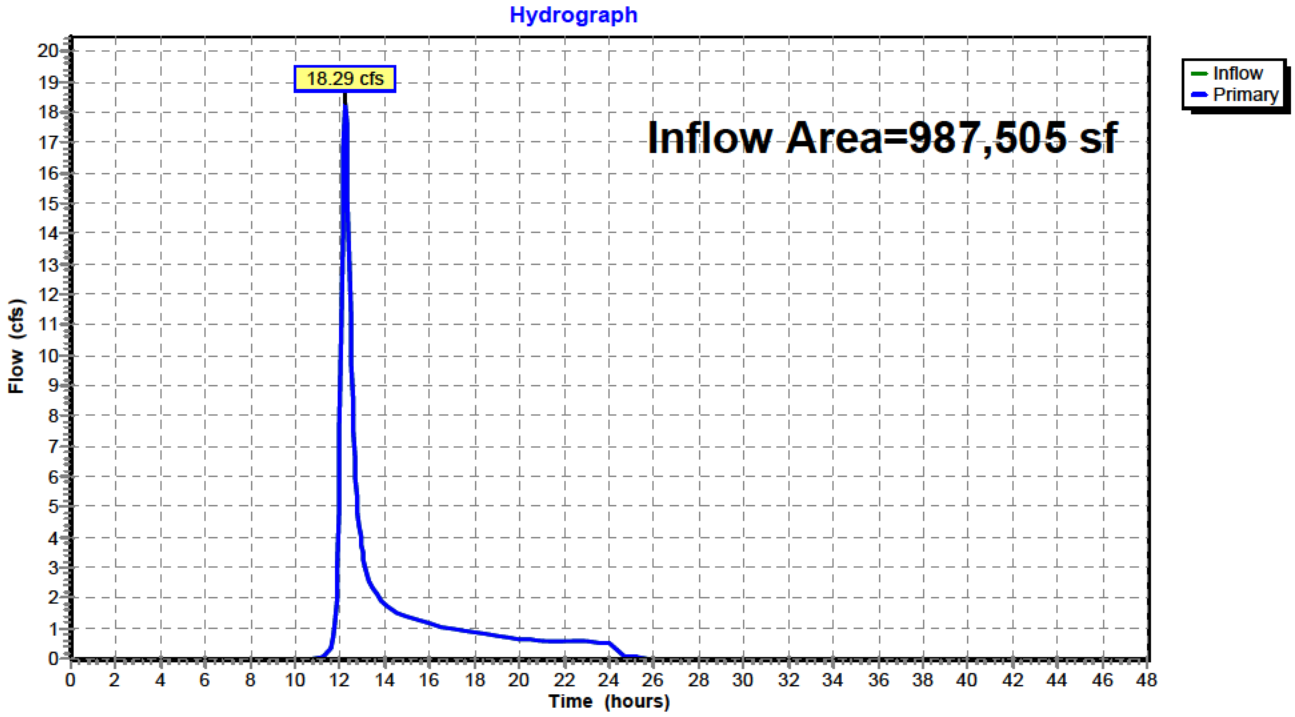
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
173.00	1,085	0
173.02	1,111	22
173.04	1,136	44
173.06	1,162	67
173.08	1,188	91
173.10	1,214	115
173.12	1,239	139
173.14	1,265	165
173.16	1,291	190
173.18	1,316	216
173.20	1,342	243
173.22	1,368	270
173.24	1,394	297
173.26	1,419	326
173.28	1,445	354
173.30	1,471	383
173.32	1,497	413
173.34	1,522	443
173.36	1,548	474
173.38	1,574	505
173.40	1,599	537
173.42	1,625	569
173.44	1,651	602
173.46	1,677	635
173.48	1,702	669
173.50	1,728	703
173.52	1,754	738
173.54	1,779	773
173.56	1,805	809
173.58	1,831	846
173.60	1,857	882
173.62	1,882	920
173.64	1,908	958
173.66	1,934	996
173.68	1,959	1,035
173.70	1,985	1,075
173.72	2,011	1,115
173.74	2,037	1,155
173.76	2,062	1,196
173.78	2,088	1,238
173.80	2,114	1,280
173.82	2,140	1,322
173.84	2,165	1,365
173.86	2,191	1,409
173.88	2,217	1,453
173.90	2,242	1,497
173.92	2,268	1,542
173.94	2,294	1,588
173.96	2,320	1,634
173.98	2,345	1,681
174.00	2,371	1,728
174.02	2,405	1,776
174.04	2,439	1,824
174.06	2,473	1,873
174.08	2,507	1,923
174.10	2,542	1,974
174.12	2,576	2,025
174.14	2,610	2,077
174.16	2,644	2,129
174.18	2,678	2,182
174.20	2,712	2,236
174.22	2,746	2,291
174.24	2,780	2,346
174.26	2,815	2,402
174.28	2,849	2,459
174.30	2,883	2,516
174.32	2,917	2,574
174.34	2,951	2,633
174.36	2,985	2,692
174.38	3,019	2,752
174.40	3,053	2,813
174.42	3,088	2,874
174.44	3,122	2,936
174.46	3,156	2,999
174.48	3,190	3,063
174.50	3,224	3,127
174.52	3,258	3,192
174.54	3,292	3,257
174.56	3,326	3,323
174.58	3,360	3,390
174.60	3,395	3,458
174.62	3,429	3,526
174.64	3,463	3,595
174.66	3,497	3,664
174.68	3,531	3,735
174.70	3,565	3,806
174.72	3,599	3,877
174.74	3,633	3,950
174.76	3,668	4,023
174.78	3,702	4,096
174.80	3,736	4,171
174.82	3,770	4,246
174.84	3,804	4,322
174.86	3,838	4,398
174.88	3,872	4,475
174.90	3,906	4,553
174.92	3,941	4,631
174.94	3,975	4,710
174.96	4,009	4,790
174.98	4,043	4,871
175.00	**4,077**	**4,952**

Summary for Link 5L: Post POI 1

Inflow Area = 987,505 sf, 0.00% Impervious, Inflow Depth > 0.98" for 2-Year event
Inflow = 18.29 cfs @ 12.23 hrs, Volume= 80,437 cf
Primary = 18.29 cfs @ 12.23 hrs, Volume= 80,437 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Post POI 1



Summary for Subcatchment 1S: Pre POI 1

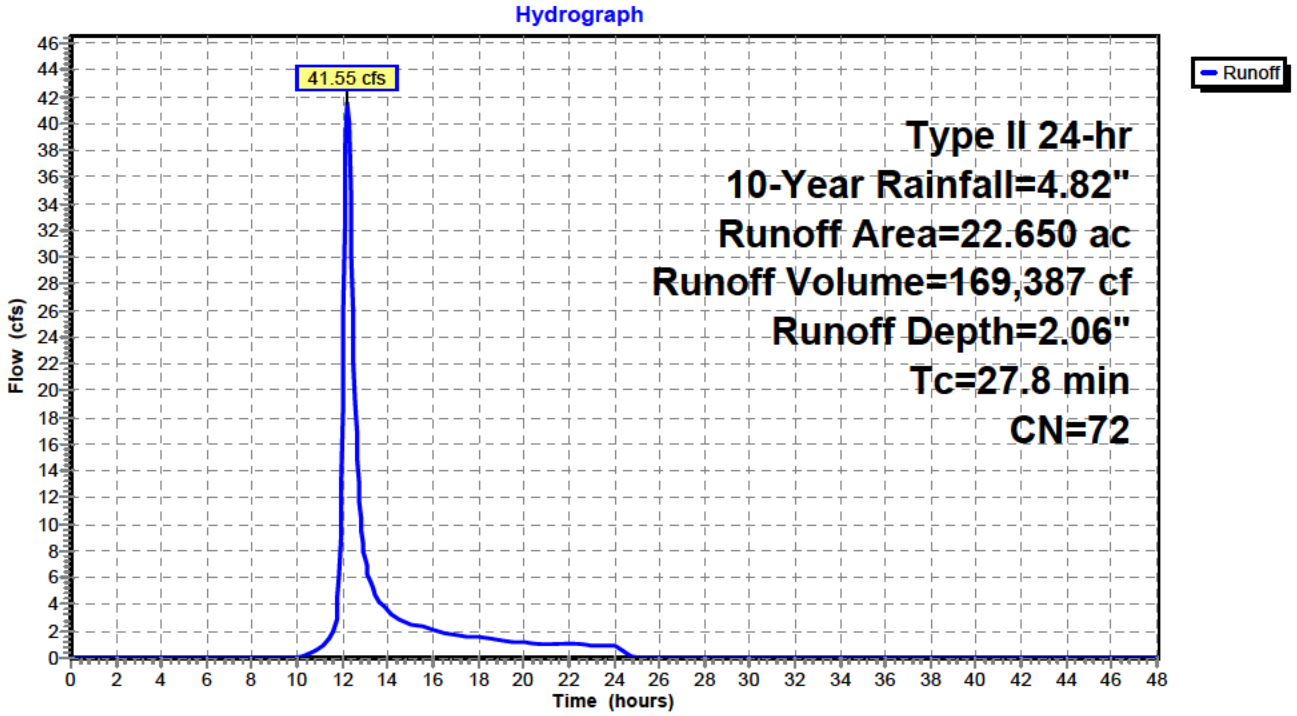
Runoff = 41.55 cfs @ 12.23 hrs, Volume= 169,387 cf, Depth= 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.82"

	Area (ac)	CN	Description
*	22.650	72	
	22.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8					**Direct Entry,**

Subcatchment 1S: Pre POI 1



Summary for Subcatchment 2S: Raingarden 2

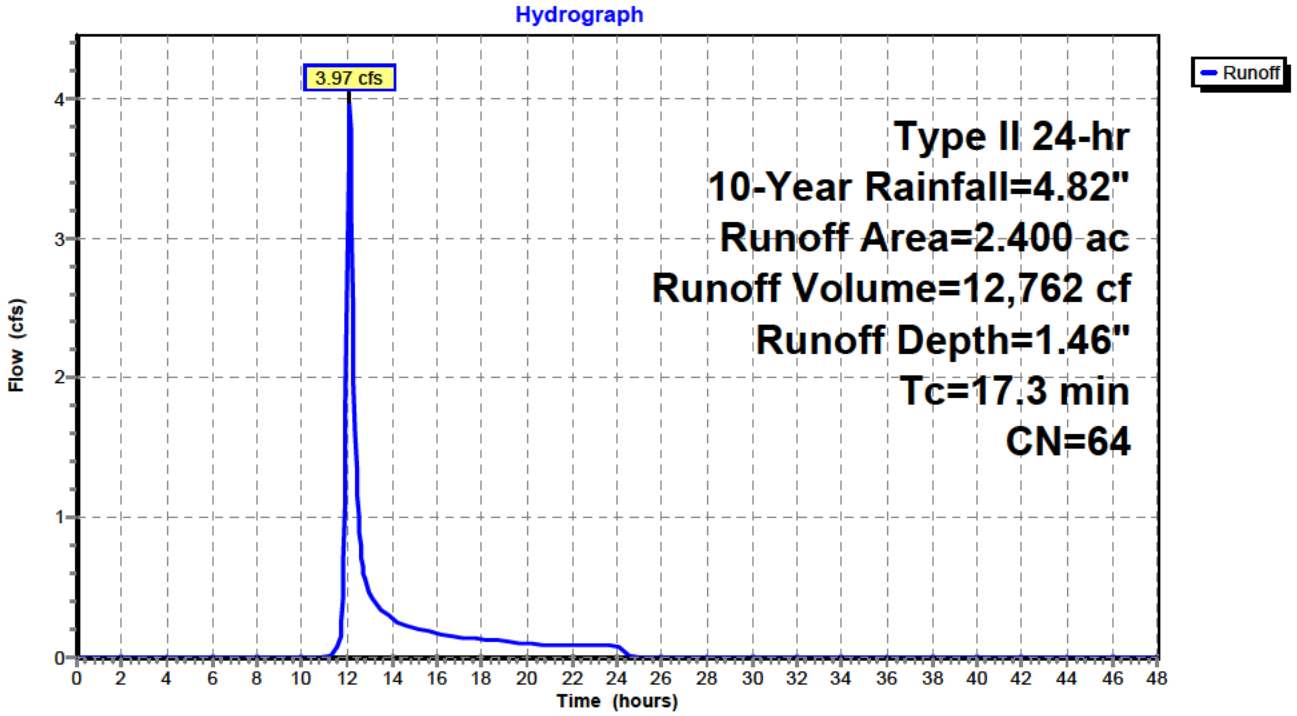
Runoff = 3.97 cfs @ 12.11 hrs, Volume= 12,762 cf, Depth= 1.46"
Routed to Pond 4P : Raingarden 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.82"

	Area (ac)	CN	Description
*	2.400	64	
	2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3					**Direct Entry,**

Subcatchment 2S: Raingarden 2



Summary for Subcatchment 3S: Bypass

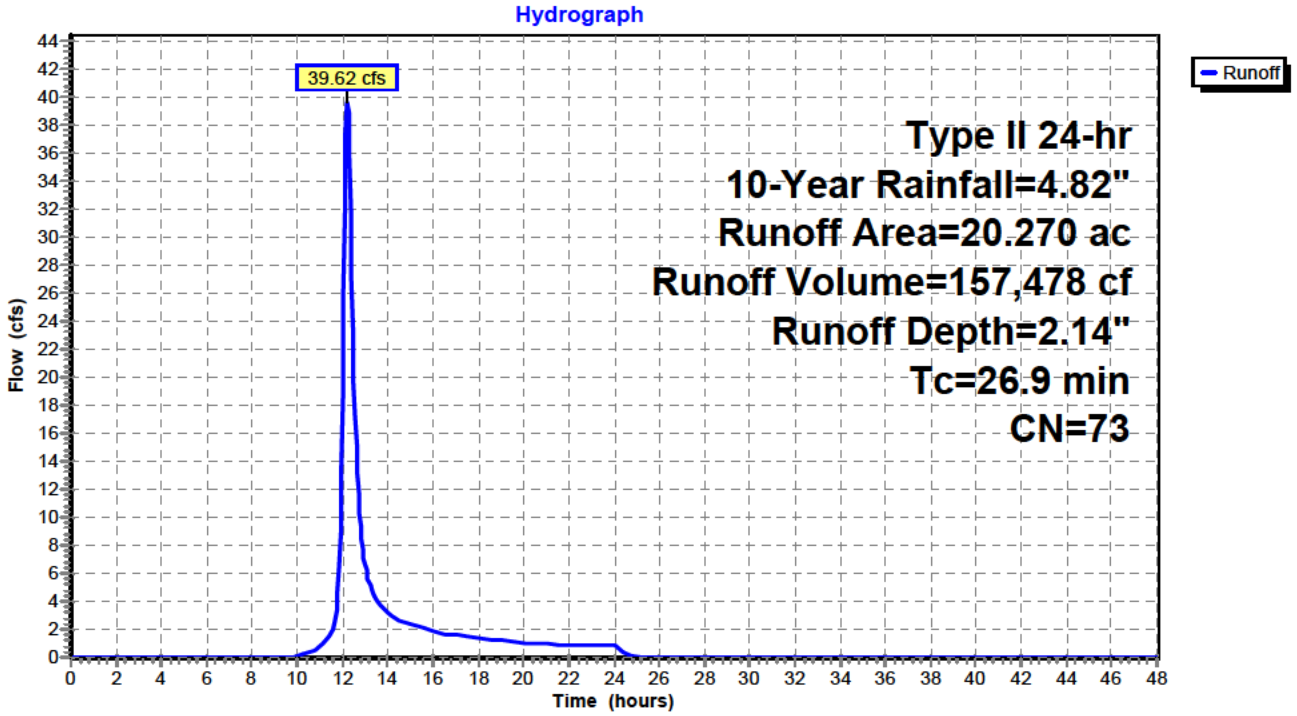
Runoff = 39.62 cfs @ 12.21 hrs, Volume= 157,478 cf, Depth= 2.14"
Routed to Link 5L : Post POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=4.82"

	Area (ac)	CN	Description
*	20.270	73	
	20.270		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9					**Direct Entry,**

Subcatchment 3S: Bypass



Summary for Reach 6R: Raingarden to POI

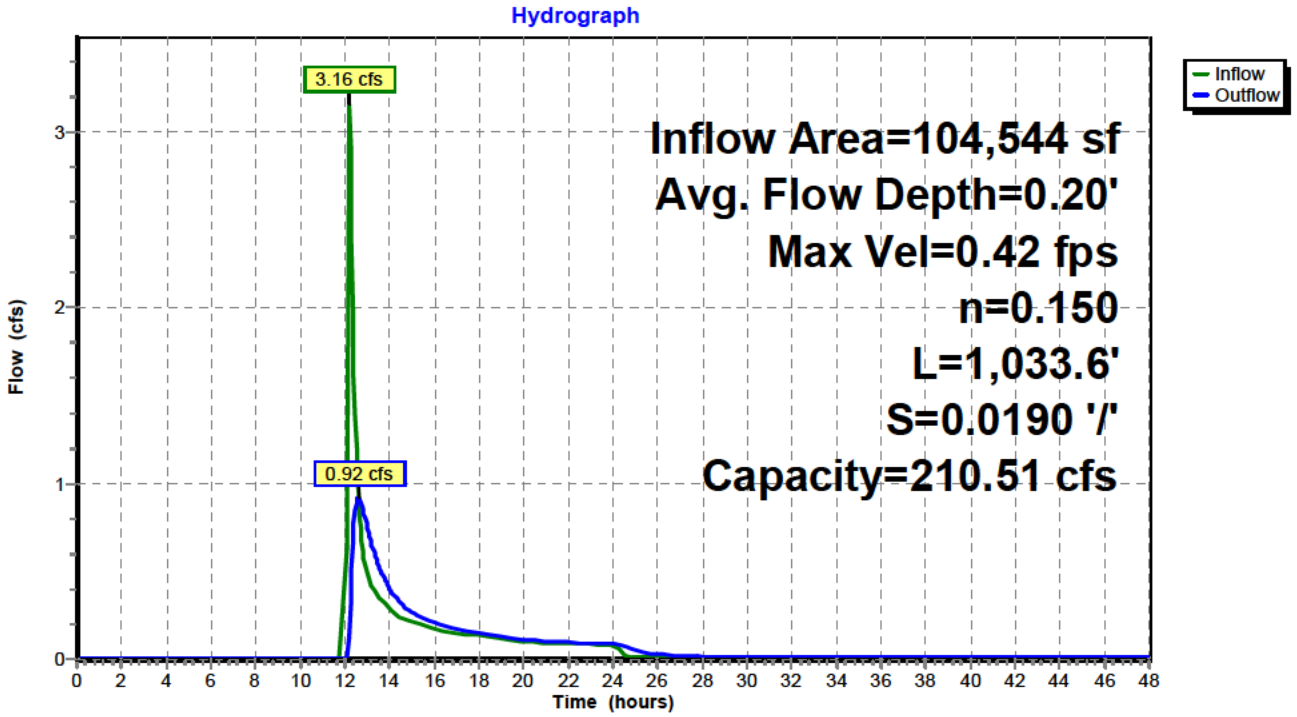
Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth > 1.25" for 10-Year event
Inflow = 3.16 cfs @ 12.22 hrs, Volume= 10,899 cf
Outflow = 0.92 cfs @ 12.60 hrs, Volume= 10,852 cf, Atten= 71%, Lag= 23.1 min
Routed to Link 5L : Post POI 1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.42 fps, Min. Travel Time= 40.7 min
Avg. Velocity = 0.17 fps, Avg. Travel Time= 102.2 min

Peak Storage= 2,250 cf @ 12.60 hrs
Average Depth at Peak Storage= 0.20' , Surface Width= 12.62'
Bank-Full Depth= 3.00' Flow Area= 108.0 sf, Capacity= 210.51 cfs

9.00' x 3.00' deep channel, n= 0.150 Sheet flow over Short Grass
Side Slope Z-value= 9.0 '/' Top Width= 63.00'
Length= 1,033.6' Slope= 0.0190 '/'
Inlet Invert= 171.50', Outlet Invert= 151.86'

Reach 6R: Raingarden to POI



Stage-Area-Storage for Reach 6R: Raingarden to POI

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
171.50	0.0	0
171.55	0.5	490
171.60	1.0	1,025
171.65	1.6	1,605
171.70	2.2	2,234
171.75	2.8	2,909
171.80	3.5	3,628
171.85	4.3	4,397
171.90	5.0	5,211
171.95	5.9	6,070
172.00	6.8	6,979
172.05	7.7	7,932
172.10	8.6	8,930
172.15	9.7	9,979
172.20	10.7	11,072
172.25	11.8	12,209
172.30	13.0	13,397
172.35	14.2	14,630
172.40	15.4	15,907
172.45	16.7	17,235
172.50	18.0	18,607
172.55	19.4	20,023
172.60	20.8	21,490
172.65	22.3	23,002
172.70	23.8	24,558
172.75	25.3	26,165
172.80	26.9	27,816
172.85	28.6	29,512
172.90	30.2	31,258
172.95	32.0	33,049
173.00	33.8	34,884
173.05	35.6	36,770
173.10	37.4	38,700
173.15	39.4	40,675
173.20	41.3	42,700
173.25	43.3	44,770
173.30	45.4	46,884
173.35	47.5	49,049
173.40	49.6	51,258
173.45	51.8	53,512
173.50	54.0	55,816
173.55	56.3	58,165
173.60	58.6	60,559
173.65	61.0	63,002
173.70	63.4	65,491
173.75	65.8	68,024
173.80	68.3	70,607
173.85	70.9	73,235
173.90	73.4	75,908
173.95	76.1	78,630
174.00	78.8	81,398
174.05	81.5	84,210
174.10	84.2	87,072
174.15	87.1	89,979
174.20	89.9	92,931
174.25	92.8	95,933
174.30	95.8	98,979
174.35	98.8	102,071
174.40	101.8	105,212
174.45	104.9	108,398
174.50	**108.0**	**111,629**

Summary for Pond 4P: Raingarden 2

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth = 1.46" for 10-Year event
Inflow = 3.97 cfs @ 12.11 hrs, Volume= 12,762 cf
Outflow = 3.16 cfs @ 12.22 hrs, Volume= 10,899 cf, Atten= 20%, Lag= 6.5 min
Primary = 3.16 cfs @ 12.22 hrs, Volume= 10,899 cf
Routed to Reach 6R : Raingarden to POI
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Reach 6R : Raingarden to POI

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 174.47' @ 12.22 hrs Surf.Area= 3,172 sf Storage= 3,029 cf

Plug-Flow detention time= 169.2 min calculated for 10,888 cf (85% of inflow)
Center-of-Mass det. time= 101.3 min (974.5 - 873.2)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	4,952 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

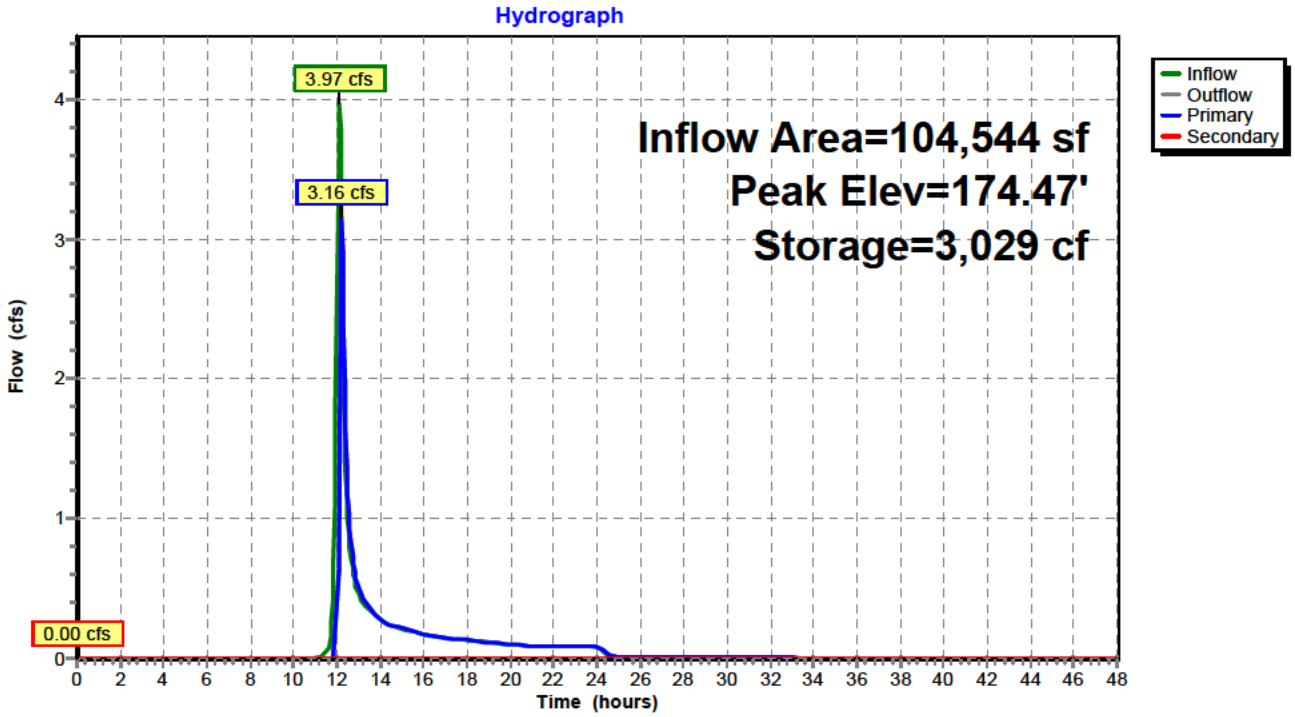
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	1,085	0	0
174.00	2,371	1,728	1,728
175.00	4,077	3,224	4,952

Device	Routing	Invert	Outlet Devices
#1	Primary	171.73'	**24.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 171.73' / 171.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	174.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.25'	**0.5" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	174.50'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.00 cfs @ 12.22 hrs HW=174.46' TW=171.58' (Dynamic Tailwater)
↑—**1=Culvert** (Passes 3.00 cfs of 18.49 cfs potential flow)
↑—**2=Grate** (Weir Controls 2.99 cfs @ 1.50 fps)
—**3=Orifice** (Orifice Controls 0.01 cfs @ 5.25 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=173.00' TW=171.50' (Dynamic Tailwater)
↑—**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 4P: Raingarden 2



Stage-Area-Storage for Pond 4P: Raingarden 2

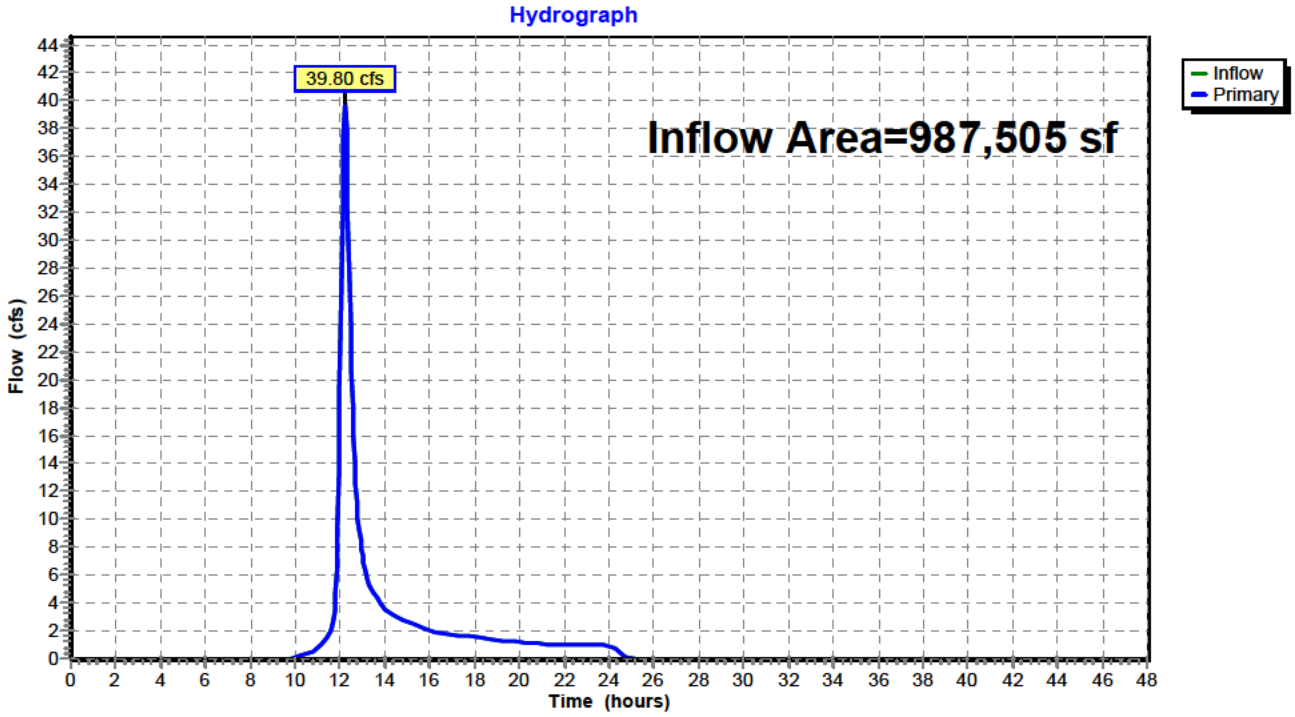
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
173.00	1,085	0
173.02	1,111	22
173.04	1,136	44
173.06	1,162	67
173.08	1,188	91
173.10	1,214	115
173.12	1,239	139
173.14	1,265	165
173.16	1,291	190
173.18	1,316	216
173.20	1,342	243
173.22	1,368	270
173.24	1,394	297
173.26	1,419	326
173.28	1,445	354
173.30	1,471	383
173.32	1,497	413
173.34	1,522	443
173.36	1,548	474
173.38	1,574	505
173.40	1,599	537
173.42	1,625	569
173.44	1,651	602
173.46	1,677	635
173.48	1,702	669
173.50	1,728	703
173.52	1,754	738
173.54	1,779	773
173.56	1,805	809
173.58	1,831	846
173.60	1,857	882
173.62	1,882	920
173.64	1,908	958
173.66	1,934	996
173.68	1,959	1,035
173.70	1,985	1,075
173.72	2,011	1,115
173.74	2,037	1,155
173.76	2,062	1,196
173.78	2,088	1,238
173.80	2,114	1,280
173.82	2,140	1,322
173.84	2,165	1,365
173.86	2,191	1,409
173.88	2,217	1,453
173.90	2,242	1,497
173.92	2,268	1,542
173.94	2,294	1,588
173.96	2,320	1,634
173.98	2,345	1,681
174.00	2,371	1,728
174.02	2,405	1,776
174.04	2,439	1,824
174.06	2,473	1,873
174.08	2,507	1,923
174.10	2,542	1,974
174.12	2,576	2,025
174.14	2,610	2,077
174.16	2,644	2,129
174.18	2,678	2,182
174.20	2,712	2,236
174.22	2,746	2,291
174.24	2,780	2,346
174.26	2,815	2,402
174.28	2,849	2,459
174.30	2,883	2,516
174.32	2,917	2,574
174.34	2,951	2,633
174.36	2,985	2,692
174.38	3,019	2,752
174.40	3,053	2,813
174.42	3,088	2,874
174.44	3,122	2,936
174.46	3,156	2,999
174.48	3,190	3,063
174.50	3,224	3,127
174.52	3,258	3,192
174.54	3,292	3,257
174.56	3,326	3,323
174.58	3,360	3,390
174.60	3,395	3,458
174.62	3,429	3,526
174.64	3,463	3,595
174.66	3,497	3,664
174.68	3,531	3,735
174.70	3,565	3,806
174.72	3,599	3,877
174.74	3,633	3,950
174.76	3,668	4,023
174.78	3,702	4,096
174.80	3,736	4,171
174.82	3,770	4,246
174.84	3,804	4,322
174.86	3,838	4,398
174.88	3,872	4,475
174.90	3,906	4,553
174.92	3,941	4,631
174.94	3,975	4,710
174.96	4,009	4,790
174.98	4,043	4,871
175.00	**4,077**	**4,952**

Summary for Link 5L: Post POI 1

Inflow Area = 987,505 sf, 0.00% Impervious, Inflow Depth > 2.05" for 10-Year event
Inflow = 39.80 cfs @ 12.22 hrs, Volume= 168,330 cf
Primary = 39.80 cfs @ 12.22 hrs, Volume= 168,330 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Post POI 1



Summary for Subcatchment 1S: Pre POI 1

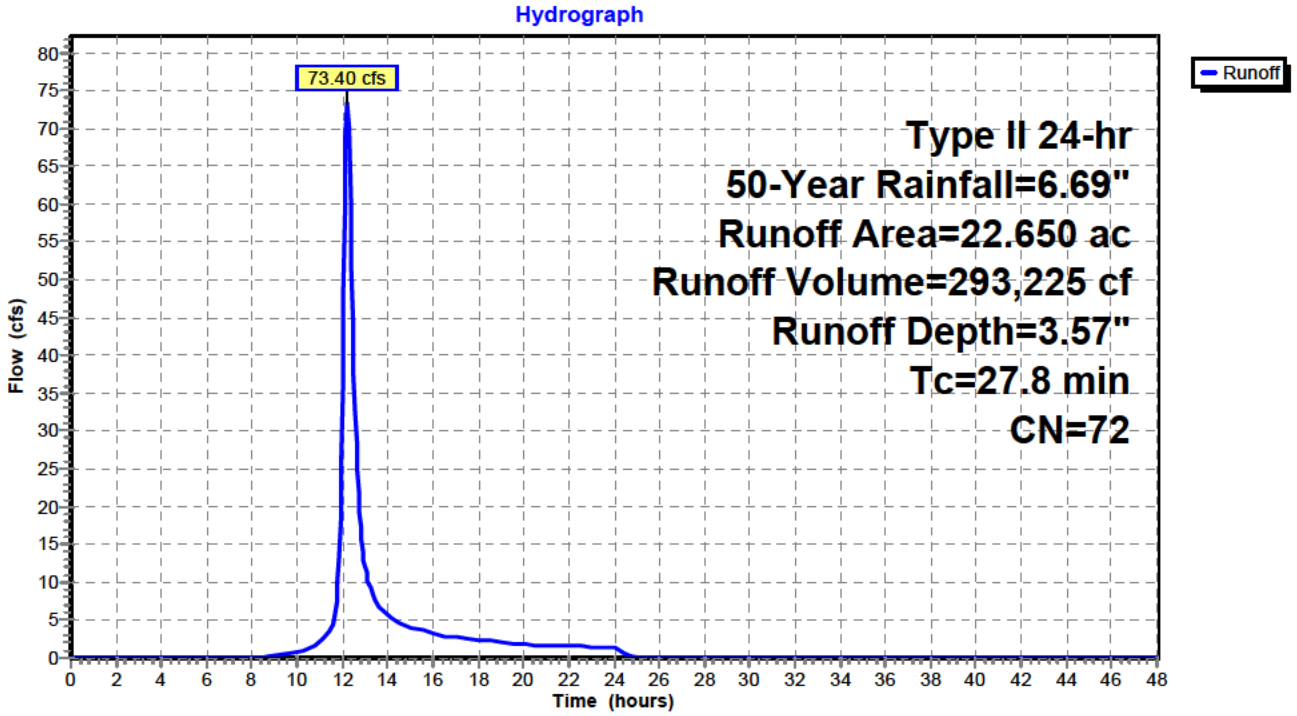
Runoff = 73.40 cfs @ 12.22 hrs, Volume= 293,225 cf, Depth= 3.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-Year Rainfall=6.69"

	Area (ac)	CN	Description
*	22.650	72	
	22.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8					**Direct Entry,**

Subcatchment 1S: Pre POI 1



Summary for Subcatchment 2S: Raingarden 2

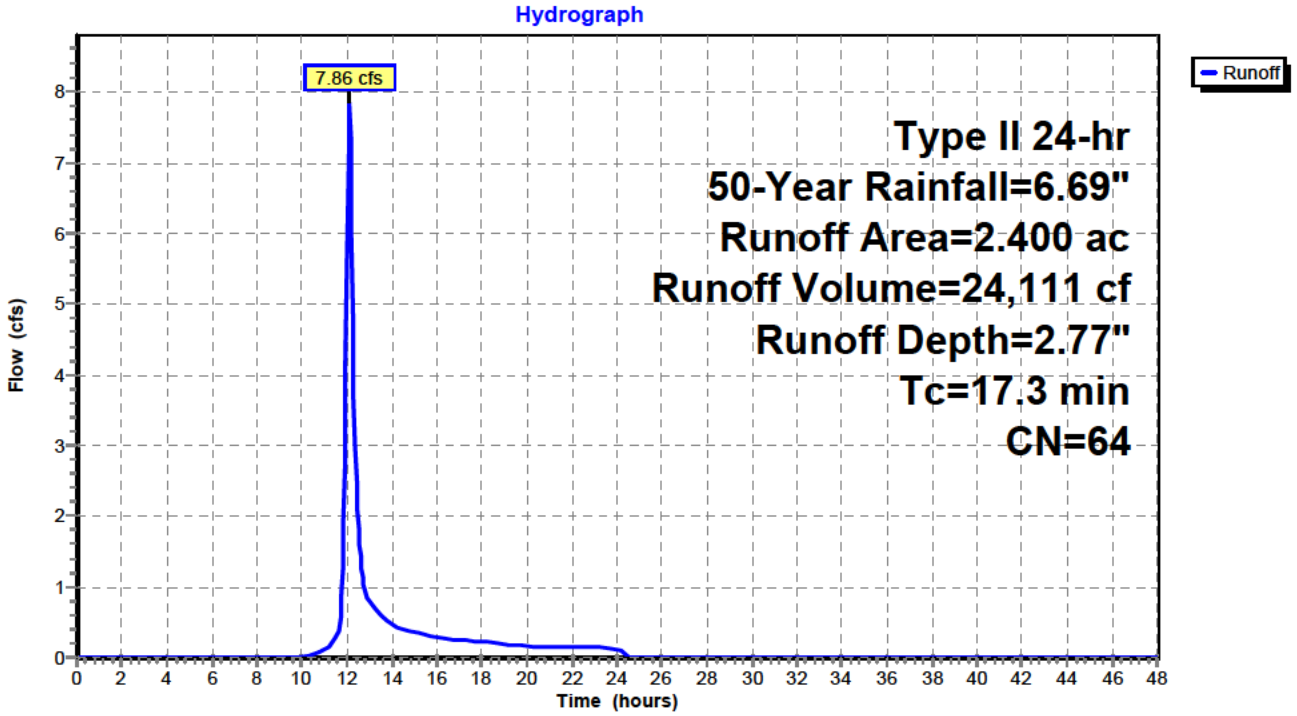
Runoff = 7.86 cfs @ 12.10 hrs, Volume= 24,111 cf, Depth= 2.77"
Routed to Pond 4P : Raingarden 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-Year Rainfall=6.69"

	Area (ac)	CN	Description
*	2.400	64	
	2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3					**Direct Entry,**

Subcatchment 2S: Raingarden 2



Summary for Subcatchment 3S: Bypass

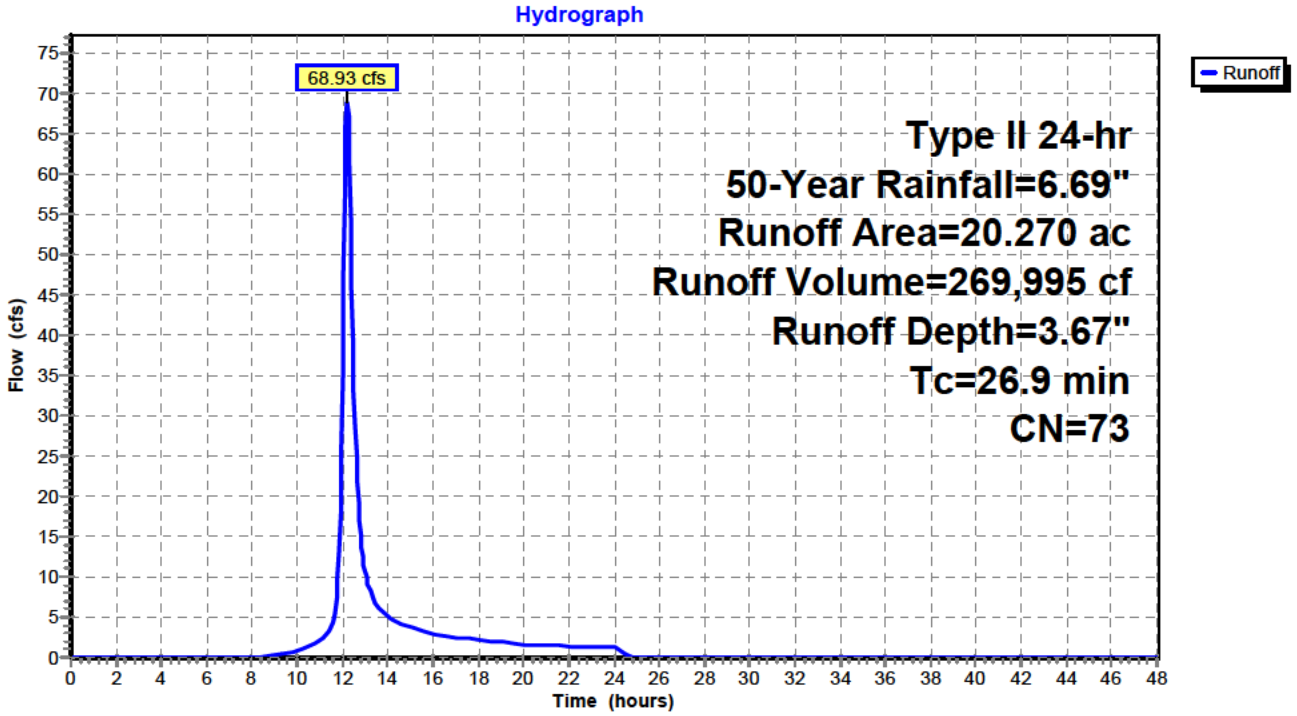
Runoff = 68.93 cfs @ 12.21 hrs, Volume= 269,995 cf, Depth= 3.67"
Routed to Link 5L : Post POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 50-Year Rainfall=6.69"

	Area (ac)	CN	Description
*	20.270	73	
	20.270		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9					**Direct Entry,**

Subcatchment 3S: Bypass



Summary for Reach 6R: Raingarden to POI

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth > 2.55" for 50-Year event
Inflow = 7.72 cfs @ 12.13 hrs, Volume= 22,247 cf
Outflow = 3.26 cfs @ 12.37 hrs, Volume= 22,199 cf, Atten= 58%, Lag= 14.9 min
Routed to Link 5L : Post POI 1

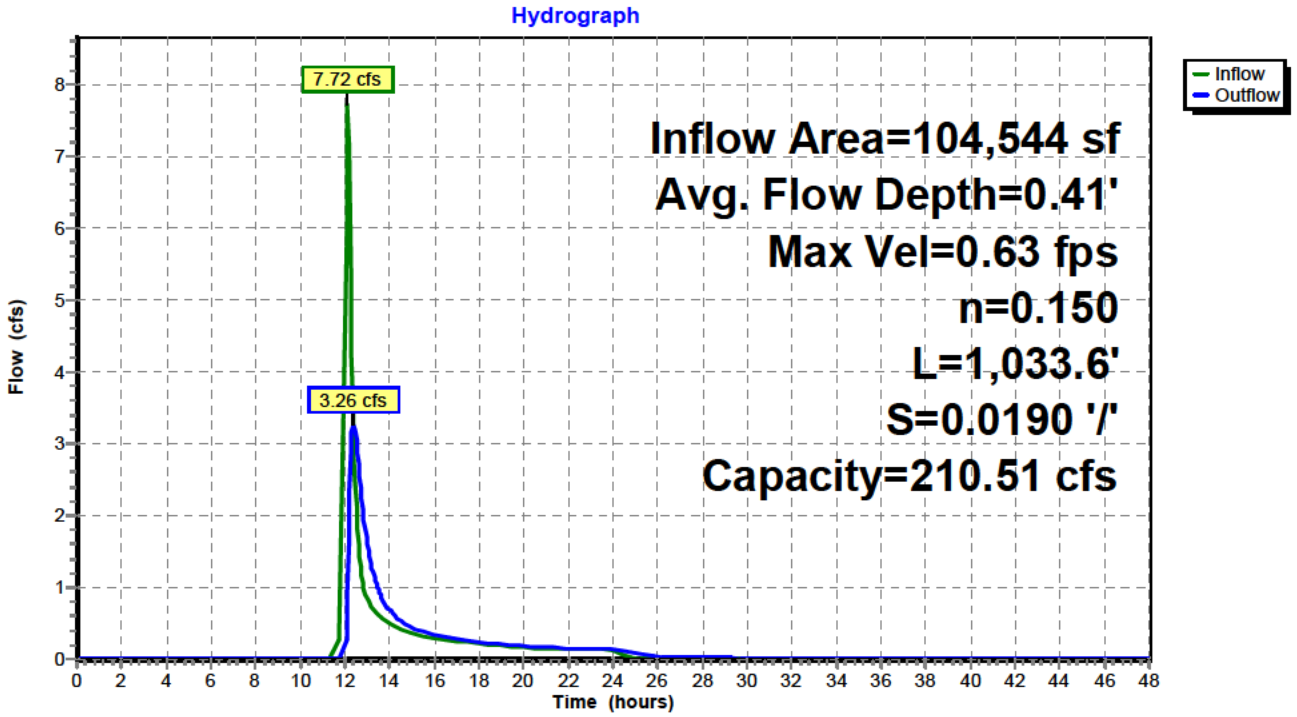
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.63 fps, Min. Travel Time= 27.3 min
Avg. Velocity = 0.19 fps, Avg. Travel Time= 91.4 min

Peak Storage= 5,328 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.41' , Surface Width= 16.32'
Bank-Full Depth= 3.00' Flow Area= 108.0 sf, Capacity= 210.51 cfs

9.00' x 3.00' deep channel, n= 0.150 Sheet flow over Short Grass
Side Slope Z-value= 9.0 '/' Top Width= 63.00'
Length= 1,033.6' Slope= 0.0190 '/'
Inlet Invert= 171.50', Outlet Invert= 151.86'

‡

Reach 6R: Raingarden to POI



Stage-Area-Storage for Reach 6R: Raingarden to POI

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
171.50	0.0	0
171.55	0.5	490
171.60	1.0	1,025
171.65	1.6	1,605
171.70	2.2	2,234
171.75	2.8	2,909
171.80	3.5	3,628
171.85	4.3	4,397
171.90	5.0	5,211
171.95	5.9	6,070
172.00	6.8	6,979
172.05	7.7	7,932
172.10	8.6	8,930
172.15	9.7	9,979
172.20	10.7	11,072
172.25	11.8	12,209
172.30	13.0	13,397
172.35	14.2	14,630
172.40	15.4	15,907
172.45	16.7	17,235
172.50	18.0	18,607
172.55	19.4	20,023
172.60	20.8	21,490
172.65	22.3	23,002
172.70	23.8	24,558
172.75	25.3	26,165
172.80	26.9	27,816
172.85	28.6	29,512
172.90	30.2	31,258
172.95	32.0	33,049
173.00	33.8	34,884
173.05	35.6	36,770
173.10	37.4	38,700
173.15	39.4	40,675
173.20	41.3	42,700
173.25	43.3	44,770
173.30	45.4	46,884
173.35	47.5	49,049
173.40	49.6	51,258
173.45	51.8	53,512
173.50	54.0	55,816
173.55	56.3	58,165
173.60	58.6	60,559
173.65	61.0	63,002
173.70	63.4	65,491
173.75	65.8	68,024
173.80	68.3	70,607
173.85	70.9	73,235
173.90	73.4	75,908
173.95	76.1	78,630
174.00	78.8	81,398
174.05	81.5	84,210
174.10	84.2	87,072
174.15	87.1	89,979
174.20	89.9	92,931
174.25	92.8	95,933
174.30	95.8	98,979
174.35	98.8	102,071
174.40	101.8	105,212
174.45	104.9	108,398
174.50	**108.0**	**111,629**

Summary for Pond 4P: Raingarden 2

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth = 2.77" for 50-Year event
Inflow = 7.86 cfs @ 12.10 hrs, Volume= 24,111 cf
Outflow = 7.72 cfs @ 12.13 hrs, Volume= 22,247 cf, Atten= 2%, Lag= 1.3 min
Primary = 6.53 cfs @ 12.13 hrs, Volume= 21,501 cf
Routed to Reach 6R : Raingarden to POI
Secondary = 1.19 cfs @ 12.13 hrs, Volume= 745 cf
Routed to Reach 6R : Raingarden to POI

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 174.61' @ 12.13 hrs Surf.Area= 3,403 sf Storage= 3,475 cf

Plug-Flow detention time= 91.3 min calculated for 22,223 cf (92% of inflow)
Center-of-Mass det. time= 51.7 min (905.5 - 853.8)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	4,952 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

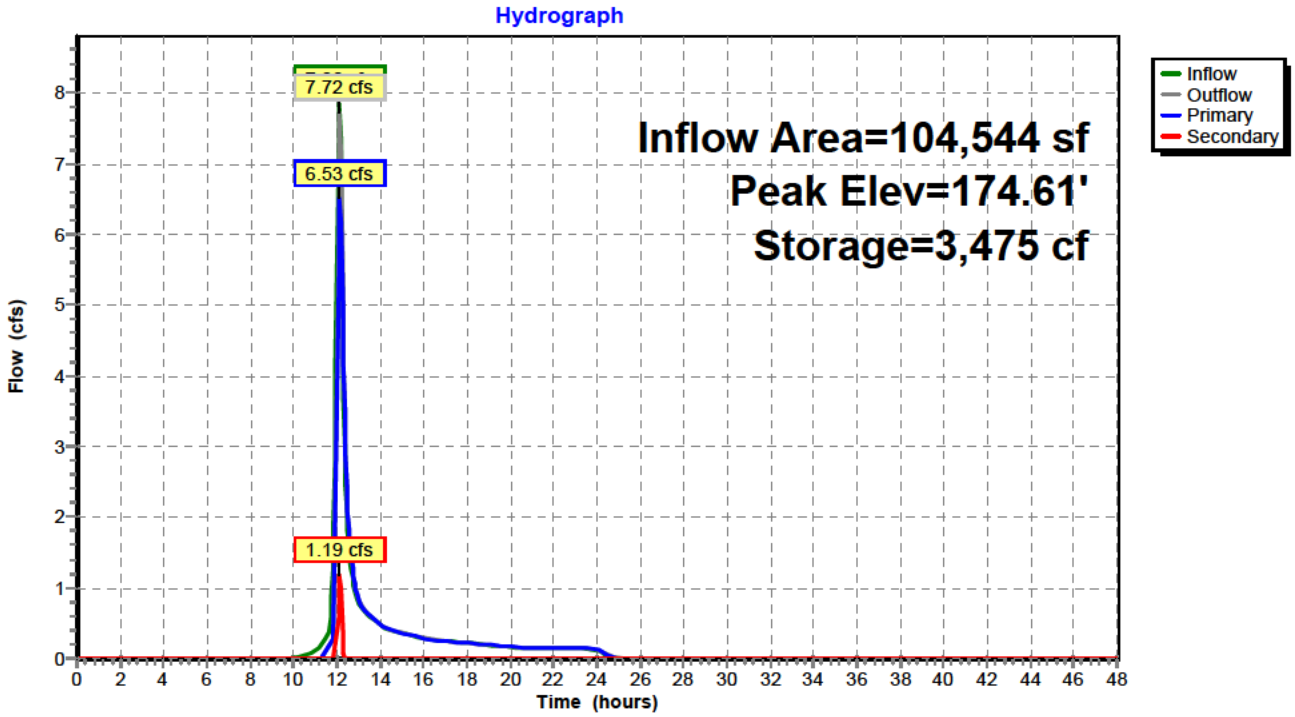
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	1,085	0	0
174.00	2,371	1,728	1,728
175.00	4,077	3,224	4,952

Device	Routing	Invert	Outlet Devices
#1	Primary	171.73'	**24.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 171.73' / 171.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	174.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.25'	**0.5" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	174.50'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=6.46 cfs @ 12.13 hrs HW=174.60' TW=171.73' (Dynamic Tailwater)
└**1=Culvert** (Passes 6.46 cfs of 19.80 cfs potential flow)
└**2=Grate** (Weir Controls 6.45 cfs @ 1.94 fps)
└**3=Orifice** (Orifice Controls 0.01 cfs @ 5.56 fps)

Secondary OutFlow Max=1.15 cfs @ 12.13 hrs HW=174.60' TW=171.73' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 1.15 cfs @ 0.75 fps)

Pond 4P: Raingarden 2



Stage-Area-Storage for Pond 4P: Raingarden 2

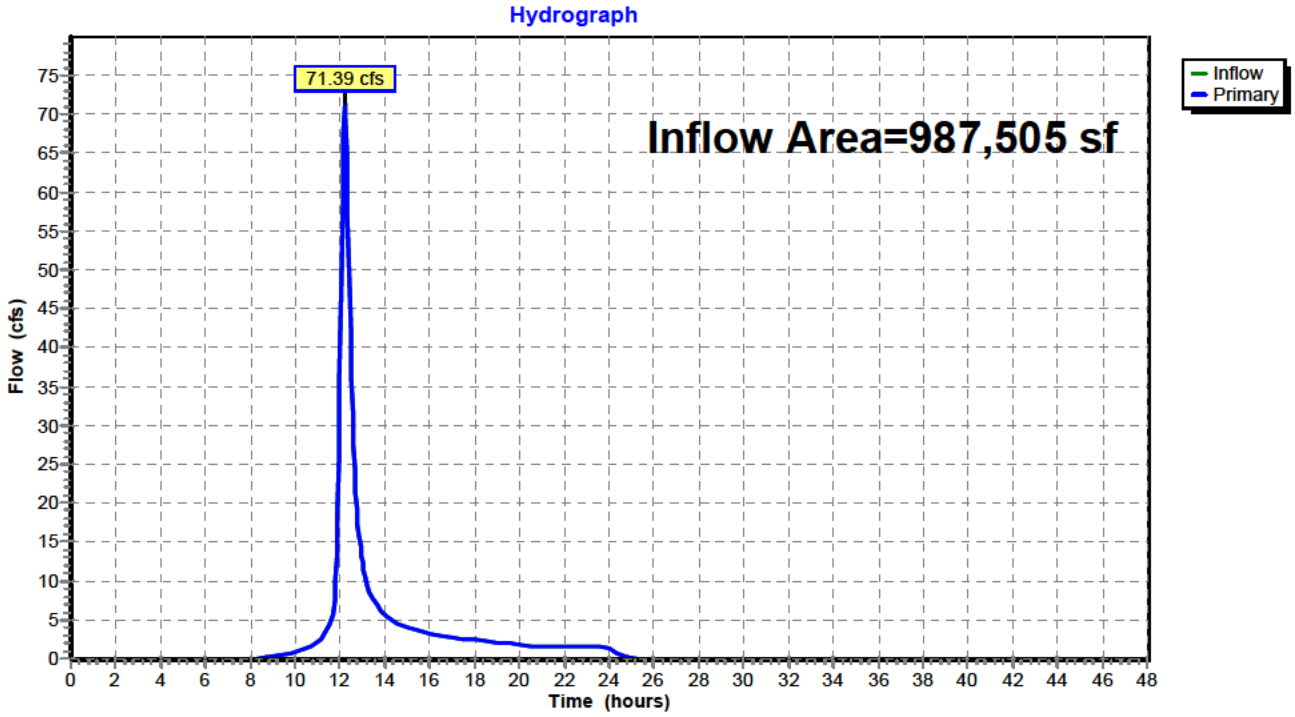
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
173.00	1,085	0
173.02	1,111	22
173.04	1,136	44
173.06	1,162	67
173.08	1,188	91
173.10	1,214	115
173.12	1,239	139
173.14	1,265	165
173.16	1,291	190
173.18	1,316	216
173.20	1,342	243
173.22	1,368	270
173.24	1,394	297
173.26	1,419	326
173.28	1,445	354
173.30	1,471	383
173.32	1,497	413
173.34	1,522	443
173.36	1,548	474
173.38	1,574	505
173.40	1,599	537
173.42	1,625	569
173.44	1,651	602
173.46	1,677	635
173.48	1,702	669
173.50	1,728	703
173.52	1,754	738
173.54	1,779	773
173.56	1,805	809
173.58	1,831	846
173.60	1,857	882
173.62	1,882	920
173.64	1,908	958
173.66	1,934	996
173.68	1,959	1,035
173.70	1,985	1,075
173.72	2,011	1,115
173.74	2,037	1,155
173.76	2,062	1,196
173.78	2,088	1,238
173.80	2,114	1,280
173.82	2,140	1,322
173.84	2,165	1,365
173.86	2,191	1,409
173.88	2,217	1,453
173.90	2,242	1,497
173.92	2,268	1,542
173.94	2,294	1,588
173.96	2,320	1,634
173.98	2,345	1,681
174.00	2,371	1,728
174.02	2,405	1,776
174.04	2,439	1,824
174.06	2,473	1,873
174.08	2,507	1,923
174.10	2,542	1,974
174.12	2,576	2,025
174.14	2,610	2,077
174.16	2,644	2,129
174.18	2,678	2,182
174.20	2,712	2,236
174.22	2,746	2,291
174.24	2,780	2,346
174.26	2,815	2,402
174.28	2,849	2,459
174.30	2,883	2,516
174.32	2,917	2,574
174.34	2,951	2,633
174.36	2,985	2,692
174.38	3,019	2,752
174.40	3,053	2,813
174.42	3,088	2,874
174.44	3,122	2,936
174.46	3,156	2,999
174.48	3,190	3,063
174.50	3,224	3,127
174.52	3,258	3,192
174.54	3,292	3,257
174.56	3,326	3,323
174.58	3,360	3,390
174.60	3,395	3,458
174.62	3,429	3,526
174.64	3,463	3,595
174.66	3,497	3,664
174.68	3,531	3,735
174.70	3,565	3,806
174.72	3,599	3,877
174.74	3,633	3,950
174.76	3,668	4,023
174.78	3,702	4,096
174.80	3,736	4,171
174.82	3,770	4,246
174.84	3,804	4,322
174.86	3,838	4,398
174.88	3,872	4,475
174.90	3,906	4,553
174.92	3,941	4,631
174.94	3,975	4,710
174.96	4,009	4,790
174.98	4,043	4,871
175.00	**4,077**	**4,952**

Summary for Link 5L: Post POI 1

Inflow Area = 987,505 sf, 0.00% Impervious, Inflow Depth = 3.55" for 50-Year event
Inflow = 71.39 cfs @ 12.21 hrs, Volume= 292,195 cf
Primary = 71.39 cfs @ 12.21 hrs, Volume= 292,195 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Post POI 1



Summary for Subcatchment 1S: Pre POI 1

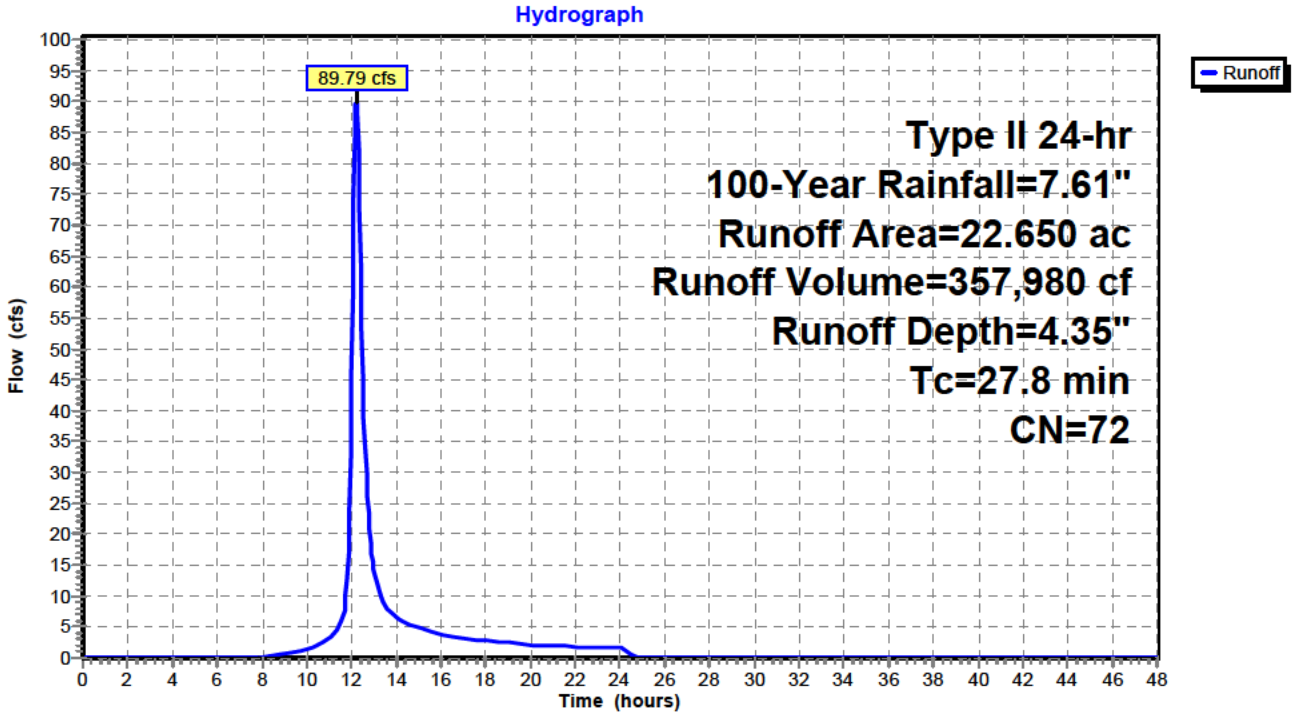
Runoff = 89.79 cfs @ 12.22 hrs, Volume= 357,980 cf, Depth= 4.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.61"

	Area (ac)	CN	Description
*	22.650	72	
	22.650		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
27.8					**Direct Entry,**

Subcatchment 1S: Pre POI 1



Summary for Subcatchment 2S: Raingarden 2

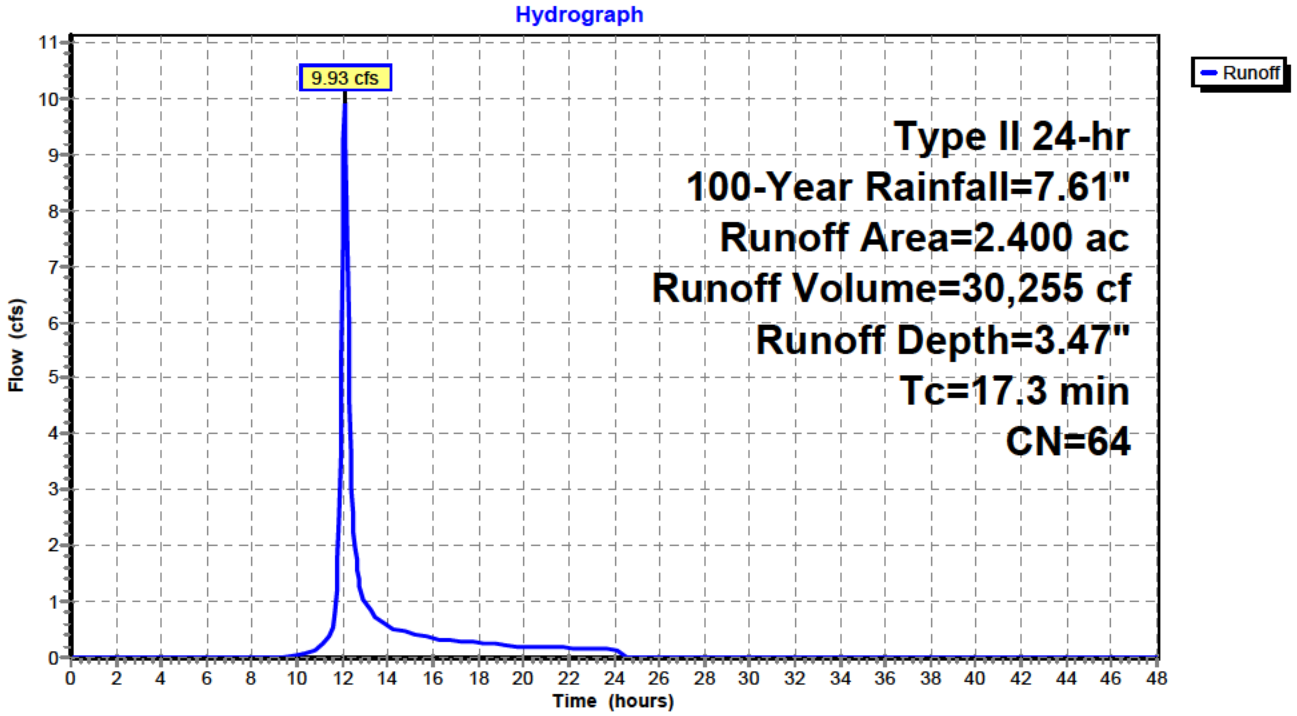
Runoff = 9.93 cfs @ 12.10 hrs, Volume= 30,255 cf, Depth= 3.47"
Routed to Pond 4P : Raingarden 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.61"

	Area (ac)	CN	Description
*	2.400	64	
	2.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.3					**Direct Entry,**

Subcatchment 2S: Raingarden 2



Summary for Subcatchment 3S: Bypass

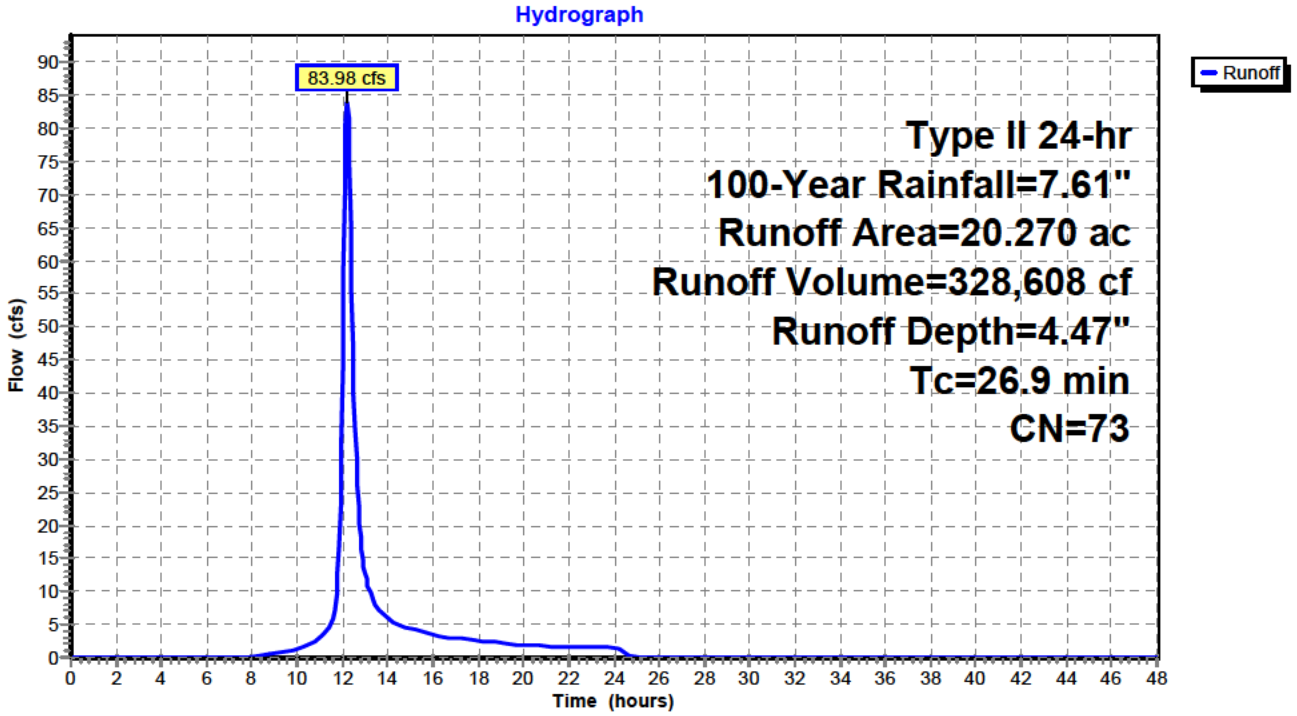
Runoff = 83.98 cfs @ 12.21 hrs, Volume= 328,608 cf, Depth= 4.47"
Routed to Link 5L : Post POI 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.61"

	Area (ac)	CN	Description
*	20.270	73	
	20.270		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.9					**Direct Entry,**

Subcatchment 3S: Bypass



Summary for Reach 6R: Raingarden to POI

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth > 3.26" for 100-Year event
Inflow = 9.81 cfs @ 12.12 hrs, Volume= 28,390 cf
Outflow = 4.73 cfs @ 12.33 hrs, Volume= 28,343 cf, Atten= 52%, Lag= 12.4 min
Routed to Link 5L : Post POI 1

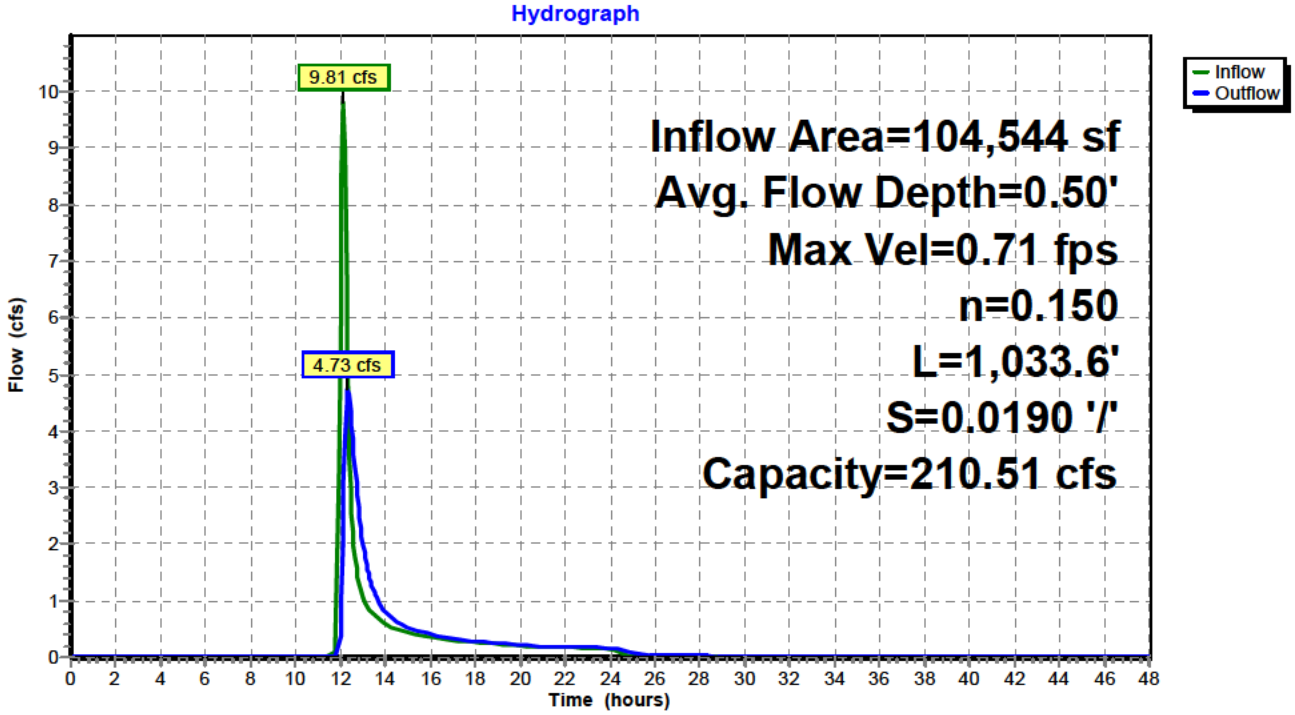
Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.71 fps, Min. Travel Time= 24.4 min
Avg. Velocity = 0.20 fps, Avg. Travel Time= 88.0 min

Peak Storage= 6,916 cf @ 12.33 hrs
Average Depth at Peak Storage= 0.50' , Surface Width= 17.94'
Bank-Full Depth= 3.00' Flow Area= 108.0 sf, Capacity= 210.51 cfs

9.00' x 3.00' deep channel, n= 0.150 Sheet flow over Short Grass
Side Slope Z-value= 9.0 '/' Top Width= 63.00'
Length= 1,033.6' Slope= 0.0190 '/'
Inlet Invert= 171.50', Outlet Invert= 151.86'

‡

Reach 6R: Raingarden to POI



Stage-Area-Storage for Reach 6R: Raingarden to POI

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
171.50	0.0	0
171.55	0.5	490
171.60	1.0	1,025
171.65	1.6	1,605
171.70	2.2	2,234
171.75	2.8	2,909
171.80	3.5	3,628
171.85	4.3	4,397
171.90	5.0	5,211
171.95	5.9	6,070
172.00	6.8	6,979
172.05	7.7	7,932
172.10	8.6	8,930
172.15	9.7	9,979
172.20	10.7	11,072
172.25	11.8	12,209
172.30	13.0	13,397
172.35	14.2	14,630
172.40	15.4	15,907
172.45	16.7	17,235
172.50	18.0	18,607
172.55	19.4	20,023
172.60	20.8	21,490
172.65	22.3	23,002
172.70	23.8	24,558
172.75	25.3	26,165
172.80	26.9	27,816
172.85	28.6	29,512
172.90	30.2	31,258
172.95	32.0	33,049
173.00	33.8	34,884
173.05	35.6	36,770
173.10	37.4	38,700
173.15	39.4	40,675
173.20	41.3	42,700
173.25	43.3	44,770
173.30	45.4	46,884
173.35	47.5	49,049
173.40	49.6	51,258
173.45	51.8	53,512
173.50	54.0	55,816
173.55	56.3	58,165
173.60	58.6	60,559
173.65	61.0	63,002
173.70	63.4	65,491
173.75	65.8	68,024
173.80	68.3	70,607
173.85	70.9	73,235
173.90	73.4	75,908
173.95	76.1	78,630
174.00	78.8	81,398
174.05	81.5	84,210
174.10	84.2	87,072
174.15	87.1	89,979
174.20	89.9	92,931
174.25	92.8	95,933
174.30	95.8	98,979
174.35	98.8	102,071
174.40	101.8	105,212
174.45	104.9	108,398
174.50	**108.0**	**111,629**

Summary for Pond 4P: Raingarden 2

Inflow Area = 104,544 sf, 0.00% Impervious, Inflow Depth = 3.47" for 100-Year event
Inflow = 9.93 cfs @ 12.10 hrs, Volume= 30,255 cf
Outflow = 9.81 cfs @ 12.12 hrs, Volume= 28,390 cf, Atten= 1%, Lag= 1.2 min
Primary = 7.79 cfs @ 12.12 hrs, Volume= 26,844 cf
Routed to Reach 6R : Raingarden to POI
Secondary = 2.03 cfs @ 12.12 hrs, Volume= 1,546 cf
Routed to Reach 6R : Raingarden to POI

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 174.65' @ 12.12 hrs Surf.Area= 3,479 sf Storage= 3,628 cf

Plug-Flow detention time= 74.2 min calculated for 28,360 cf (94% of inflow)
Center-of-Mass det. time= 41.9 min (889.1 - 847.2)

Volume	Invert	Avail.Storage	Storage Description
#1	173.00'	4,952 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

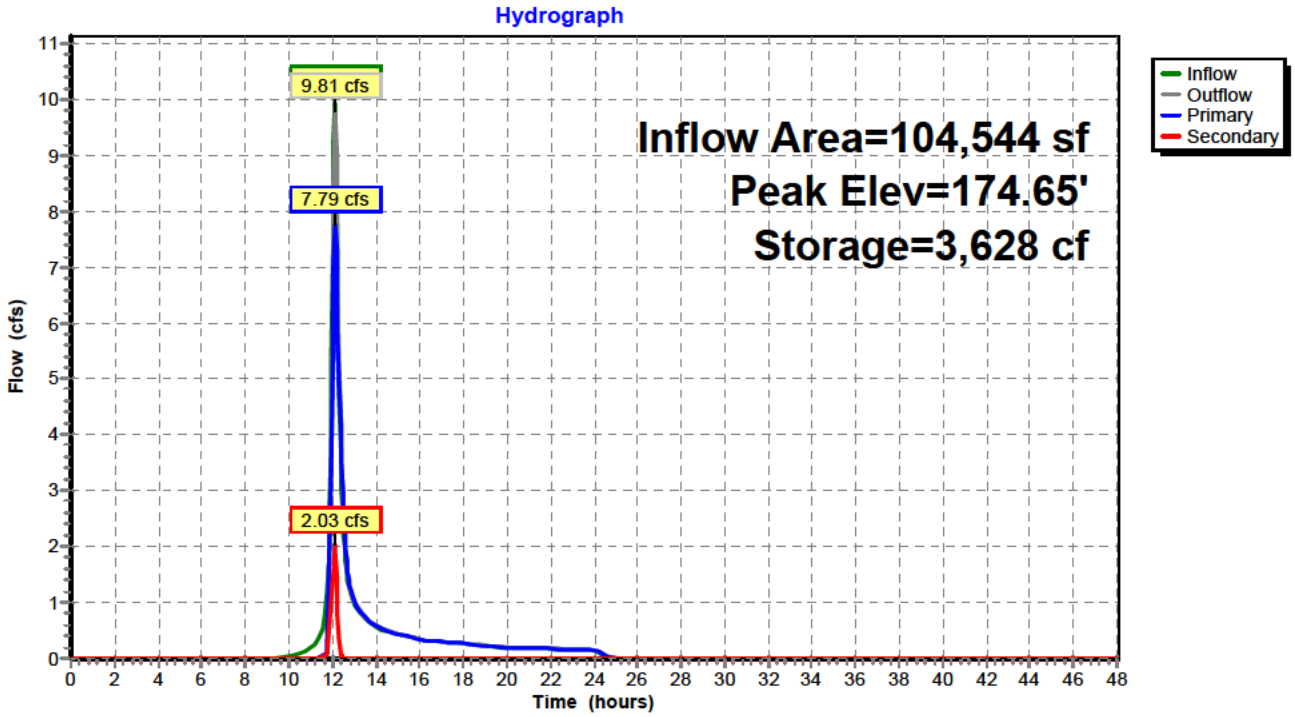
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
173.00	1,085	0	0
174.00	2,371	1,728	1,728
175.00	4,077	3,224	4,952

Device	Routing	Invert	Outlet Devices
#1	Primary	171.73'	**24.0" Round Culvert** L= 23.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 171.73' / 171.50' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 3.14 sf
#2	Device 1	174.25'	**36.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.25'	**0.5" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Secondary	174.50'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=7.69 cfs @ 12.12 hrs HW=174.65' TW=171.84' (Dynamic Tailwater)
└1=**Culvert** (Passes 7.69 cfs of 20.19 cfs potential flow)
└2=**Grate** (Weir Controls 7.68 cfs @ 2.06 fps)
└3=**Orifice** (Orifice Controls 0.01 cfs @ 5.65 fps)

Secondary OutFlow Max=1.96 cfs @ 12.12 hrs HW=174.65' TW=171.84' (Dynamic Tailwater)
└4=**Broad-Crested Rectangular Weir** (Weir Controls 1.96 cfs @ 0.89 fps)

Pond 4P: Raingarden 2



Stage-Area-Storage for Pond 4P: Raingarden 2

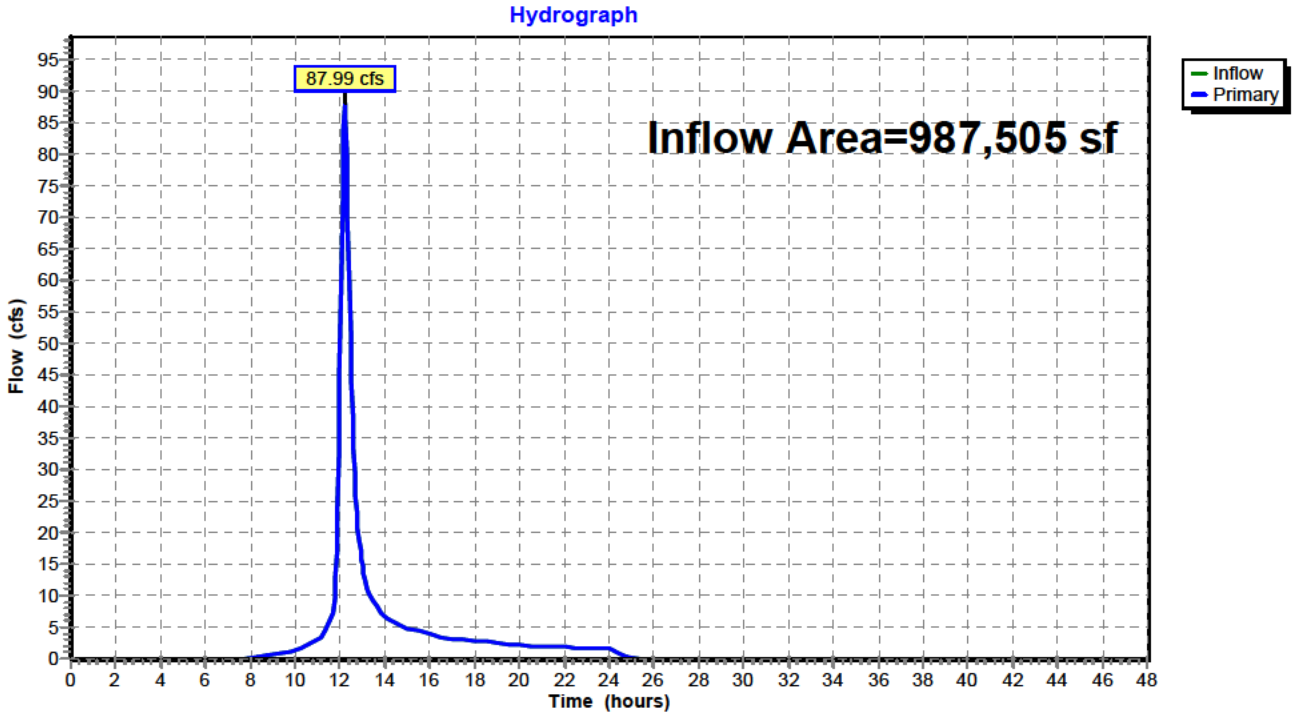
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
173.00	1,085	0
173.02	1,111	22
173.04	1,136	44
173.06	1,162	67
173.08	1,188	91
173.10	1,214	115
173.12	1,239	139
173.14	1,265	165
173.16	1,291	190
173.18	1,316	216
173.20	1,342	243
173.22	1,368	270
173.24	1,394	297
173.26	1,419	326
173.28	1,445	354
173.30	1,471	383
173.32	1,497	413
173.34	1,522	443
173.36	1,548	474
173.38	1,574	505
173.40	1,599	537
173.42	1,625	569
173.44	1,651	602
173.46	1,677	635
173.48	1,702	669
173.50	1,728	703
173.52	1,754	738
173.54	1,779	773
173.56	1,805	809
173.58	1,831	846
173.60	1,857	882
173.62	1,882	920
173.64	1,908	958
173.66	1,934	996
173.68	1,959	1,035
173.70	1,985	1,075
173.72	2,011	1,115
173.74	2,037	1,155
173.76	2,062	1,196
173.78	2,088	1,238
173.80	2,114	1,280
173.82	2,140	1,322
173.84	2,165	1,365
173.86	2,191	1,409
173.88	2,217	1,453
173.90	2,242	1,497
173.92	2,268	1,542
173.94	2,294	1,588
173.96	2,320	1,634
173.98	2,345	1,681
174.00	2,371	1,728
174.02	2,405	1,776
174.04	2,439	1,824
174.06	2,473	1,873
174.08	2,507	1,923
174.10	2,542	1,974
174.12	2,576	2,025
174.14	2,610	2,077
174.16	2,644	2,129
174.18	2,678	2,182
174.20	2,712	2,236
174.22	2,746	2,291
174.24	2,780	2,346
174.26	2,815	2,402
174.28	2,849	2,459
174.30	2,883	2,516
174.32	2,917	2,574
174.34	2,951	2,633
174.36	2,985	2,692
174.38	3,019	2,752
174.40	3,053	2,813
174.42	3,088	2,874
174.44	3,122	2,936
174.46	3,156	2,999
174.48	3,190	3,063
174.50	3,224	3,127
174.52	3,258	3,192
174.54	3,292	3,257
174.56	3,326	3,323
174.58	3,360	3,390
174.60	3,395	3,458
174.62	3,429	3,526
174.64	3,463	3,595
174.66	3,497	3,664
174.68	3,531	3,735
174.70	3,565	3,806
174.72	3,599	3,877
174.74	3,633	3,950
174.76	3,668	4,023
174.78	3,702	4,096
174.80	3,736	4,171
174.82	3,770	4,246
174.84	3,804	4,322
174.86	3,838	4,398
174.88	3,872	4,475
174.90	3,906	4,553
174.92	3,941	4,631
174.94	3,975	4,710
174.96	4,009	4,790
174.98	4,043	4,871
175.00	**4,077**	**4,952**

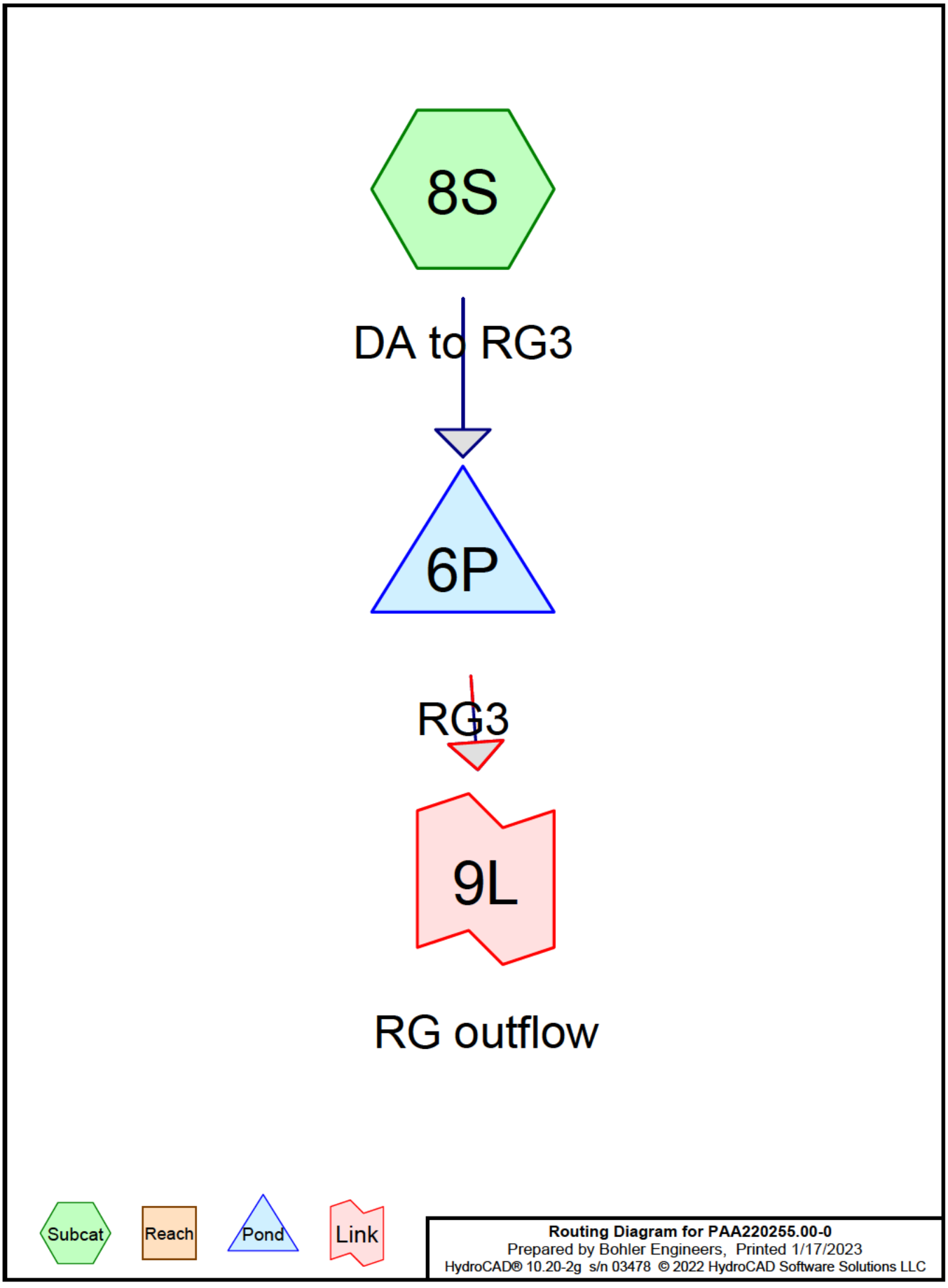
Summary for Link 5L: Post POI 1

Inflow Area = 987,505 sf, 0.00% Impervious, Inflow Depth = 4.34" for 100-Year event
Inflow = 87.99 cfs @ 12.21 hrs, Volume= 356,951 cf
Primary = 87.99 cfs @ 12.21 hrs, Volume= 356,951 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Post POI 1





Routing Diagram for PAA220255.00-0
Prepared by Bohler Engineers, Printed 1/17/2023
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Summary for Subcatchment 8S: DA to RG3

Runoff = 4.63 cfs @ 11.97 hrs, Volume= 10,146 cf, Depth= 5.38"
Routed to Pond 6P : RG3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=7.61"

	Area (ac)	CN	Description
*	0.350	73	
*	0.170	98	Pavilion Roof Area
	0.520	81	Weighted Average
	0.350		67.31% Pervious Area
	0.170		32.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 6P: RG3

Inflow Area = 22,651 sf, 32.69% Impervious, Inflow Depth = 5.38" for 100-Year event
Inflow = 4.63 cfs @ 11.97 hrs, Volume= 10,146 cf
Outflow = 3.57 cfs @ 12.02 hrs, Volume= 10,105 cf, Atten= 23%, Lag= 3.4 min
Primary = 3.57 cfs @ 12.02 hrs, Volume= 10,105 cf
Routed to Link 9L : RG outflow
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 9L : RG outflow

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 173.82' @ 12.02 hrs Surf.Area= 2,498 sf Storage= 2,065 cf

Plug-Flow detention time= 205.5 min calculated for 10,105 cf (100% of inflow)
Center-of-Mass det. time= 202.9 min (1,002.1 - 799.3)

Volume	Invert	Avail.Storage	Storage Description
#1	170.50'	452 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc) 1,506 cf Overall x 30.0% Voids
#2	172.50'	4,282 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)
		4,734 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.50	753	0	0
172.50	753	1,506	1,506

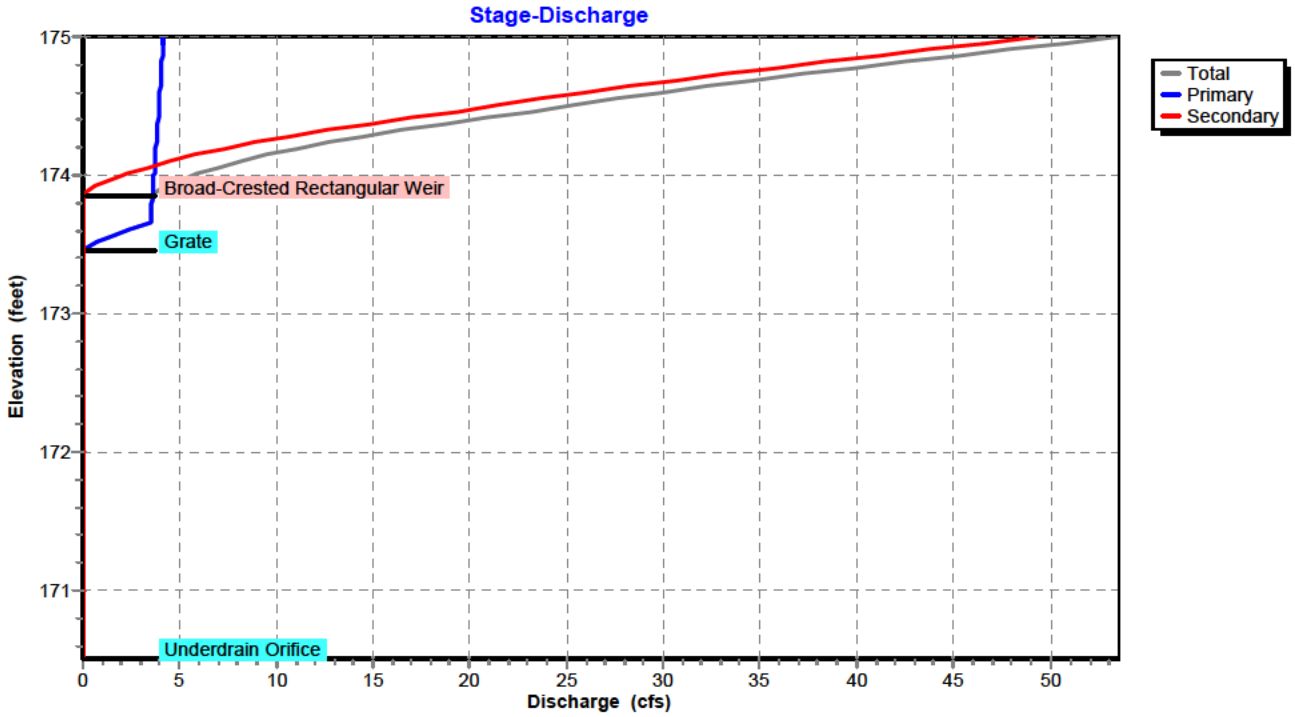
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.50	753	0	0
173.00	1,068	455	455
174.00	1,890	1,479	1,934
175.00	2,805	2,348	4,282

Device	Routing	Invert	Outlet Devices
#1	Primary	170.20'	**10.0" Round Culvert** L= 89.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.20' / 169.70' S= 0.0056 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.55 sf
#2	Device 1	170.50'	**0.7" Vert. Underdrain Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.45'	**24.0" x 48.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	173.85'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=3.57 cfs @ 12.02 hrs HW=173.81' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Barrel Controls 3.57 cfs @ 6.54 fps)
└─**2=Underdrain Orifice** (Passes < 0.02 cfs potential flow)
└─**3=Grate** (Passes < 8.50 cfs potential flow)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.50' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: RG3



Stage-Area-Storage for Pond 6P: RG3

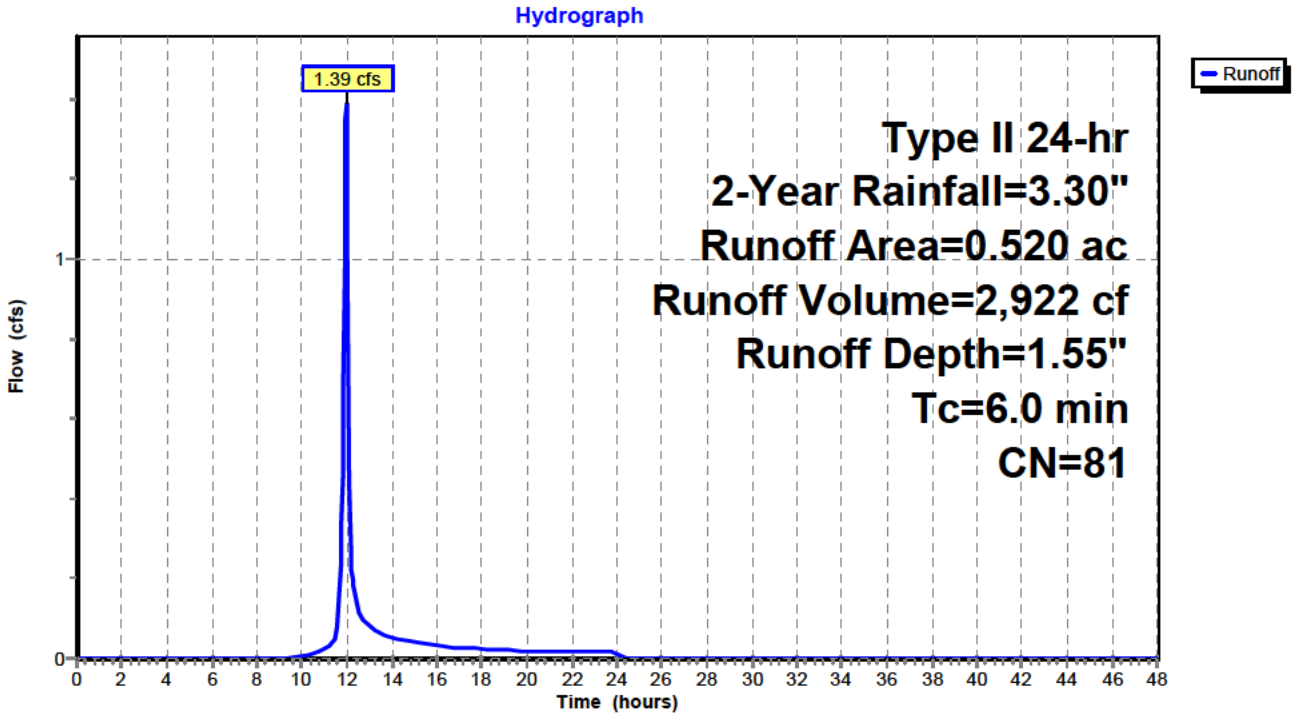
Elevation (feet)	Storage (cubic-feet)
170.50	0
170.55	11
170.60	23
170.65	34
170.70	45
170.75	56
170.80	68
170.85	79
170.90	90
170.95	102
171.00	113
171.05	124
171.10	136
171.15	147
171.20	158
171.25	169
171.30	181
171.35	192
171.40	203
171.45	215
171.50	226
171.55	237
171.60	248
171.65	260
171.70	271
171.75	282
171.80	294
171.85	305
171.90	316
171.95	328
172.00	339
172.05	350
172.10	361
172.15	373
172.20	384
172.25	395
172.30	407
172.35	418
172.40	429
172.45	441
172.50	452
172.55	490
172.60	530
172.65	572
172.70	615
172.75	660
172.80	706
172.85	754
172.90	803
172.95	854
173.00	907
173.05	961
173.10	1,018
173.15	1,076
173.20	1,137
173.25	1,200
173.30	1,264
173.35	1,331
173.40	1,400
173.45	1,471
173.50	1,544
173.55	1,619
173.60	1,696
173.65	1,775
173.70	1,856
173.75	1,939
173.80	2,024
173.85	2,112
173.90	2,201
173.95	2,293
174.00	2,386
174.05	2,482
174.10	2,580
174.15	2,680
174.20	2,782
174.25	2,887
174.30	2,994
174.35	3,104
174.40	3,215
174.45	3,329
174.50	3,445
174.55	3,564
174.60	3,685
174.65	3,808
174.70	3,933
174.75	4,061
174.80	4,191
174.85	4,323
174.90	4,458
174.95	4,594
175.00	**4,734**

Summary for Link 9L: RG outflow

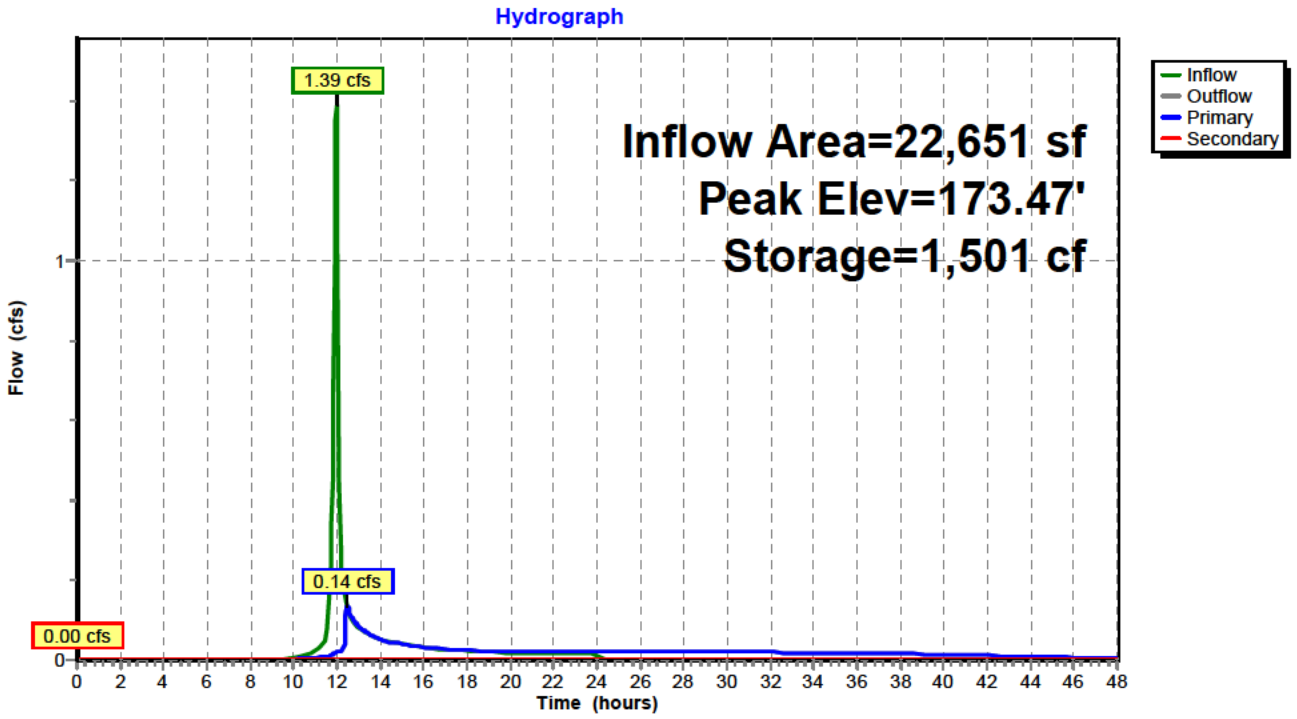
Inflow Area = 22,651 sf, 32.69% Impervious, Inflow Depth > 5.35" for 100-Year event
Inflow = 3.57 cfs @ 12.02 hrs, Volume= 10,105 cf
Primary = 3.57 cfs @ 12.02 hrs, Volume= 10,105 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

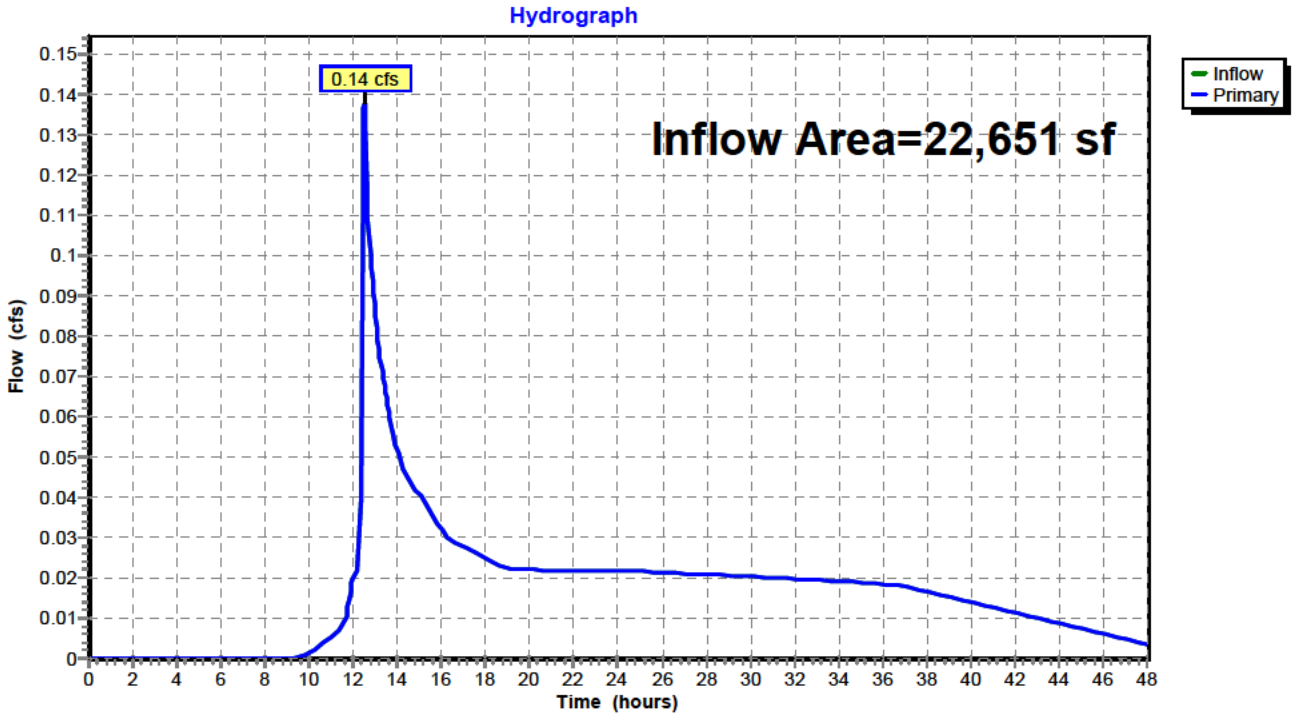
Subcatchment 8S: DA to RG3



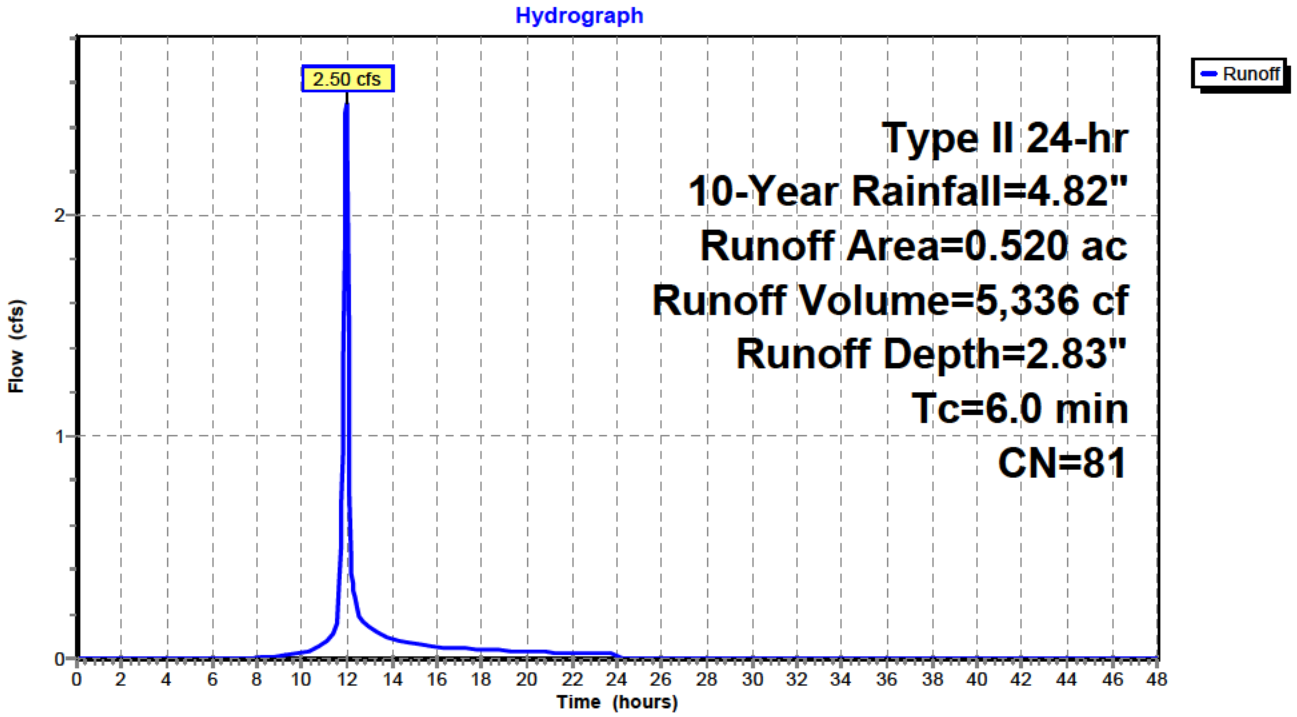
Pond 6P: RG3



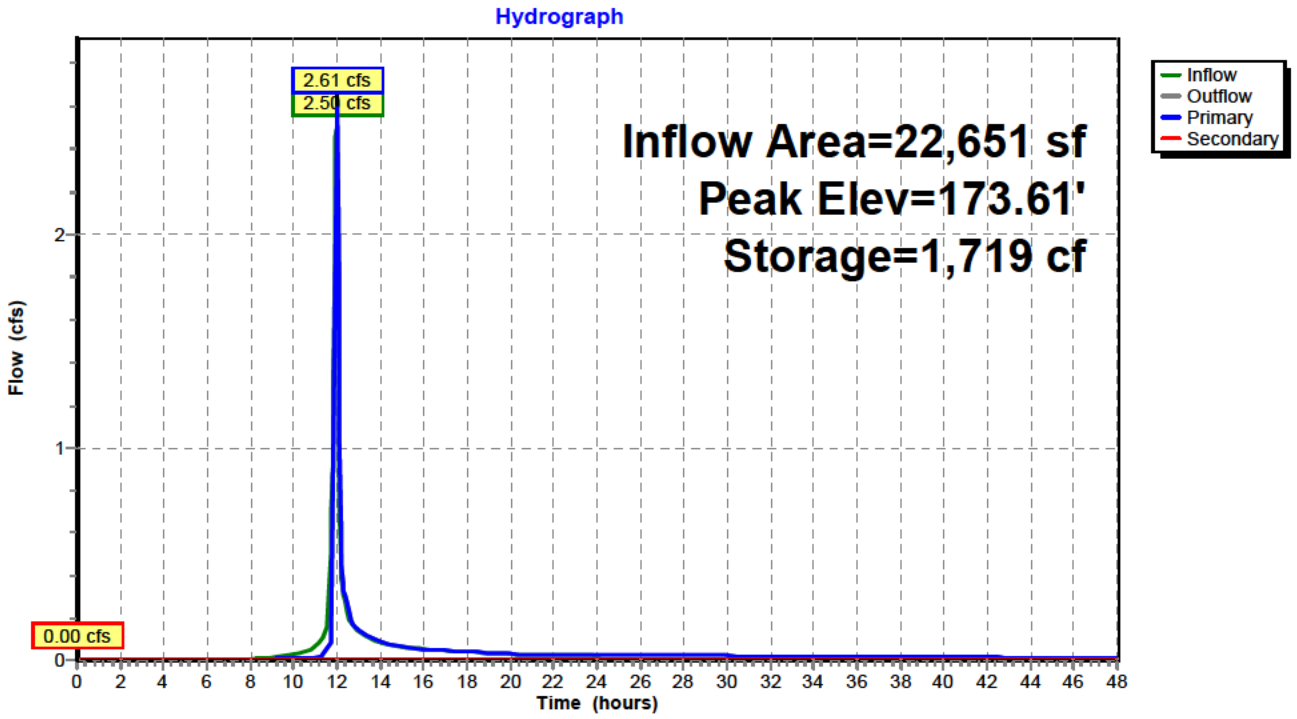
Link 9L: RG outflow



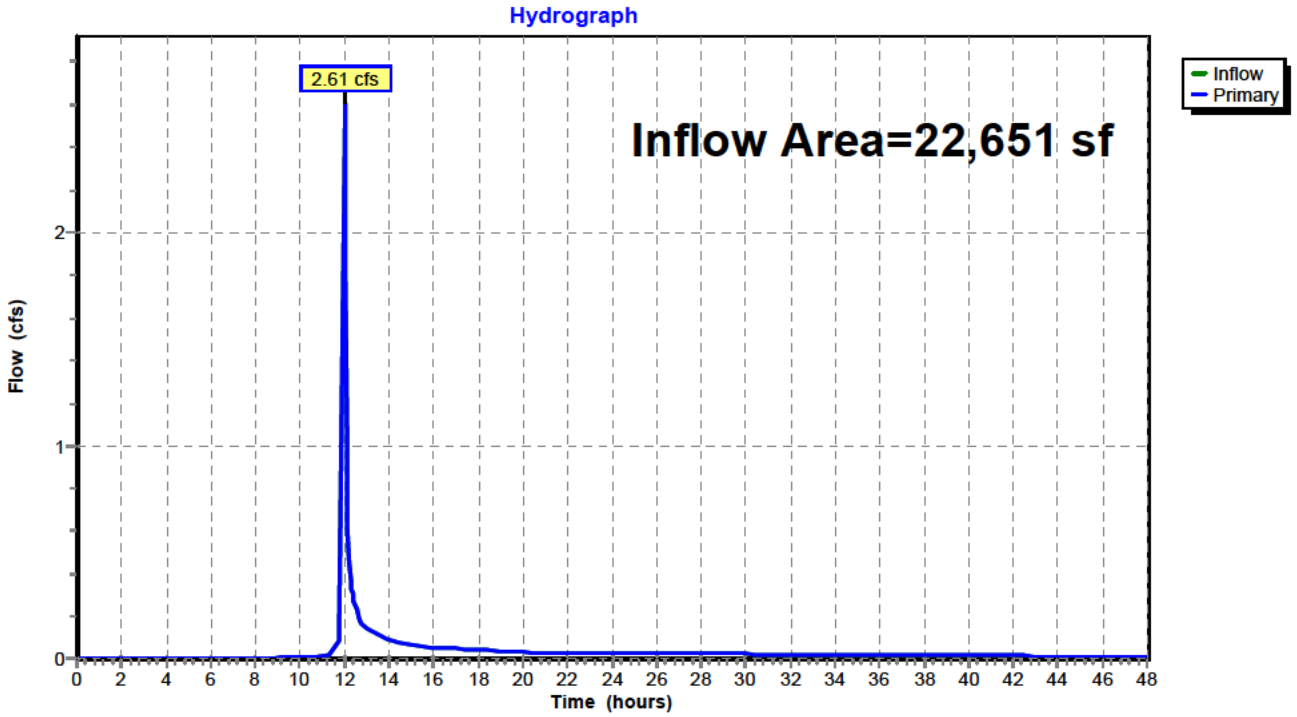
Subcatchment 8S: DA to RG3



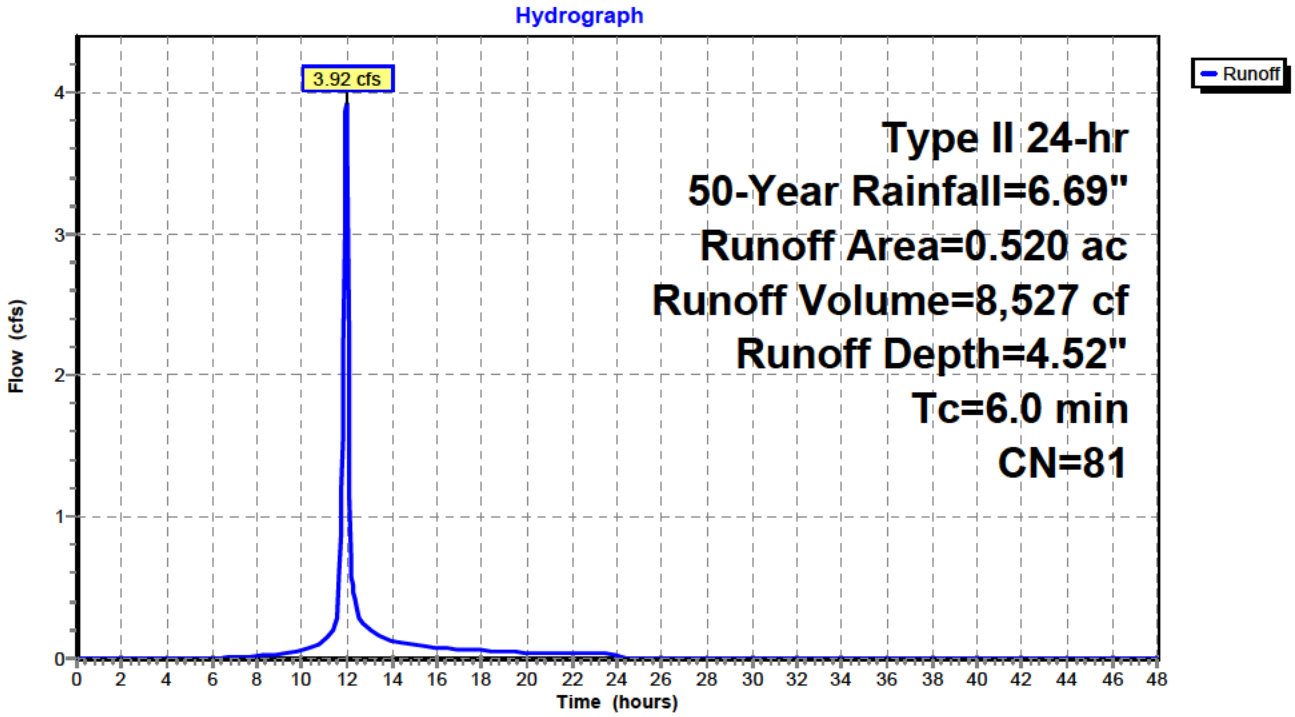
Pond 6P: RG3



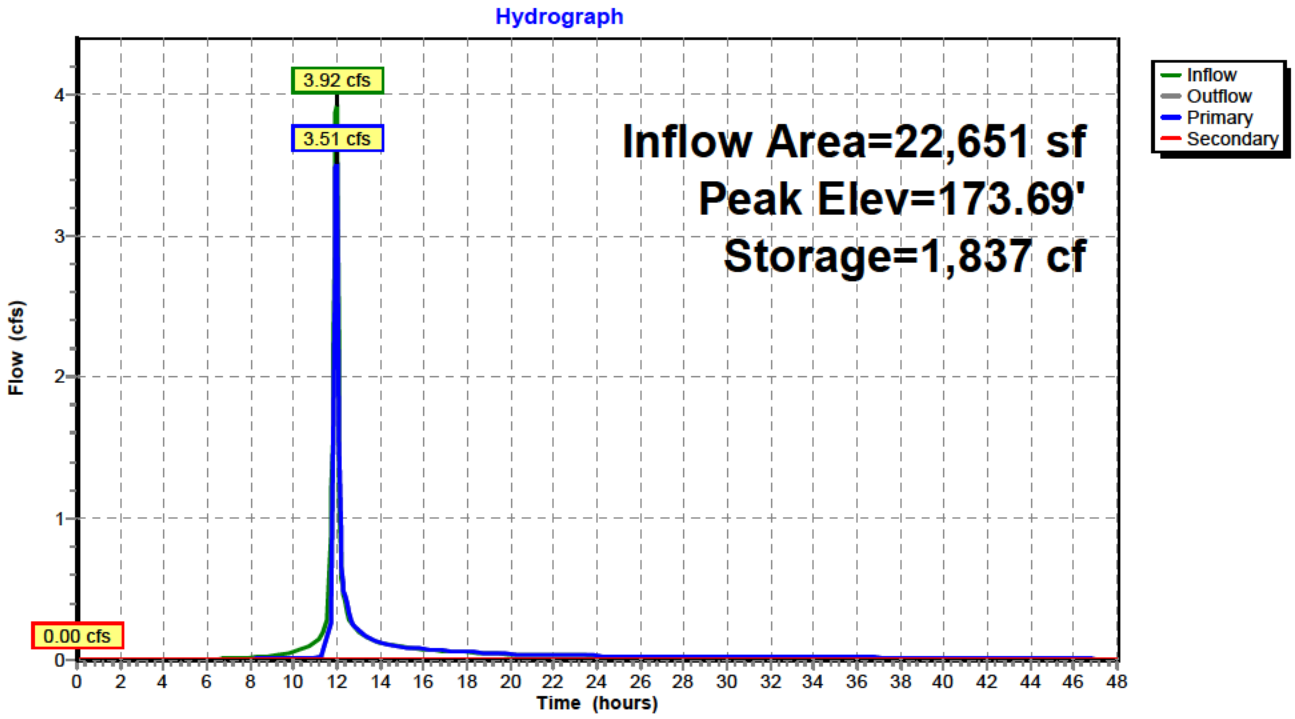
Link 9L: RG outflow



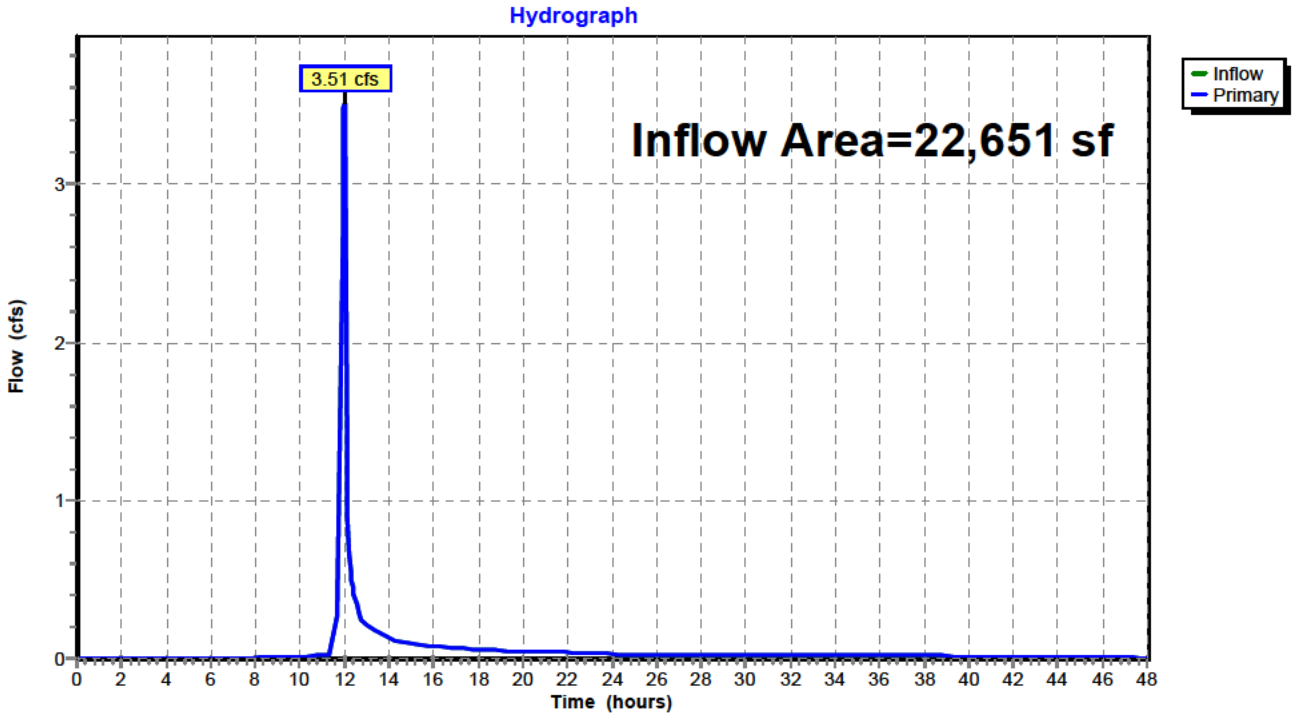
Subcatchment 8S: DA to RG3



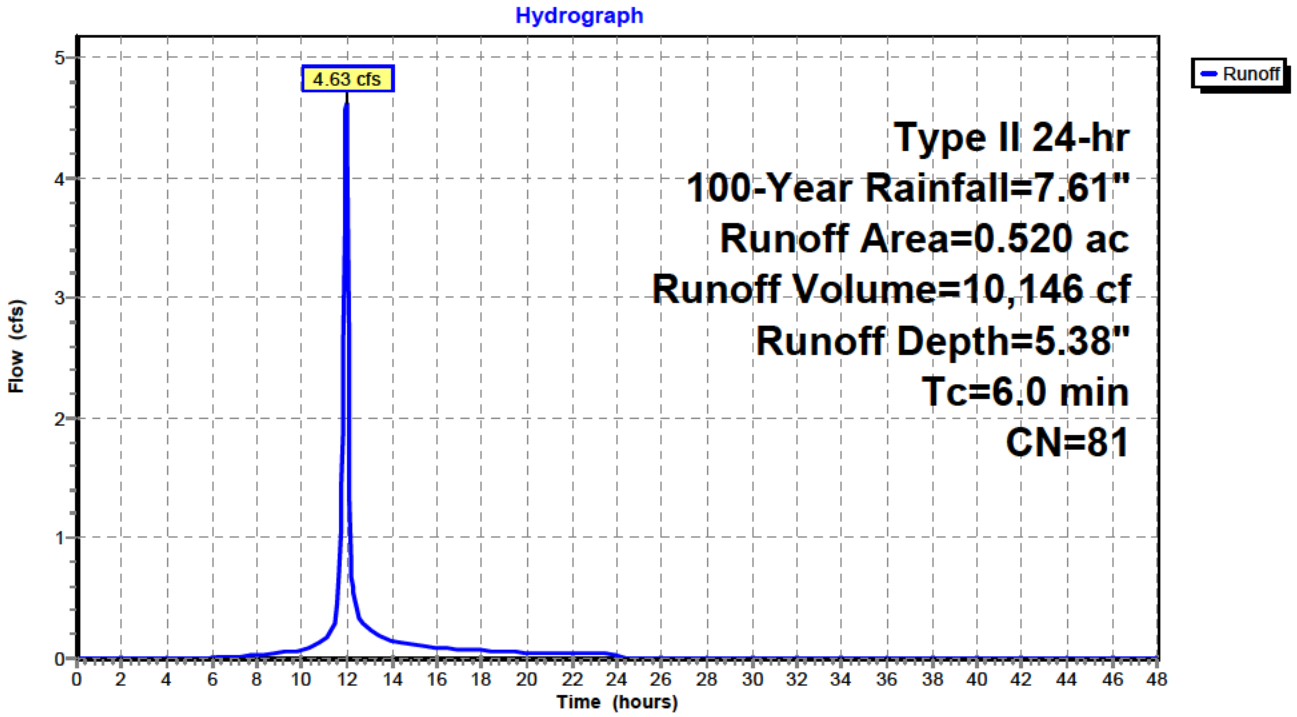
Pond 6P: RG3



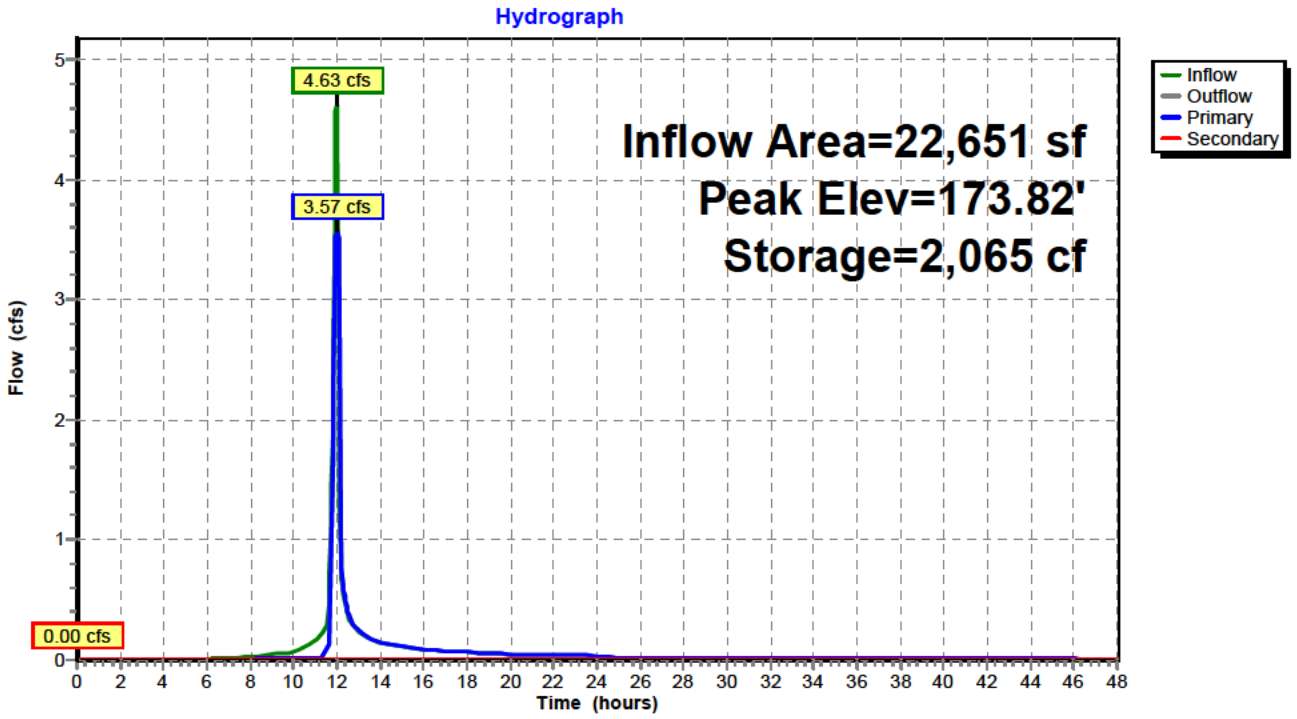
Link 9L: RG outflow



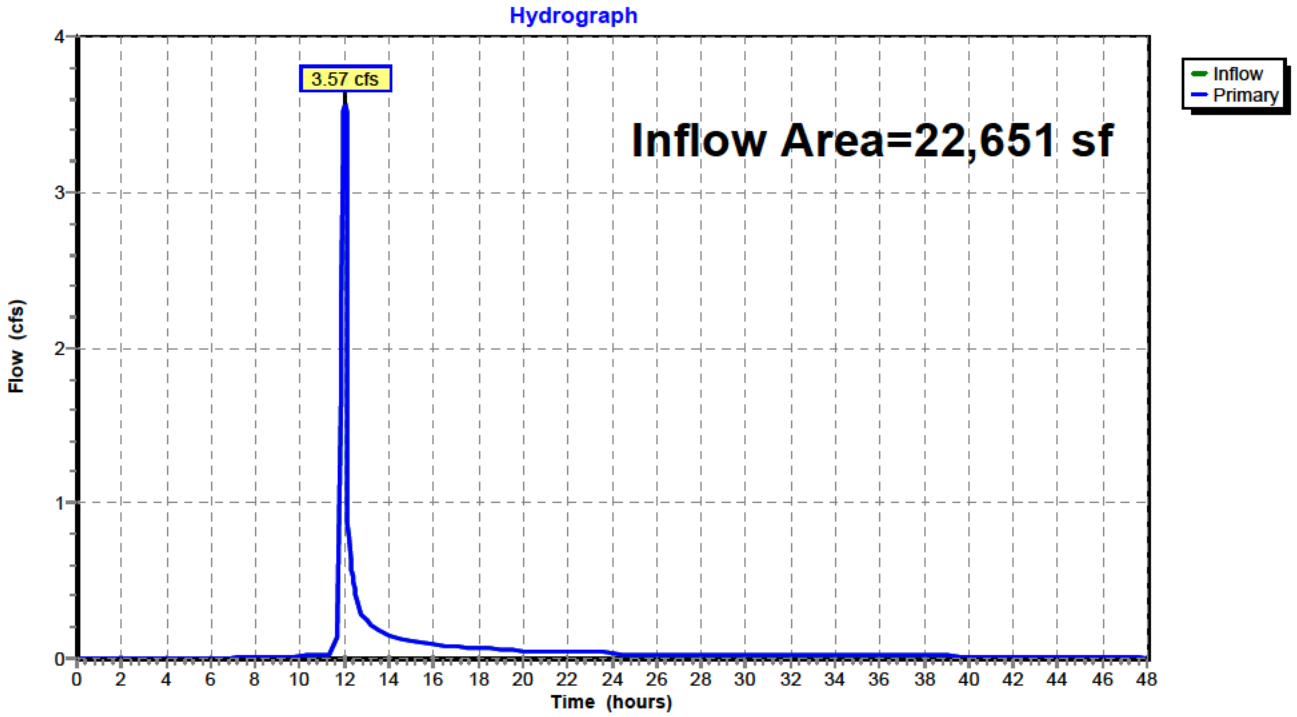
Subcatchment 8S: DA to RG3



Pond 6P: RG3



Link 9L: RG outflow



Summary for Pond 6P: RG3

Inflow Area = 22,651 sf, 32.69% Impervious, Inflow Depth = 1.55" for 2-Year event
Inflow = 1.39 cfs @ 11.97 hrs, Volume= 2,922 cf
Outflow = 0.14 cfs @ 12.48 hrs, Volume= 2,899 cf, Atten= 90%, Lag= 30.3 min
Primary = 0.14 cfs @ 12.48 hrs, Volume= 2,899 cf
Routed to Link 9L : RG outflow
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf
Routed to Link 9L : RG outflow

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Peak Elev= 173.47' @ 12.48 hrs Surf.Area= 2,208 sf Storage= 1,501 cf

Plug-Flow detention time= 640.9 min calculated for 2,899 cf (99% of inflow)
Center-of-Mass det. time= 636.2 min (1,470.9 - 834.8)

Volume	Invert	Avail.Storage	Storage Description
#1	170.50'	452 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc) 1,506 cf Overall x 30.0% Voids
#2	172.50'	4,282 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)
		4,734 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.50	753	0	0
172.50	753	1,506	1,506

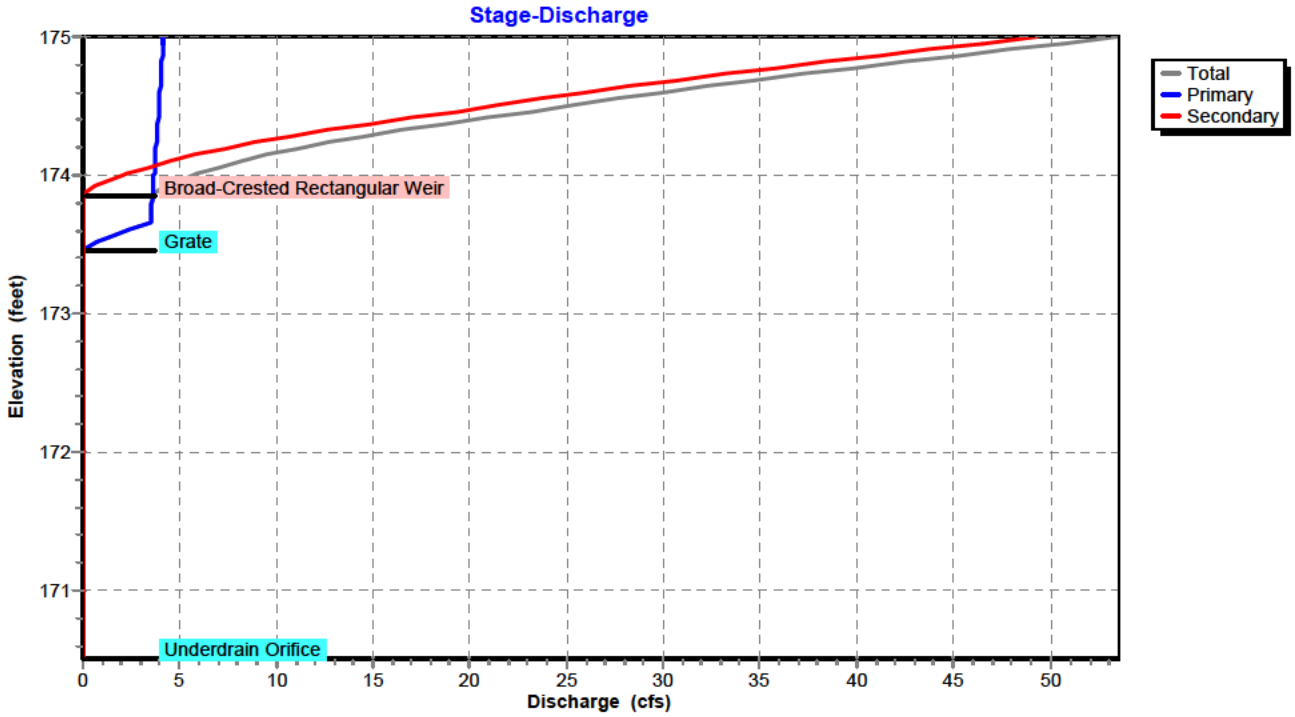
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
172.50	753	0	0
173.00	1,068	455	455
174.00	1,890	1,479	1,934
175.00	2,805	2,348	4,282

Device	Routing	Invert	Outlet Devices
#1	Primary	170.20'	**10.0" Round Culvert** L= 89.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.20' / 169.70' S= 0.0056 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.55 sf
#2	Device 1	170.50'	**0.7" Vert. Underdrain Orifice** C= 0.600 Limited to weir flow at low heads
#3	Device 1	173.45'	**24.0" x 48.0" Horiz. Grate** C= 0.600 Limited to weir flow at low heads
#4	Secondary	173.85'	**15.0' long x 5.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.14 cfs @ 12.48 hrs HW=173.47' TW=0.00' (Dynamic Tailwater)
└─**1=Culvert** (Passes 0.14 cfs of 3.38 cfs potential flow)
  └─**2=Underdrain Orifice** (Orifice Controls 0.02 cfs @ 8.26 fps)
  └─**3=Grate** (Weir Controls 0.11 cfs @ 0.47 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.50' TW=0.00' (Dynamic Tailwater)
└─**4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 6P: RG3



Hydrograph for Pond 6P: RG3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)	
0.00	0.00	0	170.50	0.00	0.00	**0.00**	
1.00	0.00	0	170.50	0.00	0.00	0.00	
2.00	0.00	0	170.50	0.00	0.00	0.00	
3.00	0.00	0	170.50	0.00	0.00	0.00	
4.00	0.00	0	170.50	0.00	0.00	0.00	
5.00	0.00	0	170.50	0.00	0.00	0.00	
6.00	0.00	0	170.50	0.00	0.00	0.00	
7.00	0.00	0	170.50	0.00	0.00	0.00	
8.00	0.00	0	170.50	0.00	0.00	0.00	
9.00	0.00	0	170.50	0.00	0.00	0.00	
10.00	0.01	9	170.54	0.00	0.00	0.00	
11.00	**0.02**	45	170.70	0.01	0.01	0.00	
12.00	**1.34**	**978**	**173.07**	**0.02**	**0.02**	0.00	
13.00	0.08	**1,491**	**173.46**	**0.09**	**0.09**	0.00	
14.00	0.05	1,483	173.46	0.05	0.05	0.00	
15.00	0.04	1,480	173.46	0.04	0.04	0.00	
16.00	0.03	1,477	173.45	0.03	0.03	0.00	
17.00	0.03	1,475	173.45	0.03	0.03	0.00	
18.00	0.02	1,473	173.45	0.02	0.02	0.00	
19.00	0.02	1,471	173.45	0.02	0.02	0.00	
20.00	0.02	1,462	173.44	0.02	0.02	0.00	
21.00	0.02	1,446	173.43	0.02	0.02	0.00	
22.00	0.02	1,427	173.42	0.02	0.02	0.00	
23.00	0.02	1,406	173.40	0.02	0.02	0.00	
24.00	0.02	1,384	173.39	0.02	0.02	0.00	
25.00	0.00	1,311	173.33	0.02	0.02	0.00	
26.00	0.00	1,234	173.28	0.02	0.02	0.00	
27.00	0.00	1,157	173.22	0.02	0.02	0.00	
28.00	0.00	1,082	173.15	0.02	0.02	0.00	
29.00	0.00	1,007	173.09	0.02	0.02	0.00	
30.00	0.00	934	173.02	0.02	0.02	0.00	
31.00	0.00	861	172.96	0.02	0.02	0.00	
32.00	0.00	789	172.89	0.02	0.02	0.00	
33.00	0.00	719	172.81	0.02	0.02	0.00	
34.00	0.00	649	172.74	0.02	0.02	0.00	
35.00	0.00	581	172.66	0.02	0.02	0.00	
36.00	0.00	514	172.58	0.02	0.02	0.00	
37.00	0.00	448	172.48	0.02	0.02	0.00	
38.00	0.00	386	172.21	0.02	0.02	0.00	
39.00	0.00	328	171.95	0.02	0.02	0.00	
40.00	0.00	275	171.72	0.01	0.01	0.00	
41.00	0.00	227	171.51	0.01	0.01	0.00	
42.00	0.00	184	171.31	0.01	0.01	0.00	
43.00	0.00	145	171.14	0.01	0.01	0.00	
44.00	0.00	111	170.99	0.01	0.01	0.00	
45.00	0.00	82	170.86	0.01	0.01	0.00	
46.00	0.00	58	170.76	0.01	0.01	0.00	Dewatering Time
47.00	0.00	38	170.67	0.00	0.00	0.00	
48.00	0.00	23	170.60	0.00	0.00	0.00	

Stage-Area-Storage for Pond 6P: RG3

Elevation (feet)	Storage (cubic-feet)
170.50	0
170.55	11
170.60	23
170.65	34
170.70	45
170.75	56
170.80	68
170.85	79
170.90	90
170.95	102
171.00	113
171.05	124
171.10	136
171.15	147
171.20	158
171.25	169
171.30	181
171.35	192
171.40	203
171.45	215
171.50	226
171.55	237
171.60	248
171.65	260
171.70	271
171.75	282
171.80	294
171.85	305
171.90	316
171.95	328
172.00	339
172.05	350
172.10	361
172.15	373
172.20	384
172.25	395
172.30	407
172.35	418
172.40	429
172.45	441
172.50	452
172.55	490
172.60	530
172.65	572
172.70	615
172.75	660
172.80	706
172.85	754
172.90	803
172.95	854
173.00	907
173.05	961
173.10	1,018
173.15	1,076
173.20	1,137
173.25	1,200
173.30	1,264
173.35	1,331
173.40	1,400
173.45	1,471
173.50	1,544
173.55	1,619
173.60	1,696
173.65	1,775
173.70	1,856
173.75	1,939
173.80	2,024
173.85	2,112
173.90	2,201
173.95	2,293
174.00	2,386
174.05	2,482
174.10	2,580
174.15	2,680
174.20	2,782
174.25	2,887
174.30	2,994
174.35	3,104
174.40	3,215
174.45	3,329
174.50	3,445
174.55	3,564
174.60	3,685
174.65	3,808
174.70	3,933
174.75	4,061
174.80	4,191
174.85	4,323
174.90	4,458
174.95	4,594
175.00	**4,734**

2-Year Volume Stored

Spillway Calculations

Project Name: **Miles Park**

Description:

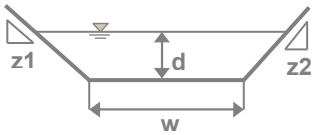
Determine Values for Equation $Q = CLH^{1.5}$

Q =	4.63	Post-development 100-year flow (cfs)
L =	15	Length (LF)
C =	2.80	Weir Coefficient
H =	0.23	Flow Depth Over Weir (ft)

Determine Required Top of Berm Elevation

	173.85	Spillway Elevation
+	1.00	Required Freeboard
+	0.23	Depth of Flow (from above)
=	175.08	Required Top of Berm Elevation
	175.15	Provided Top of Berm Elevation

Determine Spillway Lining



Z1 & Z2 = 3.00 ft : ft

Slope = 0.33 ft/ft (downslope of spillway)

Velocity	Design Method
1.28	Calculated Velocity (fps)
NAG S150	Spillway Lining
6.00	Allowable Velocity (fps)

Peak Discharge Calculations

Project: **Miles Park**

Description:

Runoff Coefficients

Impervious	0.96
Lawn	0.30

PennDOT Region: 5

Conversion Factor, *k** : 1.0083

*Q = *k* CIA

Catchment Areas

Name	Tc (min.)	Groundcover Areas (Ac.)					Total Area (Ac)	C	Q (cfs)	
		Impervious	Lawn						10-year	100-year
French Drain	5.00	0.08	0.73				0.81	0.37	1.81	2.49

Pipe Capacity Calculations

Project: _____

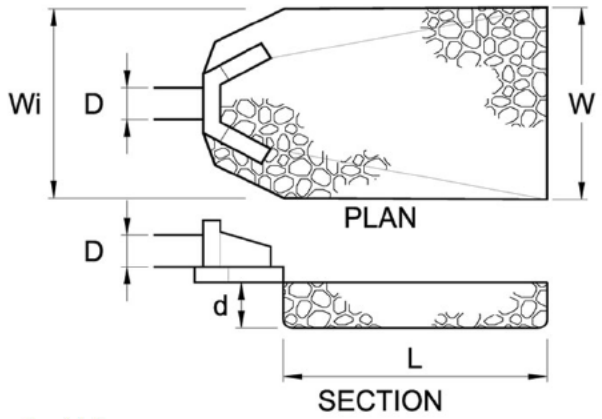
Description: **French Drain**

Q:	2.49	cfs
Rise:	10.00	in
Span:	10.00	in
Barrels:	1	
Eq. Circular Pipe Size:	10.00	in
Material:	PVC	
Slope:	0.0100	ft/ft
Manning's n:	0.0100	
Flow Area:	0.42	s.f.
Wetted Perimeter:	1.69	ft
Top Width:	0.75	ft
Percent Full:	72.34	%
Velocity:	5.89	ft/s
Maximum Discharge:	3.06	cfs
Full Flow Capacity:	2.85	cfs
Flow Depth:	0.60	ft

Rip-Rap Apron Worksheet

Project: **Miles Park**

Description: **French Drain Outlet Pipe**



Rip-Rap Dimensions:

L=	5.0	ft
W =	7.5	ft
Wi =	2.5	ft
Rip-rap Size =	R-3	
d50 =	3.0	in
d=	9.0	in

Design Values:

n =	*Manning's n*	0.012	
D =	*Diameter of Pipe*	10	in.
S =	*Slope of Pipe*	0.0050	ft/ft
Q_d =	*Design Discharge*	2.49	cfs***
V_d =	*Velocity*	0.00	fps***
T_w =	*Tailwater Condition*	MIN	either MIN or MAX
A =	*Full Flow Area of Pipe*	0.55	sf

Rise (in.)		Span (in.)		Barrels
10	x	10		1

2.49	

*** *Formulas based on full-flow capacity.*

Full Flow Pipe Discharge:

Q_f = *0.464/n * $D^{8/3}$ * $S^{1/2}$ =* 1.68 cfs

Ratio of Part-Full to Full Flow Discharge:

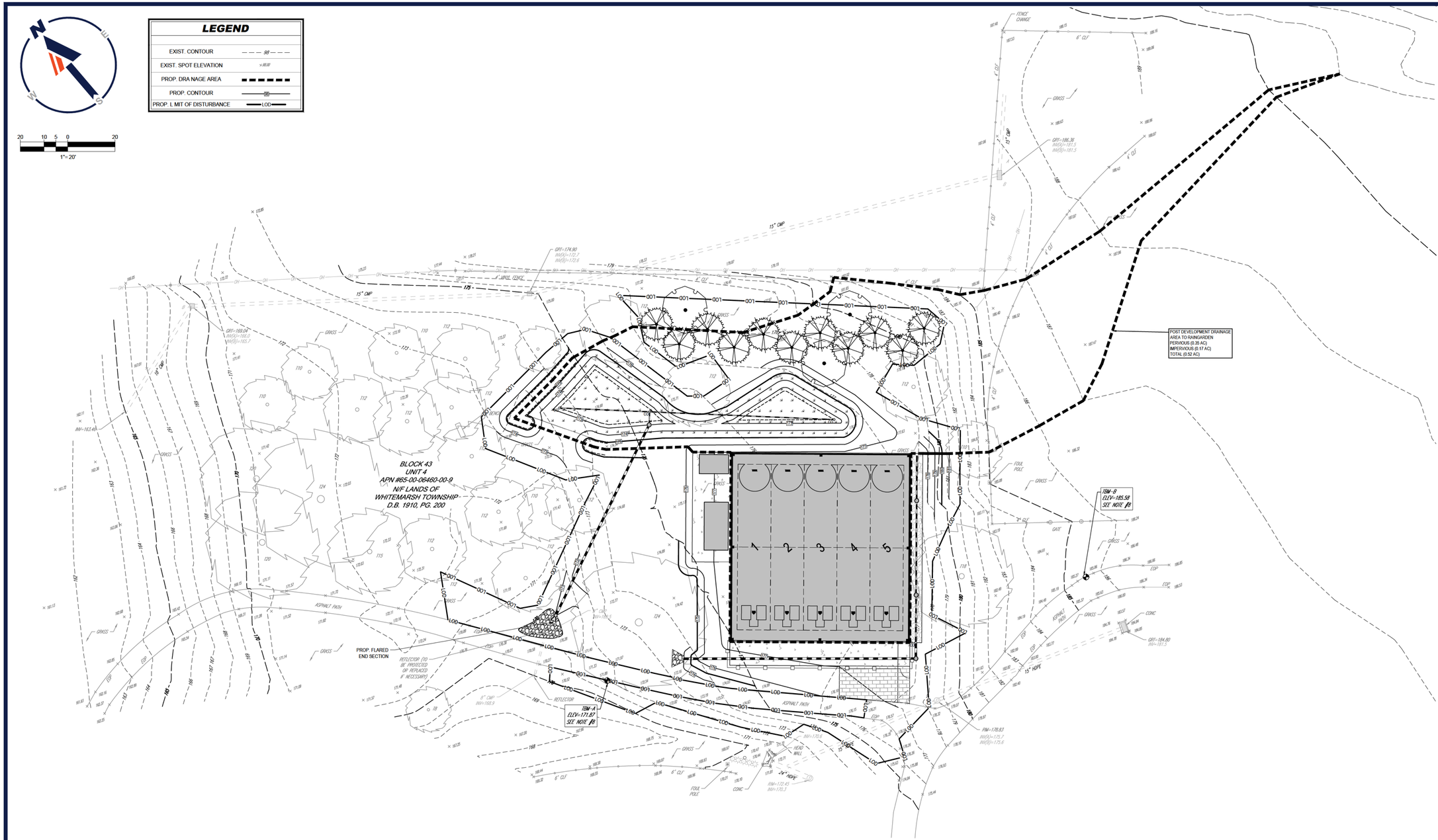
d/D = Q_d/Q_f = 1.48

Figure 20 Ratios:

Area of Flow =	2.27
Depth of Flow =	0.77

Calculate Equivalent Flow:

*A * Ratio* =	1.24	sf
Equivalent Pipe Size full-flow =	15	in (smaller size = larger rip-rap (factor of safety))



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REVISIONS

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1	04/28/2023	PER CLIENT COMMENTS	EEL / CP
2	4/11/2025	PER CLIENT COMMENTS	EEL / WRR
3	06/26/2025	MINOR LD SUBMISSION	RMP / EEL

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PROJECT No.	PAA220255.00
DRAWN BY	EEL
CHECKED BY	CP
DATE	01/17/2023
CAD I.D.	PAA220255 00-PERMIT PLAN-3

PROJECT

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

BOHLER
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
Phone: (215) 996-9100
Fax: (215) 996-9102
www.BohlerEngineering.com

W.R. REARDEN
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
WILLIAM R. REARDEN
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE073245
NEW JERSEY LICENSE No. 24GE04694500

SHEET TITLE

POST DEVELOPMENT DRAINAGE AREA PLAN

SHEET NUMBER

1
OF 7

REVISION 3 - 06/26/2025

R:\BOZ\PAA220255.00\CADD\LWG\SUPLAN SETS\PERMIT PLANS\V 3\PAA220255.00-PERMIT PLAN-3——LAYOUT: EX01 - POST DA

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

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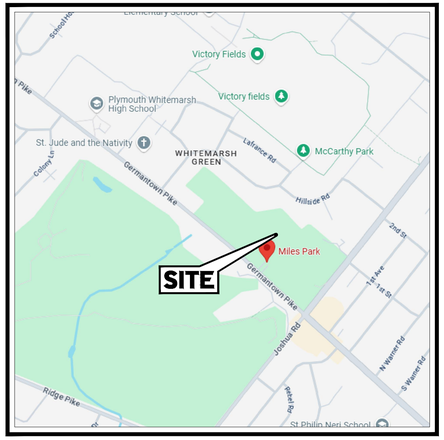
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444



N

LOCATION MAP
SCALE: 1" = 800'
SOURCE: GOOGLE MAPS

RECORDER OF DEEDS

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PA, IN PLAN BOOK NO. _____ PAGE NO. _____ ON _____, 20____.

_____
RECORDER

OWNER CERTIFICATION AND ACKNOWLEDGEMENT OF PLAN

I, _____, HEREBY CERTIFY THAT _____, IS THE REGISTERED OWNER OF THE LAND HEREIN PROPOSED TO BE DEVELOPED, AND THAT SAID OWNER ADOPTS THIS PLAN AND DESIRES THE SAME TO BE RECORDED. WITNESS MY HAND AND SEAL THIS ____ DAY OF _____, 20____.

WHITEMARSH LITTLE LEAGUE, INC.
BY: WHITEMARSH LITTLE LEAGUE, INC.
MEMBER

_____ _____
NAME ATTEST

_____ _____
TITLE

COMMONWEALTH OF PENNSYLVANIA,
COUNTY OF MONTGOMERY:

ON THIS, THE _____DAY OF _____, 20____, BEFORE ME, A NOTARY PUBLIC, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____, AND THAT HE AS SUCH, BEING AUTHORIZED TO DO SO, EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

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

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES:_____

SURVEYOR STATEMENT

I, _____, ON THIS DATE, _____ HEREBY CERTIFY TO MY USUAL AND CUSTOMARY AND PROFESSIONAL CARE THAT THIS PLAN (SHEET 4 ONLY) WAS PREPARED FROM AN ACTUAL FIELD SURVEY PREFORMED UNDER MY IMMEDIATE SUPERVISION AND IS IN ACCORDANCE WITH THE "MINIMUM STANDARDS OF THE PRACTICE FOR PROFESSIONAL LAND SURVEYORS IN THE COMMONWEALTH OF PENNSYLVANIA" AS ADOPTED BY THE PENNSYLVANIA SOCIETY OF LAND SURVEYORS.

_____
NAME
PROFESSIONAL LAND SURVEYOR
LICENSE NO. _____

ENGINEER'S CERTIFICATION

I, WILLIAM R. REARDEN, P.E., A REGISTERED PROFESSIONAL ENGINEER OF THE COMMONWEALTH OF PENNSYLVANIA, DO HEREBY CERTIFY THAT THIS PLAN CORRECT IN ALL DETAILS AS PREPARED BY ME ON _____, 20____.

_____
WILLIAM R. REARDEN

_____
REGISTERED No.: #PE073243

_____
DATE

STORMWATER MANAGEMENT DESIGN ENGINEER CERTIFICATION

WILLIAM R. REARDEN, P.E., ON THIS DATE _____ HAS REVIEWED AND HEREBY CERTIFIES THAT THE STORMWATER MANAGEMENT SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF CHAPTER 58, "GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICE.

_____
WILLIAM R. REARDEN

_____
REGISTERED No.: #PE073243

REVIEW OF THE TOWNSHIP ENGINEER, WHITEMARSH TOWNSHIP:

THIS SUBDIVISION AND/OR LAND DEVELOPMENT PLAN WAS REVIEWED BY THE APPOINTED TOWNSHIP ENGINEER FOR WHITEMARSH TOWNSHIP ON THIS _____ DAY OF _____, 20____.

_____
KRISTA HEINRICH, P.E.
TOWNSHIP ENGINEER

APPROVAL OF THE WHITEMARSH TOWNSHIP BOARD OF SUPERVISORS:

THIS SUBDIVISION AND/OR LAND DEVELOPMENT PLAN WAS APPROVED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF WHITEMARSH TOWNSHIP ON THIS _____ DAY OF _____, 20____.

_____ _____
CHAIRMAN

_____ _____
SECRETARY

GENERAL NOTE:
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF THE WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

STORMWATER MANAGEMENT OWNER CERTIFICATION

I, _____, ACKNOWLEDGE THAT THE STORMWATER BMPS ARE FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE TOWNSHIP.

_____
NAME

_____
TITLE

_____
DATE

OWNER
TOWNSHIP OF WHITEMARSH
616 GERMANTOWN PIKE
LAFAYETTE HILL, PA 19444
610-825-3535

DEVELOPER
WHITEMARSH LITTLE LEAGUE, INC.
27 LAURENCE PLACE
PLYMOUTH MEETING, PA 19462
ROBERT STOKLEY
610-476-5860

PREPARED BY

BOHLER

CONTACT: TOM KNAB

REFERENCES AND CONTACTS

REFERENCES
♦ PARTIAL TOPOGRAPHIC SURVEY:
CONTROL POINT ASSOCIATES, INC.
1600 MANOR DRIVE, SUITE 210
CHALFONT, PA 18914
DATED: 11/08/2022
02-220448-01
ELEVATIONS: NAVD 1988

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS, HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

WAIVERS REQUESTED FROM THE WHITEMARSH TOWNSHIP BOARD OF SUPERVISORS

1. A WAIVER FROM §105-12.D. TO PERMIT A COMBINED PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLAN.

SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET*	1
GENERAL NOTES*	2
OVERALL SITE PLAN*	3
SITE IMPROVEMENTS PLAN*	4
EXISTING CONDITIONS & DEMOLITION PLAN	5
NOTE & DETAILS	6
NOTE & DETAILS	7

* SHEETS 1 THROUGH 4 OF THIS PLAN SET WILL BE CONSIDERED A COMPLETE RECORD PLAN SET FOR FILING PURPOSES IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE. THE REMAINING PLAN SHEETS, WHICH ARE NOT TO BEING RECORDED, ON FILE AT WHITEMARSH TOWNSHIP SHALL BE CONSIDERED PART OF THE FINAL RECORD PLANS AS IF RECORDED WITH SAME.

MCPC No.: _____

PROCESSED and REVIEWED. Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _____

_____
Montgomery County Planning Commission

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LAND SURVEYING
PROGRAM MANAGEMENT
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PROJECT No.: PAA220255.00
DRAWN BY: EEL
CHECKED BY: CP
DATE: 01/17/2023
CAD I.D.: PAA220255.00-PERMIT PLAN-3

PROJECT:
PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS
FOR
WHITEMARSH LITTLE LEAGUE
PROPOSED BATTING CAGE PAVILION
MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

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W.R. REARDEN — COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — WILLIAM R. REARDEN — PE073243
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE No. PE073243
NEW JERSEY LICENSE No. GE48-44694500

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1
OF 7

REVISION 3 - 06/26/2025

R:\2022\PAA220255.00\CAD\DRAWINGS\PLAN SETS\PERMIT PLAN\REV 3\PAA220255.00-PERMIT PLAN-3 — LAYOUT: 01 - COVER SHEET
EEL

GENERAL NOTES

(Rev. 1/2023)

1. THESE PLANS ARE SOLELY BASED ON INFORMATION THE OWNER AND OTHERS PROVIDED TO BOHLER, LLC (HEREIN "BOHLER") PRIOR TO THE DATE ON WHICH THE PROFESSIONAL OF RECORD AND BOHLER PREPARED THESE PLANS. THE CONTRACTOR MUST FIELD VERIFY ALL EXISTING CONDITIONS AND IMMEDIATELY NOTIFY BOHLER, IN WRITING, IF ANY ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THESE PLANS, OR IF THE PROPOSED WORK CONFLICTS WITH ANY OTHER SITE FEATURES.
2. THE CONTRACTOR MUST STRICTLY COMPLY WITH THESE NOTES AND ALL SPECIFICATIONS/REPORTS CONTAINED HEREIN. THE CONTRACTOR MUST ENSURE THAT ALL SUBCONTRACTORS FULLY AND COMPLETELY CONFORM TO AND COMPLY WITH THESE REQUIREMENTS. THESE NOTES, AND THE REQUIREMENTS ARTICULATED IN THE NOTES CONTAINED IN ALL THE OTHER DRAWINGS THAT COMPRISE THE PLAN SET OF DRAWINGS. ADDITIONAL NOTES AND SPECIFIC PLAN NOTES MAY BE FOUND ON THE INDIVIDUAL PLANS. THESE GENERAL NOTES APPLY TO THIS ENTIRE DOCUMENT PACKAGE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW ALL CONSTRUCTION CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE, PRIOR TO THE INITIATION AND COMMENCEMENT OF CONSTRUCTION.
3. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM WITH THE PROFESSIONAL OF RECORD AND BOHLER THAT THE LATEST EDITION OF THE DOCUMENTS AND/OR REPORTS REFERENCED WITHIN THE PLAN REFERENCES ARE BEING USED FOR CONSTRUCTION. THIS IS THE CONTRACTOR'S SOLE AND COMPLETE RESPONSIBILITY.
4. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION IS TO BE PERFORMED UNTIL THE CONTRACTOR HAS REVIEWED AND UNDERSTOOD THE CONDITIONS OF APPROVAL TO ALL PLANS AND OTHER DOCUMENTS REVIEWED AND APPROVED BY THE PERMITTING AUTHORITIES AND HAS ALSO CONFIRMED THAT ALL NECESSARY AND REQUIRED PERMITS HAVE BEEN OBTAINED. THE CONTRACTOR MUST HAVE COPIES OF ALL PERMITS AND APPROVALS ON SITE AT ALL TIMES.
5. THE CONTRACTOR MUST ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS/REPORTS AND CONDITIONS OF APPROVAL AND ALL APPLICABLE REQUIREMENTS, RULES, REGULATIONS, STATUTORY REQUIREMENTS, CODES, LAWS AND STANDARDS OF ALL GOVERNMENTAL ENTITIES WITH JURISDICTION OVER THIS PROJECT, AND ALL PROVISIONS IN AND CONDITIONS OF THE CONSTRUCTION CONTRACT WITH THE OWNER/DEVELOPER INCLUDING ALL EXHIBITS, ATTACHMENTS AND ADDENDA TO SAME.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR MUST CONFIRM THE BUILDING LAYOUT BY CAREFULLY REVIEWING THE MOST CURRENT ARCHITECTURAL, CIVIL AND STRUCTURAL CONSTRUCTION DOCUMENTS (INCLUDING, BUT NOT LIMITED TO, MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SUPPRESSION PLANS, WHERE APPLICABLE). THE CONTRACTOR MUST IMMEDIATELY NOTIFY OWNER, ARCHITECT AND PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY CONFLICTS, DISCREPANCIES OR AMBIGUITIES WHICH EXIST BETWEEN THESE PLANS AND ANY OTHER PLANS THAT COMPRISE THE CONSTRUCTION DOCUMENTS.
7. CONTRACTOR MUST REFER TO AND ENSURE COMPLIANCE WITH THE APPROVED ARCHITECTURAL/BUILDING PLANS OF RECORD FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY LOCATIONS.
8. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND MEASUREMENTS SHOWN ON THESE PLANS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY NOTIFY PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, IF ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR WORK WHICH HAS TO BE RE-DONE BECAUSE OF DIMENSIONS, MEASUREMENTS OR GRADES BEING INCORRECTLY ON THESE PLANS PRIOR TO BOTH (A) THE CONTRACTOR GIVING PROFESSIONAL OF RECORD AND BOHLER WRITTEN NOTIFICATION OF SAME AND (B) PROFESSIONAL OF RECORD AND BOHLER, THEREAFTER, PROVIDING THE CONTRACTOR WITH WRITTEN AUTHORIZATION TO PROCEED WITH SUCH ADDITIONAL WORK.
9. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND MEASUREMENTS INCLUDED ON DESIGN DOCUMENTS HEREIN AND MUST NOT SCALE OFF THE DRAWINGS DUE TO POTENTIAL PRINTING INACCURACIES. ALL DIMENSIONS ARE MEASUREMENTS ARE TO BE CHECKED AND CONFIRMED BY THE GENERAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION/ORDERING OF PARTS AND MATERIALS AND COMMENCEMENT OF THE SITE WORK. SITE PLAN DRAWINGS ARE NOT INTENDED AS A SURVEY DOCUMENT. DIMENSIONS SUPERSEDE GRAPHICAL REPRESENTATIONS. THE CONTRACTOR MUST MAKE CONTRACTOR'S OWN MEASUREMENTS FOR LAYOUT OF IMPROVEMENTS.
10. THE OWNER AND CONTRACTOR MUST BE FAMILIAR WITH AND RESPONSIBLE FOR THE PROCUREMENT OF ANY AND ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. WHEN INCLUDED AS ONE OF THE REFERENCED DOCUMENTS, THE GEOTECHNICAL REPORT, SPECIFICATIONS AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THESE REQUIRED CONSTRUCTION PLANS AND, IN CASE OF CONFLICT, DISCREPANCY OR AMBIGUITY, THE MORE STRINGENT REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN: (A) THE PLANS; AND (B) THE GEOTECHNICAL REPORT AND RECOMMENDATIONS, MUST TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR MUST NOTIFY THE PROFESSIONAL OF RECORD AND BOHLER, IN WRITING, OF ANY SUCH CONFLICTS, DISCREPANCIES OR AMBIGUITIES BETWEEN THE GEOTECHNICAL REPORT AND PLANS AND SPECIFICATIONS, PRIOR TO PROCEEDING WITH ANY FURTHER WORK. IF A GEOTECHNICAL REPORT WAS NOT CREATED, THEN THE CONTRACTOR MUST FOLLOW AND COMPLY WITH ALL OF THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE SPECIFICATIONS WHICH HAVE JURISDICTION OVER THIS PROJECT.
12. PROFESSIONAL OF RECORD AND BOHLER ARE NEITHER LIABLE NOR RESPONSIBLE FOR ANY SUBSURFACE CONDITIONS AND FURTHER, HAS NO LIABILITY FOR ANY HAZARDOUS MATERIALS, HAZARDOUS WASTE OR SUBSTANCES ON, ABOUT OR UNDER THE PROPERTY.
13. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING WHEN AND WHERE SHORING IS REQUIRED AND FOR INSTALLING ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PRECAUTIONS TO BE TAKEN TO ASSURE THE STABILITY OF ADJACENT, NEARBY AND CONTIGUOUS STRUCTURES AND PROPERTIES. IF THIS WORK IS TO BE PERFORMED BY A SUBCONTRACTOR, CONTRACTOR'S SOLE COST AND EXPENSE.
14. THE CONTRACTOR MUST USE EXTREME CAUTION WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. WHICH ARE TO REMAIN EITHER FOR AN INITIAL PHASE OF THE PROJECT OR AS PART OF THE FINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ALL APPROPRIATE MEASURES REQUIRED TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS AND PAVEMENT, UTILITIES, BUILDINGS, AND INFRASTRUCTURE WHICH ARE TO REMAIN, AND TO PROTECT THE WORK AREA FOR THIRD PARTIES, PEDESTRIANS AND ANYONE INVOLVED WITH THE PROJECT.
15. DEBRIS MUST NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION AND CONSTRUCTION WASTES, UNSUITABLE EXCAVATED MATERIAL, EXCESS SOIL AND DEBRIS (SOLID WASTE) MUST BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF ANY AND ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES WHICH HAVE JURISDICTION OVER THIS PROJECT OR OVER THE CONTRACTOR.
16. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAINTAIN RECORDS TO DEMONSTRATE PROPER AND FULLY COMPLIANT DISPOSAL ACTIVITIES, TO BE PROMPTLY PROVIDED TO THE OWNER UPON REQUEST.
17. THE CONTRACTOR MUST REPAIR, AT CONTRACTOR'S SOLE COST, ALL DAMAGE DONE TO ANY NEW OR EXISTING CONSTRUCTION OR PROPERTY DURING THE COURSE OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME TO INCLUDE, BUT NOT BE LIMITED TO, REDESIGN, RE-SURVEY, RE-PERMITTING AND CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR AND MUST REPLACE ALL EXISTING UTILITY LINES AND APPURTENANCES (INCLUDING ELECTRICAL AND ELECTRONIC ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION AND MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE REPAIR OF ANY SUCH NEW OR EXISTING CONSTRUCTION OR PROPERTY SHALL BE PERFORMED TO A CONDITION EQUIVALENT TO OR BETTER THAN THE CONDITIONS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION, AND IN CONFORMANCE WITH APPLICABLE CODES, LAWS, RULES, REGULATIONS, STATUTORY REQUIREMENTS AND STATUTES. THE CONTRACTOR MUST BEAR ALL COSTS ASSOCIATED WITH SAME. THE CONTRACTOR MUST, PROMPTLY, DOCUMENT ALL EXISTING DAMAGE AND NOTIFY THE OWNER AND THE CONSTRUCTION MANAGER IN WRITING PRIOR TO THE START OF CONSTRUCTION.
18. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR AND HAVE NO CONTRACTUAL, LEGAL OR OTHER RESPONSIBILITIES FOR JOB SITE SAFETY JOB SITE SUPERVISION, OR ANYTHING RELATED TO SAME. THE PROFESSIONAL OF RECORD AND BOHLER HAVE NOT BEEN RETAINED TO PERFORM OR TO BE RESPONSIBLE FOR JOB SITE SAFETY, SAME BEING WHOLLY OUTSIDE OF PROFESSIONAL OF RECORD'S AND BOHLER'S SERVICES AS RELATED TO THE PROJECT. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE TO DIRECT OR SUPERVISE ANY JOB SITE SAFETY ISSUES OR ANY JOB SITE CONDITIONS, AT ANY TIME.
19. THE CONTRACTOR MUST IMMEDIATELY IDENTIFY IN WRITING THE PROFESSIONAL OF RECORD AND BOHLER , ANY DISCREPANCIES THAT MAY OR COULD AFFECT THE PUBLIC SAFETY, HEALTH OR GENERAL WELFARE, OR PROJECT COST. IF THE CONTRACTOR PROCEEDS WITH CONSTRUCTION WITHOUT PROVIDING PROPER WRITTEN NOTIFICATION AS DESCRIBED ABOVE, IT WILL BE AT THE CONTRACTOR'S OWN RISK AND, FURTHER, THE CONTRACTOR MUST INDEMNIFY, DEFEND AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER FOR ANY AND ALL DAMAGES, COSTS, INJURIES, ATTORNEY'S FEES AND THE LIKE WHICH RESULT FROM OR ARE IN ANY WAY RELATED TO SAME INCLUDING, BUT NOT LIMITED TO, ANY THIRD PARTY AND FIRST PARTY CLAIMS.
20. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY INJURY OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH THE APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE. IF THE CONTRACTOR AND/OR OWNER FAIL TO BUILD OR CONSTRUCT IN STRICT ACCORDANCE WITH APPROVED PLANS, AND CURRENT CODES, RULES, STATUTES AND THE LIKE, THE CONTRACTOR AND/OR OWNER AGREE TO AND MUST JOINTLY, INDEPENDENTLY, SEPARATELY, AND SEVERALLY INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER HARMLESS FOR AND FROM ALL INJURIES, CLAIMS AND DAMAGES THAT PROFESSIONAL OF RECORD AND BOHLER SUFFER AND ANY AND ALL COSTS THAT PROFESSIONAL OF RECORD AND BOHLER INCUR AS RELATED TO SAME.
21. ALL CONTRACTORS MUST CARRY AT LEAST THE MINIMUM AMOUNT OF THE SPECIFIED AND COMMERCIALLY REASONABLE STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND COMMERCIAL GENERAL LIABILITY INSURANCE (CGL) INCLUDING ALSO AN UMBRELLA COVERAGES. ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME AS ADDITIONAL INSURED THE OWNER(S), PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AS ADDITIONAL NAMED INSUREDS AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE (DEFEND, IF APPLICABLE) AND HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED AND AGREED TO BY THE CONTRACTOR HEREIN. ALL CONTRACTORS MUST FURNISH BOHLER WITH CERTIFICATIONS OF INSURANCE OR CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE COVERAGES PRIOR TO COMMENCING ANY WORK AT THE SITE AND PRIOR TO THE EXPIRATION OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION AND FOR TWO YEARS AFTER THE COMPLETION OF CONSTRUCTION AND AFTER ALL PERMITS ARE ISSUED, WHICHEVER DATE IS LATER. IN ADDITION, CONTRACTORS AGREE THAT THEY WILL, TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, INDEMNIFY, DEFEND AND HOLD HARMLESS BOHLER AND ITS PAST, PRESENT AND FUTURE OWNERS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS, INJURIES, DAMAGES, LOSSES, CAUSES OF ACTION, PENALTIES, EXPENSES, PUNITIVE DAMAGES, TORT DAMAGES, STATUTORY CLAIMS, STATUTORY CAUSES OF ACTION, LOSSES, CAUSES OF ACTION, LIABILITIES OR COSTS, INCLUDING, BUT NOT LIMITED TO, REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH OR TO THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR(S), ALL CLAIMS BY THIRD PARTIES AND ALL CLAIMS RELATED TO THE PROJECT. THE CONTRACTOR MUST NOTIFY PROFESSIONAL OF RECORD, IN WRITING, AT LEAST THIRTY (30) DAYS PRIOR TO ANY TERMINATION, EXPIRATION OR CHANGE OF THE INSURANCE POLICIES.
22. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR CONSTRUCTION METHODS, MEANS, TECHNIQUES OR PROCEDURES, GENERALLY OR FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES FOR CONSTRUCTION OF THE WORK DEPICTED OR NOTED ON THESE PLANS, AND FOR ANY CONFLICTS IN SCOPE AND REVISIONS THAT RESULT FROM SAME. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR DETERMINING THE MEANS AND METHODS FOR COMPLETION OF THE WORK, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
23. NEITHER THE PROFESSIONAL ACTIVITIES OF PROFESSIONAL OF RECORD AND BOHLER, NOR THE PRESENCE OF THEIR EMPLOYEES AND/OR CONSULTANTS, OFFICERS, DIRECTORS, PARTNERS, SHAREHOLDERS, MEMBERS, PRINCIPALS, COMMISSIONERS, AGENTS, SERVANTS, EMPLOYEES, AFFILIATES, SUBSIDIARIES, AND RELATED ENTITIES, AND ITS SUBCONTRACTORS AND SUBCONSULTANTS AT A CONSTRUCTION PROJECT SITE (HEREINAFTER COLLECTIVELY, THE "BOHLER PARTIES"), RELIEVES OR WILL RELIEVE THE CONTRACTOR OF AND FROM CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, OVERSEEING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND COMPLIANCE WITH ANY AND ALL SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES WITH JURISDICTION OVER THE PROJECT AND/OR PROPERTY. BOHLER PARTIES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER (OR ANY RESPONSIBILITY FOR) ANY CONSTRUCTION, THE CONTRACTOR OR ITS EMPLOYEES RELATING TO ANY WORK AND ANY OBLIGATION TO INITIATE, MAINTAIN AND SUPERVISE SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR MUST INDEMNIFY, DEFEND, PROTECT AND HOLD HARMLESS BOHLER PARTIES FOR AND FROM ANY LIABILITY TO BOHLER PARTIES RESULTING FROM THE CONTRACTOR'S WORK, SERVICES AND/OR ACTIVITIES AS SET FORTH IN THESE NOTES OR ANY NOTES IN THE PLAN SET AND, FURTHER, THE CONTRACTOR MUST NAME BOHLER AS AN ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE AS DESCRIBED ABOVE.
24. WHEN IT IS CLEARLY AND SPECIFICALLY WITHIN BOHLER'S SCOPE OF SERVICES CONTRACT WITH THE OWNER/DEVELOPER, BOHLER WILL REVIEW OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF EVALUATING CONFORMANCE WITH THE DESIGN INTENT AND THE INFORMATION SHOWN IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONSTRUCTION MEANS AND METHODS AND/OR TECHNIQUES OR PROCEDURES, COORDINATION OF THE WORK WITH OTHER TRADES, AND CONSTRUCTION SAFETY PRECAUTIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND BOHLER HAS NO RESPONSIBILITY OR LIABILITY FOR SAME. BOHLER WILL PERFORM ITS SHOP DRAWING REVIEW WITH REASONABLE PROMPTNESS, AS CONDITIONS PERMIT. ANY DOCUMENT, DOCUMENTING BOHLER'S REVIEW OF A SPECIFIC ITEM OR LIMITED SCOPE, MUST NOT INDICATE THAT BOHLER HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER IS NOT RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR MUST, IN WRITING, PROMPTLY AND IMMEDIATELY BRING ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS TO BOHLER'S ATTENTION. BOHLER IS NOT REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
25. IF THE CONTRACTOR DEVIATES FROM THESE PLANS AND/OR SPECIFICATIONS, INCLUDING THE NOTES CONTAINED HEREIN, WITHOUT FIRST OBTAINING THE PRIOR WRITTEN AUTHORIZATION OF THE PROFESSIONAL OF RECORD AND BOHLER FOR ALL DEVIATIONS WHICH ARE IDENTIFIED OR NOTED ON RECORD'S SCOPE, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PAYMENT OF ALL COSTS INCURRED IN CORRECTING ANY WORK PERFORMED WHICH DEVIATES FROM THE PLANS, ALL FINES AND/OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND, FURTHER, MUST DEFEND, INDEMNIFY, PROTECT, AND HOLD HARMLESS THE PROFESSIONAL OF RECORD AND BOHLER PARTIES TO THE FULLEST EXTENT PERMITTED UNDER THE LAW, FOR AND FROM ALL FEES, ATTORNEYS' FEES, DAMAGES, COSTS, JUDGMENTS, CLAIMS, INJURIES, PENALTIES AND THE LIKE RELATED TO SAME.
26. THE CONTRACTOR IS RESPONSIBLE FOR A MAINTAINING AND PROTECTING THE TRAFFIC CONTROL PLAN AND ELEMENTS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS, FOR ALL WORK THAT AFFECTS PUBLIC TRAVEL EITHER IN THE RIGHT OF WAY OR ON SITE. THE COST FOR THIS ITEM MUST BE INCLUDED IN THE CONTRACTOR'S PRICE AND IS THE CONTRACTOR'S SOLE RESPONSIBILITY.
27. OWNER MUST MAINTAIN AND PRESERVE ALL PHYSICAL SITE FEATURES AND DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS IN STRICT ACCORDANCE WITH THE APPROVED PLAN(S) AND DESIGN AND, FURTHER, THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR ANY FAILURE TO SO MAINTAIN OR PRESERVE SITE AND/OR DESIGN FEATURES. IF OWNER FAILS TO MAINTAIN AND/OR PRESERVE ALL PHYSICAL SITE FEATURES AND/OR DESIGN FEATURES DEPICTED ON THE PLANS AND RELATED DOCUMENTS, OWNER AGREES TO INDEMNIFY AND HOLD THE PROFESSIONAL OF RECORD AND BOHLER PARTIES, HARMLESS FOR ALL INJURIES, DAMAGES AND COSTS INCURRED AS A RESULT OF SAID FAILURE OR FAILURE TO PRESERVE.
28. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION ACTIVITIES AND MATERIALS COMPLY WITH AND CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL RULES AND REGULATIONS, LAWS, ORDINANCES, AND CODES, AND ALL APPLICABLE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, (29 U.S.C. 651 ET SEQ.) AS AMENDED, AND ANY MODIFICATIONS, AMENDMENTS OR REVISIONS TO SAME.
29. THE CONTRACTOR MUST STRICTLY COMPLY WITH THE LATEST AND CURRENT OSHA STANDARDS AND REGULATIONS, AND/OR ANY OTHER AGENCY WITH JURISDICTION OVER EXCAVATION AND TRENCHING PROCEDURES. PROFESSIONAL OF RECORD AND BOHLER HAS NO RESPONSIBILITY FOR OR AS RELATED TO EXCAVATION AND TRENCHING PROCEDURES AND WORK.
30. THE CONTRACTOR AND THE OWNER MUST INSTALL ALL ELEMENTS AND COMPONENTS IN STRICT COMPLIANCE WITH AND IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDED INSTALLATION CRITERIA AND SPECIFICATIONS. IF THE CONTRACTOR AND/OR OWNER FAIL TO DO SO, THEY AGREE TO JOINTLY, INDEPENDENTLY, SEPARATELY, COLLECTIVELY, AND SEVERALLY INDEMNIFY, DEFEND, PROTECT AND HOLD PROFESSIONAL OF RECORD AND BOHLER PARTIES HARMLESS FOR ALL INJURIES AND DAMAGES THAT PROFESSIONAL OF RECORD SUFFERS AND COSTS THAT PROFESSIONAL OF RECORD INCURS AS A RESULT OF SAID FAILURE.
31. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN AN ON-SITE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS OR LOCAL GOVERNING AGENCY FOR SITES WHERE ONE (1) ACRE OR MORE IS DISTURBED BY CONSTRUCTION ACTIVITIES (UNLESS THE LOCAL JURISDICTION REQUIRES A DIFFERENT THRESHOLD). THE CONTRACTOR MUST ENSURE THAT ALL ACTIVITIES, INCLUDING THOSE OF ALL SUBCONTRACTORS, ARE IN COMPLIANCE WITH THE SWPPP, INCLUDING BUT NOT LIMITED TO LOGGING ACTIVITIES (MINIMUM ONCE PER WEEK AND AFTER RAINFALL EVENTS) AND CORRECTIVE MEASURES, AS APPROPRIATE AND FURTHER, THE CONTRACTOR IS SOLELY AND COMPLETELY RESPONSIBLE FOR FAILING TO DO SO.
32. AS CONTAINED IN THESE DRAWINGS AND ASSOCIATED DOCUMENTS PREPARED BY THE PROFESSIONAL OF RECORD AND BOHLER, THE USE OF THE WORDS 'CERTIFY' OR 'CERTIFICATION' CONSTITUTE(S) AN EXPRESSION ONLY OF PROFESSIONAL OPINION REGARDING THE INFORMATION WHICH IS THE SUBJECT OF THE PROFESSIONAL OF RECORD'S AND BOHLER'S KNOWLEDGE OR BELIEF AND IN ACCORDANCE WITH COMMON AND ACCEPTED PROCEDURE CONSISTENT WITH THE APPLICABLE STANDARDS OF PRACTICE, AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY NATURE OR TYPE, EITHER EXPRESSED OR IMPLIED, UNDER ANY CIRCUMSTANCES.

DEMOLITION NOTES

(Rev. 1/2023)

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THE CONTRACTOR MUST CONDUCT DEMOLITION/REMOVALS ACTIVITIES IN SUCH A MANNER AS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND ALL OTHER ADJACENT FACILITIES. THE CONTRACTOR MUST OBTAIN ALL APPLICABLE PERMITS FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY(IES) PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
3. WHEN DEMOLITION-RELATED ACTIVITIES IMPACT ROADWAYS AND/OR ROADWAY RIGHT-OF-WAY, THE CONTRACTOR MUST PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROLS (MUTCD), AND THE FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE DEMOLITION (AND/OR REMOVALS) PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION AND TO IDENTIFY ONLY CONDITIONS REGARDING ITEMS TO BE DEMOLISHED, REMOVED, AND/OR TO REMAIN.
   A. THE CONTRACTOR MUST ALSO REVIEW ALL CONSTRUCTION DOCUMENTS AND INCLUDE WITHIN THE DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
   B. THIS PLAN IS NOT INTENDED TO AND DOES NOT PROVIDE DIRECTION REGARDING THE MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED TO ACCOMPLISH THE WORK. ALL MEANS, METHODS, SEQUENCING, TECHNIQUES AND PROCEDURES TO BE EMPLOYED SHALL BE IN STRICT COMPLIANCE AND CONFORMANCE WITH ALL FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR MUST COMPLY WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE FOR THE CONTRACTOR AND THE PUBLIC.
5. THE CONTRACTOR MUST PROVIDE ALL "METHODS AND MEANS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR, AT THE CONTRACTOR'S SOLE COST, MUST REPAIR ALL DAMAGE TO ALL STRUCTURES AND FEATURES THAT ARE TO REMAIN. CONTRACTOR MUST USE NEW MATERIAL FOR ALL REPAIRS. CONTRACTOR'S REPAIRS MUST INCLUDE THE RESTORATION OF ALL ITEMS AND FEATURES REPAIRED TO THEIR PRE-DEMOLITION CONDITION, OR BETTER. CONTRACTOR MUST PERFORM ALL REPAIRS AT THE CONTRACTOR'S SOLE EXPENSE.
6. THE PROFESSIONAL OF RECORD AND BOHLER ARE NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. THE CONTRACTOR MUST PROCEED WITH ALL DEMOLITION, AND SAFETY MEASURES IN ACCORDANCE WITH FEDERAL, STATE, COUNTY AND LOCAL REQUIREMENTS, PRIOR TO ENSURING PUBLIC AND CONTRACTOR SAFETY AND SAFETY TO ALL PROPERTY ON THE SITE OR ADJACENT OR NEAR TO THE SAME.
7. THE CONTRACTOR IS RESPONSIBLE FOR JOB SITE SAFETY, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING, OTHER APPROPRIATE AND/OR NECESSARY SAFETY FEATURES AND ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST SAFEGUARD THE SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
8. PRIOR TO THE COMMENCEMENT OF ANY SITE ACTIVITY AND ANY DEMOLITION ACTIVITY, THE CONTRACTOR MUST, IN WRITING, RAISE ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS AND/OR SPECIFICATIONS, ALL CONCERNS OR QUESTIONS REGARDING THE APPLICABLE SAFETY STAND

ZONING

EXISTING ZONING: A RESIDENTIAL DISTRICT
ACCESSORY USES

EXISTING USE: OUTDOOR RECREATION USE
(PERMITTED BY-RIGHT WITHIN A RESIDENTIAL DISTRICT)

SITE CALCULATION

SITE AREA:	1,160,388.80 SF (26.64 Ac.)
GERMANTOWN PIKE & JOSHOA RD. LEGAL R.O.W.:	- 50,234.26 SF
NET SITE AREA:	1,110,154.54 SF (25.49 Ac.)

ZONING DISTRICT REQUIREMENTS

	REQUIRED	PROPOSED
MIN. LOT AREA	15,000 SF.	26.64 Ac. (GROSS) 25.49 Ac. (NET)
MIN. LOT WIDTH AT BLDG. SETBACK LINE	90 FT.	NA
MIN. YARD SETBACKS		
FRONT	40 FT.	499.4 FT
SIDE YARD (EA)	15 FT. (AGGREGATE OF 40 FT.)	627.9 FT
REAR	40 FT.	81.5 FT
MIN. BUILDING SPACING	NA	NA
MAX. BUILDING HEIGHT	35 FT. (PRINCIPAL BLDG.) 20 FT. (ACCESSORY BLDG. NOT TO EXCEED ONE STORY)	< 35 FT.
MAX. BUILDING COVERAGE (TOTAL OF EXIST. & PROP. STRUCTURES)	20% OF TOTAL LOT AREA	1.69% (NET) (18,771 SF = 0.43 AC)
MAX. IMPERVIOUS COVER (TOTAL STRUCTURES & PAVING)	NA	14.36% (NET) (159,250 SF. = 3.66 Ac.)
OPEN SPACE (MINUS EXIST. & PROP. STRUCTURES)	40% OF TOTAL TRACT	98.20% (NET) (1,090,192 SF. = 25.03 Ac.)

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REV	DATE	COMMENT	DRAWN BY / CHECKED BY
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2	04/11/2025	PER CLIENT COMMENTS	EEL / WRR
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PROJECT No.:	PAA220255.00
DRAWN BY:	EEL
CHECKED BY:	CP
DATE:	01/17/2023
CAD I.D.:	PAA220255.00-ZONE-3A

PROJECT:

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

BOHLER

1600 MANOR DRIVE, SUITE 200
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WILLIAM R. PEARDEN
PROFESSIONAL ENGINEER
PENNSYLVANIA LICENSE NO. PE089243
NEW JERSEY LICENSE NO. GE24694500

SHEET TITLE:

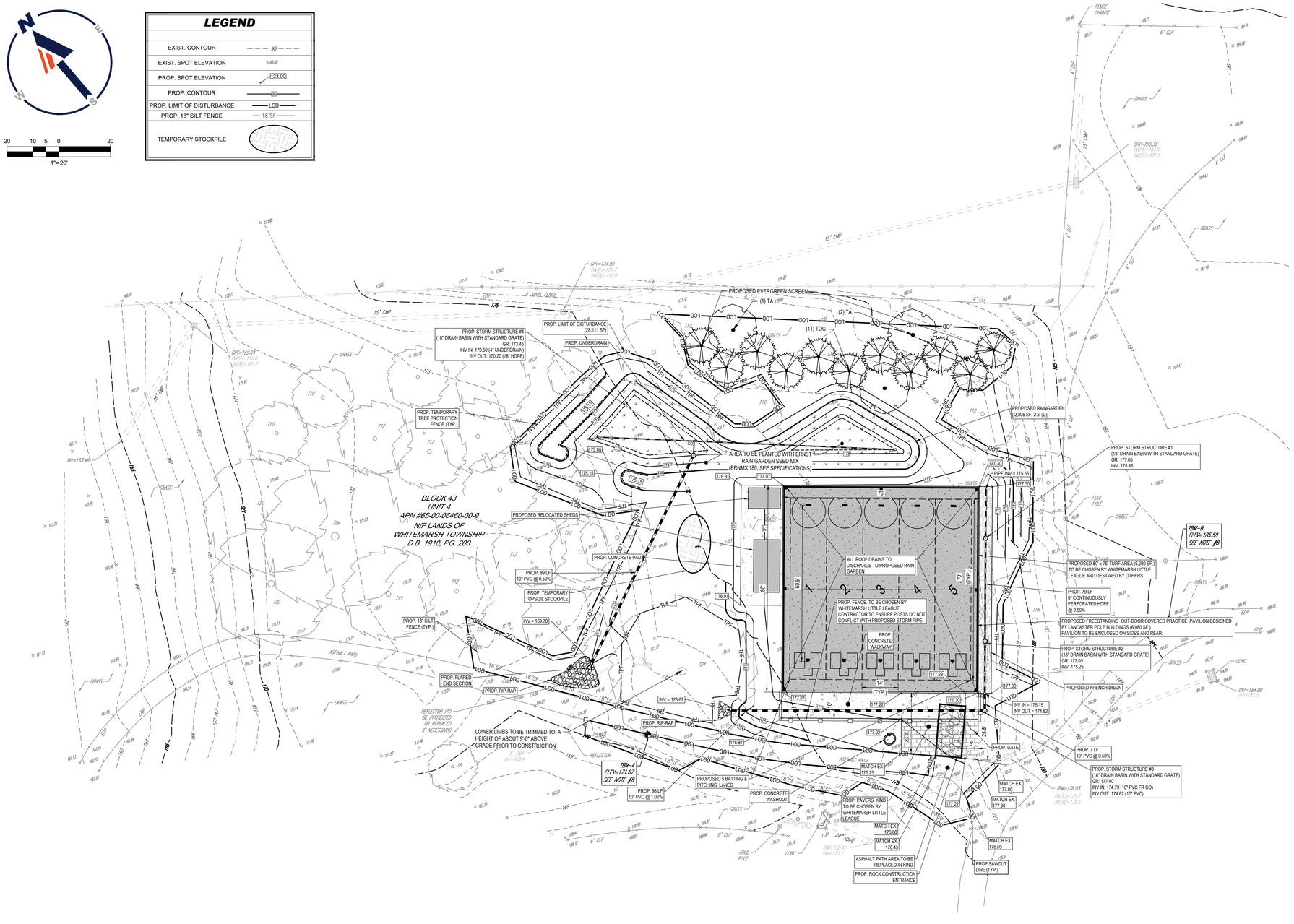
OVERALL SITE PLAN

SHEET NUMBER:

3
OF 7

REVISION 3 - 06/26/2025

R:\2022\PAA220255.00\CAD\DRAWINGS\PLAN SETS\ZONING PLAN\PAA220255.00-ZONE-3A-----LAYOUT: 01-OVL SITE PLAN



IMPERVIOUS SURFACES SUMMARY

	EXISTING (SF)	REMOVED	ADDED (SF)	TOTAL (SF)
CONC./HARDSCAPE=	3,638	3,638	8,835	8,835
SHED=	307	0	0	307
TOTAL=	3,945	3,638	8,835	9,142

PROPOSED IMPERVIOUS = 8,835 SF - 3,638 SF REMOVED = 5,197 SF > 1,000 SF MAXIMUM NEW IMPERVIOUS THRESHOLD. STORMWATER MANAGEMENT PROVIDED.

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
TA	3	TILIA AMERICANA	AMERICAN LINDEN	3" CAL.	B&B
EVERGREEN TREES					
TOG	11	THUJA OCCIDENTALIS 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-8'	B&B

RECEIVING STREAM DATA

NEAREST STREAM: UNNAMED TRIBUTARY TO SCHUYLKILL RIVER
CHAPTER 93 STREAM CLASSIFICATION: CWF (COLD WATER FISHES), MF (MIGRATORY FISHES)
WATERSHED: SCHUYLKILL RIVER

SOIL DESCRIPTIONS

SOIL	DESCRIPTION	PUBLISHED NRCS HYDROLOGIC SOIL GROUP
DuB	- DUFFIELD SILT LOAM, 3 TO 8 PERCENT SLOPES	B
LeA	- LAWRENCEVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	C
UrhB	- URBAN LAND-DUFFIELD COMPLEX, 0 TO 8 PERCENT SLOPES	B

PROJECT SPECIFC SITE NOTES

(Rev. 5/2024)

1. PROPERTY OWNER:
   TOWNSHIP OF WHITEMARSH
   616 GERMANTOWN PIKE, LAFAYETTE HILL, PA 19444
2. EXISTING PROPERTY INFORMATION:
   PART OF BLOCK 43, UNIT 4, APN #65-00-06460-00-9
   303 GERMANTOWN PIKE, LAFAYETTE HILL, PA 19444
   ZONED A RESIDENTIAL DISTRICT
3. APPLICANT/EQUITABLE OWNER:
   WHITEMARSH LITTLE LEAGUE, INC.
   C/O ROBERT STOKLEY
   27 LAURENCE PLACE; PLYMOUTH MEETING, PA 19564
   (610) 476-5860
4. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE SOUTH COORDINATES, NAD 83. VERTICAL DATUM IS NAVD 1988, TEMPORARY BENCH MARKS SET:
   TBM-A: MAG NAIL SET IN ASPHALT PAVEMENT, LOCATED ON SURVEY ELEVATION = 171.87'
   TBM-B: MAG NAIL SET IN ASPHALT PAVEMENT, LOCATED ON SURVEY ELEVATION = 185.58'
5. BY GRAPHIC PLOTTING ONLY, THE PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM) NUMBER 42091C0357G, EFFECTIVE 03/02/2016.

PROJECT SPECIFC GRADING NOTES

(Rev. 9/2024)

1. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE PAVEMENT GRADE UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR MUST ENSURE THAT POSITIVE DRAINAGE IS PROVIDED IN BOTH PAVED AND LAWN AREAS AFTER CONSTRUCTION. THE MINIMUM SLOPES FOR IMPROVEMENTS ARE 1% ON ALL CONCRETE SURFACES, 1.5% MINIMUM IN ASPHALT (EXCEPT WHERE ADA LIMITS SLOPE), AND 2% IN LAWN AREAS. ANY LOCALIZED DEPRESSIONS MUST BE ELIMINATED.
3. THE CONTRACTOR MUST ENSURE POSITIVE DRAINAGE AWAY FROM STRUCTURES. WHERE THE GRADING ALONG AND ADJACENT TO A BUILDING ARE SCHEMATIC DUE TO A GENERIC BUILDING FOOTPRINT, THE GRADES MUST BE ADJUSTED BASED ON FINAL ARCHITECTURAL PLANS TO PROVIDE THE MINIMUM REVEAL AS REQUIRED BY THE ARCHITECT AND TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE BUILDING. ALL GRADING AND MINIMUM SLOPES AND SEPARATIONS MUST COMPLY WITH THE LATEST LOCAL AND STATE BUILDING CODES AND ALL OTHER APPLICABLE REQUIREMENTS, RULES, STATUTES, LAWS, ORDINANCES, AND CODES.
4. WHERE SUBGRADE BUILDING AREAS ARE PROVIDED, THE CONTRACTOR MUST DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED SUBGRADE BUILDING AREA. WHERE GROUNDWATER IS ENCOUNTERED AT THE ELEVATION OF THE SUBGRADE BUILDING AREA, APPROPRIATE CONSTRUCTION METHODS SHALL BE EMPLOYED TO PREVENT GROUNDWATER FROM ENTERING THE STRUCTURE(S). IF AND WHERE SUMP PUMPS ARE PROVIDED, ALL DISCHARGES MUST BE CONNECTED TO THE STORM SEWER OR OTHERWISE PROTECTED FROM CAUSING SURFACE RUNOFF EROSION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER AND IMPLEMENT RECOMMENDED STABILIZATION MEASURES FOR ANY CUT SLOPES IN EXCESS OF 2:1 AND/OR FILL SLOPES IN EXCESS OF 3:1.
6. ALL SLOPES 3:1 OR GREATER SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS OR GEOTECHNICAL SPECIFICATIONS.
7. REMOVAL OF TOPSOIL IN NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.

PROJECT SPECIFIC DRAINAGE & UTILITY NOTES

(Rev. 5/2024)

1. THESE PLANS INVOLVE BUILDINGS THAT MAY BE BUILT AT A LATER DATE. THE CONTRACTOR MUST EXTEND ALL LINES, INCLUDING, BUT NOT LIMITED TO STORM, SANITARY, TELECOM, GAS, AND ELECTRIC, AND IRRIGATION LINES TO A POINT AT LEAST FIVE FEET (5') BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. CONTRACTOR MUST CAP ENDS AS APPROPRIATE, MARK LOCATIONS WITH A STAKE, AND MUST NOTE THE LOCATION OF ALL OF THE ABOVE ON A CLEAN COPY OF A PLAN, WHICH THE CONTRACTOR MUST PROMPTLY PROVIDE TO THE OWNER UPON COMPLETION OF WORK.
2. STORM AND SANITARY PIPE LENGTHS INDICATED IN THE PLANS ARE NOMINAL AND ARE MEASURED FROM THE CENTERS OF INLETS AND MANHOLES.
3. UNLESS OTHERWISE NOTED, ALL NEW UTILITIES/SERVICES, INCLUDING BUT NOT LIMITED TO ELECTRIC, TELEPHONE, TELECOM, GAS, ETC. MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDERS' INSTALLATION SPECIFICATIONS AND STANDARDS.
4. THE CONTRACTOR MUST ENSURE THAT ALL UTILITY TRENCHES LOCATED IN EXISTING PAVED ROADWAYS, MUST BE REPAIRED IN ACCORDANCE WITH THE REFERENCED MUNICIPAL, COUNTY, AND/OR DOT DETAILS AS APPLICABLE. CONTRACTOR MUST COORDINATE INSPECTION AND APPROVAL OF COMPLETED WORK WITH THE AGENCY(IES) HAVING JURISDICTION.
5. VARIOUS ASPECTS OF THE UTILITY DESIGNS DEPICTED ON THE PLANS ARE SCHEMATIC IN ORDER TO PROVIDE PLAN CLARITY OR TO CONVEY A DESIGN INTENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY CONFIGURE ALL STRUCTURES IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL, SERVICE PROVIDER, OR MANUFACTURER REQUIREMENTS IN ORDER TO ACHIEVE PROPER SITING, OPERATION, CONNECTIONS, SEPARATIONS, AND ACCESSES. THE CONTRACTOR SHALL REVIEW THE PLAN SPECIFICATIONS AND PREPARE STRUCTURE DESIGNS THAT INCORPORATE ANY AND ALL INTEGRAL COMPONENTS, SUCH AS TRASH RACKS, GATES, VALVES, INTERNAL OR EXTERNAL LININGS, WATER QUALITY DEVICES, SUMPS, RESTRAINTS, STEPS, FRAMES AND GRATES, PIPE/CONDUIT CONNECTIONS, MATERIALS, ETC. SHOULD DISCREPANCIES OR CONFLICTS ARISE UPON THE DESIGN OF THESE STRUCTURES OR INCORPORATION OF THE VARIOUS ELEMENTS, THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE PROFESSIONAL OF RECORD OR BOHLER IN WRITING.

STORM DRAINAGE

6. UNLESS INDICATED OTHERWISE, MAINLINE (15" OR LARGER) STORM SEWER PIPE SHALL BE DUAL WALL, TYPE S, HIGH-DENSITY POLYETHYLENE (HDPE) OR POLYPROPYLENE (PP) PIPE WITH SMOOTH INTERIORS AND ANNULAR CORRUGATIONS WITH SOIL TIGHT JOINTS. FOR APPLICATIONS OUTSIDE OF STATE DOT ROADWAYS, DEPENDENT UPON COST AND AVAILABILITY, PRODUCTS USING RECYCLED RESIN ARE PREFERRED; WHEREAS IN STATE DOT APPLICATIONS, ONLY PRODUCTS WITH VIRGIN RESIN ARE TO BE USED, UNLESS OTHERWISE APPROVED BY THE STATE DOT. STORM PIPES SMALLER THAN 15", SUCH AS ROOF DRAINS AND UNDERDRAINS, SHALL BE HDPE, PP, AND PVC (SDR 35 OR SCHEDULE 40), UNLESS OTHERWISE NOTED. PIPE MUST CONFORM TO THE FOLLOWING: 4" TO 60" (VIRGIN RESIN) HDPE: AASHTO M252 (4" TO 12"), AASHTO M294 (12" TO 60"); 4" TO 60" (RECYCLED RESIN) HDPE: ASTM F2306 AND ASTM F2648. 12" TO 60" PP PIPE MUST CONFORM TO ASTM F2881 AND AASHTO M330. JOINT GASKETS MUST CONFORM TO ASTM F477. WATER-TIGHT JOINTS ADHERING TO ASTM D3212 SHALL BE PROVIDED WHEN RECOMMENDED BY A GEOTECHNICAL ENGINEER, AND/OR WHEN SITES ARE UNDERLAIN WITH KARST GEOLOGY, WHEN GROUNDWATER SEEPAGE SHOULD BE PREVENTED, AND WHERE THERE ARE ENVIRONMENTAL CONCERNS.
7. A MINIMUM OF FOUR FEET (4') OF HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN STORM STRUCTURES AND OTHER UTILITIES. A MINIMUM OF 18" OF VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN WATER MAIN AND STORM SEWER.
8. UNLESS SPECIFIC MUNICIPAL DETAILS DICTATE OTHERWISE, ALL STORM STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT REVISION OF PENNDOT PUBLICATION 408 - "SPECIFICATIONS", PUBLICATION 72M - "STANDARDS FOR ROADWAY CONSTRUCTION".
9. ALL INLETS SHALL BE PROVIDED WITH BICYCLE SAFE GRATES.
10. ALL STORM PIPE CONNECTIONS TO STRUCTURES SHALL BE MADE WATER TIGHT.

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PROJECT NO.:	PAA220255.00
DRAWN BY:	EEL
CHECKED BY:	CP
DATE:	01/17/2023
CAD I.D.:	PAA220255.00-PERMIT PLAN-3

PROJECT:

PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444

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PENNSYLVANIA LICENSE NO. PE090245
NEW JERSEY LICENSE NO. GE49504500

SHEET TITLE:

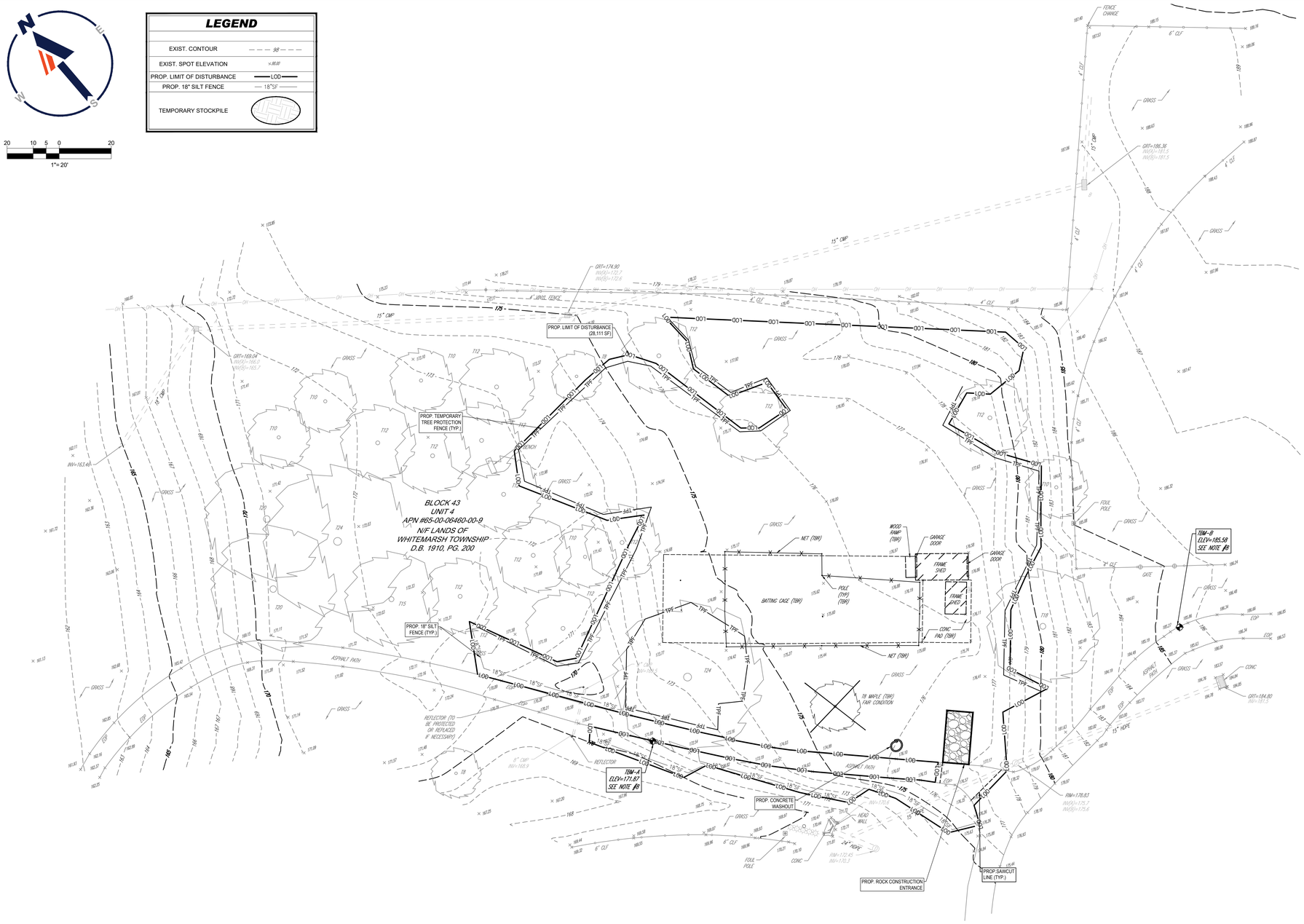
SITE IMPROVEMENTS PLAN

SHEET NUMBER:

4
OF 7

REVISION 3 - 06/26/2025

I:\2022\PAA220255.00\CAD\DRAWINGS\PLAN SET\PERMIT PLAN\REV 3\PAA220255.00-PERMIT PLAN-3---LAYOUT 1st SITE PLAN
EEL



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PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS

FOR

WHITEMARSH LITTLE LEAGUE

PROPOSED BATTING CAGE PAVILION

MILES PARK
303 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
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SHEET TITLE:

EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER: 5 OF 7

REVISION 3 - 06/26/2025

BOHLER SITE CIVIL AND CONSULTING ENGINEERING
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GENERAL CONSERVATION NOTES AND SPECIFICATIONS

(Rev. 10/2024)

I. GENERAL INFORMATION

A. THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE AVAILABLE AT THE SITE.
B. NO SEDIMENT OR SEDIMENT LADEN WATER MUST BE ALLOWED TO LEAVE THE SITE WITHOUT FIRST BEING PROPERLY FILTERED.
C. ANY SEDIMENT THAT IS TRACKED ONTO THE ROAD MUST BE CLEANED OFF BEFORE THE END OF THE DAY.
D. DISTURBED AREAS ON WHICH EARTHMOVING ACTIVITIES HAVE CEASED AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY, EITHER TEMPORARILY OR PERMANENTLY, INCLUDING THE RESTORATION OF DRIVEWAYS, STOCKPILES, OFF-SITE UNDERGROUND UTILITY LINES AND GRADED PERIMETER AREAS. DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION.
E. AREAS THAT FAIL TO GERMINATE MUST BE RE-SEEDED OR MULCHED.
F. WHERE DISTURBED AREAS ARE DIFFICULT TO STABILIZE, NETTING SHOULD BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATERCOURSES, IN SWALES AND AREAS OF CONCENTRATED FLOWS, STEEP SLOPES.
G. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
H. THE CONTRACTOR MUST DEVELOP AND COORDINATE WITH OWNER AND HAVE APPROVED BY THE COUNTY CONSERVATION DISTRICT, A SEPARATE EROSION AND SEDIMENT POLLUTION CONTROL PLAN FOR EACH SPOIL, BORROW OR OTHER WORK AREA NOT DETAILED ON THE PERMITTED PLANS, WHETHER LOCATED WITHIN OR OUTSIDE OF THE LIMITS OF CONSTRUCTION.
I. CONTRACTOR SHALL NOTIFY THE COUNTY CONSERVATION DISTRICT OF DISPOSAL METHOD AND LOCATION OF MATERIALS (IF ANY) TO BE REMOVED FROM SITE.
J. ALL MATERIALS TO BE RECYCLED OR DISPOSED OF MUST DO SO IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS. STOCKPILES TO BE HAULED OFF SITE MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AT THE DESTINATION LOCATION.
K. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN SOIL STABILIZATION THROUGHOUT CONSTRUCTION. ADDITIONAL MEASURES REQUIRED TO ENSURE ON-SITE AND OFF-SITE STABILIZATION IN AND ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO COST TO THE OWNER. IMMEDIATE NOTIFICATION SHALL BE GIVEN TO THE OWNER AND ENGINEER SHOULD ADDITION STABILIZATION MEASURES BE NECESSARY; IN ACCORDANCE WITH THE NPDES AND/OR SWPPP REQUIREMENTS FOR THE PROJECT.
L. NPDES PERMIT REQUIRES THAT A VISUAL SITE INSPECTION REPORT USING THE CURRENT PADEP FORM BE COMPLETED BY A QUALIFIED SITE INSPECTOR AT THE FOLLOWING FREQUENCY:
   L.1. WEEKLY,
   L.2. AFTER RAINFALL EVENTS OF AT LEAST 0.25 INCH IN A 24-HOUR PERIOD, AND
   L.3. AS A FOLLOW-UP TO DEFICIENCIES FOUND.
M. THE PERMITTEE MUST TAKE COLOR PHOTOGRAPHS OF E&S BMPS AND PCSM SCMS ON THE PROJECT SITE AT LEAST MONTHLY, UNLESS OTHERWISE APPROVED IN WRITING BY DEP/CCD, AND WHEN DEFICIENCIES IN BMPS AND SCMS ARE IDENTIFIED. THE PHOTOGRAPHS MUST HAVE A DATE AND TIME STAMP AND BE MADE AVAILABLE FOR DEP/CCD REVIEW UPON REQUEST.
N. WITHIN 30 DAYS FOLLOWING COMPLETION OF A STRUCTURAL PCSM SCM, AS DEFINED IN THE REISSUED PAG-02 GENERAL PERMIT, THE PERMITTEE MUST SUBMIT THE SCM CONSTRUCTION CERTIFICATION FORM (3800-FM-BCW0271J) TO DEP/CCD, SIGNED BY THE PERMITTEE AND A LICENSED PROFESSIONAL.
O. BEGINNING DECEMBER 8, 2025, THE PERMITTEE MUST COMPLETE CONFIRMATION TESTING FOR INFILTRATION CAPACITY TO VERIFY THAT INFILTRATION SCMS WILL PERFORM AS DESIGNED. TESTING IS REQUIRED FOR BOTH THE SUBGRADE PREPARATION AND POST CONSTRUCTION CONDITION.
P. UPON THE REDUCTION, LOSS, OR FAILURE OF ANY BMP OR PCSM SCM, THE PERMITTEE AND CO-PERMITTEE(S) MUST INITIATE THE REPAIR OR REPLACEMENT OF THE BMP SCM AS FOLLOWS:
   P.1. IMMEDIATELY UPON DISCOVERY IF THE REDUCTION, LOSS, OR FAILURE OF A BMP OR SCM HAS RESULTED IN OR IS LIKELY TO RESULT IN SEDIMENT OR OTHER POLLUTANTS FLOWING OFF THE PROJECT SITE AND/OR DISCHARGING TO SURFACE WATERS. COMPLETION OF THE REPAIR OR REPLACEMENT OF THE BMP OR SCM MUST OCCUR WITHIN 24 HOURS UNLESS OTHERWISE REQUIRED BY DEP/CCD.
   P.2. WHEN FAILURE OF A BMP OR SCM IS NOT LIKELY TO CAUSE POLLUTION, THE PERMITTEE MUST INITIATE REPAIR OR REPLACEMENT WITHIN 24 HOURS OF DISCOVERY AND COMPLETE THE REPAIR OR REPLACEMENT WITHIN 7 DAYS, UNLESS OTHERWISE REQUIRED BY DEP/CCD.
Q. IF SOIL CONTAMINATION OR GROUNDWATER CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION THE PERMITTEE IS TO NOTIFY DEP AND CCD OF NEWLY DISCOVERED ON-SITE SOIL OR GROUNDWATER CONTAMINATION. NOTIFICATION IS TO BE PROVIDED WITHIN 24 HOURS OF RECEIVING THE SAMPLING RESULTS INDICATING THE CONTAMINATION.
R. BY DECEMBER 7 OF EACH YEAR, THE PERMITTEE MUST SUBMIT AN ANNUAL REPORT (3800-PM-BCW0405E) TO THE OFFICE OF DEP/CCD THAT APPROVED GENERAL PERMIT COVERAGE TO REPORT ON THE STATUS OF EARTH DISTURBANCE ACTIVITIES. THE FIRST ANNUAL REPORT FOR EXISTING PERMITTEES IS DUE DECEMBER 7, 2025.
S. RESIDENTIAL ONLY - WHENEVER A LOT OR PARCEL CONTAINING A PCSM SCM IS SOLD DURING THE TERM OF GENERAL PERMIT COVERAGE, THE PERMITTEE MUST PROVIDE THE NEW PROPERTY OWNER WITH 1) RECORD DRAWINGS OR OTHER PLANS IDENTIFYING THE SCM; 2) A LONG-TERM OPERATION AND MAINTENANCE (O&M) PLAN FOR THE SCM; AND 3) A COMPLETED NEW PROPERTY OWNER NOTIFICATION FORM (3800-FM-BCW0271I). THE PERMITTEE MUST SUBMIT COPIES OF COMPLETED NEW PROPERTY OWNER NOTIFICATION FORMS TO DEP/CCD AND TO THE MUNICIPALITY WHERE THE SCM IS LOCATED WITHIN 30 DAYS OF THE DATE OF TRANSFER OF THE PROPERTY.

II. STANDARD FOR LAND GRADING

A. DEFINITION: RESHAPING THE GROUND SURFACE BY GRADING TO PLAN GRADES, WHICH ARE DETERMINED BY TOPOGRAPHIC SURVEY AND LAYOUT.
   A.1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FULL SLOPES.
   A.2. ADJOINING PROPERTY SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS.
B. INSTALLATION REQUIREMENTS
   B.1. TIMBER, LOGS, BRUSH, RUBBISH, ROCKS, STUMPS AND VEGETABLE MATTER WHICH WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OR FILL AREAS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH STANDARD FOR DISPOSAL OF MATERIALS.
   B.2. FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
   B.3. ALL FILLS SHALL BE COMPACTED SUFFICIENTLY FOR THEIR INTENDED PURPOSE AND AS REQUIRED TO REDUCE SLIPPING, EROSION OR EXCESS SATURATION.
   B.4. ALL DISTURBED AREAS SHALL BE LEFT WITH A NEAT AND FINISHED APPEARANCE AND SHALL BE PROTECTED FROM EROSION.
   B.5. (SEE I. D.)

III. STANDARD FOR UTILITY TRENCH EXCAVATION

A. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
B. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR A MAX OF SIX DAYS FOR CERTAIN CASES REQUIRING TESTING OF THE INSTALLED PIPE.
C. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING TO A FACILITY FOR REMOVAL OF SEDIMENT (SEDIMENT FILTER BAG, SEE DETAIL) BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS.
D. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES / FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE IMMEDIATELY.
E. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FORM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
F. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.

IV. STANDARD FOR TEMPORARY STABILIZATION

A. STANDARD FOR TEMPORARY STABILIZATION WITH FIBERMULCH
   A.1. MULCHING IS MOST APPLICABLE TO THOSE AREAS SUBJECT TO PERIODIC DISTURBANCE AND REWORKING IN ADDITION, STABILIZATION WITH FIBER MULCH SHALL BE USED DURING NON-GERMINATION PERIODS.
   A.2. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO THE SLOPE.
   A.3. GRADE AS NEED AND FEASIBLE. SEE STANDARD FOR LAND GRADING.
   A.4. PROTECTIVE MATERIALS TO BE USED
   A.4.a. UNROTTED SMALL-GRAIN UN-CHOPPED STRAW OR HAY AT 3.0 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1 AND MARCH 1) SPREAD UNIFORMLY AND ANCHORED WITH LIQUID MULCH BINDER. BINDER PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
   A.4.b. HYDROMULCHER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. LIQUID MULCH BINDERS: APPLY IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. PRODUCTS TO BE INSTALLED AT A RATE OF 1 TON PER ACRE (MINIMUM) OR PER MANUFACTURER'S SPECIFICATIONS.

B. STANDARD FOR TEMPORARY STABILIZATION WITH SEED
   B.1. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN TWELVE (12) MONTHS MUST BE SEEDED AND MULCHED IMMEDIATELY WITH A TEMPORARY COVER.
   B.2. ALL AREAS TO BE PERMANENTLY SEEDED SHALL ALSO RECEIVE TEMPORARY SEEDING CONCURRENTLY.
   B.3. SEEDBED PREPARATION FOR TEMPORARY SEEDING
   B.3.A PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
   B.3.B. APPLY AGRICULTURAL LIME AT A RATE OF 1 TONE PER ACRE
   B.3.C. APPLY 10-10-10 FERTILIZER A RATE OF 500 POUNDS PER ACRE
   B.3.D. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF FOUR (4) INCHES.

C. SEEDING: SEE SEEDING SPECIFICATIONS

V. STANDARD FOR PERMANENT STABILIZATION

A. SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER
   A.1. APPLY LIME AT THE RATE SHOWN ON EVERY ACRE AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING, AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF AT ANY TIME PRIOR TO SITE STABILIZATION ANY E&SP PROBLEMS OCCUR WHICH REQUIRE ADDITIONAL CONTROLS, IMMEDIATE ACTION MUST BE TAKEN TO CORRECT THE PROBLEMS.
   A.1.a. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
   A.1.b. SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT AND LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH TO BETWEEN 5.5 AND 7 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
   A.1.c. IMMEDIATELY PRIOR TO TOPSOIL DISTRIBUTION, THE SURFACE SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3-5 INCHES TO PROVIDE A GOOD BOND WITH THE TOPSOIL.
   A.2. APPLYING TOPSOIL
   A.2.a. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE.
   A.2.b. REMOVAL OF TOPSOIL IS NOT ALLOWED UNLESS APPROVED BY THE MUNICIPALITY OR UNLESS AS SPECIFIED BY THE SITE GEOTECHNICAL ENGINEER DUE TO THE SOIL'S UNSUITABILITY FOR PLACEMENT.
   A.3. SEEDBED PREPARATION
   A.3.a. A SOIL TEST SHALL BE CONDUCTED TO ACCURATELY DETERMINE NECESSARY SOIL AMENDMENTS.
   A.3.b. PERFORM ALL CULTURAL OPERATIONS AT RIGHT ANGLES TO SLOPE.
   A.3.c. SOIL MODIFICATIONS:
   A.3.c.1. APPLY 10-20-20 RATED FERTILIZER AT A RATE OF 1000 POUNDS PER ACRE OR 25 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
   A.3.c.2. APPLY AGRICULTURAL LIME AT A RATE OF 6 TONS PER ACRE OR 240 POUNDS PER 1000 SQUARE FEET, OR AS DIRECTED BY SOIL TEST.
   A.3.d. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.
   A.3.e. REMOVE FROM THE SURFACE ALL STONES ONE INCH (1") OR LARGER IN ANY DIMENSION, REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
   A.3.f. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.
   A.4. SEEDING: SEE SEEDING SPECIFICATIONS
   A.5. SEED BED AREAS SHALL ALSO BE STABILIZED USING AN APPROVED METHOD (EG: HYDROMULCHING) AS OUTLINED IN ITEM IV.A. HEREIN

B. STANDARD FOR PERMANENT STABILIZATION WITH SOD
   B.1. METHODS AND MATERIALS
   B.1.a. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
   B.1.b. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
   B.1.c. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH).
   B.1.d. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 0% OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
   B.1.e. A SOD OF KENTUCKY 31 TALL FESCUE WITH BLUEGRASS, OR A FESCUE BLEND IS PREFERRED.
   B.1.f. ONLY MOIST, FRESH UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
   B.2. SITE PREPARATIONS: SEE SPECIFICATION FOR SEEDING & SOIL TREATMENT FOR PERMANENT VEGETATIVE COVER (ITEM V.A. ABOVE)
   B.3. SOD PLACEMENT
   B.3.a. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
   B.3.b. PLACE SOD STRIPS WITH SNUG EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
   B.3.c. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS, WHICH WOULD CAUSE DRYING OF THE ROOTS.
   B.3.d ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES OR A BIODEGRADABLE FASTENER.
   B.3.e. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
   B.3.f. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.
   B.4. FOLLOW-UP INSPECTION: AFTER THE FIRST GROWING SEASON, THE SOD SHOULD BE INSPECTED TO DETERMINE IF ADDITIONAL FERTILIZATION OR LIMING IS NEEDED.

SEEDING SPECIFICATIONS

1. SEEDING DATES
   A. SEEDING SHALL OCCUR BETWEEN MARCH 1ST AND MAY 15TH OR BETWEEN AUGUST 15TH AND NO LATER THAN OCTOBER 15TH.
   B. IF SEEDING CANNOT BE CONDUCTED DURING THE TIMEFRAMES NOTED ABOVE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL CONSERVATION DISTRICT AND ALL APPROPRIATE AGENCIES TO DETERMINE AN ACCEPTABLE MEANS IN WHICH TO STABILIZE THE SITE THROUGH THE NEXT GROWING SEASON.
2. SEED MIXTURES: SEED MIXTURE TO BE USED ON THIS SITE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE NOTED ON THE PLANS. RATES ARE IN THE FORM OF POUNDS PER ACRE (LB/A) PER PURE LIVE SEED (POUNDS / ACRE PLS). CONTRACTOR WILL NEED TO ADJUST ACCORDINGLY BASED ON THE SEED GERMINATION AND PURITY RATING (SEE ITEM #3 BELOW).
   A. TEMPORARY SEED MIXTURES: DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE DISTURBED AGAIN WITHIN TWELVE (12) MONTHS MUST BE SEEDED WITH A TEMPORARY SEED MIXTURE AS FOLLOWS:
      ANNUAL RYE (40 POUNDS / ACRE PLS)
      OR SPRING OATS (96 POUNDS / ACRE PLS)
      OR WINTER RYE (168 POUNDS / ACRE PLS)
      (REFERENCE: PENN STATE "EROSION CONTROL & CONSERVATION PLANTINGS ON NONCROPLAND", TABLE 5)
   B. PERMANENT SEEDING SHALL CONSIST OF A NURSE CROP PLUS A PERMANENT SEED MIXTURE, AS FOLLOWS:
      I. NURSE CROP (SELECT ONE):
      ANNUAL RYE (10 POUNDS / ACRE PLS)
      OR SPRING OATS (64 POUNDS / ACRE PLS)
      OR WINTER RYE (56 POUNDS / ACRE PLS)
      (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #1)
      II. PERMANENT SEED MIX:
      FINE FESCUE (35 POUNDS / ACRE PLS)
      OR KENTUCKY BLUEGRASS (25 POUNDS / ACRE PLS) PLUS REDTOP (3 POUNDS / ACRE PLS)
      OR PERENNIAL RYEGRASS (15 POUNDS / ACRE PLS)
      (REFERENCE: PA DEP EROSION AND SEDIMENT CONTROL PROGRAM MANUAL, LATEST EDITION, TABLE 11.4, SEED MIX #2)
      PER PADEP: TALL FESCUES ARE NOT TO BE USED DUE TO THEIR INVASIVE STATUS. DESPITE THE MENTION OF TALL FESCUES WITHIN THE E&S MANUAL.
3. PURE LIVE SEED: MINIMUM PLS RATING ACCEPTED SHALL BE 85% PLS. SEED RATE MAY NEED TO BE ADJUSTED BASED ON THE PLS RATING OF THE SEED.
   A. SEED USED FOR THE PURPOSE OF PERMANENT STABILIZATION SHALL BE LABELED WITH GERMINATION AND PURITY PERCENTAGES. UNLABELED SEED WILL BE REJECTED. TEST RESULTS SHALL NOT BE TAKEN MORE THAN ONE (1) YEAR BEYOND THE LABEL DATE.
   B. DETERMINING THE PERCENT PURE LIVE SEED (PERCENT PLS) OF A LABELED SEED: MULTIPLY BY THE PERCENTAGE OF PURE SEED BY THE PERCENTAGE OF GERMINATION AND DIVIDE THE RESULT BY 100 (%PURE X %GERMINATION) / 100)
   C. DETERMINING THE ACTUAL SEED RATE: SIMPLY DIVIDE THE PERCENT PLS RATING OF THE SEED INTO THE PLS REQUIRED, AS NOTED ABOVE. THE RESULT IS THE POUNDS OF SEED REQUIRED. FOR EXAMPLE: IF THE REQUIRED RATE IS 64 POUNDS PLS, AND THE SEED IS RATED AT 35% PLS, DIVIDE 64 BY 0.35 TO GET 182.9 POUNDS, WHICH IS THE AMOUNT OF THAT SEED REQUIRED PER ACRE.
4. APPLICATION OF SEED: SEEDING SHALL BE APPLIED AND ESTABLISHED IN ACCORDANCE WITH THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL" AS PUBLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER QUALITY PROTECTION (MOST RECENT EDITION).
   A. SEEDING SHALL TAKE PLACE DURING TIMEFRAME NOTED IN THE SEEDING DATES SECTION ABOVE.
   B. SEED SHALL BE APPLIED IN A NON-COMPACTED, ROUGHENED TOPSOIL.
   C. SEED MAY BE APPLIED THROUGH ANY OF THE FOLLOWING MEANS AND METHODS, OR OTHER ACCEPTED INDUSTRY PRACTICES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS:
      I. DRILL SEEDING
      II. BROADCAST SEEDING (TWO DIRECTIONS)
      III. HYDROSEEDING (TWO DIRECTIONS)
   D. ALL SEED SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED UNTIL A 70% PERENNIAL COVER IS ACHIEVED:
      I. TEMPORARY STABILIZATION WITH STRAW:
         1. STRAW MULCH SHALL BE APPLIED ON TOP OF THE FRESHLY SEEDED AREAS AT A RATE OF 3 TONS PER ACRE (4 TONS PER ACRE BETWEEN NOVEMBER 1ST AND MARCH 1ST).
         2. STRAW SHALL BE STABILIZED WITH A WOOD OR PAPER FIBER MULCH AND TACKIFIER SOLUTION IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S SPECIFICATIONS.
      II. TEMPORARY/PERMANENT STABILIZATION WITH EROSION CONTROL MATTING/BLANKETS (WHERE SPECIFIED):
         1. MATTING/BLANKETS SHALL BE INSTALLED IN AREAS AS NOTED ON THE EROSION & SEDIMENT CONTROL PLAN OR WITHIN 50 FEET OF PONDS, STREAMS OR WETLANDS. THE PRODUCT SHALL BE INSTALLED AND STAPLED ON TOP OF THE SEEDING IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.
         2. AREAS WITH MATTING/BLANKETS SHALL NOT BE TRACKED (CATWALKED) AFTER INSTALLATION.
         3. MATTING/BLANKETS SHALL BE VISUALLY INSPECTED DAILY TO ENSURE THAT THE PRODUCT IS FUNCTIONING PROPERLY, IS HELD FAST TO THE SOIL SURFACE AND IS IN GOOD CONDITION.
   E. ONCE SEED HAS BEEN SET, VEHICULAR TRAFFIC OR OTHER SOURCES OF COMPACTION SHALL BE AVOIDED
5. IRRIGATION: NEW SEED APPLICATIONS SHOULD BE SUPPLIED WITH ADEQUATE WATER, A MINIMUM OF ½" TWICE A DAY, UNTIL VEGETATION IS WELL ESTABLISHED (A MINIMUM OF 75% COVER).

CONSTRUCTION SEQUENCE

1. INSTALL CONSTRUCTION ENTRANCE AS DESIGNATED ON THE PLANS.
2. INSTALL PERIMETER SEDIMENT CONTROL DEVICES AND PROTECTION FENCING AS SHOWN. CONSTRUCTION VEHICLES SHALL BE PROHIBITED FROM ENTERING PROTECTED AREAS DURING CONSTRUCTION.
3. CLEAR AND GRUB PROJECT AREA.
4. REMOVE EXISTING BATTING CAGE AND PAVEMENT AS SHOWN.
5. STRIP TOPSOIL AND STORE IN TEMPORARY STOCKPILE LOCATIONS AS SHOWN.
6. ROUGH GRADE THE PROJECT AREA.
7. INSTALL STORMWATER MANAGEMENT CONTROLS (REFER TO INDIVIDUAL RAINGARDEN SEQUENCE) AND STORM SEWER.
8. CONSTRUCT PAVILION PER ARCHITECTURAL PLANS.
9. FINISH GRADE THE PROJECT AREA INCLUDING RE-INSTALLATION OF TOPSOIL AT A MINIMUM 4 INCH DEPTH.
10. SEED AND MULCH NEWLY GRADED AREAS OR INSTALL GRASS SOD.
11. INSTALL EROSION CONTROL MATTING ON SLOPES 3:1 OR STEEPER AND SWALE AREAS.
12. UPON PERMANENT STABILIZATION (70% UNIFORM ESTABLISHED GROUNDCOVER FROM SEED/ MULCH OR INSTALLATION OF SOD), REMOVE PERIMETER SEDIMENT CONTROL DEVICES.

PLANTING SOIL SPECIFICATION FOR INFILTRATION, BIOFILTRATION AND MRC FACILITIES

FOR MOST BIO-RETENTION, BIO-INFILTRATION AND BIO-FILTRATION FACILITIES, PLANTING SOIL SHALL BE A MANUFACTURED SOIL COMPRISED OF A CLEAN TOPSOIL SUPPLEMENTED WITH ORGANIC MATERIAL AND COARSE SAND. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A PLANTING SOIL THAT MEETS THE "TARGET TEST RESULTS OF COMPLETED PLANTING SOIL", INCLUDING THE USE OF COMPOST THAT ALSO MEETS THE INDEPENDENT REQUIREMENTS NOTED HEREIN. THE CONTRACTOR SHALL PROVIDE ALL SUBMITTALS OUTLINED BELOW TO THE PROJECT ENGINEER PRIOR TO INSTALLATION.

TARGET TEST RESULTS OF COMPLETED PLANTING SOIL:
THE COMPLETED PLANTING SOIL SHALL MEET, AT A MINIMUM, THE FOLLOWING SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUPPLEMENT THE ABOVE STARTER BLEND AS NECESSARY TO ACHIEVE THIS GOAL:

- SAND: 60-80% BY WEIGHT
- SILT: 25% MAXIMUM BY WEIGHT
- CLAY: 10% MAXIMUM BY WEIGHT
- ORGANIC MATTER: 5-7% (DRY WEIGHT BASIS)
- PH: 5.5-7.2
- HYDRAULIC CONDUCTIVITY (ASTM F1815) AT 75% PROCTOR (ASTM D698): 2-6 IN/HR
- SOLUBLE SALT CONTENT (ELECTRICAL CONDUCTIVITY 1 SOIL : 2 WATER) MAXIMUM 3 MMHO/CM

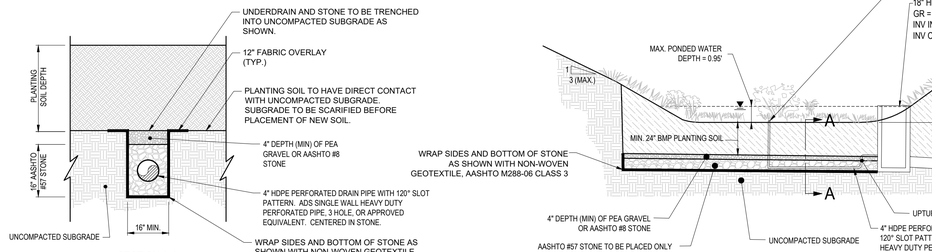
TARGET TEST RESULTS OF COMPOST USED IN COMPLETED SOIL:
COMPOST USED IN THE COMPLETED SOIL MUST BE SOURCED FROM A FACILITY PARTICIPATING IN THE US COMPOSTING COUNCIL'S (USCC) SEAL OF TESTING ASSURANCE (STA) PROGRAM. OTHERWISE, COMPOST TEST RESULTS PREPARED BY AN INDEPENDENT SOIL TESTING LABORATORY SHALL BE PROVIDED MEETING OR EXCEEDING THE FOLLOWING:

- PH: 6.0-8.0
- SOLUBLE SALT CONTENT (ELECTRICAL CONDUCTIVITY 1 SOIL : 2 WATER) MAXIMUM 5 MMHO/CM, EXCEPT FOR RE-PROCESSED MUSHROOM COMPOST WHICH SHALL BE PERMITTED A MAXIMUM OF 10 MMHO/CM.
- MOISTURE CONTENT: 30-60% (WET WEIGHT BASIS)
- ORGANIC MATTER CONTENT: 30-65% (DRY WEIGHT BASIS)
- PARTICLE SIZE: 98% PASSES THROUGH 1/2" SCREEN
- MATURITY (BIOASSAY): SEED EMERGENCE AND SEEDING VIGOR, PERCENT RELATIVE TO POSITIVE CONTROL, SHALL BOTH BE A MINIMUM OF 80%
- PHYSICAL CONTAMINANTS (INERTS): < 0.5% (DRY WEIGHT BASIS)
- CHEMICAL CONTAMINANTS: MEETS OR EXCEEDS US EPA CLASS A STANDARD, 40 CFR §503.13, TABLE 3
- BIOLOGICAL CONTAMINANTS, FECAL COLIFORM BACTERIA OR SALMONELLA: MEETS OR EXCEEDS US EPA CLASS A STANDARD, 40 CFR §503.32.(A)

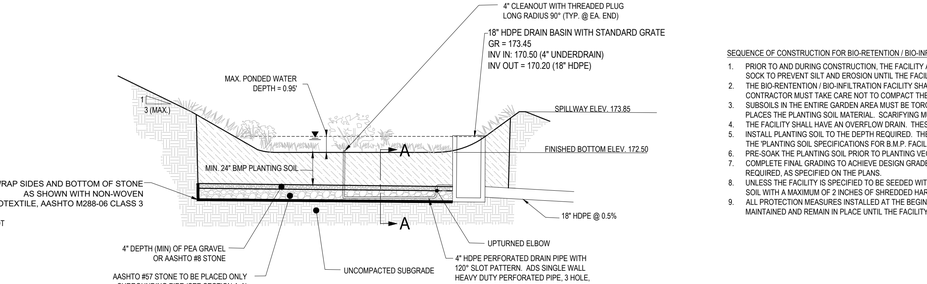
SUBMITTALS:
LAB TESTS MUST BE DATED WITHIN 6 MONTHS PRIOR TO DELIVERY TO THE WORK SITE. SUBMITTALS SHALL BE PROVIDED 3 MONTHS PRIOR TO INSTALLATION TO PREVENT DELAYS IN CONSTRUCTION. IN SUMMARY, THE CONTRACTOR MUST PROVIDE A SUBMITTAL PACKAGE CONTAINING THE FOLLOWING, AT A MINIMUM:

- IF ON-SITE SOILS ARE TO BE USED IN THE FINISHED BLEND:
  1. A REPRESENTATIVE SAMPLE SHALL BE COLLECTED FROM BORROW SOILS AND SHALL BE TESTED FOR SUITABILITY AS A TOPSOIL BASE PRIOR TO USING IN THE

BMP NO.	DESCRIPTION	SCHEDULE	INSPECTION TASK	MAINTENANCE	FAILURE INDICATORS
BMP 6.4.5 RAINGARDEN/ BIORETENTION	A RAINGARDEN (ALSO CALLED BIORETENTION) IS AN EXCAVATED SHALLOW SURFACE DEPRESSION PLANTED WITH SPECIALLY SELECTED NATIVE VEGETATION TO TREAT AND CAPTURE RUNOFF.	4 TIMES PER YEAR	• INSPECT FOR LITTER AND SEDIMENT ACCUMULATION • INSPECT VEGETATIVE COVER CONDITION • EVALUATE PLANT GROWTH	NEEDED MAINTENANCE SHOULD BE CONDUCTED IMMEDIATELY AFTER EACH INSPECTION. THE LITTER AND SEDIMENT SHALL BE REMOVED TO RESTORE DESIGN CAPACITIES AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.	FAILURE INDICATORS INCLUDE IF THE RAINGARDEN DOES NOT DEWATER WITHIN 72 HOURS OR IF AN ABUNDANCE OF WETLAND PLANTS ARE FOUND WITHIN THE RAINGARDEN. UPON OBSERVING A FAILURE INDICATOR A QUALIFIED INDIVIDUAL SUCH AS AN ENGINEER OR SOIL SCIENTIST/ENGINEER SHALL BE CONSULTED TO DETERMINE THE EXACT CAUSE OF FAILURE. UPON FURTHER INVESTIGATION PERFORMED BY THE QUALIFIED INDIVIDUAL A REMEDIATION PLAN SHALL BE IMPLEMENTED TO RESTORE THE RAINGARDEN TO ITS ORIGINAL DESIGN CAPACITIES, THIS INCLUDES PERFORMING ADDITIONAL INFILTRATION TESTING TO DETERMINE WHETHER THE FACILITY HAS BEEN BROUGHT BACK TO ITS ORGINAL DESIGN CAPACITIES.
		ANNUALLY	• REMOVE DETRITUS, CUT BACK DORMANT PERENNIAL PLANTS • INSPECT FOR INVASIVE PLANT SPECIES • INSPECT MULCH LEVEL AND REPLENISH AS NECESSARY		



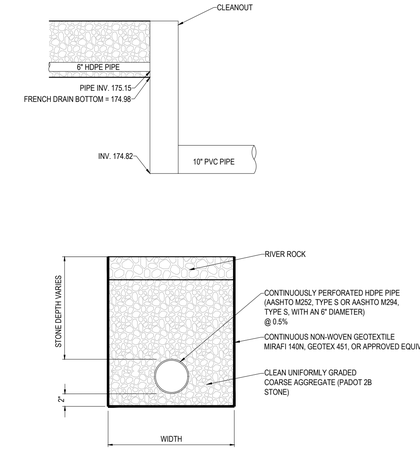
SECTION A-A



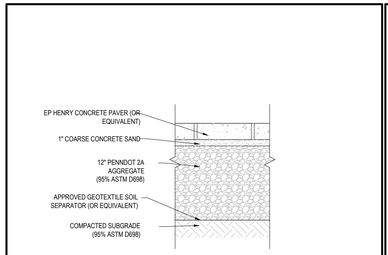
BIO-RETENTION / BIO-INFILTRATION DETAIL

SEQUENCE OF CONSTRUCTION FOR BIO-RETENTION / BIO-INFILTRATION

1. PRIOR TO AND DURING CONSTRUCTION, THE FACILITY AREA SHALL BE PROTECTED WITH A COMPLETE RING OF FILTER SOCK TO PREVENT SILT AND EROSION UNTIL THE FACILITY AND THE CONTRIBUTING DRAINAGE AREA IS FULLY STABILIZED.
2. THE BIO-RETENTION / BIO-INFILTRATION FACILITY SHALL BE EXCAVATED TO THE DEPTH AND SIZE REQUIRED. THE CONTRACTOR MUST TAKE CARE NOT TO COMPACT THE IN-SITU SOILS.
3. SUBSOILS IN THE ENTIRE GARDEN AREA MUST BE THOROUGHLY AND DEEPLY SCARIFIED BEFORE THE CONTRACTOR PLACES THE PLANTING SOIL MATERIAL. SCARIFYING MUST BE DONE WITH A TOOTHED BACKHOE.
4. THE FACILITY SHALL HAVE AN OVERFLOW DRAIN. THESE SHALL BE INSTALLED BEFORE PROCEEDING.
5. INSTALL PLANTING SOIL TO THE DEPTH REQUIRED. THE PLANTING SOIL SHALL MEET THE SPECIFICATIONS OUTLINED IN THE PLANTING SOIL SPECIFICATIONS FOR B.M.P. FACILITIES.
6. PRE-SOAK THE PLANTING SOIL PRIOR TO PLANTING VEGETATION IN ORDER TO AID IN SETTLEMENT.
7. COMPLETE FINAL GRADING TO ACHIEVE DESIGN GRADE. LEAVE SPACE FOR UPPER LAYER OF COMPOST OR MULCH, IF REQUIRED, AS SPECIFIED ON THE PLANS.
8. UNLESS THE FACILITY IS SPECIFIED TO BE SEEDED WITH A MEADOW MIX, THE CONTRACTOR SHALL COVER THE PLANTING SOIL WITH A MAXIMUM OF 2 INCHES OF SHREDDED HARDWOOD BARK MULCH.
9. ALL PROTECTION MEASURES INSTALLED AT THE BEGINNING OF CONSTRUCTION (SEE STEP 1 ABOVE) SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL THE FACILITY AND ADJACENT AREAS ARE FULLY STABILIZED.



FRENCH DRAIN DETAIL
SCALE: N.T.S. REV.: 2021.12.02

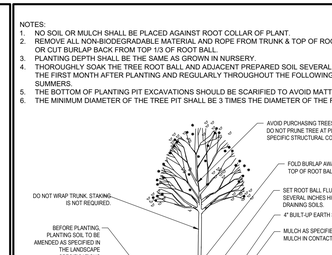


NOTES:
1. PAVEMENT SECTION SHALL BE VERIFIED AND APPROVED BY GEOTECHNICAL ENGINEER OR QUALITY CONTROL AGENCY.
2. DETAIL IS USED FOR BASIS OF DESIGN. SPECIFIC PAVER TO BE CHOSEN BY OWNER.

CONCRETE PAVER

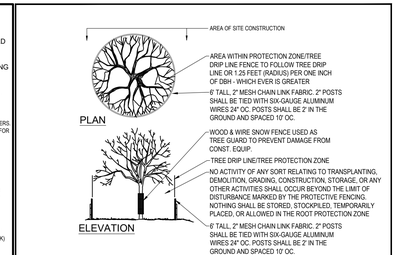
NOT TO SCALE (PA-S010601 - 09/2023)

NOTES:
1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD OR CUT BURLAP BACK FROM TOP 1/3 OF ROOT BALL.
3. PLANTING DEPTH SHALL BE THE SAME AS GROWN IN NURSERY.
4. THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
5. THE BOTTOM OF PLANTING PIT EXCAVATIONS SHOULD BE SCARIFIED TO AVOID MATTING OF SOIL.
6. THE MINIMUM DIAMETER OF THE TREE PIT SHALL BE 3 TIMES THE DIAMETER OF THE ROOT BALL.



DECIDUOUS TREE PLANTING

NOT TO SCALE (PA-L070101 - 11/2023)

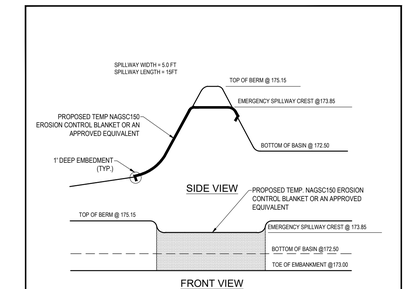


NOTES:
1.) THE PROTECTIVE FENCING SHALL BE INSTALLED WITH CARE TO AVOID ROOTS AND PLACED ENCOMPASSING THE ENTIRE ROOT PROTECTION ZONE OF INDIVIDUAL OR GROUPS OF CONTIGUOUS TREES. FENCING SHALL BE INSTALLED PRIOR TO ANY WORK BEING CONDUCTED. E.G., GRUBBING, EXCAVATION, GRADING, TRENCHING, CLEANING, OR INSTALLATION OF SILT FENCING. THE PROTECTIVE FENCING SHALL BE MAINTAINED THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION.
2.) NO FUEL STORAGE, REFUELING OR MAINTENANCE OF EQUIPMENT, OR WASH DOWN OF CEMENT HANDLING EQUIPMENT SHALL BE PERMITTED WITHIN 100 FEET OF ANY TREE TO BE PRESERVED.
3.) ANY DAMAGE TO THE FENCING OR ENCROACHMENT ON THE PROTECTED AREAS SHALL BE REMEDIED IMMEDIATELY. ANY OBSERVED DAMAGE TO THE TREES SHALL BE IMMEDIATELY REPORTED TO THE TOWNSHIP AND REMEDIED AS SOON AS IS PRACTICABLE. AT THE DISCRETION OF THE SHADE TREE COMMISSION, PRESERVED TREES THAT HAVE NOT BEEN ADEQUATELY PROTECTED OR HAVE BEEN DAMAGED MAY BE REQUIRED TO BE REMOVED AND REPLACED AT THE EXPENSE OF THE APPLICANT.

TREE PROTECTION DURING SITE CONSTRUCTION

NOT TO SCALE

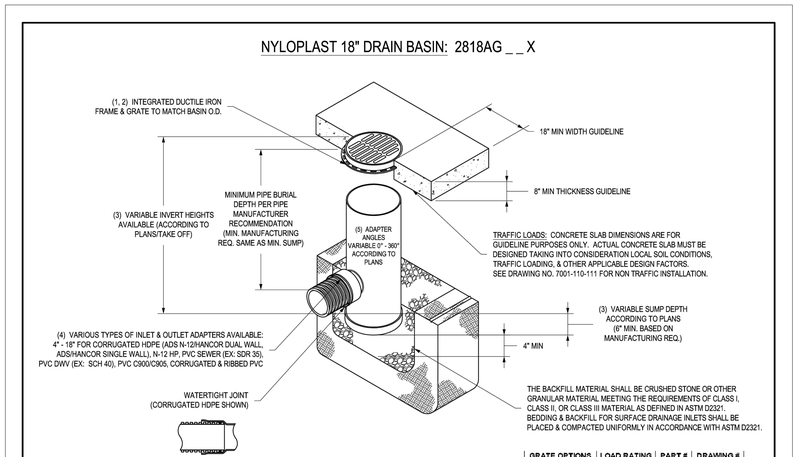
X-11



BASIN SPILLWAY LINING DETAIL

NOT TO SCALE

X-9



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	1899OGP	7601-110-212
STANDARD	MEETS H-20	1899CGS	7601-110-213
SOLID COVER	MEETS H-20	1899GGC	7601-110-214
DOME	N/A	1899DGD	7601-110-215
DROP IN GRATE	LIGHT DUTY	1797DI	7601-110-874

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-05-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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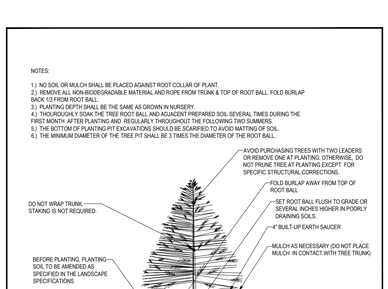
DRAWN BY	EBC	MATERIAL	
DATE	04-03-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-14-16		
DWG SIZE	A	SCALE 1:30	SHEET 1 OF 1

ADS Nyloplast

3126 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
18 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-191 REV E



EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE

L-2

LANDSCAPE SPECIFICATIONS:

1. SCOPE OF WORK:
THE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
A. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

B. TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 5.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER OR OTHER TOXIC CLODS.

C. LAWN - LAWN AREAS SHALL BE SEEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED WITHIN THE SOIL EROSION AND SEDIMENT CONTROL NOTES. FOR SOIL BED PREPARATIONS, REFER TO ITEM B BELOW.
I. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
II. SOD SHALL BE STRONGLY ROOTED, WEED AND DISEASE-FREE TREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.

D. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN.

E. FERTILIZER
I. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
II. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

F. PLANT MATERIAL
I. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY AMERICAN HORT (FORMERLY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION).
II. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
III. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
IV. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1¼", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.
V. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.
VI. CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER SIZE. IF THE CALIPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
VII. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
VIII. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
A. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

B. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
A. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.

B. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

C. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF WORK.

5. TREE PROTECTION
A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR 15 FEET FROM THE TRUNK OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

B. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISI-FENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.

C. WHEN THE TREE PROTECTION FENCING HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

D. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
A. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

B. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE CONTRACTOR DEPENDING ON SITE CONDITIONS.

C. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
I. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-12". USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
II. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
III. MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
A. UNLESS OTHERWISE CONTRACTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE-GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

B. CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1"±).

C. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

D. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING
A. CONTRACTOR SHALL PROVIDE A SIX INCH (6") THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AND LAWN AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.

B. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

C. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.

D. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY SEE SPECIFICATION 6.A.):
i. 20 POUNDS 'GRO-POWER' OR APPROVED EQUAL SOIL CONDITIONER/FERTILIZER
ii. 25 POUNDS 'NITRO-F

ROCKWELL ASSOCIATES

Urban Foresters - Natural Resource Consultants Planners - Forensic Arborists

SLD#06-25 Miles Park Batting Cages

July 10, 2025

To: Samantha Zrillo
Whitemarsh Township - Planner
616 Germantown Pike Lafayette
Hill, PA 19444-1821
From: John Hosbach
Applicant: SLD#06-25 Miles Park Batting Cages

Dear Sam,

The said applicant is proposing the installation of batting cages at the Miles Park recreation area. The site is currently being proposed for improvements including batting cages and improvements for the proposed cages to be installed.

Tree survey plan

Plan identifying the size, species, and location of all existing trees having a diameter at breast height (DBH) of six inches or greater and denoting each tree to be saved or removed. All removed trees shall be identified if removed in the past five years.

An inventory of the trees within the area of the proposed improvements was not completed. The subject trees are shown, but the species and sizes are not denoted. A waiver will be required.

Tree Removal

Maximum tree removal.

The removal of more than 33% of trees, having a DBH of six inches or greater, on any lot, shall not be permitted.

Only (1) 8” Maple is being removed. The applicant is compliant.

ROCKWELL ASSOCIATES

Urban Foresters - Natural Resource Consultants Planners - Forensic Arborists

Tree Protection

Denote location and species of each preserved tree and all boundary trees, and the location of tree protection fences, encompassing the dimensions of each root protection zone as established by one of the following two means, whichever is greater:

[1] Calculated at 1.25 feet (radius) per one inch of (DBH) diameter breast height.
[2] A circle with a radius extending from a tree's trunk to a point no less than the furthest crown dripline.

Tree protection is shown for the trees to remain. However, in some areas, it does not meet the criteria set forth in chapter 55. A waiver will be required.

Replacement tree requirement.

Every living and healthy tree with a DBH of six inches or greater and which is designated to be removed or which is destroyed, shall be replaced with one or more new canopy trees, of a type and species approved by the Shade Tree Commission or its designee, with a trunk diameter of not less than three inches in caliper. The total caliper of replacement trees, measured at six inches above the ground line, shall equal or exceed the DBH of the removed trees.

The applicant is proposing (3) 3" caliper American linden. This caliper and species meet our requirements.

Notes – due to the storm water management practices, the TPF will not be able to be installed in some areas which is the reason why the protection fence is not compliant. I support this waiver as I have reviewed these trees and no harm will be.

Applicant shall not park equipment or place materials within the required TP area of any trees within the park.

John Rockwell Hosbach jr. CONSULTANT

nblendz

Whitemarsh TOWNSHIP
616 GERMANTOWN PIKE - LAFAYETTE HILL, PA 19444-1821
TEL: 610-825-3535 FAX: 610-825-9416
www.whitemarshtwp.org

BOARD of SUPERVISORS
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Vincent Manuele
Elizabeth Moy
Patrice Turenne

Craig T. McAnally
Township Manager

July 15, 2025

Whitemarsh Township Little League, Inc.
c/o Robert Stokley
27 Laurence Place
Plymouth Meeting, PA 19462

RE: SLD #06-25; Miles Park Proposed Batting Cage Pavilion; 303 Germantown Pike
Preliminary/Final Minor Land Development
Zoning Ordinance Compliance Review Letter

Dear Mr. Stokley:

Please accept this as a review of the Zoning Ordinance compliance issues for the above referenced Minor Land Development application, based on the seven-page plan prepared by Bohler Engineering, dated January 17, 2023, with the most recent revision date of June 26, 2025. The application proposes to remove the existing batting cage and replace it with a 5-lane batting cage pavilion and a rain garden.

The subject parcel is within Miles Park and is in the A-Residential District.

We have identified the following zoning issues which must be addressed:

	Section	Issue/Comment
1.	§116-22.	Note #4 on Sheet 4 should be revised to note that the permanent removal of topsoil from the Township is prohibited.
2.	§116-33.3.C.	Since lighting is proposed, compliance with the criteria in this section must be demonstrated. *Note: Plans must also demonstrate compliance with lighting requirements listed under 'Items of Agreement'.*
3.	§116-33.3.D.(1)	If lighting is proposed to operate during hours of darkness, a visual impact plan must be submitted to show compliance with criteria in this section of the Code.
4.	§116-33.3.D.(2)	For subdivision and land development applications where outdoor lighting of recreational/sport facilities is proposed, lighting plans shall be submitted to Whitemarsh Township for review and approval with preliminary subdivision/land development applications in accordance with the provisions of §105-21.B.(20) of Chapter 105, Subdivision and Land Development, of the Code of the Township.
5.	§116-54.C.(2)	This section lists dimensional standards for Conservation Design Overlay District subdivisions. This project does not fall under the Conservation Design option and therefore, the 40% open space requirement in the zoning table derived from this section, should be removed from the plans.

Items of Agreement

6. At the March 14, 2024 Board of Supervisors meeting, the Little League agreed to the following criteria to address issues raised by neighbors of the proposed facility:

   a) Three-sided structure using sound attenuation materials – front open side secured
   b) Hours of operation must be refined to 8:30 AM to 8:00 PM
   c) Lights must be out at 8:00 PM
   d) Seasonal operation to be determined
   e) The facility must be monitored (cameras)
   f) Bathroom accommodations nearby facility
   g) Use restricted to Township Little League and opposing teams on game night
   h) Rain garden routinely maintained to prevent standing water (mowed and dethatched frequently)

These items will be formalized in any resolution approving this land development including any additional pertinent details.

Additional Comments

7. Any plan resubmission shall include any proposed signage details.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Charles L. Guttenplan, AICP
Director of Planning and Zoning/Zoning Officer

cc: Craig T. McAnally, Township Manager
Robert A. Sztubinski, B.C.O., Director of Building and Codes
Tom Blomstrom, Township Park and Recreation Director
Krista Heinrich, P.E., Township Engineer
Andrew Thomas, Township Fire Marshal
Sean P. Kilkenny, Esq., Township Solicitor
Tom Knab, RLA, Applicant's Landscape Architect

WHITEMARSH TOWNSHIP

To: Craig McAnally, Township Manager

From: Samantha Zrillo, Township Planner

Subject: **SLD #06-25 Whitemarsh Little League (Miles Park Batting Cages)-- 7.15.25 STC Meeting**

Date: July 18, 2025

cc: **Charlie Guttenplan, AICP, Township Director of Planning and Zoning**
Thomas J. Blomstrom, Township Director of Parks and Recreation
Krista Heinrich, PE, Township Engineer, Gilmore Associates
John Hosbach Jr., RCA, ACF, CUCF, Township's Consulting Arborist
Robert Stokley, Applicant's Representative
Tom Knab, RLA, Applicant's Landscape Architect

Plans Reviewed: *Bohler Engineering, dated June 26, 2025 (was revised July 9, 2025 to show removed & proposed trees)*

In attendance: Robert Stokley, President of Whitemarsh Little League, Applicant's Representative

Mr. Stokley appeared before the Commission to present the land development plan for the proposed batting cage facility. The applicant explained that one, 8" tree (Maple) is being removed and three, 3" trees are proposed (American linden). Mr. Stokley requested two waivers under Chapter 55-4.C. of the Township Code: (1) waiver of the full tree survey requirement, and (2) waiver of tree protection fencing placement, due to conflicts with the location of the proposed rain garden.

Public in attendance: Ron Cione, Debra Harris

Mr. Cione, a neighboring resident, expressed long-standing concerns about the proposed Whitemarsh Little League batting cage facility, which is located approximately 81 feet from his property line and sits several feet below his grade. He requested additional screening measures to mitigate visual impacts from his home, suggesting faster-growing evergreen plantings as a possible solution. Mr. Cione also raised concerns regarding oversight and long-term maintenance of the proposed rain garden and landscape plan, emphasizing the importance of proper drainage, mosquito control, and overall upkeep.

Ms. Harris highlighted the importance of maintaining the proposed rain garden, noting it is part of the headwaters of Spring Mill Run and essential for stormwater management in Miles Park. Additional landscaping around the batting cage was also suggested to improve aesthetics for park users and nearby residents.

In response, the Commission acknowledged the visibility and maintenance concerns, and discussed possible options to adjust the landscape plan, including the substitution of proposed plantings with evergreen species (such as Norway spruce) to improve year-round screening. Ms. Toll suggested that the Commission focus on Chapter 55 requirements now and put the screening piece aside. The screening will be handled as part of the land development process.

Ms. Borkowski made a motion to recommend approval to the Board of Supervisors, pertaining to Chapter 55 requirements only, with the following waivers:

- **§55-4.C.(3) to waive the requirement of providing a full tree survey**
- **§55-4.C.(4) to allow tree protection fencing as presented**

Ms. Kosabutski seconded the motion. Motion carried unanimously (3-0).

Samantha Zrillo
Township Planner
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2608
Email: szrillo@whitemarshtwp.org

MONTGOMERY COUNTY
BOARD OF COMMISSIONERS

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MONTGOMERY COUNTY
PLANNING COMMISSION

MONTGOMERY COUNTY • PO BOX 311
NORRISTOWN, PA 19404-0311

610-278-3722
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SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

July 31, 2025

Mr. Charles L. Guttenplan, AICP
Director of Planning & Zoning Officer
Whitemarsh Township
606 Germantown Pike
Lafayette Hill, Pennsylvania 19444

Re: MCPC #25-0133-001
Plan Name: Miles Park Proposed Batting Cage Pavilion
(5,320 sq. ft. recreational on approximately 11 acres)
Situate: Germantown Pike/west of Joshua Road
Whitemarsh Township

Dear Mr. Guttenplan:

We have reviewed the above-referenced land development plan in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," as you requested on July 1, 2025. We forward this letter as a report of our review.

BACKGROUND

Whitemarsh Township Little League, Inc., is proposing to build a 5,320-square foot batting cage pavilion in Whitemarsh Township's Miles Park. The proposal includes a total of 8,835 square feet of impervious surfacing, which amounts to a net increase of 5,197 square feet when considering the demolition of an existing structure. A rain garden and associated stormwater infrastructure will be installed as part of the proposal. The proposed batting cage pavilion will be located in the north of Miles Park, west of the northernmost baseball field.

COMPREHENSIVE PLAN COMPLIANCE

WHITEMARSH TOWNSHIP'S SELECTIVE COMPREHENSIVE PLAN UPDATE (2020)

The proposal appears generally consistent with the 2020 *Selective Comprehensive Plan Update.* The plan addresses improvements to municipal parks and open spaces as implementation strategies. The policy goal of "monitor[ing] needs and expand[ing] park and recreation facilities and programming as necessary" is

included under the "Quality of Life" theme. A specific action to implement this policy goal recommends that the township "study available open space, parks and recreation facilities against the needs of a growing, changing population." Collaborating with Whitemarsh Township Little League, Inc. to enable the construction of a batting cage facility adds a unique recreational amenity for Whitemarsh residents, which aligns with the noted policy goals.

MONTCO 2040: A SHARED VISION (2015; AMENDED 2021)

The proposal also appears generally consistent with the county's 2015 Comprehensive Plan *Montco 2040: A Shared Vision*. The plan recommends that the county "encourage collaboration and partnerships among governments, businesses, institutions, schools, higher education, and other stakeholders" under the Connected Communities theme. Furthermore, the plan includes a broad recommendation to "provide more opportunities for residents to exercise and have healthy lifestyles" under the Sustainable Places theme. The proposal addresses both policy goals by offering a new and unique recreational amenity by way of a collaboration between Whitemarsh Township and Whitemarsh Township Little League, Inc.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) generally supports the applicant's proposal; however, in the course of our review we have identified a number of key issues that the applicant and Whitemarsh Township may wish to consider prior to final plan approval. Our comments are as follows:

REVIEW COMMENTS

ZONING

The zoning district requirements table included with the site plan indicates compliance with §116-53F(1), height of principal buildings. This note indicates a maximum height allowance of 35 feet, which is maximum for a principal building; however, the building may be considered an accessory building, which are limited to a maximum height of 20 feet.

LANDSCAPING & DRAINAGE

A. Per Whitemarsh Township's Subdivision and Land Development Ordinance § 105-21 B(7)(d), a landscaping plan, including a planting schedule, is a required component for all preliminary plans. In the application provided to MCPC, there is no landscaping plan with the locations, species, and sizes of plantings.

B. The proposed outfall from the rain garden outlets against an existing pedestrian path. There is an indication on the plan of an existing pipe near this outfall, but it is unclear whether the water from the outfall is intended to enter this pipe. Regardless, the outfall's proximity to the pedestrian path poses some quandaries, most notably potential flooding of the walking path and the potential for ice forming on the path if flooded during cold weather. These same concerns apply to the outfall from the drainage basin that is located along the southern and southeastern walls of the proposed structure, as this also outlets near the pedestrian path.

C. The improvements plan (sheet 4 of 7) includes a note that roof drains are intended to discharge into the proposed rain garden to the rear of the proposed building. However, the site plan makes no indication of how the water will flow into the rain garden. The township may wish to request more detail, such as if overland flow is anticipated or if any piping from the downspouts to the rain garden are proposed, in order to better understand the stormwater management plan proposed for the facility.

D. With the proposed facility located roughly 80 feet from residential properties bordering to the north of Miles Park, noise resulting from the use of the batting cages may be a consideration when choosing buffer plantings. We recommend that the applicant consider the inclusion of substantial evergreen varieties, which would provide year-round screening between the facility and the neighboring residential area.

E. The proposed design of the rain garden includes the preservation of a centrally located tree. Because of unavoidable disturbance in and around the tree's root zone, it is likely this tree will not survive the construction of the rain garden. Removal and replacement, in accordance with Chapter 55, Tree Protection Standards, may allow for more flexibility in the design of the rain garden.

ACCESSIBILITY

If it is determined that ADA accessibility is required for the proposed batting cage building, we recommend that the plans be amended to demonstrate ADA compliance, including a compliant pathway between the on-site ADA parking spaces and the facility in question.

UTILITIES

The submitted plan set does not appear to include details on the location of any necessary electric utilities, though the included notes that state underground utilities would be provided. If the proposed building does require a new electricity connection, future versions of the plans should indicate the location of electric utilities and how they will connect to any existing utility facilities.

OTHER IMPROVEMENTS SHOWN ON PROVIDED SITE PLAN

We noted that the overall site plan (sheet 3 of 7) appears to show rerouting of existing walking paths and installation of fencing at a nearby baseball field. If these improvements are proposed to be undertaken as part of this proposal, additional information may be needed.

CONCLUSION

We wish to reiterate that MCPC generally supports the applicant's proposal; however, we believe that our suggested revisions will better achieve Whitemarsh Township's objectives for public park facilities.

Please note that the review comments and recommendations contained in this report are advisory to the municipality and final disposition for the approval of any proposal will be made by the municipality.

Should the governing body approve a final plat of this proposal, the applicant must present the plan to our office for seal and signature prior to recording with the Recorder of Deeds office. A paper copy bearing the

municipal seal and signature of approval must be supplied for our files. Please print the assigned MCPC number (25-0133-001) on any plans submitted for final recording.

Sincerely,

Timothy Konetchy

Tim Konetchy, Senior Community Planner
timothy.konetchy@montgomerycountypa.gov – 610-292-4917

c: Robert Stokley, Project Coordinator o/b/o Whitemarsh Township Little League, Inc.
Tom Knab, RLA, ASLA, Bohler Engineering
Craig McAnally, Township Manager
David Sander, Esq., Township Solicitor
Krista Heinrich, PE, Township Engineer
Aaron Kostyk, Chairman, Township Planning Commission
Jessica Buck, District Manager, MCCD

Attachment A: Aerial Image of Site
Attachment B: Reduced Copy of Applicant's Proposed Site Plan

Miles Park Proposed Batting Cage Pavilion
MCPC#250133001

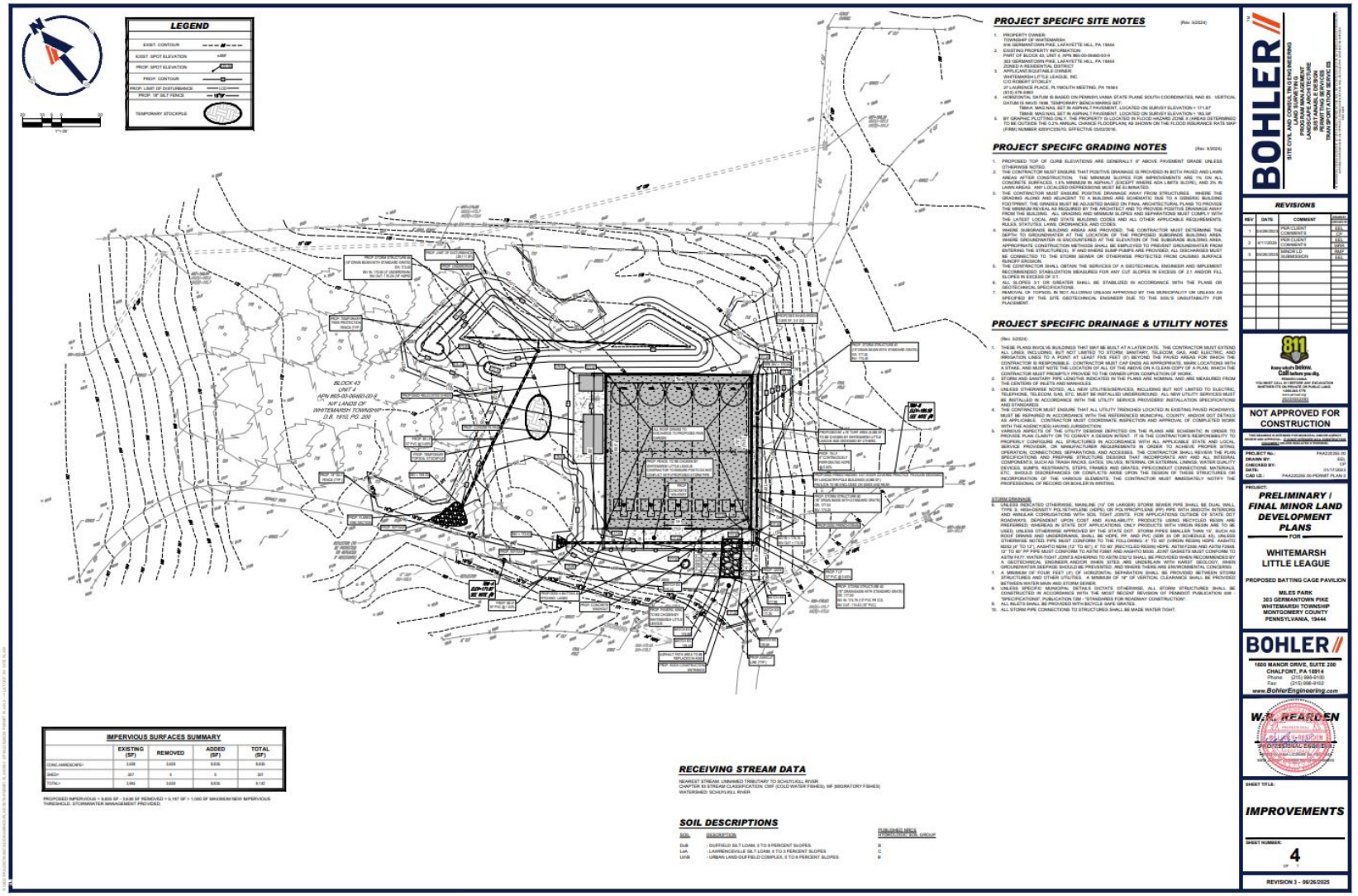
Montgomery County Planning Commission

0 100 200 400 Feet

N

Montgomery County Courthouse - Planning Commission
PO Box 311 Norristown PA 19404-0311
(p) 610 278-3722 (f) 610 278-3941
www.montcopa.org/plancom

Aerial photography provided by Nearmap


LEGEND
EXIST. CONTOUR
EXIST. SPOT ELEVATION
PROP. SPOT ELEVATION
PROP. CONTOUR
PROP. LIMIT OF DISTURBANCE
PROP. 18" SILT FENCE
TEMPORARY STOCKPILE
BLOCK 43
UNIT 4
APN #65-00-04440-00-6
N/F LANDS OF
WHITEMARSH TOWNSHIP
D.B. 1910, PG. 200
PROJECT SPECIFC SITE NOTES
PROJECT SPECIFC GRADING NOTES
PROJECT SPECIFIC DRAINAGE & UTILITY NOTES
IMPERVIOUS SURFACES SUMMARY
EXISTING (SF)
REMOVED
ADDED (SF)
TOTAL (SF)
RECEIVING STREAM DATA
SOIL DESCRIPTIONS
BOHLER
REVISIONS
NOT APPROVED FOR CONSTRUCTION
PRELIMINARY / FINAL MINOR LAND DEVELOPMENT PLANS
WHITEMARSH LITTLE LEAGUE
PROPOSED BATTING CAGE PAVILION
MILES PARK
363 GERMANTOWN PIKE
WHITEMARSH TOWNSHIP
MONTGOMERY COUNTY
PENNSYLVANIA, 19444
1600 MANOR DRIVE, SUITE 200
CHALFONT, PA 18914
W.R. REARDEN
IMPROVEMENTS
4
REVISION 3 - 06/26/2025

WHITEMARSH TOWNSHIP

To: Charlie L. Guttenplan, Director of Planning & Zoning/Zoning Officer.

From: **Andrew G. Thomas, Fire Marshal**

Subject: **SLD#06-25: MILES PARK BATTING CAGE PAVILION (PRELIMINARY/FINAL)**
303 GERMANTOWN PIKE
LAFAYETTE HILL, PA 19444

Date: 8/5/2025

The Fire Marshal's Office has received and reviewed the preliminary/final for the Miles Park Batting Cage Pavilion. The Fire Marshal's Offices has no issues with the submitted plans.

Andrew G. Thomas
Fire Marshal, Emergency Management Coordinator
616 Germantown Pike
Lafayette Hill, PA 19444
Phone: 610-825-3535 ext. 2614
Email: athomas@whitemarshtwp.org

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

August 7, 2025

Mr. Craig McAnally, Township Manager
Whitemarsh Township Municipal Building
616 Germantown Pike
Lafayette Hill, PA 19444

RE: Preliminary/Final Plan Review
303 Germantown Pike - Miles Park
Whitemarsh Township, Montgomery County, PA
S/LD # 06-25
Our Project Number 2025-00775

Dear Mr. McAnally:

As requested, we have reviewed plans for the above referenced Preliminary/Final Plan Submission consisting of a 7-Sheet Plan prepared by Bohler Engineering, dated January 17, 2023, and last revised June 26, 2025. The following comments are offered for your consideration:

The applicant is requesting waivers and/or relief from the requirements of the following sections of the ordinance:

	Section	Description
1.	105-12(D)	The applicant is requesting a waiver from the requirements of this section of the ordinance in order to not require separate Preliminary and Final plan submissions, and to allow the submissions to be considered contemporaneously.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

	Section	Description
2.	105-21(B)(1)(d)	All yard setbacks must be shown and dimensioned in order to demonstrate compliance with the requirements of this section of the ordinance.
3.	105-21(B)(1)(n)	The plans must be revised to show existing principal buildings (and their respective uses), and driveways on the adjacent peripheral strip; sewer lines, storm drains, culverts, bridges, utility easements, quarries, railroads, and other significant man-made features within 500 feet of and within the site, including properties across streets.
4.	105-21(B)(1)(o)	The plans must be revised to clarify whether the existing trail will remain operational during construction. At a minimum, orange construction fencing should be provided along the trail within the area of work.
5.	105-21(B)(1)(o)	The plans must be revised to indicate whether there are any proposed utility connections and/or lighting for the proposed structure.

	Section	Description
6.	105-21(B)(12)	A map showing the location of the proposed subdivision within its neighborhood context shall be submitted. Sheet 3 should be revised to be drawn at the appropriate scale, and to show the required features in order to demonstrate compliance with the requirements of this section of the ordinance, or a waiver should be obtained.
7.	105-21(B)(18)	The plans must be revised to clarify the ownership and maintenance responsibilities for the proposed improvements.
8.	105-21(B)(20)	If site lighting is proposed, lighting plans shall be submitted to the Township for review and approval with preliminary subdivision/land development plan applications and shall contain the information required by this section of the ordinance.
9.	105-52	Buffer yards are required between land developments and along existing streets to soften visual impact, to screen glare, and to create a visual barrier between conflicting land uses. The plans must be revised to provide a table detailing the buffer yard requirements, in accordance with Section 105-52.B as well as the actual buffers provided. All landscaping plans are subject to the review and approval of the Shade Tree Commission.
10.	105-53.1	If recreational lighting is proposed, the plans must be revised to include a lighting plan demonstrating compliance with the requirements of this section of the ordinance.
11.	105-76(B)	The applicant must obtain a letter of approval from the Township Fire Marshal in order to ensure that adequate fire protection is provided.
12.	105-81	All electric, telephone and communication service facilities, both main and service lines, shall be provided by underground cables, installed in accordance with the prevailing standards and practices of the utility and other companies providing such service. Final plans shall show locations of all utilities and shall be coordinated with landscaping.
13.	105-89	The developer shall enter into a written agreement with the Township in the manner and form approved by the Solicitor wherein the developer shall agree, to construct or cause to be constructed at his own expense all proposed improvements shown on the approved land development plan, all in strict accordance with the standards and specifications of the Township and within the time specified in said agreement, and to deposit with the Township financial security in an amount sufficient to cover the cost of all subdivision or land development improvements, including both public and private improvements.

GRADING, EROSION CONTROL, STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES ORDINANCE:

	Section	Description
14.	58-17(A)(2)(p)	The plans should be revised to route the proposed 6” perforated HDPE, around the rear of the building, and connect to the proposed pipe run between Structure #4 and the 10” PVC pipe outlet, in order to limit the total number of new outfalls.

	Section	Description
15.	58-17(A)(2)(p)	The plans should be revised remove the existing 8" CMP beneath the path, and replace it with a pipe of equivalent to or greater size as the proposed upstream 10" PVC.
16.	58-17(A)(2)(p)	The plans must be revised in order to demonstrate how runoff from the roof area is being directed to the proposed rain garden.
17.	58-17(A)(9), 58-24	The Operations and Maintenance Notes on Sheet 7 must be revised to indicate the entity responsible for maintenance of the proposed BMP.
18.	58-31	The stormwater management calculations must be revised to include a calculation of the weighted curve numbers and time of concentrations used in the model.
19.	58-31(A)(3)	Reach 6R is described as a 9' x 3' deep channel, 1,033.6' in length. This reach and the POI must be shown on the post development drainage area plans.
20.	58-31(B)(4)	The input data for the outlet structure listed under Pond 4P in the stormwater management calculations does not appear to be consistent with the plans, and must be revised.
21.	58-33(A)(8)	The plans and stormwater calculations must be revised to eliminate the activation of the rain garden emergency spillway during the 50 and 100 year storms.

CHAPTER 55 - TREE PROTECTION STANDARDS

	Section	Description
22.	55-4(C)	It is our understanding that the tree survey plan and a landscape plan were prepared and reviewed by the Shade Tree Commission at their public meeting on July 15th.

Any future submission of the design plans for this project must be accompanied by a letter, prepared by the applicant's engineer, which addresses each of the comments contained in this report. Should you have any questions regarding this matter, please do not hesitate to contact me at this office.

Sincerely,

Krista Heinrich, PE
Township Engineer

c: Charles L. Guttenplan, AICP – Director of Planning and Zoning
Robert A. Sztubinski, B.C.O. – Director of Building & Codes
Andrew Thomas – Fire Marshal
Sean Kilkenny, Esq.; The Law Offices of Sean Kilkenny, LLC – Township Solicitor *(via email)*
William R. Reardon, PE, Bohler– Applicant's Engineer
Robert Stokley, Whitemarsh Township Little League, Inc. – Applicant