BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

APPLICATION FOR SUBDIVISION/ LAND DEVELOPMENT

To be completed by the Borough:

Submission Information:

File Number: LD- 2022 - 04 File Date: 8/1/2022

Project Title: 701 Fayette Street Date Complete:

Received By: B. Rogers 90 Day Date: Waived

REQUIRED MATERIALS FOR ALL LAND DEVELOPMENT/SUBDIVISION APPLICATIONS

1. This form MUST be completed and submitted with the Borough's Land Development/Subdivision application.
2. A Land Development/Subdivision Application MUST include all of the items listed in the application checklist to be considered complete.

   Incomplete applications will NOT be placed on a Planning Commission agenda. Incomplete applications will be returned to the applicant.
3. Complete applications must be received at least 38 DAYS (see schedule) prior to the Planning Commission meeting at which it will be heard.

   It is highly encouraged to submit applications in a digital format.
4. One (1) digital copy plus seven (7) paper copies of the complete application are required if submitting digitally, or fifteen (15) paper copies of the complete application are required.

Applicant Information:

Name: CGEM LLC

Address: 6060 Creekside Drive
Flourtown, PA 19031

Phone: 610-724-8969

Fax:

E-Mail*: mrchung133@gmail.com

Property Owner Information (if different):

Name: same c/o Mun Chung, Member

Address:

Phone:

Fax:

E-Mail*:

Architect/Planner: John Lister, JL Architects

Address: 115 Westtown Rd., Suite 201, West Chester, PA 19382

E-mail*: jlister@jlarchs.com Phone/Fax: 610-429-4470

Engineer/Surveyor: Tracey Borusiewicz and George Maalouf

Address: 718 Gravel Pike, Collegeville, PA 19426

E-mail*: tborusiewicz@aol.com / georgesmaalouf111@gmail.com Phone/Fax: 610-941-7181

Landscape Architect: John Shandra - JSLA Landscape Design

Address: 2999 Horseshoe Drive, Collegeville, PA 19426

E-mail*: jshandra@gmail.com Phone/Fax:

Attorney: Mark S. Danek, Esq.

Address: 1255 Drummers Lane, Suite 105, Wayne, PA 19087

E-mail*: msd@daneklawfirm.com Phone/Fax: 484-344-5429/484-766-8970

*All correspondence regarding this application from the Planning Commission and staff will be made via e-mail. All persons involved with this application should provide their e-mail addresses so that information including, but not limited to, meeting dates and plan reviews replaces revisions here, is distributed appropriately.

Application For: (See Section 22-305.A or the bottom of page 10 of the application packet for clarification)

XX Minor Land Development
Preliminary Major Land Development
Final Major Land Development

Minor Subdivision
Preliminary Major Subdivision
Final Major Subdivision

Project Information:

Location (Street Address): 701 Fayette Street

Tax Assessment Parcel No. 05-00-03296-00-2 County Deed Book No. 6136 Page No. 1408

Description of Proposed Work: Construct 3 story mixed use development with first floor retail and nine apartments on second and third floors. Parking provided as per zoning approval and settlement.

Total Tract Acreage: .413 Project Acreage .413

Zoning District BC Existing Number of Lots: 1 Proposed Number of Lots: 1

Proposed Land Use: Single-Family Detached Single-Family Semi-Detached Multi-Family
Single-Family Attached X Commercial Office Industrial

Other (Describe): Mixed-Use. First floor commercial; Second and Third floor - apartments

Existing Sewer Flows: n/a Proposed Sewer Flows: 4200 GPD (estimated)

Check List - Plans:

The applicant must provide all of the following plans for an application to be considered complete. Section 22, Part 3 of the SALDO outlines plan submission requirements and the criteria that must be met in order for submissions to be deemed complete. These requirements are listed on information sheets provided at the end of this application package. If the required plans listed below do not have sufficient information to allow for staff reviews, the application may be considered incomplete and returned, requesting additional information.

- X Record Plan
- X Existing Features Site Plan
- X Grading Plan
- X Erosion and Sediment Control Plan
- Lighting Plan_Major
- Circulation Plan_Major
- Stormwater Calculations
- X Landscape Plan (sealed by a Landscape Architect)
- X Demolition Plan
- Detail Sheets
- X Traffic Study (if applicable)
- X Post Construction Stormwater Management Plan (See Grading Plan)
- X Utility Plan

Check List - Proof of ownership and zoning relief:

- X Proof of equitable ownership or interest in the property - copy of the deed to the subject property
- X Copy of adjudication of Zoning Hearing Board related to the application

Check List - Color Photographs of Site and Existing Conditions:

- X Streetscape in all directions, showing subject property in each
- X Façade and secondary elevations of existing building(s) on site
- X Sidewalk and curb conditions
- X Street trees
- X Alley conditions, if present

Check List - Building Elevations:

- X Architectural drawings and renderings of proposed building(s)

Check List - Setback of Proposed Building(s):

- X Established building line for the block on which the property is located (eg: scale off an aerial) (In plan, show setbacks of all existing buildings on same side of the street as project for entire block.)

List of Requested Waivers:

Section/Requirement:	Relief Requested:
See drawings for requested waivers and explanation.	

Have you met with the Zoning Officer regarding this plan?	x Yes	No
Are there known variances/any zoning relief necessary for this project?*	x Yes	No
If YES, have you submitted an application for the Zoning Hearing Board?	x Yes	No
Has this plan been reviewed by the Zoning Hearing Board?	x Yes	No

*Please be advised that if any variances are found to be necessary during the course of the review of this plan, you will be required to go to the Zoning Hearing Board prior to proceeding to the Planning Commission. In addition, you will be requested to grant the Borough a waiver to the 90-day action period or an immediate denial of this application will be made, and you will be required to resubmit the application.

The undersigned represents that to the best of his/her knowledge and belief, all the above statements are true, correct and complete.

Signature of Applicant

07/29/22
Date

SIGN HERE

Signature of Property Owner (if not the same as applicant)

Date

ALL MAJOR subdivision/land use applications require a pre-submission meeting to discuss the project prior to full application submittal.

MINOR subdivision/land use applications may request a pre-submission meeting; if one is desired.

Meetings are held the second and fourth Tuesday of each month beginning at 1:30pm at the Borough Administrative Offices.

Applicants assume responsibility of any fees associated with this meeting.

07/29/22 SIGN HERE

Applicant signature date

To schedule a pre-submission meeting, please contact the office of the Borough Manager
ph: 610.828.1092
e: landuse@conshohockenpa.gov

Borough Use Only:

Filing Fee	Amount $	1,000.00	Check No.	1097
Pre-Construction Professional Services Escrow	Amount $	33,000.00	Check No.	1098

Decision Information:

Approval _____ Denial _____ Decision Date:_____

Comments/Conditions:

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

Planning Process Extension Agreement

The Pennsylvania Municipality Planning Code (MPC) and the Conshohocken Borough Subdivision and Land Development Ordinance state that action must be taken by the Borough within ninety (90) days after a complete application is filed with the Borough. In the Borough, larger and complicated projects have historically required additional time in order to complete a thorough review before being considered for approval. As such, an applicant may voluntarily waive the timing requirement at any time, but is encouraged to submit this waiver with the completed application.

I, the applicant, hereby voluntarily waive the timing requirement as set forth in the MPC (Section 509) and the Conshohocken Borough Subdivision and Land Development Ordinance (Section 22-308).

Applicant signature — Date: 07/29/22

SIGN HERE

Received by (Borough): Brittany Rogers — Date: 8/1/22

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

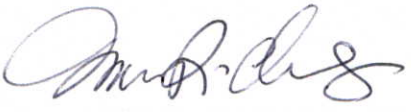
ESCROW AGREEMENT
FOR PROFESSIONAL REVIEW FEES

SUBDIVISION/LAND DEVELOPMENT APPLICATIONS

The undersigned hereby agrees to post an escrow to cover the costs of the review of subdivision and land development applications by the Borough Planner, Engineer, and Solicitor. The amount of said escrow shall be according to the attached "Schedule of Fees" and shall be posted at the time of initial submission of an application to the Borough. Said fees shall be placed in an escrow account and any balance remaining shall be returned to the applicant subsequent to the receipt of final approval.

The applicant is advised that the "Schedule of Fees" represents only an estimate of the costs associated with plan review. The completeness and quality of the submission, the complexity of the project, the number of revisions and other factors may cause costs to exceed the established escrow amounts. If during the course of a subdivision/land development review an escrow amount falls to 10% of the original escrow amount or $250, whichever is greater, the Borough may require the posting of additional escrow.

NOTE: NO FINAL APPROVALS, CONSTRUCTION, BUILDING OR OCCUPANCY PERMITS SHALL BE ISSUED UNTIL ALL OUTSTANDING PROFESSIONAL REVIEW FEES HAVE BEEN SATISFIED.

Signed  Date: 07/29/22 SIGN HERE

Applicant

BOROUGH OF CONSHOHOCKEN
MONTGOMERY COUNTY, PENNSYLVANIA

ESCROW AGREEMENT
FOR PROFESSIONAL REVIEW FEES

PRE-SUBMISSION MEETING

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07/29/22

SIGN HERE

Signed Date:
Applicant

ALL PLANS SHOULD CONFORM TO THE FOLLOWING:

[Section 22-304.A]

1. Plan is clearly and legibly drawn.
2. Plan scale does not exceed one (1) inch equals fifty (50) feet (sites >5 Acres may be drawn 1:100).
3. Dimensions are in feet and decimals and bearings in degrees, minutes and seconds.
4. Sheet size shall be 15" x 18", 18" x 30", 24" X 36" or 30"x42".
5. A key map has been provided when there are two or more sheets.

[Section 22-304.B]

6. Name and address of the subdivider or developer and the registered engineer or surveyor.
7. Subdivision/development name, location in terms of significant bounding roads, and name of municipality.
8. The date of preparation (or revision) of the plan, scale and north point.
9. Entire tract boundary with bearings and distances and a statement of the tract size.
10. Layout and dimensions of all lots and the net lot area of each parcel.
11. Floor Area and/or gross leasable area of each existing/proposed building,as applicable.
12. A key map relating the subdivision to at least three (3) intersecting streets.
13. A legend sufficient to indicate clearly between existing and proposed conditions.
14. A schedule of all zoning requirements and classifications.
15. A list of all requested/obtained variances, waivers or special exceptions.

[Section 22-410.5]

16. Narrative/description of the project
17. All bodies of water
18. All physical features
19. All underground utilities
20. Proposed change to land surface and vegetative cover
21. Areas to be cut and filled
22. Stormwater management controls and maintenance program during construction
23. Stormwater management controls and maintenance program after construction
24. Easements
25. Expected project schedule

Address the following to determine which application to submit:

[Section 22-305.A]	Yes	No
1. There are less than three (3) lots.	X	
2. There is only one residential building with less than five (5) dwelling units.	X	
3. The property has not been part of a subdivision or land development submitted within the past three (3) years.	X	
4. The property fronts on a physically improved street that is legally open to the public.	X	
5. The project will not involve the construction of any new street or road, the extension of municipal facilities or the creation of any other public improvements.	X	
6. The project will not require a variance(s) from the Borough Zoning Ordinance for no more than one of the proposed lots on which new construction will occur or may occur in the future.	X	
7. The project is in general conformance with the Borough Master Plan and other plans.	X	

If ALL responses were YES, please file a MINOR subdivision and/or land development application.
If ANY response was NO, please file a MAJOR subdivision and/or land development application.

MINOR SUBDIVISION/LAND DEVELOPMENT

Within properties adjoining the land being subdivided or developed, the plan shall show:

[Section 22-305.B(1)]

1. Property lines, existing buildings, present use and current owners.
2. The location, names and width (both cartway and right-of-way) of existing and proposed streets and alleys.
3. The location and size of all watercourses and boundaries of flood-prone areas.
4. Manmade structures and natural features, such as steep slopes.
5. Areas subject to deed restriction or easements.
6. Other information deemed necessary by Borough Council.

Within the land to be subdivided or developed, the plan should show the following:

[Section 22-305.B(2)]

1. Location and character of buildings located on the land to be demolised or retained.
2. Location, names and widths of proposed streets and alleys, including distance to nearest intersection.
3. Paving widths, curblines, rights-of-way and curb-line radii at intersections, and street location tie-ins by courses and distances to the nearest intersection.
4. Location and size of all watercourses and boundaries of all flood-prone areas.
5. Manmade structures and natural features which limit the potential layout of lots and buildings, including marshland, slopes >15%, and other topographical features.
6. Areas subject to deed restriction or easements.
7. Lands reserved for future road widening or other public or common use.
8. Location and size of all soil types, if requested.
9. Location and size of on-site sewage facilities, if applicable.
10. Documentation of approval of proposed facilities by local sewage enforcement officer.
11. Sketch of future street and/or lot layout for remaining land not proposed for subdivision.
12. Other information deemed necessary by Borough Council.

[Section 22-305.C]

13. Statement of conformity with flood plain ordinance [Section 22-304 & Section 22-415] requirements.

After Council approves the minor subdivision plan, the plan shall become a final plan when the following certificates are obtained:

[Section 22-305.E]

1. Signature of the registered engineer or surveyor certifying the plan represents a survey made by that person, the monuments shown theron exist as located, and the dimensional and geodetic details are correct.
2. Signature of the subdivider certifying his or her adoption of the plan and any changes thereto.
3. Signature of the Borough Secretary certifying that Borough Council has approved the minor subdivision plan and any changes thereto on the date shown.

Following final approval, the plan must be recorded in accordance with Section 22-309

PRELIMINARY MAJOR SUBDIVISION/LAND DEVELOPMENT

Within 100' of any part of the land to be developed, the plan shall show:

[Section 22-306-A(1)]

1. Property lines, existing buildings, present use and current owners.
2. Location of any lots or areas which shall contain a use or uses other than residential.
3. The location, names width (both cartway and right-of-way), radii and surface conditions of existing and proposed alleys and streets.
4. All roads, parking facilities and pedestrian ways (including the total number of parking spaces).
5. The location and size of all watercourses and boundaries of flood-prone areas.
6. The location of existing and proposed flood or erosion protective facilities.
7. The location and size of existing and proposed sanitary sewers, manholes, storm sewers and inlets.
8. The location and size of existing and proposed above and below ground utilities.
9. Man-made structures and natural features which may affect the potential layout of lots and buildings, including steep slopes >15%, marshland and other topographical features.
10. Cross-section and center line profile for each proposed or widened cartway shown on the preliminary plan, including the profile for proposed sanitary sewers and storm drains, showing manholes, inlets and catch basins.
11. Preliminary design of any bridges, culverts or other structures and appurtenances that may be required.
12. Areas subject to deed restriction and easement.
13. Other Information deemed necessary by Borough Council.

Within the land to be developed:

[Section 22-306-A(2)]

1. The location and character of existing and proposed buildings to be demolished and/or retained.
2. Net lot area of the parcel.
3. The locations, names, widths and other dimensions of existing and proposed streets, including center-line courses, distances and curve data, paving widths, curblines, rights-of-way and curbline radii at intersections and street location tie-ins by courses and distances to the nearest intersection of existing and proposed streets and alleys.
4. For proposed streets, the plan shall show tentative grades to an existing street at a point 400 feet beyond the boundaries of the site.
5. Measured distance from the centerline of existing and proposed streets to existing and proposed buildings, trees and plantings, and control points and monuments.
6. All building setback lines with distances from the right-of-way line.
7. The location and size of existing and proposed sanitary sewers, manholes, storm sewers and inlets.
8. The location and size of all watercourses and boundaries of flood-prone areas.
9. Contour lines at vertical intervals of five (5) feet, except for flood-prone areas shown at intervals of two (2) feet.
10. The location and size of above and below ground utilities.
11. Man-made structures or natural features which limit the potential layout of buildings and lots, including tree masses, marshland, steep slopes >5%, and other topographical features.
13. The location and size of all soil types if requested by the Borough Engineer or Planning Commission.
14. The location and size of any area to be used for common open space, recreation purposes or common facilities.
15. All covenants, deed restrictions or easements, including land to be dedicated or reserved for future road widening or other public use.
16. When a preliminary plan covers only a part of the owner's entire holding, a sketch shall be submitted of the prospective street and lot layout for the remaining area of the tract.
17. Documentation of approval by Borough Sewage Enforcement Officer of proposed on-site sewage facilities.
18. The depth of the water table noted on the plan or separate report, along with the location of test borings.
19. The lot size, floor area and/or gross leasable area as applicable.
20. The density and/or intensity of use including bedroom mix, if applicable.
21. The location and placement of accessory structures and buildings.
22. Conceptual site utilization layout defining the general location of all proposed uses and activities, and the area of the total tract devoted to each use or group of uses.
23. Other information deemed necessary by Borough Council.

[Section 22-306-B]

24. Statement of conformity with the Borough Flood Plain Ordinance [Sections 22-304 & 22-415] for flood-prone areas.

After Council approves the minor subdivision plan, the plan shall become a final plan when the following certificates are obtained:

[Section 22-306-C]

1. Signatures of the subdivider, developer and builder certifying to their adoption of the plan.
2. Signatures of the Borough Secretary certifying that Borough Council has approved the plan.

FINAL MAJOR SUBDIVISION/LAND DEVELOPMENT - RECORD PLAN

[Section 22-307.B]

1. Courses and distances sufficient for the legal description of all the lines shown on the plan; the error of closure not exceeding one part in 10,000.
2. The names of abutting owners.
3. Location, material and size of all monuments.
4. Provide evidence that the plans are in conformance with the Borough Zoning Ordinance (Chapter 27) and other applicable Borough ordinances and regulations, as well as special exceptions and/or variances that have been authorized, if applicable.
5. Demonstrate how the remainder of the tract or parcel may be subdivided or developed in conformance with the existing zoning classification of land use in a logical and satisfactory manner where future subdivision or development is imminent.
6. Specifications for required improvements and changes to be effected upon existing terrain or existing structures thereon.

An Improvement Plan must be provided indicating the following:

1. Horizontal Plan indicating the following:

[Section 22-307.C(1)]

   a. Beginning and end of construction.
   b. Stations corresponding to profiles
   c. Curb elevations at tangent points or horizontal curves, at road or alley intersections, and at the projected intersection of the curblines.
   d. Location and size of sanitary sewers and lateral connections with distances between manholes, water, gas, electric and other utility pipes or conduits and of storm drains, inlets and manholes.
   e. Location, type and size of curbs and all paving widths.
   f. Location and species of all shade trees, fire hydrants and streetlights.
   g. Location and type of fire hydrants.
   h. Location and type of streetlights.

2. Profiles indicating the following:

[Section 22-307.C(2)]

   a. Profiles and elevations of the ground along the center lines of the proposed roads.
   b. Profiles of sanitary sewers with a profile over the sewer of the present and finished ground surface showing manhole locations, beginning at the lowest manhole.
   c. Profiles of storm drains showing manhole and inlet locations.

3. Cross-Sections indicating the following:

   [Section 22-307.C(3)]

   a. The location of the road and width of paving in the road.
   b. The type, depth and crown of paving.
   c. The type and size of curb.
   d. Grading of the sidewalk area should be carried to the full width of the road and slopes of cut or fill extended beyond the road.
   e. The location, width, type, depth of sidewalks.
   f. The typical location, size and depth of sewers and utilities.

After Council approves the minor subdivision plan, the plan shall become a final plan when the following certificates are obtained:

[Section 22-307.D]

1. Signature of registered engineer or surveyor certifying they made the plan and that the monuments shown thereon exist as located; and that the dimensional and geodetic details are correct.
2. Signature of the subdivider, developer or builder certifying the adoption of the plan.
3. Signature of the Borough Secretary, certifying that the Borough Council approved the plan on the date shown.
4. Provide an empty block/space, at least 3-1/2 inches wide by 2 inches tall for the MCPC stamp and seal, including the MPCP file number.

DEED BK 6136 PG 01408 to 01412
INSTRUMENT # : 2019031000
RECORDED DATE: 05/20/2019 01:19:45 PM

5635172-0008U

RECORDER OF DEEDS
MONTGOMERY COUNTY
Jeanne Sorg

One Montgomery Plaza
Swede and Airy Streets ~ Suite 303
P.O. Box 311 ~ Norristown, PA 19404
Office: (610) 278-3289 ~ Fax: (610) 278-3869

MONTGOMERY COUNTY ROD

OFFICIAL RECORDING COVER PAGE

Document Type: Deed	**Transaction #:** 5844392 - 3 Doc(s)
Document Date: 05/17/2019	**Document Page Count:** 4
Reference Info:	**Operator Id:** ebossard

RETURN TO: (Pickup)
SUBURBAN PHILADELPHIA ABSTRACT INC
922 W. RIDGE PIKE
CONSHOHOCKEN, PA 19428

PAID BY:
SUBURBAN PHILADELPHIA ABSTRACT INC

*** PROPERTY DATA:**

Parcel ID #:	05-00-03296-00-2
Address:	701 FAYETTE ST
	PA
Municipality:	Conshohocken Borough (100%)
School District:	Colonial

*** ASSOCIATED DOCUMENT(S):**

CONSIDERATION/SECURED AMT:
$1,000,000.00

FEES / TAXES:

Recording Fee:Deed	$86.75
State RTT	$10,000.00
Conshohocken Borough RTT	$5,000.00
Colonial School District RTT	$5,000.00
Total:	$20,086.75

DEED BK 6136 PG 01408 to 01412
Recorded Date: 05/20/2019 01:19:45 PM
I hereby CERTIFY that this document is recorded in the Recorder of Deeds Office in Montgomery County, Pennsylvania.

RECORDER'S OFFICE • MONTGOMERY COUNTY, PA •

Jeanne Sorg
Recorder of Deeds

Rev1a 2016-01-29

PLEASE DO NOT DETACH

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

NOTE: If document data differs from cover sheet, document data always supersedes.
***COVER PAGE DOES NOT INCLUDE ALL DATA, PLEASE SEE INDEX AND DOCUMENT FOR ANY ADDITIONAL**

Prepared by and Return to:

Suburban Philadelphia Abstract, Inc.
922 West Ridge Pike
Conshohocken, PA 19428
610-828-6133

File No. 469-556

UPI # 05-00-03296-00-2

RECORDER OF DEEDS
MONTGOMERY COUNTY

2019 MAY 20 P 1:08

MONTGOMERY COUNTY COMMISSIONERS REGISTRY
05-00-03296-00-2 CONSHOHOCKEN
701 FAYETTE ST
IVENS PROPERTIES LLC $15.00
B 037 U 052 L 4260 DATE: 05/20/2019 JE

This Indenture, made the 17th day of May, 2019,

Between

IVENS PROPERTIES, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY

(hereinafter called the Grantor), of the one part, and

C G E M, LLC

(hereinafter called the Grantee), of the other part,

Witnesseth, that the said Grantor for and in consideration of the sum of **One Million And 00/100 Dollars ($1,000,000.00)** lawful money of the United States of America, unto it well and truly paid by the said Grantee, at or before the sealing and delivery hereof, the receipt whereof is hereby acknowledged, has granted, bargained and sold, released and confirmed, and by these presents does grant, bargain and sell, release and confirm unto the said Grantee

ALL THAT CERTAIN lot, tract or parcel of land, hereditaments and appurtenances, situate lying and being in Conshohocken Borough, County of Montgomery, Commonwealth of Pennsylvania and more particularly bounded and described according to a survey and plan thereof prepared by Ezra Golub & Associates, Professional Engineers and Land Surveyors of Levittown, Pennsylvania, dated 4/7/88 and numbered D-23521501 as follows to wit:

BEGINNING at a point, said point being the intersection of the Northeasterly right-of-way line of 7th Avenue (80 feet wide) and the Southeasterly right-of-way line of Fayette Street (100 feet wide), and running thence (1) along said right-of-way line of Fayette Street (100 feet wide) North 41 degrees 00 minutes 00 seconds East a distance of 150 feet to a P K Nail, thence (2) along the lands now or formerly of Texaco Refining and Marketing, Inc. South 49 degrees 00 minutes 00 seconds East a distance of 120 feet to a PK Nail, thence (3) partly along a 20 feet wide public driveway and along land now or formerly of Carl D. and Rita M. Hamilton South 41 degrees 00 minutes 00 seconds West a distance of 150 feet to an iron pin, thence (4) along said right-of-way of 7th Avenue (80 feet wide) North 49 degrees 00 minutes 00 seconds West a distance of 120 feet to an iron pin and first mentioned point and place of beginning.

CONTAINING 18,000 square feet on 413 acres of land, more or less
LESS AND EXCEPT any deeds, condemnations, takings, or declarations of record.

UNDER AND SUBJECT to agreements, easements, rights of way, covenants, conditions and restrictions of record.

BEING Parcel No. 05-00-03296-00-2

BEING THE SAME premises which 701 Fayette St. Conshohocken, LLC, a Pennsylvania limited liability company by indenture bearing date the 14th day of December 2004 and as recorded at Norristown in the Office for the Recorder of Deeds in and for the County of Montgomery on the 3rd day of March 2005 in Deed Book 5545 page 1061 granted and conveyed unto Ivens Properties, LLC, a Pennsylvania limited liability company in fee.

Together with all and singular the buildings and improvements, ways, streets, alleys, driveways, passages, waters, water-courses, rights, liberties, privileges, hereditaments and appurtenances, whatsoever unto the hereby granted premises belonging, or in anywise appertaining, and the reversions and remainders, rents, issues, and profits thereof; and all the estate, right, title, interest, property, claim and demand whatsoever of it, the said grantor, as well at law as in equity, of, in and to the same.

To have and to hold the said lot or piece of ground described above, with the buildings and improvements thereon erected, hereditaments and premises hereby granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantee, its successors and assigns, to and for the only proper use and behoof of the said Grantee, its successors and assigns, forever.

And the said Grantor, for itself, its successors and assigns, does, by these presents, covenant, grant and agree, to and with the said Grantee, its successors and assigns, that it, the said Grantor, and its successors and assigns, all and singular the hereditaments and premises herein described and granted, or mentioned and intended so to be, with the appurtenances, unto the said Grantee, its successors and assigns, against it, the said Grantor, and its successors and assigns, will **WARRANT SPECIALLY** and defend against the lawful claims of all persons claiming by, through or under the said Grantor but not otherwise.

In Witness Whereof, the party of the first part has caused its common and corporate seal to be affixed to these presents by the hand of its Member, and the same to be duly attested by its Member. Dated the day and year first above written.

ATTEST

IVENS PROPERTIES, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY

By: _____
William P. Ivens, Member

By: _____
Karen Ann Ivens, Member

[SEAL]

Commonwealth of Pennsylvania
County of MONTGOMERY } ss

This record was acknowledged before me on May 17, 2019 by William P. Ivens as Member, and by Karen Ann Ivens as Member, who represent that they are authorized to act on behalf of Ivens Properties, LLC, a Pennsylvania Limited Liability Company.

_____
Notary Public
My commission expires _____

Commonwealth of Pennsylvania - Notary Seal
RAYMOND R. VERBRUGGHE, Notary Public
Montgomery County
My Commission Expires July 11, 2022
Commission Number 1171666

The precise residence and the complete post office address of the above-named Grantee is:

6142 Creekside Drive
Flourtown, Pa. 19031

_____
On behalf of the Grantee

File No. **469-556**

Record and return to:
Suburban Philadelphia Abstract, Inc.
922 West Ridge Pike
Conshohocken, PA 19428

Deed

UPI # 05-00-03296-00-2

Ivens Properties, LLC, a Pennsylvania
Limited Liability Company

TO

C G E M, LLC

Suburban Philadelphia Abstract, Inc.
922 West Ridge Pike
Conshohocken, PA 19428

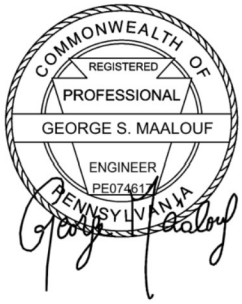
DRAINAGE REPORT

FOR

701 FAYETTE STREET, CONSHOHOCKEN BOROUGH, PENNSYLVANIA

PREPARED

BY



GME ENGINEERING

CIVIL ENGINEERS,

SURVEYORS, AND SITE DESIGNERS

1117 Carolina Ave, West Chester, PA 19380

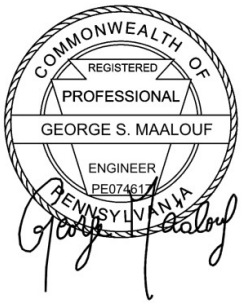
P: (610)732-0707

Revision A: August 24 , 2022

Revision B: November 21, 2022

Design Engineer Statement

I, GEORGE S. MAALOUF, ON THIS DAY THE 21st OF NOVEMBER 2022 HEREBY CERTIFY THAT THE DRAINAGE PLANS AND CALCULATIONS MEET ALL DESIGN STANDARDS AND CRITERIA OF CONSHOHOCKEN BOROUGH STORMWATER MANAGEMENT ORDINANCE.



GEORGE S. MAALOUF, PE

Contents

1- INTRODUCTION:

This drainage report is prepared for the re-development of the lot located at 701 Fayette street in Conshohocken Borough, Pennsylvania.

The owner is proposing to re-develop the site and remove most impervious cover and replace it with a new building and a new parking lot and its utilities. For more information on the site development, refer to the land development plans for this project.

2- SOILS AND INFILTRATION TEST:

The available soils on site are UugB. Which is Urban land-Udorthents, schist and gneiss complex. It is a soil group "C".

The soils limits and description are taken from USDA-Natural Resources Conservation Service website. An excerpt is shown under ***Figure 1.***

Description of the soils is listed on the attached "**Existing Drainage Plan**" in the Back pocket of this report.

The soil testing by N. Vastardis, PE, resulted in a fast infiltration rate of 12 in/hr. The required safety factor by the Borough code is 2. The used safety factor in this report is 3. The adopted infiltration rate is 4 in/hr. The results of the soil testing is included in ***Appendix A***.

Figure 1

3- METHODOLOGY

The purpose of this report is to provide a drainage design that complies with the Borough Drainage Code – Ordinance No. 11-2022..

The existing grass cover to be disturbed is assumed meadow and 20% of the existing impervious cover is assumed meadow as well. SCS TR-55 is used to determine the peak flows, the flow volumes and the time of concentrations for each watershed.

A proposed infiltration basin with an overflow structure is designed. The infiltration basin meets the following requirements:

Per Section 4-Aiii: The rainfall intensities are taken from NOAA Atlas 14.

The storms depth is a s follows:

Year Strom	***depth (in)***
1-Year Storm	***2.98***
2-Year Storm	***3.59***
5-Year Strom	***4.50***
10-Year Strom	***5.25***
25-Year Storm	***6.34***
50-Year Storm	***7.26***
100-Year Storm	***8.24***

Per Section 5: There is zero flow increase in the proposed conditions for any storm event.

Per Section 5-A-iv: The pit volume is the difference in volume between the pre and post 100-year storm plus an additional 218 cf.

Per Section: 5-A-vii: There is an overflow pipe to discharge safely any storm greater than the 100-year storm.

Per Section 5-A-viii: The infiltration basin will dewater in less than 7 days.

Per Section 5-C-ic: The calculation infiltration rate is the tested infiltration rate divided by 2.

Per Section 5-C-im: The infiltration rate is greater than 0.2 in/hr.

Per Section 5-C-ii: The bottom slope of the pit is no greater than 1%.

Per Section 5-C-vi: the infiltration pit is 10 feet minimum from the building foundation.

The two drainage plans included in the back pocket show the existing and proposed drainage limits and Tc paths for both conditions.

4- EXISTING CONDITIONS:

The site currently drains toward the East 7th Avenue. Refer to "**Existing Drainage Plan**". It drains along the eastern property line before it reaches the drainage inlets along the

aforementioned street. For the purpose of this project, the entire site has been delineated as shown on the ""**Existing Drainage Plan**". The information about the site watersheds listed in **Table 1**.

The time of concentration for the existing conditions is shown on the drainage plan. There are possible paths. One that runs completely on pavement and the other one, as depicted on the drainage plan, runs on the north side of the property. The longest one is the one on the north side and gives more conservative Tc but the Tc is still less than 5 minutes. A Tc of 5 minutes Is used.

WATERSHED	AREA OF EACH COVER (SF)*			TC* (MINUTES)
	IMPERVIOUS CN=98	MEADOW CN=71	MEADOW CN= 71 (20% OF EX IMPER. TO BE DISTURBED)	
1S	11,251	3,937	2,812	5

TABLE 1

***** see ***Appendix B- page 7***

In the altered or re-developed areas, the existing grass is assumed Meadow. Also, 20% of the existing impervious cover to be disturbed is assumed to be meadow as well. CN values are taken from ***Tables 2-2a*** and ***2-2c*** in TR-55 manual. An excerpt is pasted below.

The analysis of the existing conditions Is attached to this report in ***Exhibit B***. A summary of the existing flows is listed in ***Table 2.***

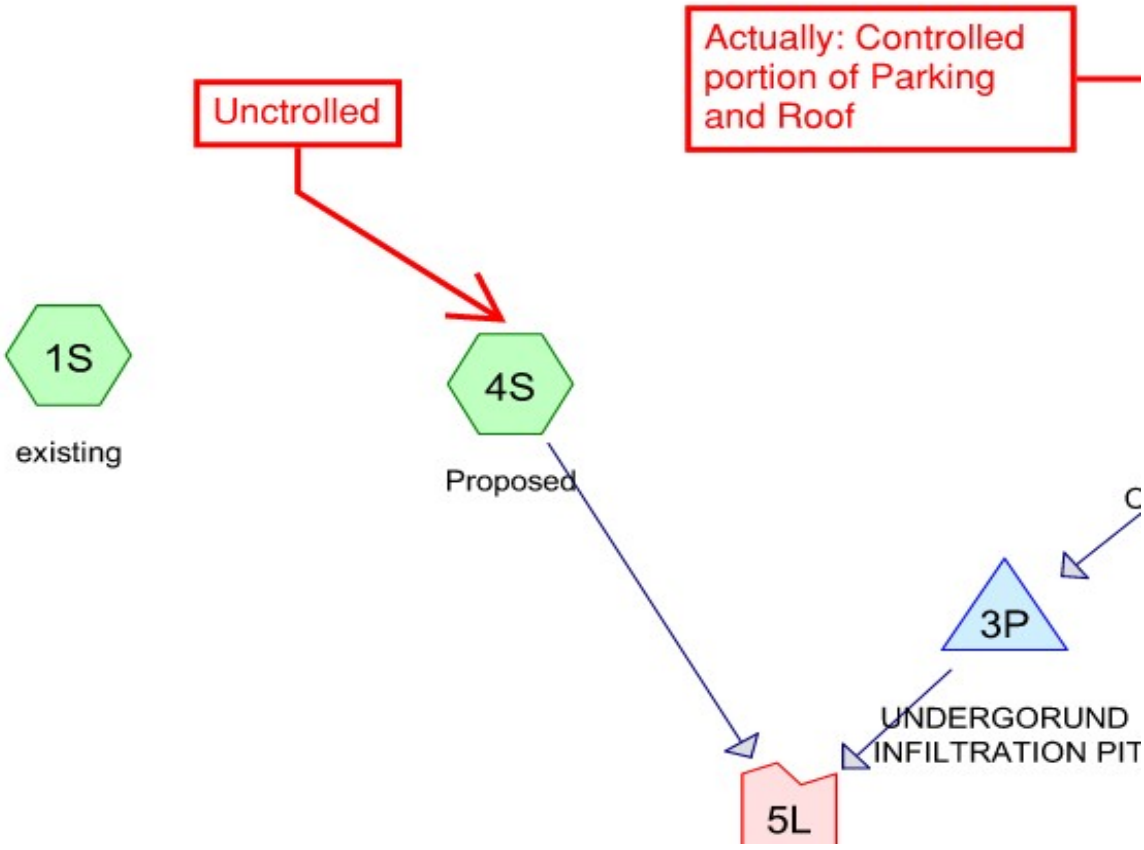
Table 2-2a Runoff curve numbers for urban areas 1/

Cover description		Curve n hydrologi	
Cover type and hydrologic condition	Average percent impervious area 2/	A	B
Fully developed urban areas (vegetation established)			
Open space (lawns, parks, golf courses, cemeteries, etc.) 3/:			
Poor condition (grass cover < 50%)		68	79
Fair condition (grass cover 50% to 75%)		49	69
Good condition (grass cover > 75%)		39	61
Impervious areas:			
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98
Streets and roads:			

Table 2-2c Runoff curve numbers for other agricultural lands 1/

Cover description		Curve n hydrologi	
Cover type	Hydrologic condition	A	B
Pasture, grassland, or range—continuous forage for grazing. 2/	Poor	68	79
	Fair	49	69
	Good	39	61

The excerpt shown below is the anaylsis diagram. The existing condition is presented in one single node “1S”. The proposed conditions is divided into tow sub-watershed. One controlled “6S” that includes portion of the parking lot and portion of the building. The uncontrolled section is “4S”. The controlled node “6S” is routed through the infiltration pit “3P”.



WATERSHED	STORM EVENT						
	1-Y[1] (CFS)	2-Y[2] (CFS)	5-YR[3] (CFS)	10-YR[4] (CFS)	25-YR[5] (CFS)	50-YR[6] (CFS)	100-YR[7] (CFS)
1S	1.35	1.75	2.33	2.81	3.51	4.10	4.72

TABLE 2

1- See ***Appendix B- page 6***

2- See ***Appendix B- page 17***

3- See ***Appendix B- page 28***

4- See ***Appendix B- page 39***

5- See ***Appendix B- page 50***

6- See ***Appendix B- page 61***

7- See ***Appendix B- page 72***

5- PROPOSED CONDITIONS:

a- Volume Control:

Per section 19-303 of the drainage code, it is required to capture the difference between the per and post conditions for the site. The calculations per section 19-303-A: Design Storm Method, are included in Appendix C. The existing volume is 3,777 c.ft. The proposed volume for the entire site is 4,832 c.ft. The volume to be controlled is the difference between 4,832 and 3,777. That is 1,055 c.ft.

The captured volume from the proposed controlled area is 1,387 c.ft. which si greater than 1,055 c.ft. The requirements of section 19-303 are met.

b- Rate Control:

The "***Proposed Drainage Plan***" found in the back pocket of this report delineates the proposed drainage limit. The site is divided into 2 sub-watersheds. Sub-watershed W-1 is controlled by the infiltration basin and the second sub-watershed W-2 is uncontrolled and flows freely to the original point of discharge.

The calculation report is found in ***Exhibit B***. A summary of the proposed cover is listed in ***Table 3.*** A summary of the proposed flows is listed in ***Table 4.***

WATERSHED	AREA OF EACH COVER (ACRE)			TC (MINUTES)
	IMPERVIOUS CN=98	MEADOW. CN=78	GRASS CN= 86	
4S (UNCONTROLLED)*	11,609	0	1,095	5
6S (CONTROLLED)**	4,335	0	961	5

TABLE 3

*See ***Appendix B- page 9***

See ***Appendix B- page 11*

DISCHARGE POINT	STORM EVENT						
	1-Y (CFS)	2-Y (CFS)	5-YR (CFS)	10-YR (CFS)	25-YR (CFS)	50-YR (CFS)	100-YR (CFS)
PT# 1	1.25	1.51	1.91	2.24	2.71	3.11	3.53

TABLE 4

1- See ***Appendix B- page 6***

2- See ***Appendix B- page 17***

3- See ***Appendix B- page 28***

4- See ***Appendix B- page 39***

5- See ***Appendix B- page 50***

6- See ***Appendix B- page 61***

7- See ***Appendix B- page 72***

By comparing the results of Tables 2 and 4 we can conclude that the proposed flows for all storms at the point of discharge are less than the existing flows.

The volume of the existing 100-year storm is 10,204 cf. The proposed 100-year volume for 4S and 6S alternatively is 8,342 and 3,425 cf. That is a total proposed volume of 11,767 cf. The required storage volume is 1,563 cf (11,767-10,204=1,563 cf). The storm volumes can be found on page 83 of ***Appendix B***.

The pit volume is 35x40x3 feet deep. That is a total volume of 1,680 cf (assuming 40% void ratio). For this reason, all flows up to the 100-year storm flows going into the pit will be stored and infiltrated.

The pit invert elevation is 100.0. The top of the pit is 103.0. ***Table 5*** below summarizes the water surface elevations inside the pit.

	STORM EVENT						
	1-YR[1]	2-YR[2]	5-YR [3]	10-YR[4]	25-YR[5]	50-YR[6]	100-YR[7]
WSEL	**100.47**	**100.64**	**100.91**	**101.14**	**101.49**	**101.79**	**102.13**

TABLE 5

1- See ***Appendix B- page 6***

2- See ***Appendix B- page 17***

3- See ***Appendix B- page 28***

4- See ***Appendix B- page 39***

5- See ***Appendix B- page 50***

6- See ***Appendix B- page 61***

7- See ***Appendix B- page 72***

6- SUMMARY:

The proposed infiltration basin is sized to infiltrate the required volume between the 100-post and pre storm events and to reduce the post flows to less than the pre flow values as requested by Borough Drainage Code.

APPENDIX A
SOIL TESTING

VASTARDIS
CONSULTING ENGINEERS, LLC
Site Development | Subdivisions | Drainage Design

November 17, 2022

Borusiewicz Surveyors and Site Planners
718 Gravel Pike
Collegeville, PA 19426

Re: 701 Fayette Street Infiltration Testing
Conshohocken Borough, Montgomery County, PA

Dear Mr. Borusiewicz:

This letter is to inform you that the soil testing done by this firm on August 24, 2022, at 701 Fayette Street, was done using the "Encased Borehole Method". This particular testing methodology is accepted by PA DEP as a hydraulic conductivity test. Please see the attached letter from PADEP.

The location of the testing was done approximately 40' from the southern face of the existing building and approximately 15' from the easternmost property line of the parcel. We were unable to test in the exact location of the proposed stormwater system as it was covered in asphalt and would have hampered the access and use of the existing parcel. The soils on this site are uniform so the testing location was able to be adjusted.

The test pit was dug to a minimum of 24" below the bottom of the proposed basin to check for a limiting zone. No limiting zone was observed.

Please let us know if you need any further explanation of the process.

Very truly yours,
Vastardis Consulting Engineers, LLC

Nicholas L. Vastardis, P.E.
President

Cc: File

29 Harvey Lane | Malvern, PA 19355-2907 | Tel: 610.644.9663 | Fax: 610.644.3789
vcellc@verizon.net | www.vcellc.net
Registrations PA NJ DE MD

SITE INVESTIGATION AND INFILTRATION TEST REPORT FOR ONLOT DISPOSAL OF STORMWATER

Application No. _____ Municipality CONSHOHOCKEN County MONTGOMERY

Site Location 701 FAYETTE ST Subdivision Name N/A

☒ SUITABLE Soil Type UugB Slope 3 % Depth to Limiting Zone +84 Ave. Perc. Rate 12"/hr

☐ UNSUITABLE ☐ Mottling ☐ Seeps or Ponded Water ☐ Bedrock ☐ Fractures ☒ Coarse Fragments

☐ Perc. Rate ☐ Slope ☐ Unstabilized Fill ☐ Floodplain ☐ Other _____

SOILS DESCRIPTION:

Soils Description Completed by: N. VASTARDIS, P.E. Date: 8-24-22

Inches			Description of Horizon
0	TO	3	TOPSOIL
3	TO	12	10YR 5/4; SILTY LOAM; FRIABLE
12	TO	84	7.5YR 5/4; SILTY LOAM TO LOAM; FINE; FRAGMENTS TO 6"; MICA PARTICLES
	TO		
	TO		
	TO		

PERCOLATION TEST:

Percolation Test Completed by: N. VASTARDIS, P.E. Date: 8-24-22

Weather Conditions: ☐ Below 40°F ☒ 40°F or above ☒ Dry ☐ Rain, Sleet, Snow (last 24 hours)

Soil Conditions: ☐ Wet ☒ Dry ☐ Frozen

Hole No.	*** Yes	*** No	Reading Interval	Reading No. 1: Inches of drop	Reading No. 2: Inches of drop	Reading No. 3: Inches of drop	Reading No. 4: Inches of drop	Reading No. 5: Inches of drop	Reading No. 6: Inches of drop	Reading No. 7 Inches of drop	Reading No. 8: Inches of drop
1		X	(10)/30	2 1/4	2 1/4	2	2	2	2		
2		X	(10)/30	2 1/2	2	2	2	2	2		
			10/30								
			10/30								
			10/30								
			10/30								

***Water remaining in the hole at the end of the final 30-minute presoak? Yes, use 30-minute interval; No, use 10-minute interval.

Calculation of Average Percolation Rate:

Hole No.	Drop during final period	Perc. Rate as Minutes/Inch	Depth of Hole
1	2"	5	60"
2	2"	5	58"
	"		"
	"		"
	"		"
	"		"
	"		" Min / Inch
TOTAL OF MIN / IN →		10	= 5
TOTAL NO. OF HOLES →		2	

THIS TESTING WAS PERFORMED USING THE "ENCASED BOREHOLE METHOD" WHICH IS APPROVED BY PADEP FOR USE AS A "HYDRAULIC CONDUCTIVITY TEST".

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
March 18, 2008

To: Any Interested Party

From: Domenic Rocco, P.E., CPESC
Chief, Stormwater Section
Watershed Management Program
Southeast Region

Subject: Supplemental Guidance for Soil Infiltration Testing

Attached please find a copy of the Department's comments and response for the use of an alternate soil infiltration testing protocol. (i.e. encased borehole method).

This is being provided as a supplement to the guidance found in the PA Stormwater Management BMP Manual, Appendix C – Site Evaluation and Soil Infiltration Testing (Protocol 1).

If you have any questions, you can contact me at (484) 250-5970.

cc: Conservation Districts (SE Region)
Philadelphia Water Department
Mr. Murin, DEP-Central Office

Pennsylvania Department of Environmental Protection

2 East Main Street
Norristown, PA 19401
March 17, 2007

Southeast Regional Office

Phone: 484-250-5970
Fax: 484-250-5971

Mr. Robert Wuerth
Evans Mill Environmental, LLC
101 Fellowship Road
P.O. Box 735
Uwchland, PA 19480-0735

Re: Stormwater Infiltration Testing Protocol Review

Dear Mr. Wuerth:

This is in response to your letter received by the Department of Environmental Protection (Department) on March 11, 2008, requesting a review of the "Hydraulic Conductivity Testing Protocol" utilized by Evans Mill Environmental, LLC (EME), and a determination of its conformance with the testing described in Appendix C - Site Evaluation and Soil Infiltration Testing (Protocol 1) of the Pennsylvania Stormwater Best Management Practice (BMP) Manual (December 26, 2006).

Upon review of the information submitted, it appears that the encased borehole method, as you described, is acceptable. However, the Department would like to also provide the following comments/clarifications to your protocol:

1. This determination is regarding whether this method conforms with the intent of the Pennsylvania Stormwater BMP Manual, not whether it is equivalent to the testing as described in the Maryland Stormwater Manual (Appendix D-1).

2. Please note that the PA Stormwater BMP Manual recommends four to six test pits per acre and two tests per test pit. Please revise your protocol accordingly.

3. Though this method is similar to the percolation test, it is not treated as such since this method can be used to determine hydraulic conductivity.

4. The reduction factor and formula described on pages 8 and 9 of Appendix C in the PA Stormwater BMP Manual is specific for the percolation test. Therefore, a rate reduction does not appear to be necessary as you described in the beginning of the last bullet in your protocol (page 2).

5. The equation which was provided for determining the Coefficient of Permeability is acceptable; however, I believe the proper source is Olsen and Daniel.

If you have any questions, please contact me or my staff at the above phone number.

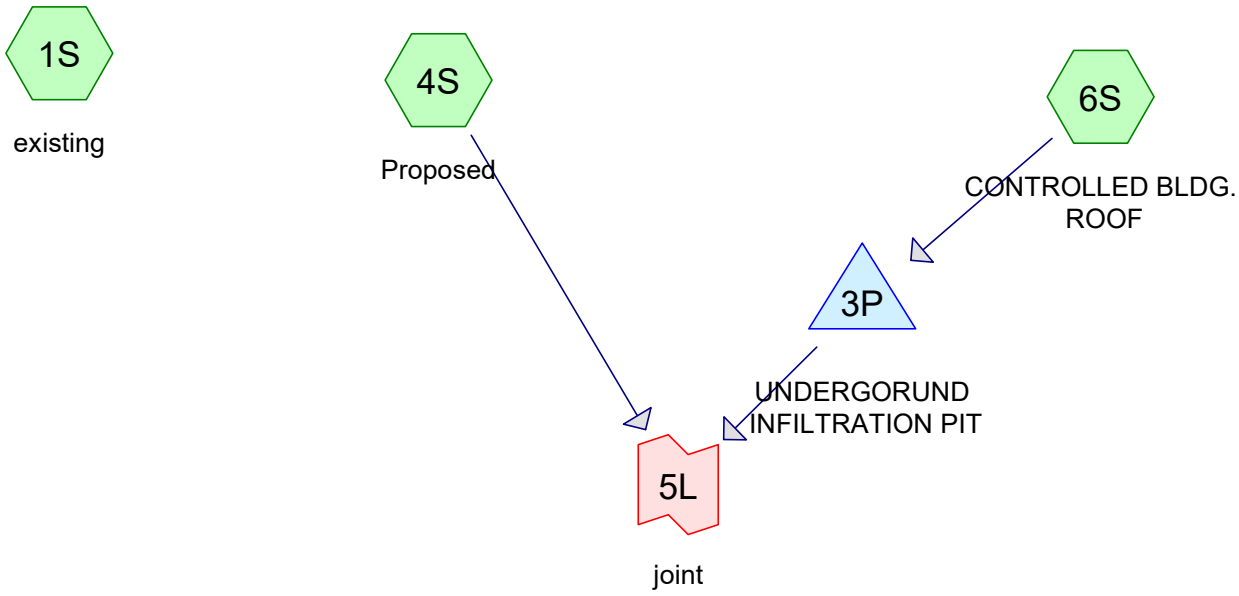
Sincerely,

Domenic Rocco, P.E., CPESC
Chief, Stormwater Section
Watershed Management

Enclosure

cc: Ms. Marjoram – Philadelphia Water Department
Mr. Payer, DEP – Central Office
Re 30 (joh08wqm)074-7

APPENDIX B
Drainage calcs



Subcat Reach Pond Link

Routing Diagram for 701 fayette street 11-21-2022
Prepared by Stellar, Printed 11/21/2022

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-y	Type II 24-hr		Default	24.00	1	2.98	2
2	2-Y	Type II 24-hr		Default	24.00	1	3.59	2
3	5-Y	Type II 24-hr		Default	24.00	1	4.50	2
4	10-Y	Type II 24-hr		Default	24.00	1	5.25	2
5	25-Y	Type II 24-hr		Default	24.00	1	6.34	2
6	50-Y	Type II 24-hr		Default	24.00	1	7.26	2
7	100-Y	Type II 24-hr		Default	24.00	1	8.24	2

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
2,812	71	20% OF IMPER ASSUMED MEADOW (1S)
11,251	98	80% OF Paved parking, HSG C (1S)
2,056	86	<50% Grass cover, Poor, HSG C (4S, 6S)
3,937	71	EX. Meadow, non-grazed, HSG C (1S)
11,609	98	Paved parking, HSG C & ROOF (4S)
4,335	98	Paved roads w/curbs & sewers, HSG C (6S)
36,000	**92**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
33,188	HSG C	1S, 4S, 6S
0	HSG D	
2,812	Other	1S
36,000		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	0	0	2,812	2,812	20% OF IMPER ASSUMED MEADOW
0	0	11,251	0	0	11,251	80% OF Paved parking
0	0	2,056	0	0	2,056	<50% Grass cover, Poor
0	0	3,937	0	0	3,937	EX. Meadow, non-grazed
0	0	11,609	0	0	11,609	Paved parking
0	0	4,335	0	0	4,335	Paved roads w/curbs & sewers
0	**0**	**33,188**	**0**	**2,812**	**36,000**	**TOTAL AREA**

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=1.80"
Flow Length=149' Tc=5.0 min CN=88 Runoff=1.35 cfs 2,701 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=2.64"
Tc=5.0 min CN=97 Runoff=1.25 cfs 2,793 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=2.53"
Tc=5.0 min CN=96 Runoff=0.51 cfs 1,118 cf

Pond 3P: UNDERGORUND INFILTRATION PIT Peak Elev=100.47' Storage=261 cf Inflow=0.51 cfs 1,118 cf
Outflow=0.13 cfs 1,118 cf

Link 5L: joint Inflow=1.25 cfs 2,793 cf
Primary=1.25 cfs 2,793 cf

Total Runoff Area = 36,000 sf Runoff Volume = 6,612 cf Average Runoff Depth = 2.20"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

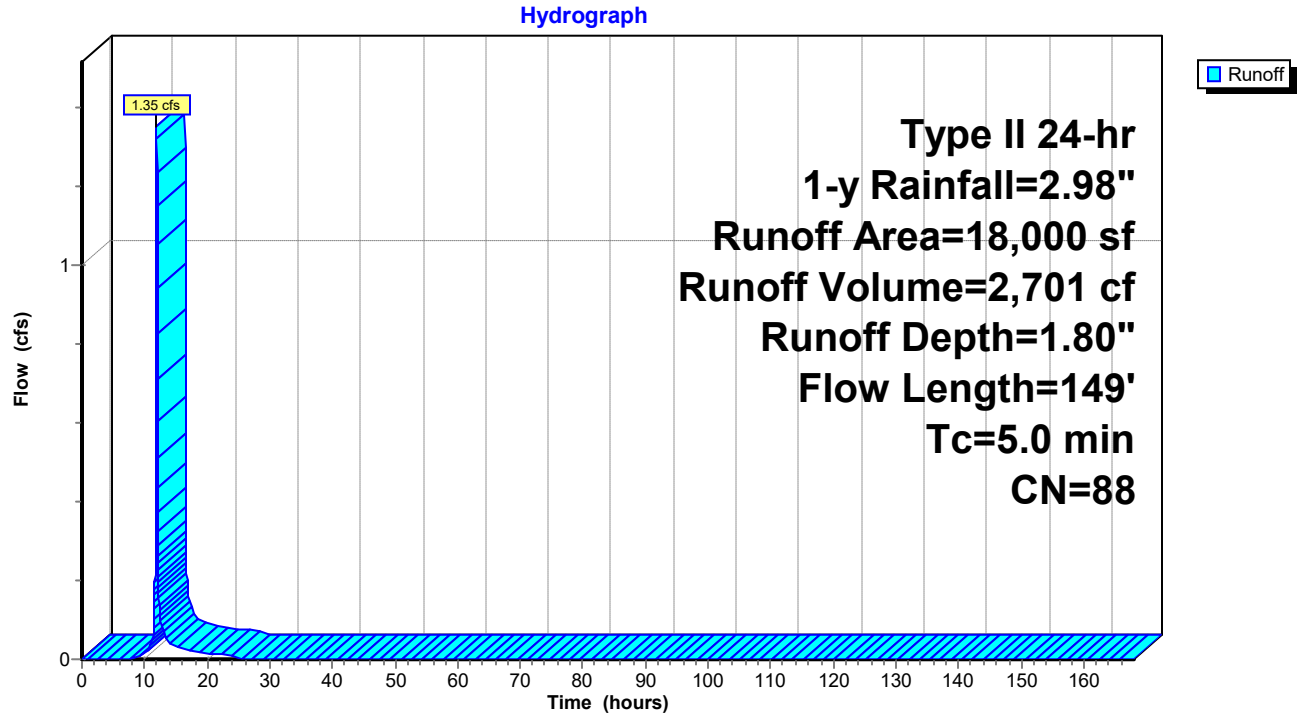
Runoff = 1.35 cfs @ 11.96 hrs, Volume= 2,701 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-y Rainfall=2.98"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.07	0.00	0.00
4.00	0.14	0.00	0.00
6.00	0.24	0.00	0.00
8.00	0.36	0.00	0.00
10.00	0.54	0.04	**0.01**
12.00	1.98	0.95	**1.15**
14.00	2.44	1.33	0.04
16.00	2.62	1.49	0.03
18.00	2.74	1.59	0.02
20.00	2.84	1.67	0.01
22.00	2.91	1.74	0.01
24.00	**2.98**	**1.80**	0.01
26.00	2.98	1.80	0.00
28.00	2.98	1.80	0.00
30.00	2.98	1.80	0.00
32.00	2.98	1.80	0.00
34.00	2.98	1.80	0.00
36.00	2.98	1.80	0.00
38.00	2.98	1.80	0.00
40.00	2.98	1.80	0.00
42.00	2.98	1.80	0.00
44.00	2.98	1.80	0.00
46.00	2.98	1.80	0.00
48.00	2.98	1.80	0.00
50.00	2.98	1.80	0.00
52.00	2.98	1.80	0.00
54.00	2.98	1.80	0.00
56.00	2.98	1.80	0.00
58.00	2.98	1.80	0.00
60.00	2.98	1.80	0.00
62.00	2.98	1.80	0.00
64.00	2.98	1.80	0.00
66.00	2.98	1.80	0.00
68.00	2.98	1.80	0.00
70.00	2.98	1.80	0.00
72.00	2.98	1.80	0.00
74.00	2.98	1.80	0.00
76.00	2.98	1.80	0.00
78.00	2.98	1.80	0.00
80.00	2.98	1.80	0.00
82.00	2.98	1.80	0.00
84.00	2.98	1.80	0.00
86.00	2.98	1.80	0.00
88.00	2.98	1.80	0.00
90.00	2.98	1.80	0.00
92.00	2.98	1.80	0.00
94.00	2.98	1.80	0.00
96.00	2.98	1.80	0.00
98.00	2.98	1.80	0.00
100.00	2.98	1.80	0.00
102.00	2.98	1.80	0.00
104.00	2.98	1.80	0.00
106.00	2.98	1.80	0.00
108.00	2.98	1.80	0.00
110.00	2.98	1.80	0.00
112.00	2.98	1.80	0.00
114.00	2.98	1.80	0.00
116.00	2.98	1.80	0.00
118.00	2.98	1.80	0.00
120.00	2.98	1.80	0.00
122.00	2.98	1.80	0.00
124.00	2.98	1.80	0.00
126.00	2.98	1.80	0.00
128.00	2.98	1.80	0.00
130.00	2.98	1.80	0.00
132.00	2.98	1.80	0.00
134.00	2.98	1.80	0.00
136.00	2.98	1.80	0.00
138.00	2.98	1.80	0.00
140.00	2.98	1.80	0.00
142.00	2.98	1.80	0.00
144.00	2.98	1.80	0.00
146.00	2.98	1.80	0.00
148.00	2.98	1.80	0.00
150.00	2.98	1.80	0.00
152.00	2.98	1.80	0.00
154.00	2.98	1.80	0.00
156.00	2.98	1.80	0.00
158.00	2.98	1.80	0.00
160.00	2.98	1.80	0.00
162.00	2.98	1.80	0.00
164.00	2.98	1.80	0.00
166.00	2.98	1.80	0.00
168.00	2.98	1.80	0.00

Summary for Subcatchment 4S: Proposed

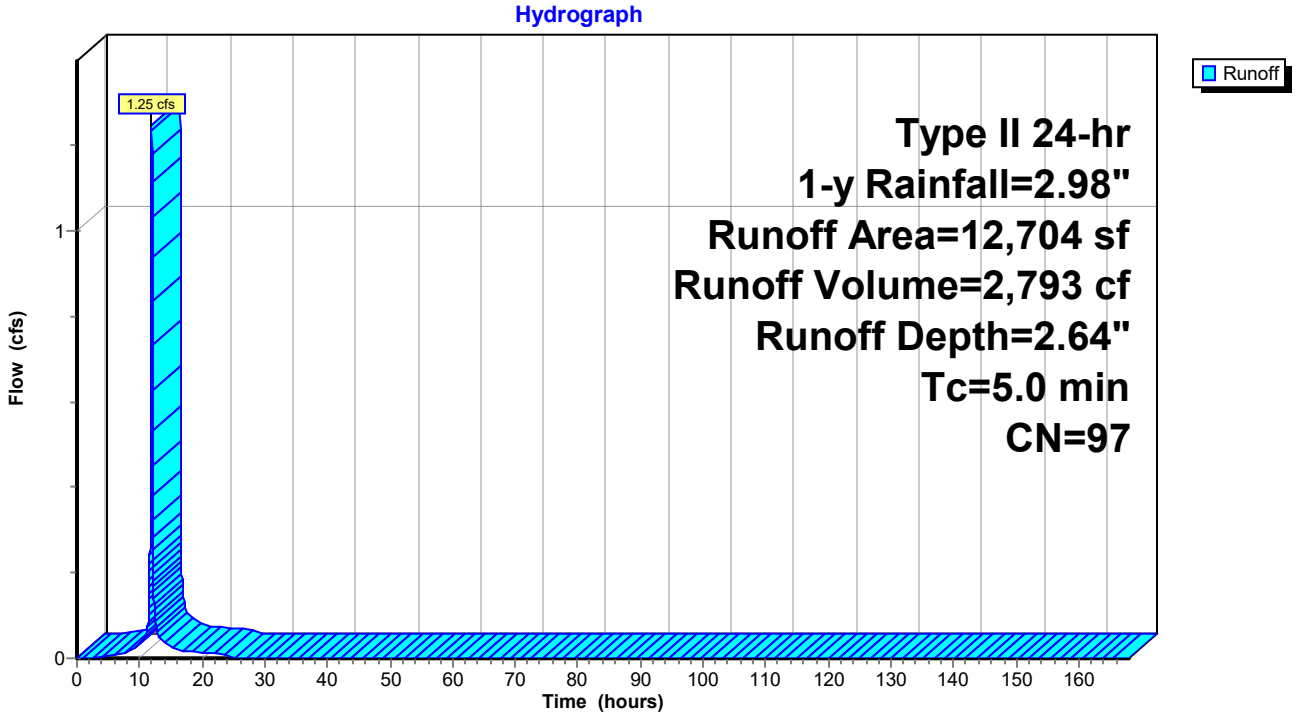
Runoff = 1.25 cfs @ 11.96 hrs, Volume= 2,793 cf, Depth= 2.64"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-y Rainfall=2.98"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.07	0.00	0.00
4.00	0.14	0.02	0.00
6.00	0.24	0.06	0.01
8.00	0.36	0.14	0.01
10.00	0.54	0.29	**0.03**
12.00	1.98	1.65	**1.03**
14.00	2.44	2.11	0.03
16.00	2.62	2.28	0.02
18.00	2.74	2.41	0.02
20.00	2.84	2.50	0.01
22.00	2.91	2.57	0.01
24.00	**2.98**	**2.64**	0.01
26.00	2.98	2.64	0.00
28.00	2.98	2.64	0.00
30.00	2.98	2.64	0.00
32.00	2.98	2.64	0.00
34.00	2.98	2.64	0.00
36.00	2.98	2.64	0.00
38.00	2.98	2.64	0.00
40.00	2.98	2.64	0.00
42.00	2.98	2.64	0.00
44.00	2.98	2.64	0.00
46.00	2.98	2.64	0.00
48.00	2.98	2.64	0.00
50.00	2.98	2.64	0.00
52.00	2.98	2.64	0.00
54.00	2.98	2.64	0.00
56.00	2.98	2.64	0.00
58.00	2.98	2.64	0.00
60.00	2.98	2.64	0.00
62.00	2.98	2.64	0.00
64.00	2.98	2.64	0.00
66.00	2.98	2.64	0.00
68.00	2.98	2.64	0.00
70.00	2.98	2.64	0.00
72.00	2.98	2.64	0.00
74.00	2.98	2.64	0.00
76.00	2.98	2.64	0.00
78.00	2.98	2.64	0.00
80.00	2.98	2.64	0.00
82.00	2.98	2.64	0.00
84.00	2.98	2.64	0.00
86.00	2.98	2.64	0.00
88.00	2.98	2.64	0.00
90.00	2.98	2.64	0.00
92.00	2.98	2.64	0.00
94.00	2.98	2.64	0.00
96.00	2.98	2.64	0.00
98.00	2.98	2.64	0.00
100.00	2.98	2.64	0.00
102.00	2.98	2.64	0.00
104.00	2.98	2.64	0.00
106.00	2.98	2.64	0.00
108.00	2.98	2.64	0.00
110.00	2.98	2.64	0.00
112.00	2.98	2.64	0.00
114.00	2.98	2.64	0.00
116.00	2.98	2.64	0.00
118.00	2.98	2.64	0.00
120.00	2.98	2.64	0.00
122.00	2.98	2.64	0.00
124.00	2.98	2.64	0.00
126.00	2.98	2.64	0.00
128.00	2.98	2.64	0.00
130.00	2.98	2.64	0.00
132.00	2.98	2.64	0.00
134.00	2.98	2.64	0.00
136.00	2.98	2.64	0.00
138.00	2.98	2.64	0.00
140.00	2.98	2.64	0.00
142.00	2.98	2.64	0.00
144.00	2.98	2.64	0.00
146.00	2.98	2.64	0.00
148.00	2.98	2.64	0.00
150.00	2.98	2.64	0.00
152.00	2.98	2.64	0.00
154.00	2.98	2.64	0.00
156.00	2.98	2.64	0.00
158.00	2.98	2.64	0.00
160.00	2.98	2.64	0.00
162.00	2.98	2.64	0.00
164.00	2.98	2.64	0.00
166.00	2.98	2.64	0.00
168.00	2.98	2.64	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

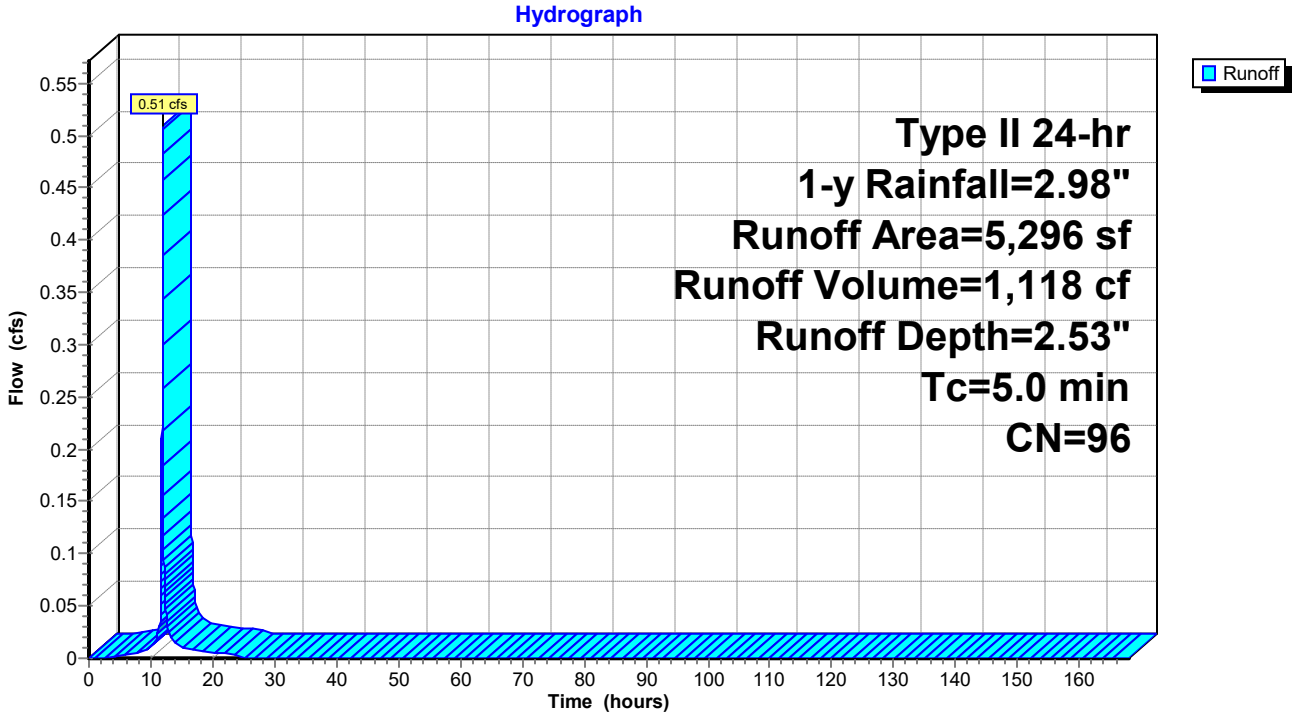
Runoff = 0.51 cfs @ 11.96 hrs, Volume= 1,118 cf, Depth= 2.53"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 1-y Rainfall=2.98"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.07	0.00	0.00
4.00	0.14	0.01	0.00
6.00	0.24	0.04	0.00
8.00	0.36	0.11	0.01
10.00	0.54	0.24	**0.01**
12.00	1.98	1.55	**0.42**
14.00	2.44	2.01	0.01
16.00	2.62	2.18	0.01
18.00	2.74	2.30	0.01
20.00	2.84	2.39	0.00
22.00	2.91	2.46	0.00
24.00	**2.98**	**2.53**	0.00
26.00	2.98	2.53	0.00
28.00	2.98	2.53	0.00
30.00	2.98	2.53	0.00
32.00	2.98	2.53	0.00
34.00	2.98	2.53	0.00
36.00	2.98	2.53	0.00
38.00	2.98	2.53	0.00
40.00	2.98	2.53	0.00
42.00	2.98	2.53	0.00
44.00	2.98	2.53	0.00
46.00	2.98	2.53	0.00
48.00	2.98	2.53	0.00
50.00	2.98	2.53	0.00
52.00	2.98	2.53	0.00
54.00	2.98	2.53	0.00
56.00	2.98	2.53	0.00
58.00	2.98	2.53	0.00
60.00	2.98	2.53	0.00
62.00	2.98	2.53	0.00
64.00	2.98	2.53	0.00
66.00	2.98	2.53	0.00
68.00	2.98	2.53	0.00
70.00	2.98	2.53	0.00
72.00	2.98	2.53	0.00
74.00	2.98	2.53	0.00
76.00	2.98	2.53	0.00
78.00	2.98	2.53	0.00
80.00	2.98	2.53	0.00
82.00	2.98	2.53	0.00
84.00	2.98	2.53	0.00
86.00	2.98	2.53	0.00
88.00	2.98	2.53	0.00
90.00	2.98	2.53	0.00
92.00	2.98	2.53	0.00
94.00	2.98	2.53	0.00
96.00	2.98	2.53	0.00
98.00	2.98	2.53	0.00
100.00	2.98	2.53	0.00
102.00	2.98	2.53	0.00
104.00	2.98	2.53	0.00
106.00	2.98	2.53	0.00
108.00	2.98	2.53	0.00
110.00	2.98	2.53	0.00
112.00	2.98	2.53	0.00
114.00	2.98	2.53	0.00
116.00	2.98	2.53	0.00
118.00	2.98	2.53	0.00
120.00	2.98	2.53	0.00
122.00	2.98	2.53	0.00
124.00	2.98	2.53	0.00
126.00	2.98	2.53	0.00
128.00	2.98	2.53	0.00
130.00	2.98	2.53	0.00
132.00	2.98	2.53	0.00
134.00	2.98	2.53	0.00
136.00	2.98	2.53	0.00
138.00	2.98	2.53	0.00
140.00	2.98	2.53	0.00
142.00	2.98	2.53	0.00
144.00	2.98	2.53	0.00
146.00	2.98	2.53	0.00
148.00	2.98	2.53	0.00
150.00	2.98	2.53	0.00
152.00	2.98	2.53	0.00
154.00	2.98	2.53	0.00
156.00	2.98	2.53	0.00
158.00	2.98	2.53	0.00
160.00	2.98	2.53	0.00
162.00	2.98	2.53	0.00
164.00	2.98	2.53	0.00
166.00	2.98	2.53	0.00
168.00	2.98	2.53	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 2.53" for 1-y event
Inflow = 0.51 cfs @ 11.96 hrs, Volume= 1,118 cf
Outflow = 0.13 cfs @ 11.74 hrs, Volume= 1,118 cf, Atten= 75%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.74 hrs, Volume= 1,118 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 100.47' @ 12.08 hrs Surf.Area= 1,400 sf Storage= 261 cf

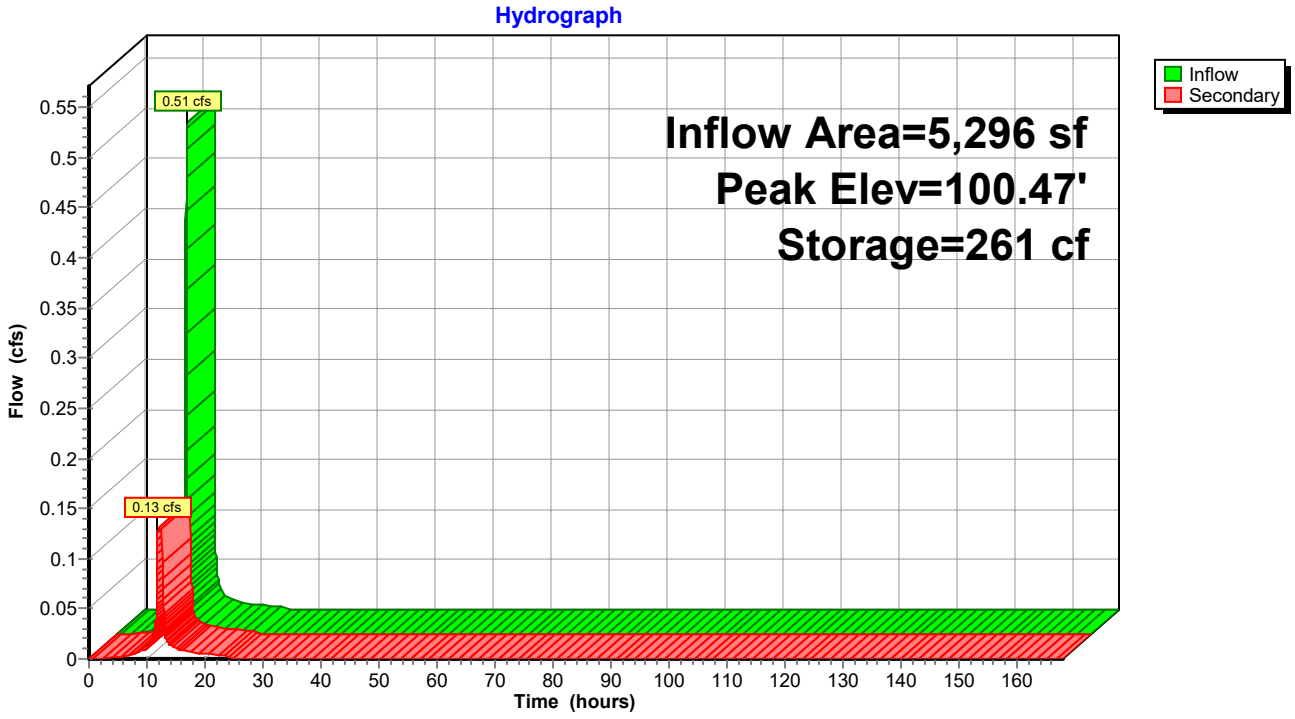
Plug-Flow detention time= 10.3 min calculated for 1,118 cf (100% of inflow)
Center-of-Mass det. time= 10.3 min (782.0 - 771.7)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.74 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

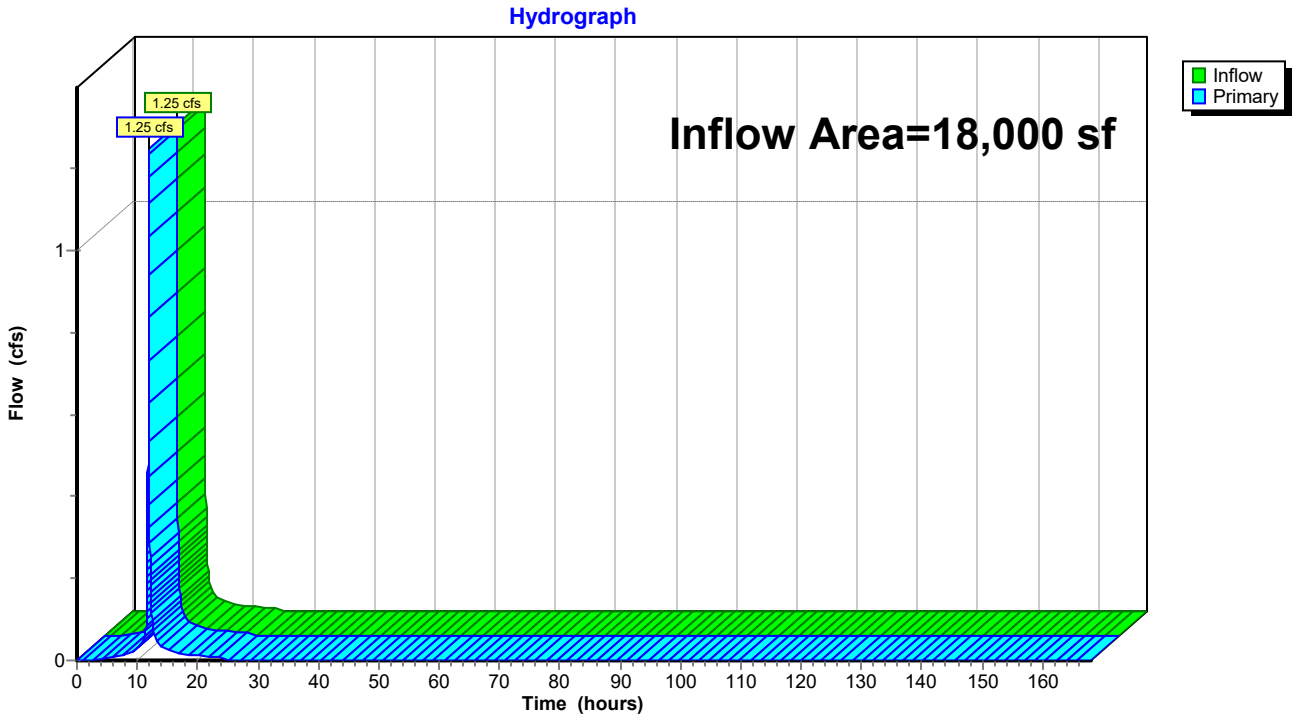
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.00	0	100.00	0.00
10.00	**0.01**	**2**	**100.00**	**0.01**
15.00	**0.01**	**2**	**100.00**	**0.01**
20.00	0.00	1	100.00	0.00
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 1.86" for 1-y event
Inflow = 1.25 cfs @ 11.96 hrs, Volume= 2,793 cf
Primary = 1.25 cfs @ 11.96 hrs, Volume= 2,793 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	106.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00	108.00	0.00	0.00	0.00
6.00	0.01	0.00	0.01	110.00	0.00	0.00	0.00
8.00	0.01	0.00	0.01	112.00	0.00	0.00	0.00
10.00	**0.03**	0.00	**0.03**	114.00	0.00	0.00	0.00
12.00	**1.03**	0.00	**1.03**	116.00	0.00	0.00	0.00
14.00	0.03	0.00	0.03	118.00	0.00	0.00	0.00
16.00	0.02	0.00	0.02	120.00	0.00	0.00	0.00
18.00	0.02	0.00	0.02	122.00	0.00	0.00	0.00
20.00	0.01	0.00	0.01	124.00	0.00	0.00	0.00
22.00	0.01	0.00	0.01	126.00	0.00	0.00	0.00
24.00	0.01	0.00	0.01	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=2.35"
Flow Length=149' Tc=5.0 min CN=88 Runoff=1.75 cfs 3,526 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=3.24"
Tc=5.0 min CN=97 Runoff=1.51 cfs 3,434 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=3.13"
Tc=5.0 min CN=96 Runoff=0.62 cfs 1,383 cf

Pond 3P: UNDERGORUND INFILTRATION PIT Peak Elev=100.64' Storage=359 cf Inflow=0.62 cfs 1,383 cf
Outflow=0.13 cfs 1,383 cf

Link 5L: joint Inflow=1.51 cfs 3,434 cf
Primary=1.51 cfs 3,434 cf

Total Runoff Area = 36,000 sf Runoff Volume = 8,344 cf Average Runoff Depth = 2.78"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

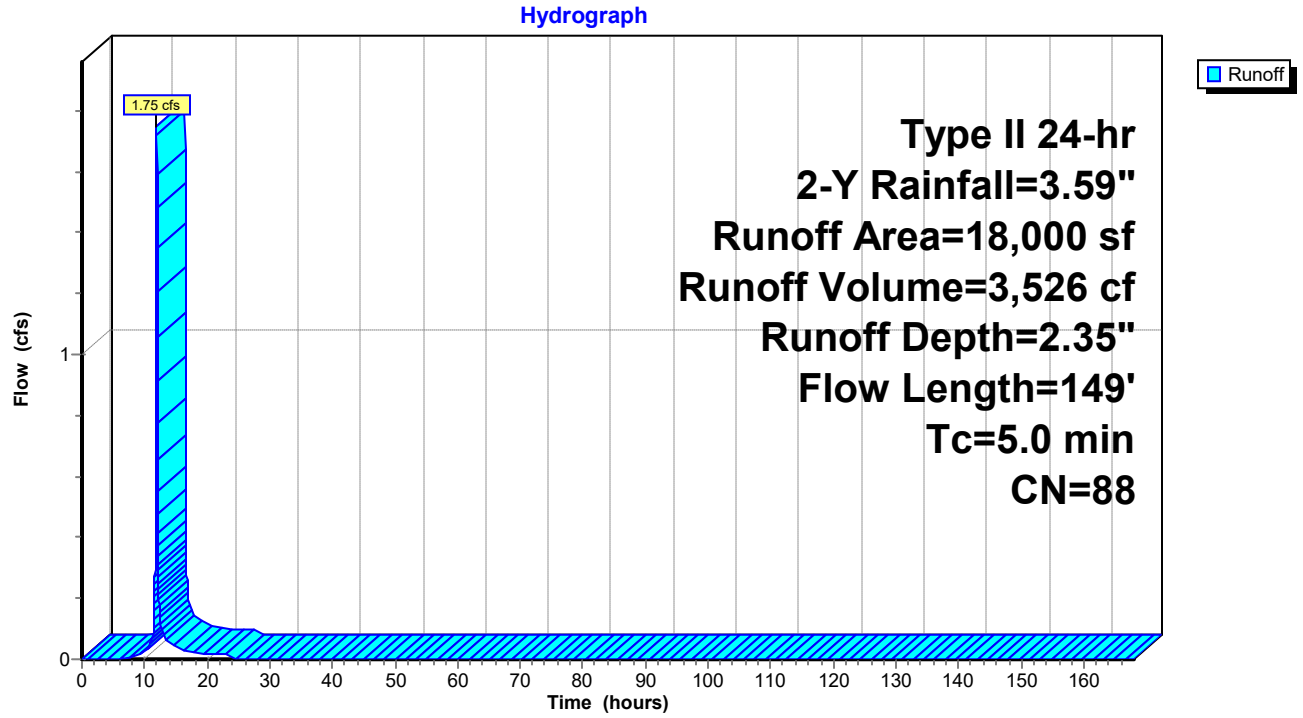
Runoff = 1.75 cfs @ 11.96 hrs, Volume= 3,526 cf, Depth= 2.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Y Rainfall=3.59"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.08	0.00	0.00
4.00	0.17	0.00	0.00
6.00	0.29	0.00	0.00
8.00	0.43	0.02	0.01
10.00	0.65	0.08	**0.02**
12.00	2.38	1.28	**1.48**
14.00	2.94	1.77	0.05
16.00	3.16	1.96	0.03
18.00	3.31	2.09	0.02
20.00	3.42	2.19	0.02
22.00	3.51	2.28	0.02
24.00	**3.59**	**2.35**	0.02
26.00	3.59	2.35	0.00
28.00	3.59	2.35	0.00
30.00	3.59	2.35	0.00
32.00	3.59	2.35	0.00
34.00	3.59	2.35	0.00
36.00	3.59	2.35	0.00
38.00	3.59	2.35	0.00
40.00	3.59	2.35	0.00
42.00	3.59	2.35	0.00
44.00	3.59	2.35	0.00
46.00	3.59	2.35	0.00
48.00	3.59	2.35	0.00
50.00	3.59	2.35	0.00
52.00	3.59	2.35	0.00
54.00	3.59	2.35	0.00
56.00	3.59	2.35	0.00
58.00	3.59	2.35	0.00
60.00	3.59	2.35	0.00
62.00	3.59	2.35	0.00
64.00	3.59	2.35	0.00
66.00	3.59	2.35	0.00
68.00	3.59	2.35	0.00
70.00	3.59	2.35	0.00
72.00	3.59	2.35	0.00
74.00	3.59	2.35	0.00
76.00	3.59	2.35	0.00
78.00	3.59	2.35	0.00
80.00	3.59	2.35	0.00
82.00	3.59	2.35	0.00
84.00	3.59	2.35	0.00
86.00	3.59	2.35	0.00
88.00	3.59	2.35	0.00
90.00	3.59	2.35	0.00
92.00	3.59	2.35	0.00
94.00	3.59	2.35	0.00
96.00	3.59	2.35	0.00
98.00	3.59	2.35	0.00
100.00	3.59	2.35	0.00
102.00	3.59	2.35	0.00
104.00	3.59	2.35	0.00
106.00	3.59	2.35	0.00
108.00	3.59	2.35	0.00
110.00	3.59	2.35	0.00
112.00	3.59	2.35	0.00
114.00	3.59	2.35	0.00
116.00	3.59	2.35	0.00
118.00	3.59	2.35	0.00
120.00	3.59	2.35	0.00
122.00	3.59	2.35	0.00
124.00	3.59	2.35	0.00
126.00	3.59	2.35	0.00
128.00	3.59	2.35	0.00
130.00	3.59	2.35	0.00
132.00	3.59	2.35	0.00
134.00	3.59	2.35	0.00
136.00	3.59	2.35	0.00
138.00	3.59	2.35	0.00
140.00	3.59	2.35	0.00
142.00	3.59	2.35	0.00
144.00	3.59	2.35	0.00
146.00	3.59	2.35	0.00
148.00	3.59	2.35	0.00
150.00	3.59	2.35	0.00
152.00	3.59	2.35	0.00
154.00	3.59	2.35	0.00
156.00	3.59	2.35	0.00
158.00	3.59	2.35	0.00
160.00	3.59	2.35	0.00
162.00	3.59	2.35	0.00
164.00	3.59	2.35	0.00
166.00	3.59	2.35	0.00
168.00	3.59	2.35	0.00

Summary for Subcatchment 4S: Proposed

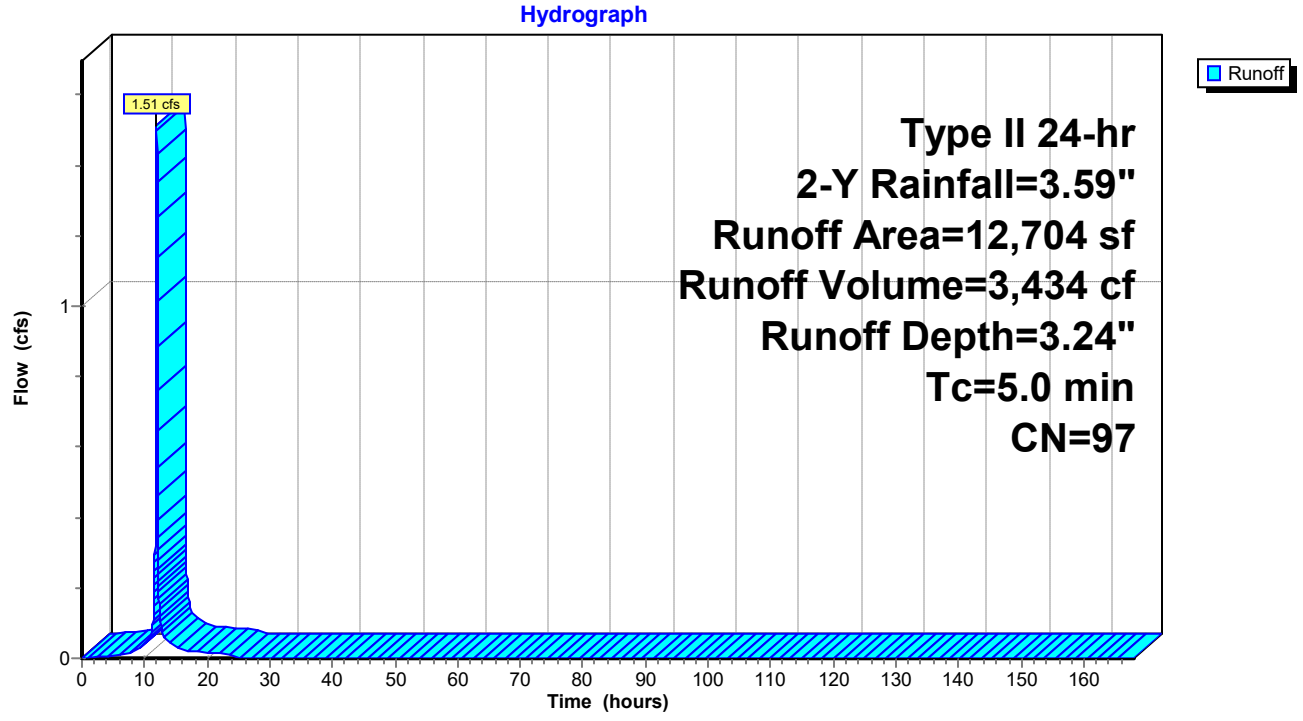
Runoff = 1.51 cfs @ 11.96 hrs, Volume= 3,434 cf, Depth= 3.24"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Y Rainfall=3.59"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.08	0.00	0.00
4.00	0.17	0.03	0.01
6.00	0.29	0.09	0.01
8.00	0.43	0.20	0.02
10.00	0.65	0.39	**0.04**
12.00	2.38	2.05	**1.25**
14.00	2.94	2.60	0.04
16.00	3.16	2.82	0.02
18.00	3.31	2.96	0.02
20.00	3.42	3.07	0.01
22.00	3.51	3.16	0.01
24.00	**3.59**	**3.24**	0.01
26.00	3.59	3.24	0.00
28.00	3.59	3.24	0.00
30.00	3.59	3.24	0.00
32.00	3.59	3.24	0.00
34.00	3.59	3.24	0.00
36.00	3.59	3.24	0.00
38.00	3.59	3.24	0.00
40.00	3.59	3.24	0.00
42.00	3.59	3.24	0.00
44.00	3.59	3.24	0.00
46.00	3.59	3.24	0.00
48.00	3.59	3.24	0.00
50.00	3.59	3.24	0.00
52.00	3.59	3.24	0.00
54.00	3.59	3.24	0.00
56.00	3.59	3.24	0.00
58.00	3.59	3.24	0.00
60.00	3.59	3.24	0.00
62.00	3.59	3.24	0.00
64.00	3.59	3.24	0.00
66.00	3.59	3.24	0.00
68.00	3.59	3.24	0.00
70.00	3.59	3.24	0.00
72.00	3.59	3.24	0.00
74.00	3.59	3.24	0.00
76.00	3.59	3.24	0.00
78.00	3.59	3.24	0.00
80.00	3.59	3.24	0.00
82.00	3.59	3.24	0.00
84.00	3.59	3.24	0.00
86.00	3.59	3.24	0.00
88.00	3.59	3.24	0.00
90.00	3.59	3.24	0.00
92.00	3.59	3.24	0.00
94.00	3.59	3.24	0.00
96.00	3.59	3.24	0.00
98.00	3.59	3.24	0.00
100.00	3.59	3.24	0.00
102.00	3.59	3.24	0.00
104.00	3.59	3.24	0.00
106.00	3.59	3.24	0.00
108.00	3.59	3.24	0.00
110.00	3.59	3.24	0.00
112.00	3.59	3.24	0.00
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118.00	3.59	3.24	0.00
120.00	3.59	3.24	0.00
122.00	3.59	3.24	0.00
124.00	3.59	3.24	0.00
126.00	3.59	3.24	0.00
128.00	3.59	3.24	0.00
130.00	3.59	3.24	0.00
132.00	3.59	3.24	0.00
134.00	3.59	3.24	0.00
136.00	3.59	3.24	0.00
138.00	3.59	3.24	0.00
140.00	3.59	3.24	0.00
142.00	3.59	3.24	0.00
144.00	3.59	3.24	0.00
146.00	3.59	3.24	0.00
148.00	3.59	3.24	0.00
150.00	3.59	3.24	0.00
152.00	3.59	3.24	0.00
154.00	3.59	3.24	0.00
156.00	3.59	3.24	0.00
158.00	3.59	3.24	0.00
160.00	3.59	3.24	0.00
162.00	3.59	3.24	0.00
164.00	3.59	3.24	0.00
166.00	3.59	3.24	0.00
168.00	3.59	3.24	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

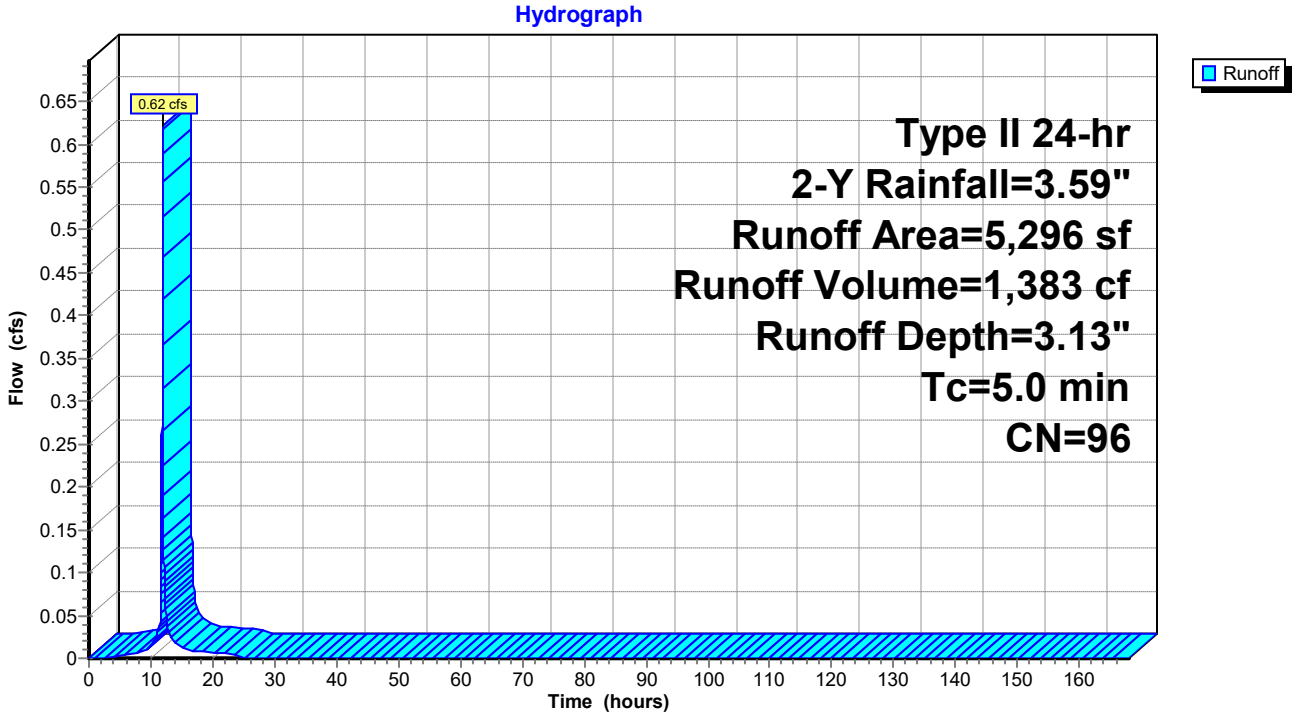
Runoff = 0.62 cfs @ 11.96 hrs, Volume= 1,383 cf, Depth= 3.13"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 2-Y Rainfall=3.59"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.08	0.00	0.00
4.00	0.17	0.02	0.00
6.00	0.29	0.07	0.00
8.00	0.43	0.16	0.01
10.00	0.65	0.33	**0.01**
12.00	2.38	1.94	**0.52**
14.00	2.94	2.50	0.02
16.00	3.16	2.71	0.01
18.00	3.31	2.85	0.01
20.00	3.42	2.96	0.01
22.00	3.51	3.05	0.01
24.00	**3.59**	**3.13**	0.00
26.00	3.59	3.13	0.00
28.00	3.59	3.13	0.00
30.00	3.59	3.13	0.00
32.00	3.59	3.13	0.00
34.00	3.59	3.13	0.00
36.00	3.59	3.13	0.00
38.00	3.59	3.13	0.00
40.00	3.59	3.13	0.00
42.00	3.59	3.13	0.00
44.00	3.59	3.13	0.00
46.00	3.59	3.13	0.00
48.00	3.59	3.13	0.00
50.00	3.59	3.13	0.00
52.00	3.59	3.13	0.00
54.00	3.59	3.13	0.00
56.00	3.59	3.13	0.00
58.00	3.59	3.13	0.00
60.00	3.59	3.13	0.00
62.00	3.59	3.13	0.00
64.00	3.59	3.13	0.00
66.00	3.59	3.13	0.00
68.00	3.59	3.13	0.00
70.00	3.59	3.13	0.00
72.00	3.59	3.13	0.00
74.00	3.59	3.13	0.00
76.00	3.59	3.13	0.00
78.00	3.59	3.13	0.00
80.00	3.59	3.13	0.00
82.00	3.59	3.13	0.00
84.00	3.59	3.13	0.00
86.00	3.59	3.13	0.00
88.00	3.59	3.13	0.00
90.00	3.59	3.13	0.00
92.00	3.59	3.13	0.00
94.00	3.59	3.13	0.00
96.00	3.59	3.13	0.00
98.00	3.59	3.13	0.00
100.00	3.59	3.13	0.00
102.00	3.59	3.13	0.00
104.00	3.59	3.13	0.00
106.00	3.59	3.13	0.00
108.00	3.59	3.13	0.00
110.00	3.59	3.13	0.00
112.00	3.59	3.13	0.00
114.00	3.59	3.13	0.00
116.00	3.59	3.13	0.00
118.00	3.59	3.13	0.00
120.00	3.59	3.13	0.00
122.00	3.59	3.13	0.00
124.00	3.59	3.13	0.00
126.00	3.59	3.13	0.00
128.00	3.59	3.13	0.00
130.00	3.59	3.13	0.00
132.00	3.59	3.13	0.00
134.00	3.59	3.13	0.00
136.00	3.59	3.13	0.00
138.00	3.59	3.13	0.00
140.00	3.59	3.13	0.00
142.00	3.59	3.13	0.00
144.00	3.59	3.13	0.00
146.00	3.59	3.13	0.00
148.00	3.59	3.13	0.00
150.00	3.59	3.13	0.00
152.00	3.59	3.13	0.00
154.00	3.59	3.13	0.00
156.00	3.59	3.13	0.00
158.00	3.59	3.13	0.00
160.00	3.59	3.13	0.00
162.00	3.59	3.13	0.00
164.00	3.59	3.13	0.00
166.00	3.59	3.13	0.00
168.00	3.59	3.13	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 3.13" for 2-Y event
Inflow = 0.62 cfs @ 11.96 hrs, Volume= 1,383 cf
Outflow = 0.13 cfs @ 11.71 hrs, Volume= 1,383 cf, Atten= 79%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.71 hrs, Volume= 1,383 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 100.64' @ 12.10 hrs Surf.Area= 1,400 sf Storage= 359 cf

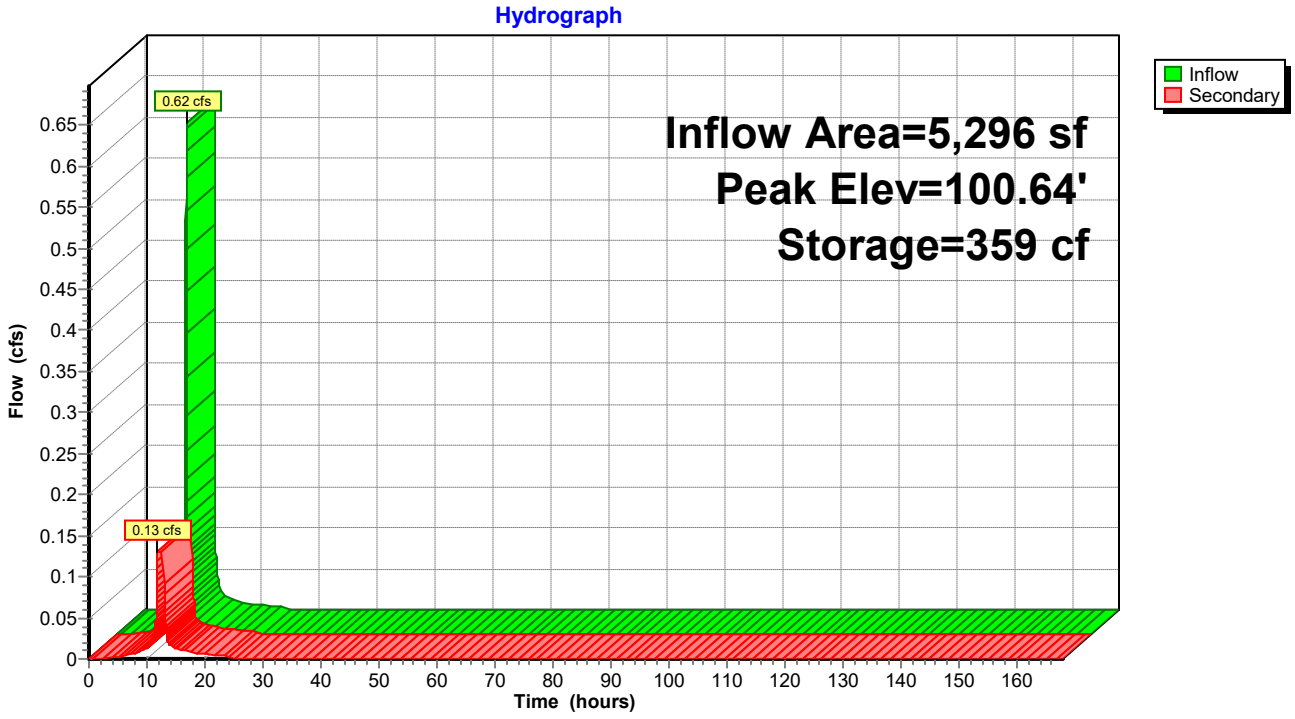
Plug-Flow detention time= 14.4 min calculated for 1,383 cf (100% of inflow)
Center-of-Mass det. time= 14.4 min (780.7 - 766.3)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.71 hrs HW=100.04' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

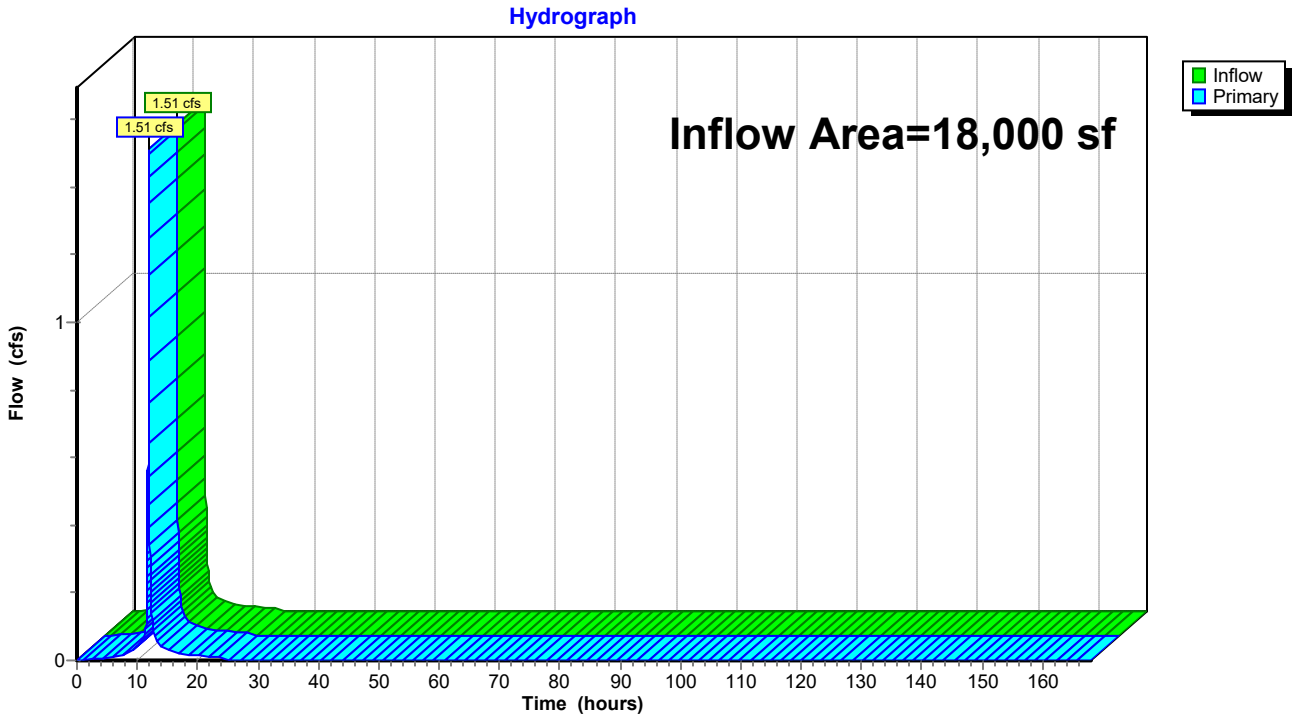
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.00	0	100.00	0.00
10.00	**0.01**	**2**	**100.00**	**0.01**
15.00	**0.01**	**2**	**100.00**	**0.01**
20.00	0.01	1	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 2.29" for 2-Y event
Inflow = 1.51 cfs @ 11.96 hrs, Volume= 3,434 cf
Primary = 1.51 cfs @ 11.96 hrs, Volume= 3,434 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	106.00	0.00	0.00	0.00
4.00	0.01	0.00	0.01	108.00	0.00	0.00	0.00
6.00	0.01	0.00	0.01	110.00	0.00	0.00	0.00
8.00	0.02	0.00	0.02	112.00	0.00	0.00	0.00
10.00	**0.04**	0.00	**0.04**	114.00	0.00	0.00	0.00
12.00	**1.25**	0.00	**1.25**	116.00	0.00	0.00	0.00
14.00	0.04	0.00	0.04	118.00	0.00	0.00	0.00
16.00	0.02	0.00	0.02	120.00	0.00	0.00	0.00
18.00	0.02	0.00	0.02	122.00	0.00	0.00	0.00
20.00	0.01	0.00	0.01	124.00	0.00	0.00	0.00
22.00	0.01	0.00	0.01	126.00	0.00	0.00	0.00
24.00	0.01	0.00	0.01	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=3.20"
Flow Length=149' Tc=5.0 min CN=88 Runoff=2.33 cfs 4,794 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=4.15"
Tc=5.0 min CN=97 Runoff=1.91 cfs 4,392 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=4.04"
Tc=5.0 min CN=96 Runoff=0.79 cfs 1,781 cf

Pond 3P: UNDERGORUND INFILTRATION PIT Peak Elev=100.91' Storage=510 cf Inflow=0.79 cfs 1,781 cf
Outflow=0.13 cfs 1,781 cf

Link 5L: joint Inflow=1.91 cfs 4,392 cf
Primary=1.91 cfs 4,392 cf

Total Runoff Area = 36,000 sf Runoff Volume = 10,968 cf Average Runoff Depth = 3.66"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

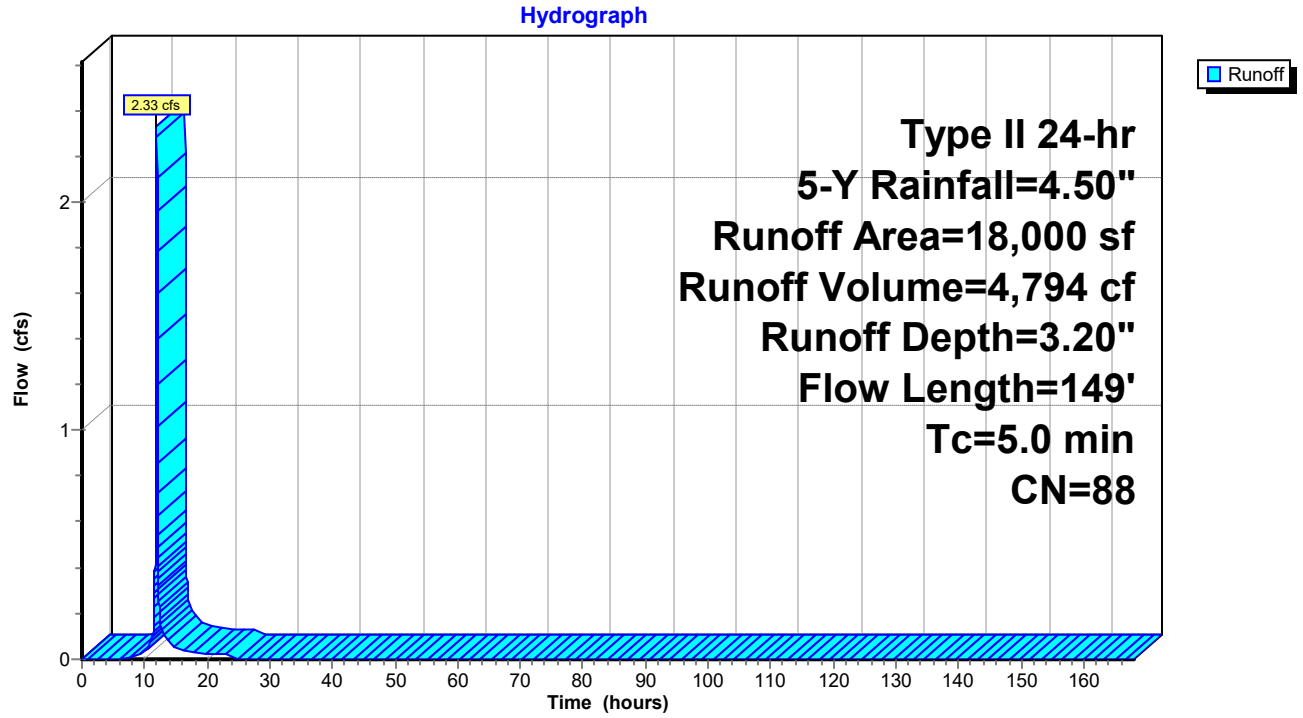
Runoff = 2.33 cfs @ 11.96 hrs, Volume= 4,794 cf, Depth= 3.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Y Rainfall=4.50"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.10	0.00	0.00
4.00	0.22	0.00	0.00
6.00	0.36	0.01	0.00
8.00	0.54	0.04	0.01
10.00	0.81	0.15	**0.03**
12.00	2.98	1.80	**1.96**
14.00	3.69	2.44	0.07
16.00	3.96	2.69	0.04
18.00	4.14	2.86	0.03
20.00	4.28	2.99	0.02
22.00	4.40	3.10	0.02
24.00	**4.50**	**3.20**	0.02
26.00	4.50	3.20	0.00
28.00	4.50	3.20	0.00
30.00	4.50	3.20	0.00
32.00	4.50	3.20	0.00
34.00	4.50	3.20	0.00
36.00	4.50	3.20	0.00
38.00	4.50	3.20	0.00
40.00	4.50	3.20	0.00
42.00	4.50	3.20	0.00
44.00	4.50	3.20	0.00
46.00	4.50	3.20	0.00
48.00	4.50	3.20	0.00
50.00	4.50	3.20	0.00
52.00	4.50	3.20	0.00
54.00	4.50	3.20	0.00
56.00	4.50	3.20	0.00
58.00	4.50	3.20	0.00
60.00	4.50	3.20	0.00
62.00	4.50	3.20	0.00
64.00	4.50	3.20	0.00
66.00	4.50	3.20	0.00
68.00	4.50	3.20	0.00
70.00	4.50	3.20	0.00
72.00	4.50	3.20	0.00
74.00	4.50	3.20	0.00
76.00	4.50	3.20	0.00
78.00	4.50	3.20	0.00
80.00	4.50	3.20	0.00
82.00	4.50	3.20	0.00
84.00	4.50	3.20	0.00
86.00	4.50	3.20	0.00
88.00	4.50	3.20	0.00
90.00	4.50	3.20	0.00
92.00	4.50	3.20	0.00
94.00	4.50	3.20	0.00
96.00	4.50	3.20	0.00
98.00	4.50	3.20	0.00
100.00	4.50	3.20	0.00
102.00	4.50	3.20	0.00
104.00	4.50	3.20	0.00
106.00	4.50	3.20	0.00
108.00	4.50	3.20	0.00
110.00	4.50	3.20	0.00
112.00	4.50	3.20	0.00
114.00	4.50	3.20	0.00
116.00	4.50	3.20	0.00
118.00	4.50	3.20	0.00
120.00	4.50	3.20	0.00
122.00	4.50	3.20	0.00
124.00	4.50	3.20	0.00
126.00	4.50	3.20	0.00
128.00	4.50	3.20	0.00
130.00	4.50	3.20	0.00
132.00	4.50	3.20	0.00
134.00	4.50	3.20	0.00
136.00	4.50	3.20	0.00
138.00	4.50	3.20	0.00
140.00	4.50	3.20	0.00
142.00	4.50	3.20	0.00
144.00	4.50	3.20	0.00
146.00	4.50	3.20	0.00
148.00	4.50	3.20	0.00
150.00	4.50	3.20	0.00
152.00	4.50	3.20	0.00
154.00	4.50	3.20	0.00
156.00	4.50	3.20	0.00
158.00	4.50	3.20	0.00
160.00	4.50	3.20	0.00
162.00	4.50	3.20	0.00
164.00	4.50	3.20	0.00
166.00	4.50	3.20	0.00
168.00	4.50	3.20	0.00

Summary for Subcatchment 4S: Proposed

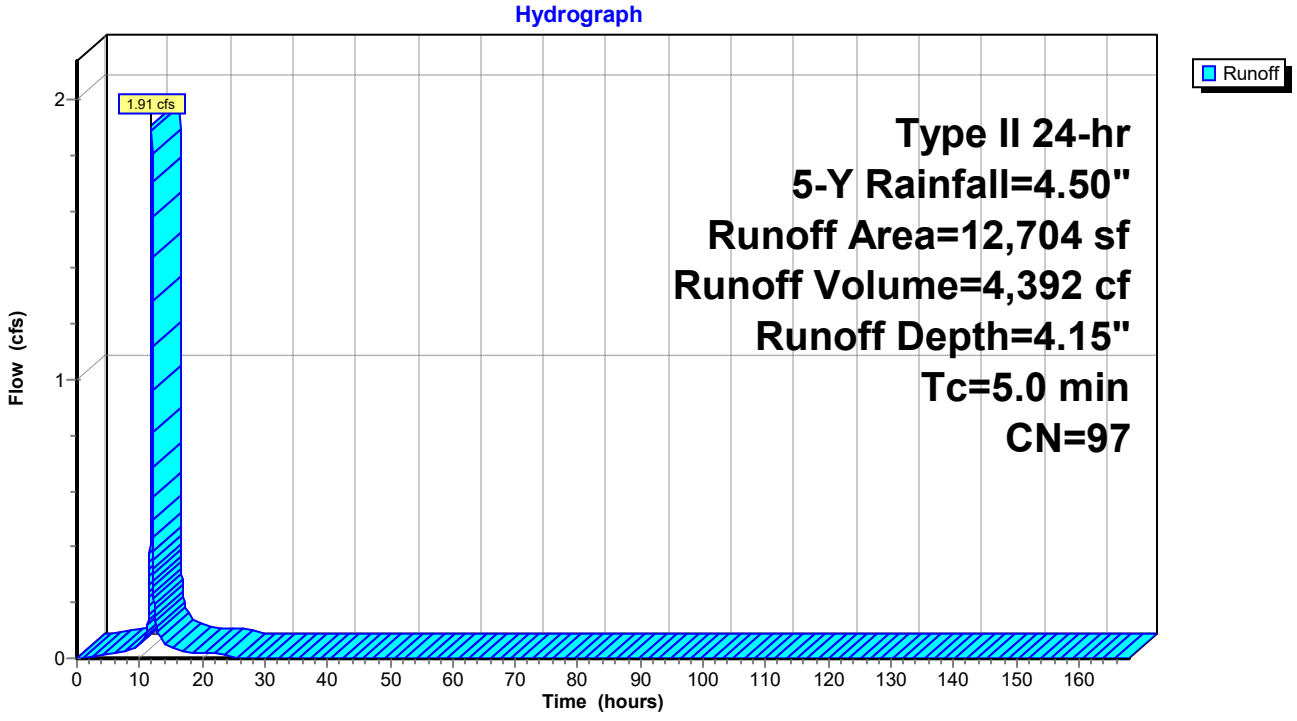
Runoff = 1.91 cfs @ 11.96 hrs, Volume= 4,392 cf, Depth= 4.15"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Y Rainfall=4.50"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.10	0.00	0.00
4.00	0.22	0.05	0.01
6.00	0.36	0.15	0.02
8.00	0.54	0.29	0.02
10.00	0.81	0.53	**0.05**
12.00	2.98	2.64	**1.58**
14.00	3.69	3.34	0.05
16.00	3.96	3.61	0.03
18.00	4.14	3.80	0.02
20.00	4.28	3.93	0.02
22.00	4.40	4.05	0.02
24.00	**4.50**	**4.15**	0.01
26.00	4.50	4.15	0.00
28.00	4.50	4.15	0.00
30.00	4.50	4.15	0.00
32.00	4.50	4.15	0.00
34.00	4.50	4.15	0.00
36.00	4.50	4.15	0.00
38.00	4.50	4.15	0.00
40.00	4.50	4.15	0.00
42.00	4.50	4.15	0.00
44.00	4.50	4.15	0.00
46.00	4.50	4.15	0.00
48.00	4.50	4.15	0.00
50.00	4.50	4.15	0.00
52.00	4.50	4.15	0.00
54.00	4.50	4.15	0.00
56.00	4.50	4.15	0.00
58.00	4.50	4.15	0.00
60.00	4.50	4.15	0.00
62.00	4.50	4.15	0.00
64.00	4.50	4.15	0.00
66.00	4.50	4.15	0.00
68.00	4.50	4.15	0.00
70.00	4.50	4.15	0.00
72.00	4.50	4.15	0.00
74.00	4.50	4.15	0.00
76.00	4.50	4.15	0.00
78.00	4.50	4.15	0.00
80.00	4.50	4.15	0.00
82.00	4.50	4.15	0.00
84.00	4.50	4.15	0.00
86.00	4.50	4.15	0.00
88.00	4.50	4.15	0.00
90.00	4.50	4.15	0.00
92.00	4.50	4.15	0.00
94.00	4.50	4.15	0.00
96.00	4.50	4.15	0.00
98.00	4.50	4.15	0.00
100.00	4.50	4.15	0.00
102.00	4.50	4.15	0.00
104.00	4.50	4.15	0.00
106.00	4.50	4.15	0.00
108.00	4.50	4.15	0.00
110.00	4.50	4.15	0.00
112.00	4.50	4.15	0.00
114.00	4.50	4.15	0.00
116.00	4.50	4.15	0.00
118.00	4.50	4.15	0.00
120.00	4.50	4.15	0.00
122.00	4.50	4.15	0.00
124.00	4.50	4.15	0.00
126.00	4.50	4.15	0.00
128.00	4.50	4.15	0.00
130.00	4.50	4.15	0.00
132.00	4.50	4.15	0.00
134.00	4.50	4.15	0.00
136.00	4.50	4.15	0.00
138.00	4.50	4.15	0.00
140.00	4.50	4.15	0.00
142.00	4.50	4.15	0.00
144.00	4.50	4.15	0.00
146.00	4.50	4.15	0.00
148.00	4.50	4.15	0.00
150.00	4.50	4.15	0.00
152.00	4.50	4.15	0.00
154.00	4.50	4.15	0.00
156.00	4.50	4.15	0.00
158.00	4.50	4.15	0.00
160.00	4.50	4.15	0.00
162.00	4.50	4.15	0.00
164.00	4.50	4.15	0.00
166.00	4.50	4.15	0.00
168.00	4.50	4.15	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

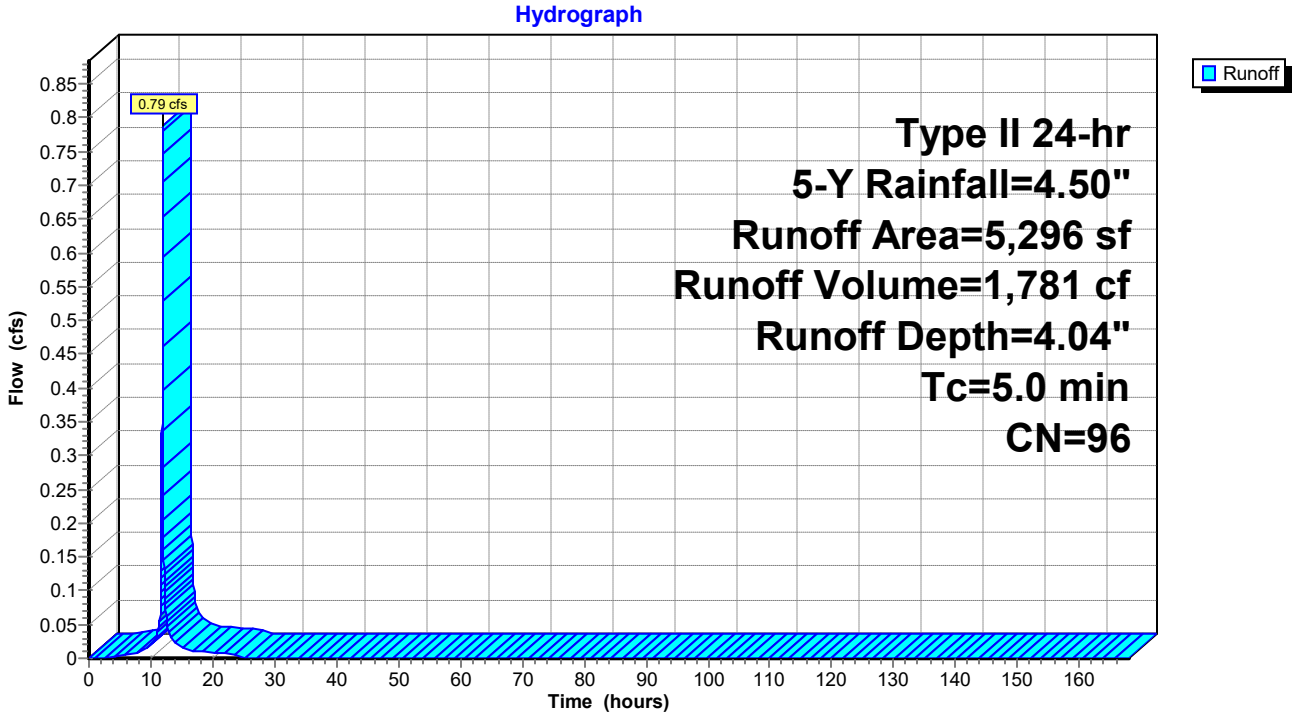
Runoff = 0.79 cfs @ 11.96 hrs, Volume= 1,781 cf, Depth= 4.04"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 5-Y Rainfall=4.50"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.10	0.00	0.00
4.00	0.22	0.03	0.00
6.00	0.36	0.11	0.01
8.00	0.54	0.24	0.01
10.00	0.81	0.47	**0.02**
12.00	2.98	2.54	**0.65**
14.00	3.69	3.23	0.02
16.00	3.96	3.50	0.01
18.00	4.14	3.68	0.01
20.00	4.28	3.82	0.01
22.00	4.40	3.93	0.01
24.00	**4.50**	**4.04**	0.01
26.00	4.50	4.04	0.00
28.00	4.50	4.04	0.00
30.00	4.50	4.04	0.00
32.00	4.50	4.04	0.00
34.00	4.50	4.04	0.00
36.00	4.50	4.04	0.00
38.00	4.50	4.04	0.00
40.00	4.50	4.04	0.00
42.00	4.50	4.04	0.00
44.00	4.50	4.04	0.00
46.00	4.50	4.04	0.00
48.00	4.50	4.04	0.00
50.00	4.50	4.04	0.00
52.00	4.50	4.04	0.00
54.00	4.50	4.04	0.00
56.00	4.50	4.04	0.00
58.00	4.50	4.04	0.00
60.00	4.50	4.04	0.00
62.00	4.50	4.04	0.00
64.00	4.50	4.04	0.00
66.00	4.50	4.04	0.00
68.00	4.50	4.04	0.00
70.00	4.50	4.04	0.00
72.00	4.50	4.04	0.00
74.00	4.50	4.04	0.00
76.00	4.50	4.04	0.00
78.00	4.50	4.04	0.00
80.00	4.50	4.04	0.00
82.00	4.50	4.04	0.00
84.00	4.50	4.04	0.00
86.00	4.50	4.04	0.00
88.00	4.50	4.04	0.00
90.00	4.50	4.04	0.00
92.00	4.50	4.04	0.00
94.00	4.50	4.04	0.00
96.00	4.50	4.04	0.00
98.00	4.50	4.04	0.00
100.00	4.50	4.04	0.00
102.00	4.50	4.04	0.00
104.00	4.50	4.04	0.00
106.00	4.50	4.04	0.00
108.00	4.50	4.04	0.00
110.00	4.50	4.04	0.00
112.00	4.50	4.04	0.00
114.00	4.50	4.04	0.00
116.00	4.50	4.04	0.00
118.00	4.50	4.04	0.00
120.00	4.50	4.04	0.00
122.00	4.50	4.04	0.00
124.00	4.50	4.04	0.00
126.00	4.50	4.04	0.00
128.00	4.50	4.04	0.00
130.00	4.50	4.04	0.00
132.00	4.50	4.04	0.00
134.00	4.50	4.04	0.00
136.00	4.50	4.04	0.00
138.00	4.50	4.04	0.00
140.00	4.50	4.04	0.00
142.00	4.50	4.04	0.00
144.00	4.50	4.04	0.00
146.00	4.50	4.04	0.00
148.00	4.50	4.04	0.00
150.00	4.50	4.04	0.00
152.00	4.50	4.04	0.00
154.00	4.50	4.04	0.00
156.00	4.50	4.04	0.00
158.00	4.50	4.04	0.00
160.00	4.50	4.04	0.00
162.00	4.50	4.04	0.00
164.00	4.50	4.04	0.00
166.00	4.50	4.04	0.00
168.00	4.50	4.04	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 4.04" for 5-Y event
Inflow = 0.79 cfs @ 11.96 hrs, Volume= 1,781 cf
Outflow = 0.13 cfs @ 11.67 hrs, Volume= 1,781 cf, Atten= 84%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.67 hrs, Volume= 1,781 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 100.91' @ 12.12 hrs Surf.Area= 1,400 sf Storage= 510 cf

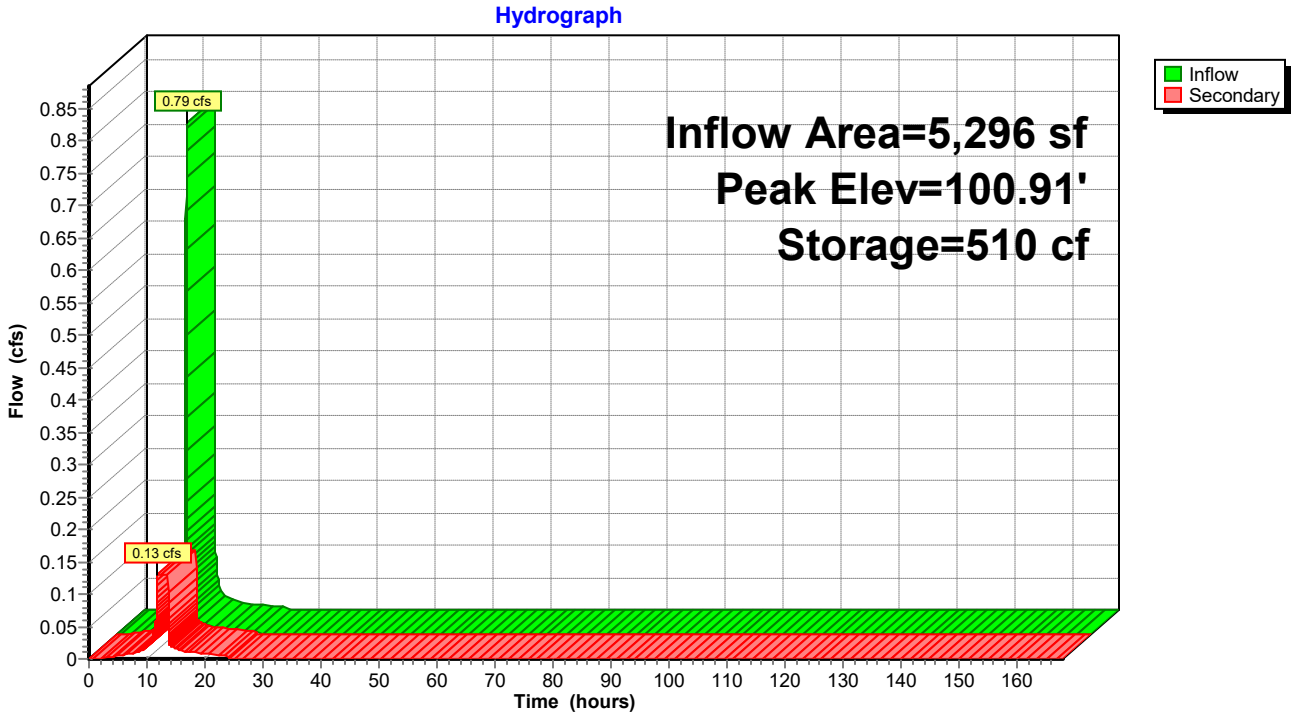
Plug-Flow detention time= 21.3 min calculated for 1,781 cf (100% of inflow)
Center-of-Mass det. time= 21.3 min (781.6 - 760.3)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.67 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

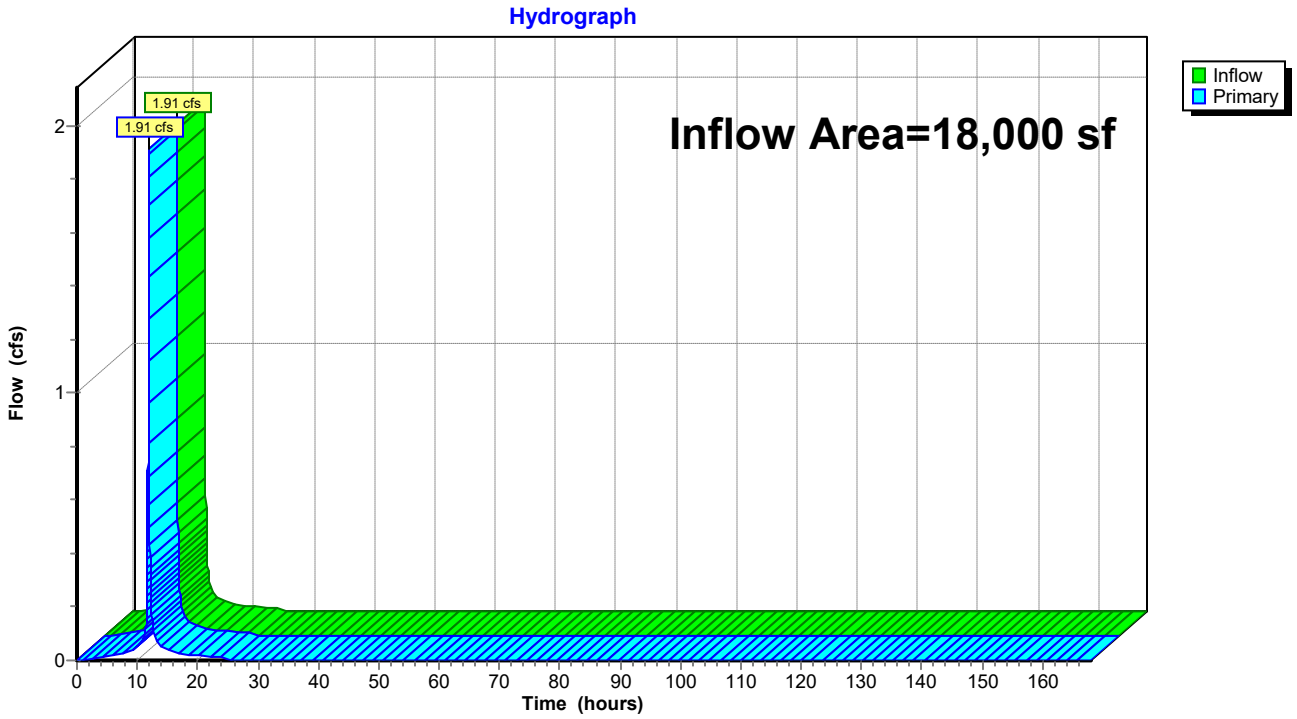
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.00	1	100.00	0.00
10.00	**0.02**	**3**	**100.00**	**0.02**
15.00	**0.02**	**3**	**100.00**	**0.02**
20.00	0.01	1	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 2.93" for 5-Y event
Inflow = 1.91 cfs @ 11.96 hrs, Volume= 4,392 cf
Primary = 1.91 cfs @ 11.96 hrs, Volume= 4,392 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	106.00	0.00	0.00	0.00
4.00	0.01	0.00	0.01	108.00	0.00	0.00	0.00
6.00	0.02	0.00	0.02	110.00	0.00	0.00	0.00
8.00	0.02	0.00	0.02	112.00	0.00	0.00	0.00
10.00	**0.05**	0.00	**0.05**	114.00	0.00	0.00	0.00
12.00	**1.58**	0.00	**1.58**	116.00	0.00	0.00	0.00
14.00	0.05	0.00	0.05	118.00	0.00	0.00	0.00
16.00	0.03	0.00	0.03	120.00	0.00	0.00	0.00
18.00	0.02	0.00	0.02	122.00	0.00	0.00	0.00
20.00	0.02	0.00	0.02	124.00	0.00	0.00	0.00
22.00	0.02	0.00	0.02	126.00	0.00	0.00	0.00
24.00	0.01	0.00	0.01	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=3.91"
Flow Length=149' Tc=5.0 min CN=88 Runoff=2.81 cfs 5,860 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=4.90"
Tc=5.0 min CN=97 Runoff=2.24 cfs 5,184 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=4.78"
Tc=5.0 min CN=96 Runoff=0.93 cfs 2,110 cf

Pond 3P: UNDERGORUND INFILTRATION PIT Peak Elev=101.14' Storage=639 cf Inflow=0.93 cfs 2,110 cf
Outflow=0.13 cfs 2,110 cf

Link 5L: joint Inflow=2.24 cfs 5,184 cf
Primary=2.24 cfs 5,184 cf

Total Runoff Area = 36,000 sf Runoff Volume = 13,154 cf Average Runoff Depth = 4.38"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

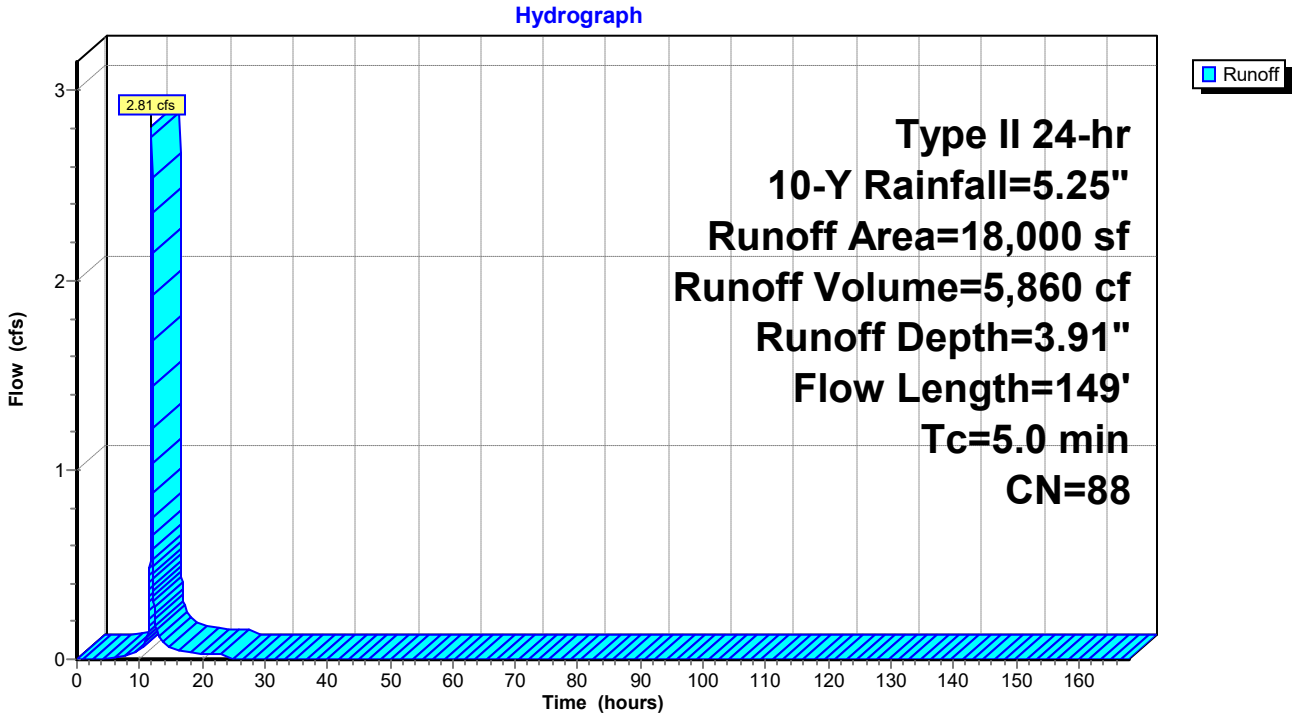
Runoff = 2.81 cfs @ 11.96 hrs, Volume= 5,860 cf, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Y Rainfall=5.25"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.12	0.00	0.00
4.00	0.25	0.00	0.00
6.00	0.42	0.01	0.01
8.00	0.63	0.07	0.02
10.00	0.95	0.22	**0.05**
12.00	3.48	2.25	**2.36**
14.00	4.31	3.01	0.08
16.00	4.62	3.31	0.05
18.00	4.84	3.51	0.04
20.00	5.00	3.67	0.03
22.00	5.13	3.79	0.03
24.00	**5.25**	**3.91**	0.02
26.00	5.25	3.91	0.00
28.00	5.25	3.91	0.00
30.00	5.25	3.91	0.00
32.00	5.25	3.91	0.00
34.00	5.25	3.91	0.00
36.00	5.25	3.91	0.00
38.00	5.25	3.91	0.00
40.00	5.25	3.91	0.00
42.00	5.25	3.91	0.00
44.00	5.25	3.91	0.00
46.00	5.25	3.91	0.00
48.00	5.25	3.91	0.00
50.00	5.25	3.91	0.00
52.00	5.25	3.91	0.00
54.00	5.25	3.91	0.00
56.00	5.25	3.91	0.00
58.00	5.25	3.91	0.00
60.00	5.25	3.91	0.00
62.00	5.25	3.91	0.00
64.00	5.25	3.91	0.00
66.00	5.25	3.91	0.00
68.00	5.25	3.91	0.00
70.00	5.25	3.91	0.00
72.00	5.25	3.91	0.00
74.00	5.25	3.91	0.00
76.00	5.25	3.91	0.00
78.00	5.25	3.91	0.00
80.00	5.25	3.91	0.00
82.00	5.25	3.91	0.00
84.00	5.25	3.91	0.00
86.00	5.25	3.91	0.00
88.00	5.25	3.91	0.00
90.00	5.25	3.91	0.00
92.00	5.25	3.91	0.00
94.00	5.25	3.91	0.00
96.00	5.25	3.91	0.00
98.00	5.25	3.91	0.00
100.00	5.25	3.91	0.00
102.00	5.25	3.91	0.00
104.00	5.25	3.91	0.00
106.00	5.25	3.91	0.00
108.00	5.25	3.91	0.00
110.00	5.25	3.91	0.00
112.00	5.25	3.91	0.00
114.00	5.25	3.91	0.00
116.00	5.25	3.91	0.00
118.00	5.25	3.91	0.00
120.00	5.25	3.91	0.00
122.00	5.25	3.91	0.00
124.00	5.25	3.91	0.00
126.00	5.25	3.91	0.00
128.00	5.25	3.91	0.00
130.00	5.25	3.91	0.00
132.00	5.25	3.91	0.00
134.00	5.25	3.91	0.00
136.00	5.25	3.91	0.00
138.00	5.25	3.91	0.00
140.00	5.25	3.91	0.00
142.00	5.25	3.91	0.00
144.00	5.25	3.91	0.00
146.00	5.25	3.91	0.00
148.00	5.25	3.91	0.00
150.00	5.25	3.91	0.00
152.00	5.25	3.91	0.00
154.00	5.25	3.91	0.00
156.00	5.25	3.91	0.00
158.00	5.25	3.91	0.00
160.00	5.25	3.91	0.00
162.00	5.25	3.91	0.00
164.00	5.25	3.91	0.00
166.00	5.25	3.91	0.00
168.00	5.25	3.91	0.00

Summary for Subcatchment 4S: Proposed

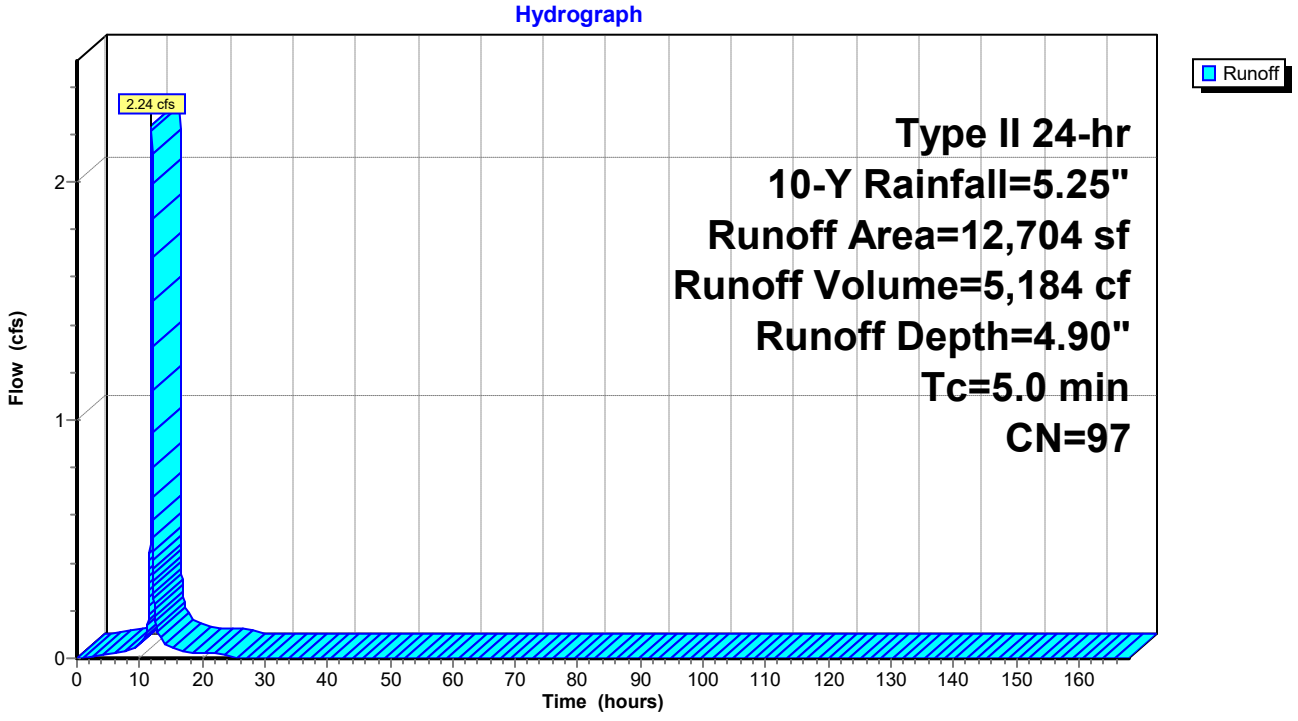
Runoff = 2.24 cfs @ 11.96 hrs, Volume= 5,184 cf, Depth= 4.90"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Y Rainfall=5.25"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.12	0.01	0.00
4.00	0.25	0.07	0.01
6.00	0.42	0.19	0.02
8.00	0.63	0.37	0.03
10.00	0.95	0.66	**0.06**
12.00	3.48	3.14	**1.85**
14.00	4.31	3.95	0.06
16.00	4.62	4.27	0.04
18.00	4.84	4.48	0.03
20.00	5.00	4.65	0.02
22.00	5.13	4.78	0.02
24.00	**5.25**	**4.90**	0.02
26.00	5.25	4.90	0.00
28.00	5.25	4.90	0.00
30.00	5.25	4.90	0.00
32.00	5.25	4.90	0.00
34.00	5.25	4.90	0.00
36.00	5.25	4.90	0.00
38.00	5.25	4.90	0.00
40.00	5.25	4.90	0.00
42.00	5.25	4.90	0.00
44.00	5.25	4.90	0.00
46.00	5.25	4.90	0.00
48.00	5.25	4.90	0.00
50.00	5.25	4.90	0.00
52.00	5.25	4.90	0.00
54.00	5.25	4.90	0.00
56.00	5.25	4.90	0.00
58.00	5.25	4.90	0.00
60.00	5.25	4.90	0.00
62.00	5.25	4.90	0.00
64.00	5.25	4.90	0.00
66.00	5.25	4.90	0.00
68.00	5.25	4.90	0.00
70.00	5.25	4.90	0.00
72.00	5.25	4.90	0.00
74.00	5.25	4.90	0.00
76.00	5.25	4.90	0.00
78.00	5.25	4.90	0.00
80.00	5.25	4.90	0.00
82.00	5.25	4.90	0.00
84.00	5.25	4.90	0.00
86.00	5.25	4.90	0.00
88.00	5.25	4.90	0.00
90.00	5.25	4.90	0.00
92.00	5.25	4.90	0.00
94.00	5.25	4.90	0.00
96.00	5.25	4.90	0.00
98.00	5.25	4.90	0.00
100.00	5.25	4.90	0.00
102.00	5.25	4.90	0.00
104.00	5.25	4.90	0.00
106.00	5.25	4.90	0.00
108.00	5.25	4.90	0.00
110.00	5.25	4.90	0.00
112.00	5.25	4.90	0.00
114.00	5.25	4.90	0.00
116.00	5.25	4.90	0.00
118.00	5.25	4.90	0.00
120.00	5.25	4.90	0.00
122.00	5.25	4.90	0.00
124.00	5.25	4.90	0.00
126.00	5.25	4.90	0.00
128.00	5.25	4.90	0.00
130.00	5.25	4.90	0.00
132.00	5.25	4.90	0.00
134.00	5.25	4.90	0.00
136.00	5.25	4.90	0.00
138.00	5.25	4.90	0.00
140.00	5.25	4.90	0.00
142.00	5.25	4.90	0.00
144.00	5.25	4.90	0.00
146.00	5.25	4.90	0.00
148.00	5.25	4.90	0.00
150.00	5.25	4.90	0.00
152.00	5.25	4.90	0.00
154.00	5.25	4.90	0.00
156.00	5.25	4.90	0.00
158.00	5.25	4.90	0.00
160.00	5.25	4.90	0.00
162.00	5.25	4.90	0.00
164.00	5.25	4.90	0.00
166.00	5.25	4.90	0.00
168.00	5.25	4.90	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

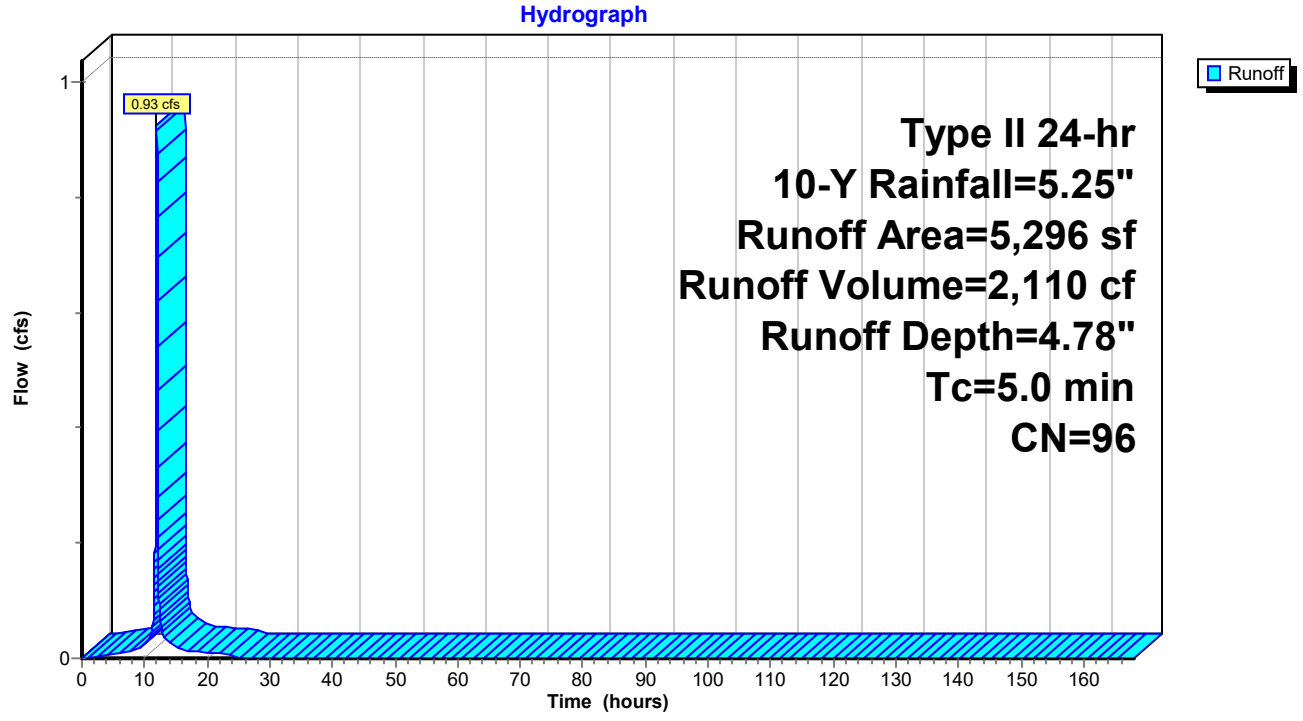
Runoff = 0.93 cfs @ 11.96 hrs, Volume= 2,110 cf, Depth= 4.78"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 10-Y Rainfall=5.25"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.12	0.00	0.00
4.00	0.25	0.05	0.00
6.00	0.42	0.15	0.01
8.00	0.63	0.31	0.01
10.00	0.95	0.59	**0.02**
12.00	3.48	3.03	**0.77**
14.00	4.31	3.84	0.02
16.00	4.62	4.16	0.02
18.00	4.84	4.37	0.01
20.00	5.00	4.53	0.01
22.00	5.13	4.66	0.01
24.00	**5.25**	**4.78**	0.01
26.00	5.25	4.78	0.00
28.00	5.25	4.78	0.00
30.00	5.25	4.78	0.00
32.00	5.25	4.78	0.00
34.00	5.25	4.78	0.00
36.00	5.25	4.78	0.00
38.00	5.25	4.78	0.00
40.00	5.25	4.78	0.00
42.00	5.25	4.78	0.00
44.00	5.25	4.78	0.00
46.00	5.25	4.78	0.00
48.00	5.25	4.78	0.00
50.00	5.25	4.78	0.00
52.00	5.25	4.78	0.00
54.00	5.25	4.78	0.00
56.00	5.25	4.78	0.00
58.00	5.25	4.78	0.00
60.00	5.25	4.78	0.00
62.00	5.25	4.78	0.00
64.00	5.25	4.78	0.00
66.00	5.25	4.78	0.00
68.00	5.25	4.78	0.00
70.00	5.25	4.78	0.00
72.00	5.25	4.78	0.00
74.00	5.25	4.78	0.00
76.00	5.25	4.78	0.00
78.00	5.25	4.78	0.00
80.00	5.25	4.78	0.00
82.00	5.25	4.78	0.00
84.00	5.25	4.78	0.00
86.00	5.25	4.78	0.00
88.00	5.25	4.78	0.00
90.00	5.25	4.78	0.00
92.00	5.25	4.78	0.00
94.00	5.25	4.78	0.00
96.00	5.25	4.78	0.00
98.00	5.25	4.78	0.00
100.00	5.25	4.78	0.00
102.00	5.25	4.78	0.00
104.00	5.25	4.78	0.00
106.00	5.25	4.78	0.00
108.00	5.25	4.78	0.00
110.00	5.25	4.78	0.00
112.00	5.25	4.78	0.00
114.00	5.25	4.78	0.00
116.00	5.25	4.78	0.00
118.00	5.25	4.78	0.00
120.00	5.25	4.78	0.00
122.00	5.25	4.78	0.00
124.00	5.25	4.78	0.00
126.00	5.25	4.78	0.00
128.00	5.25	4.78	0.00
130.00	5.25	4.78	0.00
132.00	5.25	4.78	0.00
134.00	5.25	4.78	0.00
136.00	5.25	4.78	0.00
138.00	5.25	4.78	0.00
140.00	5.25	4.78	0.00
142.00	5.25	4.78	0.00
144.00	5.25	4.78	0.00
146.00	5.25	4.78	0.00
148.00	5.25	4.78	0.00
150.00	5.25	4.78	0.00
152.00	5.25	4.78	0.00
154.00	5.25	4.78	0.00
156.00	5.25	4.78	0.00
158.00	5.25	4.78	0.00
160.00	5.25	4.78	0.00
162.00	5.25	4.78	0.00
164.00	5.25	4.78	0.00
166.00	5.25	4.78	0.00
168.00	5.25	4.78	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 4.78" for 10-Y event
Inflow = 0.93 cfs @ 11.96 hrs, Volume= 2,110 cf
Outflow = 0.13 cfs @ 11.65 hrs, Volume= 2,110 cf, Atten= 86%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.65 hrs, Volume= 2,110 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 101.14' @ 12.15 hrs Surf.Area= 1,400 sf Storage= 639 cf

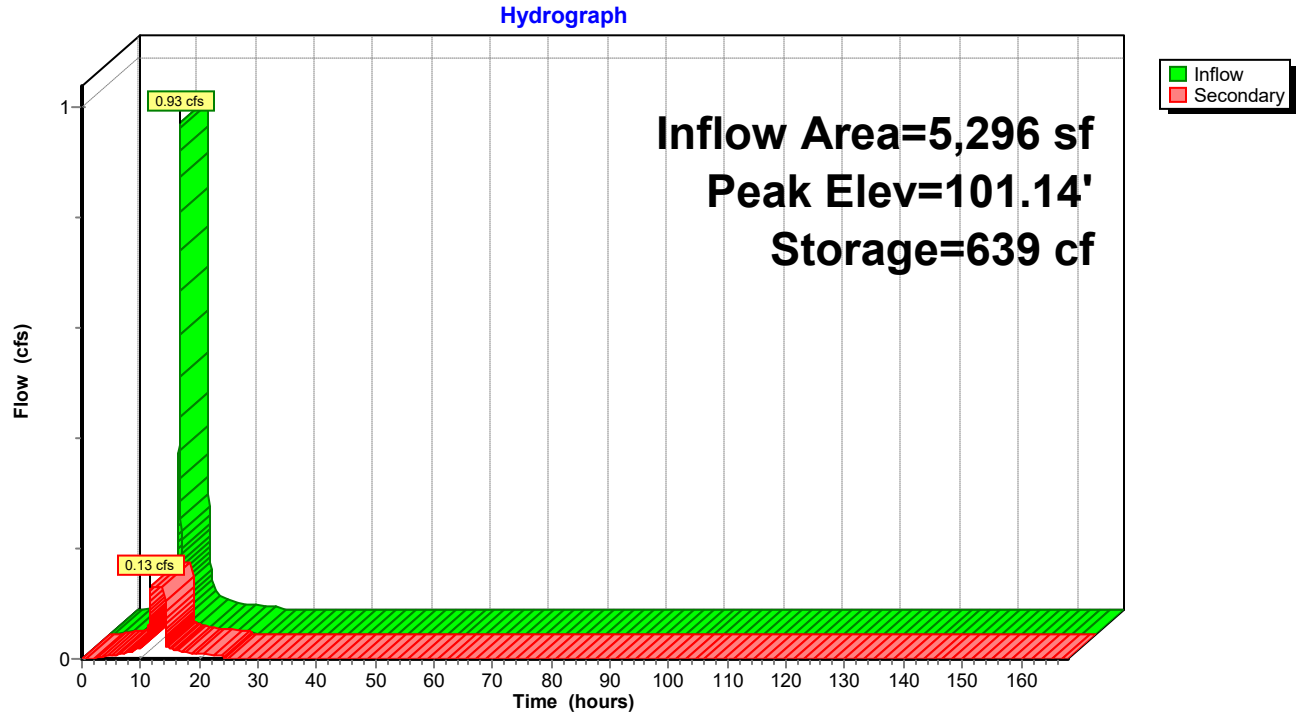
Plug-Flow detention time= 27.5 min calculated for 2,110 cf (100% of inflow)
Center-of-Mass det. time= 27.5 min (784.1 - 756.5)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.65 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

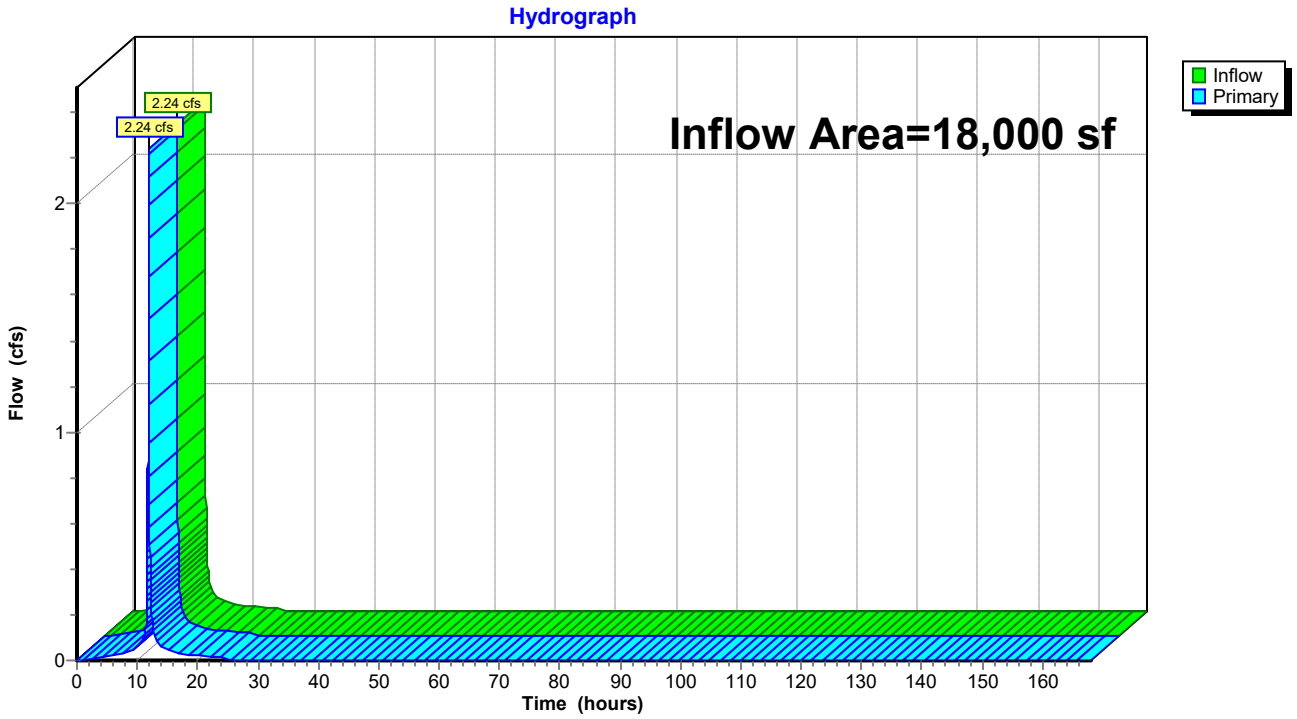
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.01	1	100.00	0.01
10.00	**0.02**	**3**	**100.01**	**0.02**
15.00	**0.02**	**3**	**100.01**	**0.02**
20.00	0.01	1	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 3.46" for 10-Y event
Inflow = 2.24 cfs @ 11.96 hrs, Volume= 5,184 cf
Primary = 2.24 cfs @ 11.96 hrs, Volume= 5,184 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	106.00	0.00	0.00	0.00
4.00	0.01	0.00	0.01	108.00	0.00	0.00	0.00
6.00	0.02	0.00	0.02	110.00	0.00	0.00	0.00
8.00	0.03	0.00	0.03	112.00	0.00	0.00	0.00
10.00	**0.06**	0.00	**0.06**	114.00	0.00	0.00	0.00
12.00	**1.85**	0.00	**1.85**	116.00	0.00	0.00	0.00
14.00	0.06	0.00	0.06	118.00	0.00	0.00	0.00
16.00	0.04	0.00	0.04	120.00	0.00	0.00	0.00
18.00	0.03	0.00	0.03	122.00	0.00	0.00	0.00
20.00	0.02	0.00	0.02	124.00	0.00	0.00	0.00
22.00	0.02	0.00	0.02	126.00	0.00	0.00	0.00
24.00	0.02	0.00	0.02	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=4.95"
Flow Length=149' Tc=5.0 min CN=88 Runoff=3.51 cfs 7,431 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=5.98"
Tc=5.0 min CN=97 Runoff=2.71 cfs 6,334 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=5.87"
Tc=5.0 min CN=96 Runoff=1.12 cfs 2,589 cf

Pond 3P: UNDERGORUND INFILTRATION PIT Peak Elev=101.49' Storage=833 cf Inflow=1.12 cfs 2,589 cf
Outflow=0.13 cfs 2,589 cf

Link 5L: joint Inflow=2.71 cfs 6,334 cf
Primary=2.71 cfs 6,334 cf

Total Runoff Area = 36,000 sf Runoff Volume = 16,354 cf Average Runoff Depth = 5.45"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

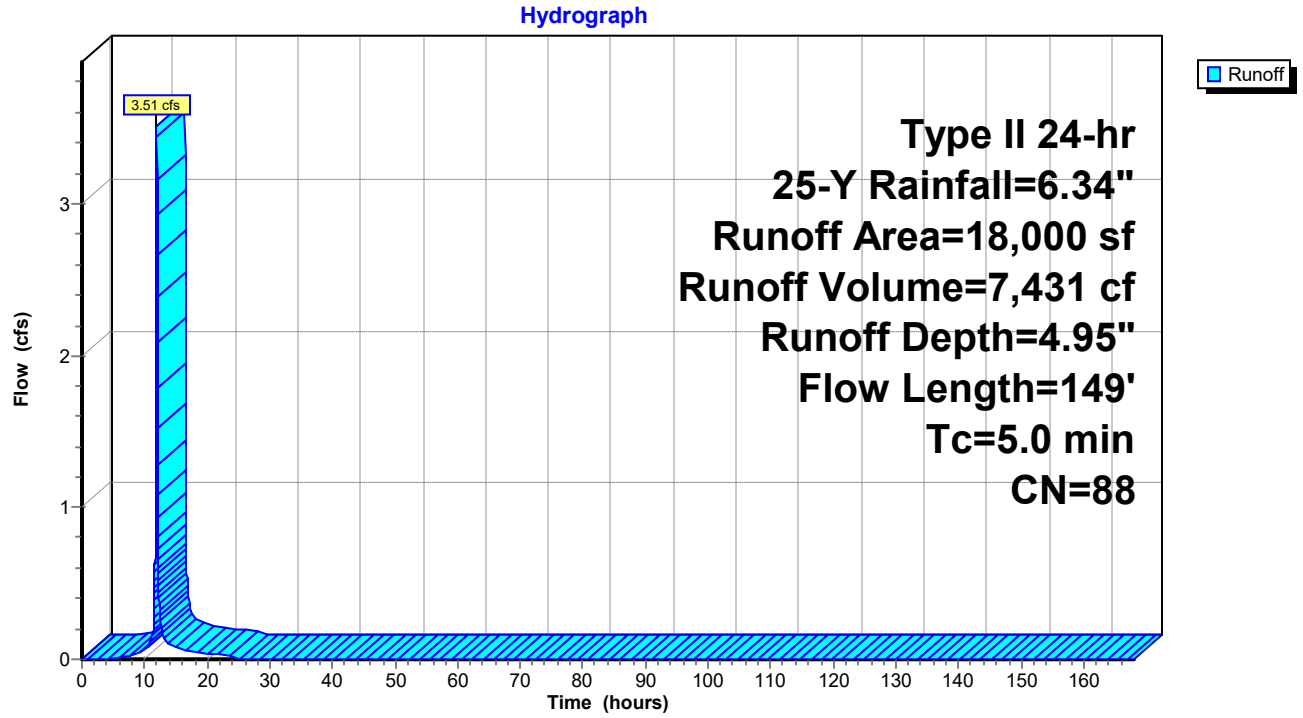
Runoff = 3.51 cfs @ 11.96 hrs, Volume= 7,431 cf, Depth= 4.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Y Rainfall=6.34"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.14	0.00	0.00
4.00	0.30	0.00	0.00
6.00	0.51	0.03	0.01
8.00	0.76	0.13	0.03
10.00	1.15	0.34	**0.06**
12.00	4.20	2.92	**2.93**
14.00	5.20	3.86	0.10
16.00	5.58	4.22	0.06
18.00	5.84	4.47	0.05
20.00	6.04	4.66	0.03
22.00	6.19	4.81	0.03
24.00	**6.34**	**4.95**	0.03
26.00	6.34	4.95	0.00
28.00	6.34	4.95	0.00
30.00	6.34	4.95	0.00
32.00	6.34	4.95	0.00
34.00	6.34	4.95	0.00
36.00	6.34	4.95	0.00
38.00	6.34	4.95	0.00
40.00	6.34	4.95	0.00
42.00	6.34	4.95	0.00
44.00	6.34	4.95	0.00
46.00	6.34	4.95	0.00
48.00	6.34	4.95	0.00
50.00	6.34	4.95	0.00
52.00	6.34	4.95	0.00
54.00	6.34	4.95	0.00
56.00	6.34	4.95	0.00
58.00	6.34	4.95	0.00
60.00	6.34	4.95	0.00
62.00	6.34	4.95	0.00
64.00	6.34	4.95	0.00
66.00	6.34	4.95	0.00
68.00	6.34	4.95	0.00
70.00	6.34	4.95	0.00
72.00	6.34	4.95	0.00
74.00	6.34	4.95	0.00
76.00	6.34	4.95	0.00
78.00	6.34	4.95	0.00
80.00	6.34	4.95	0.00
82.00	6.34	4.95	0.00
84.00	6.34	4.95	0.00
86.00	6.34	4.95	0.00
88.00	6.34	4.95	0.00
90.00	6.34	4.95	0.00
92.00	6.34	4.95	0.00
94.00	6.34	4.95	0.00
96.00	6.34	4.95	0.00
98.00	6.34	4.95	0.00
100.00	6.34	4.95	0.00
102.00	6.34	4.95	0.00
104.00	6.34	4.95	0.00
106.00	6.34	4.95	0.00
108.00	6.34	4.95	0.00
110.00	6.34	4.95	0.00
112.00	6.34	4.95	0.00
114.00	6.34	4.95	0.00
116.00	6.34	4.95	0.00
118.00	6.34	4.95	0.00
120.00	6.34	4.95	0.00
122.00	6.34	4.95	0.00
124.00	6.34	4.95	0.00
126.00	6.34	4.95	0.00
128.00	6.34	4.95	0.00
130.00	6.34	4.95	0.00
132.00	6.34	4.95	0.00
134.00	6.34	4.95	0.00
136.00	6.34	4.95	0.00
138.00	6.34	4.95	0.00
140.00	6.34	4.95	0.00
142.00	6.34	4.95	0.00
144.00	6.34	4.95	0.00
146.00	6.34	4.95	0.00
148.00	6.34	4.95	0.00
150.00	6.34	4.95	0.00
152.00	6.34	4.95	0.00
154.00	6.34	4.95	0.00
156.00	6.34	4.95	0.00
158.00	6.34	4.95	0.00
160.00	6.34	4.95	0.00
162.00	6.34	4.95	0.00
164.00	6.34	4.95	0.00
166.00	6.34	4.95	0.00
168.00	6.34	4.95	0.00

Summary for Subcatchment 4S: Proposed

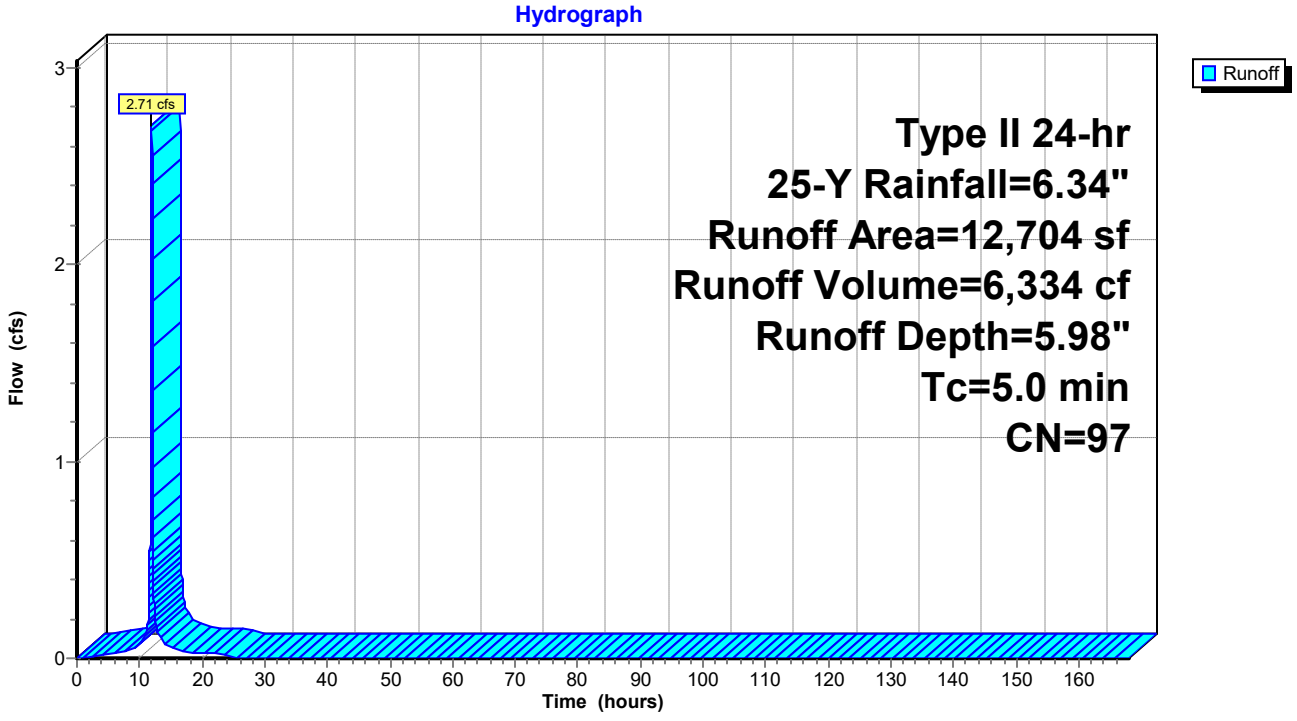
Runoff = 2.71 cfs @ 11.96 hrs, Volume= 6,334 cf, Depth= 5.98"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Y Rainfall=6.34"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.14	0.02	0.01
4.00	0.30	0.11	0.02
6.00	0.51	0.26	0.03
8.00	0.76	0.48	0.04
10.00	1.15	0.84	**0.07**
12.00	4.20	3.85	**2.24**
14.00	5.20	4.85	0.07
16.00	5.58	5.22	0.04
18.00	5.84	5.48	0.03
20.00	6.04	5.68	0.02
22.00	6.19	5.84	0.02
24.00	**6.34**	**5.98**	0.02
26.00	6.34	5.98	0.00
28.00	6.34	5.98	0.00
30.00	6.34	5.98	0.00
32.00	6.34	5.98	0.00
34.00	6.34	5.98	0.00
36.00	6.34	5.98	0.00
38.00	6.34	5.98	0.00
40.00	6.34	5.98	0.00
42.00	6.34	5.98	0.00
44.00	6.34	5.98	0.00
46.00	6.34	5.98	0.00
48.00	6.34	5.98	0.00
50.00	6.34	5.98	0.00
52.00	6.34	5.98	0.00
54.00	6.34	5.98	0.00
56.00	6.34	5.98	0.00
58.00	6.34	5.98	0.00
60.00	6.34	5.98	0.00
62.00	6.34	5.98	0.00
64.00	6.34	5.98	0.00
66.00	6.34	5.98	0.00
68.00	6.34	5.98	0.00
70.00	6.34	5.98	0.00
72.00	6.34	5.98	0.00
74.00	6.34	5.98	0.00
76.00	6.34	5.98	0.00
78.00	6.34	5.98	0.00
80.00	6.34	5.98	0.00
82.00	6.34	5.98	0.00
84.00	6.34	5.98	0.00
86.00	6.34	5.98	0.00
88.00	6.34	5.98	0.00
90.00	6.34	5.98	0.00
92.00	6.34	5.98	0.00
94.00	6.34	5.98	0.00
96.00	6.34	5.98	0.00
98.00	6.34	5.98	0.00
100.00	6.34	5.98	0.00
102.00	6.34	5.98	0.00
104.00	6.34	5.98	0.00
106.00	6.34	5.98	0.00
108.00	6.34	5.98	0.00
110.00	6.34	5.98	0.00
112.00	6.34	5.98	0.00
114.00	6.34	5.98	0.00
116.00	6.34	5.98	0.00
118.00	6.34	5.98	0.00
120.00	6.34	5.98	0.00
122.00	6.34	5.98	0.00
124.00	6.34	5.98	0.00
126.00	6.34	5.98	0.00
128.00	6.34	5.98	0.00
130.00	6.34	5.98	0.00
132.00	6.34	5.98	0.00
134.00	6.34	5.98	0.00
136.00	6.34	5.98	0.00
138.00	6.34	5.98	0.00
140.00	6.34	5.98	0.00
142.00	6.34	5.98	0.00
144.00	6.34	5.98	0.00
146.00	6.34	5.98	0.00
148.00	6.34	5.98	0.00
150.00	6.34	5.98	0.00
152.00	6.34	5.98	0.00
154.00	6.34	5.98	0.00
156.00	6.34	5.98	0.00
158.00	6.34	5.98	0.00
160.00	6.34	5.98	0.00
162.00	6.34	5.98	0.00
164.00	6.34	5.98	0.00
166.00	6.34	5.98	0.00
168.00	6.34	5.98	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

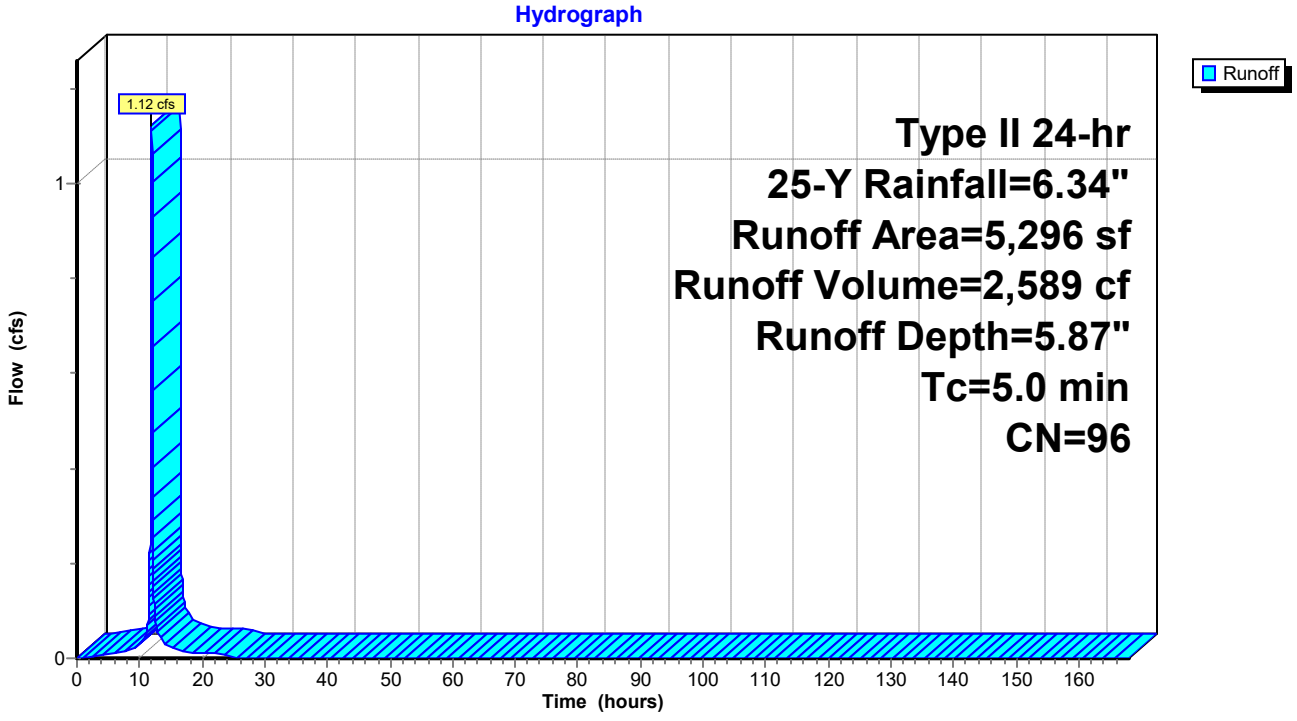
Runoff = 1.12 cfs @ 11.96 hrs, Volume= 2,589 cf, Depth= 5.87"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 25-Y Rainfall=6.34"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.14	0.01	0.00
4.00	0.30	0.08	0.01
6.00	0.51	0.21	0.01
8.00	0.76	0.42	0.01
10.00	1.15	0.76	**0.03**
12.00	4.20	3.74	**0.93**
14.00	5.20	4.73	0.03
16.00	5.58	5.11	0.02
18.00	5.84	5.37	0.01
20.00	6.04	5.56	0.01
22.00	6.19	5.72	0.01
24.00	**6.34**	**5.87**	0.01
26.00	6.34	5.87	0.00
28.00	6.34	5.87	0.00
30.00	6.34	5.87	0.00
32.00	6.34	5.87	0.00
34.00	6.34	5.87	0.00
36.00	6.34	5.87	0.00
38.00	6.34	5.87	0.00
40.00	6.34	5.87	0.00
42.00	6.34	5.87	0.00
44.00	6.34	5.87	0.00
46.00	6.34	5.87	0.00
48.00	6.34	5.87	0.00
50.00	6.34	5.87	0.00
52.00	6.34	5.87	0.00
54.00	6.34	5.87	0.00
56.00	6.34	5.87	0.00
58.00	6.34	5.87	0.00
60.00	6.34	5.87	0.00
62.00	6.34	5.87	0.00
64.00	6.34	5.87	0.00
66.00	6.34	5.87	0.00
68.00	6.34	5.87	0.00
70.00	6.34	5.87	0.00
72.00	6.34	5.87	0.00
74.00	6.34	5.87	0.00
76.00	6.34	5.87	0.00
78.00	6.34	5.87	0.00
80.00	6.34	5.87	0.00
82.00	6.34	5.87	0.00
84.00	6.34	5.87	0.00
86.00	6.34	5.87	0.00
88.00	6.34	5.87	0.00
90.00	6.34	5.87	0.00
92.00	6.34	5.87	0.00
94.00	6.34	5.87	0.00
96.00	6.34	5.87	0.00
98.00	6.34	5.87	0.00
100.00	6.34	5.87	0.00
102.00	6.34	5.87	0.00
104.00	6.34	5.87	0.00
106.00	6.34	5.87	0.00
108.00	6.34	5.87	0.00
110.00	6.34	5.87	0.00
112.00	6.34	5.87	0.00
114.00	6.34	5.87	0.00
116.00	6.34	5.87	0.00
118.00	6.34	5.87	0.00
120.00	6.34	5.87	0.00
122.00	6.34	5.87	0.00
124.00	6.34	5.87	0.00
126.00	6.34	5.87	0.00
128.00	6.34	5.87	0.00
130.00	6.34	5.87	0.00
132.00	6.34	5.87	0.00
134.00	6.34	5.87	0.00
136.00	6.34	5.87	0.00
138.00	6.34	5.87	0.00
140.00	6.34	5.87	0.00
142.00	6.34	5.87	0.00
144.00	6.34	5.87	0.00
146.00	6.34	5.87	0.00
148.00	6.34	5.87	0.00
150.00	6.34	5.87	0.00
152.00	6.34	5.87	0.00
154.00	6.34	5.87	0.00
156.00	6.34	5.87	0.00
158.00	6.34	5.87	0.00
160.00	6.34	5.87	0.00
162.00	6.34	5.87	0.00
164.00	6.34	5.87	0.00
166.00	6.34	5.87	0.00
168.00	6.34	5.87	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 5.87" for 25-Y event
Inflow = 1.12 cfs @ 11.96 hrs, Volume= 2,589 cf
Outflow = 0.13 cfs @ 11.63 hrs, Volume= 2,589 cf, Atten= 88%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.63 hrs, Volume= 2,589 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 101.49' @ 12.23 hrs Surf.Area= 1,400 sf Storage= 833 cf

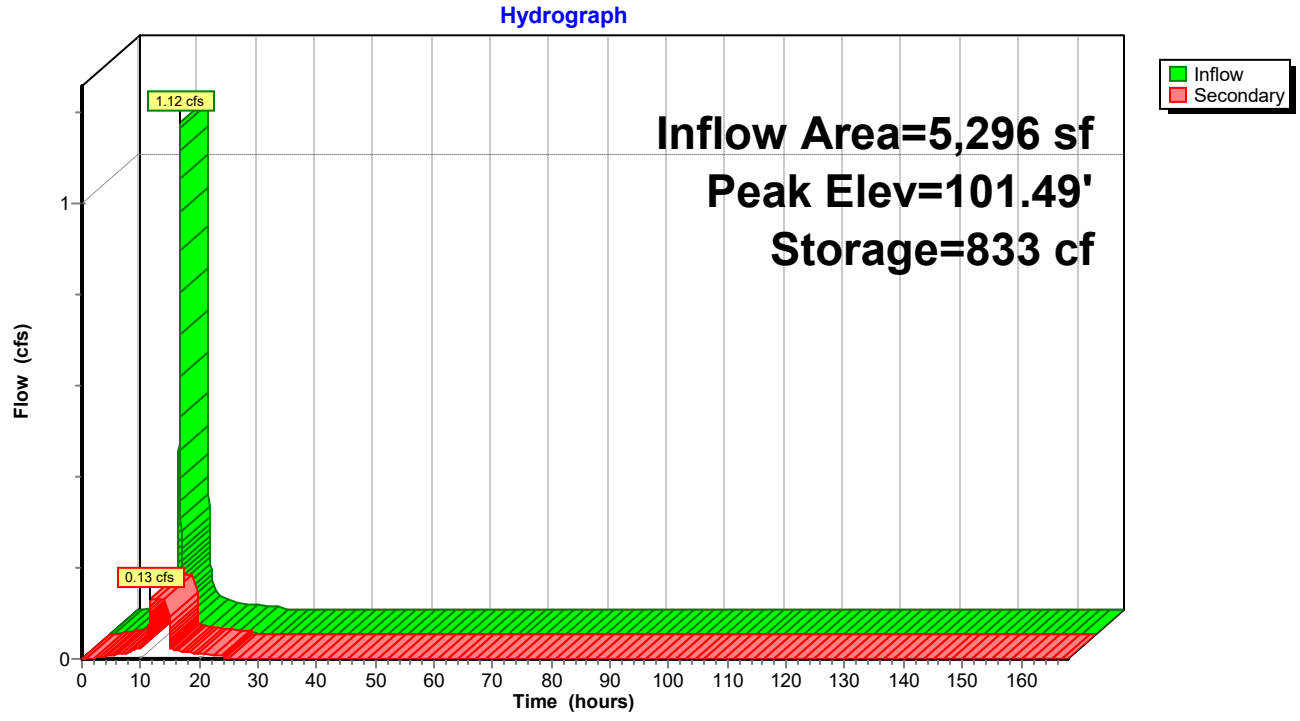
Plug-Flow detention time= 37.4 min calculated for 2,589 cf (100% of inflow)
Center-of-Mass det. time= 37.4 min (789.6 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.63 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

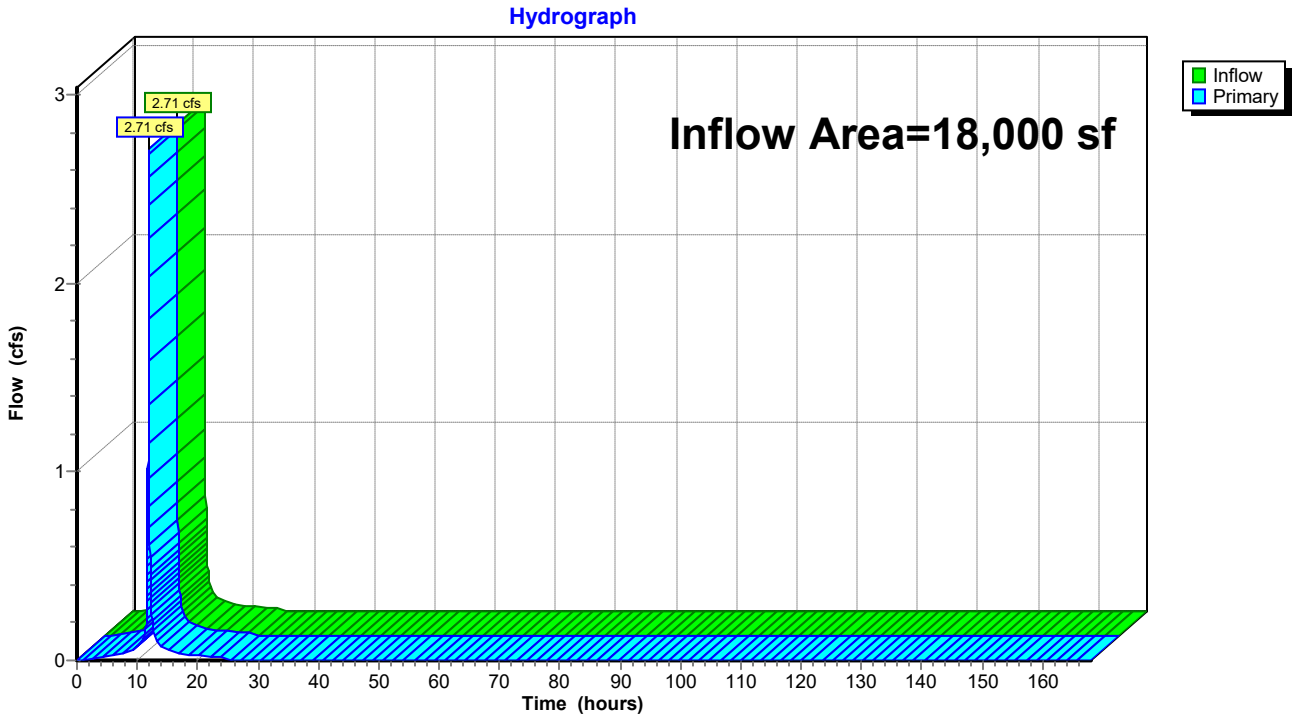
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.01	1	100.00	0.01
10.00	**0.03**	**4**	**100.01**	**0.03**
15.00	**0.02**	**5**	**100.01**	**0.04**
20.00	0.01	2	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 4.22" for 25-Y event
Inflow = 2.71 cfs @ 11.96 hrs, Volume= 6,334 cf
Primary = 2.71 cfs @ 11.96 hrs, Volume= 6,334 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.01	0.00	0.01	106.00	0.00	0.00	0.00
4.00	0.02	0.00	0.02	108.00	0.00	0.00	0.00
6.00	0.03	0.00	0.03	110.00	0.00	0.00	0.00
8.00	0.04	0.00	0.04	112.00	0.00	0.00	0.00
10.00	**0.07**	0.00	**0.07**	114.00	0.00	0.00	0.00
12.00	**2.24**	0.00	**2.24**	116.00	0.00	0.00	0.00
14.00	0.07	0.00	0.07	118.00	0.00	0.00	0.00
16.00	0.04	0.00	0.04	120.00	0.00	0.00	0.00
18.00	0.03	0.00	0.03	122.00	0.00	0.00	0.00
20.00	0.02	0.00	0.02	124.00	0.00	0.00	0.00
22.00	0.02	0.00	0.02	126.00	0.00	0.00	0.00
24.00	0.02	0.00	0.02	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=5.85"
Flow Length=149' Tc=5.0 min CN=88 Runoff=4.10 cfs 8,769 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=6.90"
Tc=5.0 min CN=97 Runoff=3.11 cfs 7,307 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=6.78"
Tc=5.0 min CN=96 Runoff=1.29 cfs 2,994 cf

Pond 3P: UNDERGORUND INFILTRATION Peak Elev=101.79' Storage=1,003 cf Inflow=1.29 cfs 2,994 cf
Outflow=0.13 cfs 2,994 cf

Link 5L: joint Inflow=3.11 cfs 7,307 cf
Primary=3.11 cfs 7,307 cf

Total Runoff Area = 36,000 sf Runoff Volume = 19,069 cf Average Runoff Depth = 6.36"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

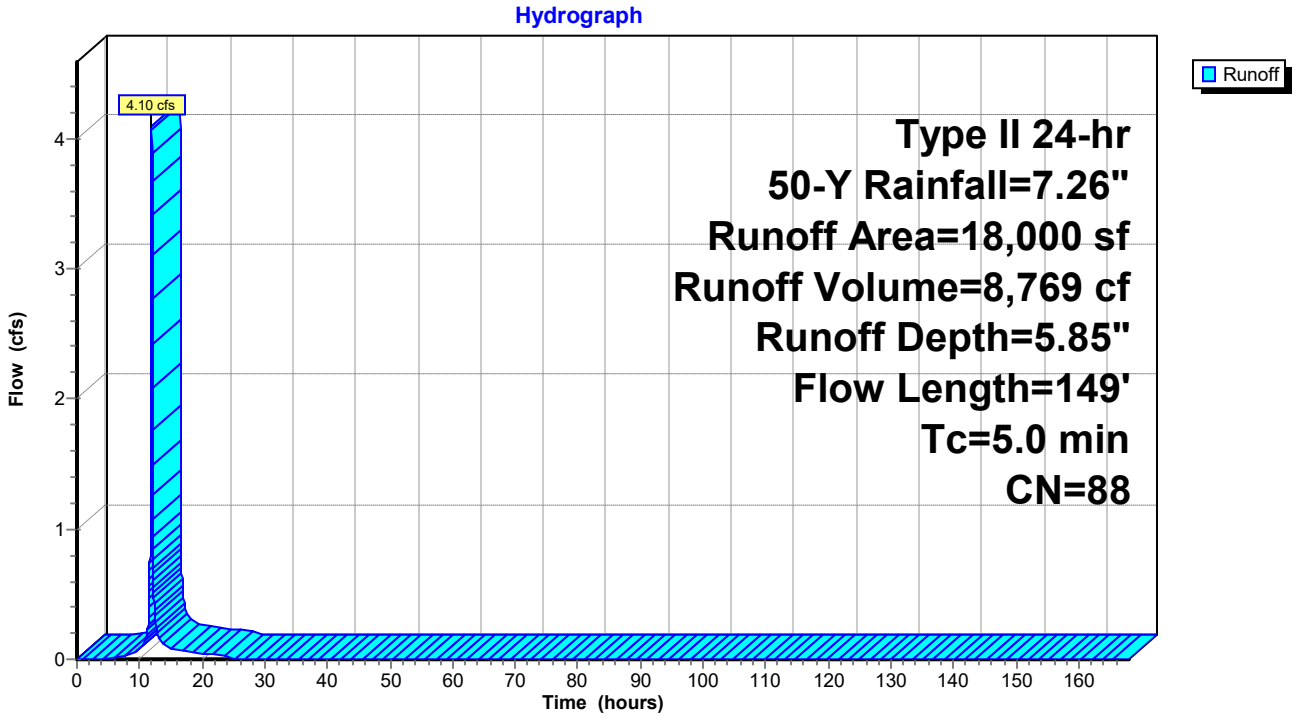
Runoff = 4.10 cfs @ 11.96 hrs, Volume= 8,769 cf, Depth= 5.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Y Rainfall=7.26"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.16	0.00	0.00
4.00	0.35	0.00	0.00
6.00	0.58	0.06	0.02
8.00	0.87	0.18	0.03
10.00	1.31	0.45	**0.08**
12.00	4.81	3.49	**3.41**
14.00	5.95	4.58	0.11
16.00	6.39	5.00	0.07
18.00	6.69	5.29	0.05
20.00	6.91	5.51	0.04
22.00	7.09	5.68	0.04
24.00	**7.26**	**5.85**	0.03
26.00	7.26	5.85	0.00
28.00	7.26	5.85	0.00
30.00	7.26	5.85	0.00
32.00	7.26	5.85	0.00
34.00	7.26	5.85	0.00
36.00	7.26	5.85	0.00
38.00	7.26	5.85	0.00
40.00	7.26	5.85	0.00
42.00	7.26	5.85	0.00
44.00	7.26	5.85	0.00
46.00	7.26	5.85	0.00
48.00	7.26	5.85	0.00
50.00	7.26	5.85	0.00
52.00	7.26	5.85	0.00
54.00	7.26	5.85	0.00
56.00	7.26	5.85	0.00
58.00	7.26	5.85	0.00
60.00	7.26	5.85	0.00
62.00	7.26	5.85	0.00
64.00	7.26	5.85	0.00
66.00	7.26	5.85	0.00
68.00	7.26	5.85	0.00
70.00	7.26	5.85	0.00
72.00	7.26	5.85	0.00
74.00	7.26	5.85	0.00
76.00	7.26	5.85	0.00
78.00	7.26	5.85	0.00
80.00	7.26	5.85	0.00
82.00	7.26	5.85	0.00
84.00	7.26	5.85	0.00
86.00	7.26	5.85	0.00
88.00	7.26	5.85	0.00
90.00	7.26	5.85	0.00
92.00	7.26	5.85	0.00
94.00	7.26	5.85	0.00
96.00	7.26	5.85	0.00
98.00	7.26	5.85	0.00
100.00	7.26	5.85	0.00
102.00	7.26	5.85	0.00
104.00	7.26	5.85	0.00
106.00	7.26	5.85	0.00
108.00	7.26	5.85	0.00
110.00	7.26	5.85	0.00
112.00	7.26	5.85	0.00
114.00	7.26	5.85	0.00
116.00	7.26	5.85	0.00
118.00	7.26	5.85	0.00
120.00	7.26	5.85	0.00
122.00	7.26	5.85	0.00
124.00	7.26	5.85	0.00
126.00	7.26	5.85	0.00
128.00	7.26	5.85	0.00
130.00	7.26	5.85	0.00
132.00	7.26	5.85	0.00
134.00	7.26	5.85	0.00
136.00	7.26	5.85	0.00
138.00	7.26	5.85	0.00
140.00	7.26	5.85	0.00
142.00	7.26	5.85	0.00
144.00	7.26	5.85	0.00
146.00	7.26	5.85	0.00
148.00	7.26	5.85	0.00
150.00	7.26	5.85	0.00
152.00	7.26	5.85	0.00
154.00	7.26	5.85	0.00
156.00	7.26	5.85	0.00
158.00	7.26	5.85	0.00
160.00	7.26	5.85	0.00
162.00	7.26	5.85	0.00
164.00	7.26	5.85	0.00
166.00	7.26	5.85	0.00
168.00	7.26	5.85	0.00

Summary for Subcatchment 4S: Proposed

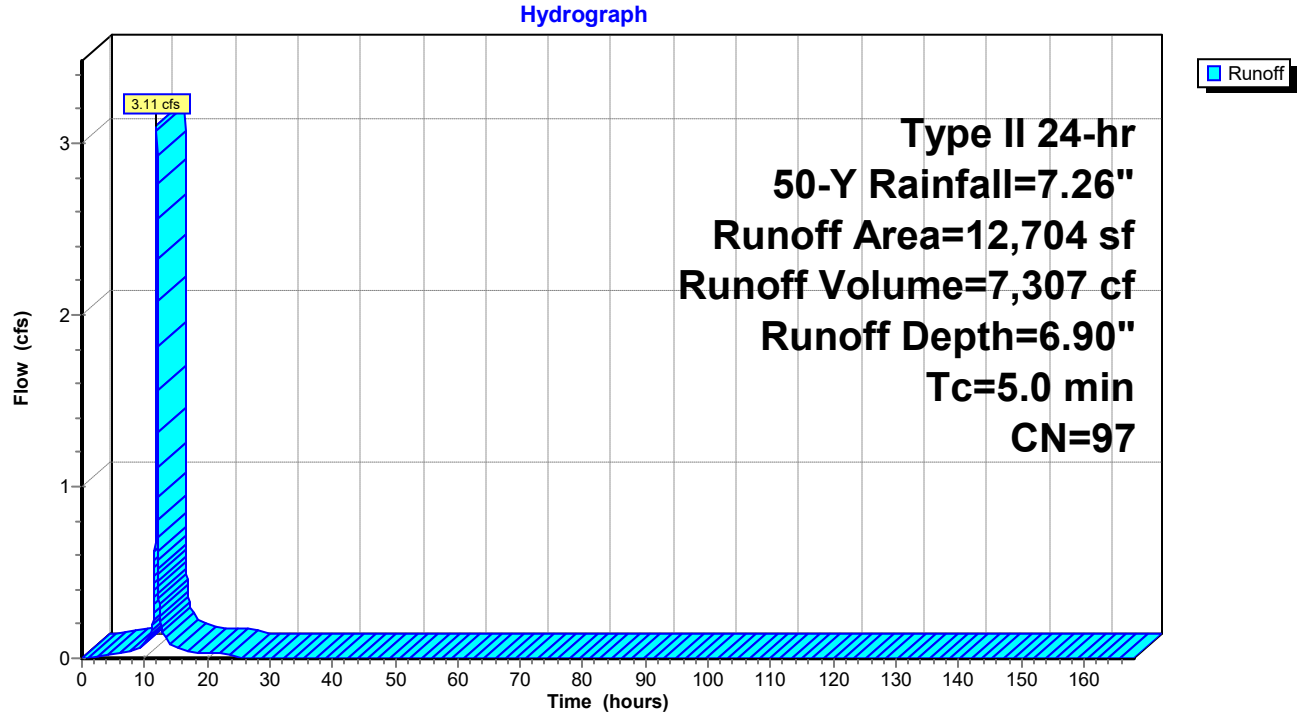
Runoff = 3.11 cfs @ 11.96 hrs, Volume= 7,307 cf, Depth= 6.90"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Y Rainfall=7.26"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.16	0.02	0.01
4.00	0.35	0.14	0.02
6.00	0.58	0.33	0.03
8.00	0.87	0.59	0.04
10.00	1.31	1.00	**0.08**
12.00	4.81	4.46	**2.57**
14.00	5.95	5.60	0.08
16.00	6.39	6.03	0.05
18.00	6.69	6.33	0.04
20.00	6.91	6.55	0.03
22.00	7.09	6.73	0.03
24.00	**7.26**	**6.90**	0.02
26.00	7.26	6.90	0.00
28.00	7.26	6.90	0.00
30.00	7.26	6.90	0.00
32.00	7.26	6.90	0.00
34.00	7.26	6.90	0.00
36.00	7.26	6.90	0.00
38.00	7.26	6.90	0.00
40.00	7.26	6.90	0.00
42.00	7.26	6.90	0.00
44.00	7.26	6.90	0.00
46.00	7.26	6.90	0.00
48.00	7.26	6.90	0.00
50.00	7.26	6.90	0.00
52.00	7.26	6.90	0.00
54.00	7.26	6.90	0.00
56.00	7.26	6.90	0.00
58.00	7.26	6.90	0.00
60.00	7.26	6.90	0.00
62.00	7.26	6.90	0.00
64.00	7.26	6.90	0.00
66.00	7.26	6.90	0.00
68.00	7.26	6.90	0.00
70.00	7.26	6.90	0.00
72.00	7.26	6.90	0.00
74.00	7.26	6.90	0.00
76.00	7.26	6.90	0.00
78.00	7.26	6.90	0.00
80.00	7.26	6.90	0.00
82.00	7.26	6.90	0.00
84.00	7.26	6.90	0.00
86.00	7.26	6.90	0.00
88.00	7.26	6.90	0.00
90.00	7.26	6.90	0.00
92.00	7.26	6.90	0.00
94.00	7.26	6.90	0.00
96.00	7.26	6.90	0.00
98.00	7.26	6.90	0.00
100.00	7.26	6.90	0.00
102.00	7.26	6.90	0.00
104.00	7.26	6.90	0.00
106.00	7.26	6.90	0.00
108.00	7.26	6.90	0.00
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116.00	7.26	6.90	0.00
118.00	7.26	6.90	0.00
120.00	7.26	6.90	0.00
122.00	7.26	6.90	0.00
124.00	7.26	6.90	0.00
126.00	7.26	6.90	0.00
128.00	7.26	6.90	0.00
130.00	7.26	6.90	0.00
132.00	7.26	6.90	0.00
134.00	7.26	6.90	0.00
136.00	7.26	6.90	0.00
138.00	7.26	6.90	0.00
140.00	7.26	6.90	0.00
142.00	7.26	6.90	0.00
144.00	7.26	6.90	0.00
146.00	7.26	6.90	0.00
148.00	7.26	6.90	0.00
150.00	7.26	6.90	0.00
152.00	7.26	6.90	0.00
154.00	7.26	6.90	0.00
156.00	7.26	6.90	0.00
158.00	7.26	6.90	0.00
160.00	7.26	6.90	0.00
162.00	7.26	6.90	0.00
164.00	7.26	6.90	0.00
166.00	7.26	6.90	0.00
168.00	7.26	6.90	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

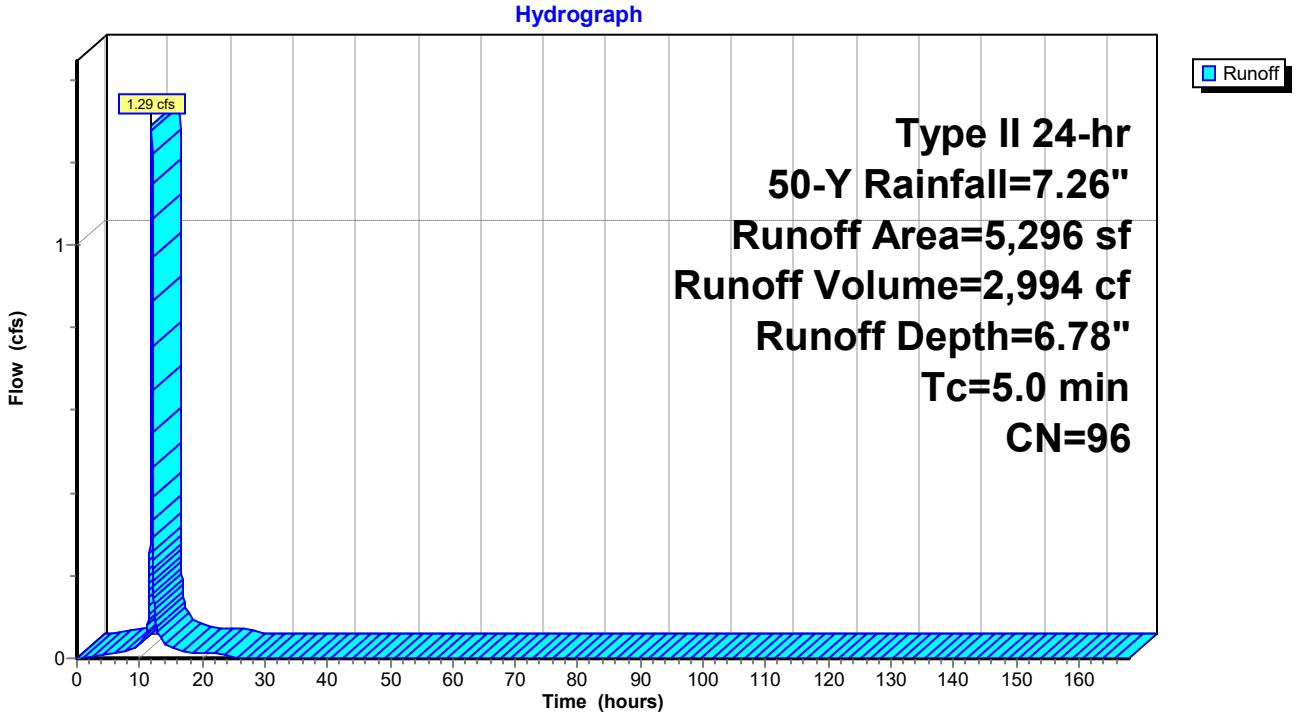
Runoff = 1.29 cfs @ 11.96 hrs, Volume= 2,994 cf, Depth= 6.78"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 50-Y Rainfall=7.26"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.16	0.01	0.00
4.00	0.35	0.10	0.01
6.00	0.58	0.27	0.01
8.00	0.87	0.52	0.02
10.00	1.31	0.92	**0.03**
12.00	4.81	4.35	**1.07**
14.00	5.95	5.48	0.03
16.00	6.39	5.91	0.02
18.00	6.69	6.21	0.02
20.00	6.91	6.44	0.01
22.00	7.09	6.62	0.01
24.00	**7.26**	**6.78**	0.01
26.00	7.26	6.78	0.00
28.00	7.26	6.78	0.00
30.00	7.26	6.78	0.00
32.00	7.26	6.78	0.00
34.00	7.26	6.78	0.00
36.00	7.26	6.78	0.00
38.00	7.26	6.78	0.00
40.00	7.26	6.78	0.00
42.00	7.26	6.78	0.00
44.00	7.26	6.78	0.00
46.00	7.26	6.78	0.00
48.00	7.26	6.78	0.00
50.00	7.26	6.78	0.00
52.00	7.26	6.78	0.00
54.00	7.26	6.78	0.00
56.00	7.26	6.78	0.00
58.00	7.26	6.78	0.00
60.00	7.26	6.78	0.00
62.00	7.26	6.78	0.00
64.00	7.26	6.78	0.00
66.00	7.26	6.78	0.00
68.00	7.26	6.78	0.00
70.00	7.26	6.78	0.00
72.00	7.26	6.78	0.00
74.00	7.26	6.78	0.00
76.00	7.26	6.78	0.00
78.00	7.26	6.78	0.00
80.00	7.26	6.78	0.00
82.00	7.26	6.78	0.00
84.00	7.26	6.78	0.00
86.00	7.26	6.78	0.00
88.00	7.26	6.78	0.00
90.00	7.26	6.78	0.00
92.00	7.26	6.78	0.00
94.00	7.26	6.78	0.00
96.00	7.26	6.78	0.00
98.00	7.26	6.78	0.00
100.00	7.26	6.78	0.00
102.00	7.26	6.78	0.00
104.00	7.26	6.78	0.00
106.00	7.26	6.78	0.00
108.00	7.26	6.78	0.00
110.00	7.26	6.78	0.00
112.00	7.26	6.78	0.00
114.00	7.26	6.78	0.00
116.00	7.26	6.78	0.00
118.00	7.26	6.78	0.00
120.00	7.26	6.78	0.00
122.00	7.26	6.78	0.00
124.00	7.26	6.78	0.00
126.00	7.26	6.78	0.00
128.00	7.26	6.78	0.00
130.00	7.26	6.78	0.00
132.00	7.26	6.78	0.00
134.00	7.26	6.78	0.00
136.00	7.26	6.78	0.00
138.00	7.26	6.78	0.00
140.00	7.26	6.78	0.00
142.00	7.26	6.78	0.00
144.00	7.26	6.78	0.00
146.00	7.26	6.78	0.00
148.00	7.26	6.78	0.00
150.00	7.26	6.78	0.00
152.00	7.26	6.78	0.00
154.00	7.26	6.78	0.00
156.00	7.26	6.78	0.00
158.00	7.26	6.78	0.00
160.00	7.26	6.78	0.00
162.00	7.26	6.78	0.00
164.00	7.26	6.78	0.00
166.00	7.26	6.78	0.00
168.00	7.26	6.78	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 6.78" for 50-Y event
Inflow = 1.29 cfs @ 11.96 hrs, Volume= 2,994 cf
Outflow = 0.13 cfs @ 11.61 hrs, Volume= 2,994 cf, Atten= 90%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.61 hrs, Volume= 2,994 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 101.79' @ 12.32 hrs Surf.Area= 1,400 sf Storage= 1,003 cf

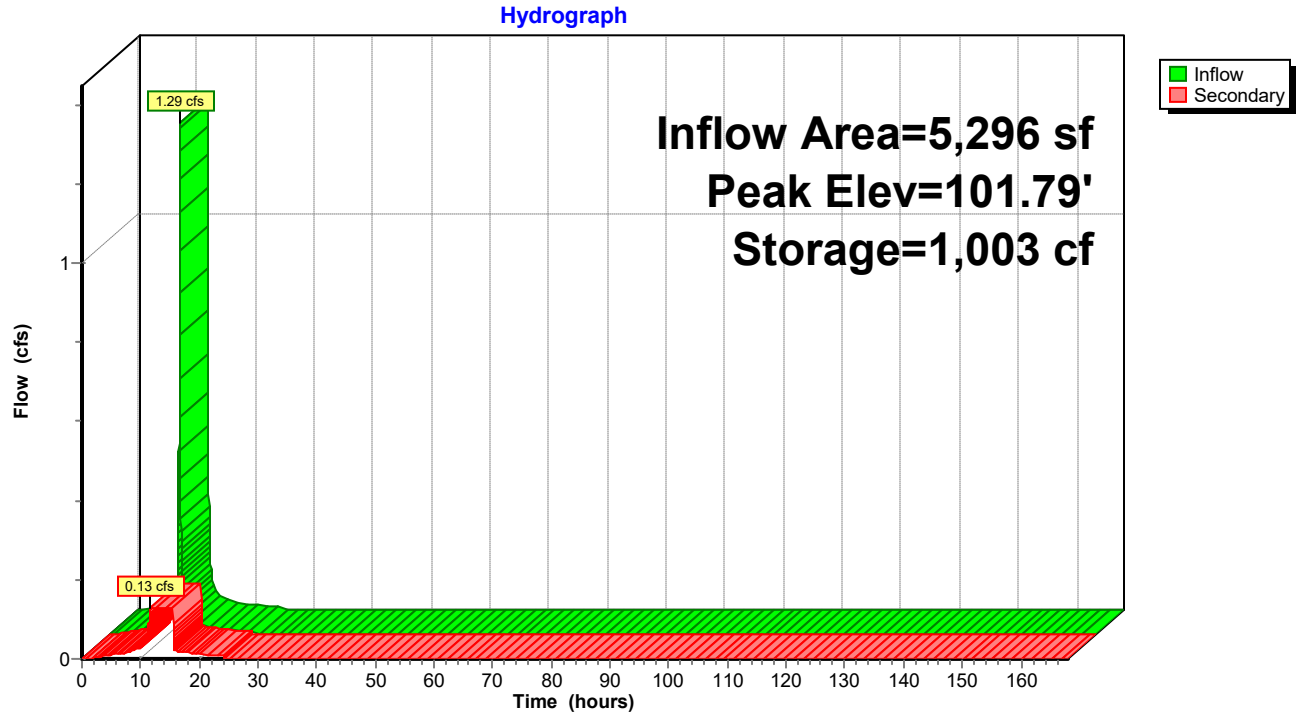
Plug-Flow detention time= 46.4 min calculated for 2,993 cf (100% of inflow)
Center-of-Mass det. time= 46.4 min (795.8 - 749.4)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.61 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

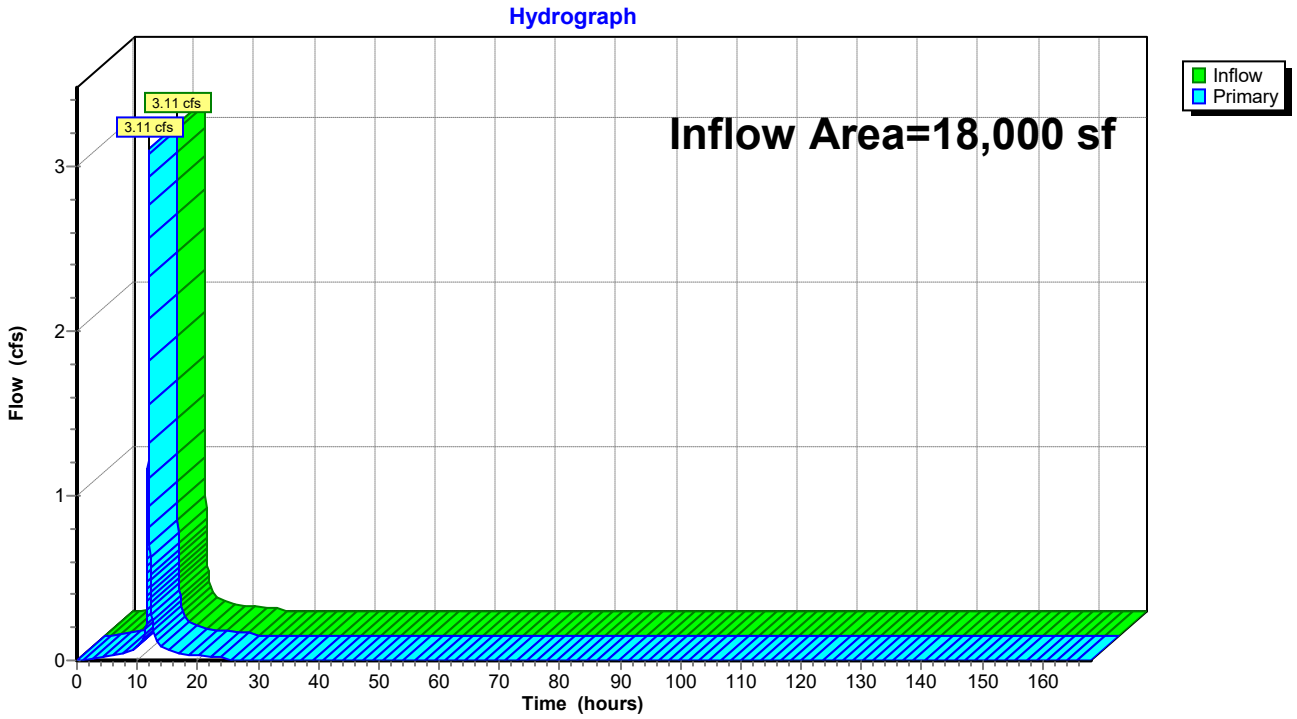
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.01	2	100.00	0.01
10.00	**0.03**	**5**	**100.01**	**0.03**
15.00	**0.03**	**218**	**100.39**	**0.13**
20.00	0.01	2	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 4.87" for 50-Y event
Inflow = 3.11 cfs @ 11.96 hrs, Volume= 7,307 cf
Primary = 3.11 cfs @ 11.96 hrs, Volume= 7,307 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.01	0.00	0.01	106.00	0.00	0.00	0.00
4.00	0.02	0.00	0.02	108.00	0.00	0.00	0.00
6.00	0.03	0.00	0.03	110.00	0.00	0.00	0.00
8.00	0.04	0.00	0.04	112.00	0.00	0.00	0.00
10.00	**0.08**	0.00	**0.08**	114.00	0.00	0.00	0.00
12.00	**2.57**	0.00	**2.57**	116.00	0.00	0.00	0.00
14.00	0.08	0.00	0.08	118.00	0.00	0.00	0.00
16.00	0.05	0.00	0.05	120.00	0.00	0.00	0.00
18.00	0.04	0.00	0.04	122.00	0.00	0.00	0.00
20.00	0.03	0.00	0.03	124.00	0.00	0.00	0.00
22.00	0.03	0.00	0.03	126.00	0.00	0.00	0.00
24.00	0.02	0.00	0.02	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

Time span=0.00-168.00 hrs, dt=0.01 hrs, 16801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment 1S: existing Runoff Area=18,000 sf 62.51% Impervious Runoff Depth=6.80"
Flow Length=149' Tc=5.0 min CN=88 Runoff=4.72 cfs 10,204 cf

Subcatchment 4S: Proposed Runoff Area=12,704 sf 91.38% Impervious Runoff Depth=7.88"
Tc=5.0 min CN=97 Runoff=3.53 cfs 8,342 cf

Subcatchment 6S: CONTROLLED BLDG. Runoff Area=5,296 sf 81.85% Impervious Runoff Depth=7.76"
Tc=5.0 min CN=96 Runoff=1.47 cfs 3,425 cf

Pond 3P: UNDERGORUND INFILTRATION Peak Elev=102.13' Storage=1,190 cf Inflow=1.47 cfs 3,425 cf
Outflow=0.13 cfs 3,425 cf

Link 5L: joint Inflow=3.53 cfs 8,342 cf
Primary=3.53 cfs 8,342 cf

Total Runoff Area = 36,000 sf Runoff Volume = 21,972 cf Average Runoff Depth = 7.32"
24.46% Pervious = 8,805 sf 75.54% Impervious = 27,195 sf

Summary for Subcatchment 1S: existing

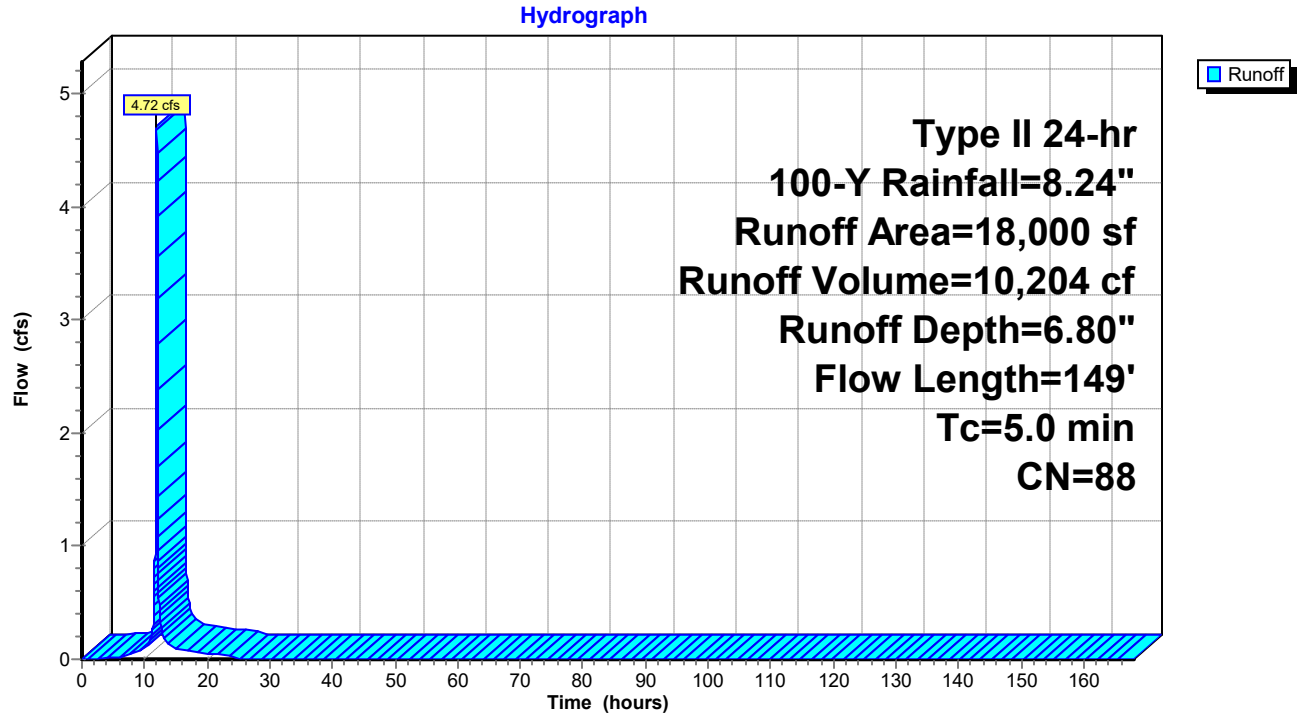
Runoff = 4.72 cfs @ 11.96 hrs, Volume= 10,204 cf, Depth= 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Y Rainfall=8.24"

	Area (sf)	CN	Description
*	3,937	71	EX. Meadow, non-grazed, HSG C
*	2,812	71	20% OF IMPER ASSUMED MEADOW
*	11,251	98	80% OF Paved parking, HSG C
	18,000	88	Weighted Average
	6,749		37.49% Pervious Area
	11,251		62.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.5	47	0.0373	1.54		**Sheet Flow, Tc1** Smooth surfaces n= 0.011 P2= 3.28"
3.2	21	0.0357	0.11		**Sheet Flow, Tc2** Grass: Dense n= 0.240 P2= 3.28"
0.8	62	0.0322	1.26		**Shallow Concentrated Flow, Tc3** Short Grass Pasture Kv= 7.0 fps
0.1	19	0.2100	3.21		**Shallow Concentrated Flow, Tc4** Short Grass Pasture Kv= 7.0 fps
4.6	149	Total, Increased to minimum Tc = 5.0 min			

Subcatchment 1S: existing



Hydrograph for Subcatchment 1S: existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.18	0.00	0.00
4.00	0.40	0.01	0.01
6.00	0.66	0.09	0.02
8.00	0.99	0.25	0.04
10.00	1.49	0.58	**0.10**
12.00	5.46	4.11	**3.92**
14.00	6.76	5.36	0.13
16.00	7.25	5.84	0.08
18.00	7.59	6.17	0.06
20.00	7.84	6.42	0.04
22.00	8.05	6.62	0.04
24.00	**8.24**	**6.80**	0.04
26.00	8.24	6.80	0.00
28.00	8.24	6.80	0.00
30.00	8.24	6.80	0.00
32.00	8.24	6.80	0.00
34.00	8.24	6.80	0.00
36.00	8.24	6.80	0.00
38.00	8.24	6.80	0.00
40.00	8.24	6.80	0.00
42.00	8.24	6.80	0.00
44.00	8.24	6.80	0.00
46.00	8.24	6.80	0.00
48.00	8.24	6.80	0.00
50.00	8.24	6.80	0.00
52.00	8.24	6.80	0.00
54.00	8.24	6.80	0.00
56.00	8.24	6.80	0.00
58.00	8.24	6.80	0.00
60.00	8.24	6.80	0.00
62.00	8.24	6.80	0.00
64.00	8.24	6.80	0.00
66.00	8.24	6.80	0.00
68.00	8.24	6.80	0.00
70.00	8.24	6.80	0.00
72.00	8.24	6.80	0.00
74.00	8.24	6.80	0.00
76.00	8.24	6.80	0.00
78.00	8.24	6.80	0.00
80.00	8.24	6.80	0.00
82.00	8.24	6.80	0.00
84.00	8.24	6.80	0.00
86.00	8.24	6.80	0.00
88.00	8.24	6.80	0.00
90.00	8.24	6.80	0.00
92.00	8.24	6.80	0.00
94.00	8.24	6.80	0.00
96.00	8.24	6.80	0.00
98.00	8.24	6.80	0.00
100.00	8.24	6.80	0.00
102.00	8.24	6.80	0.00
104.00	8.24	6.80	0.00
106.00	8.24	6.80	0.00
108.00	8.24	6.80	0.00
110.00	8.24	6.80	0.00
112.00	8.24	6.80	0.00
114.00	8.24	6.80	0.00
116.00	8.24	6.80	0.00
118.00	8.24	6.80	0.00
120.00	8.24	6.80	0.00
122.00	8.24	6.80	0.00
124.00	8.24	6.80	0.00
126.00	8.24	6.80	0.00
128.00	8.24	6.80	0.00
130.00	8.24	6.80	0.00
132.00	8.24	6.80	0.00
134.00	8.24	6.80	0.00
136.00	8.24	6.80	0.00
138.00	8.24	6.80	0.00
140.00	8.24	6.80	0.00
142.00	8.24	6.80	0.00
144.00	8.24	6.80	0.00
146.00	8.24	6.80	0.00
148.00	8.24	6.80	0.00
150.00	8.24	6.80	0.00
152.00	8.24	6.80	0.00
154.00	8.24	6.80	0.00
156.00	8.24	6.80	0.00
158.00	8.24	6.80	0.00
160.00	8.24	6.80	0.00
162.00	8.24	6.80	0.00
164.00	8.24	6.80	0.00
166.00	8.24	6.80	0.00
168.00	8.24	6.80	0.00

Summary for Subcatchment 4S: Proposed

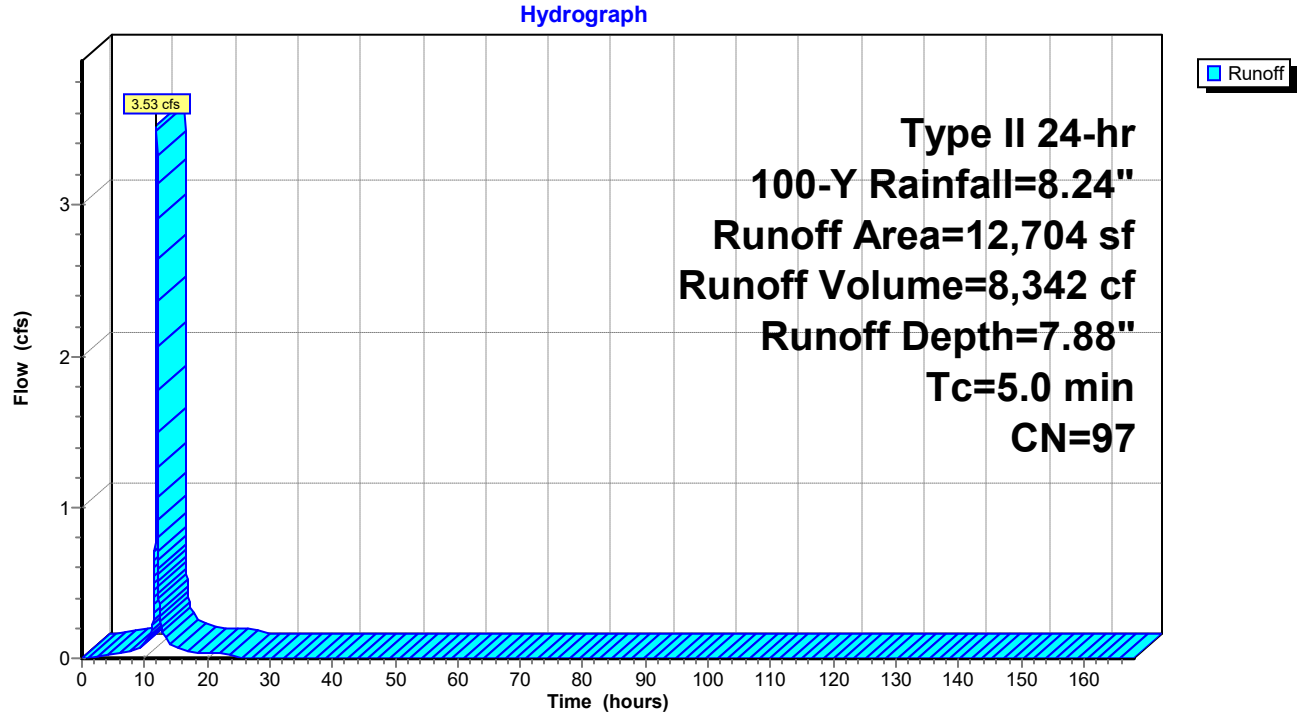
Runoff = 3.53 cfs @ 11.96 hrs, Volume= 8,342 cf, Depth= 7.88"
Routed to Link 5L : joint

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Y Rainfall=8.24"

	Area (sf)	CN	Description
	1,095	86	<50% Grass cover, Poor, HSG C
*	11,609	98	Paved parking, HSG C & ROOF
	12,704	97	Weighted Average
	1,095		8.62% Pervious Area
	11,609		91.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 4S: Proposed



Hydrograph for Subcatchment 4S: Proposed

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.18	0.03	0.01
4.00	0.40	0.17	0.03
6.00	0.66	0.39	0.04
8.00	0.99	0.70	0.05
10.00	1.49	1.18	**0.09**
12.00	5.46	5.11	**2.92**
14.00	6.76	6.40	0.09
16.00	7.25	6.89	0.06
18.00	7.59	7.23	0.04
20.00	7.84	7.49	0.03
22.00	8.05	7.69	0.03
24.00	**8.24**	**7.88**	0.03
26.00	8.24	7.88	0.00
28.00	8.24	7.88	0.00
30.00	8.24	7.88	0.00
32.00	8.24	7.88	0.00
34.00	8.24	7.88	0.00
36.00	8.24	7.88	0.00
38.00	8.24	7.88	0.00
40.00	8.24	7.88	0.00
42.00	8.24	7.88	0.00
44.00	8.24	7.88	0.00
46.00	8.24	7.88	0.00
48.00	8.24	7.88	0.00
50.00	8.24	7.88	0.00
52.00	8.24	7.88	0.00
54.00	8.24	7.88	0.00
56.00	8.24	7.88	0.00
58.00	8.24	7.88	0.00
60.00	8.24	7.88	0.00
62.00	8.24	7.88	0.00
64.00	8.24	7.88	0.00
66.00	8.24	7.88	0.00
68.00	8.24	7.88	0.00
70.00	8.24	7.88	0.00
72.00	8.24	7.88	0.00
74.00	8.24	7.88	0.00
76.00	8.24	7.88	0.00
78.00	8.24	7.88	0.00
80.00	8.24	7.88	0.00
82.00	8.24	7.88	0.00
84.00	8.24	7.88	0.00
86.00	8.24	7.88	0.00
88.00	8.24	7.88	0.00
90.00	8.24	7.88	0.00
92.00	8.24	7.88	0.00
94.00	8.24	7.88	0.00
96.00	8.24	7.88	0.00
98.00	8.24	7.88	0.00
100.00	8.24	7.88	0.00
102.00	8.24	7.88	0.00
104.00	8.24	7.88	0.00
106.00	8.24	7.88	0.00
108.00	8.24	7.88	0.00
110.00	8.24	7.88	0.00
112.00	8.24	7.88	0.00
114.00	8.24	7.88	0.00
116.00	8.24	7.88	0.00
118.00	8.24	7.88	0.00
120.00	8.24	7.88	0.00
122.00	8.24	7.88	0.00
124.00	8.24	7.88	0.00
126.00	8.24	7.88	0.00
128.00	8.24	7.88	0.00
130.00	8.24	7.88	0.00
132.00	8.24	7.88	0.00
134.00	8.24	7.88	0.00
136.00	8.24	7.88	0.00
138.00	8.24	7.88	0.00
140.00	8.24	7.88	0.00
142.00	8.24	7.88	0.00
144.00	8.24	7.88	0.00
146.00	8.24	7.88	0.00
148.00	8.24	7.88	0.00
150.00	8.24	7.88	0.00
152.00	8.24	7.88	0.00
154.00	8.24	7.88	0.00
156.00	8.24	7.88	0.00
158.00	8.24	7.88	0.00
160.00	8.24	7.88	0.00
162.00	8.24	7.88	0.00
164.00	8.24	7.88	0.00
166.00	8.24	7.88	0.00
168.00	8.24	7.88	0.00

Summary for Subcatchment 6S: CONTROLLED BLDG. ROOF

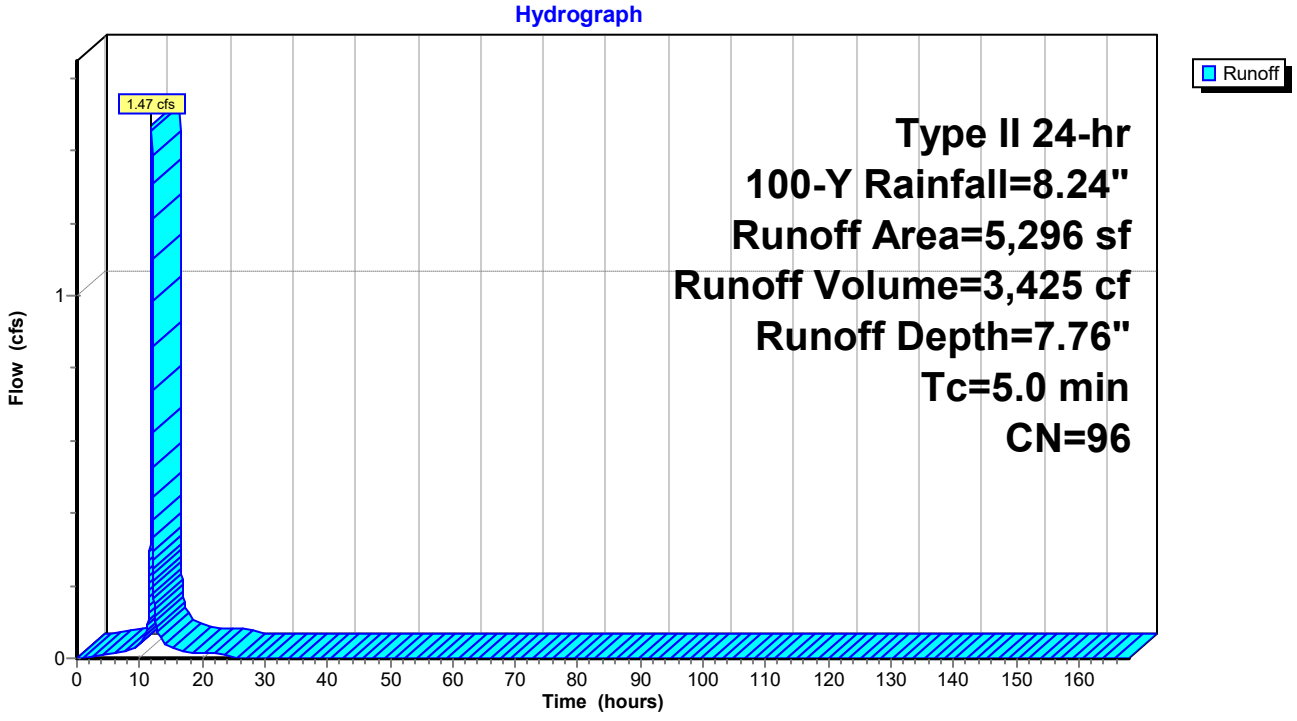
Runoff = 1.47 cfs @ 11.96 hrs, Volume= 3,425 cf, Depth= 7.76"
Routed to Pond 3P : UNDERGORUND INFILTRATION PIT

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Type II 24-hr 100-Y Rainfall=8.24"

Area (sf)	CN	Description
4,335	98	Paved roads w/curbs & sewers, HSG C
961	86	<50% Grass cover, Poor, HSG C
5,296	96	Weighted Average
961		18.15% Pervious Area
4,335		81.85% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, 5 minutes**

Subcatchment 6S: CONTROLLED BLDG. ROOF



Hydrograph for Subcatchment 6S: CONTROLLED BLDG. ROOF

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
2.00	0.18	0.02	0.00
4.00	0.40	0.13	0.01
6.00	0.66	0.33	0.01
8.00	0.99	0.62	0.02
10.00	1.49	1.09	**0.04**
12.00	5.46	4.99	**1.21**
14.00	6.76	6.28	0.04
16.00	7.25	6.77	0.02
18.00	7.59	7.11	0.02
20.00	7.84	7.37	0.01
22.00	8.05	7.57	0.01
24.00	**8.24**	**7.76**	0.01
26.00	8.24	7.76	0.00
28.00	8.24	7.76	0.00
30.00	8.24	7.76	0.00
32.00	8.24	7.76	0.00
34.00	8.24	7.76	0.00
36.00	8.24	7.76	0.00
38.00	8.24	7.76	0.00
40.00	8.24	7.76	0.00
42.00	8.24	7.76	0.00
44.00	8.24	7.76	0.00
46.00	8.24	7.76	0.00
48.00	8.24	7.76	0.00
50.00	8.24	7.76	0.00
52.00	8.24	7.76	0.00
54.00	8.24	7.76	0.00
56.00	8.24	7.76	0.00
58.00	8.24	7.76	0.00
60.00	8.24	7.76	0.00
62.00	8.24	7.76	0.00
64.00	8.24	7.76	0.00
66.00	8.24	7.76	0.00
68.00	8.24	7.76	0.00
70.00	8.24	7.76	0.00
72.00	8.24	7.76	0.00
74.00	8.24	7.76	0.00
76.00	8.24	7.76	0.00
78.00	8.24	7.76	0.00
80.00	8.24	7.76	0.00
82.00	8.24	7.76	0.00
84.00	8.24	7.76	0.00
86.00	8.24	7.76	0.00
88.00	8.24	7.76	0.00
90.00	8.24	7.76	0.00
92.00	8.24	7.76	0.00
94.00	8.24	7.76	0.00
96.00	8.24	7.76	0.00
98.00	8.24	7.76	0.00
100.00	8.24	7.76	0.00
102.00	8.24	7.76	0.00
104.00	8.24	7.76	0.00
106.00	8.24	7.76	0.00
108.00	8.24	7.76	0.00
110.00	8.24	7.76	0.00
112.00	8.24	7.76	0.00
114.00	8.24	7.76	0.00
116.00	8.24	7.76	0.00
118.00	8.24	7.76	0.00
120.00	8.24	7.76	0.00
122.00	8.24	7.76	0.00
124.00	8.24	7.76	0.00
126.00	8.24	7.76	0.00
128.00	8.24	7.76	0.00
130.00	8.24	7.76	0.00
132.00	8.24	7.76	0.00
134.00	8.24	7.76	0.00
136.00	8.24	7.76	0.00
138.00	8.24	7.76	0.00
140.00	8.24	7.76	0.00
142.00	8.24	7.76	0.00
144.00	8.24	7.76	0.00
146.00	8.24	7.76	0.00
148.00	8.24	7.76	0.00
150.00	8.24	7.76	0.00
152.00	8.24	7.76	0.00
154.00	8.24	7.76	0.00
156.00	8.24	7.76	0.00
158.00	8.24	7.76	0.00
160.00	8.24	7.76	0.00
162.00	8.24	7.76	0.00
164.00	8.24	7.76	0.00
166.00	8.24	7.76	0.00
168.00	8.24	7.76	0.00

Summary for Pond 3P: UNDERGORUND INFILTRATION PIT

Inflow Area = 5,296 sf, 81.85% Impervious, Inflow Depth = 7.76" for 100-Y event
Inflow = 1.47 cfs @ 11.96 hrs, Volume= 3,425 cf
Outflow = 0.13 cfs @ 11.59 hrs, Volume= 3,425 cf, Atten= 91%, Lag= 0.0 min
Secondary = 0.13 cfs @ 11.59 hrs, Volume= 3,425 cf

Routing by Stor-Ind method, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs
Peak Elev= 102.13' @ 12.39 hrs Surf.Area= 1,400 sf Storage= 1,190 cf

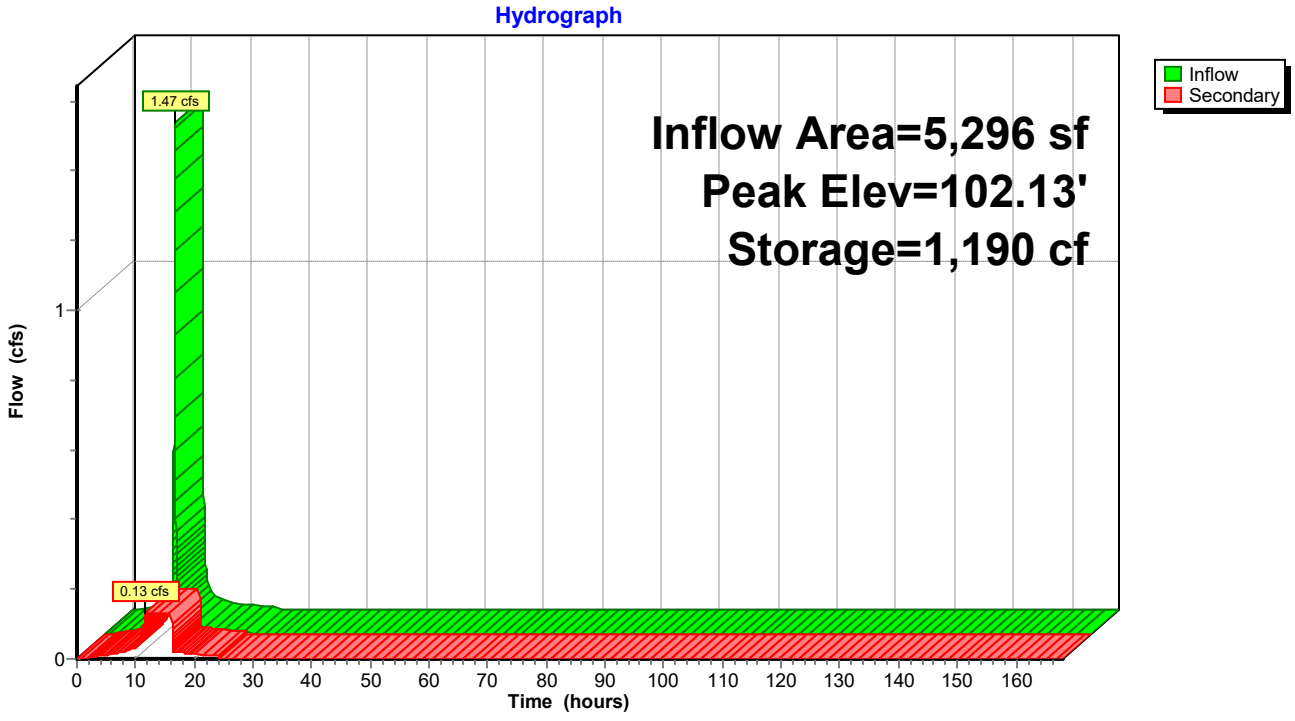
Plug-Flow detention time= 56.6 min calculated for 3,425 cf (100% of inflow)
Center-of-Mass det. time= 56.6 min (803.5 - 746.9)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	1,960 cf	**35.00'W x 40.00'L x 3.50'H Prismatoid** 4,900 cf Overall x 40.0% Voids

Device	Routing	Invert	Outlet Devices
#1	Secondary	100.00'	**4.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'

Secondary OutFlow Max=0.13 cfs @ 11.59 hrs HW=100.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.13 cfs)

Pond 3P: UNDERGORUND INFILTRATION PIT



Hydrograph for Pond 3P: UNDERGORUND INFILTRATION PIT

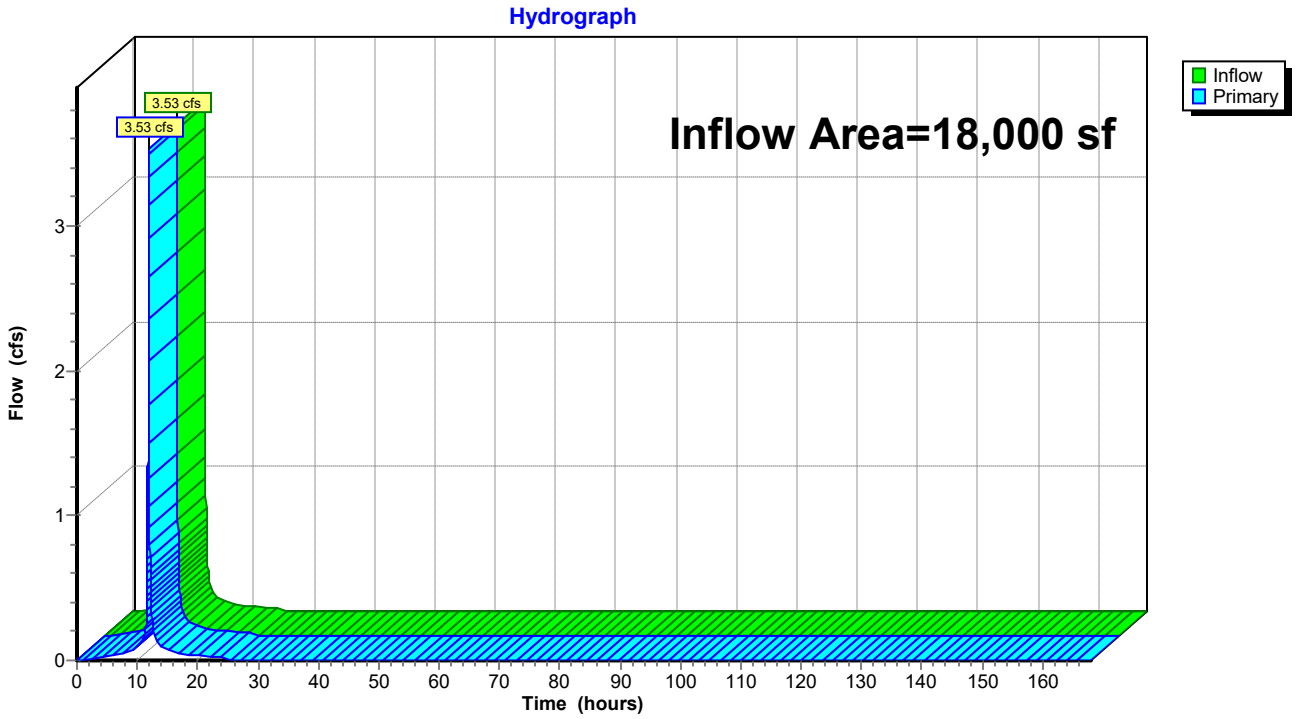
Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Secondary (cfs)
0.00	0.00	0	100.00	0.00
5.00	0.01	2	100.00	0.01
10.00	**0.04**	**6**	**100.01**	**0.04**
15.00	**0.03**	**467**	**100.83**	**0.13**
20.00	0.01	2	100.00	0.01
25.00	0.00	0	100.00	0.00
30.00	0.00	0	100.00	0.00
35.00	0.00	0	100.00	0.00
40.00	0.00	0	100.00	0.00
45.00	0.00	0	100.00	0.00
50.00	0.00	0	100.00	0.00
55.00	0.00	0	100.00	0.00
60.00	0.00	0	100.00	0.00
65.00	0.00	0	100.00	0.00
70.00	0.00	0	100.00	0.00
75.00	0.00	0	100.00	0.00
80.00	0.00	0	100.00	0.00
85.00	0.00	0	100.00	0.00
90.00	0.00	0	100.00	0.00
95.00	0.00	0	100.00	0.00
100.00	0.00	0	100.00	0.00
105.00	0.00	0	100.00	0.00
110.00	0.00	0	100.00	0.00
115.00	0.00	0	100.00	0.00
120.00	0.00	0	100.00	0.00
125.00	0.00	0	100.00	0.00
130.00	0.00	0	100.00	0.00
135.00	0.00	0	100.00	0.00
140.00	0.00	0	100.00	0.00
145.00	0.00	0	100.00	0.00
150.00	0.00	0	100.00	0.00
155.00	0.00	0	100.00	0.00
160.00	0.00	0	100.00	0.00
165.00	0.00	0	100.00	0.00

Summary for Link 5L: joint

Inflow Area = 18,000 sf, 88.58% Impervious, Inflow Depth = 5.56" for 100-Y event
Inflow = 3.53 cfs @ 11.96 hrs, Volume= 8,342 cf
Primary = 3.53 cfs @ 11.96 hrs, Volume= 8,342 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-168.00 hrs, dt= 0.01 hrs

Link 5L: joint



Hydrograph for Link 5L: joint

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00	104.00	0.00	0.00	0.00
2.00	0.01	0.00	0.01	106.00	0.00	0.00	0.00
4.00	0.03	0.00	0.03	108.00	0.00	0.00	0.00
6.00	0.04	0.00	0.04	110.00	0.00	0.00	0.00
8.00	0.05	0.00	0.05	112.00	0.00	0.00	0.00
10.00	**0.09**	0.00	**0.09**	114.00	0.00	0.00	0.00
12.00	**2.92**	0.00	**2.92**	116.00	0.00	0.00	0.00
14.00	0.09	0.00	0.09	118.00	0.00	0.00	0.00
16.00	0.06	0.00	0.06	120.00	0.00	0.00	0.00
18.00	0.04	0.00	0.04	122.00	0.00	0.00	0.00
20.00	0.03	0.00	0.03	124.00	0.00	0.00	0.00
22.00	0.03	0.00	0.03	126.00	0.00	0.00	0.00
24.00	0.03	0.00	0.03	128.00	0.00	0.00	0.00
26.00	0.00	0.00	0.00	130.00	0.00	0.00	0.00
28.00	0.00	0.00	0.00	132.00	0.00	0.00	0.00
30.00	0.00	0.00	0.00	134.00	0.00	0.00	0.00
32.00	0.00	0.00	0.00	136.00	0.00	0.00	0.00
34.00	0.00	0.00	0.00	138.00	0.00	0.00	0.00
36.00	0.00	0.00	0.00	140.00	0.00	0.00	0.00
38.00	0.00	0.00	0.00	142.00	0.00	0.00	0.00
40.00	0.00	0.00	0.00	144.00	0.00	0.00	0.00
42.00	0.00	0.00	0.00	146.00	0.00	0.00	0.00
44.00	0.00	0.00	0.00	148.00	0.00	0.00	0.00
46.00	0.00	0.00	0.00	150.00	0.00	0.00	0.00
48.00	0.00	0.00	0.00	152.00	0.00	0.00	0.00
50.00	0.00	0.00	0.00	154.00	0.00	0.00	0.00
52.00	0.00	0.00	0.00	156.00	0.00	0.00	0.00
54.00	0.00	0.00	0.00	158.00	0.00	0.00	0.00
56.00	0.00	0.00	0.00	160.00	0.00	0.00	0.00
58.00	0.00	0.00	0.00	162.00	0.00	0.00	0.00
60.00	0.00	0.00	0.00	164.00	0.00	0.00	0.00
62.00	0.00	0.00	0.00	166.00	0.00	0.00	0.00
64.00	0.00	0.00	0.00	168.00	0.00	0.00	0.00
66.00	0.00	0.00	0.00				
68.00	0.00	0.00	0.00				
70.00	0.00	0.00	0.00				
72.00	0.00	0.00	0.00				
74.00	0.00	0.00	0.00				
76.00	0.00	0.00	0.00				
78.00	0.00	0.00	0.00				
80.00	0.00	0.00	0.00				
82.00	0.00	0.00	0.00				
84.00	0.00	0.00	0.00				
86.00	0.00	0.00	0.00				
88.00	0.00	0.00	0.00				
90.00	0.00	0.00	0.00				
92.00	0.00	0.00	0.00				
94.00	0.00	0.00	0.00				
96.00	0.00	0.00	0.00				
98.00	0.00	0.00	0.00				
100.00	0.00	0.00	0.00				
102.00	0.00	0.00	0.00				

APPENDIX C
Volume Control Calculations

2Y storm Depth= 3.59 in

1- Existing:

Gorund Cover	**CN**	**S***	**Area**	**Runoff (in) step 1****	**Runoff Volume (cf) step 1*****
Pervious- assumed Meadow	71	4.085	6749	1.12	631
Meadow- assumed 20% of Impervious	71				
impervious- 80% of existing impervious	98	0.204	11251	3.36	3147
Total			**18000**		**3777**

*S=(1000/CN)-10
** Using equation Q=[(P-0.2S)^2]/(P+0.8S)
***Runoof Volume V= Qxarea/12

2- Proposed (total)

Gorund Cover	**CN**	**S***	**Area**	**Runoff (in) step 1****	**Runoff Volume (cf) step 1*****
Pervious- assumed grass cover	86	1.628	2056	2.18	373
impervious	98	0.204	15944	3.36	4459
Total			**18000**		**4832**

Difference in volume to be controlled=	4832	-	3777	1055	cf

3- Proposed controlled volume

Gorund Cover	**CN**	**S***	**Area**	**Runoff (in) step 1****	**Runoff Volume (cf) step 1*****
Pervious- assumed grass cover	86	1.628	961	2.18	174
impervious	98	0.204	4335	3.36	1212
Total			**18000**		**1387**

The controlled volume is greater than the required volume to be controlled. The requirements of section 19-303 are met.

BACK POCKET
Drainage Plans

LEGEND:

BUILDINGS
CONCRETE
SLOPES 15% OR >
TREES — 48" TREE
DEPRESSED CURB
PROPERTY LINE
WATER SERVICE — W —
SANITARY LATERAL — SAN —
WATER VALVE — WV
TELEPHONE POLE
WATER METER — WM
GAS METER — GM
CLEAN OUT — C.O.

NORTH

Tc1:
SHEET FLOW
LENGTH= 47 FT
SURFACE: PAVEMENT
SLOPE: AVERAGE: 3.73%

Tc2:
SHEET FLOW
LENGTH= 21 FT
SURFACE: PAVEMENT
SLOPE: AVERAGE: 3.57%

Tc3:
CONCENTRATED FLOW
LENGTH= 62 FT
SURFACE: GRASS
SLOPE: AVERAGE: 3.22%

Tc4:
CONCENTRATED FLOW
LENGTH= 19 FT
SURFACE: GRASS
SLOPE: AVERAGE: 21.0%

20' W. PUBLIC DRIVEWAY

EX. RETAINING

S 41°00'00" W 150.00'

TW 110.2 BW 104.8
TW 110.1 BW 104.3
TW 108.8 BW 103.9
TW 107.6 BW 102.8
IRON PIN(F)

PORTION OF EX. PAVED ALLEY TO REMAIN

Tc-1 Tc-2 Tc-3 Tc-4

EX. CLUSTER TREE

PORTION OF EXISTING PAVED ALLEY TO BE REMOVED

EXISTING 1 STORY GAS STATION BUILDING (TO BE DEMOLISHED) 1976 SF

FF 108.46
FF 108.42
FF 108.42

ALL EX. CONCRETE

EX.LIGHT TBR

EX. MONIT. WELL TBR

120.00'

N 49°00'00" W

S 49°00'00" E

150.00'

N 41°00'00" E

23.9'

DRAIANGE LIMITS

DRAINAGE AREA
A= 18,000 SF

ALL EXISTING PAVING

EX. CURBED ISLAND

EX.LIGHTS TBR

EX. MONIT. WELL TBR

EX.LIGHT & SIGN TBR

EXISTING CONC. WALK

EX. 12" TREE

EX. MH EX. MH

FAYETTE STREET

CENTERLINE

EAST 7TH AVENUE

TC 100.60

EX. SAN MH RIM 99.70

Ø UTIL. POLE

100.94 101.36 101.80

DISCHARGE LINE 1
POINT#1
ALONG PROPERTY LINE

LOCATION MAP

LOT AREA
18,000 SF (0.4132 AC)

TOTAL LOT AREA: 18,000 S.F (0.4132 AC).
AREA TO BE DISTURBED: 24,600 SF (0.56 AC)

IMPERVIOUS CALCULATIONS - EXISTING CONDITIONS

EXISTING BUILDING	1976 SQ. FT.
EXISTING CONCRETE	890 SQ. FT.
EXISTING PAVING	11197 SQ. FT.
TOTAL EXISTING BUILDING COVERAGE	1,976 SQ. FT. / 18,000 SF.= 11.0 %
TOTAL EXISTING IMPERVIOUS COVERAGE	14,063 SQ. FT. / 18,000 SF.= 78.1 %

SHEET INDEX

SHEET NUMBER	SHEET TITLE	REV
DR- 001	EXISTING DRAINAGE PLAN	A
DR-002	PROPOSED DRAINAGE PLAN	A

SOIL LEGEND:

SOIL SYMBOL	SOIL NAME & DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK
UugB	URBAN LAND– UDORTHENTS SCHIST & GNEISS COMPLEX 0 TO 8 PERCENT SLOPES	60"	20" – 99"

PROPERTY ADDRESS:
701 FAYETTE STREET

TAX PARCEL NO.
05-00-03296-00-2

CONSHOHOCKEN BORO
BLOCK 037 – UNIT 052

DB 5545–PAGE 1061

EXISTING DRAINAGE PLAN
FOR
701 FAYETTE STREET
CONSHOCKEN BOROUGH, MONTGOMERY CO., PA

CLIENT
MUN CHUNG
CGEM, LLC C/O
JOHN MANCINI
610-348-4101

1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428

SCALE : 1" = 10'

SERIAL NO. 2022-2093401
DESIGN STAGE ONLY

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

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND THE RULES AND REGULATIONS THERETO APPURTENANT

REVISIONS	REV. No.	DATE
1- REV. PER TWP REVIEW LETTER DATED 10/05/22	A	11/21/22

APPROVED BY:
COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER GEORGE S. MAALOUF

GME ENGINEERING
CIVIL AND SITE DESIGN SPECIALISTS
1117 CAROLINA AVE ○ WEST CHESTER ○ PENNSYLVANIA
PHONE - (610) 732-0707 ○ EMAIL- GEORGESMAALOUF1116GMAIL.COM
GMAALOUF@ALPHADESIGNS-PA.COM
www.alphadesigns-pa.com

SCALE: 1" =10'		DRAWN BY: G.S.M.	
DESIGNED BY: G.S.M.	CHECKED BY: G.S.M.	DRAWING NAME: EXDRAINAGEPLAN.DWG	
DATE: 08-24-2022	COMM. NO. 2022-249	SHEET DESI. DR-001	SHEET NO. 1 OF 2

Applicant Request for County Review

This request should be filled out by the applicant and submitted to the municipality where the application is being filed along with digital copies of all plan sets/information. Municipal staff will electronically file the application with the county, and a notice for the prompt payment of any fees will be emailed to the Applicant's Representative.

MONTGOMERY COUNTY PLANNING COMMISSION
MCPC
P.O. Box 311, Norristown, PA 19404-0311
Phone: 610-278-3722
Business Hours: 8:30 A.M. to 4:15 P.M.
www.planning.montcopa.org

Date:

Municipality: Conshohocken

Proposal Name: 701 Fayette Street Mixed-Use Development

Applicant Name: CGEM LLC c/o Mun Chung, Member

Address: 6060 Creekside Drive

City/State/Zip: Flourtown, PA 19031

Phone: 610-724-8969

Email: mrchung133@gmail.com

Applicant's Representative: Mark S. Danek, Esq.

Address: 1255 Drummers Lane, Suite 105

City/State/Zip: Wayne, PA 19087

Business Phone (required): 484-344-5429

Business Email (required): msd@mdanecklawfirm.com

Type of Review Requested:

(Check All Appropriate Boxes)

- ☒ Land Development Plan
- ☐ Subdivision Plan
- ☐ Residential Lot Line Change
- ☐ Nonresidential Lot Line Change
- ☐ Zoning Ordinance Amendment
- ☐ Zoning Map Amendment
- ☐ Subdivision Ordinance Amendment
- ☐ Curative Amendment
- ☐ Comprehensive / Other Plan
- Conditional Use
- ☐ Special Review*

(Not included in any other category - includes parking lot or structures that are not associated with new building square footage)

Type of Plan:

Tentative (Sketch)

Preliminary / Final

Type of Submission:

☒ New Proposal

☐ Resubmission*

*A proposal is NOT a resubmission if A) The proposed land use changes, or B) The amount of residential units or square footage proposed changes more than 40%, or C) The previous submission was over 5 years ago.

Zoning:

Existing District: BC

Special Exception Granted Yes No

Variance Granted Yes No For Subject to Settlement. Variance granted for impervious coverage due to existing conditions.

Plan Information:

Tax Parcel Number(s) 05-00-03296-00-2

Location 701 Fayette Street

Nearest Cross Street 7th Avenue

Total Tract Area .413 acres (18,000 sq ft)

Total Tract Area Impacted By Development .413 acres

(If the development is a building expansion, or additional building on existing development, or only impacts a portion of the tract, please provide a rough estimate of the land impacted, including associated yards, drives, and facilities.)

Land Use(s)	Number of New Lots	Number of New Units	Senior Housing Yes	Senior Housing No	Open Space Acres*	Nonresidential New Square Feet
Single-Family						
Townhouses/Twins						
Apartments		9		✓		
Commercial						
Industrial						
Office						
Institutional						
Other						

*Only indicate Open Space if it will be on a separate lot or deed restricted with an easement shown on the plan.

Additional Information:

RESET

Google Maps 702 Fayette St

Image capture: Oct 2021 © 2022 Google

701 Fayette St

All Street View & 360°

Google Maps 2 E 7th Ave

Image capture: Oct 2018 © 2022 Google

701 Fayette St

All Street View & 360°

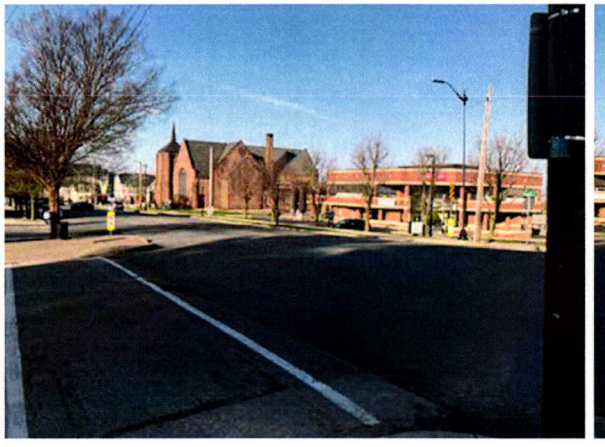
Google Maps 682 Fayette St

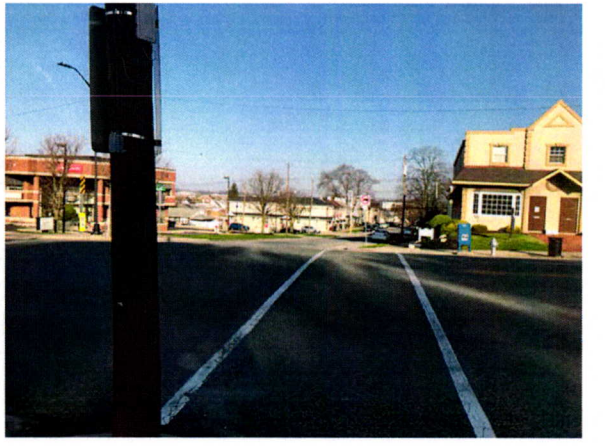
Image capture: Oct 2021 © 2022 Google

← 701 Fayette St

All Street View & 360°

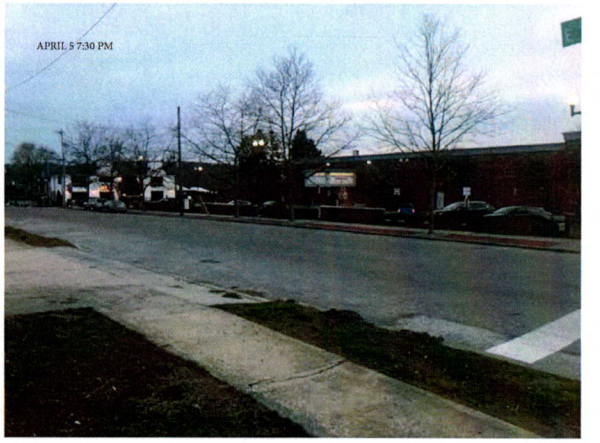

APRIL 5 8:00 AM





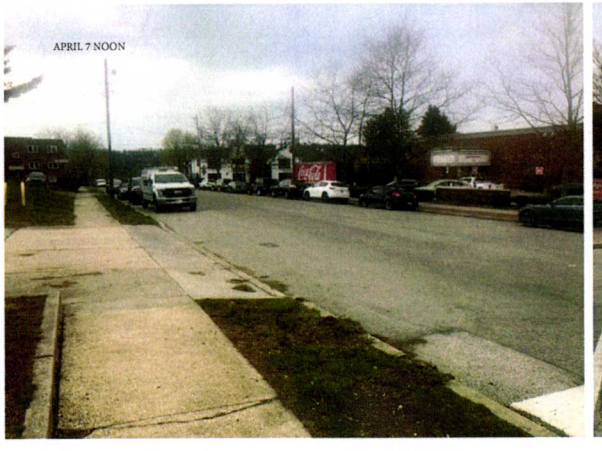

APRIL 5 NOON
7th Ave


APRIL 5 4:00 PM


APRIL 5 7:30 PM


APRIL 7 8:30 AM


CVS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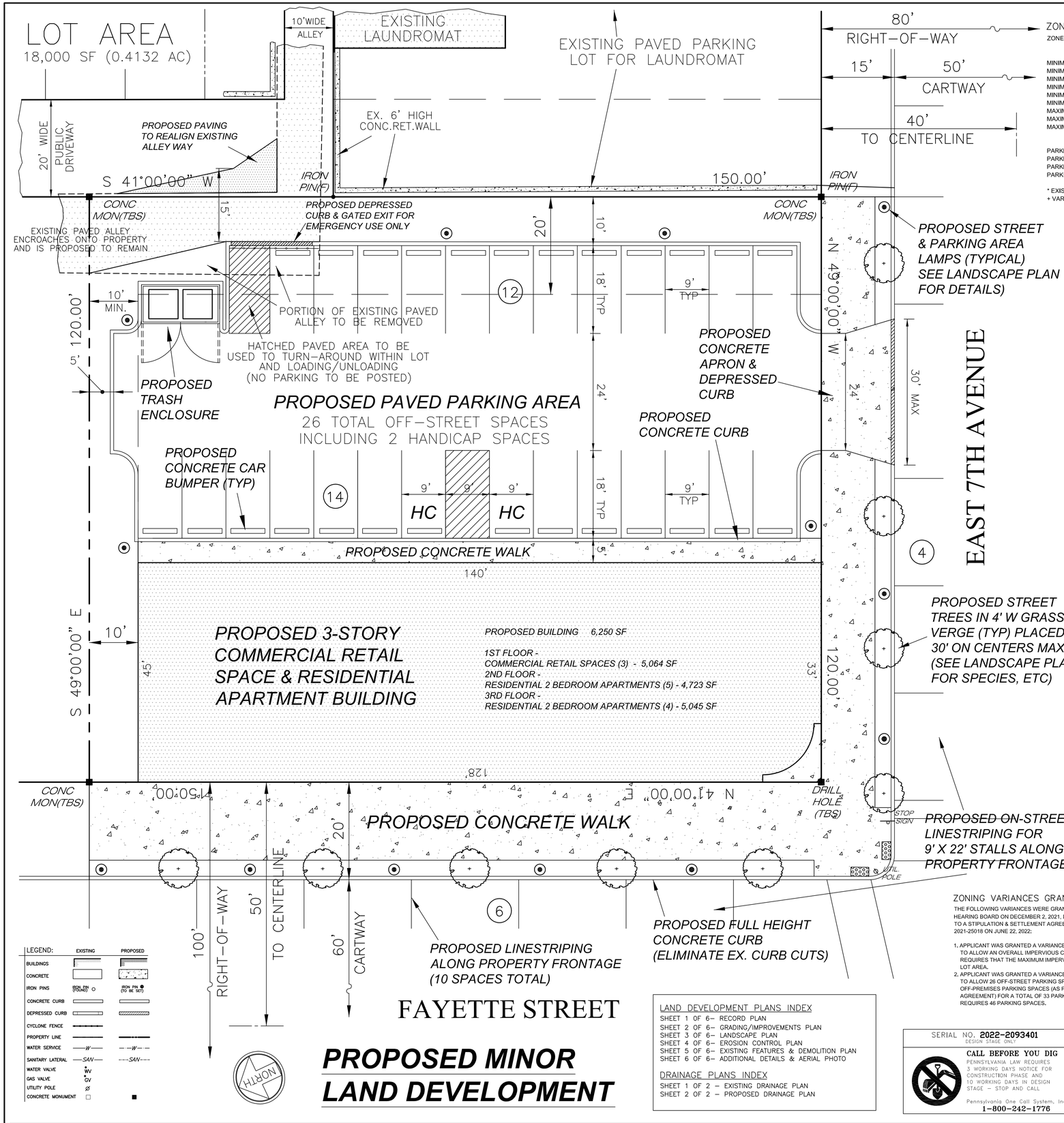
APRIL 7 4:30 PM



PROPOSED MINOR LAND DEVELOPMENT

LEGEND:

	EXISTING	PROPOSED
BUILDINGS		
CONCRETE		
IRON PINS	IRON PIN (FOUND) ○	IRON PIN ● (TO BE SET)
CONCRETE CURB		
DEPRESSED CURB		
CYCLONE FENCE		
PROPERTY LINE		
WATER SERVICE	—W—	— —W— —
SANITARY LATERAL	—SAN—	---SAN---
WATER VALVE	WV	
GAS VALVE	GV	
UTILITY POLE	Ø	
CONCRETE MONUMENT	□	■

LAND DEVELOPMENT PLANS INDEX

DRAINAGE PLANS INDEX

SERIAL NO. **2022-2093401**
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ZONING REQUIREMENTS

ZONED "BC" - RESIDENTIAL OFFICE DISTRICT

	REQUIRED	EXISTING	PROVIDED
MINIMUM LOT AREA	2,000 SF	18,000 SF	18,000 SF
MINIMUM LOT WIDTH	25 FT.	150 FT.	150 FT.
MINIMUM FRONT YARD (FAYETTE ST)	15 FT.or BACK WALK	64.0 FT.	0 FT. (BACK WALK)
MINIMUM SIDE YARD	10 FT.	23.9 FT.	10 FT.
MINIMUM SIDE YARD (E.7TH AVE)	15 FT.or BACK WALK	65.2 FT.	0 FT. (BACK WALK)
MINIMUM REAR YARD	20 FT.	21.0 FT.	75 FT.
MAXIMUM BUILDING HT	40 FT.	< 40 FT.	< 40 FT.
MAXIMUM BLDG COVER.	-- %	11.0 %	35.0%
MAXIMUM IMPERV COVER.	85 %	78.1 %	88.9 % +
PARKING SETBACKS (FROM REAR PROP LINES)	10 FT.	0 FT.*	10 FT.
PARKING SETBACKS (FROM SIDE PROP LINES)	5 FT.	0 FT.*	5 FT.
PARKING SETBACKS (FROM BUILDING)	5 FT.	0 FT.*	5 FT
PARKING REQUIREMENTS	26 SPACES	---	26 SPACES

* EXISTING NON-CONFORMITY
\+ VARIANCE GRANTED

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC SURVEY TAKEN FROM A SURVEY PERFORMED BY THIS OFFICE ON JULY 22, 2022.
2. TOPOGRAPHY SURVEY BASED ON AN ASSUMED BENCHMARK. TOP OF TRAVERSE NAIL ON THE SE'LY CORNER OF EAST 7TH AVE & FAYETTE ST. ASSUMED ELEVATION = 100,00
3. A PA-ONE CALL HAS BEEN PERFORMED BY THIS OFFICE ON 07/22/2022. THE SERIAL NO. IS 2022-2093401.
4. LOT IS SERVICED BY PUBLIC WATER & SEWER.
5. APPLICANT SHALL UTILIZE THE EXISTING SANITARY SEWER LATERAL SUBJECT TO INSPECTION BY THE CONSHOHOCKEN BOROUGH AUTHORITY.
6. SOILS ON THE SITE ARE TAKEN FROM THE NRCS WEBSOILSURVEY SITE.
7. PROPERTY IS TAX BLOCK 037 - UNIT 052 AND THE TOTAL LOT AREA IS 18,000 SQ. FT. (0.4132AC.)
8. CURRENT OWNER IS:
   CGEM, LLC
   6060 CREEKSIDE DRIVE
   FLOURTOWN, PA 19031
9. APPLICANT SHALL PLACE ALL UTILITIES UNDERGROUND.
10. THE PERMANENT REMOVAL OF TOPSOIL FROM LAND WITHIN THE BOROUGH IS PROHIBITED.
11. THE PERMIT HOLDER WILL NOTIFY THE BOROUGH ENGINEER IN ORDER TO OBTAIN INSPECTIONS AT LEAST 48 HOURS BEFORE THE INSPECTION IS TO BE MADE FOR INITIAL INSPECTION, ROUGH GRADING, DRAINAGE FACILITIES, BMP'S, SPECIAL STRUCTURES AND FINAL INSPECTION.
12. IT SHALL BE UNLAWFUL FOR ANY PERSON ENGAGED IN THE BUSINESS OF RECYCLING, COLLECTING OR DISPOSING OF RUBBISH OR GARBAGE, TO OPERATE ANY REFUSE DISPOSAL TRUCK, PARKING LOT SWEEPER, OR VACUUM TRUCK, OR TO COLLECT, LOAD, PICK UP, TRANSFER, UNLOAD, DUMP, DISCARD, SWEEP, VACCUM, OR DISPOSE OF ANY RUBBISH OR GARBAGE, WITHIN 100 FEET OF ANY RESIDENTIAL BUILDING BETWEEN THE HOURS OF 6:00 P.M. AND 7:00 A.M. OF THE FOLLOWING DAY.

WAIVERS REQUESTED:

1. APPLICANT IS REQUESTING A PARTIAL WAIVER FROM SECTION 22-306.A.(1) SHOWING EXISTING IMPROVEMENTS WITHIN 100 FEET OF THE SITE SUBJECT TO THE APPLICANT PROVIDING SUCH INFORMATION DEEMED NECESSARY BY THE BOROUGH ENGINEER, THE PLANS DO SHOW IMPROVEMENTS 40' +/- BEYOND THE PROPERTY, THE APPLICANT HAS PROVIDED AN AERIAL PHOTO TO SHOW IMPROVEMENTS 100' FROM THE SITE.
2. APPLICANT IS REQUESTING A WAIVER FROM SEC. 22-404.3.F. & 22-421.5. TO PERMIT A BUFFER CONSISTANT WITH THE RELATED VARIANCE GRANTED BY THE ZONING HEARING BOARD.
3. APPLICANT IS REQUESTING A WAIVER FROM SEC. 22-409.2. TO PERMIT GRADING WITHIN 3' OF THE PROPERTY LINES AND RIGHTS-OF-WAY.
4. APPLICANT IS REQUESTING A PARTIAL WAIVER FROM SEC, 22-804 FROM THE REQUIRED DEDICATION OF PARK OR RECREATIONAL FACILITIES/LAND. THE APPLICANT WILL PROVIDE A FEE-IN-LIEU-OF.
5. APPLICANT IS REQUESTING A WAIVER FROM SEC. 22-421.4. TO PERMIT THE PROPOSED TREES TO BE PLANTED WITHIN THE RIGHT-OF-WAY, IN THE PROPOSED 4' WIDE GRASS VERGE & NOT 5' OUTSIDE RIGHT-OF-WAY.

IMPERVIOUS CALCULATIONS - EXISTING CONDITIONS

EXISTING BUILDING	1976 SQ. FT.
EXISTING CONCRETE	890 SQ. FT.
EXISTING PAVING	11197 SQ. FT.
TOTAL EXISTING BUILDING COVERAGE	1,976 SQ. FT. / 18,000 SF.= 11.0 %
TOTAL EXISTING IMPERVIOUS COVERAGE	14,063 SQ. FT. / 18,000 SF.= 78.1 %

IMPERVIOUS CALCULATIONS - PROPOSED CONDITIONS

PROPOSED BUILDING	6,300 SQ. FT.
PROPOSED WALKS	700 SQ. FT.
PROPOSED PAVING	8,325 SQ. FT.
EXISTING PAVING IN ALLEY	619 SQ. FT.
TOTAL BUILDING COVERAGE	6,300 SQ. FT. / 18,000 SF.= 35.0 %
TOTAL IMPERVIOUS COVERAGE	15,944 SQ. FT. / 18,000 SF.= 88.6 %

ZONING VARIANCES GRANTED:

THE FOLLOWING VARIANCES WERE GRANTED BY THE CONSHOHOCKEN ZONING HEARING BOARD ON DECEMBER 2, 2021, DECISION # Z- 2021-09 AND SUBJECT TO A STIPULATION & SETTLEMENT AGREEMENT, LAND USE APPEAL, DOCKET # 2021-25018 ON JUNE 22, 2022:

1. APPLICANT WAS GRANTED A VARIANCE FROM THE TERMS OF SECTION 27- 1303.F TO ALLOW AN OVERALL IMPERVIOUS COVERAGE OF 88.9 % WHERE THE ORDINANCE REQUIRES THAT THE MAXIMUM IMPERVIOUS COVER CANNOT EXCEED 85 % OF THE LOT AREA.
2. APPLICANT WAS GRANTED A VARIANCE FROM THE TERMS OF SECTION 27- 2002 TO ALLOW 26 OFF-STREET PARKING SPACES AND A FEE-IN-LIEU FOR THE 7 OFF-PREMISES PARKING SPACES (AS PER THE NOTED STIPULATION & SETTLEMENT AGREEMENT) FOR A TOTAL OF 33 PARKING SPACES WHERE THE ORDINANCE REQUIRES 46 PARKING SPACES.

PROPERTY ADDRESS:
701 FAYETTE STREET

TAX PARCEL NO.
05-00-03296-00-2

CONSHOHOCKEN BORO
BLOCK 037 – UNIT 052

DB 6136–PAGE 1408

LOCATION MAP

I, MUN CHUNG, BEING A MEMBER OF CGEM, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY (THE "COMPANY") CERTIFY THAT THE COMPANY IS THE OWNER OF THE LAND DESIGNATED ON THIS PLAN AND THAT THE COMPANY DESIRES TO BE DULY RECORDED.
WITNESS MY HAND AND SEAL THIS _____ DAY OF _____, 20___.

CGEM, LLC

BY:_____
MUN CHUNG, MEMBER

COMMONWEALTH OF PENNSYLVANIA:
***COUNTY OF MONTGOMERY:** SS*

ON THIS THE _____DAY OF _____, 2019, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, PERSONALLY APPEARED MUN CHUNG, WHO ACKNOWLEDGED HIMSELF TO BE A MEMBER OF CGEM, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY, AND THAT HE, AS SUCH MEMBER, BEING AUTHORIZED TO DO SO, EXECUTED THIS PLAN ON BEHALF OF THE LIMITED LIABILITY COMPANY BY HIMSELF AS A MEMBER, THAT SAID LIMITED LIABILITY COMPANY IS THE OWNER OF THE DESIGNATED LAND, AND THAT THE LIMITED LIABILITY COMPANY DESIRES THE FOREGOING PLAN TO BE DULY RECORDED.

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

NOTARY PUBLIC (SEAL)
MY COMMISSION EXPIRES:

SURVEYOR'S CERTIFICATION

THIS IS TO STATE THAT THIS PLAN REPRESENTS A SURVEY PERFORMED BY ME OR UNDER MY SUPERVISION, THAT ALL MONUMENTATION SHOWN THEREON EXIST AS LOCATED AND THAT THE DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

REGISTERED PROFESSIONAL LAND SURVEYOR

(SEAL)

ENGINEER'S CERTIFICATION

THIS IS TO STATE THAT THESE LAND DEVELOPMENT PLANS WERE PREPARED BY ME OR UNDER MY SUPERVISION, THAT ALL INFORMATION SHOWN THEREON EXIST AS SHOWN AND THAT THE DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

REGISTERED PROFESSIONAL ENGINEER

(SEAL)

REVIEWED BY CONSHOHOCKEN BOROUGH ENGINEER ON THIS_____ DAY OF _____, 20___.

BOROUGH ENGINEER DATE

APPROVED BY THE BOROUGH COUNCIL OF CONSHOHOCKEN THIS_____ DAY OF _____, 20___.

PRESIDENT

SECRETARY

RECORDED THIS _____DAY OF _____, 20 ___, IN THE OFFICE FOR THE RECORDING OF DEEDS, IN AND FOR THE COUNTY OF MONTGOMERY IN NORRISTOWN, PENNSYLVANIA IN PLAN BOOK_____PAGE_____.

RECORDER

MCPC NO.
PROCESSED AND REVIEWED REPORT PREPARED BY MONTGOMERY COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITY PLANNING CODE.

CERTIFIED THIS DATE _____

FOR THE DIRECTOR

MONTGOMERY COUNTY PLANNING COMMISSION
MONTGOMERY COUNTY
PLANNING COMMISSION NO.

0' 10' 20' 30'

REVISED 11/30/2022 AS PER BORO REVIEWS

APPLICANT:
MUN CHUNG
CGEM, LLC C/O
JOHN MANCINI
1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428
610-348-4101

PREPARED FOR:

CGEM, LLC
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

RECORD PLAN

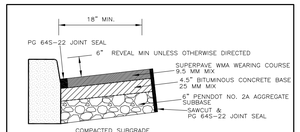
BORUSIEWICZ
SURVEYORS AND SITE PLANNERS
718 GRAVEL PIKE
COLLEGEVILLE, PA 19426
610-941-7181 EMAIL TBORUSIEWICZ@AOL.COM

FILE NO.: BA2466 | DATE: 07/22/22 | SCALE: 1 INCH = 10 FEET | SHEET NO.: 1 OF 6

LEGEND:

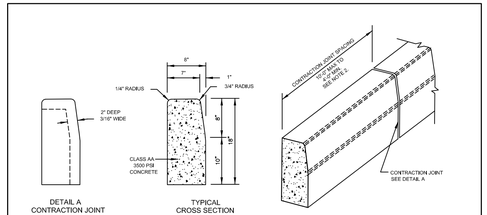
	EXISTING	PROPOSED
BUILDINGS		
CONCRETE		
IRON PINS	IRON PIN (FOUND) ○	IRON PIN (TO BE SET) ●
CONCRETE CURB		
DEPRESSED CURB		
CYCLONE FENCE		
PROPERTY LINE		
WATER SERVICE	—W—	—W—
SANITARY LATERAL	—SAN—	—SAN—
WATER VALVE	WV	
GAS VALVE	GV	
UTILITY POLE	⌀	
CONCRETE MONUMENT	□	■

NOTE:
THE PROPERTY CURRENTLY HAS CONNECTIONS TO BOTH THE PUBLIC WATER AND THE PUBLIC SEWER. THE APPLICANT WOULD LIKE TO UTILIZE THE EXISTING CONNECTIONS BUT MAY NEED TO REROUTE THE EXISTING LATERALS TO ACCOMMODATE THE LOCATION OF THE NEW BUILDING. THE EXISTING LATERAL CONNECTIONS NEED TO BE DETERMINED PRIOR TO DEMOLITION OF THE BUILDING FOR THE EXACT LOCATION OF EACH.



GUTTER & ROADWAY RESTORATION DETAIL
NOT TO SCALE

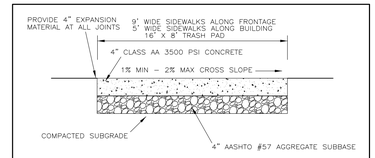
NOTES:
1. ROADWAY RESTORATIONS SHALL BE PERFORMED ALONG STRAIGHT SAWCUT.
2. FAILURES IN THE EXISTING PAVEMENT MAY REQUIRE ANOTHER SAWCUT BE MADE IN ORDER TO INCORPORATE THE IRREGULARITIES INTO THE RESTORATION AREA.
3. ROADWAY RESTORATIONS SHALL INCLUDE AREAS FROM WHICH EXISTING PIPES, PLATES, BRICKS, CHANNELS, ETC. HAVE BEEN REMOVED.
4. ALL PRE-EXISTING PAVEMENT MARKING SHALL REPLACED INKIND



PLAIN CEMENT CONCRETE CURB DETAIL
N.T.S.

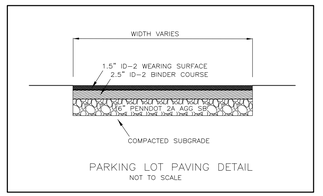
NOTES:
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408/2000, SECTION 630 FOR PLAIN CEMENT CONCRETE CURB AND DEPRESSED CURB, SECTION 640 FOR PLAIN CEMENT CONCRETE GUTTER AND SECTION 641 FOR PLAIN CEMENT CONCRETE CURB GUTTER.
2. SPACE CONTRACTION JOINTS IN UNIFORM LENGTHS OR SECTIONS.
3. PLACE 3/4" PREMOLDED EXPANSION JOINT FILLER MATERIAL AT STRUCTURES AND AT THE END OF THE WORK DAY. CUT MATERIAL TO CONFORM TO AREA ADJACENT TO CURB OR TO CONFORM TO CROSS SECTIONAL AREA OF CURB.
4. SEE RC-60M FOR PLAIN CEMENT CONCRETE CURB SLOPED TOP TREATMENT AT END OF STRUCTURES.
5. ALL CONCRETE IS TO BE CLASS AA, 3500 PSI
6. DEPRESSED CURB SHALL BE SLOPED 1/4" PER FOOT TOWARDS THE STREET.
7. CURB REPLACEMENT SHALL EXTEND TO THE NEAREST JOINT. SHOULD THE NEAREST JOINT EXTEND ACROSS A PROPERTY THE CURB MAY BE SAWCUT AT A LOCATION TO BE AND MARKED OUT BY THE BOROUGH.
8. CONTRACTOR SHALL PROVIDE EROSION CONTROLS TO CONTAIN OPEN EXCAVATIONS AND PROTECT THE NEAREST DOWNSTREAM INLET.
9. PROJECTS REQUIRING ONE (1.0) CUBIC YARD (CY) OR GREATER SHALL USE PLANT MIX CONCRETE DELIVERED BY A CONCRETE MIXING TRANSPORT TRUCK. 1.0 CY OF CONCRETE YIELDING APPROXIMATELY 27LF OF STANDARD CONCRETE CURB.

* THIS DETAIL IS THE STANDARD PENNDOT CONCRETE CURB CROSS SECTION. THE DIMENSIONS SHOWN DO NOT REFLECT THE DESIRED CURB REVEAL. ALL CURB SHALL HAVE A 6" REVEAL UNLESS OTHERWISE DIRECTED.

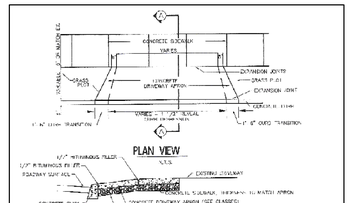


CEMENT CONCRETE PADS & SIDEWALK DETAIL
N.T.S.

NOTES:
1. ALL CONCRETE IS TO BE CLASS AA, 3500 PSI
2. CONCRETE SIDEWALK SHALL BE SLOPED A MINIMUM OF 1.0% AND A MAXIMUM OF 2% TOWARDS THE TOP OF CURB
3. CONTRACTOR SHALL PROVIDE EROSION CONTROLS TO CONTAIN OPEN EXCAVATIONS AND PROTECT THE NEAREST DOWNSTREAM INLET
4. PROJECTS REQUIRING ONE (1.0) CUBIC YARD (CY) OR GREATER SHALL USE PLANT MIXED CONCRETE DELIVERED BY A CONCRETE MIXING TRANSPORT TRUCK. 1.0 CY OF CONCRETE YIELDS APPROXIMATELY 15 LINEAR FEET OF 9' WIDE SIDEWALK OR 20 LINEAR FEET OF 4' WIDE SIDEWALK



PARKING LOT PAVING DETAIL
NOT TO SCALE



DRIVEWAY APRON & CURB DEPRESSION
(APPLICABLE WITH STANDARD CB-1)
N.T.S.

NOTES:
1. ALL CONCRETE IS TO BE CLASS AA, 3500 PSI
2. DEPRESSED CURB SHALL BE SLOPED 1/4" PER FOOT TOWARDS THE STREET.
3. CONCRETE SHALL BE ALLOWED TO CURE FOR SEVEN (7) DAYS.
4. USE OF "HIGH EARLY" CONCRETE MAY BE APPROVED BY THE BOROUGH INSPECTOR.
5. MONOLITHIC POURS SHALL ONLY BE PERMITTED BY SPECIAL EXCEPTION, AND ARE SUBJECT TO APPROVAL BY THE BOROUGH.
6. CONTRACTOR SHALL PROVIDE EROSION CONTROLS TO CONTAIN OPEN EXCAVATIONS AND PROTECT THE NEAREST DOWNSTREAM INLET.
7. PROJECTS REQUIRING ONE (1.0) CUBIC YARD (CY) OR GREATER SHALL USE PLANT MIXED CONCRETE DELIVERED BY A CONCRETE MIXING TRANSPORT TRUCK. 1.0 CY YIELDS APPROXIMATELY 54 SQUARE FEET OF 6" THICK APRON OR 40 SQUARE FEET OF 8" THICK APRON.

DRIVEWAY APRON CLASSES - MINIMUM STANDARDS:
1. RESIDENTIAL - 6" THICKNESS WITH 6X6 - W1.4/W1.4 WIREMESH REINFORCEMENT.
2. COMMERCIAL - 8" THICKNESS WITH 6X6 - W2.1/W2.1 WIREMESH REINFORCEMENT
3. INDUSTRIAL - DESIGN TO BE PROVIDED TO BOROUGH ENGINEER

MAINTENANCE OF ROOF DRAINS & DOWNSPOUTS
AFTER SIGNIFICANT RAINFALL EVENTS, OR AS NEEDED REMOVE ANY ACCUMULATED DEBRIS THAT MAY BE CLOGGING THE GUTTERS OR DOWNSPOUTS. ALL GUTTERS SHALL BE EQUIPPED WITH LEAF GUARDS OR CLEANED AS REQUIRED.

CONSHOHOCKEN BOROUGH STANDARD NOTES

1. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE QUALITY AND CORRECTNESS OF COMPLETED WORK. THE PROPERTY OWNER MAY DESIGNATE A CONTRACTOR, CONSULTANT OR OTHER AGENT TO COORDINATE INSPECTIONS WITH THE BOROUGH. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL OUTSIDE CONSULTANT FEES INCURRED BY THE BOROUGH.
2. ANY COMPLETED WORK THAT DOES NOT COMPLY WITH APPLICABLE STANDARDS SUCH AS THE AMERICANS WITH DISABILITIES ACT (ADA), PENNDOT SPECIFICATIONS AND CONSTRUCTION STANDARDS, OR THE BOROUGH OF CONSHOHOCKEN TYPICAL DETAILS SHALL BE REMOVED AND REPLACED. PROPERTY OWNERS ARE ENCOURAGED TO WITHOLD PAYMENT FOR WORK PERFORMED UNTIL ALL WORK AND RESTORATIONS ARE ACCEPTED BY THE BOROUGH IN WRITING.
3. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ENSURING COMPLIANCE WITH THE BOROUGH STORMWATER MANAGEMENT ORDINANCE. SPECIFICALLY, ALL WORK SITES SHALL BE PROTECTED FROM EROSION AND SEDIMENT RUNNOFF IN ACCORDANCE WITH MONTGOMERY COUNTY CONSERVATION DISTRICT REQUIREMENTS. FAILURE TO INSTALL AND MAINTAIN ACCEPTABLE EROSION CONTROLS WILL RESULT IN WORK STOPPAGES AND FINES IN ACCORDANCE WITH THE BOROUGH ORDINANCE.
4. EROSION CONTROL INLET PROTECTION SHALL BE INSTALLED IN THE NEAREST DOWNSTREAM INLET OF ALL WORK SITES. PIPE TRENCHES SHALL BE PUMPED THROUGH A WATER FILTER BAG.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT. THE BOROUGH INSPECTOR WILL VERIFY THAT THE APPROPRIATE CONSTRUCTION DETAILS ARE BEING FOLLOWED AND THAT THE APPROPRIATE METHODS ARE BEING USED. THE BOROUGH INSPECTOR DOES NOT APPROVE ANY PHYSICAL PRODUCT UNTIL THE WORK IS COMPLETE. ANY PERCEIVED APPROVAL OF LAYOUT, FORMWORK, ETC., DOES NOT ABSOLVE THE CONTRACTOR FROM ENSURING THAT THE FINAL PRODUCT COMPLIES WITH ALL APPLICABLE STANDARDS.
6. ANY EXISTING FEATURES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE OWNER AT NO COST TO THE BOROUGH.

SOIL LEGEND:

SOIL SYMBOL	SOIL NAME & DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK
UugB	URBAN LAND- UDORTHENTS SCHIST & GNEISS COMPLEX 0 TO 8 PERCENT SLOPES	60"	20" - 99"

SERIAL NO. 2022-2093401
DESIGN STAGE ONLY
CALL BEFORE YOU DIG
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP AND CALL
Pennsylvania One Call System, Inc
1-800-242-1776

0' 10' 20' 30'

REVISED 11/30/2022 AS PER BORO REVIEWS

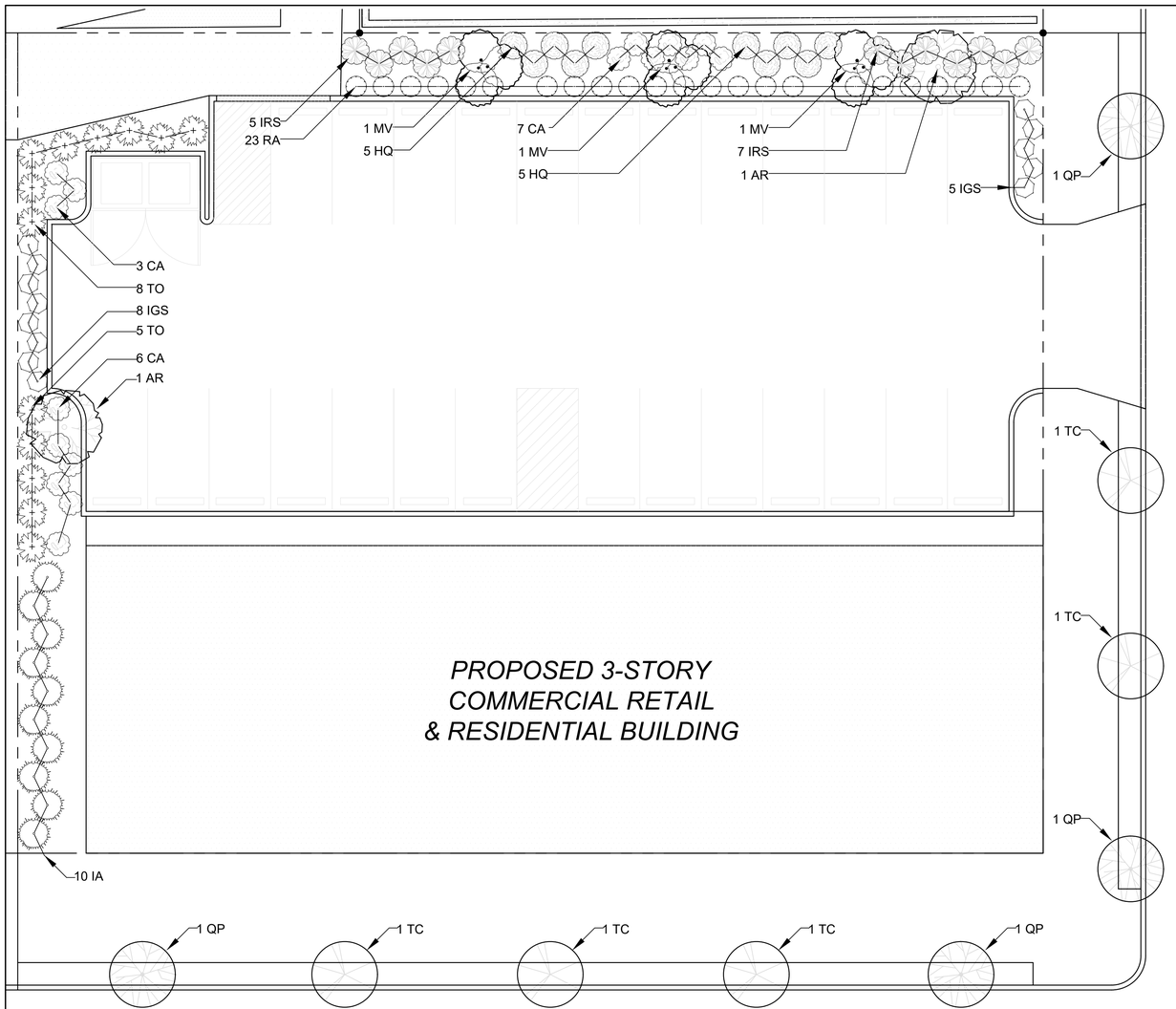
APPLICANT:
MUN CHUNG
CGEM, LLC C/O
JOHN MANCINI
1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428
610-348-4101

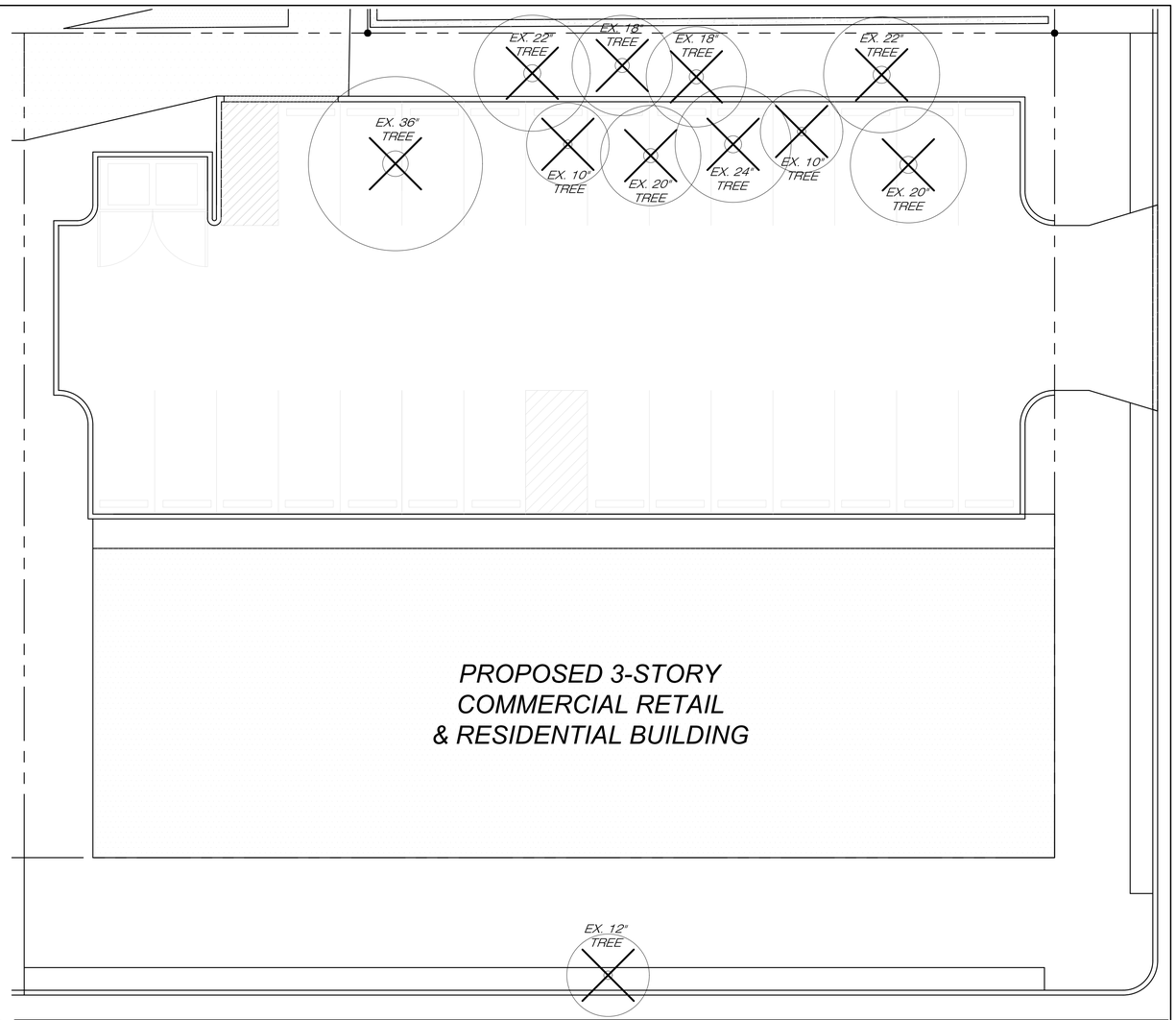
PREPARED FOR:
CGEM, LLC
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

GRADING/IMPROVEMENTS PLAN

BORUSIEWICZ
SURVEYORS AND SITE PLANNERS
718 GRAVEL PIKE
COLLEGEVILLE, PA 19426
610-941-7181 EMAIL TBORUSIEWICZ@AOL.COM

FILE NO.:	DATE:	SCALE:	SHEET NO.:
BA2466	07/22/22	1 INCH = 10 FEET	2 OF 6





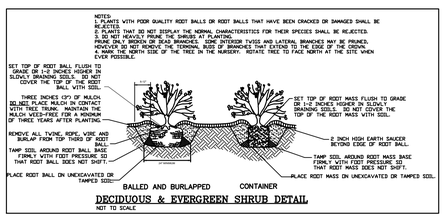
PLANTING PLAN

PLANT SCHEDULE

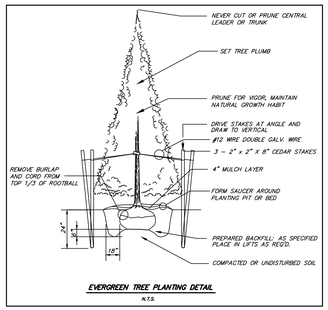
CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
AR	2	ACER RUBRUM	RED MAPLE	3-1/2" CAL
MV	3	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	7'-8'
TC	5	TILIA CORDATA 'GREENSPIRE'	LITTLELEAF LINDEN	3-1/2" CAL
QP	4	QUERCUS PHELLOS	WILLOW OAK	3-1/2" CAL
SHRUBS				
CA	16	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	3 GAL.
HQ	10	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3 GAL.
IGS	13	ILEX GLABRA 'SHAMROCK'	INKBERRY HOLLY	3 GAL.
IRS	12	ILEX VERTICILLATA 'RED SPRITE'	WINTERBERRY HOLLY	3 GAL.
IA	10	ILEX X AQUIPERNYI 'DRAGON LADY'	DRAGON LADY HOLLY	6 FT.
RA	23	RHUS AROMATICA 'GRO LOW'	GROW LOW SUMAC	3 GAL.
TO	13	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	6 FT.

PLANTING NOTES:

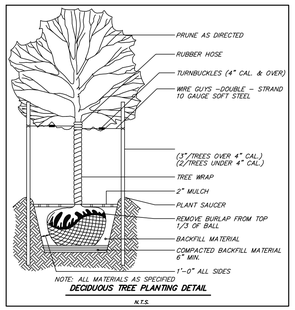
1. ALL EXISTING VEGETATION IS TO BE PROTECTED FROM DAMAGE UNLESS THEY ARE LABELED "TO BE REMOVED". PROVIDE, INSTALL AND MAINTAIN WOODCHIP TREE ROOT PROTECTION AND TREE PROTECTION FENCING AT A MINIMUM OF 15' FROM CANOPY/DRIPLINE, AS SHOWN ON THE PLANS AND DETAILS FOR THE LIFE OF THE WORK OR UNTIL EQUIPMENT ACCESS IS NO LONGER NEEDED. REPAIR OR REPLACE DAMAGED MATERIALS WITH COMPARABLE MATERIALS AS DETERMINED BY LANDSCAPE ARCHITECT, AT NO EXPENSE TO THE OWNER.
2. CONTRACTOR TO CALL PA ONE CALL PRIOR TO ANY SITE DISTURBANCE. CONTRACTOR IS LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, WATER AND SEWER LINES. TREES SHALL BE LOCATED A MINIMUM OF TEN (10) FEET FROM UTILITY LINES.
3. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND AS PER CURRENT EDITION OF ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK.
4. THE LANDSCAPE CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR A PERIOD OF TWO (2) FULL YEARS AFTER THE DATE OF ACCEPTANCE. UNSATISFACTORY PLANT MATERIAL (IN THE OPINION OF THE LANDSCAPE ARCHITECT) SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES AT NO COST TO THE OWNER.
5. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO ADEQUATELY AND PROPERLY MAINTAIN THE LANDSCAPED AREAS DURING THE WARRANTY PERIOD, WHICH RESPONSIBILITY SHALL INCLUDE WATERING, CLEANING OF WEEDS AND DEBRIS, PRUNING AND TRIMMING, REPLACEMENT OF DEAD OR DISEASED PLANTINGS, AND FERTILIZING TO MAINTAIN HEALTHY GROWTH.
6. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND QUANTITY..
7. PLACE TOPSOIL TO A DEPTH OF 6" AT LAWNS AND 12" AT PLANT BEDS, AS NEEDED TO BRING LAWNS AND PLANTING BEDS TO THE GRADES AS SHOWN ON THE PLANS. TILL AND RAKE TO A SMOOTH, EVEN GRADE CONFORMING TO A DEPTH OF 18" AT THE REQUIREMENTS OF THE GRADING PLANS. REMOVE ROCKS, STONES AND DEBRIS WITH DIMENSION EXCEEDING 3/4 INCH. PROVIDE AND INCORPORATE ORGANIC MATTER THROUGHOUT PRIOR TO PLANTING. NO TOPSOIL IS TO BE REMOVED FROM THE SITE.
8. ALL LANDSCAPE AREAS TO BE MULCHED WITH 3" OF TRIPLE-SHREDDED BARK MULCH, NOT TO COME INTO CONTACT WITH THE STEMS OR TRUNKS OF THE PLANTS.
9. ALL DISTURBED AREAS NOT OTHERWISE PLANTED ARE TO BE SEEDED WITH THE FOLLOWING SEED MIXTURE: 60% IMPROVED KENTUCKY BLUEGRASS VARIETIES (PROVIDE A MINIMUM OF 2 AND A MAXIMUM OF 5 VARIETIES, WITH NO MORE THAN 50). 25% IMPROVED CHEWINGS TYPE FESCUE (PROVIDE A MINIMUM OF 1 AND A MAXIMUM OF 3 VARIETIES). 15% IMPROVED PERENNIAL RYEGRASS VARIETIES (PROVIDE A MINIMUM OF 1 AND A MAXIMUM OF 3 VARIETIES). CONTRACTOR IS TO VERIFY SEEDING QUANTITY PRIOR TO BID.
10. THE LANDSCAPE CONTRACTOR SHALL STAKEOUT PLANT LOCATIONS IN THE FIELD, INCLUDING ALL TREES AND MARK THE OUTLINES OF SHRUB BEDS AND MAJOR PLANTS. THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL OBSERVE THESE LOCATIONS FOR APPROVAL PRIOR TO PLANTING. THE LANDSCAPE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AS REQUESTED BY THE LANDSCAPE ARCHITECT. NOTIFY THE LANDSCAPE ARCHITECT AT LEAST THREE (3) BUSINESS DAYS IN ADVANCE FOR REVIEW OF STAKING.
11. NO DECIDUOUS SHADE TREES WILL BE LOCATED CLOSER THAN TEN (10) FEET TO SANITARY SEWER OR WATER FACILITIES.
12. NO PLANTS, EXCEPT GROUND COVER SHALL BE PLANTED LESS THAN TWO (2) FEET FROM A STRUCTURE, WALK OR CURBLINE.
13. IF EXISTING TREES 6"+ IN CALIPER ARE REMOVED FROM THE SITE, REPLACEMENT TREES (MIN. 3.5" CAL.) MUST BE PROVIDED.



DECIDUOUS & EVERGREEN SHRUB DETAIL
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL
N.T.S.



DECIDUOUS TREE PLANTING DETAIL
N.T.S.

TREE REMOVAL PLAN

TREE REPLACEMENT CALCULATION

11 TREES EXIST ON LOT
11 TREES TO BE REMOVED
0 TREES TO BE IMPACTED
11 TOTAL TREES TO BE AFFECTED
11 COMPENSATORY TREES SHALL BE PLANTED ON THIS LOT

NOTES:
1. THIS PLAN IDENTIFIES EXISTING TREES TO BE REMOVED. SEE "EXISTING FEATURES AND DEMOLITION PLAN" FOR ADDITIONAL DEMOLITION INFORMATION.
2. SEE PLANTING PLAN AND PLANT SCHEDULE ON THIS SHEET FOR LOCATION, SPECIES, AND SIZE OF REPLACEMENT TREES.
3. REPLACEMENT TREES TO BE 3-1/2" CALIPER.

SOIL LEGEND:

SOIL SYMBOL	SOIL NAME & DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK
UugB	URBAN LAND- UDORTHENTS SCHIST & GNEISS COMPLEX 0 TO 8 PERCENT SLOPES	60"	20" - 99"

NORTH

0' 10' 20' 30'

PREPARED BY:

JSLA DESIGN
JOHN SHANDRA LANDSCAPE ARCHITECTURE
2999 HORSESHOE DRIVE, COLLEGEVILLE, PA 19426
jshandra@gmail.com ◦ 610-630-4599

REGISTERED LANDSCAPE ARCHITECT
PENNSYLVANIA
JOHN SHANDRA
REGISTRATION NUMBER: LA 002922

PA LICENSE #: LA-002922

11/30/2022 – AS PER BORO REVIEWS

APPLICANT:
MUN CHUNG
EM INDUSTRIES C/O
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610-348-4101

PREPARED FOR:
CGEM LLC
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

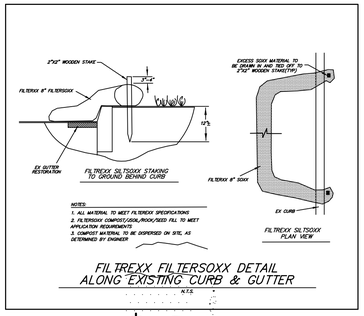
LANDSCAPE PLAN

BORUSIEWICZ
SURVEYORS AND SITE PLANNERS
718 GRAVEL PIKE
COLLEGEVILLE, PA 19426
610-941-7181 EMAIL TBORUSIEWICZ@AOL.COM

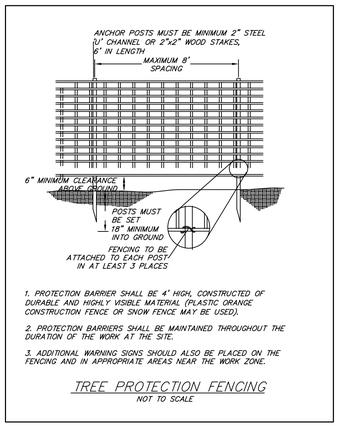
FILE NO.:	DATE:	SCALE:	SHEET NO.:
BA2466	7/22/22	1 INCH = 10 FEET	3 OF 6

LEGEND:

	EXISTING	PROPOSED
BUILDINGS		
CONCRETE		
IRON PINS	IRON PIN (FOUND) ○	IRON PIN ● (TO BE SET)
DEPRESSED CURB		
CYCLONE FENCE		
PROPERTY LINE		
WATER SERVICE	—W—	—W—
SANITARY LATERAL	—SAN—	—SAN—
WATER VALVE	WV	
GAS VALVE	GV	
UTILITY POLE	Ø	
CONCRETE MONUMENT	□	■
CONSTR. ENTRANCE		
SILT FENCE – 18" & 30"		
LIMIT OF DISTURBANCE		
TREE PROTECTION FENCING		



FILTREXX FILTERSOXX DETAIL
ALONG EXISTING CURB & GUTTER
N.T.S.

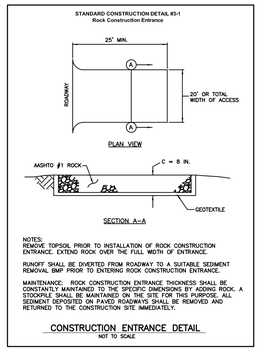


1. PROTECTION BARRIER SHALL BE 4' HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE OR SNOW FENCE MAY BE USED).

2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.

3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.

TREE PROTECTION FENCING
NOT TO SCALE

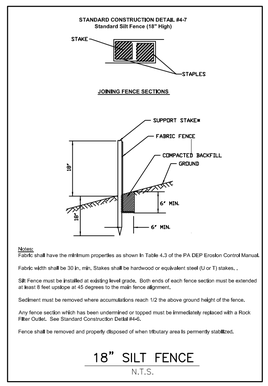


NOTES:
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER THE FULL WIDTH OF ENTRANCE.

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

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIC DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.

CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



Notes:
Fabric shall have the minimum properties as shown In Table 4.3 of the PA DEP Erosion Control Manual.

Fabric width shall be 30 in. min. Stakes shall be hardwood or equivalent steel (U or T) stakes, .

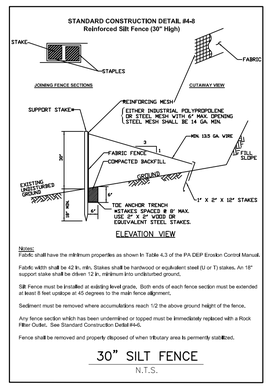
Silt Fence must be installed at existing level grade. Both ends of each fence section must be extended at least 8 feet upslope at 45 degrees to the main fence alignment.

Sediment must be removed where accumulations reach 1/2 the above ground height of the fence.

Any fence section which has been undermined or topped must be immediately replaced with a Rock Filter Outlet. See Standard Construction Detail #4-6.

Fence shall be removed and properly disposed of when tributary area is permenrly stabilized.

18" SILT FENCE
N.T.S.



Notes:
Fabric shall have the minimum properties as shown In Table 4.3 of the PA DEP Erosion Control Manual.

Fabric width shall be 42 in. min. Stakes shall be hardwood or equivalent steel (U or T) stakes. An 18" support stake shall be driven 12 in. minimum into undisturbed ground.

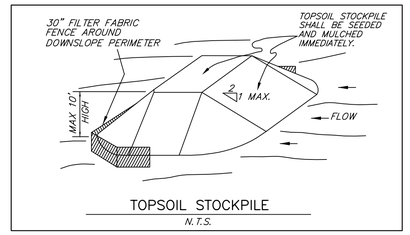
Silt Fence must be installed at existing level grade. Both ends of each fence section must be extended at least 8 feet upslope at 45 degrees to the main fence alignment.

Sediment must be removed where accumulations reach 1/2 the above ground height of the fence.

Any fence section which has been undermined or topped must be immediately replaced with a Rock Filter Outlet. See Standard Construction Detail #4-6.

Fence shall be removed and properly disposed of when tributary area is permenrly stabilized.

30" SILT FENCE
N.T.S.



TOPSOIL STOCKPILE
N.T.S.

EROSION & SEDIMENTATION NOTES:

1. WHENEVER SEDIMENTATION IS CAUSED BY AN EARTH DISTURBANCE ACTIVITY, IT SHALL BE THE RESPONSIBILITY OF THE PERSON CAUSING SUCH SEDIMENTATION TO REMOVE IT FROM ALL AFFECTED SURFACES, DRAINAGE SYSTEMS AND WATERCOURSES, ON SITE AND OFF SITE, AND TO REPAIR ANY DAMAGE AT HIS EXPENSE IMMEDIATELY.

2. THE EROSION CONTROL PLAN SHOWING THE EARTH DISTURBANCE ACTIVITY SHALL BE MAINTAINED AT THE SITE DURING THE PROGRESS OF THE GRADING WORK AND UNTIL THE WORK HAS BEEN COMPLETED.

3. NO CHANGES SHALL BE MADE IN THE CONTOUR OF THE LAND AND NO GRADING, EXCAVATION, REMOVAL NOR DESTRUCTION OF THE TOPSOIL, TREES OR OTHER VEGETATIVE COVER SHALL BE COMMENCED, UNTIL SUCH TIME THAT A PLAN FOR MINIMIZING EROSION AND SEDIMENTATION HAS BEEN REVIEWED BY THE BOROUGH ENGINEER.

4. ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE TO BE IN PLACE AND FUNCTIONING PRIOR TO ANY EARTH DISTURBANCE ACTIVITY.

5. TEMPORARY VEGETATION AND MULCHING SHALL BE USED TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT. EROSION CONTROL BLANKETS MUST BE PROVIDED IN STEEPLY SLOPED AREAS.

6. THE LOCATION FOR A TOPSOIL STOCKPILE IS SHOWN ON THE PLAN AND ALL EARTH STOCKPILES ARE TO BE STABILIZED WITH TEMPORARY VEGETATION AND/OR MULCHING IMMEDIATELY.

7. THE LOT SHALL BE GRADED TO PROVIDE PROPER DRAINAGE AWAY FROM BUILDINGS, AND ALL LAND WITHIN A PROJECT AREA SHALL BE GRADED TO DRAIN AND DISPOSE OF SURFACE WATER WITHOUT PONDING.

8. EDGE OF SLOPES SHALL BE A MINIMUM OF FIVE FEET FROM PROPERTY LINES OR RIGHT OF WAY LINES.

9. MEASURES MUST BE TAKEN TO PROVIDE DUST CONTROL DURING ANY GRADING OR EARTH DISTURBANCE.

10. THE EXISTING POINTS OF NATURAL DRAINAGE DISCHARGE ONTO ADJACENT PROPERTY SHALL NOT BE ALTERED WITHOUT THE WRITTEN APPROVAL/DRAINAGE EASEMENT FROM THE AFFECTED PROPERTY OWNERS.

TEMPORARY AND PERMANENT STABILIZATION:

HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.

MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER.

STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMP'S MUST BE MAINTAINED PROPERLY. MAITENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAITENANCE WORK, INCLUDING CLEANOUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE DONE IMMEDIATELY. IFF EROSION AND SEDIMENT CONTROL BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.

SEDIMENT REMOVED FROM BMP'S SHALL BE DISPOSED OF IN LANDSCAPE AREAS OUTSIDE OF STEEP SLOPES, WETLANDS FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED , OR PLACED IN STOCKPILES.

THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTE IN ACCORDANCE WITH THE DEPARTMENTS SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.

AN E&S PLAN SHALL BE SUBMITTED TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT AND IMPLEMENTED FOR ALL SPOIL AND BORROW ARES, REGARDLESS OF THEIR LOCATION.

THE PROJECT RECEIVING WATERCOURSE IS THE SCHUYLKILL RIVER AND THE CHAPTER 93 CLASSIFICATION IS WWF (WARM WATER FISHERY).

UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THE PROJECT SITE SHALL BE IMMEDIATELY STABOLIZED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (E&S MANUAL), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION NO. 363-2134-008 ,APRIL 2000, AS AMENDED AND UPDATED. EROSION AND SEDIMENT CONTROL BMP'S SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED AND PCSM BPM'S ARE OPERATIONAL.

THIS PROJECT WILL DISTURB 24,665 SQ. FT. (0.57 AC)

SEEDING REQUIREMENTS

ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED AND WHICH WILL REMAIN EXPOSED MUST BE SEEDED AND MULCHED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. DISTURBED AREAS WHICH ARE NOT FINISHED GRADE OR WILL BE REDISTURBED WITHIN 1 YEAR MAY BE SEEDED AND MULCHED THE TEMPORARY SEEDING MIXTURE AND MULCH. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE SEEDED AND MULCHED WITH THE PERMANENT SEED MIXTURE AND MULCH.

1- TEMPORARY SEEDING= PADOT FORMULA "E"
FERTILIZER
0-20-20 @20 LBS./1000 SQ. FT.
10-5-5 @10 LBS./1000 SQ. FT.
LIME @4 TONS/1000 SQ. FT.
SEEDING MIXTURE
ANNUAL RYE GRASS @4 LBS./1000 SQ. FT.
MULCH (HAY) @3 TONS/1000 SQ. FT.
GERMINATED PERIOD MARCH 15 TO OCTOBER 15
2- PERMANENT SEEDING= PADOT FORMULA "B"
FERTILIZER
0-20-20 @20 LBS./1000 SQ. FT.
10-5-5 @10 LBS./1000 SQ. FT.
LIME @4 TONS/1000 SQ. FT.
SEEDING MIXTURE @4 LBS./1000 SQ. FT.
KENTUCKY BLUE GRASS 50%
PENNLAWN RED FESCUE 30%
PENNFINE PERENNIAL RYE GRASS 20%
MULCH (HAY) @3 TONS/ ACRE
GERMINATING PERIOD MARCH 15 TO JUNE 1
AUGUST 1 TO OCTOBER 15
- SEEDING AND MULCHING OPERATIONS ARE TO BE DONE IN CONFORMANCE WITH PADOT PUBLICATION FORM 408, SECTION 800.
- SITE PREPARATIONS INCLUDES WORKING THE LIME AND FERTILIZER INTO THE TOP 24" OR MORE, IF POSSIBLE.
- GRASS HAY AND CEREAL STRAW ARE PREFERRED MULCHES AND SHOULD BE APPLIED TO PRODUCE A LOOSE LAYER 0.75 TO 1 INCHES DEEP. AS A GUIDELINE, A THICKNESS OF 5 TO 6 OVERLAPPING STRAW OR HAY STEMS ARE ACCEPTABLE.
- A UNIFORM EROSION RESISTANT PERENNIAL VEGETATIVE COVER OF AT LEAST 70 PERCENT OF THE DISTURBED AREA MUST BE ESTABLISHED BEFORE A SITE IS CONSIDERED PERMANENTLY STABILIZED WITH VEGETATION.
- UNTIL THE SITE IS PERMANENTLY STABILIZED WITH VEGETATION, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES MUST BE MAINTAINED. DIVERSIONS, CHANNELS, SEDIMENTATION BASINS, SEDIMENT TRAPS AND STOCKPILE MUST BE SEEDED AND MULCHED IMMEDIATELY.

100

CONSHOHOCKEN BOROUGH EROSION CONTROL NOTES:

1. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE BOROUGH CODE DEPARTMENT IN ACCORDANCE WITH BOROUGH ORDINANCE 1-2008

2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT IN ACCORDANCE WITH 25 PA CODE CHAPTER 102

3. FAILURE TO MAINTAIN EROSION CONTROL MEASURES WILL RESULT IN AN IMMEDIATE WORK STOPPAGE UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN RESTORED TO THE SATISFACTION OF THE BOROUGH CODE DEPARTMENT

4. SILT SOCK/FENCE SHALL BE INSTALLED AND MAINTAINED PER THE PADEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, LATEST EDITION

5. DIAMETER OF SILT SOCK SHALL BE 8" UNLESS OTHERWISE DIRECTED. LARGER SILT SOCK MAY BE REQUIRED FOR SITES WITH A LARGER CONTRIBUTING DISTURBANCE AREA.

SOIL SYMBOL	SOIL NAME & DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK
UugB	URBAN LAND– UDORTHENTS SCHIST & GNEISS COMPLEX 0 TO 8 PERCENT SLOPES	60"	20" – 99"

LOT AREA
18,000 SF (0.4132 AC)

SERIAL NO. 2022-2093401
DESIGN STAGE ONLY

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

0' 10' 20' 30'

REVISED 11/30/2022 AS PER BORO REVIEWS

APPLICANT:
MUN CHUNG
CGEM, LLC C/O
JOHN MANCINI
1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428
610-348-4101

PREPARED FOR:
CGEM, LLC
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

EROSION CONTROL PLAN

BORUSIEWICZ
SURVEYORS AND SITE PLANNERS
718 GRAVEL PIKE
COLLEGEVILLE, PA 19426
610-941-7181 EMAIL TBORUSIEWICZ@AOL.COM

FILE NO.: BA2466 | DATE: 07/22/22 | SCALE: 1 INCH = 10 FEET | SHEET NO.: 4 OF 6

LEGEND:

BUILDINGS
CONCRETE
SLOPES 15% OR >
TREES — 48" TREE
DEPRESSED CURB
PROPERTY LINE
WATER SERVICE — W —
SANITARY LATERAL — SAN —
WATER VALVE — WV
TELEPHONE POLE — Ø
WATER METER — WM
GAS METER — GM
CLEAN OUT — C.O.

LOT AREA
18,000 SF (0.4132 AC)

NORTH

IMPERVIOUS CALCULATIONS - EXISTING CONDITIONS

EXISTING BUILDING	1976 SQ. FT.
EXISTING CONCRETE	890 SQ. FT.
EXISTING PAVING	11197 SQ. FT.
TOTAL EXISTING BUILDING COVERAGE	1,976 SQ. FT. / 18,000 SF.= 11.0 %
TOTAL EXISTING IMPERVIOUS COVERAGE	14,063 SQ. FT. / 18,000 SF.= 78.1 %

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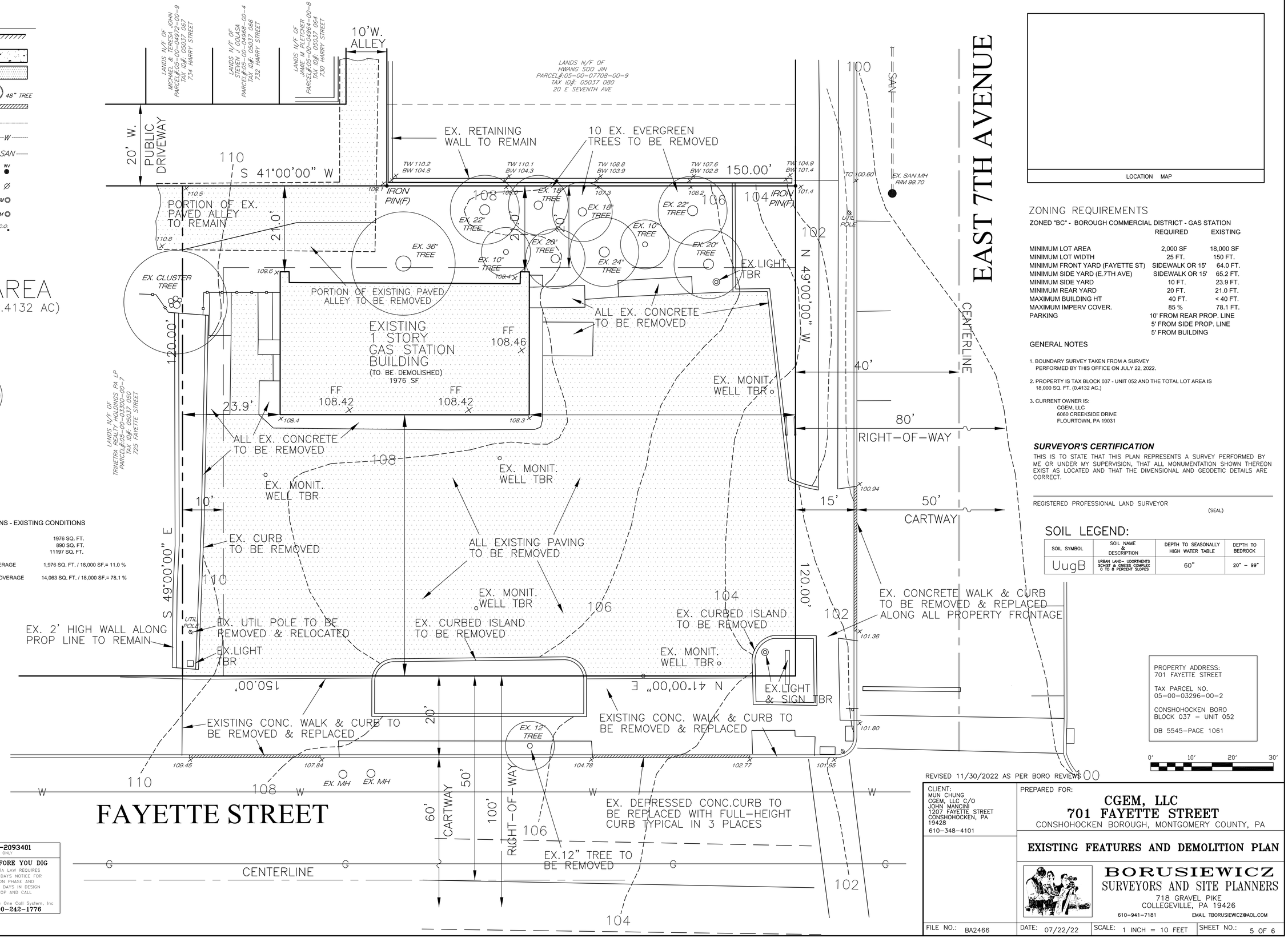

LOCATION MAP

ZONING REQUIREMENTS

ZONED "BC" - BOROUGH COMMERCIAL DISTRICT - GAS STATION

	REQUIRED	EXISTING
MINIMUM LOT AREA	2,000 SF	18,000 SF
MINIMUM LOT WIDTH	25 FT.	150 FT.
MINIMUM FRONT YARD (FAYETTE ST)	SIDEWALK OR 15'	64.0 FT.
MINIMUM SIDE YARD (E.7TH AVE)	SIDEWALK OR 15'	65.2 FT.
MINIMUM SIDE YARD	10 FT.	23.9 FT.
MINIMUM REAR YARD	20 FT.	21.0 FT.
MAXIMUM BUILDING HT	40 FT.	< 40 FT.
MAXIMUM IMPERV COVER.	85 %	78.1 FT.
PARKING	10' FROM REAR PROP. LINE 5' FROM SIDE PROP. LINE 5' FROM BUILDING	

GENERAL NOTES

1. BOUNDARY SURVEY TAKEN FROM A SURVEY PERFORMED BY THIS OFFICE ON JULY 22, 2022.
2. PROPERTY IS TAX BLOCK 037 - UNIT 052 AND THE TOTAL LOT AREA IS 18,000 SQ. FT. (0.4132 AC.)
3. CURRENT OWNER IS:
   CGEM, LLC
   6060 CREEKSIDE DRIVE
   FLOURTOWN, PA 19031

SURVEYOR'S CERTIFICATION

THIS IS TO STATE THAT THIS PLAN REPRESENTS A SURVEY PERFORMED BY ME OR UNDER MY SUPERVISION, THAT ALL MONUMENTATION SHOWN THEREON EXIST AS LOCATED AND THAT THE DIMENSIONAL AND GEODETIC DETAILS ARE CORRECT.

REGISTERED PROFESSIONAL LAND SURVEYOR

(SEAL)

SOIL LEGEND:

SOIL SYMBOL	SOIL NAME & DESCRIPTION	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK
UugB	URBAN LAND-- UDORTHENTS SCHIST & GNEISS COMPLEX 0 TO 8 PERCENT SLOPES	60"	20" - 99"

PROPERTY ADDRESS:
701 FAYETTE STREET

TAX PARCEL NO.
05-00-03296-00-2

CONSHOHOCKEN BORO
BLOCK 037 - UNIT 052

DB 5545-PAGE 1061

0' 10' 20' 30'

REVISED 11/30/2022 AS PER BORO REVIEW

CLIENT:
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CGEM, LLC C/O
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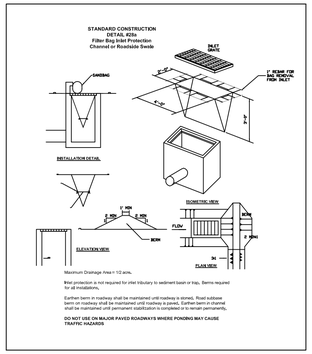
1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428
610-348-4101

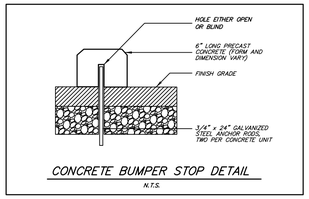
PREPARED FOR:
CGEM, LLC
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

EXISTING FEATURES AND DEMOLITION PLAN

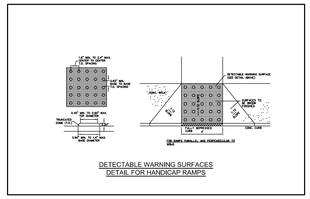
BORUSIEWICZ
SURVEYORS AND SITE PLANNERS
718 GRAVEL PIKE
COLLEGEVILLE, PA 19426
610-941-7181 EMAIL TBORUSIEWICZ@AOL.COM

FILE NO.: BA2466 | DATE: 07/22/22 | SCALE: 1 INCH = 10 FEET | SHEET NO.: 5 OF 6

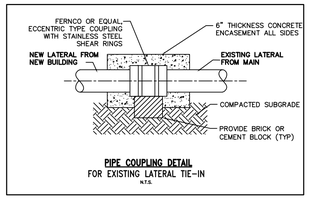




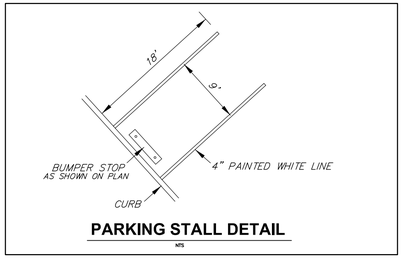
CONCRETE BUMPER STOP DETAIL
N.T.S.



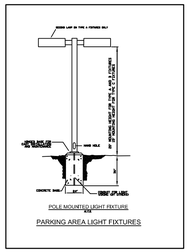
DETECTABLE WARNING SURFACES
DETAIL FOR HANDICAP RAMPS



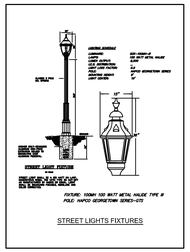
PIPE COUPLING DETAIL
FOR EXISTING LATERAL TIE-IN
N.T.S.



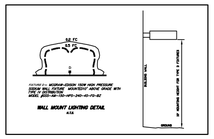
PARKING STALL DETAIL
NTS



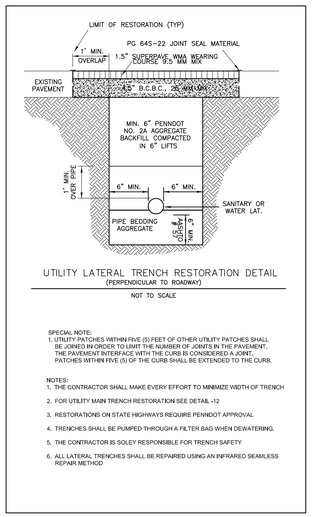
POLE MOUNTED LIGHT FIXTURE
PARKING AREA LIGHT FIXTURES



STREET LIGHTS FIXTURES



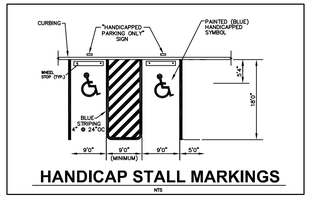
WALL MOUNT LIGHTING DETAIL
N.T.S.



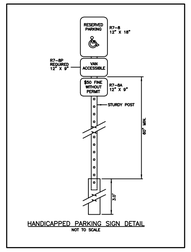
UTILITY LATERAL TRENCH RESTORATION DETAIL
(PERPENDICULAR TO ROADWAY)
NOT TO SCALE

SPECIAL NOTE:
1. UTILITY PATCHES WITHIN FIVE (5) FEET OF OTHER UTILITY PATCHES SHALL BE JOINED IN ORDER TO LIMIT THE NUMBER OF JOINTS IN THE PAVEMENT. THE PAVEMENT INTERFACE WITH THE CURB IS CONSIDERED A JOINT. PATCHES WITHIN FIVE (5) OF THE CURB SHALL BE EXTENDED TO THE CURB.

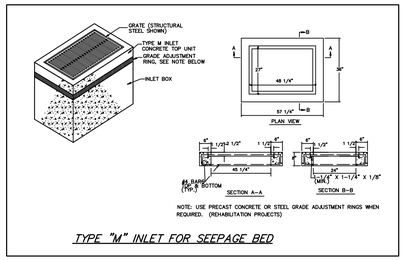
NOTES:
1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO MINIMIZE WIDTH OF TRENCH
2. FOR UTILITY MAIN TRENCH RESTORATION SEE DETAIL #12
3. RESTORATIONS ON STATE HIGHWAYS REQUIRE PENNDOT APPROVAL
4. TRENCHES SHALL BE PUMPED THROUGH A FILTER BAG WHEN DEWATERING.
5. THE CONTRACTOR IS SOLEY RESPONSIBLE FOR TRENCH SAFETY
6. ALL LATERAL TRENCHES SHALL BE REPAIRED USING AN INFRARED SEAMLESS REPAIR METHOD



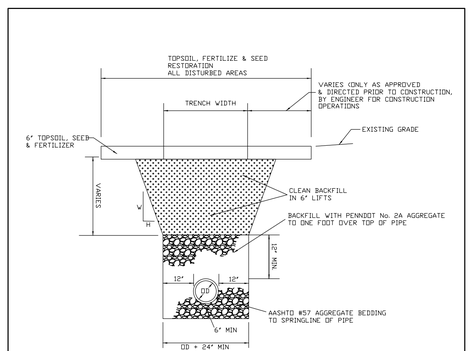
HANDICAP STALL MARKINGS
NTS



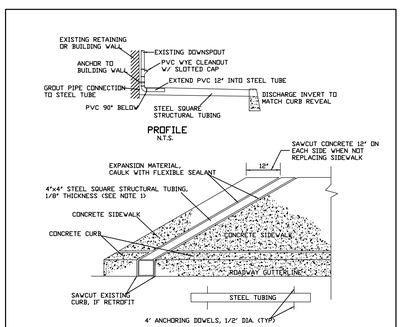
HANDICAPPED PARKING SIGN DETAIL
NOT TO SCALE



TYPE "M" INLET FOR SEEPAGE BED

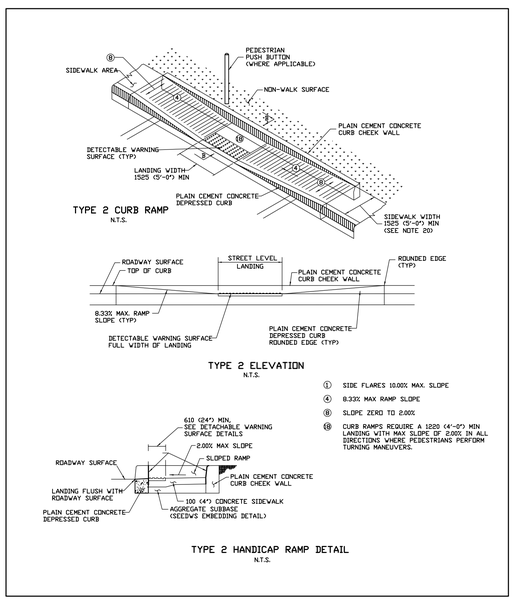


TYPICAL TRENCH DETAIL FOR GRASSED AREA
N.T.S.



STEEL TUBE ROOF DRAIN ENCASEMENT DETAIL
N.T.S.

NOTE:
1. EXACT SIZE OF STEEL TUBING TO BE DETERMINED BY FIELD CONDITIONS OF PROJECT LOCATION, AND CURB REVEAL.
2. FOR RETROFIT SIDEWALK SHALL BE SAWCUT 12" ON EACH SIDE OF PROPOSED ROOF DRAIN LEADER ENCASEMENT. EXISTING CURB SHALL BE CUT TO THE OUTSIDE DIMENSION OF THE STEEL TUBING.
3. DOWELL SPACING TO BE DETERMINED BY LENGTH OF TUBING AND WIDTH OF SIDEWALK AT THE PROJECT LOCATION (MINIMUM 4")



REVISED 11/30/2022 AS PER BORO REVIEWS

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19428
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PREPARED FOR:

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701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY COUNTY, PA

ADDITIONAL DETAILS & AERIAL PHOTO

PROPERTY ADDRESS:
701 FAYETTE STREET

TAX PARCEL NO.
05-00-03296-00-2

CONSHOHOCKEN BORO
BLOCK 037 - UNIT 052

DB 5545-PAGE 1061

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FILE NO.: BA2466 | DATE: 07/22/22 | SCALE: AS NOTED | SHEET NO.: 6 OF 6

LEGEND:

	EXISTING	PROPOSED
BUILDINGS		
CONCRETE		
IRON PINS	IRON PIN (FOUND) ○	IRON PIN ● (TO BE SET)
CONCRETE CURB		
DEPRESSED CURB		
CYCLONE FENCE		
PROPERTY LINE		
WATER SERVICE	—W—	—W—
SANITARY LATERAL	—SAN—	—SAN—
WATER VALVE	WV	
GAS VALVE	GV	
UTILITY POLE	Ø	
CONCRETE MONUMENT	□	■
SOIL TEST PIT	▲TP 1	

LOT AREA
18,000 SF (0.4132 AC)

10'WIDE ALLEY

EXISTING LAUNDROMAT

20' WIDE PUBLIC DRIVEWAY

PROPOSED PAVING TO REALIGN EXISTING ALLEY WAY

EX. 6' HIGH CONC.RET.WALL

S 41°00'00" W 150.00'

IRON PIN(F)

CONC MON(TBS)

EXISTING PAVED ALLEY ENCROACHES ONTO PROPERTY AND IS PROPOSED TO REMAIN

PROPOSED DEPRESSED CURB & GATED EXIT FOR EMERGENCY USE ONLY
TC 107.50
BC 107.00

TC 109.00
BC 108.50

TC DEPR 108.10

TC 106.00
BC 105.50

PORTION OF EXISTING PAVED ALLEY TO BE REMOVED

35'X40'X3' DEEP
MIN INV. ELE. 100.0
BOTTOM SLOPE 1% MAX
FILLED WITH STONE

CONTROLLED DRAINAGE AREA W-1
(ROOF DRAINS SHOULD NOT DRAIN INTO THIS SUB-AREA)
AREA= 5,296 SQ.FT.
GRASS= 961 SF
IMP= 4,335 SF

INLET I-1
GRATE ELE :105.9
(DEPRESSED)
INV. OUT 101.0

4" PERFORATED PIPE WRAPPED WITH FILTER CLOTH
LEVEL- INV 101.0

TC 109.5
BC 109.0

TC 108.8
BC 108.3

TC 109.0
BC 108.5

TC 108.3
BC 107.8

TC 108.5
BC 108.0

TC 107.16
BC 106.66

TC DEPR
108.0

MH

120.00'

S 49°00'00" E

10'

45'

PORTION OF ROOF TO DRAIN OVERLAND TOWARD THE INFILTRATION PIT

PROPOSED 3-STORY COMMERCIAL RETAIL SPACE & RESIDENTIAL APARTMENT BUILDING

PROPOSED BUILDING 6,250 SF

1ST FLOOR -
COMMERCIAL RETAIL SPACES (3) - 5,064 SF
2ND FLOOR -
RESIDENTIAL 2 BEDROOM APARTMENTS (5) - 4,723 SF
3RD FLOOR -
RESIDENTIAL 2 BEDROOM APARTMENTS (4) - 5,045 SF

MANHOLE MH-1
GRATE ELE :105.0
INV. IN 101.0 (4")
INV. OUT 100.8 (6")

44FT- 6"@ 2% PVC PIPE

PROPOSED CONCRETE WALK

CONC MON(TBS)

N 41°00'00" E 150.00'

DRILL HOLE (TBS)

PROPOSED DRAINAGE PLAN
FOR
701 FAYETTE STREET
CONSHOHOCKEN BOROUGH, MONTGOMERY CO., PA

FAYETTE STREET

INLET GRATE

2'-0"

4'-0"

3'-0"

1" REBAR FOR BAG REMOVAL FROM INLET

WIRE MESH WITH FILTER CLOTH

INSTALLATION DETAIL

2" X 2" X 3/4" RUBBER BLOCK (TYP)

1/4" NYLON ROPE EXPANSION RESTRAINT

ISOMETRIC VIEW

INLET PROTECTION
NOT TO SCALE

TW 110.2 BW 104.6
TW 110.1 BW 104.3
TW 108.8 BW 103.9
TW 107.6 BW 102.8

UNCONTROLLED DRAINAGE AREA W-2
AREA= 12,704 SF
GRASS= 1,095 SF
IMPER= 11,609 SF

IRON PIN(F) TC 100.60

CONC MON(TBS) TC 104.5 BC 104.0

EX. SAN MH RIM 99.70

LITE POLE

TC 100.51

N 49°00'00" W

TP 1

TP 2

TC 104.0 BC 103.5

TC 104.0 BC 103.5

EAST 7TH AVENUE

DISCHARGE LINE 1
POINT#1
ALONG PROPERTY LINE

8FT- 6" PERFORATED PVC OVERFLOW LEVEL SPREADER TO OPERATE FOR STORMS OVER 100-YEAR STORM
INV. 101.30

AT TOP, SIDES & BOTTOM LAYER USE NON-WOVEN GEOTEXTILE FABRIC WITH HIGH INFILTRATION RATE OVERLAP BETWEEN FILTER FABRIC SHOULD BE AT LEAST 12".

TOP ELE. VARIES, MIN 104.9

1.0 FT MIN

ELE. 103.0

4 ROWS OF PERFORATED 4" PERFORATED PVC PIPES WRAPPED WITH FILTERCLOTH

No 4 STONE BALLAST

3.0'

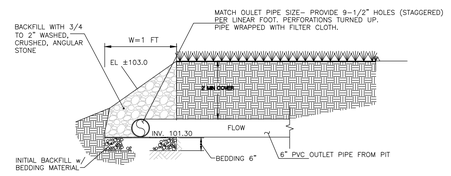
1.0'

ELE.100 (BOTTOM SHOULD BE LEVEL, IF NOT MAX SLOPE IS 1%)

WATER TABLE

MINIMUM 24" CLEARANCE TO WATER TABLE OR BEDROCK

SECTION AA: STONE BALLAST SEEPAGE BED SECTION:
35' WIDE, 40' LONG & 3.0' DEEP
NOT TO SCALE



TYPICAL LEVEL SPREADER SECTION
NOT TO SCALE

IMPERVIOUS CALCULATIONS - EXISTING CONDITIONS

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EXISTING CONCRETE	890 SQ. FT.
EXISTING PAVING	11197 SQ. FT.
TOTAL EXISTING BUILDING COVERAGE	1,976 SQ. FT. / 18,000 SF.= 11.0 %
TOTAL EXISTING IMPERVIOUS COVERAGE	14,063 SQ. FT. / 18,000 SF.= 78.1 %

IMPERVIOUS CALCULATIONS - PROPOSED CONDITIONS

PROPOSED BUILDING	6,300 SQ. FT.
PROPOSED WALKS	700 SQ. FT.
PROPOSED PAVING	8,325 SQ. FT.
EXISTING PAVING IN ALLEY	619 SQ. FT.
TOTAL BUILDING COVERAGE	6,300 SQ. FT. / 18,000 SF.= 35.0 %
TOTAL IMPERVIOUS COVERAGE	15,944 SQ. FT. / 18,000 SF.= 88.6 %

SIGNATURE BLOCKS:

1- MUNICIPAL OFFICIAL OR DESIGNEE SIGNATURE:

_____, ON THIS DATE_____, HAS REVIEWED AND HEREBY CERTIFIES THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE MUNICIPAL ORDINANCE NO._____.

2- REGISTERED DESIGN ENGINEER SIGNATURE:

I, GEORGE S. MAALOUF, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF PENNSYLVANIA, ON THIS DATE OF NOVEMBER 21, 2022, HAS REVIEWED AND HEREBY CERTIFY THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE BOROUGH OF CONSHOHOCKEN STORMWATER MANAGEMENT ORDINANCE.

3- OWNER SIGNATURE:

I, _____, ON THIS DATE _____, ACKNOWLEDGES THE STORMWATER BMPs AND MANAGEMENT FACILITIES TO BE A PERMANENT FIXTURE THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY THE BOROUGH OF CONSHOHOCKEN OF A REVISED PLAN, WHICH SHALL BE APPLICABLE TO ALL FUTURE LANDOWNERS.

PROPERTY ADDRESS:
701 FAYETTE STREET

TAX PARCEL NO.
05-00-03296-00-2

CONSHOHOCKEN BORO
BLOCK 037 – UNIT 052

DB 5545–PAGE 1061

SCALE : 1" = 10'

MUN CHUNG
CGEM, LLC C/O
JOHN MANCINI
610-348-4101

1207 FAYETTE STREET
CONSHOHOCKEN, PA
19428

SERIAL NO. 2022-2093401
DESIGN STAGE ONLY

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

THIS DRAWING DOES NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.

ALL CONSTRUCTION MUST BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND THE RULES AND REGULATIONS THERETO APPURTENANT

NORTH

REVISIONS	REV. No.	DATE
1- REV. PER TWP REVIEW LETTER DATED 10/05/22	A	11/21/22

APPROVED BY:

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL GEORGE S. MAALOUF ENGINEER PE074018

GME ENGINEERING
CIVIL AND SITE DESIGN SPECIALISTS
1117 CAROLINA AVE ○ WEST CHESTER ○ PENNSYLVANIA
PHONE - (610) 732-0707 ○ EMAIL- GEORGESMAALOUF1116@GMAIL.COM
GMAALOUF@ALPHADESIGNS-PA.COM
www.alphadesigns-pa.com

SCALE: 1" =10'		DRAWN BY: G.S.M.	
DESIGNED BY: G.S.M.	CHECKED BY: G.S.M.	DRAWING NAME: PRDRAINGEPLANING	
DATE: 08-24-2022	COMM. NO. 2022-249	SHEET DESI. DR-002	SHEET NO. 2 OF 2

architects

MIXED-USE CONSHOHOCKEN - AT FAYETTE ROAD

SCALE: NONE DATE: 07.29.2022 PROJECT # 19046

SK.1

architects

MIXED-USE CONSHOHOCKEN - VIEW AT EAST 7TH AVENUE

SCALE: NONE DATE: 07.29.2022 PROJECT # 19046

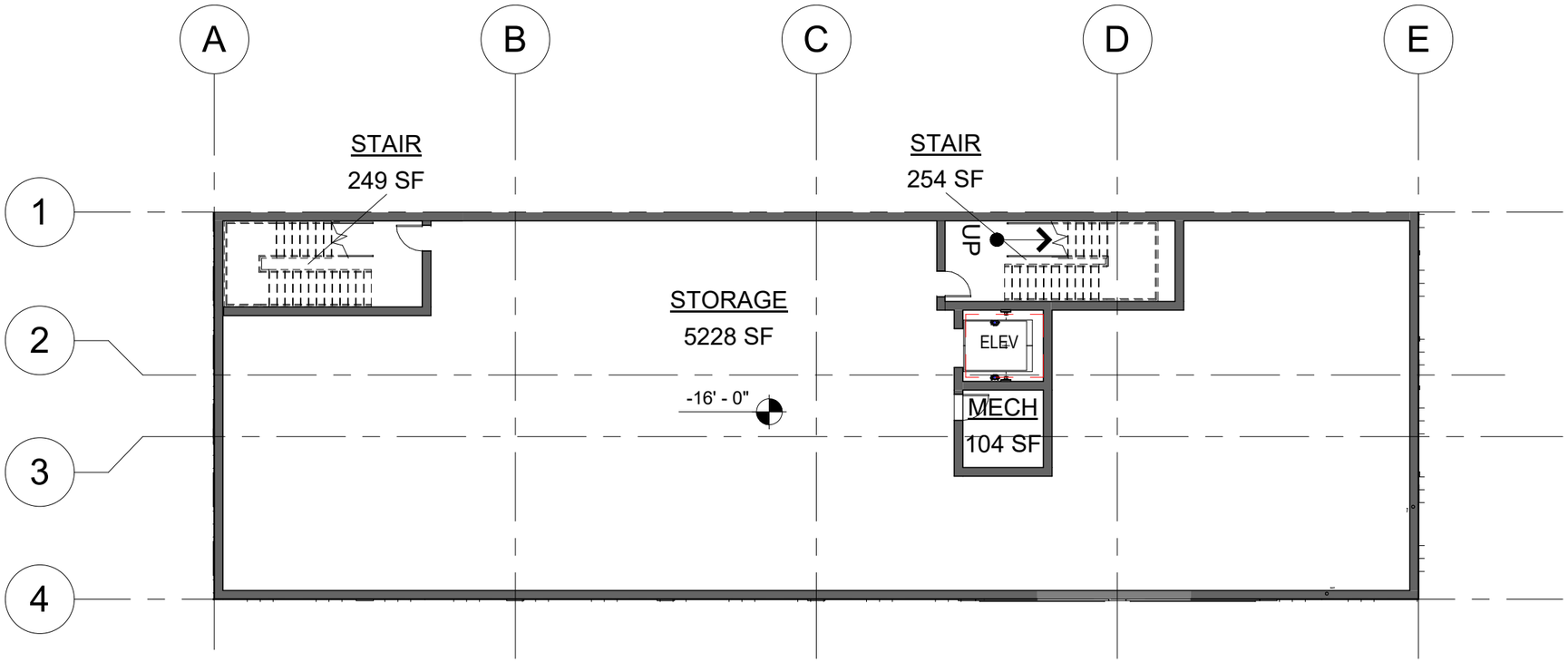
SK.2

architects

MIXED-USE CONSHOHOCKEN - VIEWS AT NIGHT

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.3



1 BASEMENT PLAN

0' 4' 8' 16' 32'

MIXED-USE CONSHOHOCKEN

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.4

EXISTING PAVED ALLEY

TOTAL 26 PARKING SPACES
24 = 9' X 18'
2 = ADA

9' - 0"
TYP.

18' - 0"
TYP.

24' - 0"

A B C D E

8' - 0" 8' - 0" 8' - 0"

9' - 0"
TYP.

18' - 0"
TYP.

5' - 0"

SK.9
1

SK.2
1

UP

1 2 3 4

45' - 0"

STAIR
233 SF

SK.10 1

-4' - 0"

UP

DN

RES/LOBBY
589 SF

ELEV

RETAIL 1
1228 SF

0' - 0"

RETAIL 2
1526 SF

-2' - 0"

-4' - 0"

RETAIL 3
2310 SF

2 SK.10

1
SK.1

140' - 0"

1
SK.8

1 GROUND FLOOR PLAN

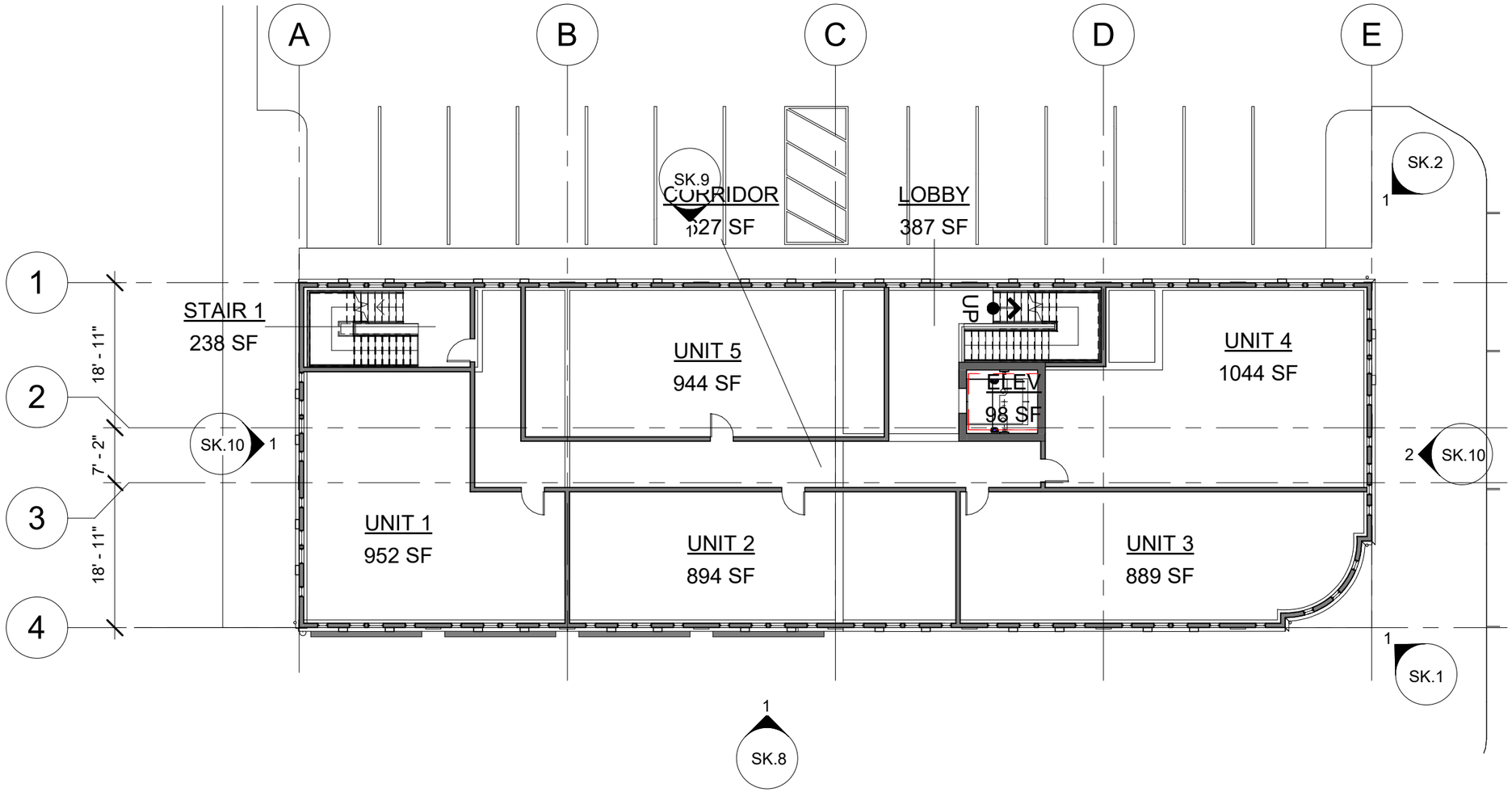
0' 4' 8' 16' 32'

architects

MIXED-USE CONSHOHOCKEN

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.5



1 SECOND FLOOR PLAN

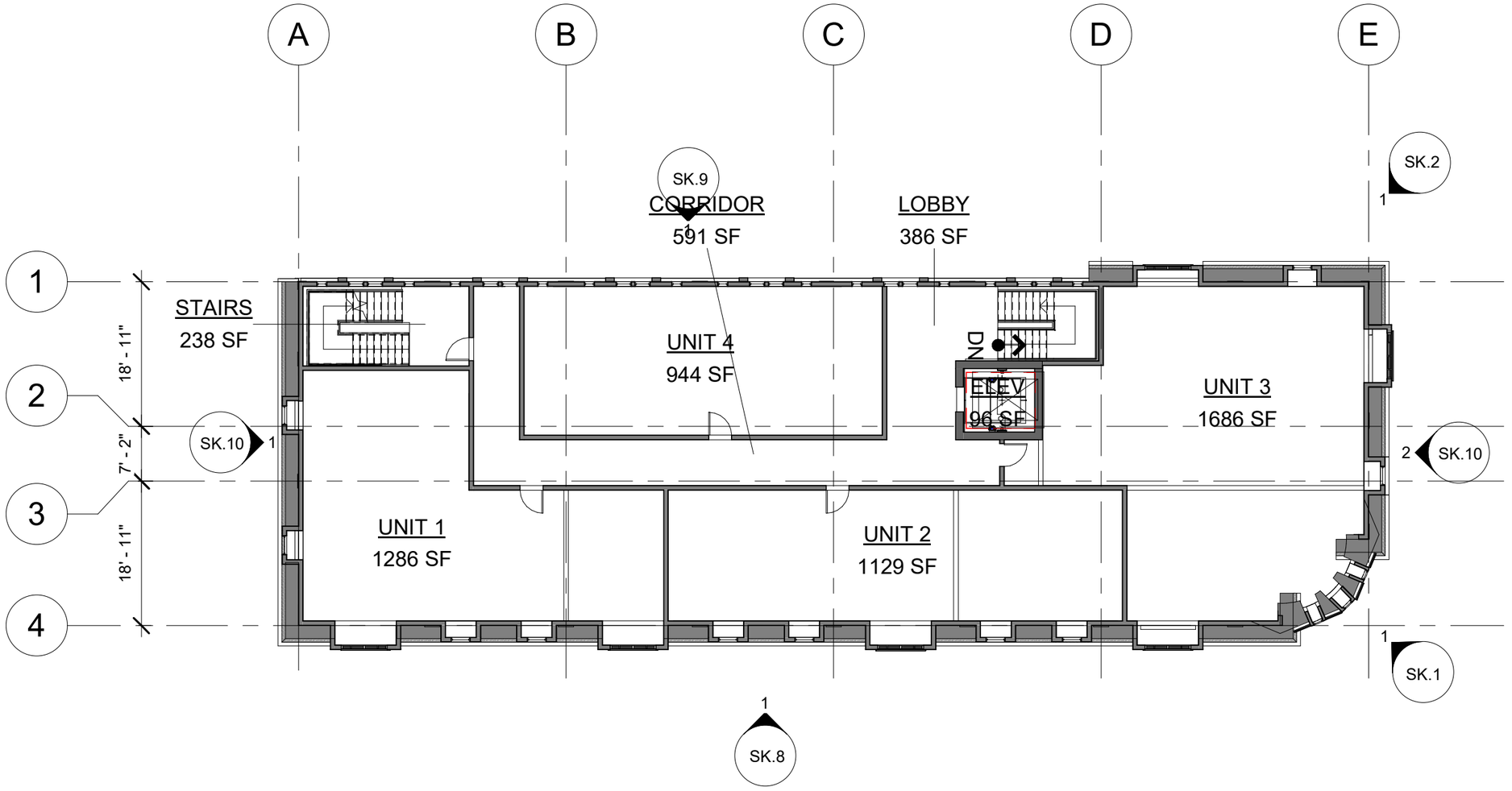
0' 4' 8' 16' 32'

architects

MIXED-USE CONSHOHOCKEN

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.6



1 THIRD FLOOR PLAN

0' 4' 8' 16' 32'

MIXED-USE CONSHOHOCKEN

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.7

1 FRONT ELEVATION

0' 4' 8' 16' 32'

MIXED-USE CONSHOHOCKEN

architects

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

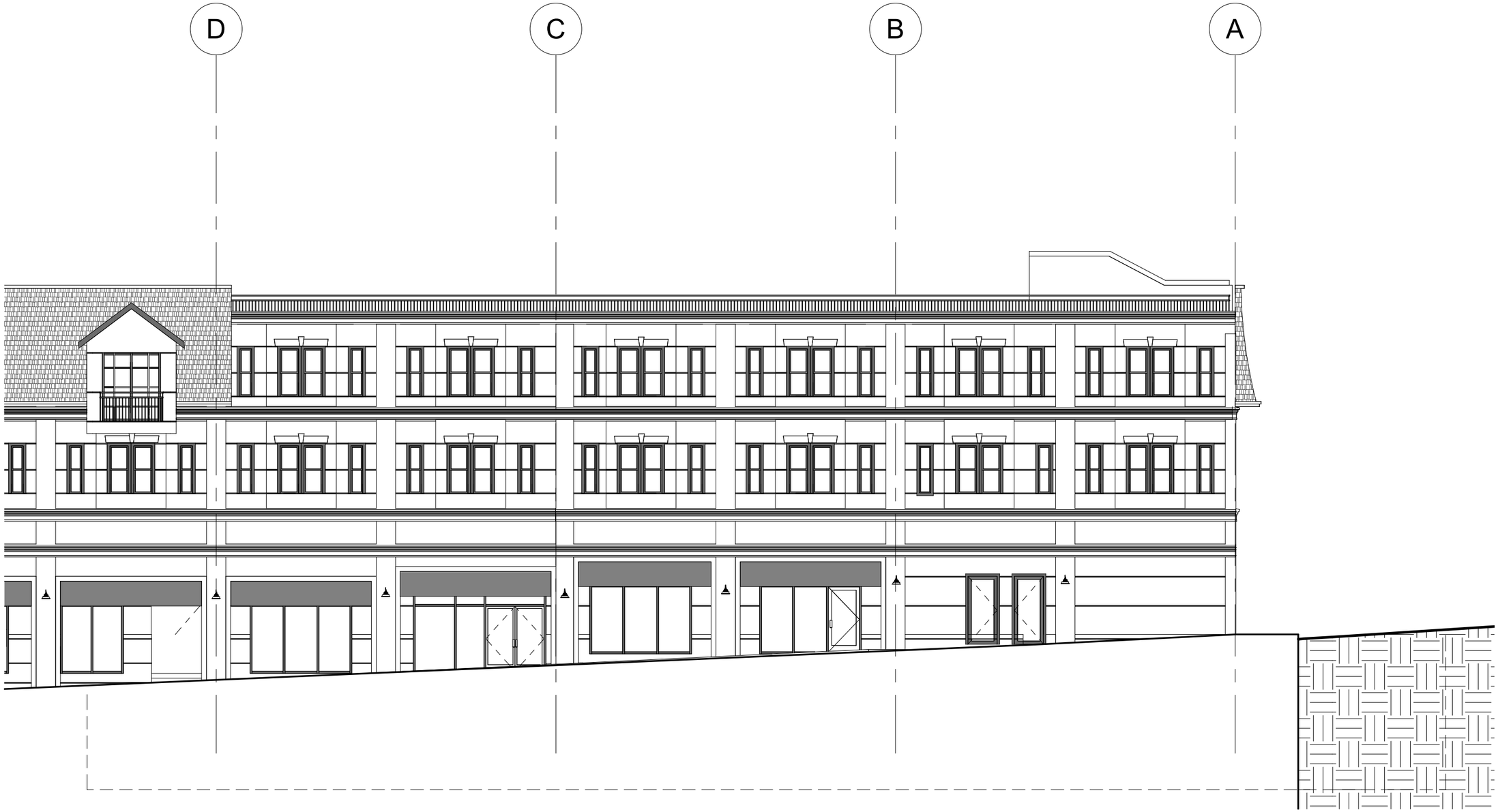
SK.8

STAIR

APET

R

OOR



1 REAR ELEVATION

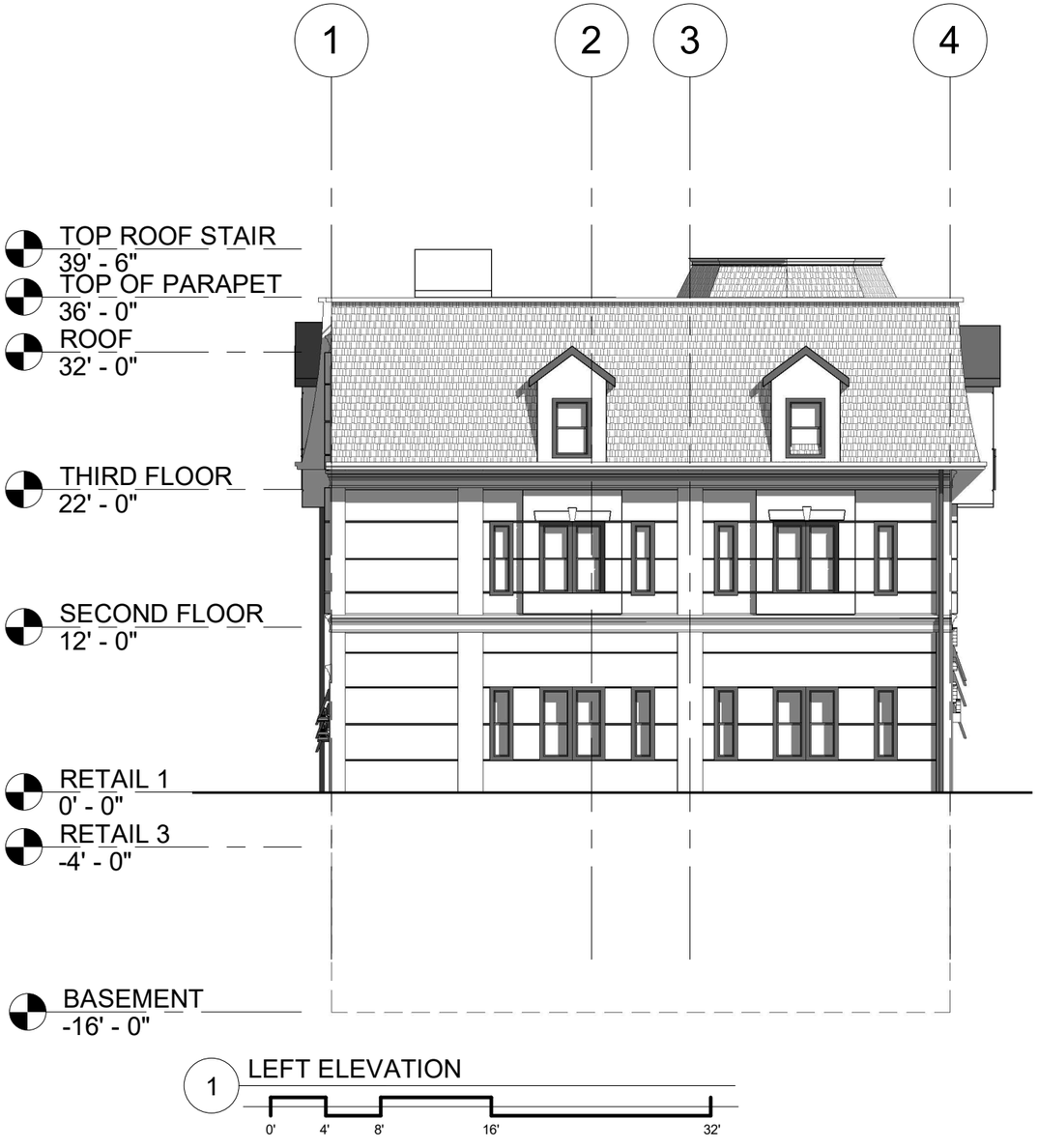
0' 4' 8' 16' 32'

architects

MIXED-USE CONSHOHOCKEN

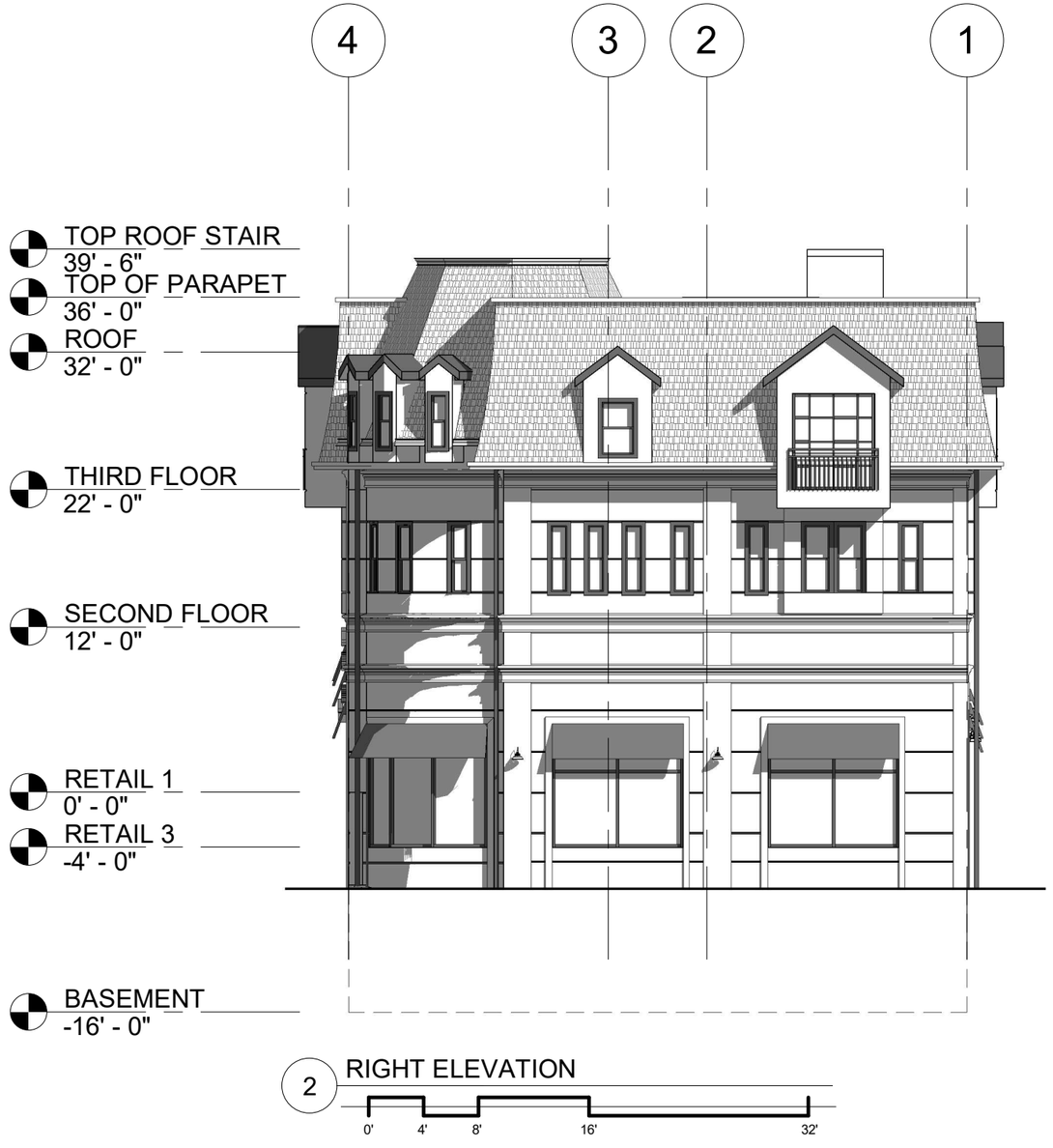
SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.9



1 LEFT ELEVATION

0' 4' 8' 16' 32'



2 RIGHT ELEVATION

0' 4' 8' 16' 32'

architects

MIXED-USE CONSHOHOCKEN

SCALE: AS SHOWN DATE: 07.29.2022 PROJECT # 19046

SK.10

IN THE COURT OF COMMON PLEAS OF MONTGOMERY COUNTY, PENNSYLVANIA
CIVIL ACTION

Julian V. Miraglia and 612 Fayette Associates, LP Appellants	:	
v.	:	Land Use Appeal Docket No. 2021-25018
Conshohocken Zoning Hearing Board Appellee	:	

STIPULATION AND SETTLEMENT AGREEMENT

This Stipulation and Settlement Agreement ("Agreement") is made this 22 day of June, 2022 by and among Appellants Julian V. Miraglia and 612 Fayette Associates, LP ("Appellants"), Appellee Conshohocken Zoning Hearing Board (the "ZHB"), Intervenor CGEM, LLC ("Applicant"), and Intervenor Borough of Conshohocken (the "Borough"), agreeing as follows:

BACKGROUND

A. Applicant applied to the ZHB for certain variances from the standards of the Conshohocken Borough Zoning Ordinance of 2001 ("the "Zoning Ordinance"), and specifically from:

1. Zoning Ordinance § 27-1303.F to allow an overall impervious surface coverage of 88.9% of the lot area, where the maximum permitted impervious surface coverage is 85% of the lot area; and

2. Zoning Ordinance § 27-2002 to allow 26 off-street parking spaces and 7 off-site parking spaces for a total of 33 parking spaces where 46 parking spaces are

required. The 7 off-site parking spaces were to be secured by execution of a separate written agreement.

The variances described in this paragraph are referred to hereinbelow as the "Requested Zoning Relief".

B. The Requested Zoning Relief was granted by the ZHB by decision issued December 2, 2021 (the "Decision"). The approval granted by the Decision was conditioned on the Applicant "securing and executing an agreement for the rights for the seven (7) off-site parking spaces."

C. The Requested Zoning Relief was sought to permit Applicant to construct a 3-story, mixed-use development with the first floor containing retail space and the second and third floors containing 9 apartments (the "Project"). The Project was proposed on the property located at 701 Fayette Street, Conshohocken, PA 19428 (the "Property").

D. Appellants appealed the Decision to this Honorable Court by notice of appeal filed December 29, 2021.

E. Applicant and the Borough intervened by Notices of Intervention filed January 7, 2022, and January 21, 2022 respectively.

F. Since the appeal was filed, the Borough has started the process of reanalyzing the zoning along the Fayette Street corridor (which includes the Property). That analysis includes addressing the issue of parking along the Fayette Street corridor, including the establishment of a shuttle program from the readily available public parking located in parking garages on the lower end of Fayette Street (near the Schuylkill River) to the upper end of Fayette Street. The shuttle program would serve to provide shuttle access to the Property from the aforementioned parking garages.

G. The parties have engaged in settlement discussions, which settlement discussions have included the mutual benefit of the shuttle program to the parties.

H. The parties to this appeal desire to resolve the issues raised in this appeal without further litigation on the terms set forth hereinbelow.

NOW, THEREFORE, intending to be legally bound, and for valuable consideration exchanged, the adequacy of which is hereby acknowledged, the parties agree as follows:

AGREEMENT

1. The foregoing Background paragraphs A through H are incorporated herein as if fully set forth.

2. The zoning relief granted for the Project is hereby amended to remove the requirement of 7 off-site parking spaces, and to remove the condition for execution of an agreement for the rights to use the off-site parking spaces.

3. Instead of providing 7 off-site parking spaces, Applicant shall, upon receipt of final, unappealable land development approval, make a one-time contribution to the Borough's shuttle program in the amount of $25,000.00, payable to the Borough. The contribution required by this paragraph shall be made contemporaneously with recording of the Land Development Agreement for the Project.

4. This Court shall retain jurisdiction until the contribution required by paragraph 3 is made to the Borough. At that time, Appellants shall file a praecipe to settle, discontinue, and end this appeal.

5. The parties agree that this Agreement shall be presented to the Court for adoption of this Agreement by order of Court.

6. This Agreement reflects the entire understanding and agreement of the parties in connection with the matters set forth herein. The terms of this Agreement may be amended, modified or waived only by an instrument in writing signed by all of the parties and upon Court approval.

7. The terms and provisions of this Agreement were jointly negotiated and finalized, and no provision of this Agreement shall be construed against or interpreted to the disadvantage of any of the undersigned parties by any court or other governmental or judicial authority by reason of any of the undersigned parties being deemed to have drafted, structured or dictated such provision thereof.

8. This Agreement may be executed in any number of counterparts, and by each of the parties on separate counterparts, each of which, when so executed, shall be deemed an original, but all of which shall constitute but one and the same instrument. Delivery of an executed counterpart of this Agreement by facsimile or electronic transmission shall be equally as effective as delivery of an original.

9. This Agreement shall inure to the benefit of, and be binding upon, each of the parties and their respective successors and assigns.

10. The parties hereto declare that they have read and fully understand the terms of this Agreement, have consulted with their respective counsel, or have had full opportunity to consult with counsel, regarding such terms and that they voluntarily accept the same for purposes of making a full and final compromise, adjustment and settlement of any and all issues raised in the Appeal. The parties further declare that the respective person executing this Agreement on their behalf has complete and absolute authority to do so for the purposes contained herein.

IN WITNESS WHEREOF, the parties hereto execute this Settlement Agreement as of the date set forth above.

DAVIS BUCCO MAKARA & DORSEY

By: _____

Paul A. Bucco, Esquire
Attorney I.D. No. 52561
Attorneys for Appellants Julian V. Miraglia and 612 Fayette Street Associates, L.P.

RUDOLPH CLARKE, LLC

By: _____

Gregory R. Heleniak, Esquire
Attorney I.D. No. 314427
Solicitor for Appellee
Conshohocken Zoning Hearing Board

THE DANEK LAW FIRM

By: _____

Mark S. Danek, Esquire
Attorney I.D. No. 84825
Attorney for Intervenor CGEM, LLC

EASTBURN AND GRAY, PC

By: _____

Michael E. Peters, Esquire
Attorney I.D. No. 314266
Solicitor for Borough of Conshohocken

BEFORE THE ZONING HEARING BOARD OF CONSHOHOCKEN

IN RE: APPLICATION OF CGEM, LLC

REGARDING

701 FAYETTE STREET

APPLICATION NO. Z-2021-09

DECISION OF THE BOARD

I. HISTORY

On April 16, 2021, CGEM, LLC, Mun Chung, Member (the "Applicant") filed a Zoning Hearing Board application before the Conshohocken Zoning Hearing Board (the "ZHB") seeking dimensional variances from the standards of the BC Zoning District of the Borough of Conshohocken Ordinance (the "Ordinance") for the property located at 701 Fayette St. Conshohocken, PA 19428 (the "Subject Property") (the "Application").

The Applicant's specific request for relief includes the following:

1. A variance from the terms of Section 27-1303.F to allow an overall impervious coverage of 88.9 percent where the Ordinance requires that the maximum impervious coverage cannot exceed 85% of the lot area.
2. A variance from the terms of Section 27-2002 to allow 26 off-street parking spaces and 7 off-premises parking spaces for a total of 33 parking spaces where the Ordinances requires 46 parking spaces.

After notice was duly given and advertised, hearings were held on June 21, July 19, September 13, and October 18, 2021. At the hearings, the following Exhibits were introduced and admitted:

Conshohocken Zoning Hearing Board Exhibits

P-1 Artist's Rendering and Exhibit List

P-2 Zoning Application

P-3 Deed

P-4 Mixed Use Renderings

P-5 19 photographs of the site and the surroundings taken on April 5, 2021

P-6 14 photographs

P-7 Parking Assessment by Dynamic Traffic dated April 9, 2021

P-8 Curriculum Vitae of Justin P. Taylor

P-9 Zoning Plan

P-10 Satellite Image Overlay

P-11 Petition In Support

P-12 Zoning Notice

P-13 Zoning Determination

P-14 Entry of Appearance of Julian Miraglia

P-15 Pennoni Review Letter

P-16 Dynamis Traffic parking assessment

P-17 Off-site parking

P-18 Zoning Plan

P-19 Church Property Diagram

P-20 Letter dated 10/15/21

P-21 Letter dated 10/14/21

Applicant's Exhibits

A-1 Site Plan

A-2 Ground Level Photographs

A-3 Site Plan

A-4 2005 Easement

A-5 2006 Easement

A-6 Parking Summary

A-7 International Building Code Excerpt

A-8 Yoga Studio Schedule

A-9 Letter dated 8/12/21

Applicant was represented by Mark S. Danek, Esq. of The Danek Law Firm, LLC.

Julian V. Miraglia was granted party status and expressed concerns that the Applicant's request is too big to meet the requirements of the Ordinance.

II. FINDINGS OF FACT

1. The Subject Property is located at 701 Fayette Street.
2. The Subject Property is an abandoned Exxon station.
3. The Subject Property is located in the Borough Commercial Zoning District.
4. The Applicant is proposing to construct a three-story mixed-use development, with the first floor consisting of retail space.
5. The second and third floors of the Applicant's proposal will be apartments.
6. The Applicant initially proposed five (5) two (2) bedroom units on the second and third floors for a total of 10 apartments, but reduced the number of total apartments to nine (9).

7. The Applicant initially proposed 27 on-site parking stalls but reduced the number of on-site parking stalls to 26.
8. The Applicant proposes five (5) new on-street stalls.
9. There would be a total of seven (7) off-site parking stalls.
10. The Applicant is the legal owner of the Subject Property.
11. John Mancini, a realtor with Coldwell Banking, offered the following testimony on behalf of the Applicant:
    a. The lower level of the building would be a basement area that will house the utilities.
    b. The first floor of the building would have 4,700 square feet of retail space.
    c. On the first floor, there would also be a lobby that is going to enter into a stairwell and also the elevator.
    d. There will be two sets of stairwells going to the second and third floor.
    e. The Applicant made a commitment not to have any sit-down food operations or any food preparation in the building.
    f. On the second floor, the Applicant is proposing five (5) units, which would be two-bedroom units.
    g. The third floor of the building would mirror imaging the second floor.
    h. The ten (10) two-bedroom apartments would be serviced by two (2) stairwells and an elevator.
    i. On the north side of the beginning of the property line, there is about an eight to nine foot drop from the top of the property down to the corner of 7th and Fayette Street, so there is a decline in elevation.

j. The rear of the building is where the parking lot is going to be.

k. The building will have all ADA access, so all the units in the apartments will be ADA accessible.

l. The parking rendering proposal is where all the residential units will enter, and the commercial units will also enter through the parking lot and along Fayette Street.

m. The Applicant has proposed 27 off-street parking spaces.

n. The lobby, elevators, and stairwells will be able to be accessed through the rear of the building.

o. Mr. Mancini was involved in the planning of this concept.

p. The Subject Property was purchased on May 17, 2019 and the project was delayed due to the Covid-19 pandemic.

q. The team utilized and considered the borough comprehensive plan when developing this concept.

r. The Applicant had almost 100 percent approval from everyone with respect to the project.

s. Parking is readily available on the street, both sides of the street of 7th Avenue.

t. The hours of operation for retail would be early in the morning and would be closed around the times of 6:30-7:30 at night.

u. The actual project was designed with an 85 percent impervious coverage and the only thing that prevented that amount was the 3.8 of the neighbors encroaching in the rear left-hand corner of the property.

v. If the Applicant was to erect a one-story building for commercial use only, the Applicant would still need 26 off-street parking spaces for the commercial use.

w. The parking spaces would be on a first come, first serve basis.

x. Mr. Miraglia was approached on two separate occasions about entering into a parking lease for his property located across the street and indicated that he had no interest in leasing the parking spaces.

12. Tracey Borusiewicz, a civil engineer and site planner, offered the following testimony on behalf of the Applicant.

a. Mr. Borusiewicz prepared the Applicant's Exhibit Number 1.

b. In the event that the paving is right up to the back of the Applicant's parking, there would be a fence placed there.

c. The sidewalk is right up to the building, which makes the retail spaces more accessible for pedestrians coming up the street.

d. Along Fayette Street, there are extra long depressions in two places on either side of what used to be the gas station.

e. The Applicant is picking up at least five additional on-street spots that are contiguous to the property on both sides.

f. Down 7th Street, there is an opening that is closer to the corner and the Applicant is going to move that back down, which ends up adding a couple of spots there.

g. On Exhibit P-9, the Applicant's site is located right in the middle.

h. Along the middle, from 8th Avenue over to 7th, there is a 20-foot wide strip.

i. The storm water management would probably be on the side of the parking lot closer to 7th Avenue.

j. The 30-50 feet of depressed curb that is present on Fayette Street will become full height, and on-street parking will be made available once that happens.

k. The Applicant is going to build the storm water runoff underneath the parking lot because there is no room anywhere else and there is not a full-fledged storm system in the existing roads.

l. There are no inlets that are immediately adjacent to the site along the curb.

m. There is nowhere to do the storm water facility because the whole lot is covered with either building or parking.

n. The 10 evergreen trees in the back will end up being removed because the trees are in the way of the 13 spots.

o. The Applicant will be required to replace the trees all along the wall and off the parking lot, and there will be a buffer strip that would be created for privacy.

p. The 27 stalls for the site parking lot has been reduced to 26.

q. The spot closest to the trash receptacle was allocated as a turnaround that would enable people to turn around and come out of the lot.

r. The proposal originally added nine on-street parking stalls, but one will be eliminated so the total will come out to eight on-street parking stalls added as a result of the proposal.

s. The Applicant was asked to leave a pair of spots for the church, which is on 6th and Fayette, in the event of a snow emergency.

t. The Applicant plans on relocating a shed in order to make their 7th spot usable.

u. The HVAC unit is not going to go anywhere and it has a fence around it.

v. The shed will be relocated into the back corner.

w. The shed is a movable wooden shed and the two spots will be marked for the church use only.

13. Justin Taylor was qualified as a traffic study expert and offered the following testimony on behalf of the Applicant:

a. In developing the report marked as Exhibit P-7, Mr. Taylor reviewed the parking standards from a municipal standpoint and from current national trends to determine whether there was going to be sufficient parking for the project as proposed.

b. The proposed 5,155 square foot retail component of the first floor would equal a parking requirement of 26 spaces, for a total of 46 spaces.

c. The 5,155 is based on a prior iteration of the retail component on the first floor, which had additional tenant space, so the square footage was slightly higher in comparison to what is currently before the Board.

d. Based upon date contained within the "Parking Generation" publication from the Institution of Transportation Engineers, there would be a parking demand of 2.91 spaces per thousand square feet for a retail component based on the original 5,155 square feet.

e. This would equate to a parking demand of 15 spaces.

f. For the residential component, the manual for multifamily housing would project a demand ratio of 1.21 spaces per unit, for a total of 12 spaces for the proposed ten units.

g. The Applicant would expect a parking demand of 27 spaces for the proposed site.

h. From a residential standpoint, there would be a peak demand during the nighttime, when all of the residents are home and then that demand would drop as people leave for work.

i. By 9 AM, there would be a total demand of about 45 percent for the site.

j. As people return from work, the demand starts to increase.

k. For retail, the typical peak time occurs between 12:00 and 1:00 P.M.

l. Based on the two different peaking characteristics, it allows for the sharing of the spaces on the site.

m. It is anticipated that there will be a maximum demand on a weekday of about 20 spaces and a max demand on the weekend of about 24 spaces.

n. There is an increase in parking that is being provided on the street.

o. The parking that will be provided on the street will be usable by the surrounding businesses and residents.

p. The demand generated by retail has gone down, given the delivery services and the ride sharing phenomenon.

q. In a walkable community where there are opportunities to shop, dine, and complete various other tasks, there is less reliance on vehicular travel and demand.

r. The Parking Generation sets forth the parking ratios of 75th percentile demand for a retail component of 3.74 spaces per thousand square feet.

s. For the 4,733 square feet, this would equate to 18 spaces required for the retail component.

t. The residential use comes in at 1.61 spaces per unit, which equates to another 15 spaces for the residential side of it.

u. The combination of the spaces provided for retail and residential adds up to an anticipated demand of 33 spaces for the development.

v. A comprehensive analysis of the on-street parking was conducted.

w. Parking counts, as part of the analysis, was conducted within a one-block radius of the site, along both Fayette and Harry between 6th and 8th, and along 6th, 7th, and 8th between Forrest and Harry.

x. These counts were conducted between 12:00 noon and 8:00 PM on Thursday 8/5, Friday 8/6, and Saturday 8/7 to get a typical weekday, a Friday evening, and then a Saturday to see if there were varying characteristics.

y. In that surrounding one-block area, there is approximately 155 available on-street spaces and there is a demand ranging between 71 spaces occupied and 114 spaces occupied.

z. During any of these times, there are between 41 and 84 spaces within a one-block radius that is available for vehicles to park in.

aa. Any vehicle that might end up on the street is not going to create any type of imposition to the surrounding residents or the surrounding retail component.

III. CONCLUSIONS OF LAW

From the facts presented, it is the judgment of the Board that Applicant shall be granted the requested variances. The Applicant has proven an unnecessary hardship unique or peculiar to the property and that the variance is not contrary to the public interest. The Order and Decision

reflect this determination. Accordingly, the Board is able to make the following relevant findings under Section 910.2 of the MPC:

1. That there are unique physical circumstances or conditions, including irregularity, narrowness or shallowness of lot size or shape, or exceptional topographical or other physical conditions peculiar to the property, and that the unnecessary hardship is due to such condition, and not the circumstances or conditions generally created by the provisions of the Ordinance in the neighborhood or district in which the property is located;

2. That because of such physical circumstances or conditions there is no possibility that the property can be developed in strict conformity with the provisions of the Ordinance and that the authorization for a variance is therefore necessary to enable the reasonable use of the Subject Property;

3. That the variance will not alter the essential character of the neighborhood or district in which the Subject property is located, nor substantially or permanently impair the appropriate use or development of the adjacent property, or be detrimental to the public welfare;

4. That the unnecessary hardship has not been created by the Applicant; and,

5. That the variance will represent the minimum variance that will afford relief and will represent the least modification possible under the pertinent provisions of the Ordinance.

ORDER

AND NOW, this 2nd day of December, 2021, the Application of CGEM, LLC, Mun Chung, seeking variances from the Conshohocken Borough Zoning Ordinance of 2001 is **GRANTED** to permit the construction of a three-story mixed-use development with the first floor containing retail space and the second and third floors containing nine (9) apartments and to allow 26 on-site parking spaces and seven (7) off-site parking spaces. Such relief is conditioned upon Applicant securing and executing an agreement for the rights for the seven (7) off-site parking spaces.

The Applicant is directed to apply to the Borough Zoning Officer to obtain any appropriate permits.

CONSHOHOCKEN ZONING HEARING BOARD

Date Personally Delivered:

_____

Or Date emailed:

12/2/2021

_____ Richard D. Barton

_____ Mark S. Danek

_____ Gregory Scharff

_____ Marlowe Doman

_____ Alan Chmielewski

I, Alexander Glassman, the Solicitor of the Conshohocken Zoning Hearing Board, hereby certify that each member of said Board has read and approved this written opinion, which accurately reflects the actions and vote by said Board at its October 18, 2021 hearing in this matter. Said Board members have consented to their signatures to be affixed to this Decision as above.

Alexander M. Glassman

Alexander M. Glassman, Esquire

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

January 5, 2023

File No. 22-09016

Stephanie Cecco, Borough Manager
Borough of Conshohocken
400 Fayette Street, Suite 200
Conshohocken, PA 19428

Reference: 701 Fayette Street (S.R. 3016) – LD 2022-04
TMP #05-00-03296-00-2
Minor Land Development – Review 2

Dear Ms. Cecco:

Pursuant to the Borough's request, Gilmore & Associates, Inc. has reviewed the revised Minor Land Development submission for the above-referenced project. Upon review we offer the following comments for consideration by the Conshohocken Borough Council:

I. Submission

A. Plans, consisting of sheets 1 through 6 of 6, dated July 22, 2022 and last revised November 30, 2022, as prepared by Borusiewicz Surveyors and Site Planners for CGEM, LLC

B. Drainage Report, dated August 24, 2022 and last revised November 21, 2022, as prepared by GME Engineering for 701 Fayette Street

C. Drainage Plans, consisting of sheets 1 through 2 of 2, dated August 24, 2022 and last revised November 21, 2022, as prepared by GME Engineering for 701 Fayette Street

II. Project Description

The subject property, Tax Map Parcel 05-00-03296-00-2, is situated in the BC Borough Commercial District on the northeast corner of Fayette Street (S.R. 3016) and East 7th Avenue. The property is 18,000 square feet (0.413 acres) and currently contains a one-story 1,976 square foot footprint gas station building and associated paved parking and circulation area. All existing features are to be removed from the site, with the exception of a portion of an existing paved alley located in the northeastern corner.

The Applicant proposes to construct a three-story 6,250 square foot footprint mixed use building with retail use on the ground floor and a total of nine (9) apartments on the second and third floors. Associated proposed improvements include 26 parking spaces, lighting, landscaping, and sidewalk and curb replacement along the entire Fayette Street and East 7th Avenue frontages. The Applicant is also proposing to construct an underground seepage bed within the parking area to address stormwater management. The project appeared before the Zoning Hearing Board and received variances related to the proposed impervious coverage and number of parking spaces.

III. Review Comments

A. Zoning Ordinance

We defer all comments with respect to the Conshohocken Borough Zoning Ordinance to the Borough's Zoning Officer, including related to the Zoning Hearing Board Decision and Settlement Agreement.

B. Subdivision and Land Development Ordinance

We offer the following comments with respect to the Borough of Conshohocken's Subdivision and Land Development Ordinance:

1. §22-304.B.(3) – The north arrows shall be revised for consistency with geodetic north on all plan sheets, including the Drainage Plans.

2. §22-305 – The plans shall be revised to address the following plan related comments:

   a. The aerial photo provided on the Additional Details and Aerial Photo plan, Sheet 6, shall be revised to be set to a scale and the scale indicated in the title block.

   b. We recommend an iron pin or drill hole, in lieu of the proposed monument, be provided to mark the eastern property corner since it is located within the paved portion of the alley.

   c. The location and size of all existing and proposed utility services shall be added to the plans. Once known, show the proposed location of the existing utility pole in the northern island that is to be relocated.

   d. The location and size of the existing trees along the northern property line shall be added to the plans and confirmed whether they are proposed to remain or be removed. Replacement trees shall be provided as applicable.

   e. The plan view note for the location of the construction entrance shall be revised on the Erosion Control Plan, Sheet 4, to reference it being placed at the *proposed* driveway as shown.

3. §§22-403.B.(1) & 404.2.B – The minimum required and proposed sight distances shall be added to the plans at the intersection of Fayette Street and East 7th Avenue and the proposed driveway's intersection with East 7th Avenue, in conformance with PennDOT standards. The proposed striping of on-street parking spaces along Fayette Street and East 7th Avenue shall be revised as necessary to provide the required sight distances.

4. §§22-404.3.E & 421.6 – We offer the following comments related to lighting:

   a. Proposed lighting locations and levels shall be added to the plans to confirm a minimum illumination level of 0.5 footcandles throughout the parking area and no disturbance to the occupants of the adjacent residential properties. Where necessary, shielding shall be employed to eliminate over spill into residential areas.

   b. Information related to the proposed light fixture(s) referenced in the Parking Area Light Fixtures detail on the Additional Details & Aerial Photo plan, Sheet 6, shall be added to the plans for review.

   c. A note shall be added to the Parking Area Light Fixtures detail indicating that a design for the light pole foundation, which has been signed and sealed by a Professional Engineer licensed in the Commonwealth of Pennsylvania, must be submitted to and approved by the Borough Engineer prior to construction.

   d. The enclosed Borough standard detail shall be added to the plans and used instead of the Street Lights Fixtures detail on the Additional Details & Aerial Photo plan, Sheet 6, for the lights proposed in the grass verges along Fayette Street and East 7th Avenue.

5. §22-404.3.F.(1) – A 10 foot wide buffer strip, screened with minimum 6 foot high evergreens or decorative opaque fence, is required where a parking area adjoins a residential property. The Record Plan, Sheet 1, indicates a waiver will be requested to permit a buffer consistent with the related variance granted by the Zoning Hearing Board; however, no buffer related variances were granted. We recommend any waiver of this requirement be conditioned upon an opaque fence being provided around all sides of the trash enclosure.

6. §22-404.3.F.(2) – A 10 foot wide buffer strip, screened with a minimum 48 inch high evergreen hedge, decorative wall, or ornamental fencing, is required along each property line where the parking area abuts the public right-of-way or sidewalk. The proposed buffer strip along East 7th Avenue is

approximately 4.3 feet wide and proposed to contain five (5) deciduous shrubs and the overflow for the stormwater BMP. The Record Plan, Sheet 1, indicates a waiver will be requested to permit a buffer consistent with the related variance granted by the Zoning Hearing Board; however, no buffer related variances were granted. We recommend any waiver of this requirement be conditioned upon the deciduous shrubs proposed in the East 7th Avenue buffer strip being replaced with minimum 48 inch high evergreen shrubs.

7. §22-404.3.F.(5) – The Landscape Plan, Sheet 3, shall be revised to include a minimum of three (3) 3.5 caliper inch shade trees within the parking area or a waiver would be required.

8. §22-405 – The plans shall be revised to include replacement of the existing curb ramps, one for each crossing direction, at the intersection of Fayette Street and East 7th Avenue. Though standard curb ramp details have been added to the plan set, location specific curb ramp designs, provided in accordance with the design requirements of PennDOT Publication 72 RC-67, shall be added to the plans to confirm the proposed grading. We will defer review of the curb ramp crossing Fayette Street to PennDOT.

9. §22-405.1.D – The sidewalk design shall be revised to provide a four (4) foot wide grass verge along the curb lines, increasing from the 3.3 feet currently proposed, and provide a continuous grade across the driveway. The proposed sidewalk grades shall be revised to have no more than a 2 percent cross slope, including at the driveway, and tie into the site and existing features on the adjacent properties; plan view notes on the Grading/Improvements Plan, Sheet 2, referencing a 2% *min* slope for the sidewalk cross slope shall be revised to 2% *max* slope.

10. §22-409 – We offer the following comments with respect to the grading:

    a. Excessive slopes are proposed between the parking lot, public sidewalk, and East 7th Avenue. The grading shall be revised to provide pedestrian access into the site, maintain continuous pedestrian access within the right-of-way, and provide a driveway apron with a slope that will not cause cars to bottom out; we note that PennDOT recommends a maximum 8 percent change in grade between the road surface and driveway. Slopes in excess of 2:1 must be permanently stabilized with retaining walls and slopes greater than 3:1 shall be vegetated with low maintenance ground cover, shrubs, or other plant material. Slopes of lawn areas intended to be mowed shall not have a grade steeper than 3:1.

    b. The existing grading shall be confirmed, especially within the East 7th Avenue right-of-way, since the existing sidewalk is not graded at the approximately 30% cross slope as shown. We may have additional comments once this information is provided.

    c. Additional existing and proposed features and grading information shall be shown in the vicinities of the proposed connections to the paved alley and northern and eastern property lines, including the walls, sidewalks, and driveway aprons on the adjacent properties to detail how proposed and existing features will tie together.

    d. Proposed contours and spot elevations shall be added in the eastern landscape buffer and for the sidewalks on the site and within the rights-of-way.

    e. The proposed door locations for the retail spaces and apartment access shall be added to the plans to confirm coordination with the proposed grading.

    f. Detailed grading associated with the proposed accessible parking spaces and access aisle shall be added to the plans to confirm the slopes are not steeper than 1:48.

    g. Though standard curb ramp details have been added to the plan set, the plans shall be revised to incorporate a location specific design for the curb ramp providing pedestrian access from the parking lot to the adjacent sidewalk.

11. §22-409.2 – The Record Plan, Sheet 1, indicates a waiver will be requested to permit grading within three (3) feet of the property lines and within the rights-of-way of Fayette Street and East 7th Avenue.

12. §22-411 – A permanent easement, to the satisfaction of the Borough Solicitor, shall be provided related to allowing the continued alley encroachment onto the subject property. Metes and bounds associated with the easement shall be added to the Record Plan, Sheet 1.

13. §22-420.2 – Where trees six (6) inches in caliper or greater are removed, replacement trees shall be provided at a minimum of 3.5 caliper inches for each tree removed. The number of trees to be removed shall be clarified, including any near the northern property line. Though the Tree Replacement Calculation indicates 11 replacement trees are provided, only two (2) 3.5 caliper inch trees are proposed in addition to the separately required street trees; additional replacement trees must be provided to fully address this requirement or a waiver would be required.

14. §22-421.4 – The Record Plan, Sheet 1, indicates a waiver will be requested to permit the street trees be planted within the rights-of-way instead of a minimum of five (5) feet inside the lot lines, which we would support subject to the property owner agreeing to maintain the trees.

15. §22-421.5 – Each multifamily development or non-residential use shall be screened as a necessary to safeguard the character of an adjacent area. Such screening shall be a minimum of six (6) feet in height at the time of planting and permanently maintained. The Record Plan, Sheet 1, indicates a waiver will be requested to permit a buffer consistent with the related variance granted by the Zoning Hearing Board; however, no buffer related variances were granted and the plan shall be revised to comply with the requirements of this section, including proposing minimum six (6) foot high evergreen plantings in the eastern buffer.

16. §22-804 – The Applicant is required to dedicate ten percent (10%) of the total site area to the Borough for park or recreational use. Given the limited open space available on the site, we recommend the Applicant coordinate with the Borough Solicitor regarding a fee in lieu of providing park and recreational facilities.

C. Stormwater Management

We offer the following comments with respect to the stormwater management related requirements of the Borough of Conshohocken's Subdivision and Land Development Ordinance and Stormwater Management Ordinance:

1. §19-304 – The location of the existing and proposed roof drain and sump pump discharge points shall be added to the plans to confirm whether a single discharge point along East 7th Avenue is appropriate. We may have additional comments once this information is provided.

2. §19-401.1.C & E – The provisions for permanent access and maintenance easements and long-term operations and maintenance ownership, responsibilities, and schedules for the proposed seepage bed shall be added to the Proposed Drainage Plan.

3. §§19-501.3 & 502 – The Proposed Drainage Plan shall be recorded as a restrictive deed covenant that runs with the land and the Applicant shall execute Storm Water Operations and Maintenance Agreement in a form acceptable to the Borough Solicitor's office.

4. §19-702 – Roof drain and sump pump pipes shall discharge to the proposed seepage bed where feasible and shall not discharge water over a sidewalk but shall extend under the sidewalk to the gutter.

5. §22-410.3.B – All underground utilities shall be shown on the Drainage Area Plans.

6. §22-410.5.C.(1) - Information shall be provided to confirm that the existing monitoring wells are permitted to be removed as proposed and that the proposed infiltration BMP is suitable when considering any soil contamination.

7. §22-410.5.C.(5) – A permanent water quality device or other method of preventing direct discharge of sediment into the seepage bed shall be incorporated into the design.

8. §22-410.5.D – The Pond Reports for the seepage bed shall be revised based on the proposed 3 foot depth and to incorporate the proposed perforated pipes.

9. §22-410.5.D.(5) – Information shall be provided regarding the proposed maintenance access point(s) to permit long-term operation and maintenance of the seepage bed.

D. General Comments

We offer the following general comments:

1. Per condition 3 of the Settlement Agreement, the Applicant shall make a $25,000.00 contribution to the Borough's shuttle program at the time of recording the Land Development Agreement.

2. The Applicant shall obtain all required approvals, permits, etc. (e.g., Fire Marshal, Conshohocken Borough Sewer Authority, MCPC, Aqua, PennDOT, etc.). Copies of these approvals and permits shall be submitted to the Borough of Conshohocken and our office.

3. A waiver request letter, including the hardship and minimum modification necessary for each requested waiver, shall be provided. Waivers Requested 1 as listed on the Record Plan, Sheet 1, shall be removed since an application was made for Minor Land Development.

4. We have the following comments related to details:

   a. The width dimensions included in the Cement Concrete Pads & Sidewalk Detail on the Grading/Improvements Plan, Sheet 2, shall be clarified since they do not match plan views.

   b. We recommend the Detectable Warning Surfaces Detail for Handicap Ramps detail on the Additional Details & Aerial Photo plan, Sheet 6, be revised to show the length of the detectable warnings as the typical minimum 2 feet measured from the back of the curb, rather than the full length of the ramp.

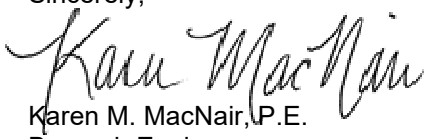
   c. A detail for the proposed trash enclosure, including those related to any proposed concrete base, fencing, and gates, shall be added to the plans.

5. Information shall be provided to confirm there will be no negative impacts to the walls on the adjacent northern and eastern properties, including information on how the walls will be protected from damage during construction.

6. Turning movements shall be provided to show a refuse truck entering the site, accessing the dumpsters, and exiting the site without impacting any proposed parking spaces.

If you have any questions regarding the above, please contact this office.

Sincerely,

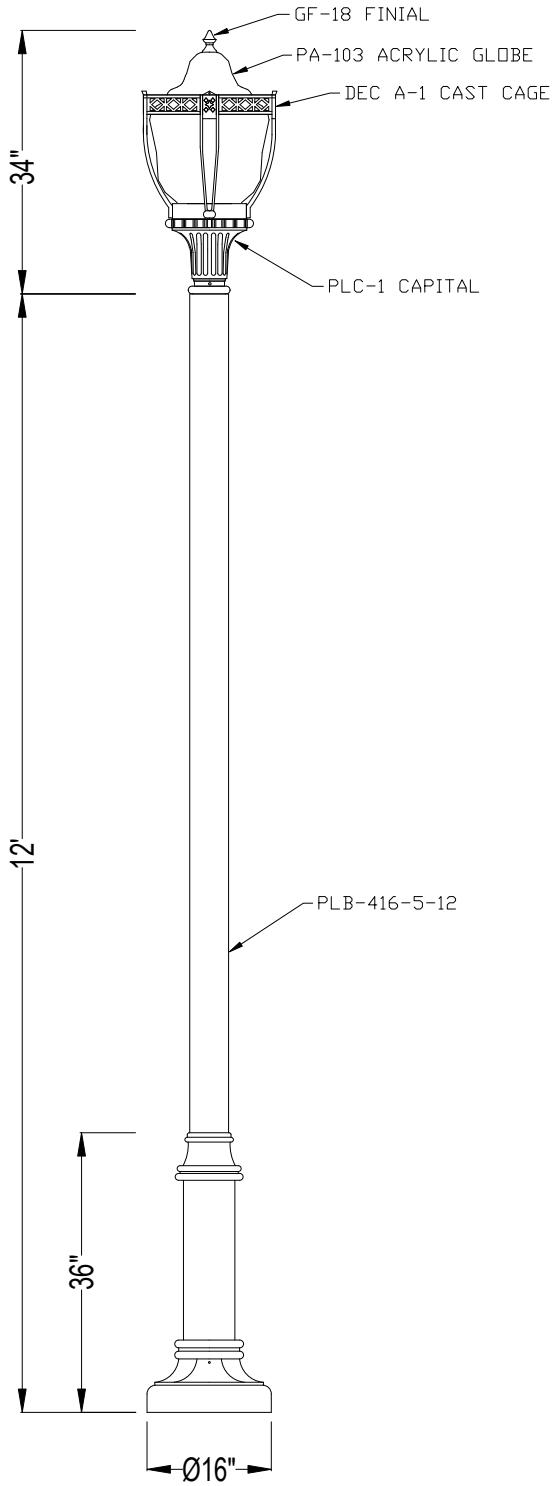


Karen M. MacNair, P.E.
Borough Engineer
Gilmore & Associates, Inc.

KMM/

Enc: as referenced

cc: Brittany Rogers, Executive Assistant
Ray Sokolowski, Executive Director of Operations and Building Code Official
Michael E. Peters, Esq., Borough Solicitor



ALL SIZES REPRESENTED ARE NOMINAL

CATALOG PART NUMBERS

LUMINAIRE:	***CHAR-PA103-ACR-PLC1-DECA1-47W6C4K-UNIV-TYPE V-GF18-BK***	
	LUMINAIRE:	"CHARLESTON" SERIES
	GLOBE/LENS:	PA 103 ACRYLIC
	DISTRIBUTION:	TYPE V
	LIGHT SOURCE:	47 WATT, 6 CHIP, 4K COLOR, OPTI-FLUX LED
	VOLTAGE:	UNIVERSAL
	FINISH:	POLYESTER POWDER COAT (BLACK FINISH)
	OPTIONS:	GF-18 FINIAL
		DEC A-1 CAST ALUM. CAGE

POLE:	***PLB 416-5-12-SMOOTH-BK***	
	STYLE:	DECORATIVE ALUM. POLE
	MATERIAL:	A356 CAST ALUM. BASE, 6061 ALUM. SHAFT
	SIZE:	5" DIA., .188" WALL THK., 12' TALL
	FINISH:	POLYESTER POWDER COAT (BLACK FINISH)
	OPTIONS:	

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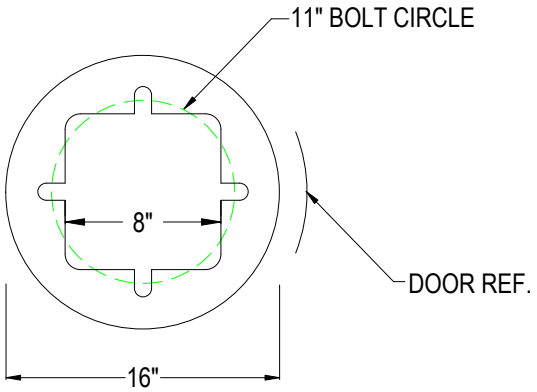

PEMCO
LIGHTING PRODUCTS, INC.
150 PEMCO WAY - WILMINGTON, DE 19804-3535
P-(302) 892-9003 F-(302) 892-9005
WWW.PEMCOLIGHTING.COM

JOB NAME: ***FAYETTE STREET***

DRAWN BY: *NTD*	TYPE:	REVISION: 1
DATE: 9/29/17	REP: ***ILLUMINATIONS INC.***	PAGE: 1 OF 1

BOROUGH OF CONSHOHOCKEN

Fire Marshal

Date: January 5, 2023

To: Stephanie Cecco, Borough Manager

From: Timothy Gunning, Fire Marshal
Matthew Traynor, Commercial Building Inspector

Re: Fire Marshal Review
LD-2022-04
Prelim/Final Land Development

As requested, a review of the material submitted for the above referenced land development proposal has been completed. The submission consisted of:

- Plans, consisting of sheets 1 through 6 of 6, dated July 22, 2022, last revised November 30, 2022, as prepared by Borusiewicz Surveyors and Site Planners for CGEM, LLC

Upon review of the submitted plan, we offer the following comments:

1. Due to the existing hydrant location, the sprinkler FDC (Fire Department Connection) shall be located on the Fayette Street side of the building at the 7th Avenue corner.
2. Overhead Wires: Service and Communication shall be relocated/run underground due to the height of the proposed building. No overhead obstructions may exist.

MONTGOMERY COUNTY
BOARD OF COMMISSIONERS
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KENNETH E. LAWRENCE, JR., VICE CHAIR
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MONTGOMERY COUNTY
PLANNING COMMISSION
MONTGOMERY COUNTY COURTHOUSE • PO BOX 311
NORRISTOWN, PA 19404-0311
610-278-3722
FAX: 610-278-3941 • TDD: 610-631-1211
WWW.MONTCOPA.ORG

SCOTT FRANCE, AICP
EXECUTIVE DIRECTOR

September 29, 2022

Stephanie Cecco, Borough Manager
Borough of Conshohocken
400 Fayette Street, Suite 200
Conshohocken, Pennsylvania 19428

Re: MCPC #22-0233-001
Plan Name: 701 Fayette Street
(1 lot/ 9 d.u.'s/ +/- 18,900 SF comprising 0.413 acres (18,000 sq. ft.)
Situate: Fayette St. / East 7th Avenue
Borough of Conshohocken

Dear Ms. Cecco:

We have reviewed the above-referenced land development in accordance with Section 502 of Act 247, "The Pennsylvania Municipalities Planning Code," in as requested by documentation submitted by the borough on September 1, 2022. We forward this letter as a report of our review.

BACKGROUND

The applicant, CGEM, LLC, c/o Mun Chung, Flourtown, PA has submitted a subdivision and land development plan seeking preliminary plan approval for the construction of a 3-story, mixed-use building totaling +/- 18,900 sq. ft. at the northeast corner of East 7th Avenue and Fayette Street. The first floor will contain retail space and the second and third floors will contain nine (9) apartments. The plan proposes 26 on-site parking spaces and seven (7) spaces along the adjacent streets. An existing gas station, surrounding pavement, and the evergreen buffer in the rear of the property will be demolished. The parcel is situated in the BC-Residential Office District.

The Conshohocken Zoning Hearing Board granted approval of the requested variances in accordance with the terms of your application. These include:

- Variances for the development of the building, including a variance to permit 89% impervious coverage of the site, where the Zoning Ordinance Section 27-1303.F. permits a maximum of impervious coverage of 85%.
- Variance for Section 27-2022, to allow 26 off-street parking spaces and 7 on-street parking spaces for a total of 33 spaces, where the ordinance requires a minimum of 46 parking spaces.

CONSISTENCY WITH THE COUNTY & BOROUGH COMPREHENSIVE PLANS

The redevelopment of this property is consistent with the goals and intent of *MONTCO 2040: A Shared Vison*, the Montgomery County Comprehensive Plan, 2015. The Future Land Use Map designates this developed area of the borough as 'Town Center'. The redevelopment of this tract as a mixed-use building supports this land use vision. The development plan appears to be generally consistent with the *Conshohocken Borough Comprehensive Plan Update, 2018* which supports mixed-use infill redevelopment in the community, provided it respects the existing character of the neighborhood.

RECOMMENDATION

The Montgomery County Planning Commission (MCPC) is generally supportive of the applicant's redevelopment proposal for this tract with the new mixed-use building. We recommend the borough consider several recommendations discussed below that we believe can help ensure that a sustainable and effective landscape improvement plan is implemented with the site's redevelopment. Foremost is the need to provide a larger soil area for the street trees along both Seventh Avenue and Fayette Street to sustain an effective and long lasting addition of canopy street trees. These and other related comments are discussed as follows.

COMMENT

1. **Regulations of Section 22-421. Landscaping & Lighting**
   a. *Street Shade Tree Requirements* - Section 22-421.4.
   The landscape plan proposes street trees arranged at regular intervals +/- 40 ft. on-center and +/- 2-3 ft. from the edge of the street's curb. The trees are proposed for planting in 3 ft. by 3 ft. tree pits within an 18 ft. wide sidewalk. The tree arrangement does not comply with several requirements of Section 22-421.4, which requires that street shade trees be planted no greater than 30 ft. apart; a 5 ft. setback inside the lot lines is required. The applicant should modify the arrangement of the proposal to ensure that street trees are planted 30 ft. on-center and that the other pertinent requirements of the borough's shade tree regulations have been addressed.

   b. *Pedestrian Lighting* – Section 22-421.6.
   The submitted landscape and lighting plans do not provide the required lighting fixture and luminaire details which would demonstrate compliance for the installation of the proposed pedestrian lighting. According to Section 22-421.6, Pedestrian Lighting, the mounting height of the lighting can be no greater than 12 ft. for the six (6) lighting fixtures proposed along the

street frontages. The proposed height of the fixture is not stated and the plan does not detail this improvement. The borough should ensure that the appropriate lighting details are provided for its review for compliance.

2. **Landscape Plan Improvements**

a. Creating a Healthy Street Tree Environment Requires Greater Soil Volume

The 3 ft. by 3 ft. tree well for the proposed street tree planting is an insufficient soil area to establish an effective street tree; we suggest it is a recipe for a disappointing street tree environment. We believe a healthy, thriving street tree canopy is an essential ingredient for a successful streetscape along Fayette Street in this core commercial area of the borough. We recommend the applicant revise the proposed use of small tree pits and, instead, design a continuous, linear tree planting zone in the verge. Providing a larger common area for tree roots to share soil space would in time produce a much healthier and greener streetscape for the borough. The attached graphic below illustrates how a shared planting zone will create a much larger soil area for the tree to establish a healthy green canopy versus the use of shade trees in small tree pits.

b. Street Tree species selection

We recommend that the *Nyssa sylvatica*, proposed along both streets in tree pits, should be replaced with a shade tree species that is a proven performer in a paved, urban environment. We recommend that at least two species are needed for the purpose of plant diversity for the applicant's street tree planting. As an alternative to the Black Gum, we recommend the borough consider planting the Willow Oak (*Quercus phellos*) and the Littleleaf Linden (*TIlia cordata* ' Greenspire'), as they are better choices to serve as street shade trees.

c. Rear Property Buffer

The proposed tree and shrub planting at the property boundary with the laundromat shows the large shade tree species- Willow Oak- planted at regular intervals of approximately 15 ft. on-center, with a Viburnum shrub with this 15 ft. area. This spacing arrangement is too close, and we suggest it will crowd out the branches and roots, and in a short time may totally shade out the Viburnums. We recommend the applicant revise the plan and arrange the buffer area in a naturalistic manner by using a sub-canopy tree species instead of the Oak shade tree. We suggest that Autumn Brilliance Serviceberry (*Amelanchier X Autumn Brillance')* or the Sweetbay Magnolia (*Magnolia virginiana 'Jim Wilson'*) would be appropriate choices. Smaller tree species could be combined with several native shrubs such as the deciduous Holly (*Ilex verticillata 'Red Sprite'*) and the Oakleaf Hydrangea (*Hydrangea quercifolia*) to create an effective buffer area.

CONCLUSION

The Montgomery County Planning Commission generally supports the plan as submitted and recommends the borough consider the above mentioned review comment to its satisfaction. Please note

that any 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.

Please be aware that the MCPC #22-0233-001 has been set aside for the applicant' plan. If any subsequent plans are submitted for final recording, this MCPC number should appear on the applicant sheets within the plans in the box reserved for the seal of this agency.

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.

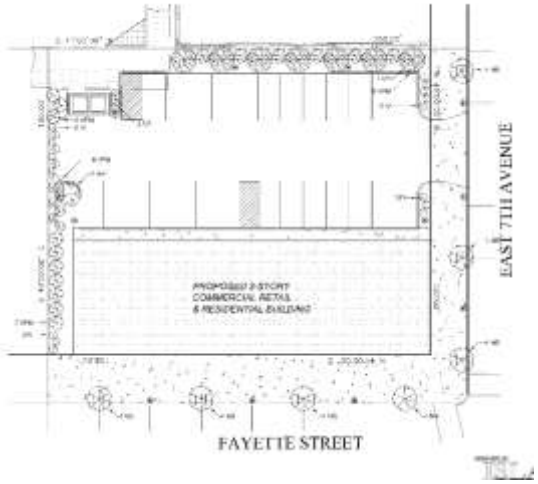
Sincerely,

Barry W. Jeffries

Barry W Jeffries, ASLA, Senior Design Planner
bjeffrie@montcopa.org - 610-278-3444

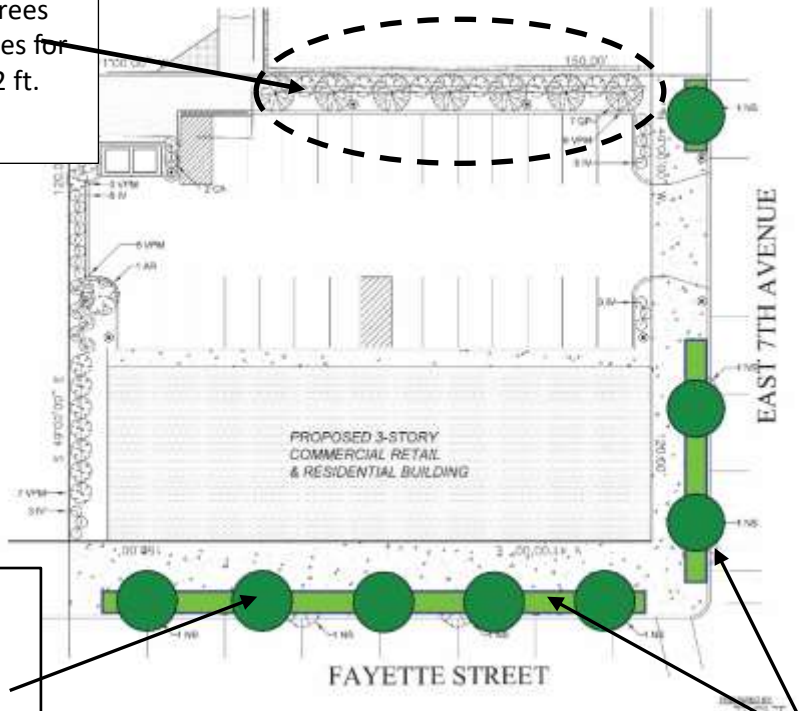
c: Chrm., Borough, Planning Commission
Karen MacNair, Borough Engineer
Michael Peters, Esq., Boro Solicitor
CGEM, LLC , Applicant

APPENDICES



Proposed Landscape Plan

Revise and use mid-story native trees & shrubs in naturalistic arrangement. Proposed Willow Oak trees are too large tree species for the space planted @ 12 ft. o.c.



Remove Black gum trees planted @ 40 ft. o.c. & Recommend use the Willow Oak & Littleleaf Linden as an alternative street tree species @ 30 ft. o.c.

Landscape Recommendations

Recommend a continuous soil planting area of 5-6 ft. wide for effective tree growth & health instead of confining street trees to small 3 ft. by 3.ft. tree wells.

701 Fayette Street
MCPC#220233001

Montgomery County Planning Commission
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

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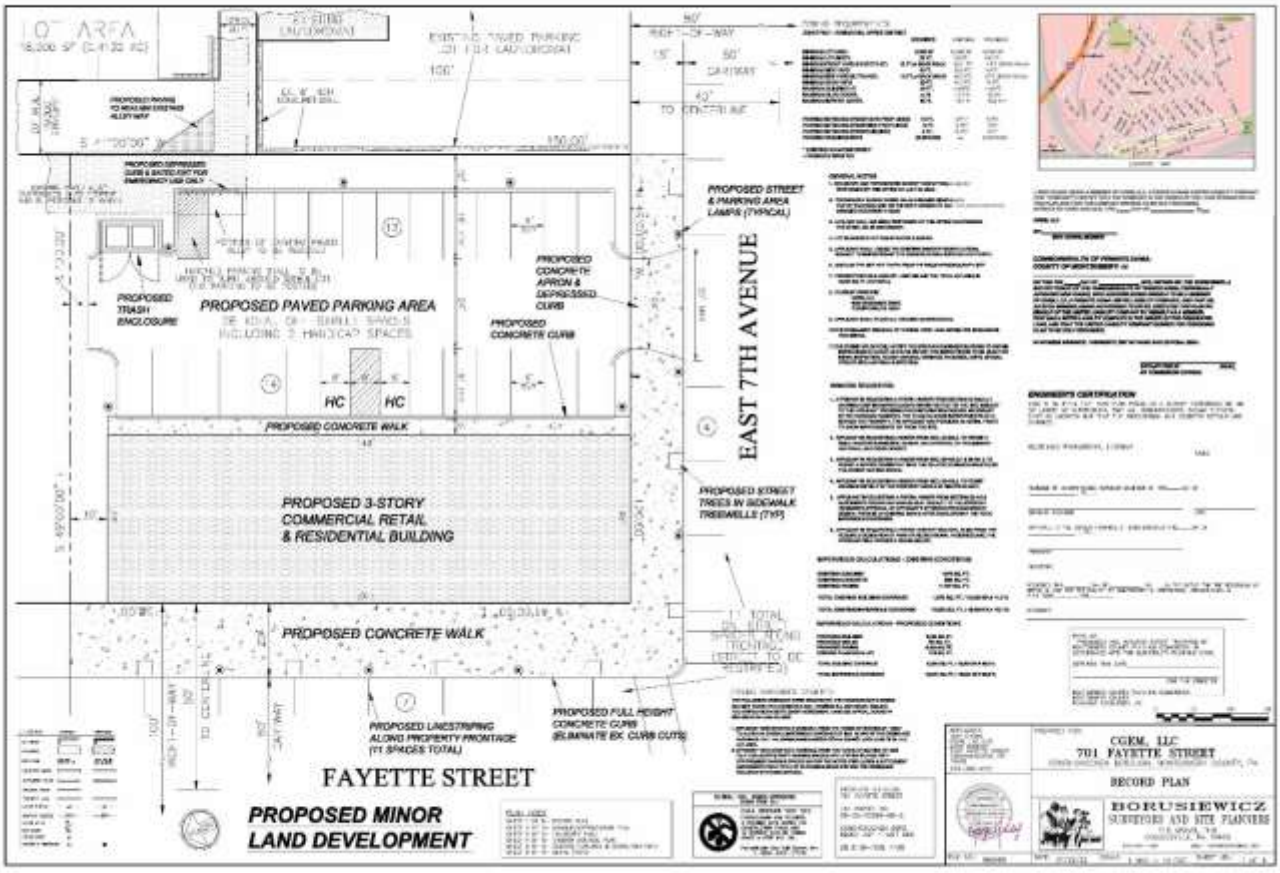
PROPOSED PAVED PARKING AREA
PROPOSED TRASH ENCLOSURE
PROPOSED CONCRETE APRON & DEPRESSED CURB
PROPOSED CONCRETE CURB
HC
HC
PROPOSED CONCRETE WALK
PROPOSED 3-STORY COMMERCIAL RETAIL & RESIDENTIAL BUILDING
PROPOSED CONCRETE WALK
PROPOSED STREET & PARKING AREA LAMPS (TYPICAL)
EAST 7TH AVENUE
PROPOSED STREET TREES IN SIDEWALK TREEWELLS (TYP)
PROPOSED LANDSTRIPING ALONG PROPERTY FRONTAGE (11 SPACES TOTAL)
PROPOSED FULL HEIGHT CONCRETE CURB (ELIMINATE EX. CURB CUTS)
FAYETTE STREET
PROPOSED MINOR LAND DEVELOPMENT
CGKM, LLC
701 FAYETTE STREET
RECORD PLAN
BORUSIEWICZ
SURVEYORS AND SITE PLANNERS

3100 Horizon Drive
Suite 200
King of Prussia, PA 19406
T: 610-277-2402
F: 610-277-7449

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BCONS21013

January 5, 2023

Stephanie Cecco
Borough Manager
Borough of Conshohocken
400 Fayette Street, Suite 200
Conshohocken, PA 19428

RE: Traffic Engineering Review
701 Fayette Street - Proposed Mixed-Use Development

Dear Ms. Cecco:

We have completed our review of the *Preliminary/Final Minor Land Development Plans*, prepared by Borusiewicz Suveyors and Site Planners, last revised November 30, 2022. We offer the following comments and information for your consideration:

1. Regarding the proposed on-street parking, the applicant should evaluate the required corner sight distance utilizing PennDOT criteria for the intersection of Fayette Street and 7th Avenue, and the site driveway to 7th Avenue, and adjust proposed on-street parking spaces. The plan should include the proposed corner sight distance dimensions. The applicant has indicated that they will comply with this requirement, but the information is not shown on the plans.

2. For information, the Borough is planning to install a flashing warning device at the intersection of Fayette Street & 7th Avenue for the existing pedestrian crossing of Fayette Street. If this plan moves forward, the proposed site design must be coordinated with the planned construction work at the intersection.

If you have any questions or require additional information, please do not hesitate to contact me.

Very truly yours,

PENNONI ASSOCIATES INC.

Brian R. Keaveney, PE, PTOE
Transportation Division

cc: Ray Sokolowski, Executive Director of Operations
George Metz, Chief of Police
Timothy Gunning, Fire Chief and Fire Marshal
Karen MacNair, PE, Borough Engineer
Michael Peters, Esq., Borough Solicitor
Brittany Rogers, Executive Assistant
Allison A. Lee, PE, Zoning Officer

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King of Prussia, PA 19406
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January 5, 2023

BCONS 22017

Stephanie Cecco, Borough Manager
Conshohocken Borough
400 Fayette Street, Suite 200
Conshohocken, PA 19428

RE: Zoning Review
701 Fayette Street – Preliminary/Final Land Development Application (2nd Submission)

Dear Ms. Cecco:

As requested, we reviewed the following in connection with the referenced project:

- *"Proposed Minor Land Development Plans,"* (6 sheets) prepared by Borusiewicz Surveyors and Site Planners, dated July 22, 2022, last revised November 30, 2022.

The applicant, CGEM, LLC., proposes to demolish the existing abandoned gas station and repair shop and construct a three-story, mixed-use building with commercial retail on the first floor and 9 residential apartments on the second and third floors on the subject property located in the BC – Borough Commercial Zoning District. The applicant proposes to construct , mixed-use building with commercial retail on the first floor and residential apartments on the second and third floors; along with curbing, sidewalk, parking spaces, and landscaping. The property is served by public water and sanitary sewer.

Variances Received

The Applicant was granted the following relief by the Zoning Hearing Board on September 19, 2018:

- §27-1303.F – Variance to allow an overall impervious coverage of 88.9% where the max coverage cannot exceed 85%.
- §27-2002 – Variance to allow a 26 off-street parking spaces and 7 off-premises parking spaces for a total of 33 parking spaces where 46 parking spaces are required.

The Zoning Hearing Board approval of the variances were conditioned upon the Applicant securing and executing an agreement for the rights for the 7 off-site parking spaces. However, subsequent to Zoning Hearing Board decision, the Settlement agreement dated June 22, 2022, amended the decision of securing and executing an agreement for the rights for the 7 off-site parking spaces and instead requires the Applicant to make a one-time financial contribution in the amount of $25,000.00 to the Borough's shuttle program.

We have performed a zoning review of the above referenced project for compliance with Chapter 27 – Zoning of the Conshohocken Borough Code of Ordinances. Based on our review, we offer the following outstanding comments for your consideration:

Zoning Comments

1. Per §27-820.A. thru F. - In all zoning districts, multifamily, commercial, or office uses refuse collection facilities must be provided by the Applicant which shall be architecturally compatible with the building; shielded from adjacent properties with wall or fencing and landscaping; designed and located in a manner that can accommodate large collection trucks; and set back ten (10) feet from all property lines.
   The Applicant is proposing a trash enclosure area located to the northeast corner of the site and to the rear of the proposed building. The Applicant shall provide a detail of the trash enclosure, and ensure that the detail includes a minimum six (6) feet high wall or fencing and landscaping compatible with the proposed building. Landscaping should be provided along the alley side of the trash enclosure area in addition to the landscaping provided on the sides of the trash enclosure area. The Applicant shall provide a refuse collection truck turning template to ensure proper maneuverability within the site. In addition, the trash enclosure area should be setback 10 feet from the property line adjacent 725 Fayette Street. Based on our measurements, the trash enclosure is only setback 7.25 feet from this northern property line.

   Since the previous submission, the trash enclosure has been moved to 10 feet away from the property line in compliance with this Code Section. However, the Applicant shall also provide a trash enclosure detail on the plans. In addition, a circulation plan for the refuse collection vehicle shall be provided to ensure the location can accommodate the refuse collection vehicle.

2. Per §27-821 - No lighting of private property shall be permitted that shall cause a hazard or nuisance to abutting roads and properties in accordance with the provisions of this Code Section.
   The Applicant shall provide a lighting plan to ensure that the on-site lighting is in compliance with the provisions of this Code Section.

   The proposed parking area lamp locations are shown on the Grading/Improvements Plan (sheet 2); however, no illumination levels have been provided for these parking lights. The lighting plan shall be updated to show the point-by-point illumination level calculations to ensure the on-site lighting is compliant with the provisions of this Code Section.

3. Per §27-1303.G - The maximum building height shall be 40 feet. The Applicant is indicating a building height of less than 40 feet. The building height is defined as the vertical distance measured from the average elevation of the existing grade at the location of the building to the highest point of a flat or multilevel roof or, for gable, hip, or gambrel roofs, to the mean height between the eaves and ridge.
   The Applicant shall show the building height at the middle location of the building accordingly.

   On the architectural plans, the building height at the middle of the building has not been labeled. The building height at the middle location of the building shall be shown to ensure the building is compliant with the maximum height requirement.

4. Per §27-2007.L - Parallel parking stalls shall have dimensions of 9 feet wide by 22 feet long.
   The Applicant is proposing parallel parking stalls along Fayette Street and East 7th Street that have dimensions of 10 feet wide by 20 feet long. The Applicant shall revise the parking stalls to be the correct length as specified by this Code Section. The parking space adjacent the intersection corner and/or access driveways shall be located adequately to provide adequate sight distance for turning maneuvers and accommodate pedestrian crossings.

The Applicant has modified the on-street parking stall spaces to 9'x22' in compliance with this Code Section. However, proper sight distances at the intersection of the site entrance driveway on East 7th Avenue and at the intersection of East 7th Avenue and Fayette Street shall be provided to ensure proper sight clearance from parked vehicles adjacent these locations. We defer to the traffic engineer for further comments.

5. Per §27-2010.C - For commercial and institutional uses, one loading berth for the first 5,000 SF up to a maximum of 10,000 SF, plus one additional loading berth for each additional 10,000 SF or fraction thereof.
The Applicant is proposing 6,300 SF of commercial space on the ground floor which would require a loading dock with dimensions of no less than 12 feet wide, 56 feet long, and 14 feet high. The Applicant shall delineate an area within the site to provide for a loading/unloading area for the commercial uses.

   The Applicant has indicated that the hatched paved area within the parking lot will be used for a turn-around area as well as loading/unloading. The hatched area on the plans is only 18 feet long by 8.25 feet wide which is substandard to the required loading dock area. The Applicant is required to show another area on-site to delineate the required loading/unloading area and minimize obstructions to the parking lot activity. In addition, a circulation plan for the loading/unloading vehicle shall be provided to ensure maneuverability within the parking lot.

6. Per Part 21, signs - *The Applicant shall indicate if any signage is being proposed as part of this development. All signs shall comply with the requirements of this section of the code. Additional comments may follow once the Applicant indicates what signage is proposed.*

   No signage has been provided as part of this submission. The Applicant shall clarify if any signage will be mounted on the building for this site. Additional comments may follow once the Applicant indicates what signage is proposed.

If you have any questions or concerns, please feel free to contact the undersigned.

Sincerely,

Allison A. Lee

Allison A. Lee, PE
Zoning Officer
PENNONI ASSOCIATES INC.

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