

**Town of Orangetown Planning Board Meeting:
Tuesday, April 7, 2020**

Time: 7:30 p.m.

Location: Town of Orangetown, Greenbush Auditorium, 20 South Greenbush Road, Orangeburg, New York

Project Name: Lane Resubdivision Plan (Lot Merger)

Location of Parcel: The site is located at 125 Park Avenue, Palisades, Town of Orangetown, Rockland County, New York, and as shown on the Orangetown Tax Map as Section 77.20, Block 2, Lots 76, 77 & 78 in the R-15 zoning district.

Distribution:

Rockland County:

- *Planning Department*
- *Highway Department*
- *Park Commission*
- *Environmental Resources*
- *Drainage Agency*
- *Health Dept.*
- *Sewer #1*

Town of Orangetown:

- *Drainage Consultant*
- *OBZPA*
- *DEME*
- *Highway*
- *DTA*
- *Fire Prev. (2)*
- *TAB*
- *ZBA*

Other:

- *New York State Department of Environmental Conservation*
- *Orange and Rockland Utilities*
- *Suez*
- *Borough of Rockleigh, New Jersey*

Project Description: Prepreliminary/ Preliminary Subdivision Plan Review

Please forward your completed review to this office by the meeting date. **If your comments are not received by this date, the Board assumes your agency does not have any comments.**

**Planning Board Meeting of Tuesday, April 7, 2020
Town of Orangetown**

Project Name: Lane Resubdivision Plan (Lot Merger)

Location of Parcel: The site is located at 125 Park Avenue, Palisades, Town of Orangetown, Rockland County, New York, and as shown on the Orangetown Tax Map as Section 77.20, Block 2, Lots 76, 77 & 78 in the R-15 zoning district.

Please review the information enclosed and provide comments. These comments may be mailed, e-mailed or faxed to the Planning Board Office.

If your agency does not have any comments at this time, please respond to this office by sending back this sheet.

- U.S. Postal: 20 South Greenbush Road, Orangeburg, New York 10962
- Email to Planning Board at ccoopersmith@orangetown.com, or
- Fax to the Town of Orangetown Planning Board @845 359-8526

- () Comments Attached (or to be provided prior to Meeting date noted above)
- () No Comments at this time. Please send future correspondence for review.
- () No future correspondence for this site should be sent to this agency. Plans reviewed and this agency does not have any further comments.
- () This project is out of the jurisdiction of this agency and has no further comments.

Dated: _____

Agency Name

By: _____

Please Print Name

Name of Municipality: TOWN OF ORANGETOWN

Date Submitted: 2/6/2020

2020 LAND USE BOARD APPLICATION

Please check all that apply:

<input checked="" type="checkbox"/> Planning Board	<input type="checkbox"/> Commercial	<input type="checkbox"/> Residential
<input checked="" type="checkbox"/> Zoning Board of Appeals	<input type="checkbox"/> Historical Board	<input type="checkbox"/> Architectural Board
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Consultation	<input type="checkbox"/> Pre-Preliminary/Sketch
<input type="checkbox"/> Number of Lots	<input checked="" type="checkbox"/> Preliminary	<input checked="" type="checkbox"/> Final
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Interpretation	
<input type="checkbox"/> Conditional Use		
<input type="checkbox"/> Special Permit		
<input type="checkbox"/> Variance		
<input type="checkbox"/> Performance Standards Review		
<input type="checkbox"/> Use Variance		
<input type="checkbox"/> Other (specify): <u>Combine 3 lots to one</u>		

PERMIT#: _____
 ASSIGNED _____
 INSPECTOR: _____

Referred from Planning Board: YES / NO
 If yes provide date of Planning Board meeting: _____

Project Name: Park Ave combined Resubdivision-lot merger

Street Address: 125 Park Ave Palisades NY 10964

Tax Map Designation:

Section: 77.20 Block: 2 Lot(s): 76 77 78
Section: _____ Block: _____ Lot(s): _____

Directional Location:

On the END side of Park Ave, approximately 300 feet of the intersection of MORONEY AVE, in the Town of ORANGETOWN in the hamlet/village of Palisades.

Acreage of Parcel <u>1/3</u>	Zoning District <u>15</u>
School District <u>South Orangetown</u>	Postal District <u>Palisades</u>
Ambulance District _____	Fire District _____
Water District <u>WELL</u>	Sewer District <u>Orangetown</u>

Project Description: (If additional space required, please attach a narrative summary.)

Combine lots 76 77 78 into 1 Building lot

The undersigned agrees to an extension of the statutory time limit for scheduling a public hearing.

Date: FEB 4 Applicant's Signature: Edmund Lane

APPLICATION REVIEW FORM

Applicant: Edmundo Lane Phone # 914 403 2786

Address: 75 Michael Roberts CT Pearl
Street Name & Number (Post Office) City State Zip Code

Property Owner: James Beni Phone # 845 519 0494

Address: 135 Park Ave Palisades NY 10964
Street Name & Number (Post Office) City State Zip Code
845 357 4411 845 357 0830

Engineer/Architect/Surveyor: Center Point Jay Greenwell
Professional

Address: Suffern NY
Street Name & Number (Post Office) City State Zip Code

Attorney: Veronica Lane Walsh 845 304 9168
Attorney #

Address: 103 William St Pearl River 10965
Street Name & Number (Post Office) City State Zip Code

Contact Person: Edmundo Lane Phone # 914 403 2786

Address: 75 Michael Roberts CT Pearl River 10965
Street Name & Number (Post Office) City State Zip Code

GENERAL MUNICIPAL LAW REVIEW:

This property is within 500 feet of:
(Check all that apply)

IF ANY ITEM IS CHECKED, A REVIEW MUST BE DONE BY THE ROCKLAND COUNTY COMMISSIONER OF PLANNING UNDER THE STATE GENERAL MUNICIPAL LAW, SECTIONS 239 L, M, N, AND NN.

- | | |
|---|---|
| <input type="checkbox"/> State or County Road | <input type="checkbox"/> State or County Park |
| <input type="checkbox"/> Long Path | <input type="checkbox"/> County Stream |
| <input type="checkbox"/> Municipal Boundary | <input type="checkbox"/> County Facility |

List name(s) of facility checked above:

Referral Agencies:

- | | |
|--|--|
| <input type="checkbox"/> RC Highway Department | <input type="checkbox"/> RC Division of Environmental Resources |
| <input type="checkbox"/> RC Drainage Agency | <input type="checkbox"/> RC Dept. of Health |
| <input type="checkbox"/> NYS Dept. of Transportation | <input type="checkbox"/> NYS Dept. of Environmental Conservation |
| <input type="checkbox"/> NYS Thruway Authority | <input type="checkbox"/> Palisades Interstate Park Commission |
| <input type="checkbox"/> Adjacent Municipality _____ | |
| <input type="checkbox"/> Other _____ | |

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Name of Action or Project: 125 Park Avenue - <u>Subdivision (Lot Merger)</u>			
Project Location (describe, and attach a location map): East side of Park Avenue, approximately 200 feet south of the intersection of Scotti Avenue			
Brief Description of Proposed Action: Construction of single family dwelling; property consists of <u>three tax lots that are to be combined into a single tax lot</u>			
Name of Applicant or Sponsor: Edmund Lane		Telephone: 914-402-2786 E-Mail: margaretlaneboyle@gmail.com	
Address: 75 Michael Roberts Court			
City/PO: Pearl River		State: NY	Zip Code: 10965
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: US Army Corps of Engineers (wetlands)			NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>
3. a. Total acreage of the site of the proposed action?		0.33 acres	
b. Total acreage to be physically disturbed?		0.25 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		0.33 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
5. <input type="checkbox"/> Urban <input type="checkbox"/> Rural (non-agriculture) <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Commercial <input checked="" type="checkbox"/> Residential (suburban) <input type="checkbox"/> Forest <input type="checkbox"/> Agriculture <input type="checkbox"/> Aquatic <input type="checkbox"/> Other(Specify): <input type="checkbox"/> Parkland			

5. Is the proposed action,		NO	YES	N/A
a.	A permitted use under the zoning regulations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Consistent with the adopted comprehensive plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?		NO	YES	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		NO	YES	
If Yes, identify: _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?		NO	YES	
b. Are public transportation services available at or near the site of the proposed action?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Does the proposed action meet or exceed the state energy code requirements?		NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____ _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Will the proposed action connect to an existing public/private water supply?		NO	YES	
If No, describe method for providing potable water: <u>New private well to be constructed</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Will the proposed action connect to existing wastewater utilities?		NO	YES	
If No, describe method for providing wastewater treatment: _____		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?		NO	YES	
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		NO	YES	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____				
<u>0.10 acre of federal wetland to be filled in accordance with Nationwide Permit</u>				

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

- Shoreline
 Forest
 Agricultural/grasslands
 Early mid-successional
 Wetland
 Urban
 Suburban

15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

16. Is the project site located in the 100-year flood plan?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

17. Will the proposed action create storm water discharge, either from point or non-point sources?
If Yes,

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Will storm water discharges flow to adjacent properties?

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?

NO	YES
<input type="checkbox"/>	<input checked="" type="checkbox"/>

If Yes, briefly describe:

Discharge to existing drainage ditch

18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If Yes, explain the purpose and size of the impoundment:

19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?

NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If Yes, describe:

20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?

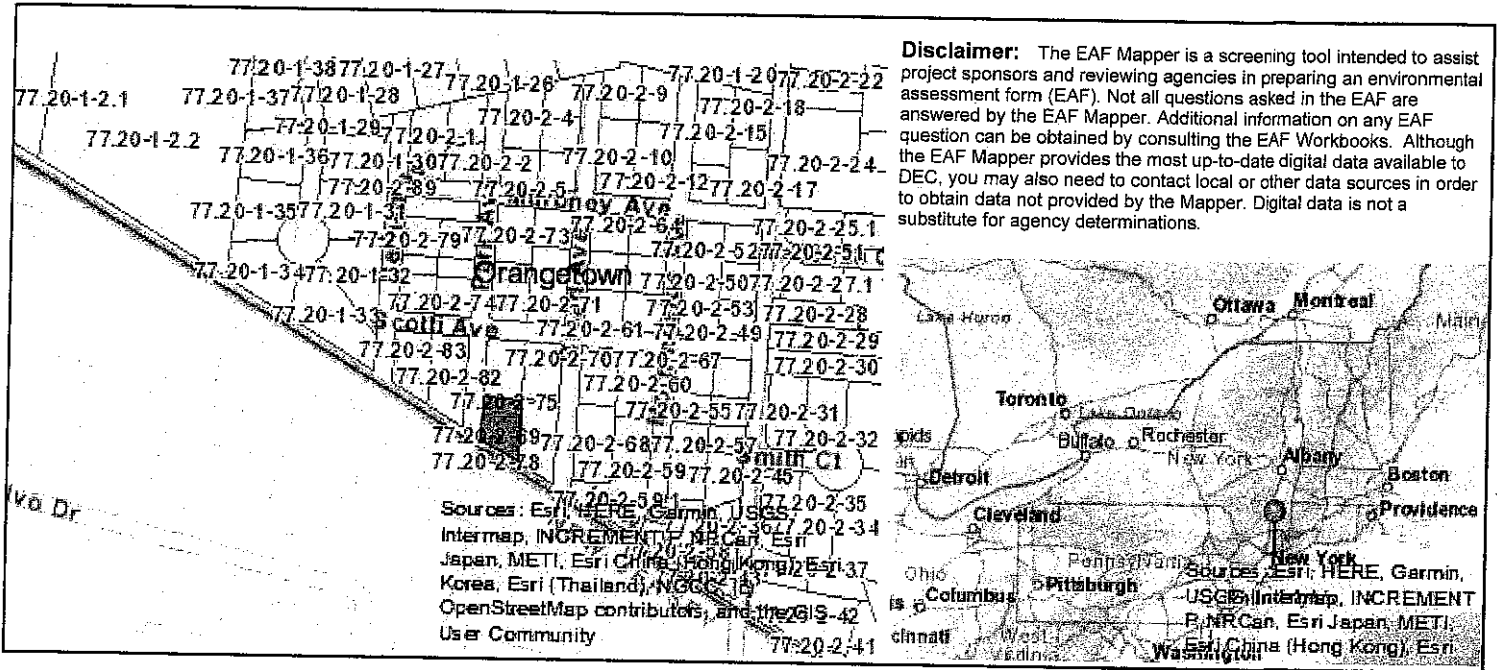
NO	YES
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If Yes, describe:

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: _____ Date: _____

Signature: _____ Title: _____



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No

Notice of Lead Agency Coordination

Town of Orangetown Planning Board Meeting: TUESDAY, April 7, 2020

Meeting Time - 7:30 p.m.

Location: Town of Orangetown, Greenbush Auditorium, 20 South Greenbush Road, Orangeburg, New York

Project Name: Lane Resubdivision Plan (Lot Merger)

Location of Parcel: The site is located at 125 Park Avenue, Palisades, Town of Orangetown, Rockland County, New York, and as shown on the Orangetown Tax Map as Section 77.20, Block 2, Lots 76, 77 & 78 in the R-15 zoning district.

Please be advised that the Orangetown Planning Board is in receipt of an application for **Lane Resubdivision Plan (Lot Merger)** and related Part 1 Environmental Assessment Form for the proposed project. Among other approvals, the proposed requires a review of by the Orangetown Planning Board. In accordance with the implementing regulations of the New York State Environmental Quality Review Act, found at Title 6 Part 617 NYCRR, the Town Planning Board at it's meeting of **TUESDAY, April 7, 2020** will adopt a motion to (1) declare the proposed development an unlisted action; (2) identify other involved and interested agencies, and (3) initiate coordinated review of the proposed action pursuant to Title 6 Part 617 NYCRR.

The Planning Board has expressed its desire to serve as lead agency in the environmental quality review of this proposed development. The Planning Board believes that it is the most appropriate lead agency pursuant to the criteria for determining lead agency, as found at Title 6 Part 617.(e)(5). Your agency has been identified as a potential involved agency. Accordingly, please consider this memorandum as notice that a lead agency must be designated within thirty (30) calendar days of this mailing. If you have any objection to the Planning Board's assumption of lead agency status, please respond within the prescribed time frame. Please see the attached response letter.

Please take note that if the attached letter is not received within 30 days of receipt of this mailing, the Town of Orangetown Planning Board assumes your agency does not have interest in being Lead Agency.

Town of Orangetown Planning Board
Planning Board Meeting: Tuesday, April 7, 2020

**Location: Greenbush Auditorium, 20 South Greenbush Road,
Orangeburg, New York 10962**

Project Name: Lane Resubdivision Plan (Lot Merger)

Location of Parcel: The site is located at 125 Park Avenue, Palisades, Town of Orangetown, Rockland County, New York, and as shown on the Orangetown Tax Map as Section 77.20, Block 2, Lots 76, 77 & 78 in the R-15 zoning district.

**Response to request that the Town of Orangetown Planning Board
BE DESIGNATED TO SERVE AS LEAD AGENCY FOR THE:**

**On behalf of _____ (involved
agency), I acknowledge receipt of the Lead Agency Notice in this matter.**

The above named involved agency hereby (please check one):

- CONSENTS that the Town of Orangetown Planning Board serve as Lead Agency for coordinated environmental review of the proposed action, and requests that the undersigned continue to be notified of SEQR determinations, Proceedings and hearings in this matter.
- DOES NOT CONSENT to the Town of Orangetown Planning Board's serving as Lead Agency for coordinated environmental review of the Lead Agency. To contest the requested Lead Agency, the undersigned proposed action and wishes that _____ serve as _____ intends to follow the procedures outlined in Title 6 Part 617.6(b) (5) NYCC.
- TAKES NO POSITION on Lead Agency designation in this matter

Dated: _____

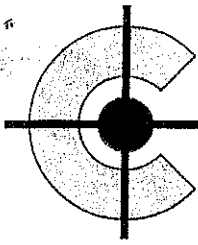
Agency Name

By: _____

Signature

Printed Name of Signer

Please return within 30 days by
Fax: (845) 359-8526
E-mail: ccoopersmith@aol.com



**CENTERPOINT
ENGINEERING** PLLC

74 Lafayette Avenue
Suffern, NY 10901

(845)-368-8787

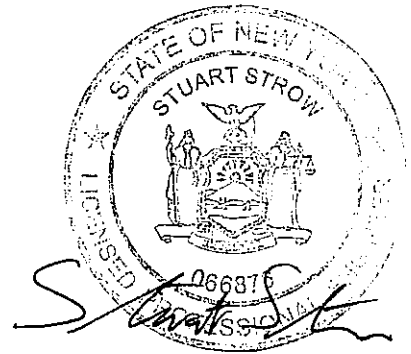
Drainage Analysis

Prepared for:

125 Park Avenue

Town of Orangetown
Rockland County, New York

February 24, 2020



Stuart Strow, P.E.
N.Y. Lic. No. 66876

SUMMARY

The subject property is a 0.33-acre (14,443 square feet) parcel located on the easterly side of Park Avenue and approximately 200 feet south of the intersection of Scotti Avenue. The site is comprised of three tax lots which are to be combined into a single tax lot as part of the project. The project site is wooded and vacant, and includes wetlands on its northerly and easterly sides. Runoff from the property discharges to an existing drainage ditch on the westerly side of the Park Avenue right-of-way.

The proposed project includes the construction of a new single-family residence. A driveway will be constructed within the Park Avenue right-of-way to serve the project. A portion of the existing wetland will be filled as part of the project. The proposed construction will not alter the overall drainage pattern of the property, but it will add approximately 4,000 square feet of impervious surfaces to the property. To offset the increased runoff associated with the addition of impervious surfaces on the property, an underground detention system will be constructed. The detention system will consist of a 200 linear feet of 12-inch diameter HDPE storage pipe and a new outlet control structure. Runoff from the new roof and driveway will be directed to the detention system. The system has been sized and designed for storms ranging up to the 100-year frequency design storm. The attached drainage analysis demonstrates that there will be no net increase in peak discharge from the project site as a result of the proposed construction of the project.

This analysis utilized the HydroCAD computer program to generate, route and combine runoff hydrographs for storms having 1-, 2-, 10-, 25- and 100-year recurrence intervals. Runoff hydrographs were generated by utilizing SCS hydrographs to match discharges as calculated using the TR-55 peak discharge method for each drainage subarea.

SUMMARY TABLE 1

PEAK DISCHARGE AT SOUTHEASTERLY CORNER OF SITE

<u>FREQUENCY</u>	<u>PEAK DISCHARGE (CFS)</u>		<u>DIFFERENCE</u>
	<u>EXISTING</u> <u>CONDITIONS</u>	<u>PROPOSED</u> <u>CONDITIONS</u>	
1 YEAR	0.47	0.46	-0.01
2 YEAR	0.67	0.62	-0.05
10 YEAR	1.30	1.27	-0.03
25 YEAR	1.69	1.67	-0.02
100 YEAR	2.30	2.29	-0.01

Rainfall Data

NOAA Atlas 14, Volume 10, Version 2

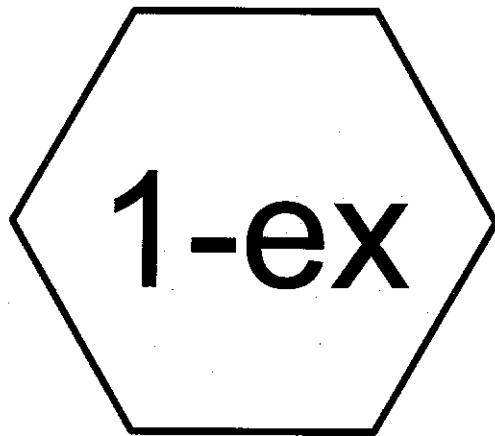
Precipitation Frequency Estimates
24-hr duration

Frequency	Rainfall (inches)
1 Year	2.94
2 Year	3.64
10 Year	5.74
25 Year	7.05
100 Year	9.07

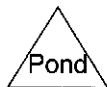
APPENDIX A

HydroCAD Output Results

Existing Conditions



existing



Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

Printed 2/21/2020

Page 2

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-ex: existing

Runoff Area=14,443 sf 46.74% Impervious Runoff Depth=1.40"
Tc=10.0 min CN=83 Runoff=0.47 cfs 0.039 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.039 af Average Runoff Depth = 1.40"
53.26% Pervious = 0.177 ac 46.74% Impervious = 0.155 ac

Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

Printed 2/21/2020

Page 3

Summary for Subcatchment 1-ex: existing

Runoff = 0.47 cfs @ 12.14 hrs, Volume= 0.039 af, Depth= 1.40"

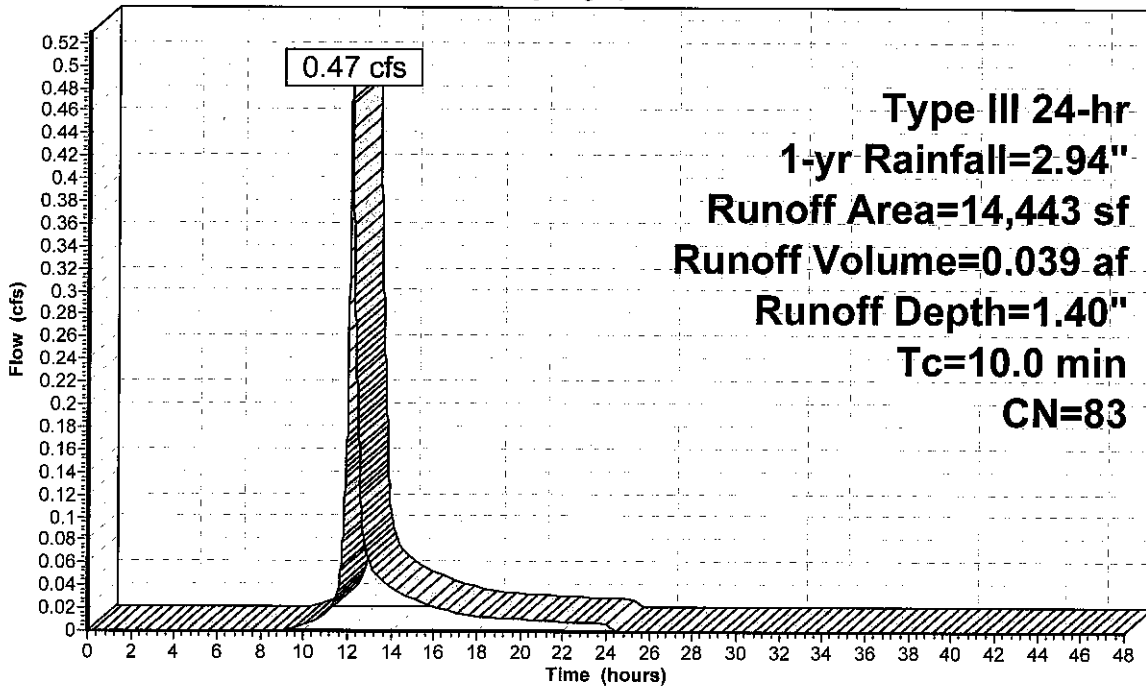
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-yr Rainfall=2.94"

Area (sf)	CN	Description
7,693	70	Woods, Good, HSG C
6,750	98	Water Surface, HSG C
14,443	83	Weighted Average
7,693		53.26% Pervious Area
6,750		46.74% Impervious Area

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

Subcatchment 1-ex: existing

Hydrograph



Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 2-yr Rainfall=3.64"

Printed 2/21/2020

Page 4

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-ex: existing

Runoff Area=14,443 sf 46.74% Impervious Runoff Depth=1.98"

Tc=10.0 min CN=83 Runoff=0.67 cfs 0.055 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.055 af Average Runoff Depth = 1.98"
53.26% Pervious = 0.177 ac 46.74% Impervious = 0.155 ac

Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 2-yr Rainfall=3.64"

Printed 2/21/2020

Page 5

Summary for Subcatchment 1-ex: existing

Runoff = 0.67 cfs @ 12.14 hrs, Volume= 0.055 af, Depth= 1.98"

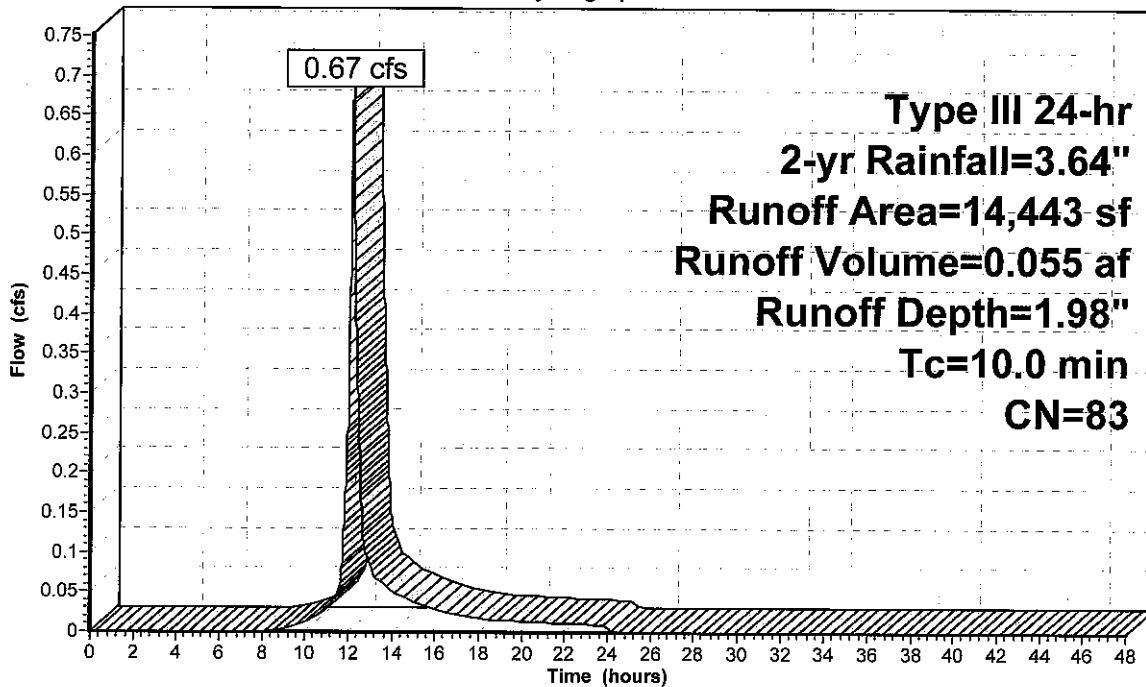
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.64"

Area (sf)	CN	Description
7,693	70	Woods, Good, HSG C
6,750	98	Water Surface, HSG C
14,443	83	Weighted Average
7,693		53.26% Pervious Area
6,750		46.74% Impervious Area

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

Subcatchment 1-ex: existing

Hydrograph



Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

Printed 2/21/2020

Page 6

Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-ex: existing

Runoff Area=14,443 sf 46.74% Impervious Runoff Depth=3.85"

Tc=10.0 min CN=83 Runoff=1.30 cfs 0.106 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.106 af Average Runoff Depth = 3.85"
53.26% Pervious = 0.177 ac 46.74% Impervious = 0.155 ac

Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

Printed 2/21/2020

Page 7

Summary for Subcatchment 1-ex: existing

Runoff = 1.30 cfs @ 12.14 hrs, Volume= 0.106 af, Depth= 3.85"

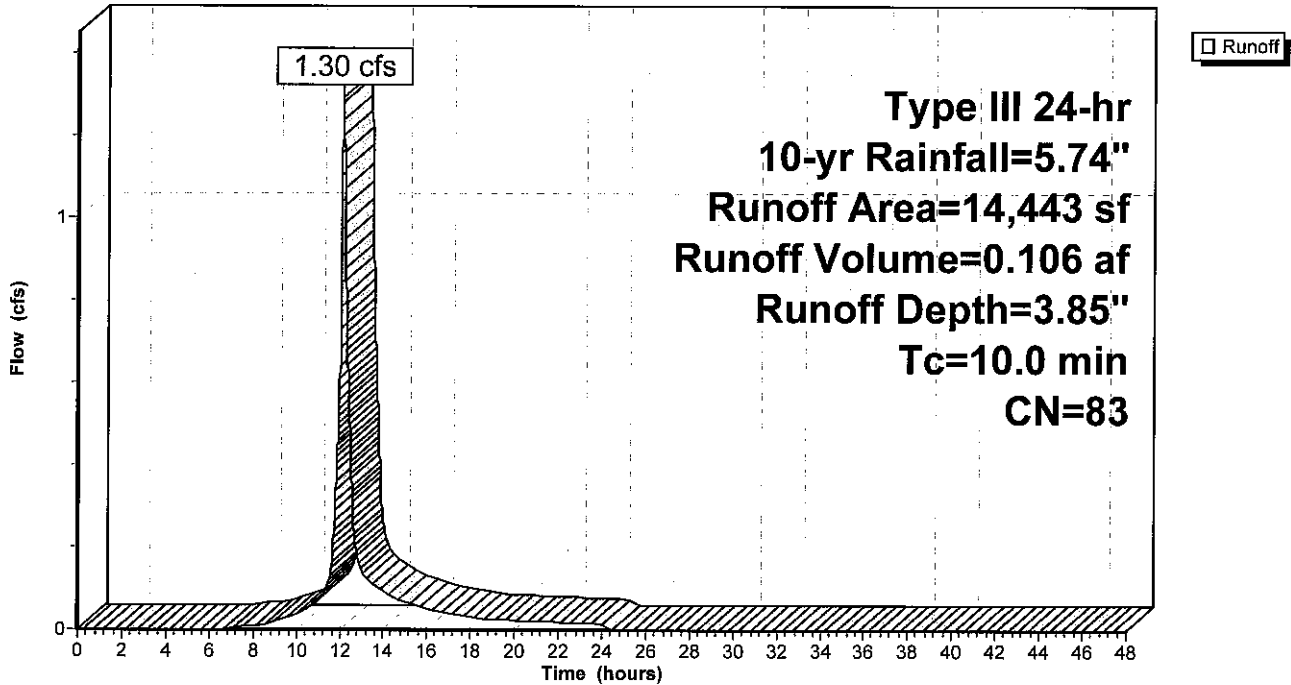
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.74"

Area (sf)	CN	Description
7,693	70	Woods, Good, HSG C
6,750	98	Water Surface, HSG C
14,443	83	Weighted Average
7,693		53.26% Pervious Area
6,750		46.74% Impervious Area

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

Subcatchment 1-ex: existing

Hydrograph



Exist 2 21-20

Prepared by Brooker Engineering

HydroCAD® 10.00-20 s/n 06354 © 2017 HydroCAD Software Solutions LLC

EXISTING CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1-ex: existing

Runoff Area=14,443 sf 46.74% Impervious Runoff Depth=5.07"

Tc=10.0 min CN=83 Runoff=1.69 cfs 0.140 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.140 af Average Runoff Depth = 5.07"
53.26% Pervious = 0.177 ac 46.74% Impervious = 0.155 ac

Exist 2 21-20

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EXISTING CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Summary for Subcatchment 1-ex: existing

Runoff = 1.69 cfs @ 12.14 hrs, Volume= 0.140 af, Depth= 5.07"

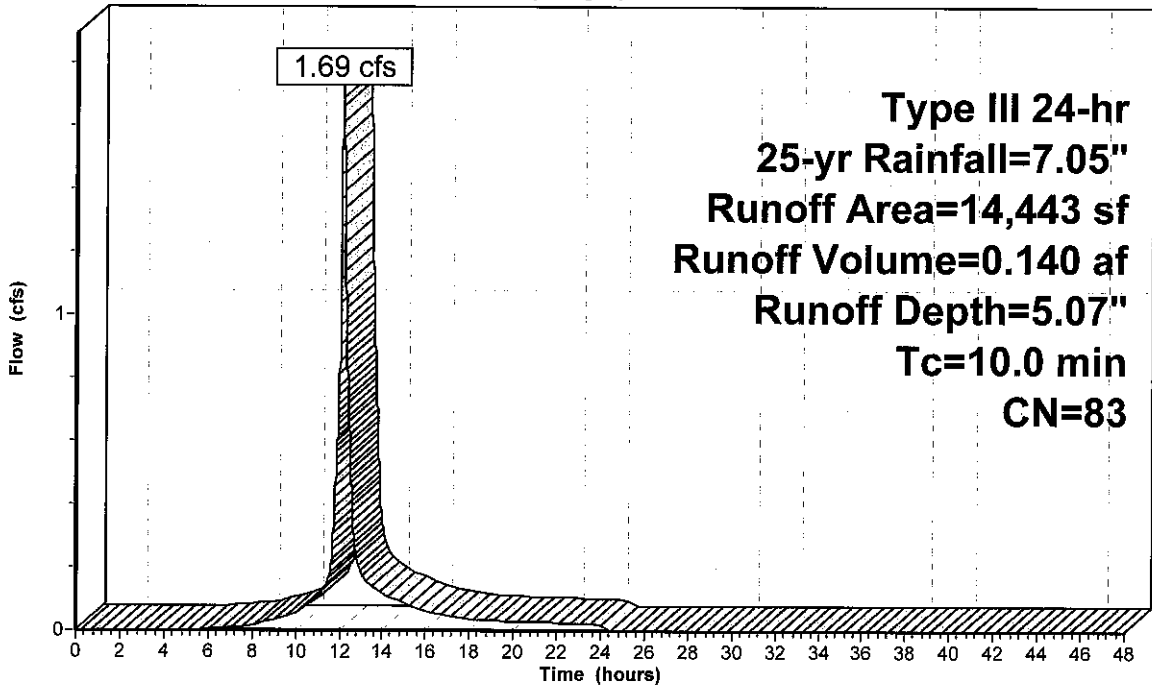
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=7.05"

Area (sf)	CN	Description
7,693	70	Woods, Good, HSG C
6,750	98	Water Surface, HSG C
14,443	83	Weighted Average
7,693		53.26% Pervious Area
6,750		46.74% Impervious Area

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

Subcatchment 1-ex: existing

Hydrograph



**Type III 24-hr
25-yr Rainfall=7.05"
Runoff Area=14,443 sf
Runoff Volume=0.140 af
Runoff Depth=5.07"
Tc=10.0 min
CN=83**

Runoff

Exist 2 21-20

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EXISTING CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-ex: existing

Runoff Area=14,443 sf 46.74% Impervious Runoff Depth=7.00"
Tc=10.0 min CN=83 Runoff=2.30 cfs 0.194 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.194 af Average Runoff Depth = 7.00"
53.26% Pervious = 0.177 ac 46.74% Impervious = 0.155 ac

Exist 2 21-20

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EXISTING CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Summary for Subcatchment 1-ex: existing

Runoff = 2.30 cfs @ 12.14 hrs, Volume= 0.194 af, Depth= 7.00"

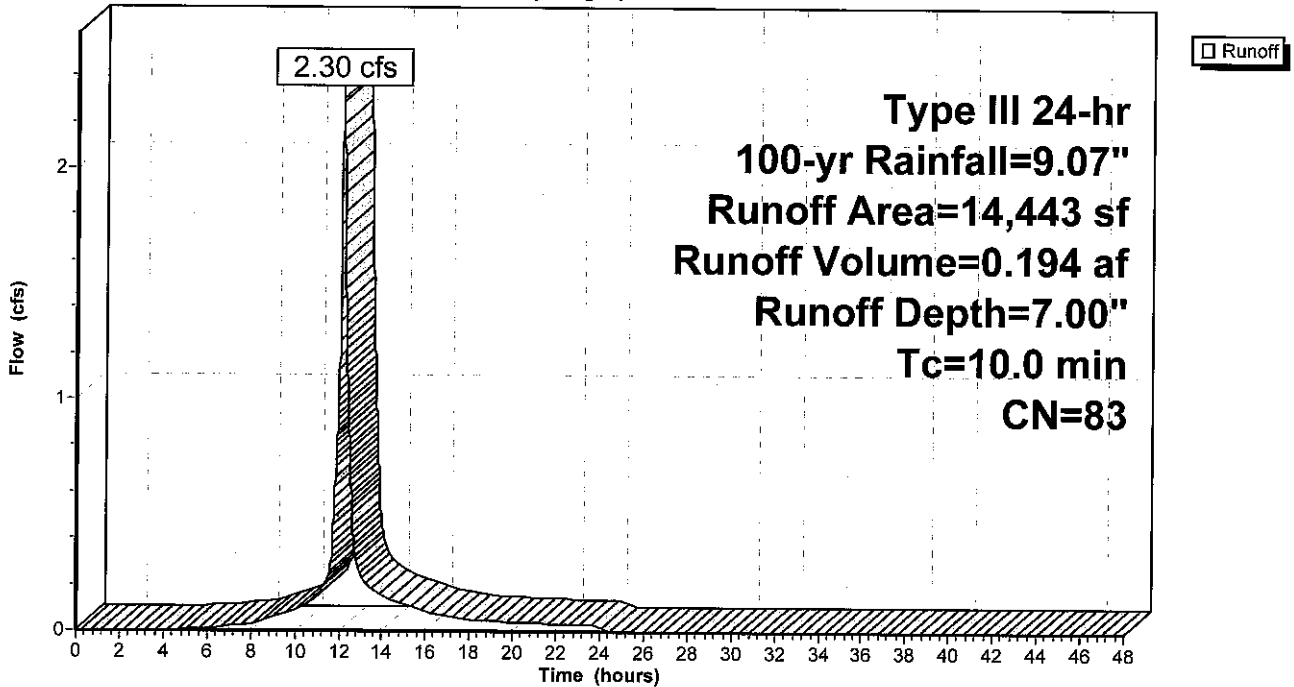
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=9.07"

Area (sf)	CN	Description
7,693	70	Woods, Good, HSG C
6,750	98	Water Surface, HSG C
14,443	83	Weighted Average
7,693		53.26% Pervious Area
6,750		46.74% Impervious Area

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

Subcatchment 1-ex: existing

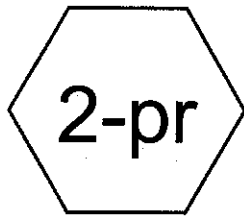
Hydrograph



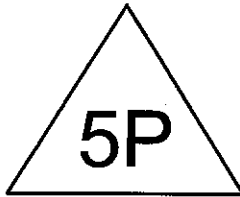
APPENDIX B

HydroCAD Output Results

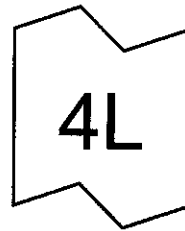
Proposed Conditions



roof



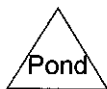
driveway+grass



12" diameter pipe



proposed



Routing Diagram for Prop 2-21-20

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Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2-pr: roof

Runoff Area=4,044 sf 100.00% Impervious Runoff Depth=2.71"
Tc=10.0 min CN=98 Runoff=0.23 cfs 0.021 af

Subcatchment3-pr: driveway+grass

Runoff Area=10,399 sf 23.15% Impervious Runoff Depth=1.21"
Tc=10.0 min CN=80 Runoff=0.29 cfs 0.024 af

Pond 5P: 12" diameter pipe

Peak Elev=39.95' Storage=69 cf Inflow=0.23 cfs 0.021 af
Outflow=0.18 cfs 0.021 af

Link 4L: proposed

Inflow=0.46 cfs 0.045 af
Primary=0.46 cfs 0.045 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.045 af Average Runoff Depth = 1.63"
55.33% Pervious = 0.183 ac 44.67% Impervious = 0.148 ac

Prop 2-21-20

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PROPOSED CONDITIONS
Type III 24-hr 1-yr Rainfall=2.94"

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Summary for Subcatchment 2-pr: roof

Runoff = 0.23 cfs @ 12.13 hrs, Volume= 0.021 af, Depth= 2.71"

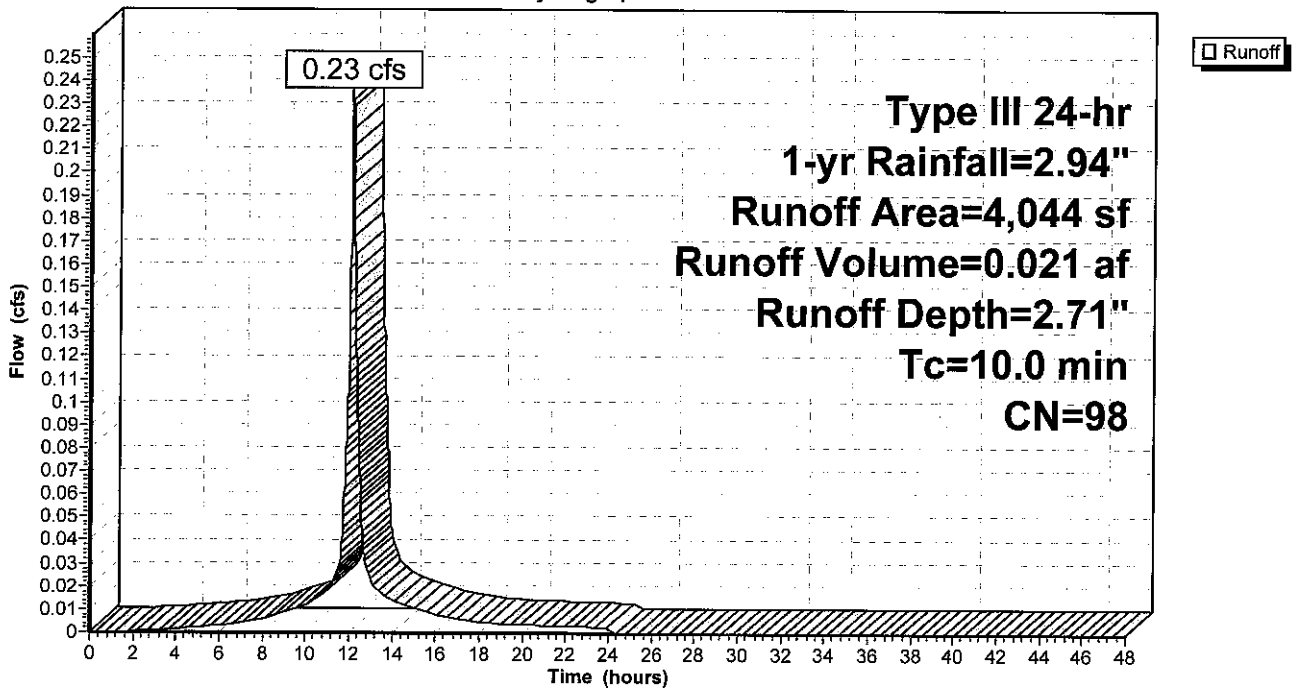
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-yr Rainfall=2.94"

Area (sf)	CN	Description
2,805	98	Roofs, HSG C
1,239	98	Paved parking, HSG C
4,044	98	Weighted Average
4,044		100.00% Impervious Area

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

Subcatchment 2-pr: roof

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS
Type III 24-hr 1-yr Rainfall=2.94"

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Summary for Subcatchment 3-pr: driveway+grass

Runoff = 0.29 cfs @ 12.14 hrs, Volume= 0.024 af, Depth= 1.21"

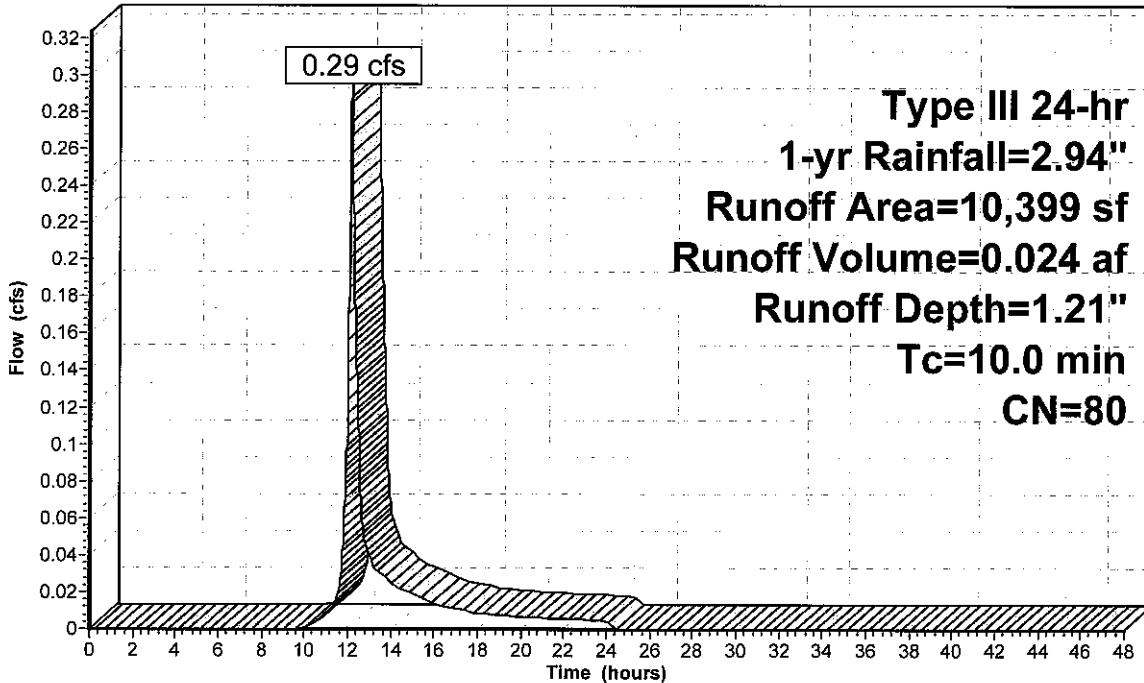
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-yr Rainfall=2.94"

Area (sf)	CN	Description
2,407	98	Water Surface, HSG C
7,992	74	>75% Grass cover, Good, HSG C
10,399	80	Weighted Average
7,992		76.85% Pervious Area
2,407		23.15% Impervious Area

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

Subcatchment 3-pr: driveway+grass

Hydrograph



Runoff

**Type III 24-hr
1-yr Rainfall=2.94"
Runoff Area=10,399 sf
Runoff Volume=0.024 af
Runoff Depth=1.21"
Tc=10.0 min
CN=80**

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

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Summary for Pond 5P: 12" diameter pipe

Inflow Area = 0.093 ac, 100.00% Impervious, Inflow Depth = 2.71" for 1-yr event
 Inflow = 0.23 cfs @ 12.13 hrs, Volume= 0.021 af
 Outflow = 0.18 cfs @ 12.22 hrs, Volume= 0.021 af, Atten= 23%, Lag= 5.3 min
 Primary = 0.18 cfs @ 12.22 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 39.95' @ 12.22 hrs Surf.Area= 199 sf Storage= 69 cf

Plug-Flow detention time= 6.8 min calculated for 0.021 af (100% of inflow)
 Center-of-Mass det. time= 6.8 min (768.7 - 761.9)

Volume	Invert	Avail.Storage	Storage Description
#1	39.50'	157 cf	12.0" Round Pipe Storage L= 200.0'

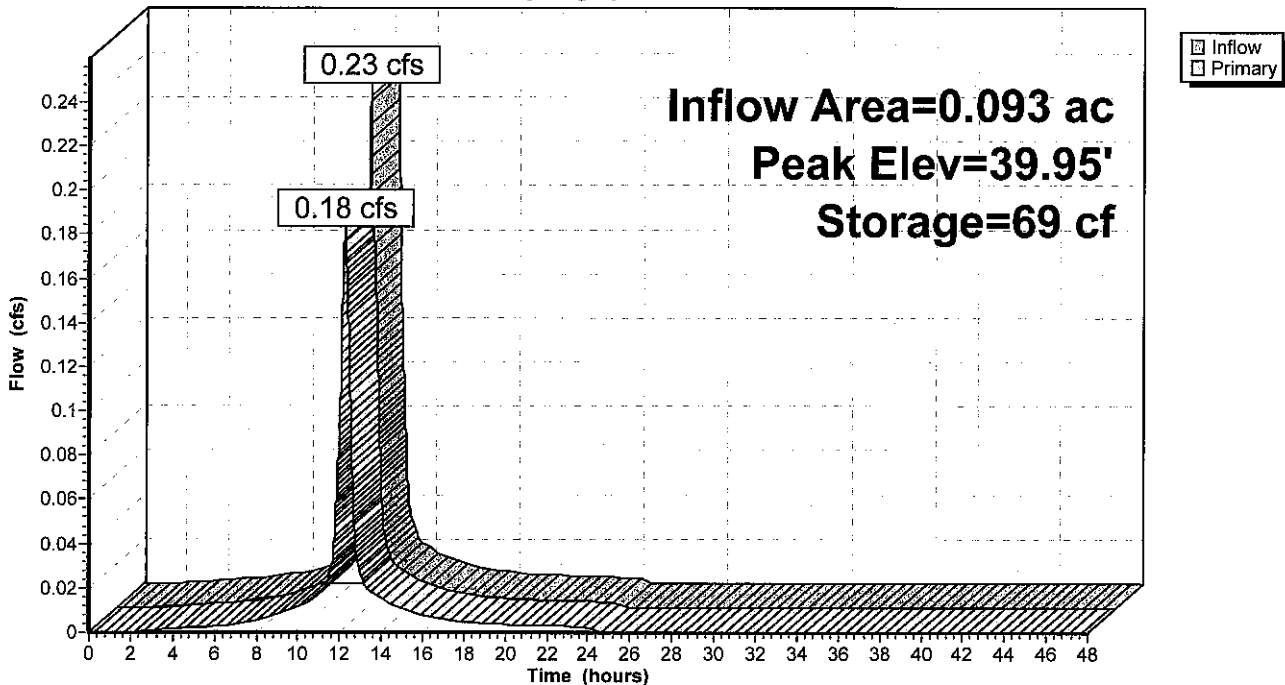
Device	Routing	Invert	Outlet Devices
#1	Primary	39.50'	3.5" Vert. Orifice/Grate C= 0.600
#2	Primary	40.00'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.18 cfs @ 12.22 hrs HW=39.95' (Free Discharge)

- 1=Orifice/Grate (Orifice Controls 0.18 cfs @ 2.67 fps)
- 2=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 5P: 12" diameter pipe

Hydrograph



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PROPOSED CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

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Stage-Discharge for Pond 5P: 12" diameter pipe

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
39.50	0.00	40.02	0.20
39.51	0.00	40.03	0.21
39.52	0.00	40.04	0.21
39.53	0.00	40.05	0.22
39.54	0.00	40.06	0.23
39.55	0.01	40.07	0.24
39.56	0.01	40.08	0.25
39.57	0.01	40.09	0.26
39.58	0.01	40.10	0.27
39.59	0.02	40.11	0.28
39.60	0.02	40.12	0.29
39.61	0.03	40.13	0.30
39.62	0.03	40.14	0.31
39.63	0.04	40.15	0.32
39.64	0.04	40.16	0.33
39.65	0.05	40.17	0.34
39.66	0.05	40.18	0.35
39.67	0.06	40.19	0.36
39.68	0.06	40.20	0.37
39.69	0.07	40.21	0.39
39.70	0.07	40.22	0.40
39.71	0.08	40.23	0.41
39.72	0.09	40.24	0.42
39.73	0.09	40.25	0.43
39.74	0.10	40.26	0.45
39.75	0.10	40.27	0.46
39.76	0.11	40.28	0.47
39.77	0.11	40.29	0.48
39.78	0.12	40.30	0.50
39.79	0.12	40.31	0.51
39.80	0.13	40.32	0.52
39.81	0.13	40.33	0.54
39.82	0.13	40.34	0.55
39.83	0.14	40.35	0.56
39.84	0.14	40.36	0.57
39.85	0.15	40.37	0.59
39.86	0.15	40.38	0.60
39.87	0.15	40.39	0.61
39.88	0.16	40.40	0.63
39.89	0.16	40.41	0.64
39.90	0.16	40.42	0.65
39.91	0.17	40.43	0.67
39.92	0.17	40.44	0.68
39.93	0.17	40.45	0.69
39.94	0.17	40.46	0.71
39.95	0.18	40.47	0.72
39.96	0.18	40.48	0.73
39.97	0.18	40.49	0.75
39.98	0.19	40.50	0.76
39.99	0.19		
40.00	0.19		
40.01	0.20		

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PROPOSED CONDITIONS

Type III 24-hr 1-yr Rainfall=2.94"

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Stage-Area-Storage for Pond 5P: 12" diameter pipe

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
39.50	0	40.02	83
39.51	0	40.03	85
39.52	1	40.04	87
39.53	1	40.05	89
39.54	2	40.06	91
39.55	3	40.07	92
39.56	4	40.08	94
39.57	5	40.09	96
39.58	6	40.10	98
39.59	7	40.11	100
39.60	8	40.12	102
39.61	9	40.13	104
39.62	11	40.14	106
39.63	12	40.15	108
39.64	13	40.16	110
39.65	15	40.17	112
39.66	16	40.18	114
39.67	18	40.19	116
39.68	19	40.20	117
39.69	21	40.21	119
39.70	22	40.22	121
39.71	24	40.23	123
39.72	26	40.24	125
39.73	27	40.25	126
39.74	29	40.26	128
39.75	31	40.27	130
39.76	32	40.28	131
39.77	34	40.29	133
39.78	36	40.30	135
39.79	38	40.31	136
39.80	40	40.32	138
39.81	41	40.33	139
39.82	43	40.34	141
39.83	45	40.35	142
39.84	47	40.36	144
39.85	49	40.37	145
39.86	51	40.38	146
39.87	53	40.39	148
39.88	55	40.40	149
39.89	57	40.41	150
39.90	59	40.42	151
39.91	61	40.43	152
39.92	63	40.44	153
39.93	65	40.45	154
39.94	67	40.46	155
39.95	69	40.47	156
39.96	71	40.48	156
39.97	73	40.49	157
39.98	75	40.50	157
39.99	77		
40.00	79		
40.01	81		

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PROPOSED CONDITIONS
Type III 24-hr 1-yr Rainfall=2.94"

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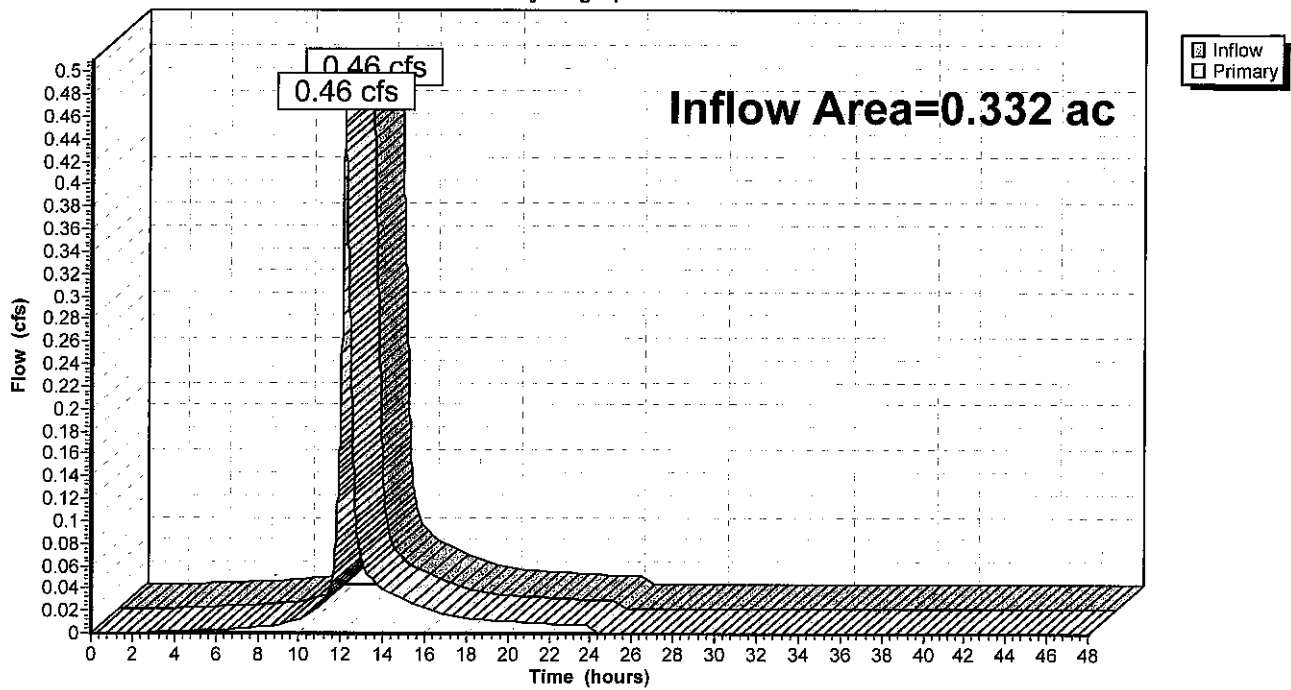
Summary for Link 4L: proposed

Inflow Area = 0.332 ac, 44.67% Impervious, Inflow Depth = 1.63" for 1-yr event
Inflow = 0.46 cfs @ 12.16 hrs, Volume= 0.045 af
Primary = 0.46 cfs @ 12.16 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4L: proposed

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 2-yr Rainfall=3.64"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2-pr: roof

Runoff Area=4,044 sf 100.00% Impervious Runoff Depth=3.41"
Tc=10.0 min CN=98 Runoff=0.29 cfs 0.026 af

Subcatchment3-pr: driveway+grass

Runoff Area=10,399 sf 23.15% Impervious Runoff Depth=1.75"
Tc=10.0 min CN=80 Runoff=0.43 cfs 0.035 af

Pond 5P: 12" diameter pipe

Peak Elev=40.06' Storage=90 cf Inflow=0.29 cfs 0.026 af
Outflow=0.23 cfs 0.026 af

Link 4L: proposed

Inflow=0.62 cfs 0.061 af
Primary=0.62 cfs 0.061 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.061 af Average Runoff Depth = 2.21"
55.33% Pervious = 0.183 ac 44.67% Impervious = 0.148 ac

Prop 2-21-20

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PROPOSED CONDITIONS
Type III 24-hr 2-yr Rainfall=3.64"

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Summary for Subcatchment 2-pr: roof

Runoff = 0.29 cfs @ 12.13 hrs, Volume= 0.026 af, Depth= 3.41"

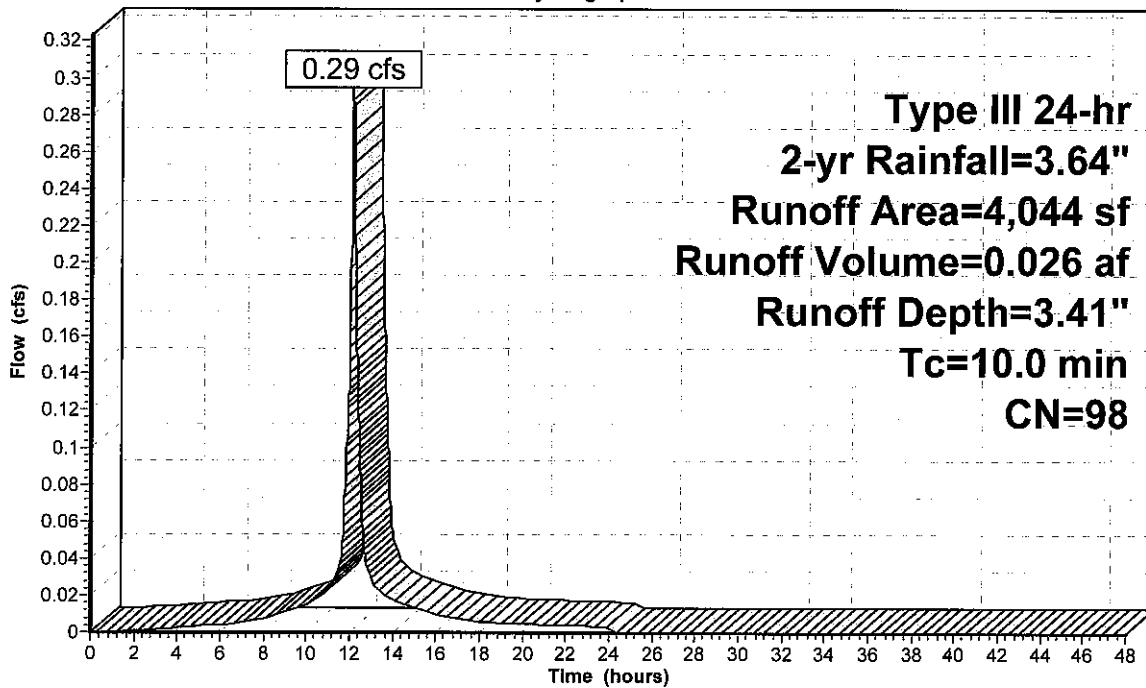
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.64"

Area (sf)	CN	Description
2,805	98	Roofs, HSG C
1,239	98	Paved parking, HSG C
4,044	98	Weighted Average
4,044		100.00% Impervious Area

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

Subcatchment 2-pr: roof

Hydrograph



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PROPOSED CONDITIONS
Type III 24-hr 2-yr Rainfall=3.64"

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Summary for Subcatchment 3-pr: driveway+grass

Runoff = 0.43 cfs @ 12.14 hrs, Volume= 0.035 af, Depth= 1.75"

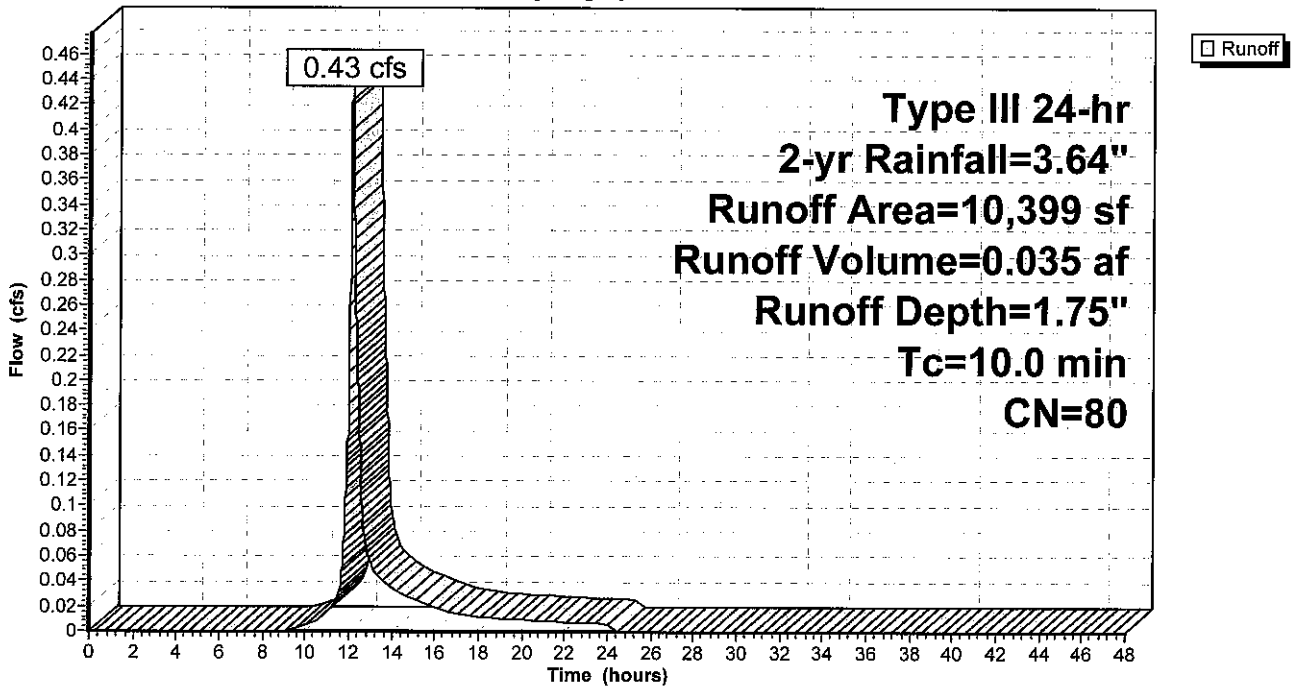
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.64"

Area (sf)	CN	Description
2,407	98	Water Surface, HSG C
7,992	74	>75% Grass cover, Good, HSG C
10,399	80	Weighted Average
7,992		76.85% Pervious Area
2,407		23.15% Impervious Area

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

Subcatchment 3-pr: driveway+grass

Hydrograph



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PROPOSED CONDITIONS

Type III 24-hr 2-yr Rainfall=3.64"

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Summary for Pond 5P: 12" diameter pipe

Inflow Area = 0.093 ac, 100.00% Impervious, Inflow Depth = 3.41" for 2-yr event
 Inflow = 0.29 cfs @ 12.13 hrs, Volume= 0.026 af
 Outflow = 0.23 cfs @ 12.21 hrs, Volume= 0.026 af, Atten= 20%, Lag= 4.8 min
 Primary = 0.23 cfs @ 12.21 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 40.06' @ 12.21 hrs Surf.Area= 199 sf Storage= 90 cf

Plug-Flow detention time= 6.7 min calculated for 0.026 af (100% of inflow)
 Center-of-Mass det. time= 6.7 min (764.2 - 757.5)

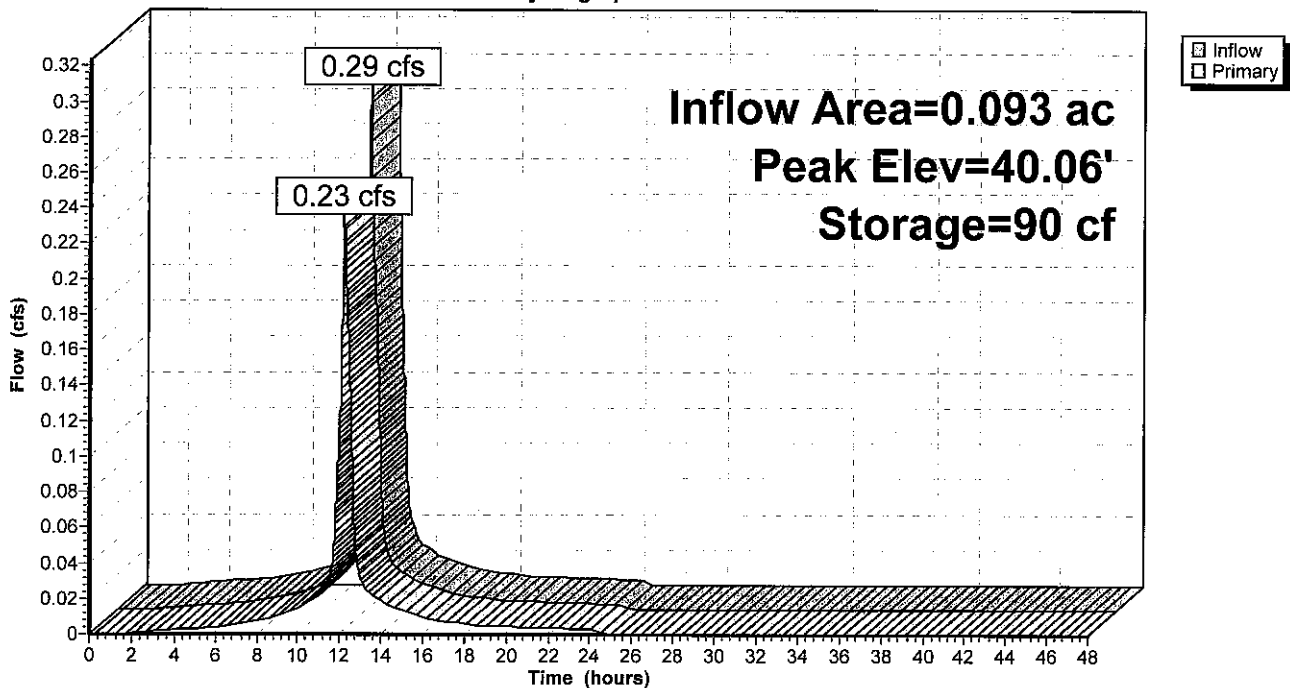
Volume	Invert	Avail.Storage	Storage Description
#1	39.50'	157 cf	12.0" Round Pipe Storage L= 200.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.50'	3.5" Vert. Orifice/Grate C= 0.600
#2	Primary	40.00'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.23 cfs @ 12.21 hrs HW=40.06' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.21 cfs @ 3.09 fps)
 2=Sharp-Crested Rectangular Weir (Weir Controls 0.02 cfs @ 0.79 fps)

Pond 5P: 12" diameter pipe

Hydrograph



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PROPOSED CONDITIONS
Type III 24-hr 2-yr Rainfall=3.64"

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Stage-Discharge for Pond 5P: 12" diameter pipe

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
39.50	0.00	40.02	0.20
39.51	0.00	40.03	0.21
39.52	0.00	40.04	0.21
39.53	0.00	40.05	0.22
39.54	0.00	40.06	0.23
39.55	0.01	40.07	0.24
39.56	0.01	40.08	0.25
39.57	0.01	40.09	0.26
39.58	0.01	40.10	0.27
39.59	0.02	40.11	0.28
39.60	0.02	40.12	0.29
39.61	0.03	40.13	0.30
39.62	0.03	40.14	0.31
39.63	0.04	40.15	0.32
39.64	0.04	40.16	0.33
39.65	0.05	40.17	0.34
39.66	0.05	40.18	0.35
39.67	0.06	40.19	0.36
39.68	0.06	40.20	0.37
39.69	0.07	40.21	0.39
39.70	0.07	40.22	0.40
39.71	0.08	40.23	0.41
39.72	0.09	40.24	0.42
39.73	0.09	40.25	0.43
39.74	0.10	40.26	0.45
39.75	0.10	40.27	0.46
39.76	0.11	40.28	0.47
39.77	0.11	40.29	0.48
39.78	0.12	40.30	0.50
39.79	0.12	40.31	0.51
39.80	0.13	40.32	0.52
39.81	0.13	40.33	0.54
39.82	0.13	40.34	0.55
39.83	0.14	40.35	0.56
39.84	0.14	40.36	0.57
39.85	0.15	40.37	0.59
39.86	0.15	40.38	0.60
39.87	0.15	40.39	0.61
39.88	0.16	40.40	0.63
39.89	0.16	40.41	0.64
39.90	0.16	40.42	0.65
39.91	0.17	40.43	0.67
39.92	0.17	40.44	0.68
39.93	0.17	40.45	0.69
39.94	0.17	40.46	0.71
39.95	0.18	40.47	0.72
39.96	0.18	40.48	0.73
39.97	0.18	40.49	0.75
39.98	0.19	40.50	0.76
39.99	0.19		
40.00	0.19		
40.01	0.20		

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 2-yr Rainfall=3.64"

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Stage-Area-Storage for Pond 5P: 12" diameter pipe

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
39.50	0	40.02	83
39.51	0	40.03	85
39.52	1	40.04	87
39.53	1	40.05	89
39.54	2	40.06	91
39.55	3	40.07	92
39.56	4	40.08	94
39.57	5	40.09	96
39.58	6	40.10	98
39.59	7	40.11	100
39.60	8	40.12	102
39.61	9	40.13	104
39.62	11	40.14	106
39.63	12	40.15	108
39.64	13	40.16	110
39.65	15	40.17	112
39.66	16	40.18	114
39.67	18	40.19	116
39.68	19	40.20	117
39.69	21	40.21	119
39.70	22	40.22	121
39.71	24	40.23	123
39.72	26	40.24	125
39.73	27	40.25	126
39.74	29	40.26	128
39.75	31	40.27	130
39.76	32	40.28	131
39.77	34	40.29	133
39.78	36	40.30	135
39.79	38	40.31	136
39.80	40	40.32	138
39.81	41	40.33	139
39.82	43	40.34	141
39.83	45	40.35	142
39.84	47	40.36	144
39.85	49	40.37	145
39.86	51	40.38	146
39.87	53	40.39	148
39.88	55	40.40	149
39.89	57	40.41	150
39.90	59	40.42	151
39.91	61	40.43	152
39.92	63	40.44	153
39.93	65	40.45	154
39.94	67	40.46	155
39.95	69	40.47	156
39.96	71	40.48	156
39.97	73	40.49	157
39.98	75	40.50	157
39.99	77		
40.00	79		
40.01	81		

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PROPOSED CONDITIONS
Type III 24-hr 2-yr Rainfall=3.64"

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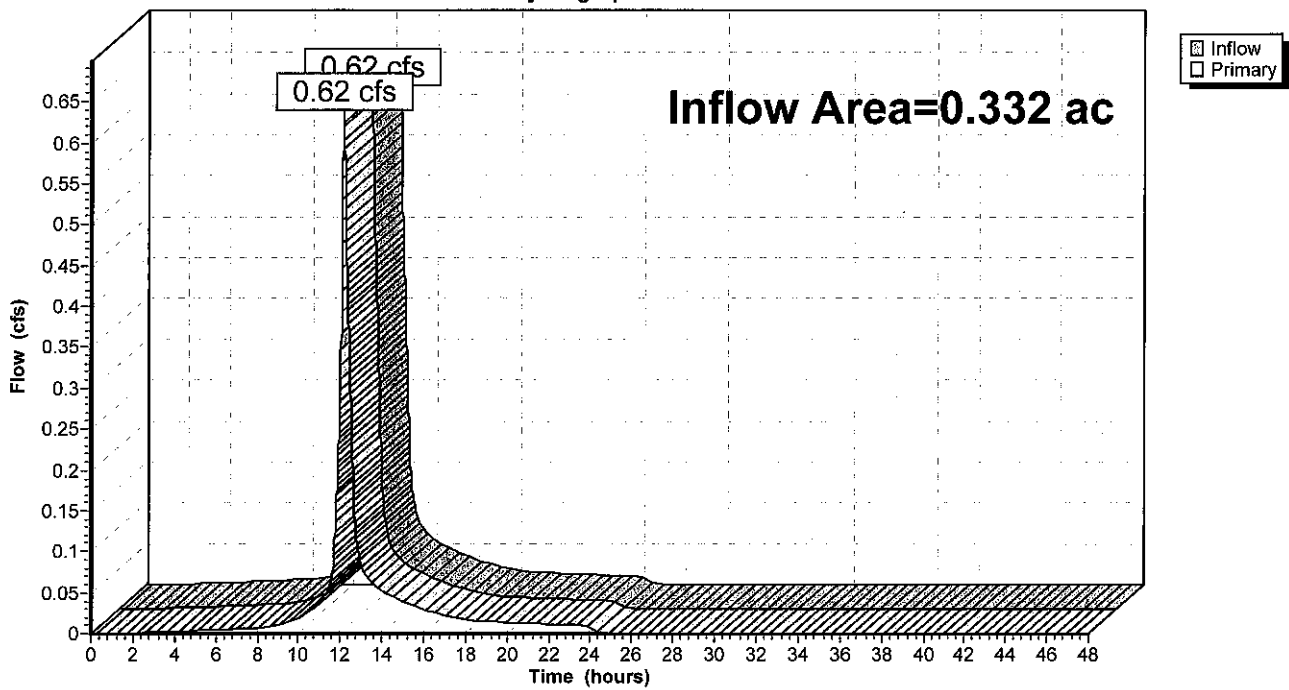
Summary for Link 4L: proposed

Inflow Area = 0.332 ac, 44.67% Impervious, Inflow Depth = 2.21" for 2-yr event
Inflow = 0.62 cfs @ 12.17 hrs, Volume= 0.061 af
Primary = 0.62 cfs @ 12.17 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4L: proposed

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2-pr: roof

Runoff Area=4,044 sf 100.00% Impervious Runoff Depth=5.50"
Tc=10.0 min CN=98 Runoff=0.46 cfs 0.043 af

Subcatchment3-pr: driveway+grass

Runoff Area=10,399 sf 23.15% Impervious Runoff Depth=3.55"
Tc=10.0 min CN=80 Runoff=0.87 cfs 0.071 af

Pond 5P: 12" diameter pipe

Peak Elev=40.24' Storage=125 cf Inflow=0.46 cfs 0.043 af
Outflow=0.42 cfs 0.043 af

Link 4L: proposed

Inflow=1.27 cfs 0.113 af
Primary=1.27 cfs 0.113 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.113 af Average Runoff Depth = 4.09"
55.33% Pervious = 0.183 ac 44.67% Impervious = 0.148 ac

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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Summary for Subcatchment 2-pr: roof

Runoff = 0.46 cfs @ 12.13 hrs, Volume= 0.043 af, Depth= 5.50"

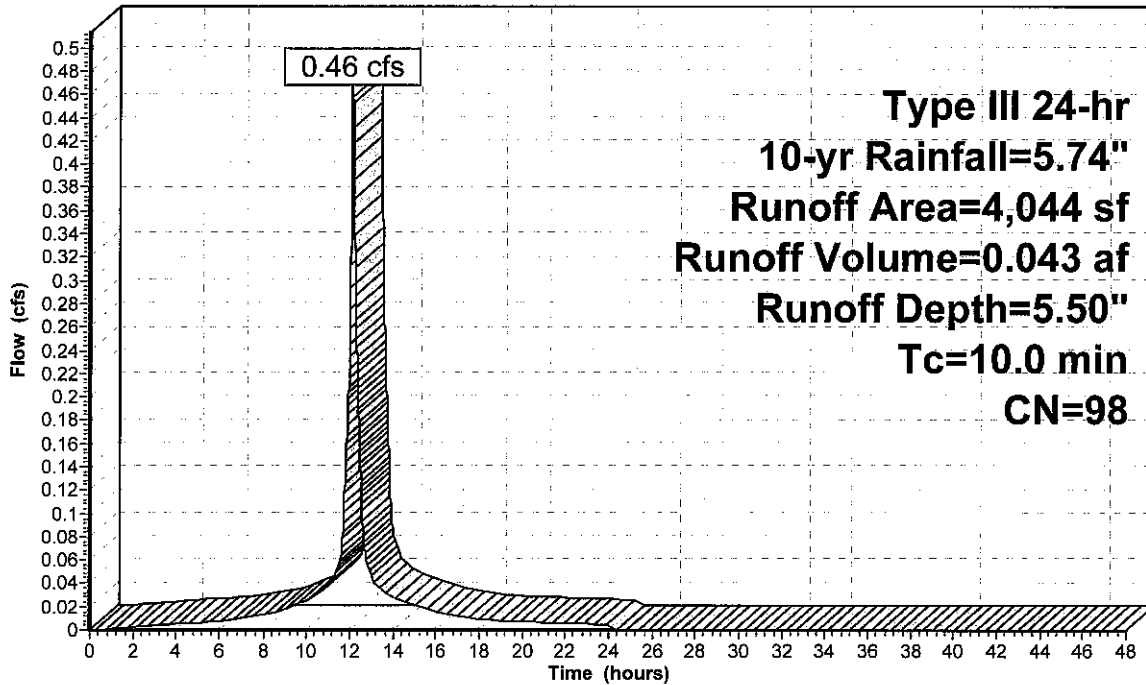
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.74"

Area (sf)	CN	Description
2,805	98	Roofs, HSG C
1,239	98	Paved parking, HSG C
4,044	98	Weighted Average
4,044		100.00% Impervious Area

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

Subcatchment 2-pr: roof

Hydrograph



Runoff

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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Summary for Subcatchment 3-pr: driveway+grass

Runoff = 0.87 cfs @ 12.14 hrs, Volume= 0.071 af, Depth= 3.55"

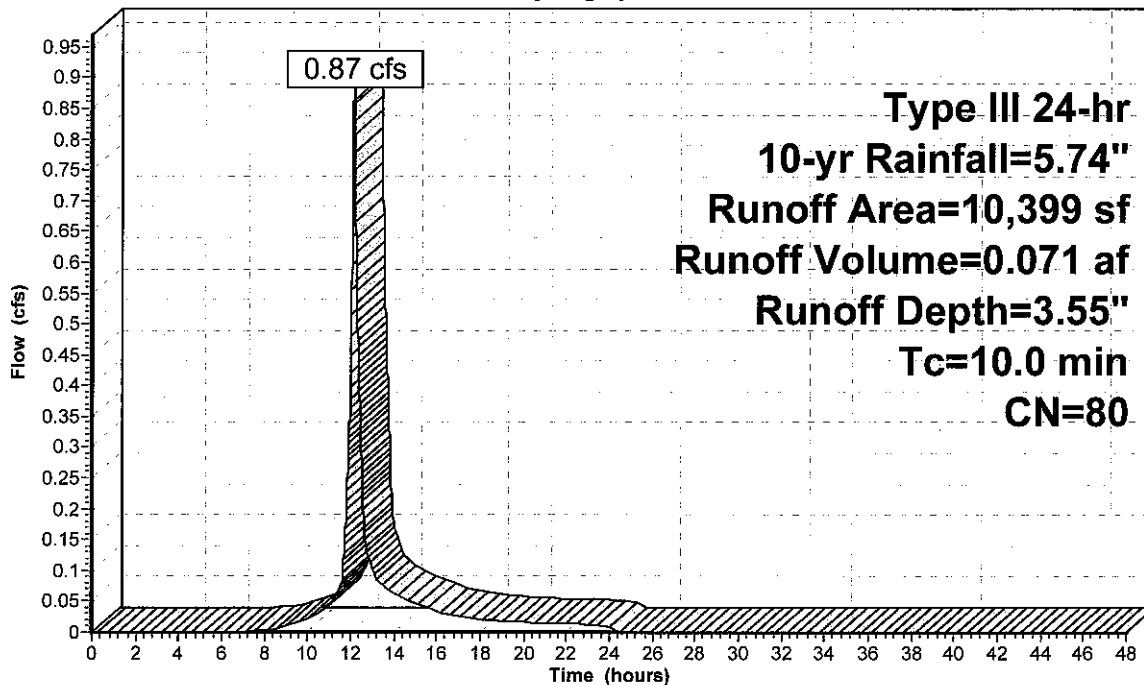
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.74"

Area (sf)	CN	Description
2,407	98	Water Surface, HSG C
7,992	74	>75% Grass cover, Good, HSG C
10,399	80	Weighted Average
7,992		76.85% Pervious Area
2,407		23.15% Impervious Area

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

Subcatchment 3-pr: driveway+grass

Hydrograph



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PROPOSED CONDITIONS
Type III 24-hr 10-yr Rainfall=5.74"

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Summary for Pond 5P: 12" diameter pipe

Inflow Area = 0.093 ac, 100.00% Impervious, Inflow Depth = 5.50" for 10-yr event
 Inflow = 0.46 cfs @ 12.13 hrs, Volume= 0.043 af
 Outflow = 0.42 cfs @ 12.18 hrs, Volume= 0.043 af, Atten= 8%, Lag= 2.7 min
 Primary = 0.42 cfs @ 12.18 hrs, Volume= 0.043 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 40.24' @ 12.18 hrs Surf.Area= 175 sf Storage= 125 cf

Plug-Flow detention time= 6.2 min calculated for 0.043 af (100% of inflow)
 Center-of-Mass det. time= 6.2 min (755.8 - 749.5)

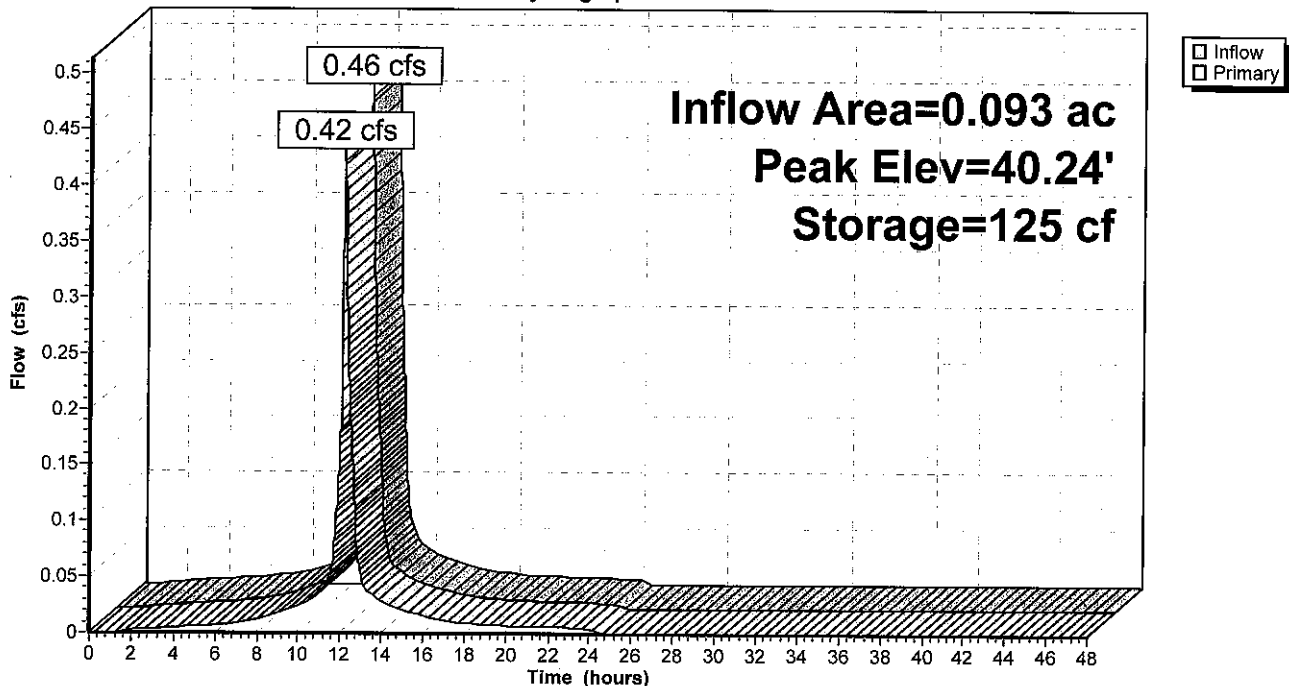
Volume	Invert	Avail.Storage	Storage Description
#1	39.50'	157 cf	12.0" Round Pipe Storage L= 200.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.50'	3.5" Vert. Orifice/Grate C= 0.600
#2	Primary	40.00'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.42 cfs @ 12.18 hrs HW=40.24' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.25 cfs @ 3.71 fps)
 2=Sharp-Crested Rectangular Weir (Weir Controls 0.17 cfs @ 1.60 fps)

Pond 5P: 12" diameter pipe

Hydrograph



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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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Stage-Discharge for Pond 5P: 12" diameter pipe

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
39.50	0.00	40.02	0.20
39.51	0.00	40.03	0.21
39.52	0.00	40.04	0.21
39.53	0.00	40.05	0.22
39.54	0.00	40.06	0.23
39.55	0.01	40.07	0.24
39.56	0.01	40.08	0.25
39.57	0.01	40.09	0.26
39.58	0.01	40.10	0.27
39.59	0.02	40.11	0.28
39.60	0.02	40.12	0.29
39.61	0.03	40.13	0.30
39.62	0.03	40.14	0.31
39.63	0.04	40.15	0.32
39.64	0.04	40.16	0.33
39.65	0.05	40.17	0.34
39.66	0.05	40.18	0.35
39.67	0.06	40.19	0.36
39.68	0.06	40.20	0.37
39.69	0.07	40.21	0.39
39.70	0.07	40.22	0.40
39.71	0.08	40.23	0.41
39.72	0.09	40.24	0.42
39.73	0.09	40.25	0.43
39.74	0.10	40.26	0.45
39.75	0.10	40.27	0.46
39.76	0.11	40.28	0.47
39.77	0.11	40.29	0.48
39.78	0.12	40.30	0.50
39.79	0.12	40.31	0.51
39.80	0.13	40.32	0.52
39.81	0.13	40.33	0.54
39.82	0.13	40.34	0.55
39.83	0.14	40.35	0.56
39.84	0.14	40.36	0.57
39.85	0.15	40.37	0.59
39.86	0.15	40.38	0.60
39.87	0.15	40.39	0.61
39.88	0.16	40.40	0.63
39.89	0.16	40.41	0.64
39.90	0.16	40.42	0.65
39.91	0.17	40.43	0.67
39.92	0.17	40.44	0.68
39.93	0.17	40.45	0.69
39.94	0.17	40.46	0.71
39.95	0.18	40.47	0.72
39.96	0.18	40.48	0.73
39.97	0.18	40.49	0.75
39.98	0.19	40.50	0.76
39.99	0.19		
40.00	0.19		
40.01	0.20		

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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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Stage-Area-Storage for Pond 5P: 12" diameter pipe

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
39.50	0	40.02	83
39.51	0	40.03	85
39.52	1	40.04	87
39.53	1	40.05	89
39.54	2	40.06	91
39.55	3	40.07	92
39.56	4	40.08	94
39.57	5	40.09	96
39.58	6	40.10	98
39.59	7	40.11	100
39.60	8	40.12	102
39.61	9	40.13	104
39.62	11	40.14	106
39.63	12	40.15	108
39.64	13	40.16	110
39.65	15	40.17	112
39.66	16	40.18	114
39.67	18	40.19	116
39.68	19	40.20	117
39.69	21	40.21	119
39.70	22	40.22	121
39.71	24	40.23	123
39.72	26	40.24	125
39.73	27	40.25	126
39.74	29	40.26	128
39.75	31	40.27	130
39.76	32	40.28	131
39.77	34	40.29	133
39.78	36	40.30	135
39.79	38	40.31	136
39.80	40	40.32	138
39.81	41	40.33	139
39.82	43	40.34	141
39.83	45	40.35	142
39.84	47	40.36	144
39.85	49	40.37	145
39.86	51	40.38	146
39.87	53	40.39	148
39.88	55	40.40	149
39.89	57	40.41	150
39.90	59	40.42	151
39.91	61	40.43	152
39.92	63	40.44	153
39.93	65	40.45	154
39.94	67	40.46	155
39.95	69	40.47	156
39.96	71	40.48	156
39.97	73	40.49	157
39.98	75	40.50	157
39.99	77		
40.00	79		
40.01	81		

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PROPOSED CONDITIONS

Type III 24-hr 10-yr Rainfall=5.74"

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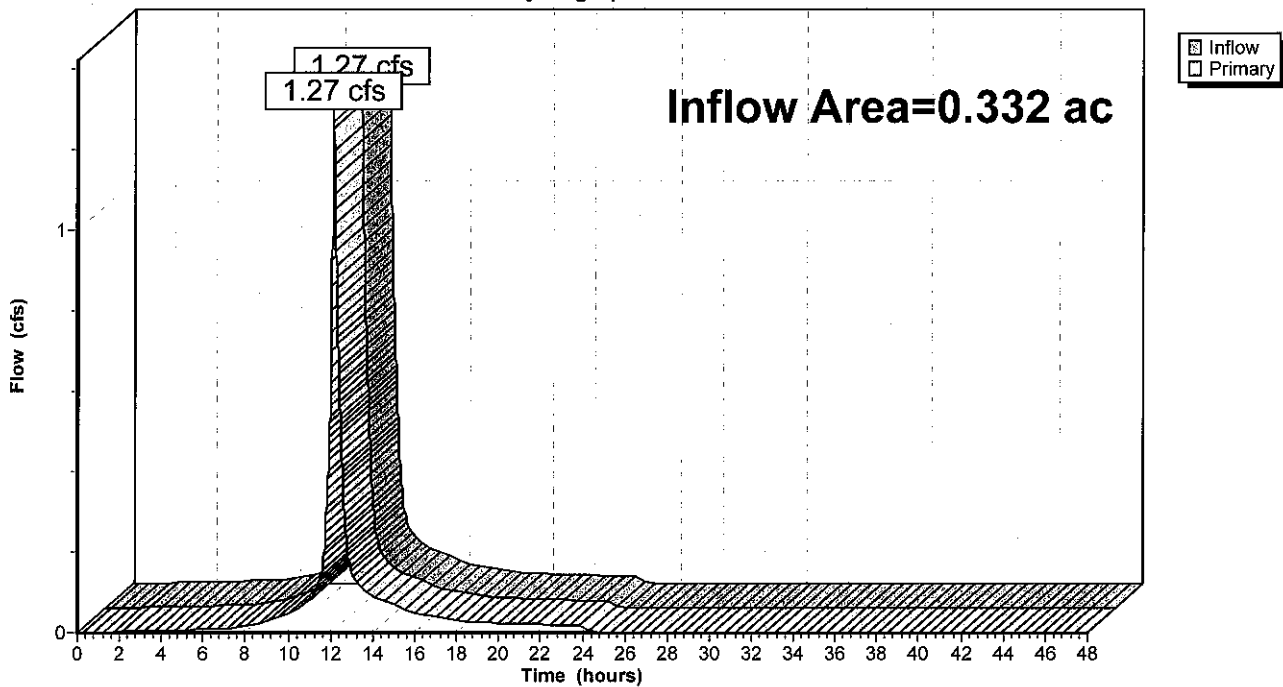
Summary for Link 4L: proposed

Inflow Area = 0.332 ac, 44.67% Impervious, Inflow Depth = 4.09" for 10-yr event
Inflow = 1.27 cfs @ 12.15 hrs, Volume= 0.113 af
Primary = 1.27 cfs @ 12.15 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4L: proposed

Hydrograph



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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2-pr: roof

Runoff Area=4,044 sf 100.00% Impervious Runoff Depth=6.81"
Tc=10.0 min CN=98 Runoff=0.56 cfs 0.053 af

Subcatchment3-pr: driveway+grass

Runoff Area=10,399 sf 23.15% Impervious Runoff Depth=4.74"
Tc=10.0 min CN=80 Runoff=1.15 cfs 0.094 af

Pond 5P: 12" diameter pipe

Peak Elev=40.33' Storage=139 cf Inflow=0.56 cfs 0.053 af
Outflow=0.53 cfs 0.053 af

Link 4L: proposed

Inflow=1.67 cfs 0.147 af
Primary=1.67 cfs 0.147 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.147 af Average Runoff Depth = 5.32"
55.33% Pervious = 0.183 ac 44.67% Impervious = 0.148 ac

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Summary for Subcatchment 2-pr: roof

Runoff = 0.56 cfs @ 12.13 hrs, Volume= 0.053 af, Depth= 6.81"

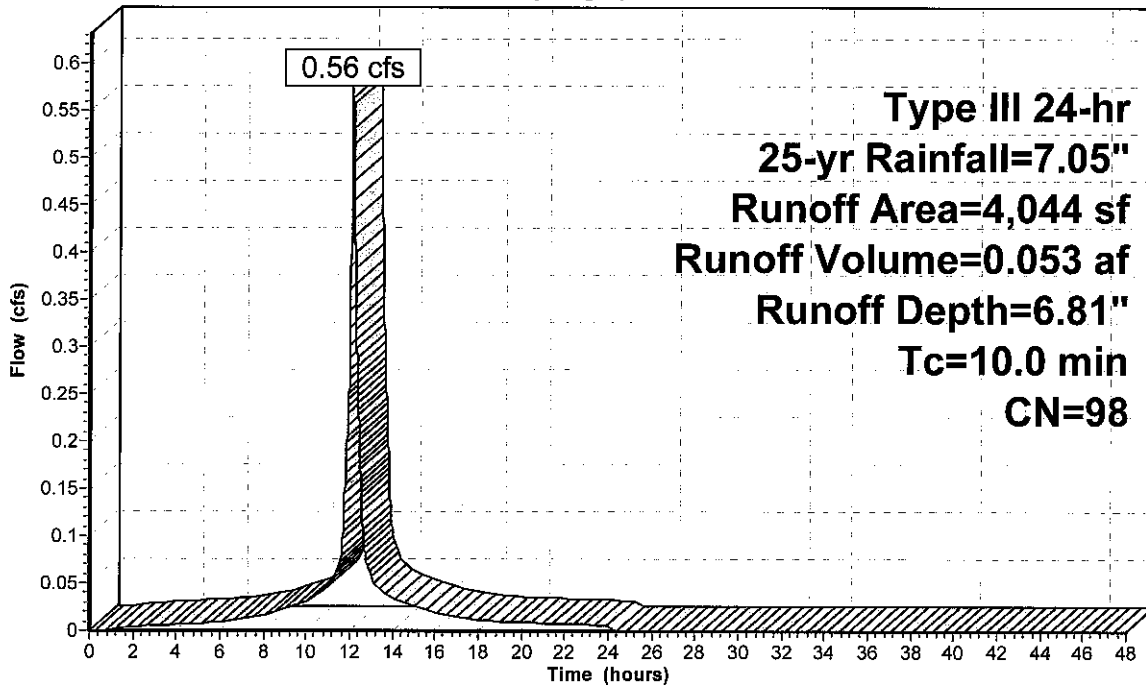
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=7.05"

Area (sf)	CN	Description
2,805	98	Roofs, HSG C
1,239	98	Paved parking, HSG C
4,044	98	Weighted Average
4,044		100.00% Impervious Area

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

Subcatchment 2-pr: roof

Hydrograph



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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Summary for Subcatchment 3-pr: driveway+grass

Runoff = 1.15 cfs @ 12.14 hrs, Volume= 0.094 af, Depth= 4.74"

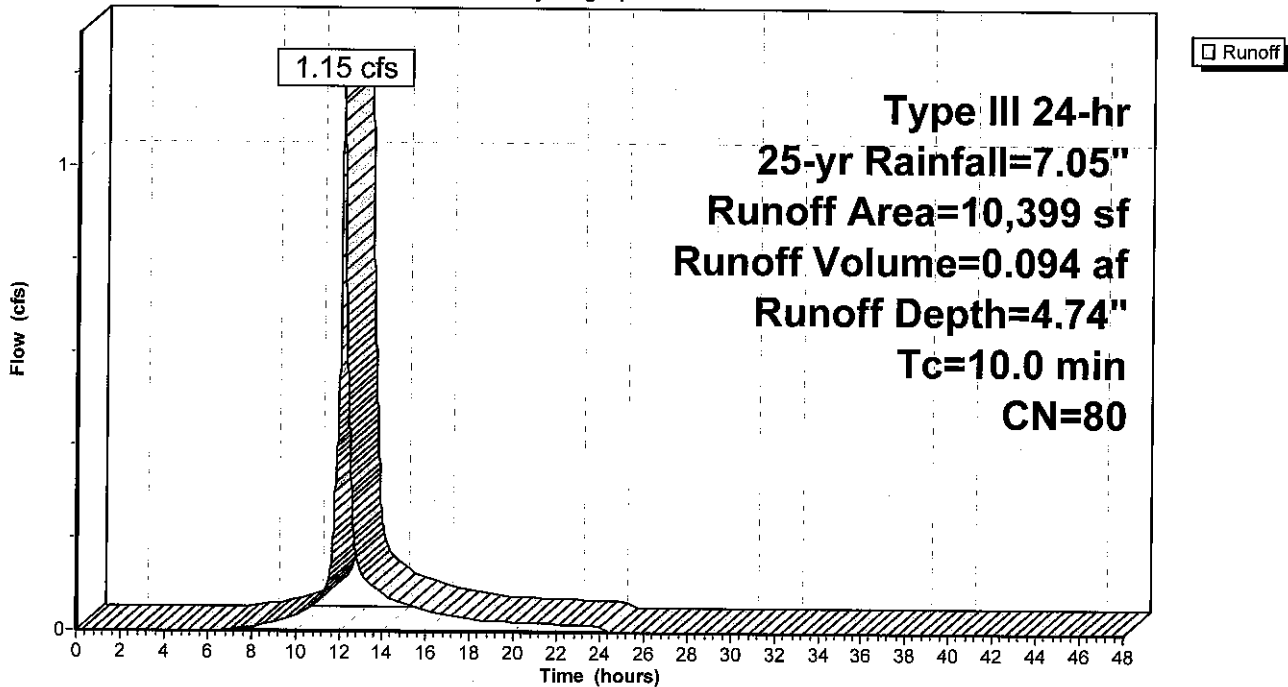
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-yr Rainfall=7.05"

Area (sf)	CN	Description
2,407	98	Water Surface, HSG C
7,992	74	>75% Grass cover, Good, HSG C
10,399	80	Weighted Average
7,992		76.85% Pervious Area
2,407		23.15% Impervious Area

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

Subcatchment 3-pr: driveway+grass

Hydrograph



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PROPOSED CONDITIONS
Type III 24-hr 25-yr Rainfall=7.05"

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Summary for Pond 5P: 12" diameter pipe

Inflow Area = 0.093 ac, 100.00% Impervious, Inflow Depth = 6.81" for 25-yr event
 Inflow = 0.56 cfs @ 12.13 hrs, Volume= 0.053 af
 Outflow = 0.53 cfs @ 12.17 hrs, Volume= 0.053 af, Atten= 5%, Lag= 2.1 min
 Primary = 0.53 cfs @ 12.17 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 40.33' @ 12.17 hrs Surf.Area= 151 sf Storage= 139 cf

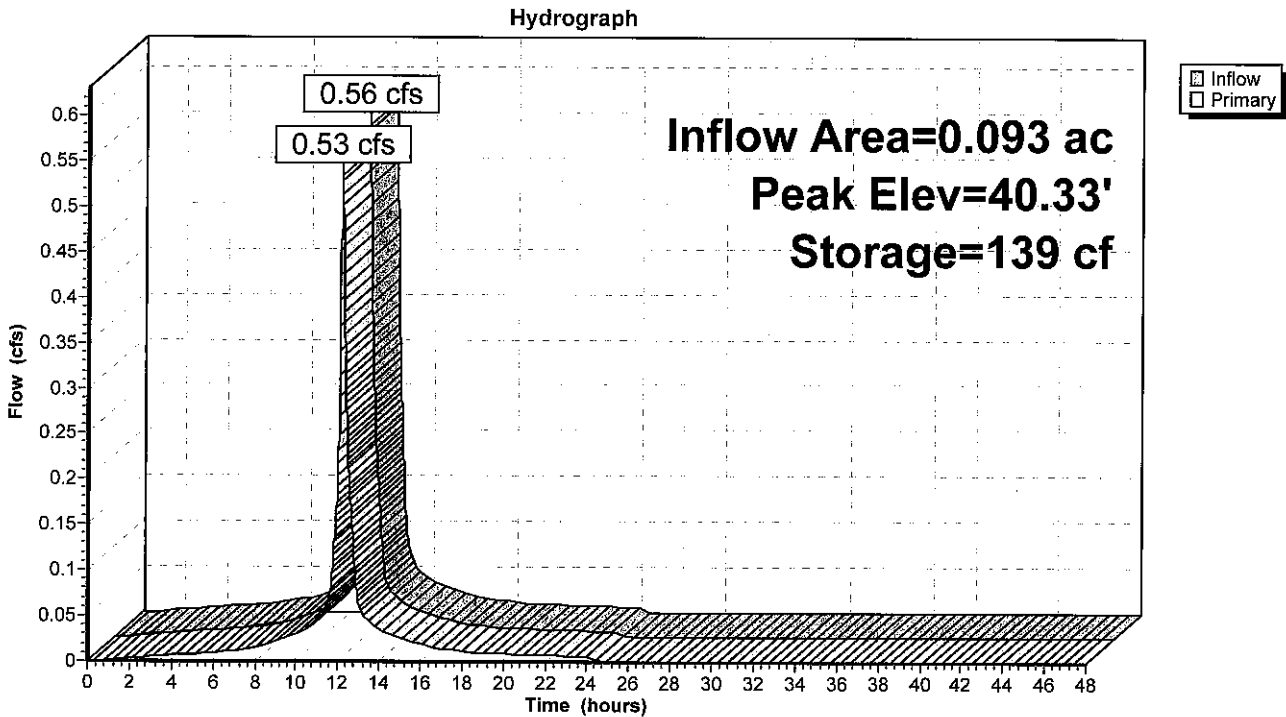
Plug-Flow detention time= 6.0 min calculated for 0.053 af (100% of inflow)
 Center-of-Mass det. time= 6.0 min (752.5 - 746.6)

Volume	Invert	Avail.Storage	Storage Description
#1	39.50'	157 cf	12.0" Round Pipe Storage L= 200.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.50'	3.5" Vert. Orifice/Grate C= 0.600
#2	Primary	40.00'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.53 cfs @ 12.17 hrs HW=40.33' (Free Discharge)
 1=Orifice/Grate (Orifice Controls 0.27 cfs @ 3.98 fps)
 2=Sharp-Crested Rectangular Weir (Weir Controls 0.27 cfs @ 1.88 fps)

Pond 5P: 12" diameter pipe



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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Stage-Discharge for Pond 5P: 12" diameter pipe

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
39.50	0.00	40.02	0.20
39.51	0.00	40.03	0.21
39.52	0.00	40.04	0.21
39.53	0.00	40.05	0.22
39.54	0.00	40.06	0.23
39.55	0.01	40.07	0.24
39.56	0.01	40.08	0.25
39.57	0.01	40.09	0.26
39.58	0.01	40.10	0.27
39.59	0.02	40.11	0.28
39.60	0.02	40.12	0.29
39.61	0.03	40.13	0.30
39.62	0.03	40.14	0.31
39.63	0.04	40.15	0.32
39.64	0.04	40.16	0.33
39.65	0.05	40.17	0.34
39.66	0.05	40.18	0.35
39.67	0.06	40.19	0.36
39.68	0.06	40.20	0.37
39.69	0.07	40.21	0.39
39.70	0.07	40.22	0.40
39.71	0.08	40.23	0.41
39.72	0.09	40.24	0.42
39.73	0.09	40.25	0.43
39.74	0.10	40.26	0.45
39.75	0.10	40.27	0.46
39.76	0.11	40.28	0.47
39.77	0.11	40.29	0.48
39.78	0.12	40.30	0.50
39.79	0.12	40.31	0.51
39.80	0.13	40.32	0.52
39.81	0.13	40.33	0.54
39.82	0.13	40.34	0.55
39.83	0.14	40.35	0.56
39.84	0.14	40.36	0.57
39.85	0.15	40.37	0.59
39.86	0.15	40.38	0.60
39.87	0.15	40.39	0.61
39.88	0.16	40.40	0.63
39.89	0.16	40.41	0.64
39.90	0.16	40.42	0.65
39.91	0.17	40.43	0.67
39.92	0.17	40.44	0.68
39.93	0.17	40.45	0.69
39.94	0.17	40.46	0.71
39.95	0.18	40.47	0.72
39.96	0.18	40.48	0.73
39.97	0.18	40.49	0.75
39.98	0.19	40.50	0.76
39.99	0.19		
40.00	0.19		
40.01	0.20		

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

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Stage-Area-Storage for Pond 5P: 12" diameter pipe

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
39.50	0	40.02	83
39.51	0	40.03	85
39.52	1	40.04	87
39.53	1	40.05	89
39.54	2	40.06	91
39.55	3	40.07	92
39.56	4	40.08	94
39.57	5	40.09	96
39.58	6	40.10	98
39.59	7	40.11	100
39.60	8	40.12	102
39.61	9	40.13	104
39.62	11	40.14	106
39.63	12	40.15	108
39.64	13	40.16	110
39.65	15	40.17	112
39.66	16	40.18	114
39.67	18	40.19	116
39.68	19	40.20	117
39.69	21	40.21	119
39.70	22	40.22	121
39.71	24	40.23	123
39.72	26	40.24	125
39.73	27	40.25	126
39.74	29	40.26	128
39.75	31	40.27	130
39.76	32	40.28	131
39.77	34	40.29	133
39.78	36	40.30	135
39.79	38	40.31	136
39.80	40	40.32	138
39.81	41	40.33	139
39.82	43	40.34	141
39.83	45	40.35	142
39.84	47	40.36	144
39.85	49	40.37	145
39.86	51	40.38	146
39.87	53	40.39	148
39.88	55	40.40	149
39.89	57	40.41	150
39.90	59	40.42	151
39.91	61	40.43	152
39.92	63	40.44	153
39.93	65	40.45	154
39.94	67	40.46	155
39.95	69	40.47	156
39.96	71	40.48	156
39.97	73	40.49	157
39.98	75	40.50	157
39.99	77		
40.00	79		
40.01	81		

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 25-yr Rainfall=7.05"

Printed 2/21/2020

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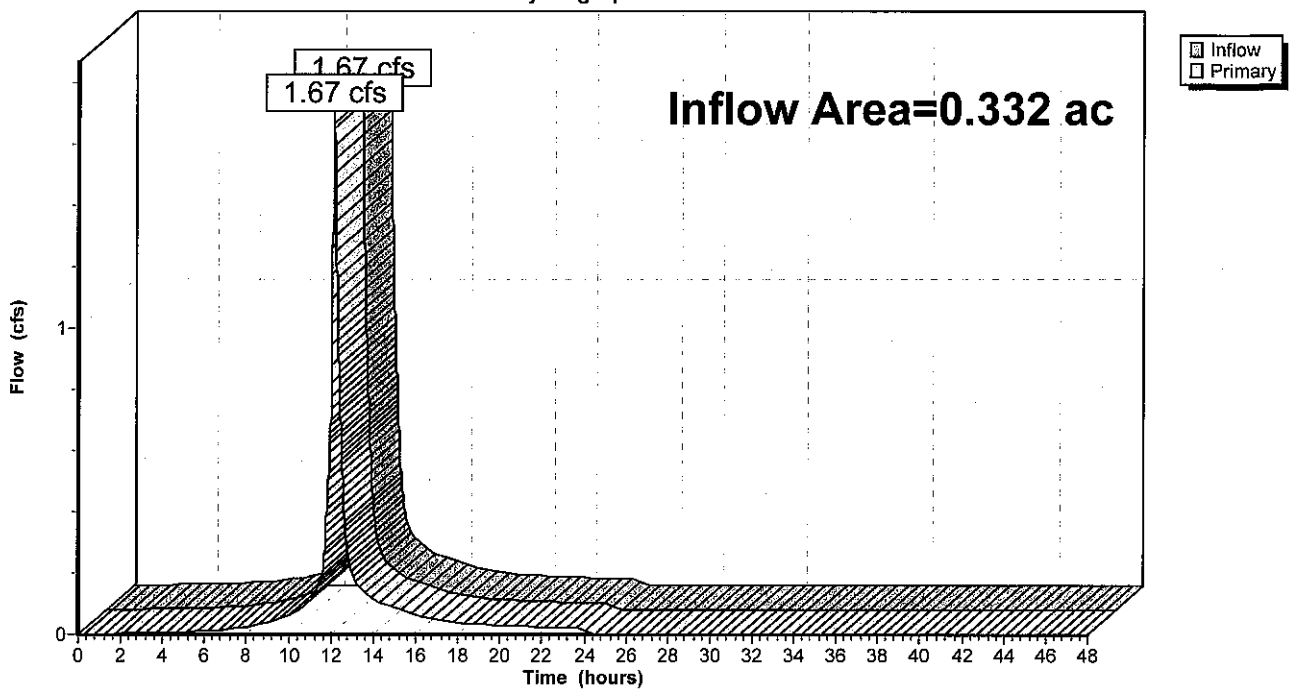
Summary for Link 4L: proposed

Inflow Area = 0.332 ac, 44.67% Impervious, Inflow Depth = 5.32" for 25-yr event
Inflow = 1.67 cfs @ 12.15 hrs, Volume= 0.147 af
Primary = 1.67 cfs @ 12.15 hrs, Volume= 0.147 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4L: proposed

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment2-pr: roof

Runoff Area=4,044 sf 100.00% Impervious Runoff Depth=8.83"
Tc=10.0 min CN=98 Runoff=0.73 cfs 0.068 af

Subcatchment3-pr: driveway+grass

Runoff Area=10,399 sf 23.15% Impervious Runoff Depth=6.63"
Tc=10.0 min CN=80 Runoff=1.59 cfs 0.132 af

Pond 5P: 12" diameter pipe

Peak Elev=40.46' Storage=155 cf Inflow=0.73 cfs 0.068 af
Outflow=0.71 cfs 0.068 af

Link 4L: proposed

Inflow=2.29 cfs 0.200 af
Primary=2.29 cfs 0.200 af

Total Runoff Area = 0.332 ac Runoff Volume = 0.200 af Average Runoff Depth = 7.25"
55.33% Pervious = 0.183 ac 44.67% Impervious = 0.148 ac

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Summary for Subcatchment 2-pr: roof

Runoff = 0.73 cfs @ 12.13 hrs, Volume= 0.068 af, Depth= 8.83"

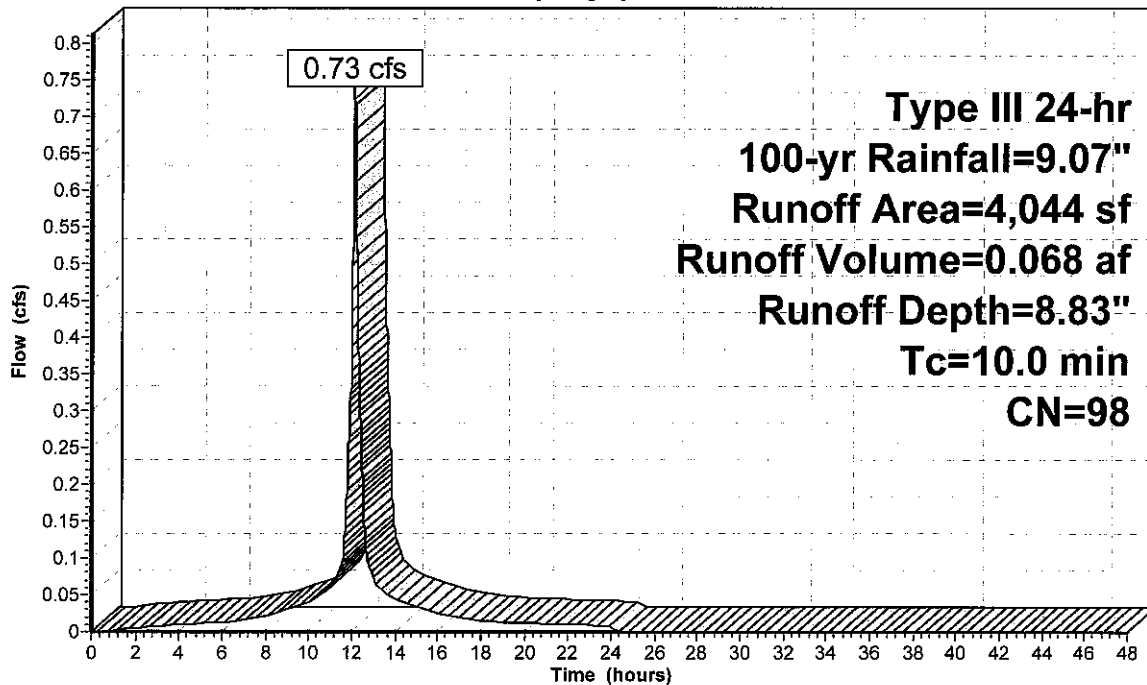
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=9.07"

Area (sf)	CN	Description
2,805	98	Roofs, HSG C
1,239	98	Paved parking, HSG C
4,044	98	Weighted Average
4,044		100.00% Impervious Area

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

Subcatchment 2-pr: roof

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Summary for Subcatchment 3-pr: driveway+grass

Runoff = 1.59 cfs @ 12.14 hrs, Volume= 0.132 af, Depth= 6.63"

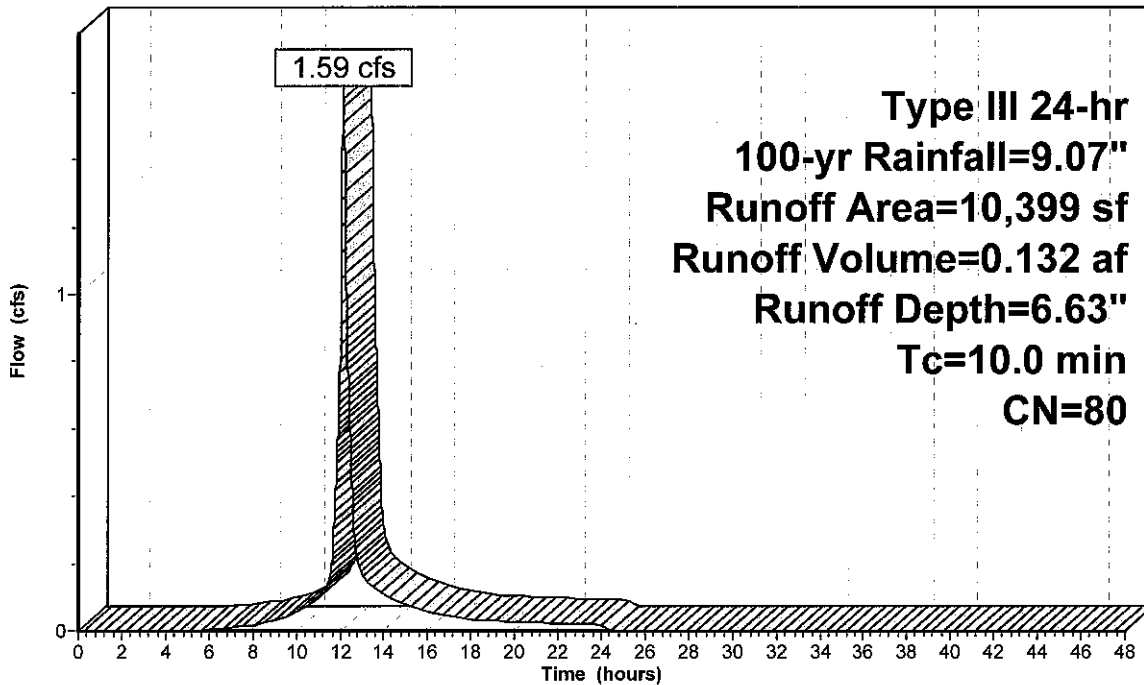
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-yr Rainfall=9.07"

Area (sf)	CN	Description
2,407	98	Water Surface, HSG C
7,992	74	>75% Grass cover, Good, HSG C
10,399	80	Weighted Average
7,992		76.85% Pervious Area
2,407		23.15% Impervious Area

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

Subcatchment 3-pr: driveway+grass

Hydrograph



Runoff

**Type III 24-hr
100-yr Rainfall=9.07"
Runoff Area=10,399 sf
Runoff Volume=0.132 af
Runoff Depth=6.63"
Tc=10.0 min
CN=80**

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Summary for Pond 5P: 12" diameter pipe

Inflow Area = 0.093 ac, 100.00% Impervious, Inflow Depth = 8.83" for 100-yr event
 Inflow = 0.73 cfs @ 12.13 hrs, Volume= 0.068 af
 Outflow = 0.71 cfs @ 12.16 hrs, Volume= 0.068 af, Atten= 2%, Lag= 1.3 min
 Primary = 0.71 cfs @ 12.16 hrs, Volume= 0.068 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs / 5
 Peak Elev= 40.46' @ 12.16 hrs Surf.Area= 76 sf Storage= 155 cf

Plug-Flow detention time= 5.6 min calculated for 0.068 af (100% of inflow)
 Center-of-Mass det. time= 5.6 min (749.1 - 743.4)

Volume	Invert	Avail.Storage	Storage Description
#1	39.50'	157 cf	12.0" Round Pipe Storage L= 200.0'

Device	Routing	Invert	Outlet Devices
#1	Primary	39.50'	3.5" Vert. Orifice/Grate C= 0.600
#2	Primary	40.00'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

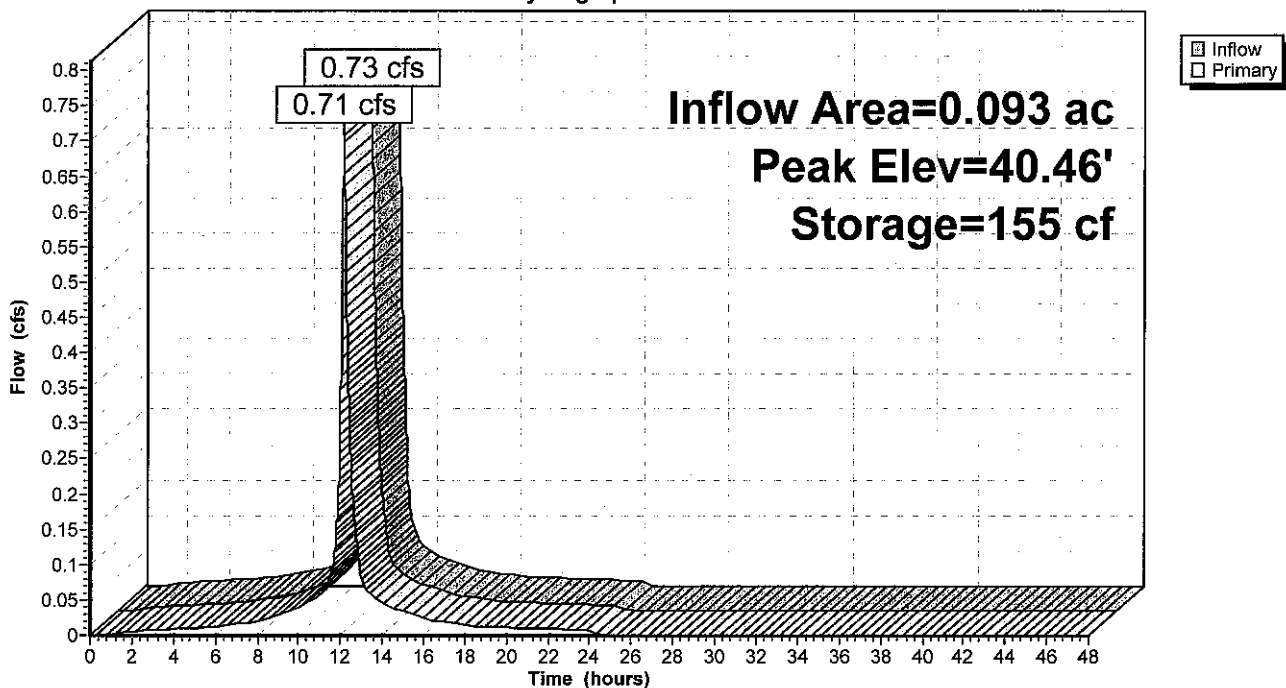
Primary OutFlow Max=0.71 cfs @ 12.16 hrs HW=40.46' (Free Discharge)

1=Orifice/Grate (Orifice Controls 0.29 cfs @ 4.35 fps)

2=Sharp-Crested Rectangular Weir (Weir Controls 0.42 cfs @ 2.22 fps)

Pond 5P: 12" diameter pipe

Hydrograph



Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Stage-Discharge for Pond 5P: 12" diameter pipe

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
39.50	0.00	40.02	0.20
39.51	0.00	40.03	0.21
39.52	0.00	40.04	0.21
39.53	0.00	40.05	0.22
39.54	0.00	40.06	0.23
39.55	0.01	40.07	0.24
39.56	0.01	40.08	0.25
39.57	0.01	40.09	0.26
39.58	0.01	40.10	0.27
39.59	0.02	40.11	0.28
39.60	0.02	40.12	0.29
39.61	0.03	40.13	0.30
39.62	0.03	40.14	0.31
39.63	0.04	40.15	0.32
39.64	0.04	40.16	0.33
39.65	0.05	40.17	0.34
39.66	0.05	40.18	0.35
39.67	0.06	40.19	0.36
39.68	0.06	40.20	0.37
39.69	0.07	40.21	0.39
39.70	0.07	40.22	0.40
39.71	0.08	40.23	0.41
39.72	0.09	40.24	0.42
39.73	0.09	40.25	0.43
39.74	0.10	40.26	0.45
39.75	0.10	40.27	0.46
39.76	0.11	40.28	0.47
39.77	0.11	40.29	0.48
39.78	0.12	40.30	0.50
39.79	0.12	40.31	0.51
39.80	0.13	40.32	0.52
39.81	0.13	40.33	0.54
39.82	0.13	40.34	0.55
39.83	0.14	40.35	0.56
39.84	0.14	40.36	0.57
39.85	0.15	40.37	0.59
39.86	0.15	40.38	0.60
39.87	0.15	40.39	0.61
39.88	0.16	40.40	0.63
39.89	0.16	40.41	0.64
39.90	0.16	40.42	0.65
39.91	0.17	40.43	0.67
39.92	0.17	40.44	0.68
39.93	0.17	40.45	0.69
39.94	0.17	40.46	0.71
39.95	0.18	40.47	0.72
39.96	0.18	40.48	0.73
39.97	0.18	40.49	0.75
39.98	0.19	40.50	0.76
39.99	0.19		
40.00	0.19		
40.01	0.20		

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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Stage-Area-Storage for Pond 5P: 12" diameter pipe

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
39.50	0	40.02	83
39.51	0	40.03	85
39.52	1	40.04	87
39.53	1	40.05	89
39.54	2	40.06	91
39.55	3	40.07	92
39.56	4	40.08	94
39.57	5	40.09	96
39.58	6	40.10	98
39.59	7	40.11	100
39.60	8	40.12	102
39.61	9	40.13	104
39.62	11	40.14	106
39.63	12	40.15	108
39.64	13	40.16	110
39.65	15	40.17	112
39.66	16	40.18	114
39.67	18	40.19	116
39.68	19	40.20	117
39.69	21	40.21	119
39.70	22	40.22	121
39.71	24	40.23	123
39.72	26	40.24	125
39.73	27	40.25	126
39.74	29	40.26	128
39.75	31	40.27	130
39.76	32	40.28	131
39.77	34	40.29	133
39.78	36	40.30	135
39.79	38	40.31	136
39.80	40	40.32	138
39.81	41	40.33	139
39.82	43	40.34	141
39.83	45	40.35	142
39.84	47	40.36	144
39.85	49	40.37	145
39.86	51	40.38	146
39.87	53	40.39	148
39.88	55	40.40	149
39.89	57	40.41	150
39.90	59	40.42	151
39.91	61	40.43	152
39.92	63	40.44	153
39.93	65	40.45	154
39.94	67	40.46	155
39.95	69	40.47	156
39.96	71	40.48	156
39.97	73	40.49	157
39.98	75	40.50	157
39.99	77		
40.00	79		
40.01	81		

Prop 2-21-20

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PROPOSED CONDITIONS

Type III 24-hr 100-yr Rainfall=9.07"

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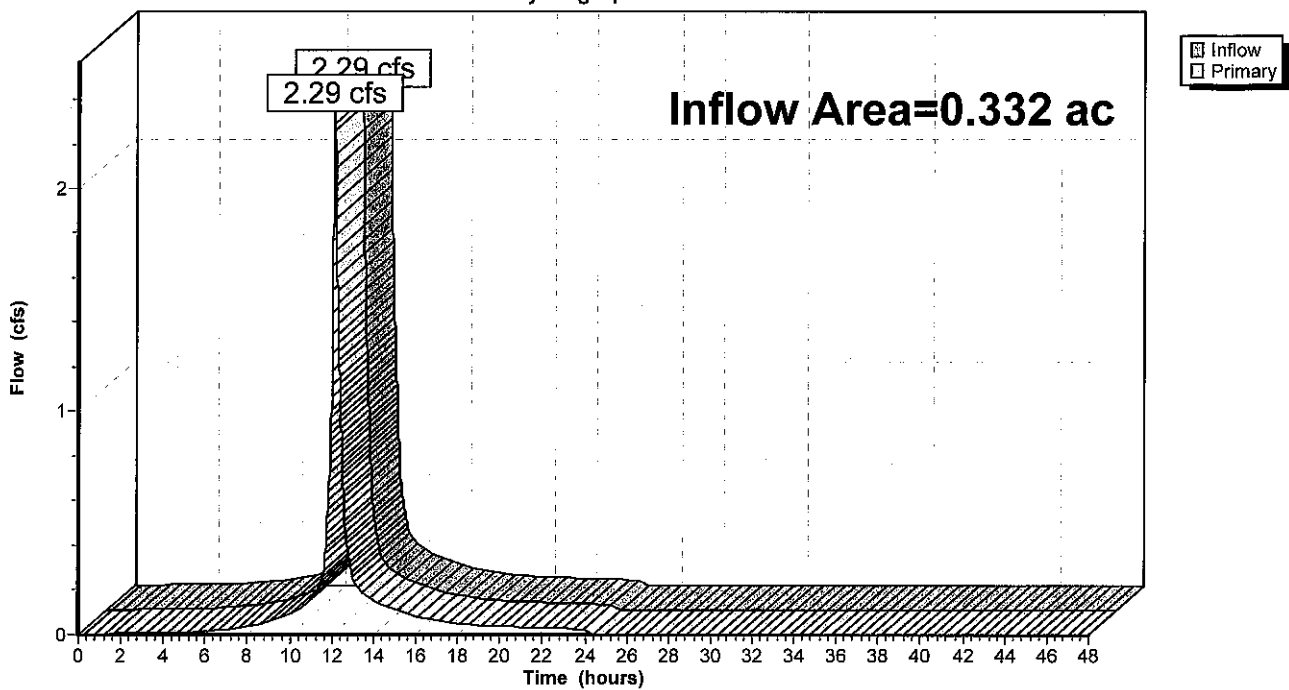
Summary for Link 4L: proposed

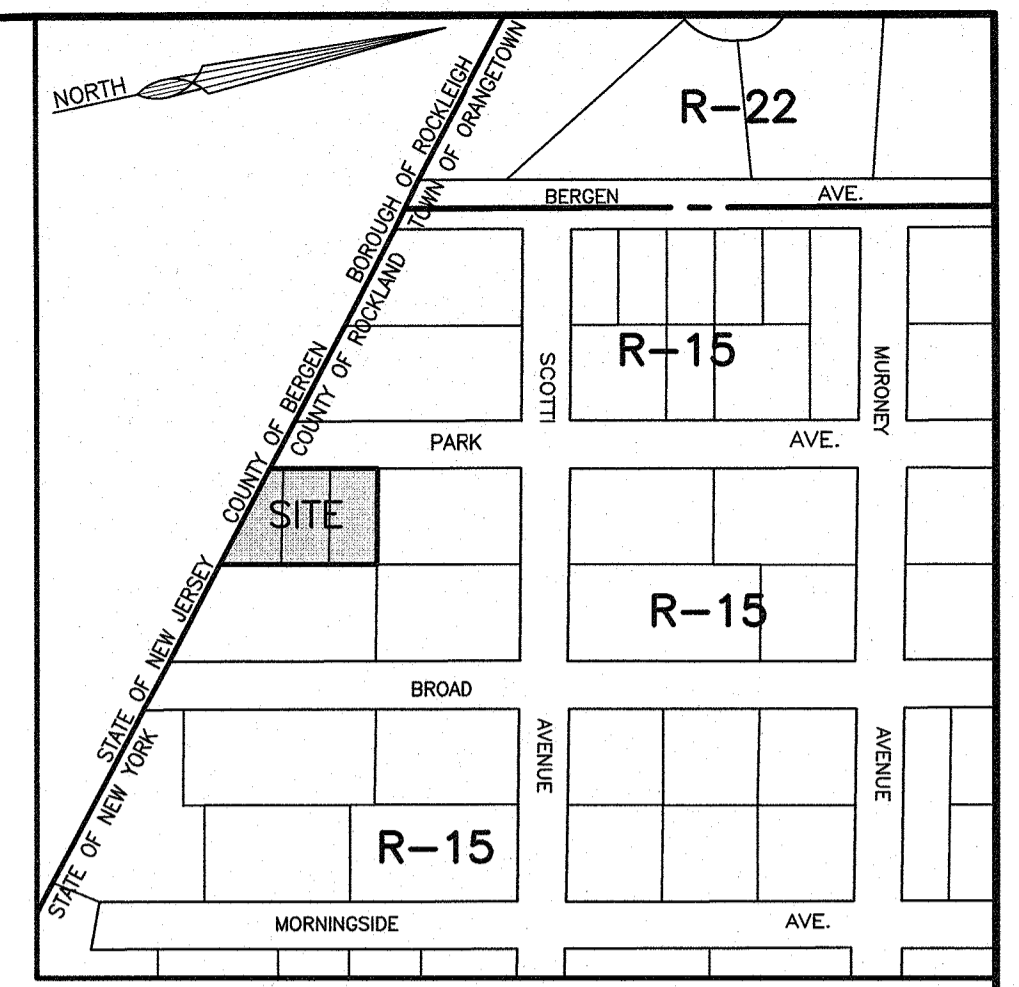
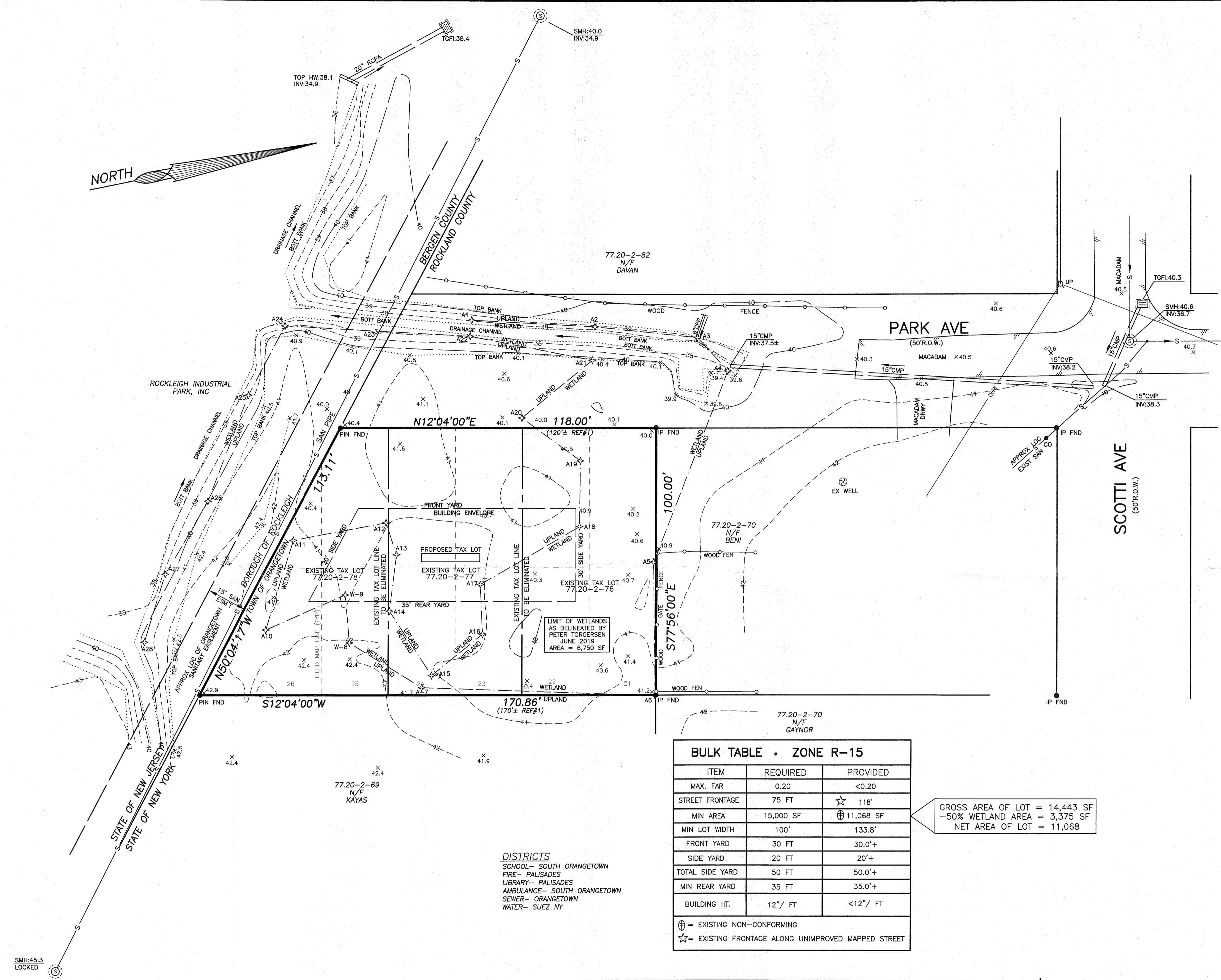
Inflow Area = 0.332 ac, 44.67% Impervious, Inflow Depth = 7.25" for 100-yr event
Inflow = 2.29 cfs @ 12.14 hrs, Volume= 0.200 af
Primary = 2.29 cfs @ 12.14 hrs, Volume= 0.200 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs

Link 4L: proposed

Hydrograph





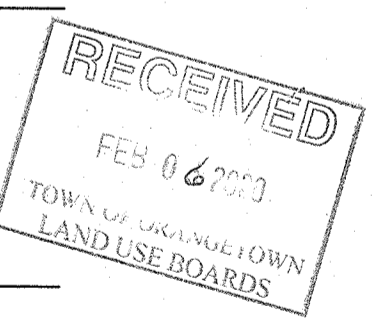
VICINITY MAP
SCALE: 1"=200'

NOTES:

1. THIS IS A SUBDIVISION (COMBINING) OF TAX LOTS 77.20-2-76, 77.20-2-77 AND 77.20-1-78 AS SHOWN ON THE TOWN OF ORANGETOWN TAX MAPS.
2. RECORD OWNER: JAMES J. BENI
135 PARK AVE
ORANGETOWN, NY 10964
3. APPLICANT: EDMUND LANE
75 MICHAEL ROBERTS COURT
PEARL RIVER, NY 10965
4. NUMBER OF LOTS: 3 EXISTING, 1 PROPOSED
5. AREA = 14,443 SF TOTAL
6. ZONE: R-15
7. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND 8. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED BY SECTION 239 L&N OF THE GENERAL MUNICIPAL LAW OF THE STATE OF NEW YORK.
8. ALL UTILITIES, INCLUDING ELECTRIC AND TELEPHONE SERVICE SHALL BE INSTALLED UNDERGROUND.
9. THIS PLAT IS SUBJECT TO DETAILS OF GRADING, ROADS AND UTILITIES AS SHOWN ON CONSTRUCTION PLANS APPROVED BY THE PLANNING BOARD AND FILED WITH THE TOWN CLERK. LOT DRAINAGE SHOWN ON SUCH PLANS SHALL CONSTITUTE EASEMENTS RUNNING WITH THE LAND & SHALL NOT BE DISTURBED.
10. ANY EXISTING UTILITIES (POLES, HYDRANTS, ETC.) AFFECTED BY CONSTRUCTION OF THIS SITE PLAN SHALL BE RELOCATED AT THE DEVELOPERS EXPENSE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY.
11. NO BUILDING PERMIT SHALL BE ISSUED UNTIL SITE PLANS HAVE BEEN APPROVED BY ACABOR.
12. NO BUILDING PERMIT SHALL BE ISSUED UNTIL RESULTS OF TEST PITS HAVE BEEN SUBMITTED TO THE BUILDING DEPT.
13. MONUMENTS ARE TO BE SET AT ALL CORNERS OF ORIGINAL PARCEL WHERE NOT OTHERWISE MARKED. (SHOWN THUS: ⊕)
14. WATER SUPPLY: SUEZ NY
15. DATUM: NGVD 29
16. NEW TAX LOT NUMBERS SHOWN THUS: [77.20-2-X]
17. THE NEW CORNERS OF ALL LOTS SHALL BE MARKED WITH METAL RODS 3/4" IN DIAMETER & AT LEAST 30" IN LENGTH, TO BE INSTALLED AFTER FINAL GRADING.
18. PLANS COMPLY WITH STORMWATER MANAGEMENT PHASE II REGULATIONS. (LOT LINE CHANGE ONLY)

LEGEND

---	DRAINAGE INLET W/PIPES	---	DMH
---	DRAIN MANHOLE/ WITH PIPES	---	DMH
---	TOP CURB @ CATCH BASIN	---	TCCB
---	TOP GRATE FIELD INLET	---	TGFI
---	REINFORCED CONCRETE PIPE	---	RCP
---	CORRUGATED PLASTIC PIPE	---	CPP
---	UTILITY POLE	---	UP
---	WATER VALVE	---	WV
---	GAS VALVE	---	GV
---	OVERHEAD WIRES	---	OHW
---	GAS LINE	---	G
---	GAS, ELEC, TEL, CATV	---	GETC
---	WATER LINE	---	W
---	CONTOUR LINE	---	-520-
---	SPOT GRADE	---	x 520.5
---	WET LAND BOUNDARY	---	A20 A21



BULK TABLE • ZONE R-15

ITEM	REQUIRED	PROVIDED
MAX. FAR	0.20	<0.20
STREET FRONTAGE	75 FT	☆ 118'
MIN AREA	15,000 SF	⊕ 11,068 SF
MIN LOT WIDTH	100'	133.8'
FRONT YARD	30 FT	30.0'+
SIDE YARD	20 FT	20'+
TOTAL SIDE YARD	50 FT	50.0'+
MIN REAR YARD	35 FT	35.0'+
BUILDING HT.	12'/ FT	<12'/ FT

GROSS AREA OF LOT = 14,443 SF
-50% WETLAND AREA = 3,375 SF
NET AREA OF LOT = 11,068

DISTRICTS
SCHOOL- SOUTH ORANGETOWN
FIRE- PALISADES
LIBRARY- PALISADES
AMBULANCE- SOUTH ORANGETOWN
SEWER- ORANGETOWN
WATER- SUEZ NY

- REFERENCES:
1. BEING LOTS 21, 22, 23, 24, 25 IN BLOCK 9, ON A MAP ENTITLED "PALISADES MANOR", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE AS MAP 218.
 2. DEEDS ON FILE IN THE ROCKLAND COUNTY CLERK'S OFFICE AS FOLLOWS:
LIBER 235 PAGE 2684, L85 P1379, INST# 1997-48684, INST# 2006-9191.

OWNERS APPROVAL FOR FILING:

OWNER _____ DATE _____

APPROVAL-ROCKLAND COUNTY DRAINAGE AGENCY

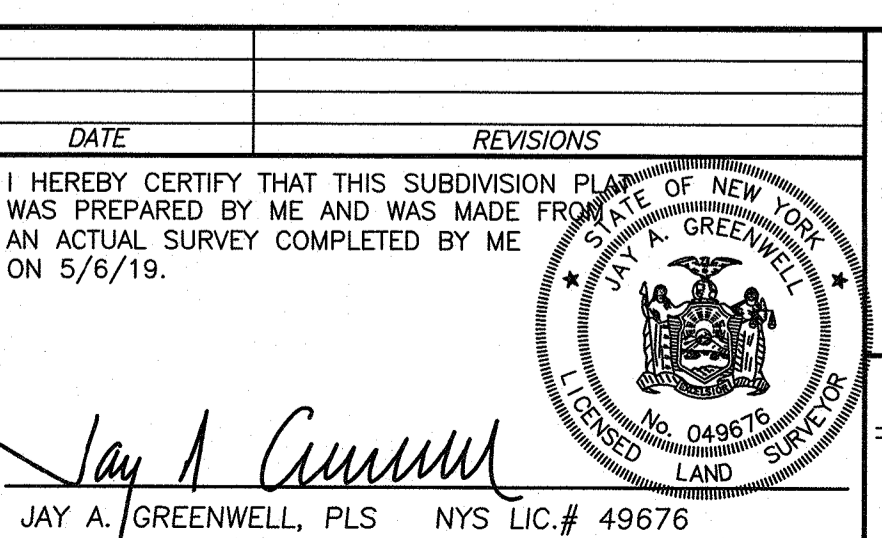
CHAIRMAN _____ DATE _____

ORANGETOWN PLANNING BOARD APPROVAL:

DATE _____ REVISIONS _____

I HEREBY CERTIFY THAT THIS SUBDIVISION PLAT WAS PREPARED BY ME AND WAS MADE FROM AN ACTUAL SURVEY COMPLETED BY ME ON 5/6/19.

Jay A. Greenwell
JAY A. GREENWELL, PLS NYS LIC.# 49676



RE-SUBDIVISION OF LAND FOR
LANE

TOWN OF ORANGETOWN
ROCKLAND COUNTY, STATE OF NEW YORK

JAY A. GREENWELL, PLS, LLC
SURVEYING - LAND PLANNING
85 LAFAYETTE AVENUE, SUFFERN, NEW YORK, 10901
PHONE 845-357-0830 FAX 845-357-0756

TAX LOT #S	77.20-2-76 77.20-2-77 77.20-2-78
AREA	14,443 SF
FILE	21917 SUB
SCALE	1"= 20'
DATE	1/20/20
JOB NO.	21917