Board of Adjustment/Planning Board Application

Address of Property: 29 Pearl Street

Block: 85.00   **Lot:** 20   **Zone:** B-1

Name of Applicant or Project: Site Plan - 29 Pearl Street

Applicant's Name: Dr. Omobola Oji   is owner – leasee – purchaser under contract

Applicant's Address: 25 Craig Place, North Plainfield NJ 07060

Daytime Phone Contact: (908) 420 _ 8652

Attorney (if any): John J. Sullivan, Jr.
Name/Firm: Vastola & Sullivan

Address: 495 Union Avenue, Middlesex, NJ 08846

Daytime Phone Contact: (732) 560 - 0888   **Fax:** (732) 302 - 1207

Where do you want correspondence regarding this application sent?

Attorney [✓]   Applicant [ ]   Pickup [ ]   Other [ ]

Type of Application:

1. One and two family "C" bulk variance
2. Use variance "D" with/without site plan (conditional use variance)
3. Minor Sub Division
4. Sub Division with "C" variance
5. Site Plan Review with/without "C" variances – Amended Site Plans
6. "A" appeal of Zoning Officer's Decision
7. "A" appeal of Historic Preservation Commission Decision
8. Other Preliminary and Final Site Plan approval

(items 2, 5, and 8 are circled)

Documents Submitted:

Application	Date: 02/2021	Number of Copies 15
Survey	Date: 02/05/19	Number of Copies 15
Site Plan	Date: 01/05/21	Number of Copies 15
Checklist	Date: 2/2021	Architectural Plans: 11/22/20 15 copies

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For Board of Adjustment/Planning Board use only;

Date of Final Application: _____   *Going to Board of Adjustment/Planning Board*

Date of Hearing: _____   File #: _____

Brief Description of Project/Relief Requested

Project Name: **Site Plan - 29 Pearl Street**

Address: **29 Pearl Street, North Plainfield, NJ**

Block: Lot **85.00**   Zone: **20**   **B-1**

Proposed Use: **3 story office building on the** ~~first floor and residential~~   Permitted Use: **yes**

Site Information: **apartments on the upper floors**

Bulk Requirements	Required	Proposed	Ord. Section	
Lot Area	40,000 sf	9248.32 sf	22-108.3 (b)*	
Front Yard	25'	93'	22-108.3 (e)	
Rear Yard	25'	8'	22-108.3 (d)*	
Side Yard	25'	.5'	22-108.3 (d)*	
Combined Side Yard	50'	6'	22-108.3 (d)*	
Accessory Buildings	n/a			
Pool Set Backs	n/a			
Buffer Area	n/a			
Building Coverage	22%	30.18%	22-108.3 (c)*	
Landscaping Coverage	20%	1.3%	22-108.3(Jl)	
Paving Coverage Floor Area	n/a			
Height	min 4 story	3 story	22-108.3 (a)*	
Parking Required	24 spaces	18 spaces	22-117.2 (b 2	& 3)
Lighting	yes	yes	22-108.3 (J3)	
Dumpster Shielding	n/a	provided		
Fencing	n/a	provided		
Other Requirements	n/a			
Elevator	required	yes	22-108.3 (g)	

Applicants Signature   2/19/2021

                                                          Date

ADDENDUM TO APPLICATION
DR. OMOBOLA OJI
29 PEARL STREET

NARRATIVE DESCRIPTION

The Applicant, Dr. Omobola Oji, seeks Preliminary and Final Site Plan Approval, together with a conditional use variance, a bulk variance for lot area which is an existing condition and bulk variances for minimum building height, maximum building coverage, front yard setback, one (1) side yard and combined side yard setback, rear yard setback, landscaping coverage and for number of parking spaces as indicated below.

Variance Conditions

Item	Required	Proposed
Height	4 story minimum	3 stories
Lot area	40,000 sf	9,248.32 sf
Rear Yard	25'	8'
1 Side Yard	25'	.5'
Combined Side Yard	50'	6'
Building Coverage	22%	30.18%
Landscaping Coverage	20%	1.3%
Parking	24 spaces	18 spaces

The variance conditions for minimum height, lot area, building coverage, setbacks, parking and landscaping area are required conditions for an apartment building in the B-1 business zone and may be considered as a conditional use variance and/or as bulk variances dependent on the Board's interpretation of the use as either a permitted use or as a permitted conditional use.

The property is located in the B-1 business zone and is currently vacant land. The applicant proposes to construct a three-story building in accordance with the plans submitted. The first floor is proposed to be used as the Applicant's medical office and the upper floors are proposed to be used for a total of 8 residential apartments with four on each floor. Fifty percent (50%) of the apartments are proposed to be studio apartments and the rest are proposed to be 1 bedroom apartments.

With the exception of the aforementioned variances, the Applicant believes that no other variance, waiver or exception is required in order to grant the approvals requested. However, if the Board directs that additional variance (s), waivers (s) or exception (s) is/are needed, the Applicant may seek the same in accordance with such direction.

BOROUGH OF NORTH PLAINFIELD
263 SOMERSET STREET
NORTH PLAINFIELD, NJ 07060

File Case #: _____

Property Address: _____29 Pearl Street_____

Applicant: _____Dr. Omobola Oji_____

	SUPPLIED	WAIVER REQUESTED
1. Name and title of applicant	☒	☐
2. Name of owner	☒	☐
3. Name and title of person preparing map	☒	☐
4. Place for signature of Chairman of Planning Board or Board of Adjustment	☒	☐
5. Place for signature of Secretary of Planning Board or Board of Adjustment	☒	☐
6. Place for signature of Borough Engineer	☒	☐
7. Lot and block numbers	☒	☐
8. Street address	☒	☐
9. Date, scale and "north" sign	☒	☐
10. Tax Map	☒	☐
11. Zone district in which property in question falls, zone district of adjoining properties and all properties within a 200 foot radius of property in question	☒	☐
12. Names and owners of contiguous land	☐	☐
13. All driveways and streets within 200 feet of site	☐	☐
14. The entire property in question, even though only a portion of said property is involved in the site plan; provided, however, where it is physically impossible to show the entire property on the required sheet, a separate map at an appropriate scale may be submitted	☒	☐
15. Dimensions of lot, setbacks, front yard and rear yard, size, kind and location of fences	☒	☐
16. Bearings and distances of property lines	☒	☐

17. Existing and proposed contours of site as 2 foot intervals for areas less than 5 percent grade ☐

18. Existing and proposed spot elevations based upon the U.S. Coastal Geodetic datum at all building corners, all floor levels, center lines of abutting roads, top and bottom curbs, property corners, gutters and other pertinent locations ☒

19. Locatin of all existing trees, or tree masses, indicating general sizes and species of trees ☐

20. Significant existing physical features including streams, water courses, rock outcrops, swampy soil, etc. ☐

21. All existing and proposed utility lines within and adjacent to the subject property ☐

22. Existing and proposed sanitary sewage disposal system ☐

23. Storm drainage plan showing location of inlets, pipes, swales, berms and other storm drainage facilities including roof leaders, indicating existing and proposed runoff calculations ☒

24. The outside dimensions of existing and/or proposed principal building(s) and all accessory structures ☒

25. Typical floor plans and elevations ☒

26. Location, dimensions and details of all signs ☐

27. Exterior lighting plan including type of standards, radius of light and intensity in foot candles ☐

28. Landscaping and buffering plan showing what will remain and what will be planted including names of plants and trees and dimensions, approximate times of planting, and method of planting (base rooted, ball and burlap, etc.) ☒

29. Method of solid waste disposal ☒

30. Plan of off-street parking area layout and off-street loading facilities showing location and dimensions of individual parking spaces, loading areas, aisles, traffic patterns ☒

31. Rights of way, easements and all land to be dedicated to the municipality or reserved for specific uses ☐   N/A ☐
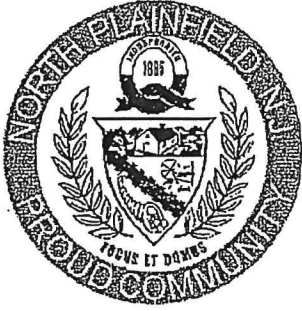
Edward S. Dec
Signature of person preparing plans

EDWARD S. DEC
NJ Engineer/Architect

24GD03897400
Registration Number

BOROUGH OF NORTH PLAINFIELD
MUNICIPAL BUILDING
263 Somerset Street
North Plainfield, NJ 07060

CERTIFICATE OF OWNERSHIP

TO THE NORTH PLAINFIELD PLANNING BOARD/BOARD OF ADJUSTMENT

I, hereby certify that I am the owner of land at

29 Pearl Street, North Plainfield, New Jersey

and the proposed (Site Plan Review) (~~Subdivision~~) (Variance) of this land

is made with my free consent and in accordance with my desire.

Signed: _____
Omobola Oji

Dated: 6/27/19

C-1

TAX AND ASSESSMENT PAYMENT REPORT
PLANNING BOARD/ZONING BOARD OF ADJUSTMENT
City of North Plainfield

APPLICATION NO._____   RECEIVED _____

Under provisions of New Jersey Statutes, N.J.S.A. 40:55D-39e and N.J.S.A. 40:55D-65h, an applicant for development of land must submit proof that no taxes or assessments for local improvements or municipal are due or delinquent on the property, stated below.

Applicant will complete Section I of this form in quadruplicate and submit them with the application for development. The Administrative Official will forward three forms to the Tax Collector for verification that no delinquent taxes or assessments are due. One signed coy of this form will be returned to the applicant by the Administrative Official, one copy retained by the tax collector, and two copies placed in the applicant's file.

Developers are cautioned that agreement on payment of taxes for the current year must be reached between the interested parties. Apportionment of taxes is NOT the concern of the Tax Office.

Applicant is also cautioned that additional assessments may be levied where a structure is present.

_____

Section I (to be completed by Applicant)

I, Dr. Omobola Oji am making application to the Planning Board/Zoning Board of Adjustment

for the development of Lot 20, Block 85 , located at 29 Pearl Street, North Plainfield, NJ whose

owner of record is Dr. Omobola Oji, 25 Craig Place, North Plainfield, NJ

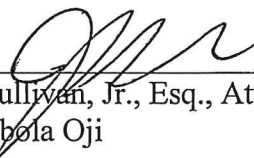This tract was formerly subdivided on N/A

Original Lot(s) No. 20 Block 85

I acquired interest in this property in May 30, 2014

I request the Tax Collector determine whether there are any delinquent taxes and/or assessments due.

Applicant's Signature

Date: 6| 27| 18   By: _____
                              John J. Sullivan, Jr., Esq., Attorney for
                              Dr. Omobola Oji

==

Section II (to be completed by Tax Collector)

I find that: ( ) All taxes due have been paid.
                ( ) All assessments due have been paid
                ( ) The following are delinquent and past due:

_____   _____
Date   Tax Collector

Deed

This Deed is made on May **30**, 2014

BETWEEN   FRANCES BRINSON, INDIVIDUALLY AND AS EXECUTRIX UNDER THE LAST WILL OF TESTAMENT OF OPIE F. BRINSON, JR., and VINCENT A. BIANCO
whose post office address is 29 Wimpole Way, Greenbrook, New Jersey 08812
referred to as the Grantor,

AND   DR. OMOBOLA OJI
whose post office address is 25 Craig Place, North Plainfield, New Jersey 07060
referred to as the Grantee.
The words "Grantor" and "Grantee" shall mean all Grantors and all Grantees listed above.

1. **Transfer of Ownership.**   The Grantor grants and conveys (transfers ownership of) the property (called the "Property") described below to the Grantee. This transfer is made for the sum of Seventy Thousand Dollars ($70,000.00). The Grantor acknowledges receipt of this money.

2. **Tax Map Reference.** (N.J.S.A. 46:15-1.1) Municipality of North Plainfield
Block No. 85   Lot No. 20   Qualifier No.   Account No.
☐ No lot and block or account number is available on the date of this Deed. (Check box if applicable.)

3. **Property.**   The Property consists of the land and all the buildings and structures on the land in the Borough of North Plainfield, County of Somerset and State of New Jersey. The legal description is:
☐ Please see attached Legal Description annexed hereto and made a part hereof. (Check box if applicable.)

Being the same premises conveyed to Opie F. Brinson, Jr., and Vincent A. Bianco by Deed from Michael O'Neil and James Watson, dated July 22, 1992, recorded July 29, 1992, in the Clerk's Office of the County of Somerset New Jersey, in Deed Book 1867, Page 77. The said Opie F. Brinson, Jr. died March 13, 2010 devising the premises to Frances Brinson, his wife.

```
2014021379

BRETT A. RADI COUNTY CLERK
    SOMERSET COUNTY NJ
2014-JUN-17 10:50:01 AM
BK:6722 PG:2953-2958
CONS:$70,000.00 EXEMPT: S
NJ XFER FEE:$280.00
    INSTRUMENT #:2014021379
```

The street address of the Property is: 29 Pearl Street, North Plainfield, New Jersey 07060.

Prepared by: (print signer's name below signature)

David M. Stahl, Esq.

(For Recorder's Use Only)

Legal Description

ALL THAT CERTAIN LOT, PARCEL OR TRACT OF LAND, SITUATE AND LYING IN THE BOROUGH OF NORTH PLAINFIELD, COUNTY OF SOMERSET, STATE OF NEW JERSEY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHWESTERLY SIDELINE OF PEARL STREET AS NOW LAID OUT AND OPENED (SAID PEARL STREET BEING 61.25 FEET IN WIDTH) DISTANT ALONG THE SAME ON A MAGNETIC COURSE OF SOUTH 48 DEGREES 20 MINUTES WEST A DISTANCE OF 99.38 FEET FROM THE INTERSECTION OF SAID SIDELINE WITH THE SOUTHWESTERLY SIDELINE OF WARREN STREET (SAID WARREN STREET BEING 41.25 FEET IN WIDTH) AND RUNNING FROM THENCE

(1) ALONG THE NORTHWESTERLY SIDELINE OF PEARL STREET SOUTH 48 DEGREES 20 MINUTES WEST A DISTANCE OF 58.75 FEET TO A POINT AND CORNER; THENCE

(2) NORTH 41 DEGREES 56 MINUTES WEST A DISTANCE OF 157.42 FEET TO A POINT AND CORNER; THENCE

(3) NORTH 48 DEGREES 20 MINUTES EAST AND PARALLEL WITH PEARL PLACE A DISTANCE OF 58.75 FEET TO A POINT AND CORNER; THENCE

(4) SOUTH 41 DEGREES 56 MINUTES EAST AND PARALLEL WITH THE SECOND COURSE A DISTANCE OF 157.42 FEET TO THE POINT AND PLACE OF BEGINNING.

FOR INFORMATIONAL PURPOSES ONLY: ALSO KNOWN AS LOT 20 IN BLOCK 85 ON THE BOROUGH OF NORTH PLAINFIELD TAX MAP.

State of New Jersey
SELLER'S RESIDENCY CERTIFICATION/EXEMPTION
(C.55, P.L. 2004)

(Please Print or Type)

SELLER(S) INFORMATION (See Instructions, Page 2)

Names(s)

Frances Brinson, Individually and as Executrix of the Estate of Opie F. Brinson, Jr.

Current Resident Address:

Street: 29 Wimpole Way

City, Town, Post Office	State	Zip Code
Greenbrook	NJ	08812

PROPERTY INFORMATION (Brief Property Description)

Block(s)	Lot(s)	Qualifier
85	20	

Street Address:
29 Pearl Street

City, Town, Post Office	State	Zip Code
North Plainfield	NJ	07060

Seller's Percentage of Ownership	Consideration	Closing Date
50%	$70,000	5/30/2014

SELLER ASSURANCES (Check the Appropriate Box) (Boxes 2 through 10 apply to Residents and Non-residents)

1. ☒ I am a resident taxpayer (individual, estate, or trust) of the State of New Jersey pursuant to N.J.S.A. 54A:1-1 et seq. and will file a resident gross income tax return and pay any applicable taxes on any gain or income from the disposition of this property.

2. ☐ The real property being sold or transferred is used exclusively as my principal residence within the meaning of section 121 of the federal Internal Revenue Code of 1986, 26 U.S.C. s. 121.

3. ☐ I am a mortgagor conveying the mortgaged property to a mortgagee in foreclosure or in a transfer in lieu of foreclosure with no additional consideration.

4. ☐ Seller, transferor or transferee is an agency or authority of the United States of America, an agency or authority of the State of New Jersey, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

5. ☐ Seller is not an individual, estate or trust and as such not required to make an estimated payment pursuant to N.J.S.A.54A:1-1 et seq.

6. ☐ The total consideration for the property is $1,000 or less and as such, the seller is not required to make an estimated payment pursuant to N.J.S.A. 54A:5-1-1 et seq.

7. ☐ The gain from the sale will not be recognized for Federal income tax purposes under I.R.C. Section 721, 1031, 1033 or is a cemetery plot. (CIRCLE THE APPLICABLE SECTION). If such section does not ultimately apply to this transaction, the seller acknowledges the obligation to file a New Jersey income tax return for the year of the sale (see instructions).

   ☐ No non-like kind property received.

8. ☐ Transfer by an executor or administrator of a decedent to a devisee or heir to effect distribution of the decedent's estate in accordance with the provisions of the decedent's will or the intestate laws of this state.

9. ☐ The property being sold is subject to a short sale instituted by the mortgagee, whereby the seller has agreed not to receive any proceeds from the sale and the mortgagee will receive all proceeds paying off an agreed amount of the mortgage.

10. ☐ The deed being recorded is a deed dated prior to the effective date of P.L. 2004, c. 55 (August 1, 2004), and was previously unrecorded.

SELLER(S) DECLARATION

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein could be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that the Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

May 30, 2014	Frances Brinson
Date	Signature
	(Seller) Please indicate if Power of Attorney or Attorney in Fact

Date	Signature
	(Seller) Please indicate if Power of Attorney or Attorney in Fact

State of New Jersey

NONRESIDENT SELLER'S TAX DECLARATION

(C.55, P.L. 2004)

GIT/REP-1
(6-10)

(Please Print or Type)

SELLER(S) INFORMATION

Name(s)

Vincent A. Bianco

Street Address:

665 Stanton Hall Drive NW

City, Town, Post Office   State   Zip Code

Calabash   NC   28467

PROPERTY INFORMATION (Brief Property Description)

Block(s)   **Lot(s)**   **Qualifier**

85   20

Street Address:

29 Pearl Street

City, Town, Post Office   State   Zip Code

North Plainfield   NJ   07060

Seller's Percentage of Ownership   **Consideration**   **Closing Date**

50% $35,000

SELLER(S) DECLARATION

The undersigned understands that this declaration and its contents may be disclosed or provided to the New Jersey Division of Taxation and that any false statement contained herein could be punished by fine, imprisonment, or both. I furthermore declare that I have examined this declaration and, to the best of my knowledge and belief, it is true, correct and complete. By checking this box ☐ I certify that the Power of Attorney to represent the seller(s) has been previously recorded or is being recorded simultaneously with the deed to which this form is attached.

_____   _____
Date   Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact

May 21, 2014   _____
Date   Signature (Seller) Please indicate if Power of Attorney or Attorney in Fact
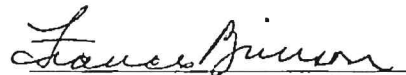
(Detach on dotted line)

4. Promises by Grantor. The Grantor promises that the Grantor has done no act to encumber the Property. This promise is called a "covenant as to grantor's acts" (N.J.S.A. 46:4-6). This promise means that the Grantor has no allowed anyone else to obtain any legal rights which affect the Property (such as by making a mortgage or allowing a judgment to be entered against the Grantor).

5. Signatures. The Grantor signs this Deed as of the date at the top of the first page. (Print name below each signature.)
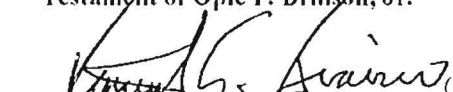
Witnessed By:

_____
David Stahl

_____ (Seal)
Frances Brinson, Individually and as Executrix under the Last Will and Testament of Opie F. Brinson, Jr.

_____
Barbara R. Bianco

_____ (Seal)
Vincent A. Bianco

STATE OF NEW JERSEY, COUNTY OF   SS:
I CERTIFY that on May **30**, 2014

Frances Brinson, Individually and as Executrix under the Last Will and Testament of Opie F. Brinson, Jr.,

personally came before me and stated to my satisfaction that this person (or if more than one, each person):
(a) was the maker of this Deed;
(b) signed, sealed and delivered this Deed as his or her act; and
(c) made this Deed for $70,000.00 as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5.)

_____

DAVID STAHL
ATTORNEY AT LAW
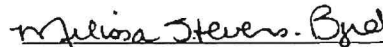STATE OF NEW JERSEY
ATTORNEY NO. 029891980

STATE OF NORTH CAROLINA, COUNTY OF Brunswick   SS:
I CERTIFY that on May **21**, 2014

Vincent A. Bianco,

personally came before me and stated to my satisfaction that this person (or if more than one, each person):
(a) was the maker of this Deed;
(b) signed, sealed and delivered this Deed as his or her act; and
(c) made this Deed for $70,000.00 as the full and actual consideration paid or to be paid for the transfer of title. (Such consideration is defined in N.J.S.A. 46:15-5.)

Melissa Stevens-Byrd
my commission expires 11/15/2016

Melissa Stevens-Byrd
Notary of NC
11/15/2016

RECORD AND RETURN TO: 14TJ-050769CA

Christopher G. Aiello, Esq.
501 Watchung Avenue
Watchung, NJ 07069

PRESTIGE TITLE AGENCY INC
130 POMPTON AVE
VERONA NJ 07044

****

Recorded:	06/17/2014 10:50:01 AM
Book:	OPR 7 6722 Page: 2953-2958
Instrument No.:	2014021379
	DEED 6 PGS $83.00
CONSIDERATION:	$70,000.00
EXEMPTION:	S
NJ REALTY XFER FEE:	$280.00
Recorder:	BRIONES

****

DO NOT DISCARD

2014021379

ANS
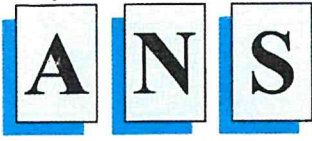
CONSULTANTS, INC.
4405 South Clinton Avenue
South Plainfield, NJ 07080

Tel: (800) 545-ATUL
(908) 754-8383
Fax: (908) 754-8633

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October 15, 2019

Paul Kulpak Co.
87 Green Brook Road
Green Brook, NJ 08812

Attn.: Mr. Paul Kulpak

Re: **Field Percolation Test Report**
29 Pearl Street
North Plainfield, NJ
Our File # ANS - 5343

Dear Mr. Kulpak,

Attached, please find field percolation test report for the test performed on October 10, 2019. One test pit was excavated at the location marked on the attached drawing. Test pit was excavated approximately 8'-6" below grade to prepare soil profile log and check static ground water depth. Groundwater was not encounted. down to 8'-6" depth. Field Percolation test was performed at 5'.0" depth. Noted percolation rate of 6.0 inch/hr. Hydraulic Conductivity rate is 2.2 inch/hr. Soil permeability class rating is K3.

Should you have any questions or require additional information, please contact the undersigned at (908) 754-8383.

Sincerely,
ANS CONSULTANTS, INC.

Atul N. Shah, PE, F. ASCE
President
NJ PE license #24GE03443900
ANS/ajs

Phone: 732-407-8102
Email: paulkulpak@yahoo.com

File: ans.ajs.10152019.0217. Paul Kulpak Co.

PERCOLATION TEST RESULT

CLIENT: Paul Kulpak Co.
87 Green Brook Road
Green Brook , NJ 08812

Attn.: Mr. Paul kulpak

PROJECT: Field Percolation Test
29 Pearl Street
North Plainfield, NJ

DATE: 10-10-2019

FILE NO: ANS-5343

REPORT NO.: 1

Test Data

Sr No.	Time	Height of Water level In.	Time Interval min	Water Drop In.	Remark
1	10:30 PM	7	20	3.25	
2		7	20	3.1	
3		7	20	2.90	
4		7	20	2.4	
5		7	20	2.0	
6		7	20	2.0	
7		7	20	2.0	Steady State Condition reached
	Percolation rate				**6 inch/ hr**
	Hydraulic Conductivity rate				**2.2 in/hr.**
	Soil Permeability Class				**K3**

Note: 1) Percolation test done using 8" perforated pipe as per NJ BMP Manual guidelines.

TEST LOCATION (N.T.S)

5' - 0 1/2"   53' - 8 1/2"

N 48 DEG 20'00" E 58.75'

REAR ENTRY

10' - 0"

Test Pit & Test Location

MASONRY FIRE WALL

PROPOSED 2-STOREY MEDICAL BUILDING

SIDE ENTRY

48' - 10"

HIGH FLAT ROOF

LOW FLAT ROOF

10' - 11 1/2"

ENTRY   ENTRY   ENTRY

5' - 0"

8' - 0"

N 41 DEG 56'00" W 157.42'   S 41 DEG 56'00" E 157.42'

18' - 0"   16' - 0"

87 - 7 1/2"

PARKING AREA
18 SPACES TOTAL
WITH 2 HANDICAPPED
PARKING SPACES

8' - 6"   TYP

S 48 DEG 20'00" W 58.75'

PEARL STREET

ANS Consultants, Inc.
Tel:(800) 545-ATUL
(908) 754-8383
Fax: (908) 754-8683

@8.5'

@ 1.5' Top
Fill material

@ 2' Yellow
soil with silt &
clay

@ 5'brown Soil
Fill with gravel
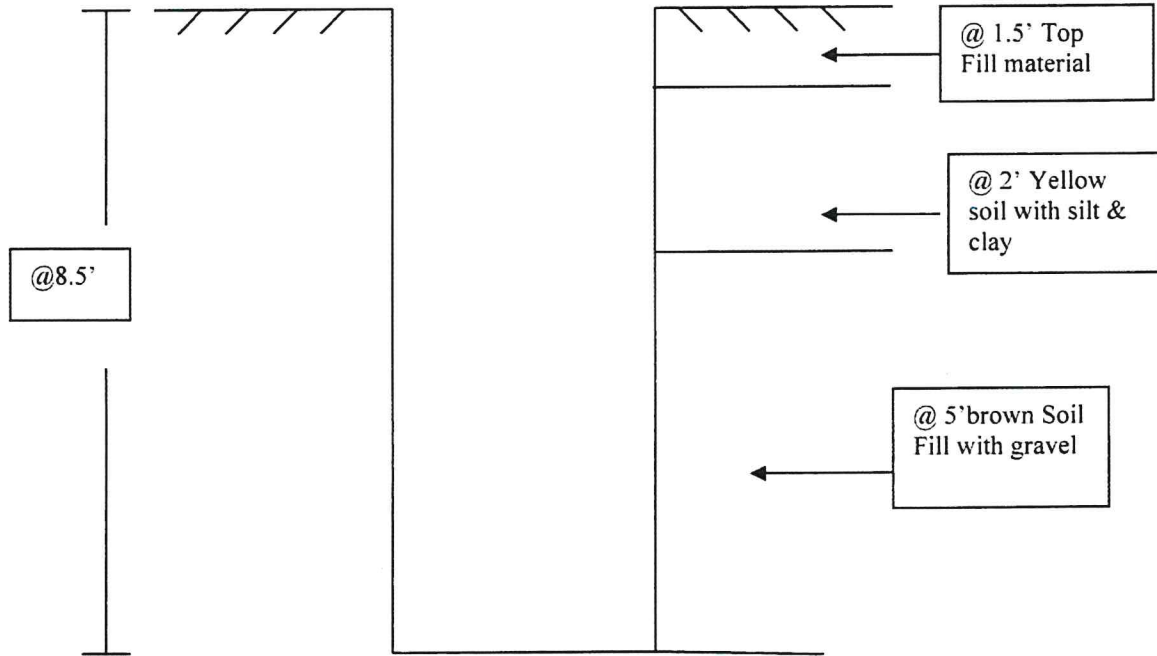
No Seasonal High Water table encountered.

SOIL TEST PIT LOG
N.T.S

CLIENT: Paul Kulpak
PROJECT: Field Percolation Test
29 Pearl Street
N Plainfield, NJ

TEST SET UP @ 5 ft

TEST PIT - @ 8.5 ft from GL
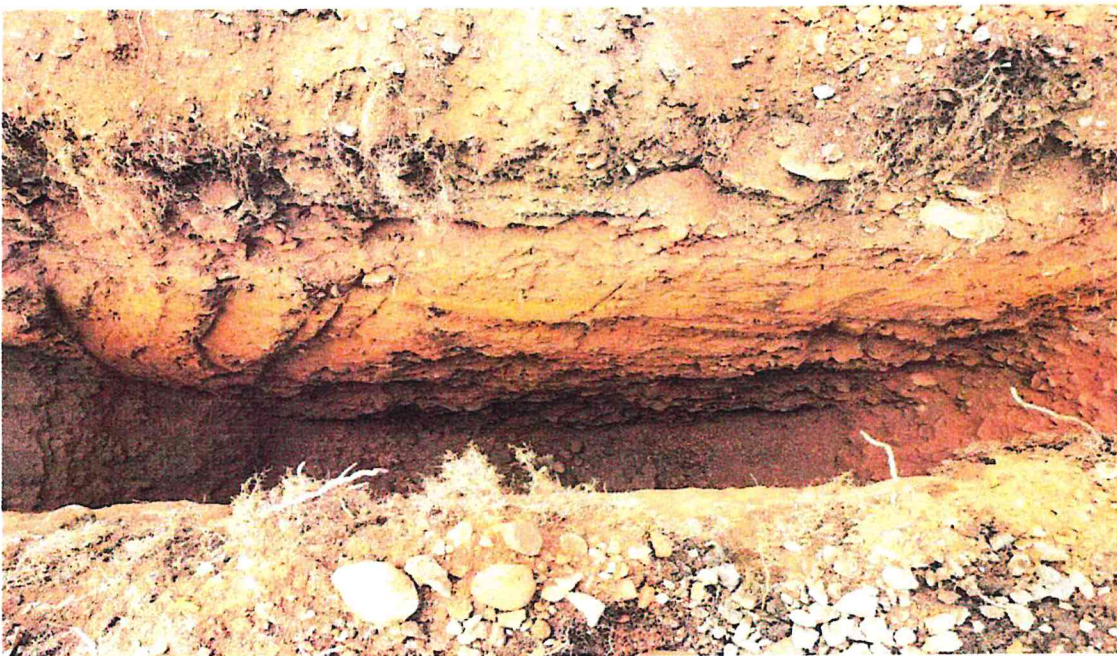
No Seasonal High Water Table encountered.

Particle Size Distribution Report As per ASTM D 422

PERCENT FINER vs GRAIN SIZE - mm.

Sieve labels (top): 6 in., 3 in., 2 in., 1½ in., 1 in., ¾ in., ½ in., 3/8 in., #4, #10, #20, #30, #40, #60, #100, #140, #200

% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	6.2	20.1	6.3	14.4	10.4	42.6	

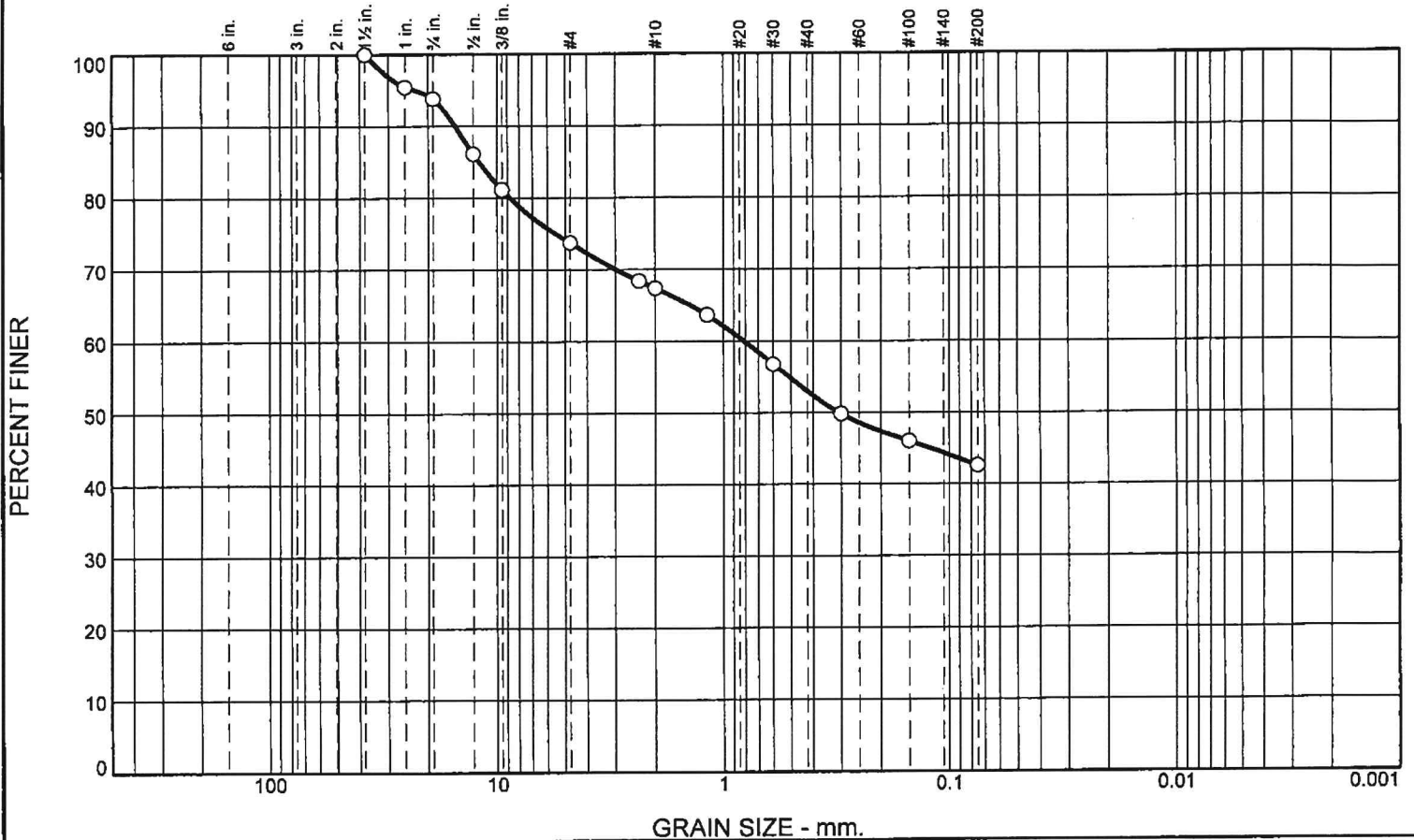| SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0		
1	95.4		
3/4	93.8		
1/2	86.1		
3/8	81.2		
#4	73.7		
#8	68.4		
#10	67.4		
#16	63.6		
#30	56.7		
#50	49.8		
#100	46.0		
#200	42.6		

* (no specification provided)

Material Description

Bown in color. silty sand with gravel

Atterberg Limits

PL= NP   LL= NV   PI=

Coefficients

D_{90}= 15.2173 D_{85}= 11.9886 D_{60}= 0.8094
D_{50}= 0.3078 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM   AASHTO= A-4(0)

Remarks

Sample was collected by Mr. Priyansh Patel on 10/10/19 and tested on 10/11/19. In-Situ %MC=12.4
F.M.=2.67

Location: @ 5'
Sample Number: S-1   Depth: @ 5'

Date: 10/11/2019

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Paul Kulpak Co.
Project: 29 Pearl Street, North Plainfield, NJ

Project No: ANS-5343   Figure 1 F 1

GUARRIELLO & DEC ASSSOCIATES. LLC

5, 6, 12 & 13

131 NORTH MICHIGAN AVENUE
P.O.BOX 208
KENILWORTH, NEW JERSEY 07033
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DONALD R. GUARRIELLO
N.J. P.E.,P.P., L.S.

EDWARD S. DEC
N.J..P.E., L.S.

DRAINAGE REPORT
29 PEARL STREET
BLK 85, LOT 20
NORTH PLAINFIELD, SOMERSET COUNTY, NJ

Prepared by
EDWARD S, DEC, PE
October 20, 2018

The property in question is located on the northwest side of Pearl Street, approximately 98 feet from the southwest corner of Pearl Street and Warren Street in Borough of North Plainfield, Somerset County, NJ. The property is known as lot 20, Block 85 on the North Plainfield Tax Maps. The parcel is 0.2123 acres and is presently overgrown and unimproved.

The property is located in a B-1 zone. It is proposed to construct a 43' X 53.75' medical arts building with apartments on the second floor The building will be setback to the rear of the property with parking for 18 vehicles in the front of the building. The property will be covered with 27% building, 54% pavement and sidewalk and 19% open space.

A 10 minute time of concentration is assumed because of the size of the property for both the pre and post developed conditions. "The Soil Survey of Somerset County defines the soil for this neighborhood to be "BdB-"Birdsboro Silt Loam, 2% to 6% slope" which is a "B" soils.

We have reviewed the RSIS to address the required storm-water provisions that must be implemented for this project. Because of the size of the property it would not be considered a major project.

To control the rate of runoff we are using the rational method in "Hydraflow - by "inteliSOLVE" Hydrographs 2004" software to calculate peak runoff for a variety of Times of Concentration.

The existing conditions, pre-developed, weighted "C" is 0.25. the proposed site has a weighted "C" 0f 0.85.

GUARRIELLO & DEC ASSSOCIATES. LLC
CIVIL ENGINEERS AND LAND SURVEYORS

DRAINAGE REPORT
29 PEARL STREET
BLK 85, LOT 20
NORTH PLAINFIELD, SOMERSET COUNTY, NJ

October 20, 2018

The peak pre-development runoff for the affected site was calculated using the Rational Method. The results are tabulated below:

Storm Freq.	Existing
Two-year storm	0.23 CFS
Ten-year storm	0.29 CFS
One-hundred-year storm	0.53 CFS

An underground detention system is proposed. It will be constructed using eight rows of 24" ADS Perfiorated pipe each measuring 54 feet in length with manifolds on each end. The pipe will be laid on a 6" of 1-1/2"clean stone bed. Flow will discharge into an outlet structure that is a modified "E" inlet. The outlet structure will be fitted with an 2" orifice restriction at the bottom invert elevation of 99.50 ' and a 3" notch weir at elevation 100.50'. The top of the weir wall will act as an overflow being set at the 100 year flow elevation of 101.04'.

In calculating flows for the proposed conditions, flows rates for direct runoff have been computed using the Rational Method that will generate the highest flow rate for a given storm. For runoff being routed through the detention system, the Modified Rational has been used which yields the largest required volume for a given storm.

The results of the computations for the design flows are listed below:

Storm Freq.	Direct Runoff	From Detention	Total Runoff
2 Yr. Storm	0.04 CFS	0.10 CFS	0.10 CFS
10 Yr. Storm	0.06 CFS	0.18 CFS	0.18 CFS
100 Yr. Storm	0.10 CFS	0.39 CFS	0.39 CFS

For the reduction in flow, the discharge for all storms and their performance relative to the RSIS are shown below:

Storm Freq.	Existing Flow Rate	Proposed Flow Rate	Reduction Provided	RSIS Reduction Not to exceed
2 Yr. Storm	0.23 CFS	0.10 CFS	43%	50%
10 Yr. Storm	0.29 CFS	0.18 CFS	62%	75%
100 Yr. Storm	0.53 CFS	0.39 CFS	74%	80%

GUARRIELLO & DEC ASSSOCIATES. LLC
CIVIL ENGINEERS AND LAND SURVEYORS

DRAINAGE REPORT
29 PEARL STREET
BLK 85, LOT 20
NORTH PLAINFIELD, SOMERSET COUNTY, NJ

October 20, 2018

To control runoff to the rates shown, the orifices restrict flow resulting in storm water being retained in the detention system in the amounts shown below for the various storms and to the elevations shown:

Storm Freq.	Storage	Elevation
2 Yr. Storm	632 CF	100.50'
10 Yr. Storm	846 CF	100.72'
100 Yr. Storm	1,137 CF	101.04'

In conclusion, it is our opinion that we satisfy all the requirements of the RSIS with respect to storm water.

COEEFICIENT OF RUNOFF CALCULAT

PROJECT: 29 PEARL STREE, NORTH PLAINFIELD
SOILS BdB , BIRDSBORO SILT LOAM 2 TO 6 %   ("B" SOIL

EXISTING RUNOFF

HYDRAULIC SOILS GROUP: C   BovB

TYPE OF IMPROVMENT	AREA (SF)	AREA ACRES)	%	C"	wt/c
WOODED	0	0	0	0.59	0
OPEN SPACE-FAIR	9248	0.2123049	1	0.25	0.25
PAVEMENT	0	0	0	0.99	0
BUILDINGS	0	0	0	0.99	0
TOTAL	9248	0.2123049	1		0.25

PROPOSED RUNOFF

HYDRAULIC SOILS GROUP: C

TYPE OF IMPROVMENT	AREA (SF)	AREA ACRES)	%	C"	wt/c
WOODED	0	0	0	0.59	0
OPEN -FAIR	1746	0.0400826	0.1887976	0.25	0.0471994
IMPERVIOUS-PAVED	4973	0.1141644	0.5377379	0.99	0.5323605
BUILDING	2529	0.0580579	0.2734645	0.99	0.2707299
TOTAL	9248	0.2123049	1		0.8502898

PROPOSED DIRECT RUNOFF

HYDRAULIC SOILS GROUP: C

TYPE OF IMPROVMENT	AREA (SF)	AREA ACRES)	%	C"	wt/c
WOODED	0	0	0	0.59	0
OPEN - FAIR	1746	0.0400826	1	0.25	0.25
IMPERVIOUS-PAVED	0	0	0	0.99	0
BUILDING	0	0	0	0.99	0
TOTAL	1746	0.0400826	1		0.25

RUNOFF TO DETENTION

HYDRAULIC SOILS GROUP: C

TYPE OF IMPROVMENT	AREA (SF)	AREA ACRES)	%	C"	wt/c
WOODED	0	0		0.59	0
OPEN -F AIR	0	0	0	0.25	0
IMPERVIOUS-PAVED	4973	0.1141644	0.6628899	0.99	0.656261
BUILDING	2529	0.0580579	0.3371101	0.99	0.333739
TOTAL	7502 9248	0.1722222	1		0.99

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.23	1	10	137	---	---	---	EXISTIN G RUNOFF

EXISTING 2 AND 10 YR STORM.gpw Return Period: 2 Year   Thursday, Oct 25 2018, 10:26 AM

Hydrograph Plot

Hyd. No. 1

EXISTIN G RUNOFF

Hydrograph type	= Rational	Peak discharge	= 0.23 cfs
Storm frequency	= 2 yrs	Time interval	= 1 min
Drainage area	= 0.212 ac	Runoff coeff.	= 0.25
Intensity	= 4.300 in/hr	Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 137 cuft
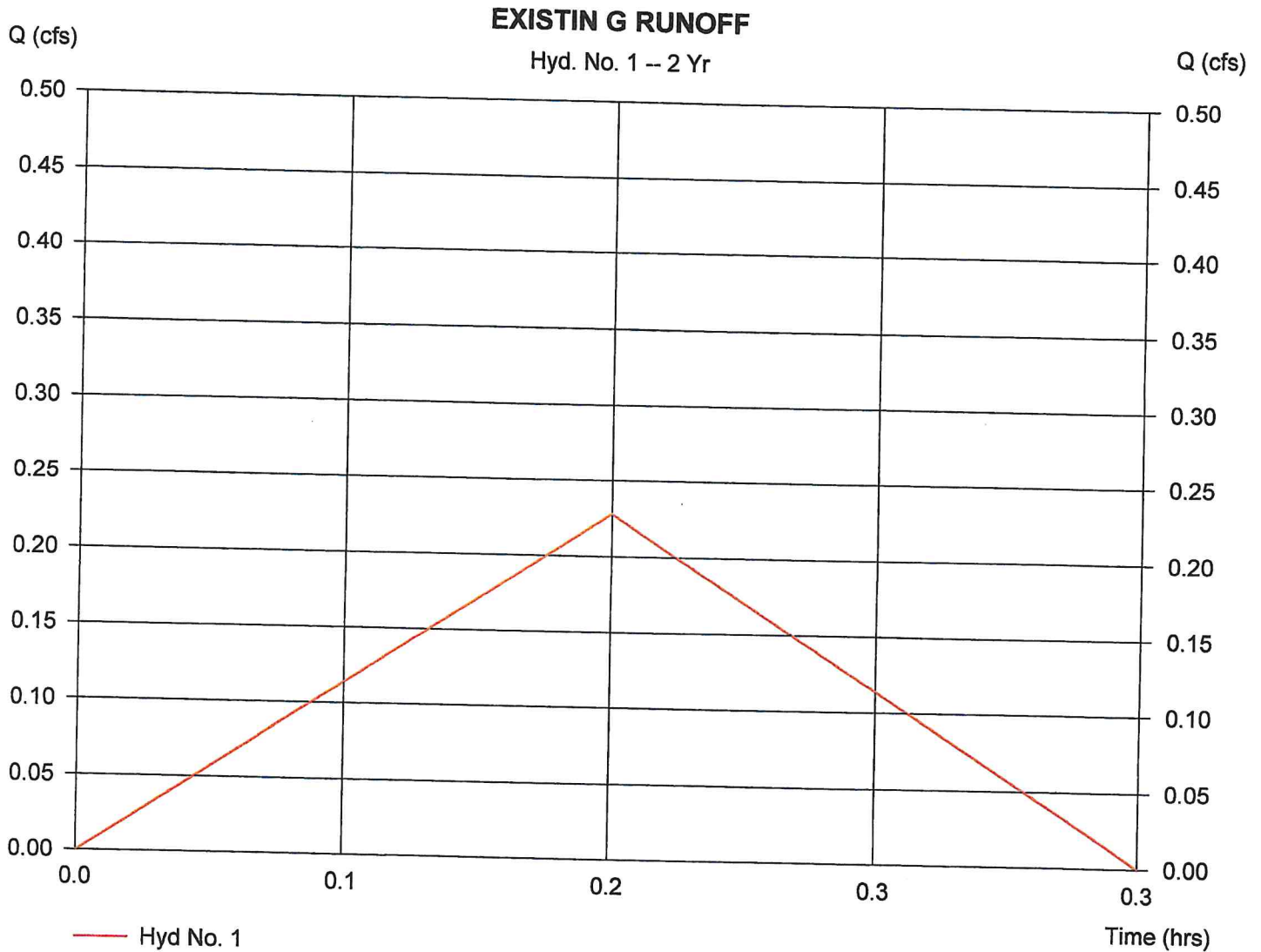
EXISTIN G RUNOFF

Hyd. No. 1 -- 2 Yr

— Hyd No. 1

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.29	1	10	176	---	---	-----	EXISTIN G RUNOFF

Hydrograph Plot

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

EXISTIN G RUNOFF

Hydrograph type	= Rational		Peak discharge	= 0.29 cfs
Storm frequency	= 10 yrs		Time interval	= 1 min
Drainage area	= 0.212 ac		Runoff coeff.	= 0.25
Intensity	= 5.530 in/hr		Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF		Asc/Rec limb fact	= 1/1

Hydrograph Volume = 176 cuft

EXISTIN G RUNOFF

Hyd. No. 1 -- 10 Yr
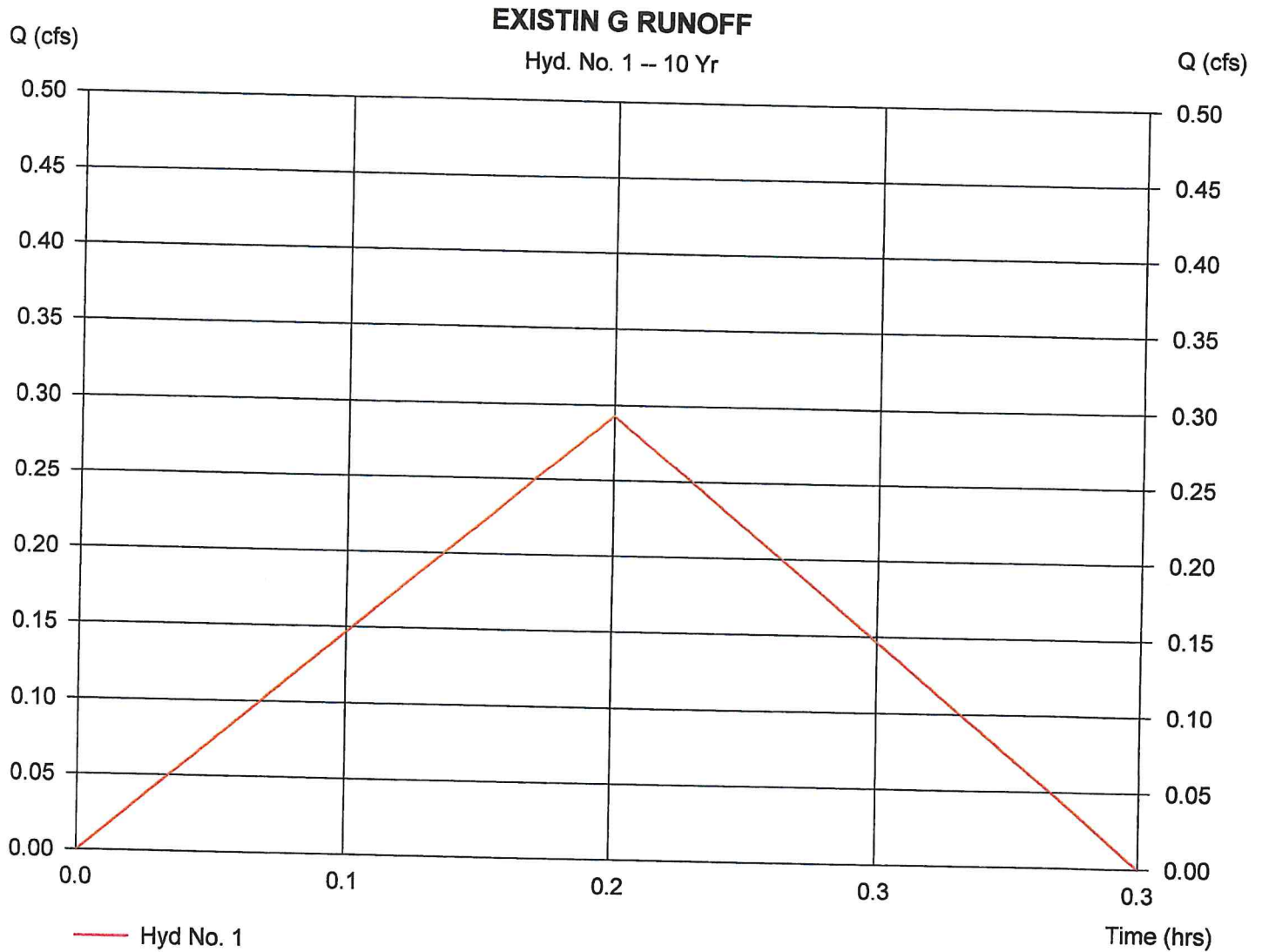
Hyd No. 1

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.53	1	10	316	----	----	----	EXISTIN G RUNOFF

EXISTING 2 AND 10 YR STORM.gpw Return Period: 100 Year | Thursday, Oct 25 2018, 10:28 AM

Hydrograph Plot

Hyd. No. 1

EXISTIN G RUNOFF

Hydrograph type	= Rational		Peak discharge	= 0.53 cfs
Storm frequency	= 100 yrs		Time interval	= 1 min
Drainage area	= 0.212 ac		Runoff coeff.	= 0.31
Intensity	= 7.991 in/hr		Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF		Asc/Rec limb fact	= 1/1

Hydrograph Volume = 316 cuft

EXISTIN G RUNOFF

Hyd. No. 1 -- 100 Yr

Hyd No. 1
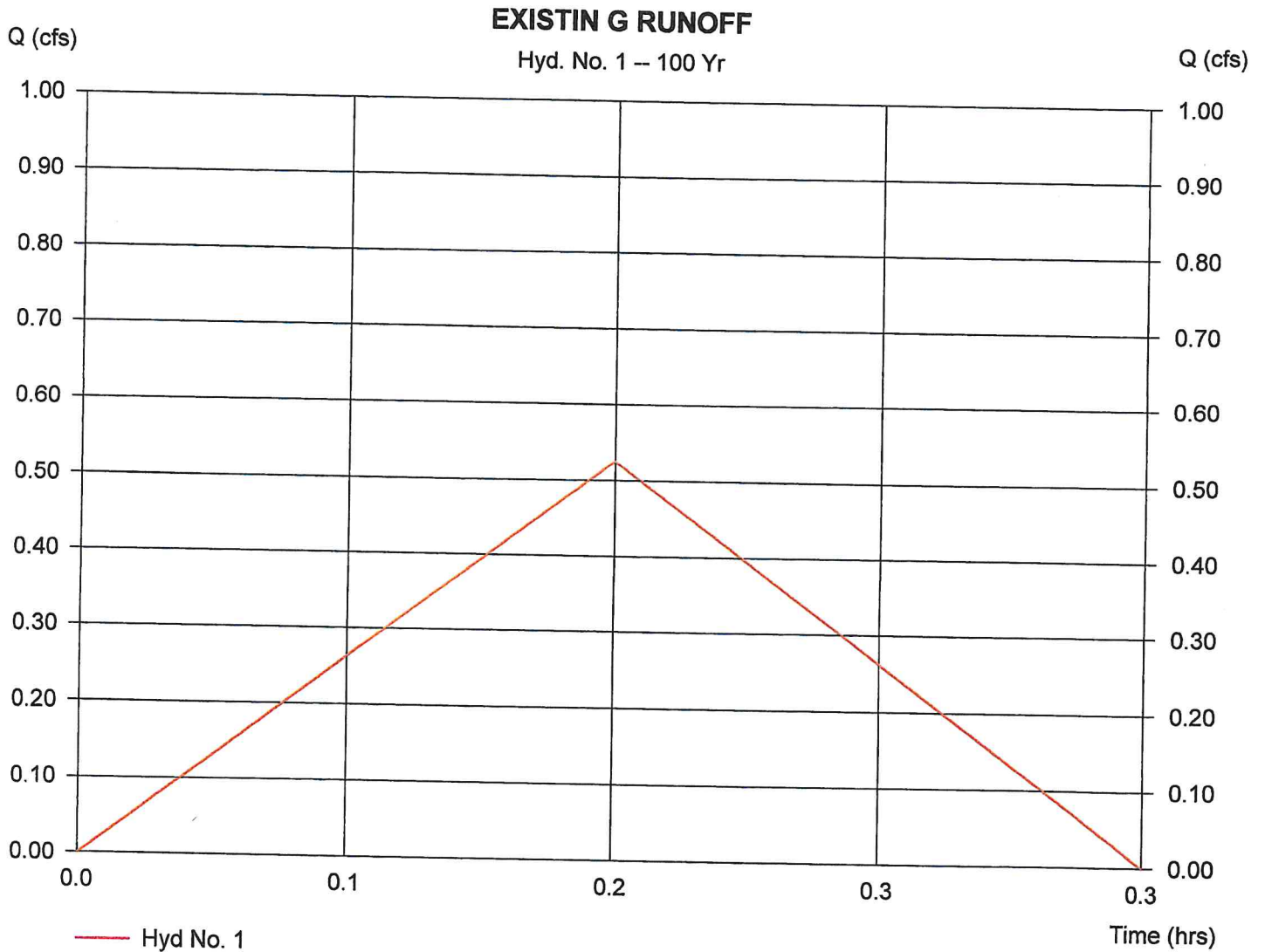
Pond Report

Hydraflow Hydrographs by Intelisolve

Pond No. 1 - New Pond1
Pond Data

Pipe dia. = 2.00 ft   Pipe length = 54.0 ft   No. Barrels = 8.0   Slope = 0.46 %   Invert elev. = 99.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	99.50	00	0	0
0.11	99.61	00	7	7
0.22	99.72	00	29	36
0.34	99.84	00	54	90
0.45	99.95	00	72	162
0.56	100.06	00	84	245
0.67	100.17	00	92	338
0.79	100.29	00	98	436
0.90	100.40	00	103	539
1.01	100.51	00	105	644
1.12	100.62	00	107	751
1.24	100.74	00	107	858
1.35	100.85	00	106	964
1.46	100.96	00	103	1,066
1.57	101.07	00	98	1,165
1.69	101.19	00	92	1,257
1.80	101.30	00	84	1,340
1.91	101.41	00	72	1,412
2.02	101.52	00	54	1,466
2.14	101.64	00	29	1,495
2.25	101.75	00	7	1,502

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 2.00	0.00	0.00	0.00
Span (in)	= 2.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 99.50	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	0.00
N-Value	= .013	.000	.000	.000
Orif. Coeff.	= 0.60	0.00	0.00	0.00
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.20	0.00	0.00	0.00
Crest El. (ft)	= 100.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	0.00	0.00	0.00
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No

Exfiltration = 0.000 in/hr (Wet area) Tailwater Elev. = 0.00 ft

Stage / Storage / Discharge Table

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0	99.50	0.00	---	---	---	0.00	---	---	---	---	0.00
0.11	7	99.61	0.02	---	---	---	0.00	---	---	---	---	0.02
0.22	36	99.72	0.04	---	---	---	0.00	---	---	---	---	0.04
0.34	90	99.84	0.05	---	---	---	0.00	---	---	---	---	0.05
0.45	162	99.95	0.06	---	---	---	0.00	---	---	---	---	0.06
0.56	245	100.06	0.07	---	---	---	0.00	---	---	---	---	0.07
0.67	338	100.17	0.08	---	---	---	0.00	---	---	---	---	0.08
0.79	436	100.29	0.09	---	---	---	0.00	---	---	---	---	0.09
0.90	539	100.40	0.09	---	---	---	0.00	---	---	---	---	0.09
1.01	644	100.51	0.10	---	---	---	0.00	---	---	---	---	0.10
1.12	751	100.62	0.11	---	---	---	0.03	---	---	---	---	0.14
1.24	858	100.74	0.11	---	---	---	0.08	---	---	---	---	0.19
1.35	964	100.85	0.12	---	---	---	0.14	---	---	---	---	0.26
1.46	1,066	100.96	0.12	---	---	---	0.21	---	---	---	---	0.33
1.57	1,165	101.07	0.13	---	---	---	0.29	---	---	---	---	0.42
1.69	1,257	101.19	0.13	---	---	---	0.38	---	---	---	---	0.51
1.80	1,340	101.30	0.14	---	---	---	0.48	---	---	---	---	0.61
1.91	1,412	101.41	0.14	---	---	---	0.58	---	---	---	---	0.72
2.02	1,466	101.52	0.15	---	---	---	0.69	---	---	---	---	0.84
2.14	1,495	101.64	0.15	---	---	---	0.81	---	---	---	---	0.96
2.25	1,502	101.75	0.15	---	---	---	0.93	---	---	---	---	1.08

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.04	1	10	26	—	—	—	DIRECT RUNOFF
2	Rational	0.73	1	10	440	—	—	—	TO DETENTION T/C-10 MIN
3	Reservoir	0.08	1	19	438	2	100.21	372	ROUTING T/C-10
4	Mod. Rational	0.52	1	10	623	—	—	—	TO DETENTION T/C-20
5	Reservoir	0.09	1	28	622	4	100.37	509	ROUTING T/C-20
6	Mod. Rational	0.46	1	10	685	—	—	—	TO DETENTION T/C-25
7	Reservoir	0.10	1	33	684	6	100.41	548	ROUTING T/C-25
8	Mod. Rational	0.41	1	10	736	—	—	—	TO DETENTION T/C-30
9	Reservoir	0.10	1	38	735	8	100.44	575	ROUTING T/C-30
10	Mod. Rational	0.37	1	10	780	—	—	—	TO DETENTION T/C-35
11	Reservoir	0.10	1	42	778	10	100.46	595	ROUTING T/C-35
12	Combine	0.10	1	42	804	1, 11	—	—	TOTAL RUNOFF T/C-35
13	Mod. Rational	0.34	1	10	818	—	—	—	TO DETENTION T/C-40
14	Reservoir	0.10	1	47	816	13	100.47	609	ROUTING T/C-40
15	Combine	0.10	1	47	842	1, 14	—	—	TOTAL RUNOFF T/C-40
16	Mod. Rational	0.32	1	10	851	—	—	—	TO DETENTION T/C-45
17	Reservoir	0.10	1	52	850	16	100.49	619	ROUTING T/C-45
18	Combine	0.10	1	52	875	1, 17	—	—	TOTAL RUNOFF T/C-45
19	Mod. Rational	0.29	1	10	881	—	—	—	TO DETENTION T/C-50
20	Reservoir	0.10	1	57	880	19	100.49	626	ROUTING T/C-50
21	Combine	0.10	1	57	905	1, 20	—	—	TOTAL RUNOFF T/C-50
22	Mod. Rational	0.28	1	10	908	—	—	—	RUNOFF TO DETENTION T/C-55
23	Reservoir	0.10	1	61	907	22	100.50	630	ROUTING T/C-55
24	Combine	0.10	1	61	932	1, 23	—	—	TOPTAL RUNOFF T/C-55
25	Mod. Rational	0.26	1	10	933	—	—	—	TO DETENTION T/C-60
26	Reservoir	0.10	1	66	931	25	100.50	632	ROUTI NG T/C-60
27	Mod. Rational	0.25	1	10	956	—	—	—	TO DETENTION T/C-65
28	Reservoir	0.10	1	71	954	27	100.50	632	ROUTING T/C-65
29	Combine	0.10	1	71	980	1, 28	—	—	TOTAL RUNOFF T/C-65
30	Mod. Rational	0.23	1	10	977	—	—	—	TO DETENTION T/C-70

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
31	Reservoir	0.10	1	76	976	30	100.50	630	ROUTING T/C-70

Hydrograph Plot

Hyd. No. 1

DIRECT RUNOFF

Hydrograph type	= Rational	Peak discharge	= 0.04 cfs
Storm frequency	= 2 yrs	Time interval	= 1 min
Drainage area	= 0.040 ac	Runoff coeff.	= 0.25
Intensity	= 4.300 in/hr	Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 26 cuft

DIRECT RUNOFF
Hyd. No. 1 -- 2 Yr

Hyd No. 1

Hydrograph Plot

Hyd. No. 27

TO DETENTION T/C-65

Hydrograph type	= Mod. Rational	Peak discharge	= 0.25 cfs
Storm frequency	= 2 yrs	Time interval	= 1 min
Drainage area	= 0.172 ac	Runoff coeff.	= 0.99
Intensity	= 1.438 in/hr	Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF	Storm duration	= 6.5 x Tc

Hydrograph Volume = 956 cuft

TO DETENTION T/C-65
Hyd. No. 27 -- 2 Yr

Hyd No. 27

Hydrograph Plot

Hyd. No. 28

ROUTING T/C-65

Hydrograph type	= Reservoir		Peak discharge	= 0.10 cfs
Storm frequency	= 2 yrs		Time interval	= 1 min
Inflow hyd. No.	= 27		Max. Elevation	= 100.50 ft
Reservoir name	= New Pond1		Max. Storage	= 632 cuft

Storage Indication method used.

Hydrograph Volume = 954 cuft

ROUTING T/C-65

Hyd. No. 28 -- 2 Yr
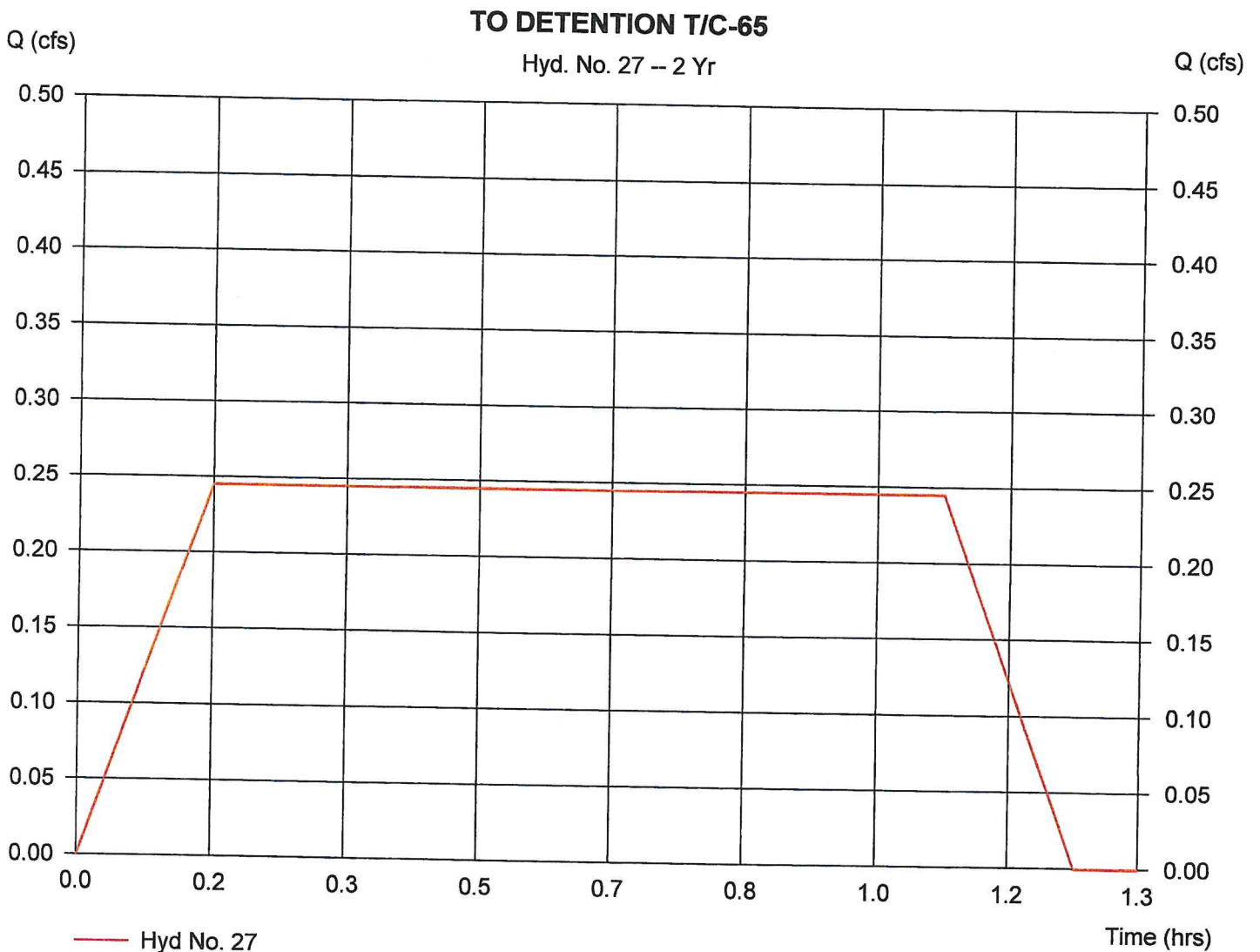
——— Hyd No. 28   ——— Hyd No. 27

Hydrograph Plot

Thursday, Oct 25 2018, 11:24 AM

Hyd. No. 29

TOTAL RUNOFF T/C-65

Hydrograph type	= Combine	Peak discharge	= 0.10 cfs
Storm frequency	= 2 yrs	Time interval	= 1 min
Inflow hyds.	= 1, 28		

Hydrograph Volume = 980 cuft
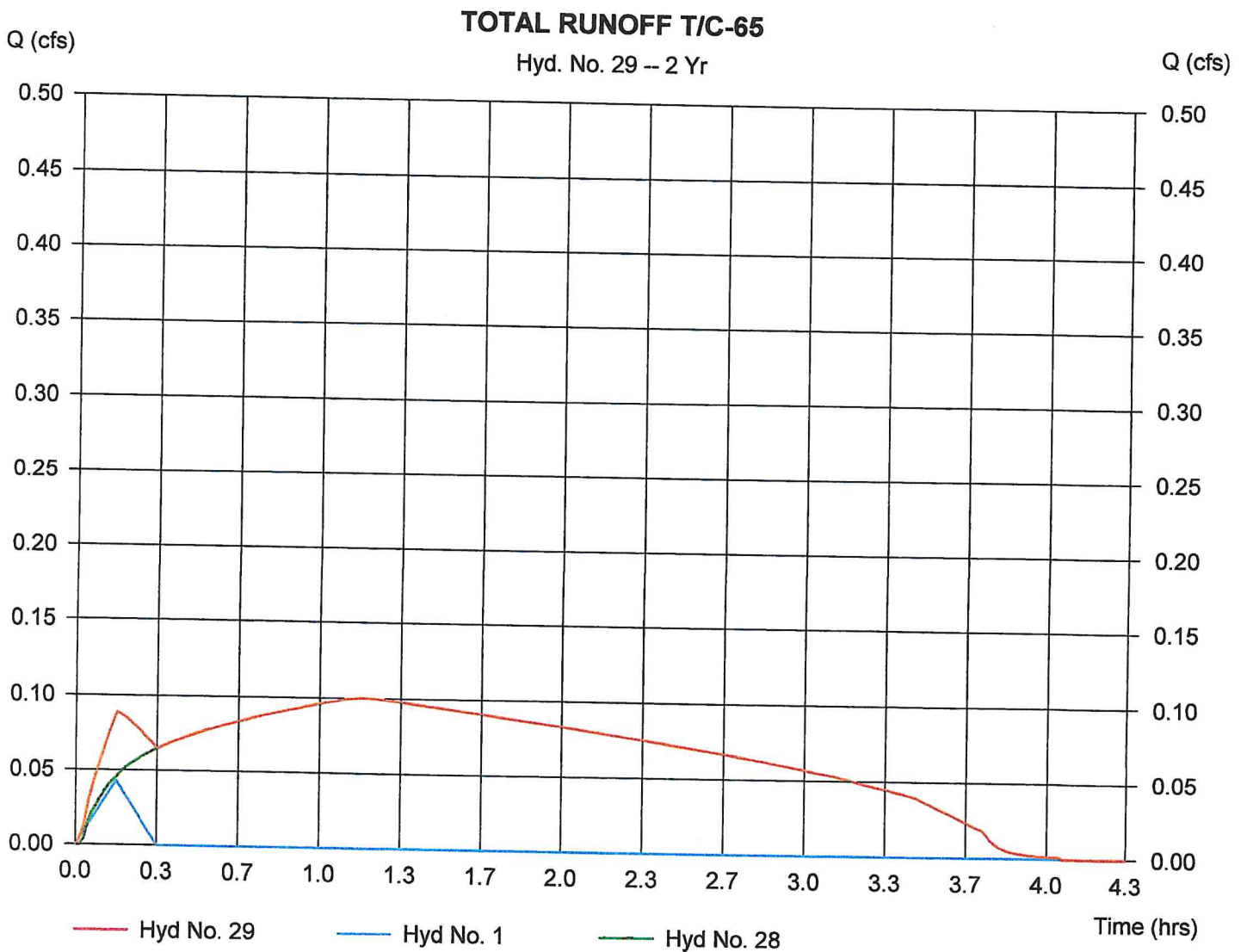
TOTAL RUNOFF T/C-65

Hyd. No. 29 -- 2 Yr

Legend: —— Hyd No. 29   —— Hyd No. 1   —— Hyd No. 28

Time (hrs)

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.06	1	10	33	----	-----	-----	DIRECT RUNOFF
2	Rational	0.94	1	10	566	---	----	----	TO DETENTION T/C-10 MIN
3	Reservoir	0.09	1	19	564	2	100.35	491	ROUTING T/C-10
4	Mod. Rational	0.70	1	10	838	---	----	----	TO DETENTION T/C-20
5	Reservoir	0.12	1	28	837	4	100.58	706	ROUTING T/C-20
6	Mod. Rational	0.62	1	10	927	---	----	----	TO DETENTION T/C-25
7	Reservoir	0.14	1	33	926	6	100.63	761	ROUTING T/C-25
8	Mod. Rational	0.55	1	10	997	---	-----	-----	TO DETENTION T/C-30
9	Reservoir	0.16	1	37	996	8	100.67	797	ROUTING T/C-30
10	Mod. Rational	0.50	1	10	1,054	---	----	-----	TO DETENTION T/C-35
11	Reservoir	0.17	1	42	1,053	10	100.70	820	ROUTING T/C-35
12	Combine	0.17	1	42	1,086	1, 11	-----	-----	TOTAL RUNOFF T/C-35
13	Mod. Rational	0.46	1	10	1,101	----	-----	-----	TO DETENTION T/C-40
14	Reservoir	0.18	1	46	1,100	13	100.71	834	ROUTING T/C-40
15	Combine	0.18	1	46	1,133	1, 14	-----	-----	TOTAL RUNOFF T/C-40
16	Mod. Rational	0.42	1	10	1,140	----	----	-----	TO DETENTION T/C-45
17	Reservoir	0.18	1	51	1,139	16	100.72	842	ROUTING T/C-45
18	Combine	0.18	1	51	1,172	1, 17	-----	----	TOTAL RUNOFF T/C-45
19	Mod. Rational	0.39	1	10	1,174	---	----	-----	TO DETENTION T/C-50
20	Reservoir	0.18	1	55	1,172	19	100.72	846	ROUTING T/C-50
21	Combine	0.18	1	55	1,206	1, 20	-----	-----	TOTAL RUNOFF T/C-50
22	Mod. Rational	0.36	1	10	1,203	---	-----	-----	RUNOFF TO DETENTION T/C-55
23	Reservoir	0.18	1	60	1,201	22	100.72	846	ROUTING T/C-55
24	Combine	0.18	1	60	1,234	1, 23	-----	-----	TOPTAL RUNOFF T/C-55
25	Mod. Rational	0.34	1	10	1,227	---	-----	-----	TO DETENTION T/C-60
26	Reservoir	0.18	1	65	1,226	25	100.72	844	ROUTI NG T/C-60
27	Mod. Rational	0.32	1	10	1,249	---	----	-----	TO DETENTION T/C-65
28	Reservoir	0.18	1	69	1,248	27	100.72	839	ROUTING T/C-65
29	Combine	0.18	1	69	1,281	1, 28	-----	-----	TOTAL RUNOFF T/C-65
30	Mod. Rational	0.30	1	10	1,268	---	----	-----	TO DETENTION T/C-70

PROPOSED RUNOFF 2 & 10 YR STORM Return Period: 10 Year   Thursday, Oct 25 2018, 11:23 AM

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
31	Reservoir	0.18	1	74	1,267	30	100.71	834	ROUTING T/C-70

Hydrograph Plot

Thursday, Oct 25 2018, 11:23 AM

Hyd. No. 1

DIRECT RUNOFF

Hydrograph type	= Rational		Peak discharge	= 0.06 cfs
Storm frequency	= 10 yrs		Time interval	= 1 min
Drainage area	= 0.040 ac		Runoff coeff.	= 0.25
Intensity	= 5.530 in/hr		Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF		Asc/Rec limb fact	= 1/1

Hydrograph Volume = 33 cuft

DIRECT RUNOFF

Hyd. No. 1 -- 10 Yr

Hyd No. 1

Time (hrs)

Hydrograph Plot

Hyd. No. 19

TO DETENTION T/C-50

Hydrograph type	= Mod. Rational		Peak discharge	= 0.39 cfs
Storm frequency	= 10 yrs		Time interval	= 1 min
Drainage area	= 0.172 ac		Runoff coeff.	= 0.99
Intensity	= 2.295 in/hr		Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF		Storm duration	= 5 x Tc

Hydrograph Volume = 1,174 cuft

TO DETENTION T/C-50

Hyd. No. 19 -- 10 Yr

Hyd No. 19

Hydrograph Plot

Hyd. No. 20

ROUTING T/C-50

Hydrograph type	= Reservoir		Peak discharge	= 0.18 cfs
Storm frequency	= 10 yrs		Time interval	= 1 min
Inflow hyd. No.	= 19		Max. Elevation	= 100.72 ft
Reservoir name	= New Pond1		Max. Storage	= 846 cuft

Storage Indication method used.

Hydrograph Volume = 1,172 cuft

ROUTING T/C-50
Hyd. No. 20 -- 10 Yr

Hyd No. 20   Hyd No. 19

Time (hrs)
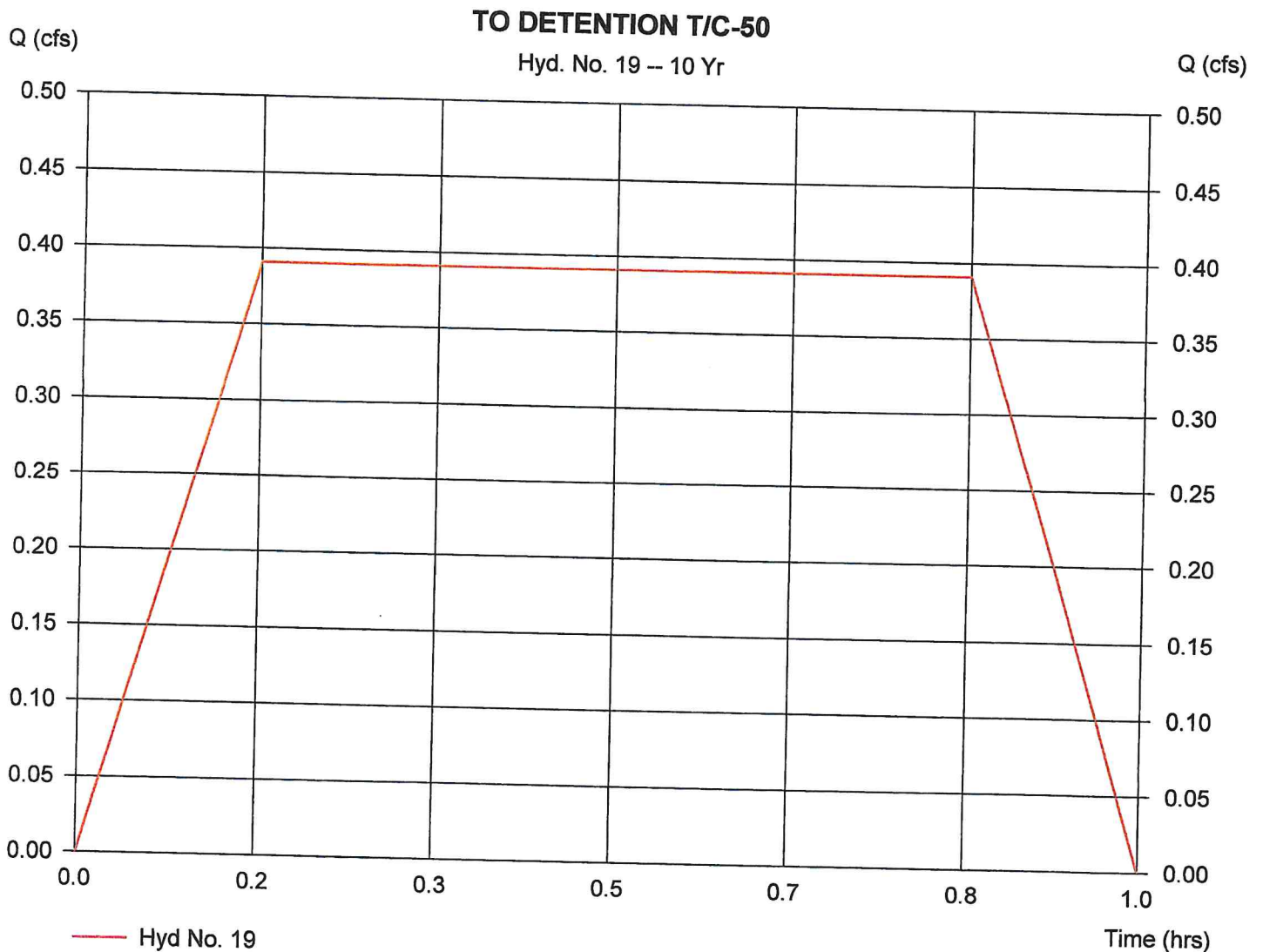
Hydrograph Plot

Thursday, Oct 25 2018, 11:25 AM

Hyd. No. 21

TOTAL RUNOFF T/C-50

Hydrograph type	= Combine	Peak discharge	= 0.18 cfs
Storm frequency	= 10 yrs	Time interval	= 1 min
Inflow hyds.	= 1, 20		

Hydrograph Volume = 1,206 cuft
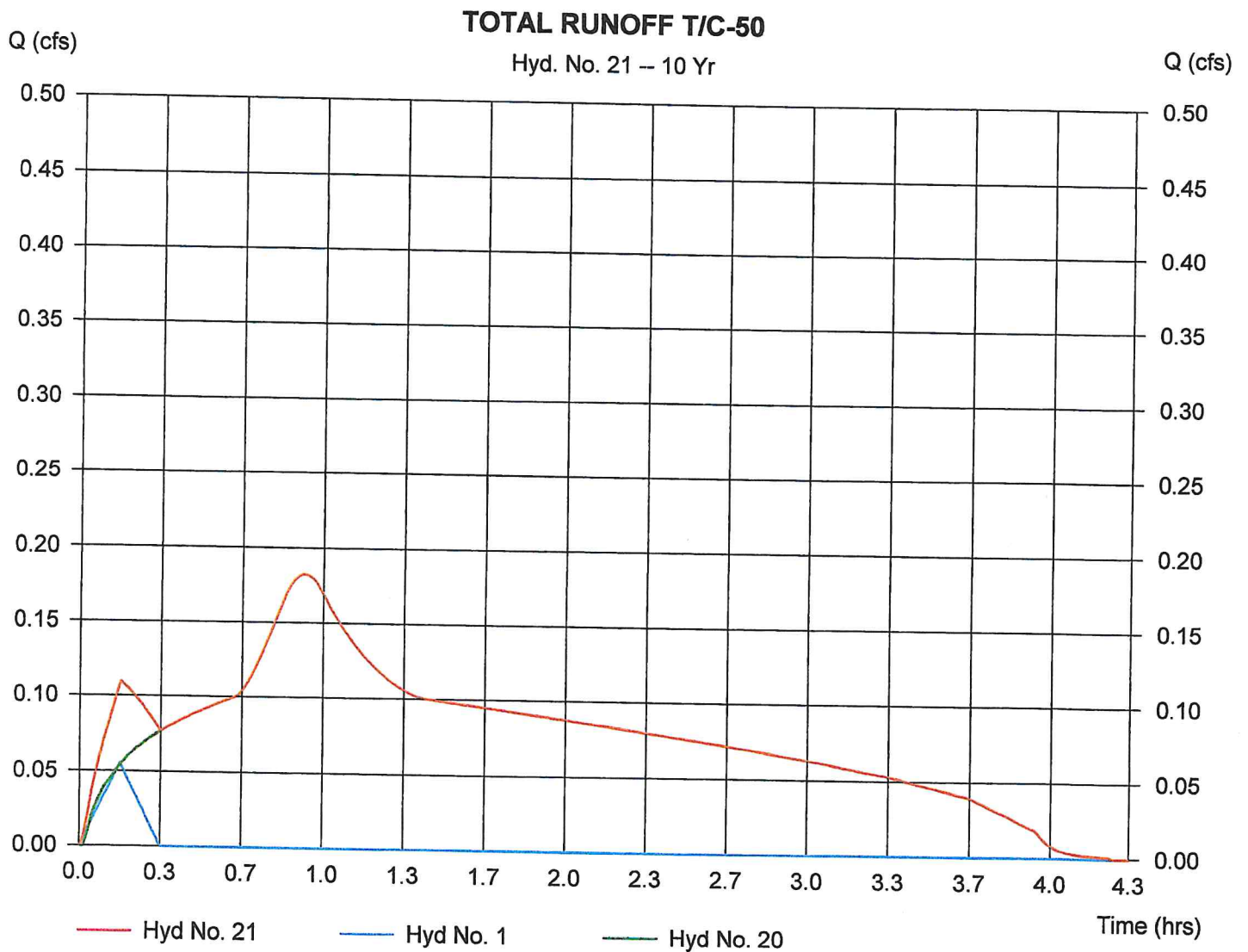
TOTAL RUNOFF T/C-50

Hyd. No. 21 -- 10 Yr

Q (cfs)

Time (hrs)

— Hyd No. 21   — Hyd No. 1   — Hyd No. 20

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
1	Rational	0.10	1	10	60	----	-----	------	DIRECT RUNOFF
2	Rational	1.36	1	10	817	----	----	----	TO DETENTION T/C-10 MIN
3	Reservoir	0.13	1	19	816	2	100.60	727	ROUTING T/C-10
4	Mod. Rational	1.01	1	10	1,212	----	-----	-----	TO DETENTION T/C-20
5	Reservoir	0.28	1	27	1,211	4	100.88	996	ROUTING T/C-20
6	Mod. Rational	0.90	1	10	1,343	----	-----	------	TO DETENTION T/C-25
7	Reservoir	0.33	1	31	1,342	6	100.95	1,059	ROUTING T/C-25
8	Mod. Rational	0.80	1	10	1,448	----	----	----	TO DETENTION T/C-30
9	Reservoir	0.36	1	36	1,447	8	101.00	1,098	ROUTING T/C-30
10	Mod. Rational	0.73	1	10	1,535	----	-----	-----	TO DETENTION T/C-35
11	Reservoir	0.38	1	40	1,533	10	101.02	1,121	ROUTING T/C-35
12	Combine	0.38	1	40	1,593	1, 11	-----	----	TOTAL RUNOFF T/C-35
13	Mod. Rational	0.67	1	10	1,607	----	----	----	TO DETENTION T/C-40
14	Reservoir	0.39	1	44	1,606	13	101.04	1,133	ROUTING T/C-40
15	Combine	0.39	1	44	1,666	1, 14	-----	------	TOTAL RUNOFF T/C-40
16	Mod. Rational	0.62	1	10	1,669	----	----	-----	TO DETENTION T/C-45
17	Reservoir	0.39	1	49	1,668	16	101.04	1,137	ROUTING T/C-45
18	Combine	0.39	1	49	1,727	1, 17	-----	-----	TOTAL RUNOFF T/C-45
19	Mod. Rational	0.57	1	10	1,723	----	-----	-----	TO DETENTION T/C-50
20	Reservoir	0.39	1	53	1,721	19	101.04	1,136	ROUTING T/C-50
21	Combine	0.39	1	53	1,781	1, 20	-----	----	TOTAL RUNOFF T/C-50
22	Mod. Rational	0.54	1	10	1,769	----	----	-----	RUNOFF TO DETENTION T/C-55
23	Reservoir	0.39	1	58	1,768	22	101.03	1,130	ROUTING T/C-55
24	Combine	0.39	1	58	1,827	1, 23	-----	-----	TOPTAL RUNOFF T/C-55
25	Mod. Rational	0.50	1	10	1,810	----	----	----	TO DETENTION T/C-60
26	Reservoir	0.38	1	62	1,809	25	101.03	1,122	ROUTI NG T/C-60
27	Mod. Rational	0.47	1	10	1,847	----	----	-----	TO DETENTION T/C-65
28	Reservoir	0.37	1	67	1,846	27	101.01	1,113	ROUTING T/C-65
29	Combine	0.37	1	67	1,905	1, 28	-----	----	TOTAL RUNOFF T/C-65
30	Mod. Rational	0.45	1	10	1,880	----	-----	----	TO DETENTION T/C-70

PROPOSED RUNOFF 100 YR STORM Return Period: 100 Year   Thursday, Oct 25 2018, 11:20 AM

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (cuft)	Hydrograph description
31	Reservoir	0.36	1	72	1,879	30	101.00	1,102	ROUTING T/C-70

PROPOSED RUNOFF 100 YR STORM Return Period: 100 Year   Thursday, Oct 25 2018, 11:20 AM

Hydrograph Plot

Hyd. No. 1

DIRECT RUNOFF

Hydrograph type	= Rational	Peak discharge	= 0.10 cfs
Storm frequency	= 100 yrs	Time interval	= 1 min
Drainage area	= 0.040 ac	Runoff coeff.	= 0.31
Intensity	= 7.991 in/hr	Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF	Asc/Rec limb fact	= 1/1

Hydrograph Volume = 60 cuft
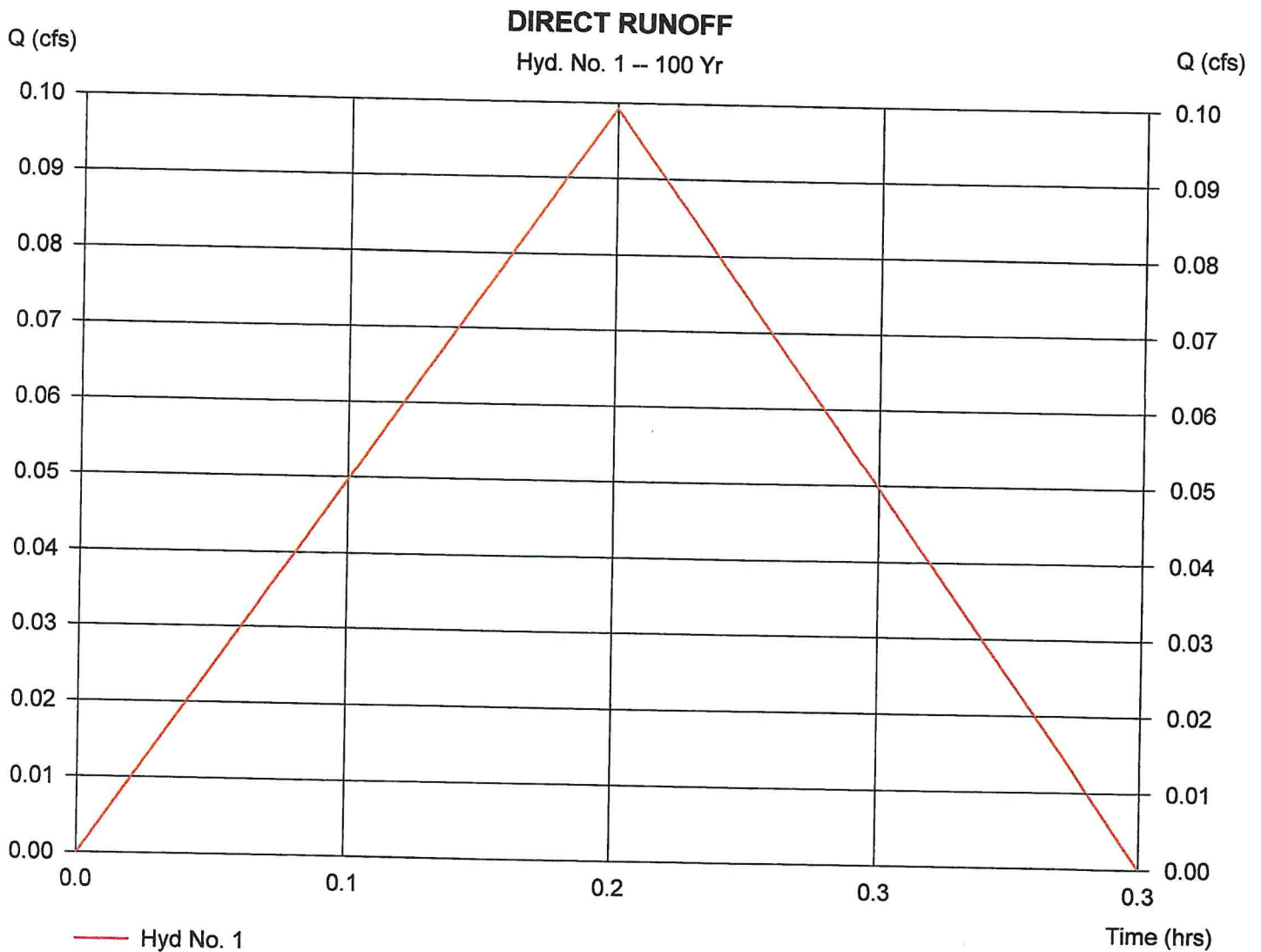
DIRECT RUNOFF
Hyd. No. 1 -- 100 Yr

Hyd No. 1

Time (hrs)

Hydrograph Plot

Hyd. No. 16

TO DETENTION T/C-45

Hydrograph type	= Mod. Rational		Peak discharge	= 0.62 cfs
Storm frequency	= 100 yrs		Time interval	= 1 min
Drainage area	= 0.172 ac		Runoff coeff.	= 0.99
Intensity	= 3.626 in/hr		Tc by User	= 10.00 min
IDF Curve	= NJDEP05.IDF		Storm duration	= 4.5 x Tc

Hydrograph Volume = 1,669 cuft

TO DETENTION T/C-45
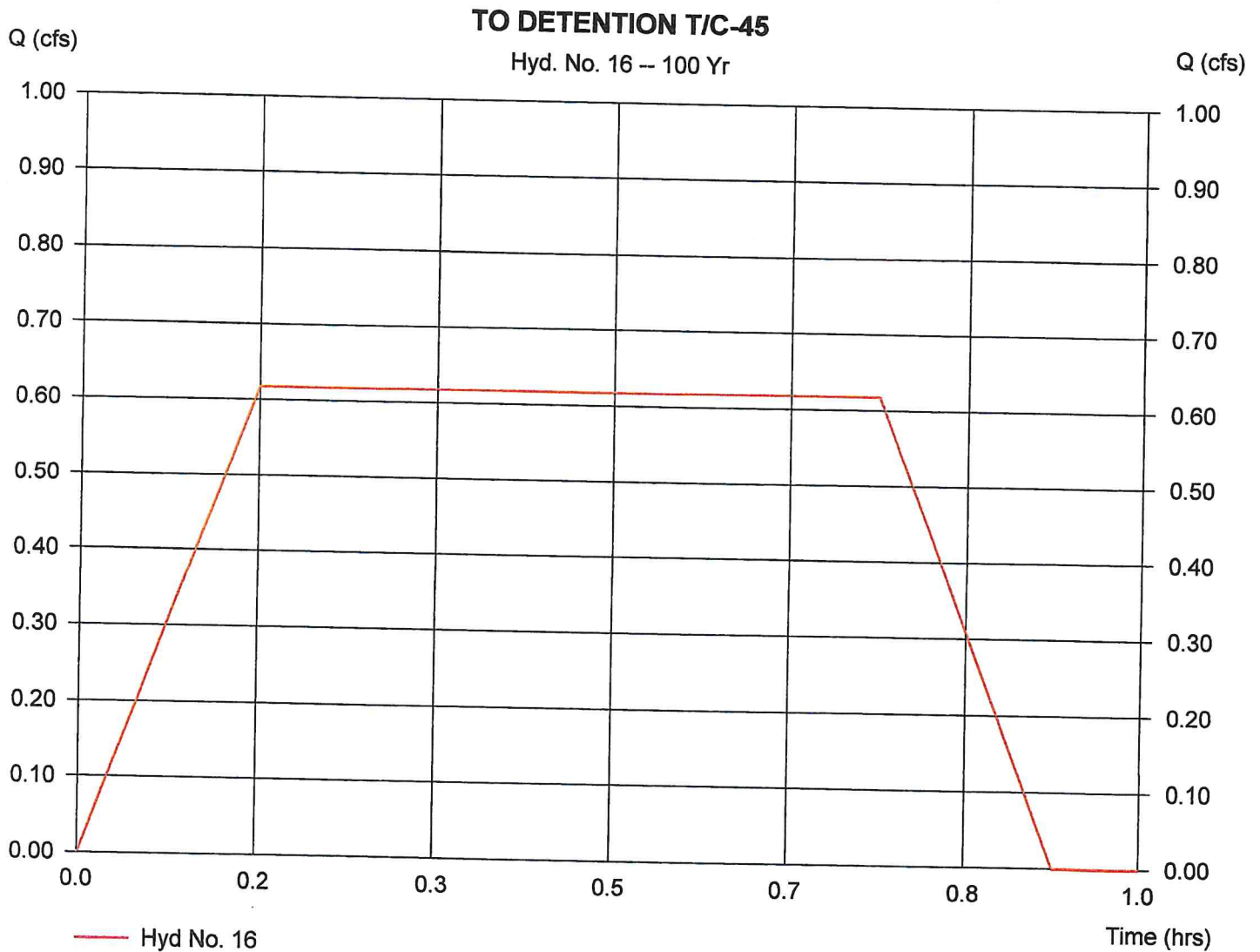
Hyd. No. 16 -- 100 Yr

Hyd No. 16

Hydrograph Plot

Thursday, Oct 25 2018, 11:20 AM

Hyd. No. 17

ROUTING T/C-45

Hydrograph type	=	Reservoir
Storm frequency	=	100 yrs
Inflow hyd. No.	=	16
Reservoir name	=	New Pond1

Peak discharge	=	0.39 cfs
Time interval	=	1 min
Max. Elevation	=	101.04 ft
Max. Storage	=	1,137 cuft

Storage Indication method used.

Hydrograph Volume = 1,668 cuft
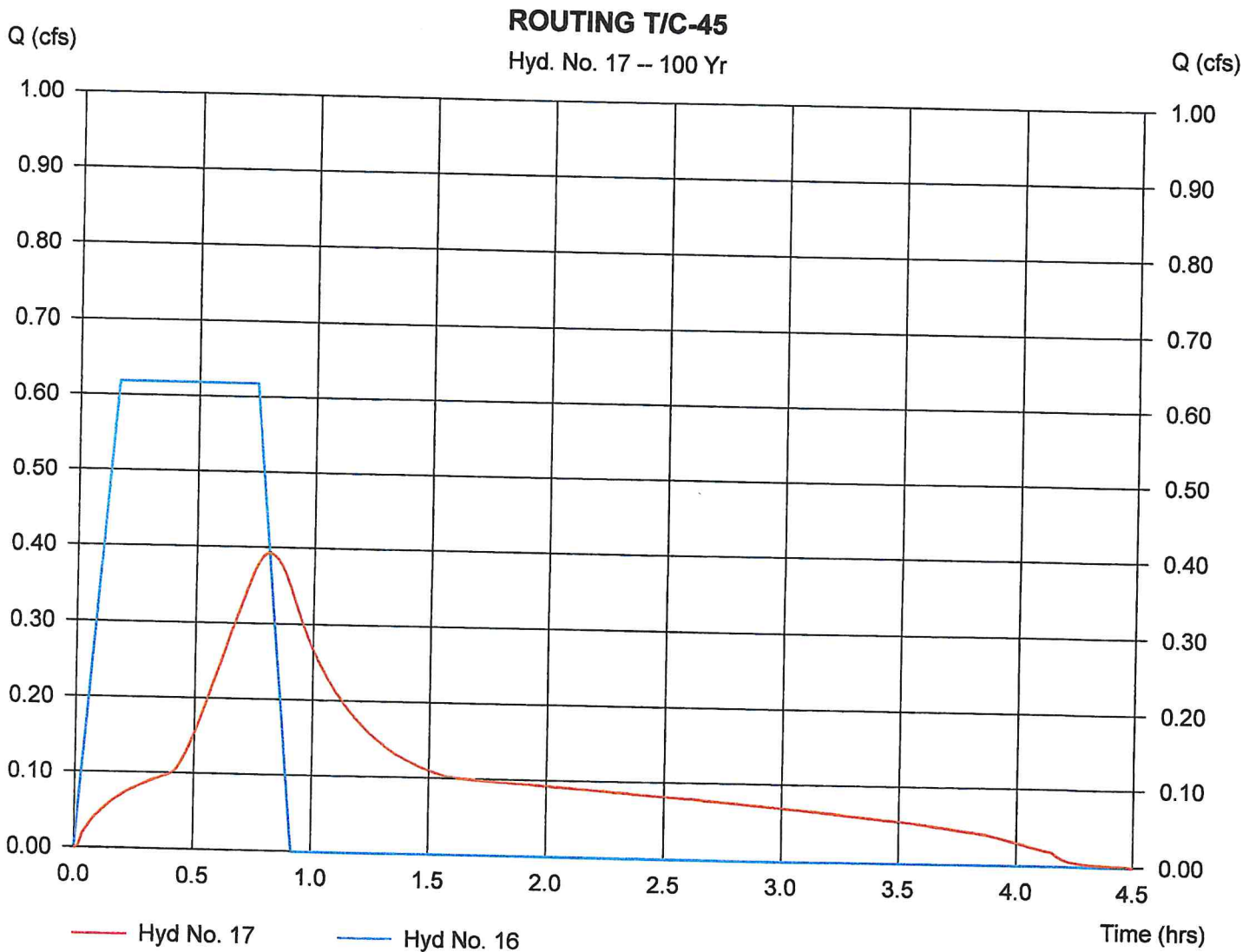
ROUTING T/C-45
Hyd. No. 17 -- 100 Yr

—— Hyd No. 17   —— Hyd No. 16

Time (hrs)

Hydrograph Plot

Hyd. No. 18

TOTAL RUNOFF T/C-45

Hydrograph type	= Combine	
Storm frequency	= 100 yrs	
Inflow hyds.	= 1, 17	

Peak discharge	= 0.39 cfs
Time interval	= 1 min

Hydrograph Volume = 1,727 cuft

TOTAL RUNOFF T/C-45

Hyd. No. 18 -- 100 Yr