233-A-4
2360 Congress St.
Headquarters Bld.
Maine Turnpike Authority

2006-0090

add to Spreadsheet

from Land Use Ordinance
Section 14 - 526

(25) Development in the industrial zones shall meet the following additional requirements:

a. *Landscaping and buffering:*

1. Buildings, parking areas and other paved or unrevegetated areas shall be landscaped to screen and enhance the property and to buffer adjacent properties from the proposed use or uses.

2. The existing landscape shall be preserved in its natural state to the greatest extent practicable by minimizing tree removal and grade changes. Where preservation of the existing landscape is not possible, new planted materials will be required.

3. Where a building, parking lot or unrevegetated area abuts a residential zone, a landscaped strip shall be established between abutting property and the structure, parking lot or unrevegetated area. Such landscaping shall be maintained and replaced as necessary to continue the buffer.

4. Front yards along arterial and collector streets, as delineated on the Maine Department of Transportation Map, a copy of which is on file in the department of planning and urban development, shall be landscaped. Landscaping shall also be required for the following:

(a) Rear yards.

(b) Side yards.

(c) Parking areas for more than fifteen (15) vehicles in the I-L and I-Lb zones, twenty-five (25) vehicles in the I-M and I-Mb zones, or thirty-five (35) vehicles in the I-H and I-Hb zones.

5. Where pavement or gravel is proposed for vehicle or machinery parking or storage, a landscaped buffer shall be planted or a preserved buffer shall be maintained along the downward slope of the paved or graveled area to provide passive treatment of stormwater before it leaves the site.

(26) Development located in the B-5 and B-5b zones shall meet the following additional standards:

from Land Use Ordinance
Section 14 - 526

(25) Development in the industrial zones shall meet the following additional requirements:

a. *Landscaping and buffering:*

1. Buildings, parking areas and other paved or unrevegetated areas shall be landscaped to screen and enhance the property and to buffer adjacent properties from the proposed use or uses.

2. The existing landscape shall be preserved in its natural state to the greatest extent practicable by minimizing tree removal and grade changes. Where preservation of the existing landscape is not possible, new planted materials will be required.

3. Where a building, parking lot or unrevegetated area abuts a residential zone, a landscaped strip shall be established between abutting property and the structure, parking lot or unrevegetated area. Such landscaping shall be maintained and replaced as necessary to continue the buffer.

4. Front yards along arterial and collector streets, as delineated on the Maine Department of Transportation Map, a copy of which is on file in the department of planning and urban development, shall be landscaped. Landscaping shall also be required for the following:

(a) Rear yards.

(b) Side yards.

(c) Parking areas for more than fifteen (15) vehicles in the I-L and I-Lb zones, twenty-five (25) vehicles in the I-M and I-Mb zones, or thirty-five (35) vehicles in the I-H and I-Hb zones.

5. Where pavement or gravel is proposed for vehicle or machinery parking or storage, a landscaped buffer shall be planted or a preserved buffer shall be maintained along the downward slope of the paved or graveled area to provide passive treatment of stormwater before it leaves the site.

(26) Development located in the B-5 and B-5b zones shall meet the following additional standards:

23c

7. City Infrastructure: The city requires the installation of curbing and sidewalk with an esplanade along Congress Street, although this may be located on the northern side of Congress Street to tie in with other sidewalks soon to be constructed. The proposed sidewalk shown on Plan LP101 should extend to Congress Street and provide a crosswalk at the intersection with Hutchins so that pedestrians can reach the sidewalk network (linking to nearby facilities) on the opposite side of Congress Street using an "on call" pedestrian phase.

   Please show how/where the other end of the sidewalk (where it meets the road at the eastern edge of the site) connects and how pedestrians will link into other pedestrian facilities off site.

Please contact me if you have any questions at 874-8728 or at jf@portlandmaine.gov.

Sincerely,

Jean Fraser

Jean Fraser
Planner

Attached;
- Memorandum form Dan Goyette, Engineering Reviewer, Woodard & Curran dated February 7, 2007 (Attachment 21 of PB Memo)
- Land Use Ordinance Section 14-526 (25) Re Development in Industrial Zones
- Fire Department Site Review Checklist

CC:
- Alexander Jaegerman, Planning Division Director
- Barbara Barhydt, Development Review Services Manager
- Marge Schmuckal, Zoning Administrator
- Katherine Earley, City Engineering Services Manager
- Jim Carmody, City Transportation Engineer
- Jeff Tarling, City Arborist
- Greg Cass, Fire Department Fire Prevention

236

An initial review has been undertaken and preliminary reviewer comments are outlined below. These will form the basis for the Planning Board Memorandum and we are not requesting revised plans prior to the Workshop. However, it would help inform the Workshop discussion if you were able to submit the aerial photograph, other two elevations, and further information regarding the basis for the proposed parking provision (item 2 below).

1. Traffic: A TMP Scoping Meeting will be arranged in the near future and include further discussion of access arrangements and associated improvements. I understand pre-application meetings have been held but reviewers/Planning Board may request additional information. Requirements will be clarified as part of the TMP process and may include highway/intersection improvements in Congress Street and upgrading of District Road to accommodate the proposed vehicle access.

2. Parking: Where construction is proposed for over 50,000 sq ft. the parking requirement would be established by the Planning Board based on submitted information and staff review comments. Please submit a parking analysis to support the number of proposed parking spaces; it should include clarification of the numbers of employees to be based in the new building (somewhat different figures are quoted in the submissions) and the number of visitors anticipated per hour during the day.

   It is noted that some 192 parking spaces are proposed which appears excessive in the context of the traffic information submitted. The parking areas significantly impact the existing vegetation on the site and such impacts should be minimized.

3. Proposed Building: Please submit the two northern elevations as these will be visible from District Road and possibly Congress Street.

   Sewers, Stormdrains, Water: Please see the comments of the Engineering Reviewer, Dan Goyette of Woodard & Curran, which are attached to this letter; these comments refer to the original set of plans and storm water report.

4. Landscaping and Existing Vegetation: While the broad principles of the proposed landscaping are supported, the landscaped islands in the parking lot need to have more trees/planting. The city's standards regarding buffering are included in the attached extract from the Site Plan Ordinance, and identified tree saves and/or further buffer planting (native species) is required around the detention basin, along Congress Street, along District Road and along the southern boundary.

   Further detailed comments will be forwarded when they are received.

5. Exterior Lighting: A waiver from the City's Technical Standards will be required in respect of Fixtures DD and GG (spotlights) and further information regarding the illumination levels on the building and light trespass over the top of the building is requested. Also please confirm that the proposed spotlighting/up lighting has been reviewed by the FAA. .

6. Fire: Please address the Fire Department requirements as outlined in the attached checklist.

23e

PORTLAND FIRE DEPARTMENT

SITE REVIEW
FIRE DEPARTMENT CHECKLIST

A separate drawing[s] shall be provided to the Portland Fire Department for all site plan reviews.

1. Name, address, telephone number of applicant.
2. Name address, telephone number of architect
3. Proposed uses of any structures [NFPA and IBC classification]
4. Square footage of all structures [total and per story]
5. Elevation of all structures
6. Proposed fire protection of all structures
7. Hydrant locations
8. Water main[s] size and location
9. Access to any fire department connections
10. Access to all structures [min. 2 sides]
11. A code summary shall be included referencing NFPA 1 and all fire department. technical standards

COMMITMENT & INTEGRITY
DRIVE RESULTS

41 Hutchins Drive
Portland, Maine 04102
www.woodardcurran.com

T 800.426.4262
T 207.774.2112
F 207.774.6635

Attachment 24

MEMORANDUM

WOODARD &CURRAN

TO: Jean Fraser

FROM: Dan Goyette

DATE: February 21, 2007

RE: Maine Turnpike Authority

Woodard & Curran has performed a review of the Major Site Plan submission for the Maine Turnpike Authority Headquarters Office Building on the corner of Congress Street and Jetport Connector Road. The project proposes to construct a 54,817 square foot office building.

Documents Reviewed

- Application for Major Site Plan Review, Appendix1: Stormwater and Erosion & Sediment Control, dated February 12, 2007 by SMRT and associated drawings.
- Engineering Plan Sheets CP101, CG101, 301, 302, CU101, LP101, ES101, CS301, prepared by SMRT dated February 9, 2007.

In addition to the comments made within our memo dated February 7, 2007, the following are offered.

Comments

- The handicap curb flare should be 7' in length.
- The sewer manhole covers within the City right-of-way should be 24" diameter.
- Details with regards to the scheduling and construction of the sewer line within Congress Street need to be addressed. There is existing congestion at this intersection and it may be worse at the time of construction due to the new turnpike bridge work.

DRG
203848.62

Attachment 25a

From: Gregory Cass
To: Jean Fraser
Date: 2/21/2007 3:29:46 PM
Subject: Re: Fwd: MTA - Fire review

I have approved the project.
I did not think the issue of ownership and maintenance of the access road was a FD issue. BUT in hindsight I don't know if we might need something in writing to insure its use for our access. Is this road an issue or not????

>>> Jean Fraser 2/21/2007 2:48:34 PM >>>
Greg,

Just got this after we spoke- could you please update UI so I have City version of the attached- its 2006-0090

Thanks
Jean

>>> "Mark Johnson" <MJohnson@SMRTInc.com> 2/21/2007 12:17:29 PM >>>
Jean,

Am in receipt of your communications from last week and am assembling responses. Will look forward to discussion on Tuesday.

The attached is response from Captain Cass to materials hand delivered to him early last week.

Thanks,

<<Cass_FireEmail_2-13-07.pdf>>

Mark G. Johnson, ASLA
Landscape Architect / Planner

SMRT, Inc.
144 Fore Street, P.O. Box 618
Portland, Maine 04104
Tel. (207) 772-3846
FAX (207) 772-1070
www.smrtinc.com

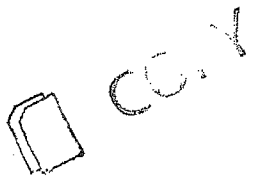
256

Mark Johnson

From: Gregory Cass [GEC@portlandmaine.gov]
Sent: Tuesday, February 13, 2007 2:11 PM
To: Mark Johnson
Subject: Re: MTA site - fire review

Mark
I recieved the material this morning.
I have reviewed and approved the project for site planning.
Thank you for your support with this project.

Captain Greg Cass
Portland Fire Dept.
Fire Prevention Officer



cc: WCW, file 060016/22

Attachment 26

From: "Thomas Errico" <terrico@wilbursmith.com>
To: "'Jean Fraser'" <JF@portlandmaine.gov>, "'James Carmody'" <JPC.city-gov.port-gov@portlandmaine.gov>
Date: 2/22/2007 11:55:05 AM
Subject: RE: MTA Traffic Comments

Jean --

Key items from the traffic scoping meeting held today:

o The traffic study will include the intersections of Congress/Hutchins, Congress/Water District Road, Jetport Road/Site Drive, and Jetport Road/Southbound Ramps.

o The study will include a review of vehicle queuing at the study area intersections.

o The study will include a review of signal warrants at the Jetport Road/Southbound Ramps intersection.

o A parking analysis will be conducted for the site in support of their parking supply.

o One high crash location was identified in the study area (Airport Road/Southbound Ramps) and the applicant will provide mitigation suggestions for this location.

o The applicant will be required to contribute to future improvements at the Congress/Hutchins intersection.

o The study will include traffic from two other approved developments (Methadone Clinic and Davis Dental). We noted that Planning Staff will confirm.

If you have any questions, please contact me.

Best Regards,

Thomas A. Errico, P.E.

Senior Transportation Engineer

Wilbur Smith Associates

59 Middle Street

Attachment 27a

Memorandum

To: Jean Fraser, Planner

From: Jeff Tarling, City Arborist

Date: February 23, 2007

Re: Maine Turnpike Authority, 23

I have reviewed the landscape plan for the proposed Maine Turnpike Administration building off outer Congress Street and offer the following comments and recommendations:

The proposed MTA building located on outer Congress Street at the Airport Connector Road is located on a visible and challenging site. Landscape goals for this area of outer Congress Street would be retaining the natural, more rural feel of the area. Existing tree groves should be protected and the use of native plants is recommended to extend a consistent landscape theme. Nearby development examples using extensive native plantings would be UNUM / Provident, where extensive native, trees, shrubs and groundcover where included into their Site Plan. The MTA site would benefit by including the landscape treatment to the fringe areas around the site. Recommendations include:

1) **Congress Street / North End of Project.** Better define 'Exist. Trees to Remain' area between Congress Street and the proposed detention pond. This area currently contains a mix of conifers and deciduous trees. Hopefully, the 'Tree Save' area can conform to the detention pond shape vs cutting a straight line. Additional 'Tree Save' along the District Road would be desired and should be identified on the plan. Additional buffering is needed around the detention pond in the form of conifers (Larch, White Pine) and native shrub groupings (Winterberry / Bayberry) to make this appear as a natural pond vs. sterile detention basin. This location appears as the 'front-yard' from Congress Street / Airport Connector intersection and is an important landscape feature of the site in terms of visibility.

2) Perimeter Landscape Treatment. The MTA project will remove most of the remaining existing vegetation in the Airport Connector Road / Congress Street area. This changes the overall the natural, 'wooded' gateway into Portland that extends to the nearby business area. There is space to re-create this feel by adding to the recently planted White Pines planted in groves near the Congress Street end of the Connector Road. In addition to planting groups of 5-6' B&B sized trees, a mix of 2-3', and seedling size groves of White Pine, Red Pine, Red Cedar, White Birch, along with native shrub stock would recreate the natural feel to the area. This treatment scheme is recommended for the length of the Connector Road to the service drive and back to the District Road.

3) Entrance Drive and Parking Lot. The entrance drive contains an alley of 21 European Ash, native deciduous trees would be recommended at this area in keeping with the native Hophornbeam trees used closer to the parking lot. The planting density spacing appears to be roughly 20' oc - a greater spaced or less dense planting (-9) would be acceptable. The tree line could be extended up to the Connector Road using the same number of trees. The parking lot makes good use of the parking lot nodes with landscaping to safely direct the pedestrian traffic

from the lot to the proposed building. There is room to add an additional tree to each island between the nodes. The larger islands contain grade changes that could benefit from a landscape treatment or shrub planting.

4) **Building Landscape.** The building front as duplicated in the front page rendering shows larger scale shade trees in greater number vs the proposed two ornamental Cherry trees proposed for each side of the main entrance. The building scale and mass would benefit from a larger size tree selection along with additional trees. An additional grouping of trees near the rear bump-out into the parking lot is also recommended. Shrub massing and density for the front and rear plaza areas will add variety and texture. The landscape in this area are a mix of exotic and native plants.

Note: A heavier concentration of native plants hardy to Maine could create interesting displays for visitors to the MTA building. This would not be a requirement but a suggestion of interest and opportunity. I would be willing to meet with the applicant and site planners as needed.

BK 13371 PG 189

060935

S.B. Holdings, Inc.
to
Maine Turnpike Authority

CORPORATION

QUITCLAIM DEED

WITH COVENANTS

KNOW ALL MEN BY THESE PRESENTS

THAT, S.B. Holdings, Inc., a Maine corporation, with a mailing address of P.O. Box 69, Town of Gorham, Cumberland County, State of Maine 04038, and its Successors and Assigns forever (hereinafter collectively referred to as "Grantor"), in consideration of One Dollar ($1.00), plus other good and valuable consideration paid by the MAINE TURNPIKE AUTHORITY, a body corporate and politic, duly created by virtue of an Act of the Legislature of the State of Maine, Chapter 69 of the Private and Special Laws of 1941, as amended, and continued in existence under Title 23, M.R.S.A., Chapter 24, and having an office at 430 Riverside Street, City of Portland, in the County of Cumberland and State of Maine, 04103, (hereinafter collectively referred to as "Grantee"), the receipt whereof Grantor does hereby acknowledge, does hereby remise, release, bargain, sell and convey, and forever QUITCLAIM unto the said Grantee, the MAINE TURNPIKE AUTHORITY, its Successors and Assigns forever, a certain lot or parcel of land situated at 2352-2376 Congress Street, City of Portland, Cumberland County, State of Maine, and further describing the premises as follows:

See EXHIBIT "A" as attached hereto and
made a part hereof by this reference.

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging, to the said Grantee, the MAINE TURNPIKE AUTHORITY, and to Grantee's Successors and Assigns use and behoof forever.

AND the said Grantor does covenant with the said Grantee, that Grantor will WARRANT and FOREVER DEFEND the premises to Grantee against the lawful claims and demands of all persons claiming by, through or under Grantor.

S.B. Holdings, Inc.
to
Maine Turnpike Authority

IN WITNESS WHEREOF, the said S.B. Holdings, Inc., has caused this instrument to be sealed with its corporate seal and signed in its corporate name by Daniel H. Shaw, its President, duly authorized, all as of this 8th day of October, 1997.

SIGNED, SEALED AND DELIVERED
IN THE PRESENTS OF

S.B. HOLDINGS, INC.

BY: _____
Daniel H. Shaw,
Its President

STATE OF MAINE
COUNTY OF CUMBERLAND

8 October 1997

Then personally appeared before me the above named Daniel H. Shaw, President, of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity as President, and the free act and deed of said Grantor Corporation.

Before me,

_____
Notary Public or ~~Attorney at Law~~

Thomas B. Biegel
Notary Public, Maine
My Commission Expires 4-13-2004

Printed Name

SEAL

S.B. Holdings, Inc.
to
Maine Turnpike Authority

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BY: _____
Daniel H. Shaw,
Its President

STATE OF MAINE
COUNTY OF CUMBERLAND

8 October 1997

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Before me,

_____
Notary Public or ~~Attorney at Law~~
Thomas B. Biegel
Notary Public, Maine
My Commission Expires 4-13-2004
Printed Name

SEAL

S.B. Holdings, Inc.
to
Maine Turnpike Authority

EXHIBIT "A"

A certain lot or parcel of land situated on the southerly side of Congress Street in the City of Portland, County of Cumberland and State of Maine, being bounded and described as follows:

Commencing at a point on the southerly sideline of said Congress Street on the westerly sideline of certain land conveyed to the Portland Water District by two deeds dated May 8, 1958 and recorded in the Cumberland County Registry of Deeds in Book 2411, Pages 133 and 136; thence westerly along the southerly sideline of said Congress Street a distance of three hundred forty-three and one-half feet (343-½') more or less to a point and land now or formerly of W.H. Nichols Co.; thence southeasterly along said land now or formerly of W.H. Nichols Co. a distance of eight hundred thirty-one feet (831') more or less to a point on said land of the Portland Water District a distance of six hundred sixty-five feet (665') more or less to the point of beginning.

Also, another parcel of land with any improvements thereon situated on said Congress Street, being bounded and described as follows:

Beginning on the southerly sideline of Congress Street at a point marked by a stone monument at the northwesterly corner of land formerly of Harry H. Harmon and George M. Hutchins, which was conveyed to R. Brent Cote by deed dated June 25, 1987 and recorded in the Cumberland County Registry of Deeds in Book 7856, Page 111;

Thence on a course of South 25° 40' 00" East a distance of 714.67 feet to a stone monument;

Thence turning on a course of South 26° 14' 45" East and running a distance of 111.81 feet to a monument at the sideline of land conveyed by Edward S. Finks, et al., to Portland Water District by deed dated November 12, 1957 and recorded in the Cumberland County Registry of Deeds in Book 2383, Page 121;

Thence turning on a course of South 2° 15' 45" East and running a distance of 70.71 feet to an iron rod on the westerly sideline of the land now or formerly of the Portland Water District;

Thence turning on a course of South 11° 31' 45" East and running a distance of 35.60 feet to a monument on the westerly sideline of the land now or formerly of the Portland Water District;

S.B. Holdings, Inc.
to
Maine Turnpike Authority

Thence turning on a course of North 75° 26' 45" West and running a distance of approximately 620 feet to monument marking the easterly sideline of an easement now or formerly owned by the City of Portland;

Thence turning on a heading of North 17° 34' 45" East and running a distance of 731.02 feet along the easterly sideline of the above-stated City of Portland easement to a monument on the southerly sideline of Congress Street being the point of beginning.

Courses are magnetic and of the date of 1941, unless otherwise indicated.

TOGETHER WITH the non-exclusive right to the Grantee, and its successors, only for the purposes of ingress and egress to the above-described parcel of land, an easement 60 feet in width extending from Congress Street southerly along and with the westerly property line of the above-described parcel of land, and more particularly bounded and described as follows:

Beginning at the northerly most corner of the parcel above-described; thence on a course of South 17° 34' 45" West a distance of 731.01 feet to a point, then Westerly on a course of North 75° 26' 45" West (previously incorrectly referred to as North 75° 26' 45" East) a distance of 60 feet to a point; thence turning on a course of North 17° 34' 45" East and running a distance of 731.02 feet to a point on Congress Street, then turning on a course of South 75° 26' 45" East and running a distance of 60.08 feet along said Congress Street to the point of beginning.

Meaning and intending to convey the same premises described in a certain deed to S. B. Holdings, Inc., dated June 3, 1993, and recorded on June 4, 1993 in the Cumberland County Registry of Deeds in Book 10737, Page 225.

EXCEPTING AND RESERVING a 25' easement as described in two certain deeds in favor of the Portland Water District adjacent to and easterly of the 60' right-of-way in common or easement described above. Aforesaid 25' easements are recorded in the Cumberland County Registry of Deeds: Book 4514, Page 130, on 19 October 1979; and Book 4529, Page 164, on 16 November 1979.

ALSO EXCEPTING AND RESERVING certain limitations and restrictions in favor of the City of Portland for airport purposes as described in items numbered 6, 7, and 8, in a deed from the City of Portland to W. H. Nichols Company recorded in the Cumberland County Registry of Deeds on 4 April 1967 in Book 2990, Page 627.

RECEIVED
RECORDED REGISTRY OF DEEDS
1997 OCT 10 PM 2:50
CUMBERLAND COUNTY
John B O'Brien

1.H. Attachments

- Appendix 1A –Proposed Site Plan & Survey
- Appendix 1B –Trip Distribution Diagrams
- Appendix 1C – Trip Generation Data
- Appendix 1D – Employee Zip Code Distribution Data

Appendix 1A – Proposed Site Plan & Survey

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: MEMSP0G00

234-05550

FOR D.P.S. USE ONLY: P 06756

10176

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	02	19	2003	Wed	10:10	10:15	10:25

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	TURNPIKE SB		Portland	05170 (R)	Cumberland	

AT	BETWEEN NODE NUMBERS		DISTANCE FROM SCENE MILES	TNTHS	TO NUMBER	MILES AND TENTHS TO LANDMARK
						At Exit 7A Toll

N W S E (CIRCLE ONE)

UNIT NO. 1 - Vehicle

TOTAL UNITS INV. 2 — UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
3096066	ME

LAST NAME: Rhodes — FIRST NAME: Laura — MIDDLE: J

NUMBER AND STREET: 64 Nash Road

CITY: Windham — STATE: ME 04062 — CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
08/19/1942	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1: Rhodes — FIRST NAME: Laura — MIDDLE: J

NUMBER AND STREET: 64 Nash Road

CITY: Windham — STATE: ME 04062

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR 1
4 Door 2	1997 Toyota 14	Black

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
?852IP	2004	ME	1

VEHICLE IDENTIFICATION NO. 4T1BG22KOVU764277

INSURANCE

INSURANCE CO. Concord General Mutual NAIC: N/A

POLICY NO. B418359-8

EVENT# 2 3 4 5 6 7 8 1 — 9 (TOP) 10 (BOTTOM)

TOWED BY: AAA

4, 5, 6 DAMAGE CODES — $ 7,000.00 DAMAGE ESTIMATE

DRIVER

DRIVER'S LICENSE NUMBER 2	STATE
2144129	ME

LAST NAME: Bell — FIRST NAME: Kirt — MIDDLE: T

NUMBER AND STREET: 5 Summit Terrace

CITY: Falmouth — STATE: ME 04105 — CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
11/13/1963	M	(A) S P N	0	C

OWNER

LAST NAME - OWNER 2: Bell — FIRST NAME: Kirt — MIDDLE: T

NUMBER AND STREET: 5 Summit Terrace

CITY: Falmouth — STATE: ME 04105

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR 14
SUV 7	1996 GMC 26	White

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
7805GH	2003	ME	1

VEHICLE IDENTIFICATION NO. 1GKFK16R0TJ716979

INSURANCE

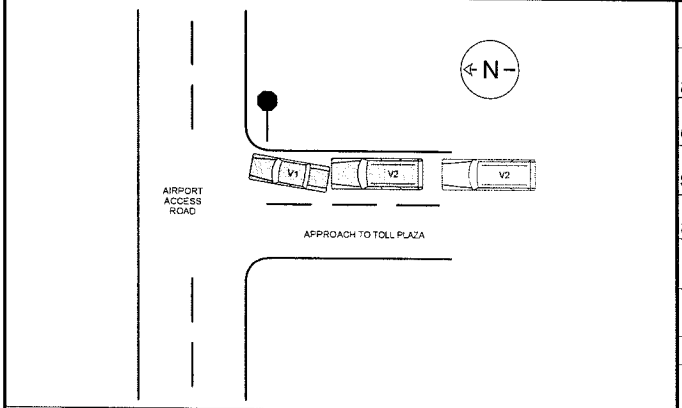
INSURANCE CO State Farm NAIC: N/A

POLICY NO. 26-6492-D07-19E

EVENT# 1 2 3 4 5 6 7 8 — 9 (TOP) 10 (BOTTOM)

TOWED BY: N/A

1, 2, 8 DAMAGE CODES — $ 1,500.00 DAMAGE ESTIMATE



DESCRIPTION: Unit 1 had exited the 7A toll southbound and was at the stop sign waiting to turn right. Unit 2 had done the same and was behind unit 1. Unit 1 started then stopped. Unit 2 not realizing that unit 1 had stopped again struck unit 1 in the rear.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Rhodes, Laura J (Driver/Owner)	11	11	2	5	1	1	1	1	F	60
Bell, Kirt T (Driver/Owner)	11	11	2	5	1	2	1	1	M	39

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
Cpl. Harold Savage	4274	MAINE STATE POLICE TURNPIKE	Sgt	2/21/2003

FORM 13:20A
Rev. 4/97

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0030500

03-1113

FOR D.P.S. USE ONLY: P 09278

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	03	10	2003	Mon	08:04	08:04	08:25

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	EXIT 7A/S		Portland	05170 (R) (U)	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	10177	MILES TNTHS		N W S E (CIRCLE ONE)

N↑ UNIT NO. 1 - Vehicle — TOTAL UNITS INV. 2 — N↑ UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
2255187	ME

LAST NAME: Hussey, Jonathan A — FIRST NAME — MIDDLE

NUMBER AND STREET: Po Box 193

CITY: Auburn — STATE: ME 04210 — CODE NUMBER: 2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
02/05/1971	M	(A) S P N	0	C

DRIVER'S LICENSE NUMBER 2	STATE
4002216	ME

LAST NAME: Smith Peterson, Beverly — FIRST NAME — MIDDLE

NUMBER AND STREET: Po Box 265

CITY: Raymond — STATE: ME 04071 — CODE NUMBER: 2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
06/08/1945	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1: Hussey, Jonathan A — FIRST NAME — MIDDLE

NUMBER AND STREET: Po Box 193

CITY: Auburn — STATE: ME 04210

LAST NAME - OWNER 2: Smith Peterson, Beverly — FIRST NAME — MIDDLE

NUMBER AND STREET: Po Box 265

CITY: Raymond — STATE: ME 04071

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.	VEHICLE IDENTIFICATION NO.
4 Door 2	1997 Toyota	Beige	7928GY	2003	ME	1	1NXBA02E8VZ559788

VEHICLE TYPE	YEAR AND MAKE	COLOR	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.	VEHICLE IDENTIFICATION NO.
4 Door 2	1999 Subaru	White	9900IZ	2003	ME	1	453BDG6752X725619

INSURANCE CO. MMG — POLICY NO. AC10858711

TOWED BY: N/a

1 2 3 4 5 6 7 8 9 (TOP) 10 (BOTTOM) — EVENT IRE #

5 DAMAGE CODES — $ 200.00 DAMAGE ESTIMATE

INSURANCE CO Allstate — POLICY NO. 0 84 490506 12/08

TOWED BY: N/a

1 2 3 4 5 6 7 8 9 (TOP) 10 (BOTTOM) — EVENT IRE #

1 DAMAGE CODES — $ 1,000.00 DAMAGE ESTIMATE

See attached scanned image

DESCRIPTION: Both units exiting turnpike. Unit 2 stopped in traffic on exit ramp. Unit 2 close behind unit 1 and was unable to stop. Unit 2 struck unit 1 from behind.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Hussey, Jonathan A (Driver/Owner)	11	11	1	5	1	1	1	1	M	32
Smith Peterson, Beverly (Driver/Owner)	11	11	1	5	1	2	1	1	F	57

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
Lisa Sweatt	89	PORTLAND POLICE DEPARTMENT	Lt	3/10/2003

FORM 13:20A
Rev. 4/97

Digital Image for Crash : ME0030500_03-1113

INVESTIGATING AGENCY CODE NUMBER 00305 — FOR D.P.S. USE ONLY

DATE OF ACCIDENT: MONTH 03 | DAY 10 | YEAR 03 | DAY OF WEEK Mon | TIME 0804 | TIME REPORTED 0804 | TIME ARRIVED 0825

ON ROUTE | OR NAME OF STREET OR HIGHWAY Turnpike Exit 7A S | CITY OR TOWN Portland | CODE NUMBER 019 | COUNTY Cumberland | HIT AND RUN

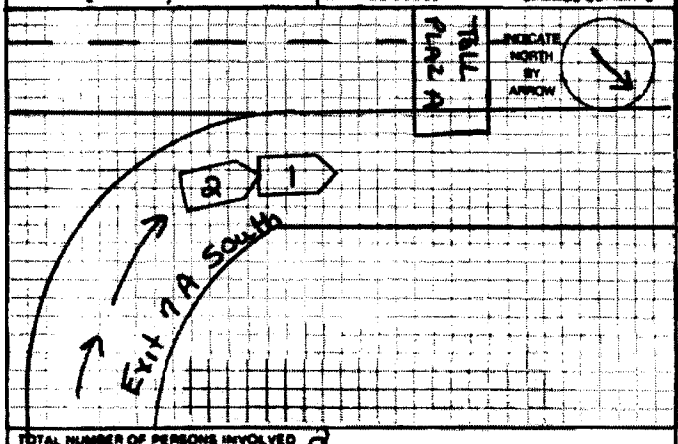
AT BETWEEN NODE NUMBERS 10 17 | DISTANCE FROM SCENE MILES TENTHS | TO NUMBER | MILES AND TENTHS TO LANDMARK Connector Rd | CIRCLE ONE N W E S

UNIT NO. 1 - VEHICLE 1 | TOTAL UNITS INV 2 | UNIT NO. 2 - VEH 2 PED BIKE

DRIVER	UNIT NO. 1	UNIT NO. 2
DRIVER'S LICENSE NUMBER	2255187	4002216
STATE	ME	ME
LAST NAME	Hussey	Smith-Petersen
FIRST NAME	Jonathan	Beverly
MIDDLE	A	
NUMBER AND STREET	PO Box 193	PO Box 265
CITY	Auburn	Raymond
STATE	ME	ME
CODE NUMBER	20	20
DATE OF BIRTH	2/5/71	6/8/45
SEX	M	F
LICENSE STATUS	(A) S P N	(A) S P N
REST / PERM		
CLASS	C	C

OWNER	UNIT NO. 1	UNIT NO. 2
LAST NAME - OWNER	same	same
FIRST NAME		
MIDDLE		
NUMBER AND STREET	same	same
CITY	same	same
STATE		

VEHICLE	UNIT NO. 1	UNIT NO. 2
VEHICLE TYPE	4D 02	4D 02
YEAR AND MAKE	97 Toyt 14	99 Suba 17
COLOR	BG 02	WH 09
LICENSE PLATE NUMBER	792864	9900 I2
YEAR	03	03
ISSUE STATE	ME	ME
NO OCCUP	1	1
VEHICLE IDENTIFICATION NO.	1NXBA02E8V2559788	4S3BD6752X7256191
INSURANCE CO.	mmG Ins Co	Allstate
POLICY NO.	AC10858711	0 84 490506 12/08
TOWED BY:	—	—
DAMAGE CODES	5	1
DAMAGE ESTIMATE	$ 200	$ 1000



DESCRIPTION: Both units exting turnpike. Unit 1 stopped in traffic on exit ramp. Unit 2 close behind Unit 1 was unable to stop. Unit 2 struck Unit 1 from behind.

AMBULANCE CODES

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS · PASSENGERS · WITNESSES · PEDESTRIANS)	35	36	37	38	39	40	41	42	43	44
Jonathan A Hussey				5	1	1	1	1	M	32
Beverly Smith-Petersen				5	1	2	1	1	F	57

INVESTIGATING OFFICER (SIGNATURE) Lisa Sweatt | OFFICER NUMBER 89 | TROOP OR DEPARTMENT Portland PD

Rev 4/97 FORM 13:20A

LOCAL CODES

#03 1113

TRAFFIC ACCIDENT REPORT

STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0030500

03-A-4507

FOR D.P.S. USE ONLY: F

40817

1017

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	12	19	2003	Fri	08:49	08:49	09:00

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
		CONNECTOR RD	Portland	05170 R U	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	03461	MILES TNTHS		N W S E CIRCLE ONE

UNIT NO. 1 - Vehicle

TOTAL UNITS INV. 2

UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
1510184	ME

LAST NAME: Beaudoin, Christopher — FIRST NAME — MIDDLE

NUMBER AND STREET: 645 County Rd

CITY	STATE	CODE NUMBER
Turner	ME 04282	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
02/01/1971	M	(A) S P N	A	C

DRIVER'S LICENSE NUMBER 2	STATE
2753253	ME

LAST NAME: Marsh, Amy E — FIRST NAME — MIDDLE

NUMBER AND STREET: 15 Kathy Lane

CITY	STATE	CODE NUMBER
Cumberland	ME 04021	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
10/06/1965	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1: Beaudoin, Christopher — FIRST NAME — MIDDLE

NUMBER AND STREET: 645 County Rd

CITY: Turner — STATE: ME 04282

LAST NAME - OWNER 2: Marsh, Amy E — FIRST NAME — MIDDLE

NUMBER AND STREET: 15 Kathy Lane

CITY: Cumberland — STATE: ME 04021

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR1	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
4 Door 2	29 1994 Geo	Black	799IN	2004	ME	1

VEHICLE IDENTIFICATION NO. 1Y1SK536XRZ100501

INSURANCE CO. Allstate

POLICY NO. 0 25 494 191 09 15

TOWED BY: N/a

4, 5, 6 — DAMAGE CODES — $ 1,500.00 — DAMAGE ESTIMATE

EVENT # 9 (TOP) 10 (BOTTOM)

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR1	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
4 Door 2	34 1998 Saturn	Green (GR)	9109JF	2004	ME	1

VEHICLE IDENTIFICATION NO. 1G82K5279WZ226979

INSURANCE CO. Patrons Oxford

POLICY NO. AUT 270491

TOWED BY: N/a

1, 2 — DAMAGE CODES — $ 1,500.00 — DAMAGE ESTIMATE

EVENT # 9 (TOP) 10 (BOTTOM)

See attached scanned image

DESCRIPTION: Vehicle one stopped for the stop sign. Vehicle 2 thought vehicle 1 was continuing through, and vehicle 2 took her eyes off the road for a second and struck vehicle one. Minor property damage and report of minor personal injury.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Beaudoin, Christopher (Driver/Owner)	9	4	2	5	1	1	1	1	M	32
Marsh, Amy E (Driver/Owner)	11	11	1	5	1	2	1	1	F	38

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
Rozzi	99	PORTLAND POLICE DEPARTMENT	Sgt	12/19/2003

FORM 13:20A
Rev. 4/97

Digital Image for Crash : ME0030500_03-A-4507

TRAFFIC ACCIDENT REPORT — STATE OF MAINE — 03-A-4507 — FOR D.P.S. USE ONLY

INVESTIGATING AGENCY CODE NUMBER: 02305

DATE OF ACCIDENT: MONTH 12 DAY 19 YEAR 03 | DAY OF WEEK: Fri | TIME: 0849 | TIME REPORTED: 0849 | TIME ARRIVED: 0900

ON: ROUTE | OR NAME OF STREET OR HIGHWAY: Connector Rd | CITY OR TOWN: Lis | CODE NUMBER: 45 | COUNTY: Cumb | HIT AND RUN:

AT: BETWEEN NODE NUMBERS: 34 61 | DISTANCE FROM SCENE: MILES TENTHS | TO NUMBER | MILES AND TENTHS TO LANDMARK: Exit 7 South | CIRCLE ONE: N W E S

TOTAL UNITS INV: 2

UNIT NO. 1 - VEHICLE 1

DRIVER'S LICENSE NUMBER 1: 1510184 | STATE: Me

LAST NAME: Beaudoin | FIRST NAME: Christopher | MIDDLE:

NUMBER AND STREET: 645 County Rd

CITY: Turner | STATE: Me | CODE NUMBER: 20

DATE OF BIRTH: 02-01-71 | SEX: M | LICENSE STATUS: (A) S P N | REST/PERM: A | CLASS: C

OWNER — LAST NAME - OWNER 1: S | FIRST NAME: | MIDDLE:

NUMBER AND STREET: S

CITY: S | STATE:

VEHICLE — VEHICLE TYPE: 4door (02) | YEAR AND MAKE: 94 Geo (29) | COLOR: Black (01)

LICENSE PLATE NUMBER: 799 IN | YEAR: 04 | ISSUE STATE: Me | NO OCCUP: I

VEHICLE IDENTIFICATION NO: 1Y1SK536XRZ100501

INSURANCE CO.: Allstate

POLICY NO.: 0-25 494 191 09 15

TOWED BY:

DAMAGE CODES: 456 | DAMAGE ESTIMATE: $ 1500

UNIT NO. 2 - ☐ VEH 2 ☐ PED ☐ BIKE

DRIVER'S LICENSE NUMBER 2: 2753253 | STATE: Me

LAST NAME: Marsh | FIRST NAME: Amy | MIDDLE: E

NUMBER AND STREET: 15 Kathy Lane

CITY: Cumb | STATE: Me | CODE NUMBER: 20

DATE OF BIRTH: 10-06-65 | SEX: F | LICENSE STATUS: (A) S P N | REST/PERM: | CLASS: C

OWNER — LAST NAME - OWNER 2: S | FIRST NAME: | MIDDLE:

NUMBER AND STREET: S

CITY: S | STATE:

VEHICLE — VEHICLE TYPE: 4door (02) | YEAR AND MAKE: 98 Saturn (34) | COLOR: Green (05)

LICENSE PLATE NUMBER: 9109 JF | YEAR: 04 | ISSUE STATE: Me | NO OCCUP: I

VEHICLE IDENTIFICATION NO: 1G8ZK5279WZ226979

INSURANCE CO.: Patrons Oxford

POLICY NO.: AUT-270491

TOWED BY:

DAMAGE CODES: 12 | DAMAGE ESTIMATE: $ 1500

Exit 7

Connector Rd

V2 V1

INDICATE NORTH BY ARROW

DESCRIPTION: Veh1 stopped for the stop sign. Veh2 thought veh1 was continuing thru. veh2 took her eyes off the road for a second and struck veh1 minor PD. report of minor PI

AMBULANCE CODES

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: two

NAMES OF ALL PERSONS INVOLVED (DRIVERS, PASSENGERS, WITNESSES, PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Christopher Beaudoin	9	4	2	5	1	1	1	1	M	32
Amy Marsh				5	1	2	1	1	F	38

INVESTIGATING OFFICER (SIGNATURE): DKozri | OFFICER NUMBER: 99 | TROOP OR DEPARTMENT: Falmouth | APPROVED BY: 99 | DATE: 12/19/03

Rev 4/97 FORM 13.20A

LOCAL CODES

INVESTIGATING AGENCY CODE NUMBER **ME0030500**

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

04-454

FOR D.P.S. USE ONLY **F**

07008

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	02	**03**	**2004**	**Tue**	**12:40**	**12:42**	**12:50**

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
		TURNPIKE OFF RAMP	**Portland**	**05170** R U	**Cumberland**	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	00173	MILES TNTHS		N W S E CIRCLE ONE

UNIT NO. 1 - Vehicle

TOTAL UNITS INV. **2**

UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
4916131	**ME**

LAST NAME: **Born** FIRST NAME: **Conrad** MIDDLE: **C**

NUMBER AND STREET: **1 Susan Lane**

CITY: **Falmouth** STATE: **ME** CODE NUMBER: **04105** 2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
11/07/1937	**M**	(A) S P N	**A,M**	**C**

DRIVER

DRIVER'S LICENSE NUMBER 2	STATE
3058075	**ME**

LAST NAME: **Welton** FIRST NAME: **Susanne** MIDDLE: **M**

NUMBER AND STREET: **293 Shaker Rd**

CITY: **Gray** STATE: **ME** CODE NUMBER: **04039** 2 0

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
05/31/1948	**F**	(A) S P N	**0**	**C**

OWNER

LAST NAME - OWNER 1: **Born** FIRST NAME: **Conrad** MIDDLE: **C**

NUMBER AND STREET: **1 Susan Lane**

CITY: **Falmouth** STATE: **ME 04105**

OWNER

LAST NAME - OWNER 2: **Welton** FIRST NAME: **Kenneth** MIDDLE:

NUMBER AND STREET: **314 Shaker Rd Box 1357**

CITY: **Gray** STATE: **ME 04039**

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
Van	**2002 Dodge**	**Grey (GY), Silver**	**?1407**	**2004**	**ME**	**1**

VEHICLE IDENTIFICATION NO. **1B4GP34392B560653**

INSURANCE CO. **Liberty Mutual**

POLICY NO. **A022122175575013**

TOWED BY: **N/a**

2 DAMAGE CODES $ **3,000.00** DAMAGE ESTIMATE

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR	LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
SUV	**1997 Oldsmobile**	**Brown**	**4110LQ**	**2004**	**ME**	**1**

VEHICLE IDENTIFICATION NO. **1GHDT13W1V2704616**

INSURANCE CO **Geico**

POLICY NO. **1442031**

TOWED BY: **N/a**

6 DAMAGE CODES $ **1,000.00** DAMAGE ESTIMATE

See attached scanned image

TOTAL NUMBER OF PERSONS INVOLVED: **3**

DESCRIPTION: **Both vehicle 1 and 2 had just gotten off exit 7A of the Maine Turnpike (south bound toll booth) Vehicle 2 began and stopped for traffic, vehicle 1 then struck vehicle 2 from behind.**

AMBULANCE CODES **N/A(1000)**

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Born, Conrad C (Driver/Owner)	**11**	**11**	**2**	**5**	**1**	**1**	**1**	**1**	**M**	**66**
Welton, Susanne M (Driver)	**11**	**11**	**2**	**5**	**1**	**2**	**1**	**1**	**F**	**55**
Sgt Williams, Cumberland S O (Witness)						**22**			**M**	**0**

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
	162	**PORTLAND POLICE DEPARTMENT**	**Sgt**	**2/3/2004**

162

FORM 13:20A

Rev. 4/97

Digital Image for Crash : ME0030500_04-454

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER 003 03

DATE OF ACCIDENT: MONTH 02 DAY 03 YEAR 04 | DAY OF WEEK TUE | TIME 1240 | TIME REPORTED 1242 | TIME ARRIVED 1250

ON: ROUTE | OR NAME OF STREET OR HIGHWAY Maine Turnpike Offramp 7-A | CITY OR TOWN Portland | CODE NUMBER 019 | COUNTY Cumberland | HIT AND RUN

AT: BETWEEN NODE NUMBERS | DISTANCE FROM SCENE | TO NUMBER 1013 | MILES AND TENTHS TO LANDMARK Connector Rd | N W E S CIRCLE ONE

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV 2

DRIVER
DRIVER'S LICENSE NUMBER 1: 4916131 | STATE: ME
LAST NAME: BORN | FIRST NAME: CONRAD | MIDDLE: C
NUMBER AND STREET: 1 SUSAN LANE
CITY: FALMOUTH | STATE: ME | CODE NUMBER: 20
DATE OF BIRTH: 11-7-37 | SEX: M | LICENSE STATUS: A B P N | REST/PERM: AM - | CLASS: C

OWNER
LAST NAME - OWNER 1: SAME | FIRST NAME | MIDDLE
NUMBER AND STREET: AS
CITY: ABOVE | STATE

VEHICLE
VEHICLE TYPE: CARAVAN OZ | YEAR AND MAKE: 02 DODGE 10 | COLOR: SIL
LICENSE PLATE NUMBER: CR 21407 | YEAR: 04 | ISSUE STATE: ME | NO OCCUP: 1
VEHICLE IDENTIFICATION NO.: 1B4GP34392B560653
INSURANCE CO.: LIBERTY MUTUAL
POLICY NO.: A022122175575013

TOWED BY: N/A
TOTAL 011: 2 DAMAGE CODES | $ 3000 — DAMAGE ESTIMATE

UNIT NO. 2 - ☒ VEH 2 ☐ PED ☐ BIKE

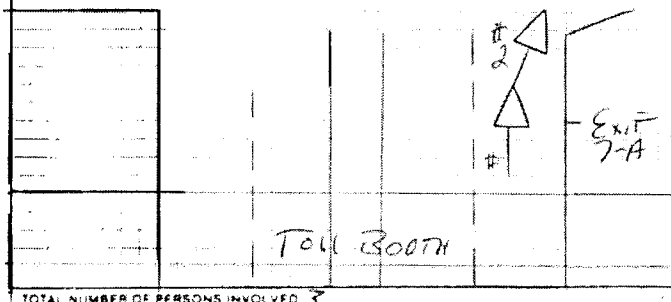
DRIVER
DRIVER'S LICENSE NUMBER 2: 3058075 | STATE: ME
LAST NAME: WELTON | FIRST NAME: SUSANNE | MIDDLE: M
NUMBER AND STREET: 293 SHAKER RD
CITY: GRAY | STATE: ME | CODE NUMBER: 20
DATE OF BIRTH: 5-31-48 | SEX: F | LICENSE STATUS: A B P N | REST/PERM: — | CLASS: C

OWNER
LAST NAME - OWNER 2: WELTON | FIRST NAME: KENNETH | MIDDLE
NUMBER AND STREET: 314 SHAKER RD BOX 1357
CITY: GRAY | STATE: ME

VEHICLE
VEHICLE TYPE: UT 02 | YEAR AND MAKE: 97 OLDS 03 | COLOR: BR
LICENSE PLATE NUMBER: 4110L9 | YEAR: 04 | ISSUE STATE: ME | NO OCCUP: 1
VEHICLE IDENTIFICATION NO.: 1GHDT13W1V2704616
INSURANCE CO.: GEICO
POLICY NO.: 1442031

TOWED BY: N/A
TOTAL 011: 3 DAMAGE CODES | $ 1000 — DAMAGE ESTIMATE

Connector Rd — INDICATE NORTH BY ARROW



DESCRIPTION: BOTH VEH #1 & 2 HAD JUST GOTTEN OFF EXIT 7A OF THE MAINE TURNPIKE (SOUTHBOUND TOLLBOOTH) VEH #2 BEGAN AND STOPPED FOR TRAFFIC. VEH #1 DID NOT STRIKE VEH #2 FROM BEHIND

AMBULANCE CODES A-A

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED 3

NAMES OF ALL PERSONS INVOLVED (DRIVERS, PASSENGERS, WITNESSES, PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Conrad Born # 797-2802			2	5	1	1	1	1	M	66
Susanne Welton # 926-3795			2	5	1	2	1	1	F	54
SGT. Williams Cumberland County S.O.						22			M	

INVESTIGATING OFFICER (SIGNATURE) | OFFICER NUMBER 162 | TROOP OR DEPARTMENT Portland

FORM 1 | 3 | LOCAL CODES

454-04

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0030500

04-2514

FOR D.P.S. USE ONLY: F 27212

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	08	02	2004	Mon	07:40	08/03/2004 08:30	08/03/2004 08:30

ON ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
I-295		Portland	05170 (R)	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	00178	MILES TNTHS		N W S E (CIRCLE ONE)

E→ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 2 | E→ UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

	UNIT NO. 1	UNIT NO. 2
DRIVER'S LICENSE NUMBER	9827159	7467219
STATE	ME	ME
LAST NAME	Brown, Joann D	Chase, Karen
FIRST NAME / MIDDLE		
NUMBER AND STREET	16 Avalon Terrace	Po Box 78
CITY	Portland	Gray
STATE	ME 04101	ME 04039
CODE NUMBER	20	20
DATE OF BIRTH	02/16/1967	06/05/1976
SEX	F	F
LICENSE STATUS	(A) S P N	(A) S P N
REST/PERM	A	0
CLASS	C	C

OWNER

	UNIT NO. 1	UNIT NO. 2
LAST NAME - OWNER	Brown, Joann D	Chase, Karen
FIRST NAME / MIDDLE		
NUMBER AND STREET	16 Avalon Terrace	Po Box 78
CITY	Portland	Gray
STATE	ME 04101	ME 04039

VEHICLE

	UNIT NO. 1	UNIT NO. 2
VEHICLE TYPE	4 Door 2	4 Door 2
YEAR AND MAKE	1999 Subaru	1997 Ford
COLOR	White	Green (GR)
LICENSE PLATE NUMBER	5371JZ	8460KZ
YEAR	2005	2005
ISSUE STATE	ME	ME
NO OCCUP.	1	1
VEHICLE IDENTIFICATION NO.	453BK435XX7307842	1FALP13P5VW273954

INSURANCE

	UNIT NO. 1	UNIT NO. 2
INSURANCE CO.	York	Maine Mutual
POLICY NO.	ASG-6337053-0001	550349
TOWED BY:	N/a	N/a
EVENT #	5	1
DAMAGE CODES	5	1
DAMAGE ESTIMATE	$ 1,200.00	$ 300.00

See attached scanned image

DESCRIPTION: Vehicle 1 stopped, waiting for oncoming traffic to pass. Ms Chase assumed vehicle 1 had pulled away and began to accelerate and struck vehicle 1. Vehicle 1 rolling slowly when struck.

AMBULANCE CODES: N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Brown, Joann D (Driver/Owner)	11	11	2	5	1	1	1	1	F	37
Chase, Karen (Driver/Owner)	11	11	2	5	1	2	1	1	F	28

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
	19	PORTLAND POLICE DEPARTMENT	Sgt	8/3/2004

19

FORM 13:20A
Rev. 4/97

Digital Image for Crash : ME0030500_04-2514

INVESTIGATING AGENCY CODE NUMBER 00305

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

FOR D.P.S. USE ONLY

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	08	02	04	Mon	0740	0803 0830	

ON ROUTE | OR NAME OF STREET OR HIGHWAY: I-95 Exit 46 off ramp | CITY OR TOWN: Portland | CODE NUMBER: 018 | COUNTY: Cumb | HIT AND RUN

AT BETWEEN NODE NUMBERS: 01 | DISTANCE FROM SCENE: MILES / TENTHS | TO NUMBER | MILES AND TENTHS TO LANDMARK: Comercial Road | CIRCLE ONE: N W E S

UNIT NO. 1 - VEHICLE 1

TOTAL UNITS INV: 2

DRIVER
- DRIVER'S LICENSE NUMBER: 9827159
- STATE: ME
- LAST NAME: Brown
- FIRST NAME: Joan
- MIDDLE: D
- NUMBER AND STREET: 16 Avalon Terrace
- CITY: Portland
- STATE: ME
- CODE NUMBER: 20
- DATE OF BIRTH: 02/16/67
- SEX: M
- LICENSE STATUS: (A) S P N
- REST./PERM: A
- CLASS: C

OWNER
- LAST NAME - OWNER 1:
- FIRST NAME:
- MIDDLE:
- NUMBER AND STREET:
- CITY:
- STATE:

VEHICLE
- VEHICLE TYPE: SW
- YEAR AND MAKE: 99 Subaru
- COLOR: WHT
- LICENSE PLATE NUMBER: 5371JZ
- YEAR: 05
- ISSUE STATE: ME
- NO OCCUP: 1
- VEHICLE IDENTIFICATION NO.: 4S3BK435X47307842
- INSURANCE CO.: York
- POLICY NO.: ASG-6337053-0001
- TOWED BY:
- DAMAGE CODES: 5
- DAMAGE ESTIMATE: $ 1296

UNIT NO. 2 - ☑ VEH 2 ☐ PED ☐ BIKE

DRIVER
- DRIVER'S LICENSE NUMBER 2: 7467219
- STATE: ME
- LAST NAME: Chase
- FIRST NAME: Karen
- MIDDLE: J
- NUMBER AND STREET: PO Box 78
- CITY: Gray
- STATE: ME
- CODE NUMBER: 20
- DATE OF BIRTH: 060576
- SEX: F
- LICENSE STATUS: (A) S P N
- REST./PERM:
- CLASS: C

OWNER
- LAST NAME - OWNER 2:
- FIRST NAME:
- MIDDLE:
- NUMBER AND STREET:
- CITY:
- STATE:

VEHICLE
- VEHICLE TYPE: 4dr
- YEAR AND MAKE: 97 Ford
- COLOR: Grn
- LICENSE PLATE NUMBER: 8460KZ
- YEAR: 05
- ISSUE STATE: ME
- NO OCCUP: 1
- VEHICLE IDENTIFICATION NO.: 1FALP13P5VW273954
- INSURANCE CO.: Maine Mutual Group
- POLICY NO.: 550349
- TOWED BY:
- DAMAGE CODES: 1
- DAMAGE ESTIMATE: $ 300

CONNECTOR RD

INDICATE NORTH BY ARROW

I-95 Exit 46 off ramp

TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: V1 stopped, waiting for oncoming traffic to pass. Ms Chase assumed V1 had pulled away, began to accelerate and struck V1. V1 rolling slowly when struck.

AMBULANCE CODES

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS, PASSENGERS, WITNESSES, PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
J Brown			2	5	1	1	1	1	F	37
K Chase			2	5	1	2	1	1	F	28

INVESTIGATING OFFICER (SIGNATURE): John Morin | OFFICER NUMBER: 19 | TROOP OR DEPARTMENT: Portland | APPROVED BY: | DATE:

Rev 4/97
FORM 13:20M

LOCAL CODES

04-2514-10

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER **MEMSP0G00**

SPB2004-061784

FOR D.P.S. USE ONLY **F**

27432

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	10	01	2004	Fri	09:50	09:50	10:00

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
		EXIT 7A SB ON	Portland	05170 R U	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	10179	MILES TNTHS		N W S E CIRCLE ONE

S↓ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 2 | E→ UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
C150333240580	FL

LAST NAME: **Coffin, Herbert M** | FIRST NAME | MIDDLE

NUMBER AND STREET: 191 Nichlaus BLVD

CITY: N Ft Myers | STATE: FL 33903 | CODE NUMBER: 10

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
02/18/1924	M	(A) S P N	0	C

DRIVER'S LICENSE NUMBER 2	STATE
9900053	ME

LAST NAME: **Spear, James R** | FIRST NAME | MIDDLE

NUMBER AND STREET: 1 Easy Street

CITY: Standish | STATE: ME 04084 | CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
03/29/1952	M	(A) S P N	Q	C

OWNER

LAST NAME - OWNER 1: **Alamo Financing,** | FIRST NAME | MIDDLE

NUMBER AND STREET: 4680 Conference Way South

CITY: Boca Raton | STATE: FL 33431

LAST NAME - OWNER 2: **Spear, James R** | FIRST NAME | MIDDLE

NUMBER AND STREET: 1 Easy Street

CITY: Standish | STATE: ME 04084

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
2 Door 1	2004 Chevrolet 1	Red 10

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
7065MK	2005	ME	1

VEHICLE IDENTIFICATION NO. KL1TJ52684B277585

INSURANCE CO.	POLICY NO.
National Union Fire Ins.	9798387

TOWED BY: T & J Tow Co.

EVENT # 1

DAMAGE CODES	DAMAGE ESTIMATE
3, 4	$ 10,000.00

VEHICLE TYPE	YEAR AND MAKE	COLOR
Pickup Truck 6	1998 Dodge 10	Red 10

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
3593IT	2005	ME	1

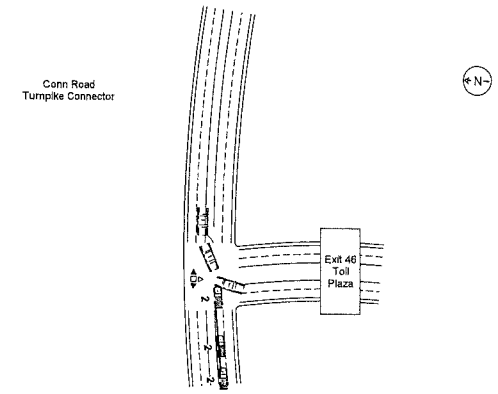
VEHICLE IDENTIFICATION NO. 1B7GG22X9WS602795

INSURANCE CO	POLICY NO.
Progressive Ins Co.	57211398

TOWED BY: Maietta Tow Co

EVENT # 2

DAMAGE CODES	DAMAGE ESTIMATE
2	$ 4,000.00



DESCRIPTION: **Unit # 1 was making a left turn entering the turnpike. Unit # 2 was cresting the knoll at a higher rate of speed. Unit # 1 turned into the path of unit # 2 and they collided. Unit # 2 did slide to stop with a heavy brake application and slid 75 feet with all four wheels locked and sliding.**

AMBULANCE CODES: MEDCU(546)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 3

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Coffin, Herbert M (Driver)	11	11	2	5	1	1	1	1	M	80
Spear, James R (Driver/Owner)	9	4	2	4	1	2	1	1	M	52
Austin, Ron (Witness)						22			M	51

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
Tpr. Charles P. Granger	1780	MAINE STATE POLICE TURNPIKE	Sgt. Andrew Donovan	10/2/2004

FORM 13:20A
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TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: ME0030500

04-3518

FOR D.P.S. USE ONLY: F 35801

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	10	28	2004	Thu	17:30	17:35	17:45

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	95 OFF RAMP		Portland	05170 (R/U)	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	00176	MILES TNTHS		N W S E (CIRCLE ONE)

N↑ UNIT NO. 1 - Vehicle | TOTAL UNITS INV. 2 | UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
3498209	ME

LAST NAME: Belanger | FIRST NAME: Jessica | MIDDLE:

NUMBER AND STREET: Po Box 519

CITY	STATE	CODE NUMBER
Naples	ME 04055	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
01/27/1975	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1: Belanger | FIRST NAME: Jessica | MIDDLE:

NUMBER AND STREET: Po Box 519

CITY	STATE
Naples	ME 04055

VEHICLE

VEHICLE TYPE	YEAR AND MAKE (18)	COLOR 1
4 Door (2)	1995 Volkswagen	Black

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
9632MB	2005	ME	1

VEHICLE IDENTIFICATION NO. 3VWRC81H65M042428

INSURANCE CO. Liberty Mutual

POLICY NO. A02-218-186613-214

EVENT # 9 (TOP) 10 (BOTTOM)

TOWED BY: N/a

6, 7, 8 DAMAGE CODES | $ 2,000.00 DAMAGE ESTIMATE

DRIVER

DRIVER'S LICENSE NUMBER 2	STATE
03PRW79101	NH

LAST NAME: Potter | FIRST NAME: William | MIDDLE:

NUMBER AND STREET: 23 Snell Rd

CITY	STATE	CODE NUMBER
Meredith	NH 03253	30

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
03/10/1979	M	(A) S P N	0	C

OWNER

LAST NAME - OWNER 2: Potter | FIRST NAME: William | MIDDLE:

NUMBER AND STREET: 23 Snell Rd

CITY	STATE
Meredith	NH 03253

VEHICLE

VEHICLE TYPE	YEAR AND MAKE (10)	COLOR 5
Van (5)	1994 Dodge	Green (GR)

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
1786342	2004	NH	1

VEHICLE IDENTIFICATION NO. 1B4GH44R7RX208451

INSURANCE CO. Progressive

POLICY NO. 61061600-0

EVENT # 9 (TOP) 10 (BOTTOM)

TOWED BY: N/a

2, 3, 4 DAMAGE CODES | $ 2,000.00 DAMAGE ESTIMATE

See attached scanned image

DESCRIPTION: Vehicle 1 was stopped at the right turn lane from the 95 off ramp preparing to turn right onto the Connector Road. Vehicle 2 came up from behind vehicle 1 and started to turn right from center lane. Driver 2 did not see vehicle 1. Vehicle 2 turned into vehicle 1.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED: 2

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Belanger, Jessica (Driver/Owner)	11	11	2	5	1	1	1	1	F	29
Potter, William (Driver/Owner)	11	11	2	5	1	2	1	1	M	25

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
	81	PORTLAND POLICE DEPARTMENT	Sgt	10/28/2004

81
FORM 13:20A
Rev. 4/97

LOCAL CODES

97101

Digital Image for Crash : ME0030500_04-3518

INVESTIGATING AGENCY CODE NUMBER: 00305

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

04-3518

FOR D.P.S. USE ONLY

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	10	28	04	Thur	1730	1735	1745

	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
ON		Connector Rd	Bridgton	019	Cumberland	
AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK		
		0 MILES 0 TNTHS	1017 6			N W E S CIRCLE ONE

UNIT NO. 1 - VEHICLE 1 — TOTAL UNITS INV 2 — **UNIT NO. 2** - VEH 2 ☐ PED ☐ BIKE

DRIVER

	UNIT NO. 1	UNIT NO. 2
DRIVER'S LICENSE NUMBER	34981209	03PRW79101
STATE	ME	NH
LAST NAME	Belanger	Potter
FIRST NAME	Jessica	William
MIDDLE		
NUMBER AND STREET	PO Box 519	23 Snell Rd
CITY	Naples	Meredith
STATE	ME	NH 03253
CODE NUMBER	20	32
DATE OF BIRTH	1-27-75	3-10-79
SEX	F	M
LICENSE STATUS	(A) S P N	(A) S P N
REST/PERM	—	—
CLASS	C	C

OWNER

	OWNER 1	OWNER 2
LAST NAME	SAME	SAME
FIRST NAME		
MIDDLE		
NUMBER AND STREET		
CITY		
STATE		

VEHICLE

	VEHICLE 1	VEHICLE 2
VEHICLE TYPE	4dr (02)	Van (03)
YEAR AND MAKE	95 VW (18)	94 Dodge (10)
COLOR	BK (01)	Grn (03)
LICENSE PLATE NUMBER	8632MB	178-6342
YEAR	05	04
ISSUE STATE	ME	NH
NO OCCUP	1	1
VEHICLE IDENTIFICATION NO.	3VWRC81H65M042428	1B4GH44R7RX208451
INSURANCE CO.	Liberty Mutual	Progressive Ins
POLICY NO.	A02-218-186613-214	61064600-0
TOWED BY:		
DAMAGE CODES	8-7-6	2-3-4
DAMAGE ESTIMATE	$ 2000±	$ 2000±

Connector Rd — INDICATE NORTH BY ARROW

OFF RAMP

TOTAL NUMBER OF PERSONS INVOLVED: 2

DESCRIPTION: Veh #1 was stopped at the right turn lane from 95 off ramp preparing to turn right onto the Connector Rd, Veh #2 came up from behind Veh #1 and started to turn right but ran Contra Lane. Driver #2 did not see Veh #1 while looking left at Veh #2 turned into Veh #1

AMBULANCE CODES: N/A

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH): N/A

NAMES OF ALL PERSONS INVOLVED (DRIVERS PASSENGERS WITNESSES PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
Jessica Belanger	—	—	2	5	1	1	1	1	F	29
William Potter	—	—	2	5	1	2	1	1	M	25

INVESTIGATING OFFICER (SIGNATURE): M. Potter — OFFICER NUMBER: 87 — TROOP OR DEPARTMENT: Bridgton PD — APPROVED BY: [signature] — DATE: 10/28/04

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FORM 13:20A

LOCAL CODES

04-3518

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

INVESTIGATING AGENCY CODE NUMBER: MEMSP0G00

FOR D.P.S. USE ONLY: F

SPB2005-013702

08874

DATE OF ACCIDENT	MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
	02	28	2005	Mon	17:10	17:10	17:15

ON	ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	TURNPIKE SB	EXIT 7A CONN RD	Portland	05170 (R/U)	Cumberland	

AT	BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
	10176	MILES / TNTHS		N W S E (CIRCLE ONE)

S↓ UNIT NO. 1 - Vehicle

TOTAL UNITS INV. 2 — S↓ UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1	STATE
7757249	ME

LAST NAME: CASTONGUAY — FIRST NAME: JESSICA — MIDDLE: S

NUMBER AND STREET: 81 HOWARD ST

CITY	STATE	CODE NUMBER
Lewiston	ME 04240	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
08/13/1981	F	(A) S P N	A	A

OWNER

LAST NAME - OWNER 1: CASTONGUAY — FIRST NAME: JESSICA — MIDDLE: S

NUMBER AND STREET: 81 HOWARD ST

CITY	STATE
Lewiston	ME 04240

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
4 Door (2)	1998 Mazda (28)	Blue (BL) (4)

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
5332LK	2005	ME	1

VEHICLE IDENTIFICATION NO. JM1BC1417W0234427

INSURANCE

INSURANCE CO. PROGRESSIVE NORTHWESTERN INSURANCE CO

POLICY NO. 52781758-0

TOWED BY: N/A

1, 2 DAMAGE CODES — $ 1,000.00 DAMAGE ESTIMATE

EVENT # 1

DRIVER

DRIVER'S LICENSE NUMBER 2	STATE
0078155	ME

LAST NAME: BOURASSA — FIRST NAME: ELAINE — MIDDLE: M

NUMBER AND STREET: 447 FISH STREET

CITY	STATE	CODE NUMBER
Turner	ME 04282	20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
02/28/1963	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 2: BOURASSA — FIRST NAME: ELAINE — MIDDLE: M

NUMBER AND STREET: 447 FISH STREET

CITY	STATE
Turner	ME 04282

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
Pickup Truck (6)	1997 Jeep (13)	Blue (BL) (4)

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
637HC	2005	ME	3

VEHICLE IDENTIFICATION NO. 1J4FJ68S8VL609997

INSURANCE

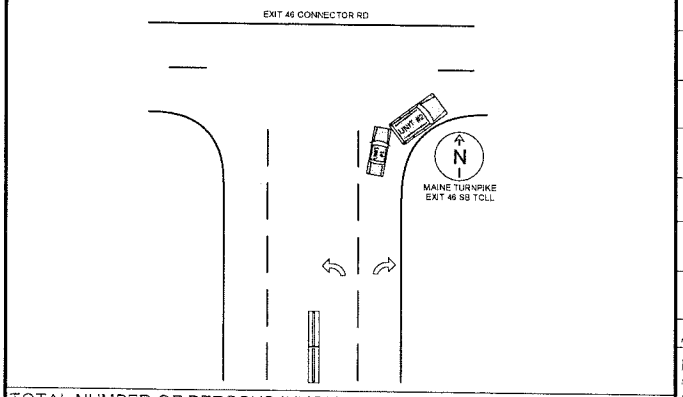
INSURANCE CO. LIBERTY MUTUAL FIRE INSURANCE COMPANY NAIC: 23035

POLICY NO. AO2-212-180830-21 (4)

TOWED BY: N/A

6 DAMAGE CODES — $ 250.00 DAMAGE ESTIMATE

EVENT # (6)



TOTAL NUMBER OF PERSONS INVOLVED: 4

DESCRIPTION: Please see attached Form 13.91.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)	25	26	27	28	29	30	31	32	33	34
CASTONGUAY, JESSICA S (Driver/Owner)	11	11	2	5	1	1	1	1	F	23
BOURASSA, ELAINE M (Driver/Owner)	9	2	2	4	1	2	1	1	F	42
BOURASSA, GRIFFIN ZM (Passenger)	9	3	2	4	1	2	1	6	M	9
NATALE, CARL V (Passenger)	11	11	2	5	1	2	1	3	M	40

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE)	OFFICER NUMBER	TROOP OR DEPARTMENT	APPROVED BY:	DATE
DeGroot, Jeffrey N.	1024	MAINE STATE POLICE TURNPIKE	Sgt Thomas Arnold	3/20/2005

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SPB2005-0137(
D1

ACCIDENT NUMBER	City or Town	Month	Date	Year
	IN **Portland**	**02**	**28**	**2005**
	Number of Highway: ON TURNPIKE SB and	Or - Name of Street or Highway: **EXIT 7A CONN RD**		
	Driver - Name: **CASTONGUAY, JESSICA - Vehicle 1**			
DO NOT WRITE IN THIS SPACE	Driver - Name: **BOURASSA, ELAINE - Vehicle 2**			

State of Maine
Supplement to

POLICE
TRAFFIC ACCIDENT REPORT
for
ADDITIONAL DIAGRAMS, DATA OR ANY
NECESSARY STATEMENTS TAKEN

Confidential if so Marked

BOTH UNIT #1 AND 2 WERE DEPARTING THE MAINE TURNPIKE FROM EXIT 46 SOUTHBOUND. BOTH UNITS WERE STOPPED AT THE CONNECTOR RD AND AWAITING TO TURN RIGHT TOWARD THE JETPORT. UNIT #2 WAS WAITING FOR ONCOMING TRAFFIC PRIOR TO MAKING THE RIGHT TURN. OPERATOR UNIT #1 WAS WATCHING THE ONCOMING TRAFFIC AND BEGAN TO MAKE THE RIGHT TURN. UNIT #1 STRUCK UNIT #2.

ING AGENCY
BER **ME0030500**

TRAFFIC ACCIDENT REPORT
STATE OF MAINE

052662

FOR D.P.S. USE ONLY F
23333

MONTH	DAY	YEAR	DAY OF WEEK	TIME	TIME REPORTED	TIME ARRIVED
NT 07	29	2005	Fri	20:44	20:44	20:46

ROUTE	OR NAME OF STREET OR HIGHWAY	CITY OR TOWN	CODE NUMBER	COUNTY	HIT AND RUN
	EXIT 7A North	Portland	05170 R U	Cumberland	

BETWEEN NODE NUMBERS	DISTANCE FROM SCENE	TO NUMBER	MILES AND TENTHS TO LANDMARK
10176	MILES TNTHS		At Connector Rd

N W S E CIRCLE ONE

UNIT NO. 1 - Vehicle

TOTAL UNITS INV. 2

UNIT NO. 2 - [X] VEH. 2 [ ] PED. [ ] BIKE

DRIVER

DRIVER'S LICENSE NUMBER 1: 2909264 — STATE: ME

LAST NAME: CHOKBENGBOUNE, OULAY — FIRST NAME — MIDDLE

NUMBER AND STREET: PO BOX 6734

CITY: Portland — STATE: ME 04101 — CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
03/05/1984	F	(A) S P N	0	C

OWNER

LAST NAME - OWNER 1: CHOKBENGBOUNE, OULAY — FIRST NAME — MIDDLE

NUMBER AND STREET: PO BOX 6734

CITY: Portland — STATE: ME 04101

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
2 Door 1	2005 Toyota 14	Black 1

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
6046MY	2006	ME	3

VEHICLE IDENTIFICATION NO. JTKDE17775005987

INSURANCE CO. METROPOLITAN

POLICY NO. 918150002-0

2 3 4 1 9 (TOP) 10 (BOTTOM) 5 8 7 6 — EVENT # 1

TOWED BY: MAIETTA

8 DAMAGE CODES — $ 6,000.00 DAMAGE ESTIMATE

DRIVER

DRIVER'S LICENSE NUMBER 2: 9233295 — STATE: ME

LAST NAME: Paczkowski, David — FIRST NAME — MIDDLE

NUMBER AND STREET: 247 Congress St Apt B1

CITY: Portland — STATE: ME 04101 — CODE NUMBER: 20

DATE OF BIRTH	SEX	LICENSE STATUS	REST/PERM	CLASS
08/27/1971	M	(A) S P N	A	B

OWNER

LAST NAME - OWNER 2: Time Warner Cable, — FIRST NAME — MIDDLE

NUMBER AND STREET: 118 Johnson Rd

CITY: Portland — STATE: ME 04103

VEHICLE

VEHICLE TYPE	YEAR AND MAKE	COLOR
Pickup Truck 6	2003 GMC 26	White 14

LICENSE PLATE NUMBER	YEAR	ISSUE STATE	NO OCCUP.
690120	2006	ME	1

VEHICLE IDENTIFICATION NO. 1GTHK24U33E259241

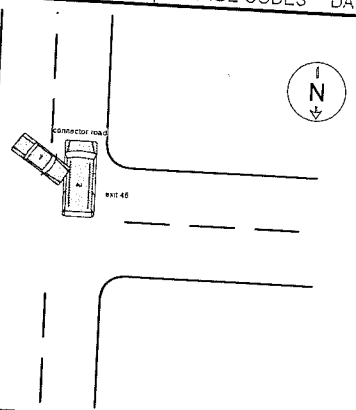
INSURANCE CO. Ace American Insurance

POLICY NO. 1SAHO793984AA05

2 3 4 1 9 (TOP) 10 (BOTTOM) 5 8 7 6 — EVENT # 2

TOWED BY: T J

8 DAMAGE CODES — $ 6,000.00 DAMAGE ESTIMATE



DESCRIPTION: vehicle 1 making a left turn onto exit 46 north bound,failed to yield to vehicle 2. The traffic lights at the intersection were flashing all colors and out of sequence.

AMBULANCE CODES N/A(1000)

NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY (OTHER THAN VEH.)

TOTAL NUMBER OF PERSONS INVOLVED 5

NAMES OF ALL PERSONS INVOLVED (DRIVERS - PASSENGERS - WITNESSES - PEDESTRIANS)

	25	26	27	28	29	30	31	32	33	34
CHOKBENGBOUNE, OULAY (Driver/Owner)	11	11	2	5	1	1	1	1	F	21
Paczkowski, David (Driver)	11	11	2	5	1	2	1	1	M	33
BUY, KIMMALY (Passenger)	11	11	2	5	1	1	1	3	F	13
SOK, TIANA (Passenger)	11	11	1	5	4	1	1	6	F	1
errante, Lawrence (Witness)						22			M	44

LOCAL CODES

INVESTIGATING OFFICER (SIGNATURE): CHERYL HOLMES — OFFICER NUMBER: 73 — TROOP OR DEPARTMENT: PORTLAND POLICE DEPARTMENT — APPROVED BY: Sgt Gary Rogers — DATE: 8/1/2005

FORM 13:20A
Rev. 4/97

Pond CB4:

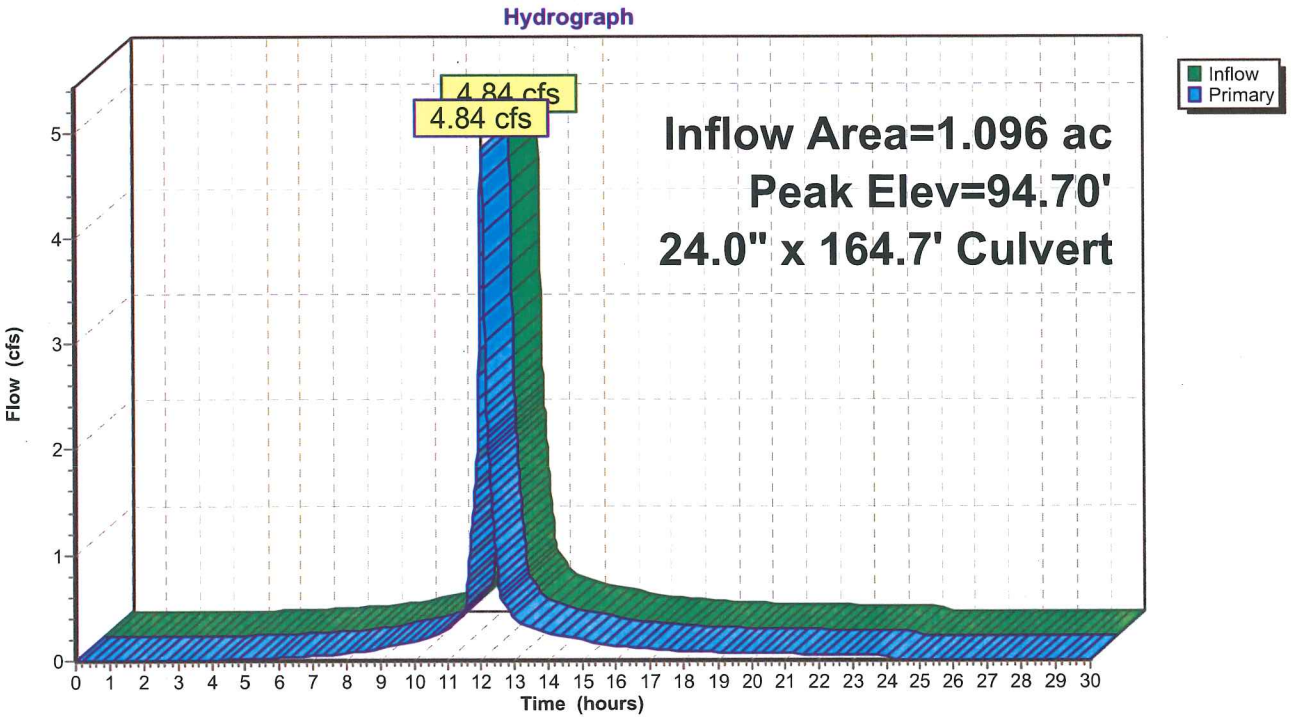
Inflow Area = 1.096 ac, Inflow Depth = 3.82" for 10 yr event
Inflow = 4.84 cfs @ 12.07 hrs, Volume= 0.349 af
Outflow = 4.84 cfs @ 12.07 hrs, Volume= 0.349 af, Atten= 0%, Lag= 0.0 min
Primary = 4.84 cfs @ 12.07 hrs, Volume= 0.349 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 94.70' @ 12.07 hrs
Flood Elev= 98.00'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	93.75'	**24.0" x 164.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 88.25' S= 0.0334 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=4.84 cfs @ 12.07 hrs HW=94.70' TW=89.75' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 4.84 cfs @ 3.3 fps)

Pond CB4:



Pond CB5:

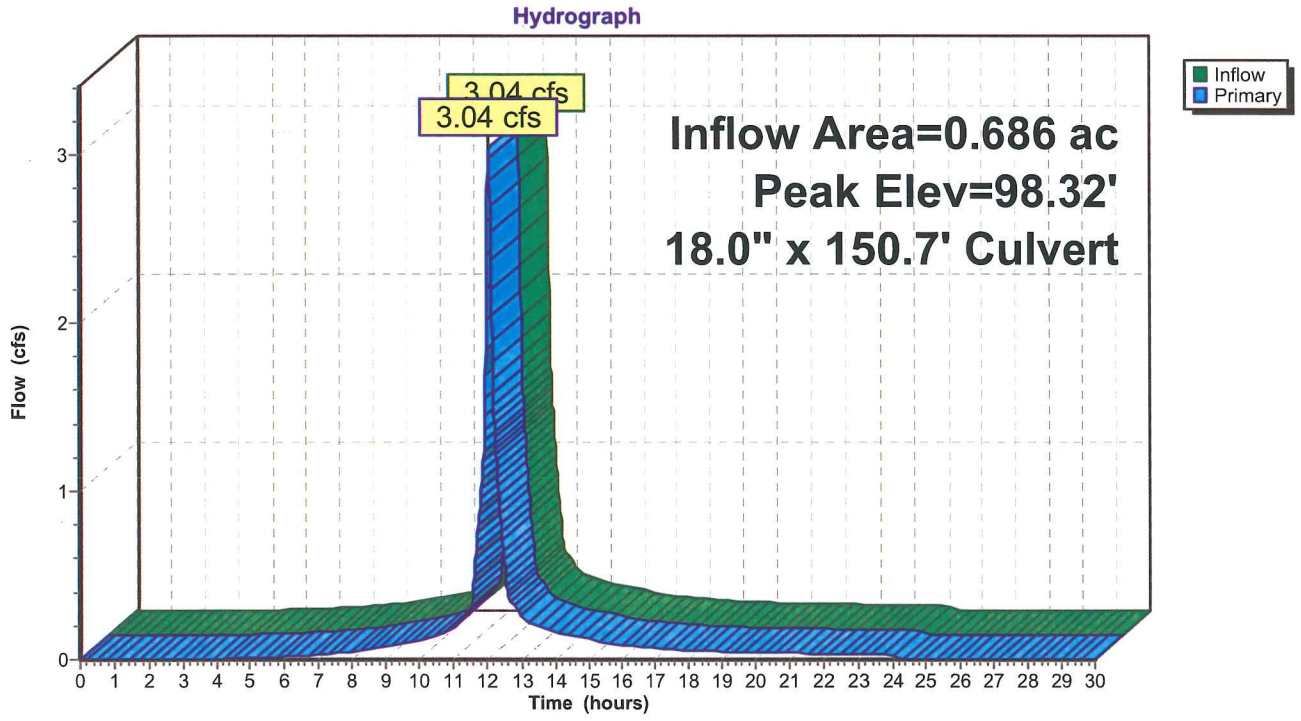
Inflow Area = 0.686 ac, Inflow Depth = 3.84" for 10 yr event
Inflow = 3.04 cfs @ 12.07 hrs, Volume= 0.220 af
Outflow = 3.04 cfs @ 12.07 hrs, Volume= 0.220 af, Atten= 0%, Lag= 0.0 min
Primary = 3.04 cfs @ 12.07 hrs, Volume= 0.220 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 98.32' @ 12.07 hrs
Flood Elev= 101.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	**18.0" x 150.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 94.00' S= 0.0232 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=3.04 cfs @ 12.07 hrs HW=98.32' TW=94.70' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.04 cfs @ 3.1 fps)

Pond CB5:



Pond CB6:

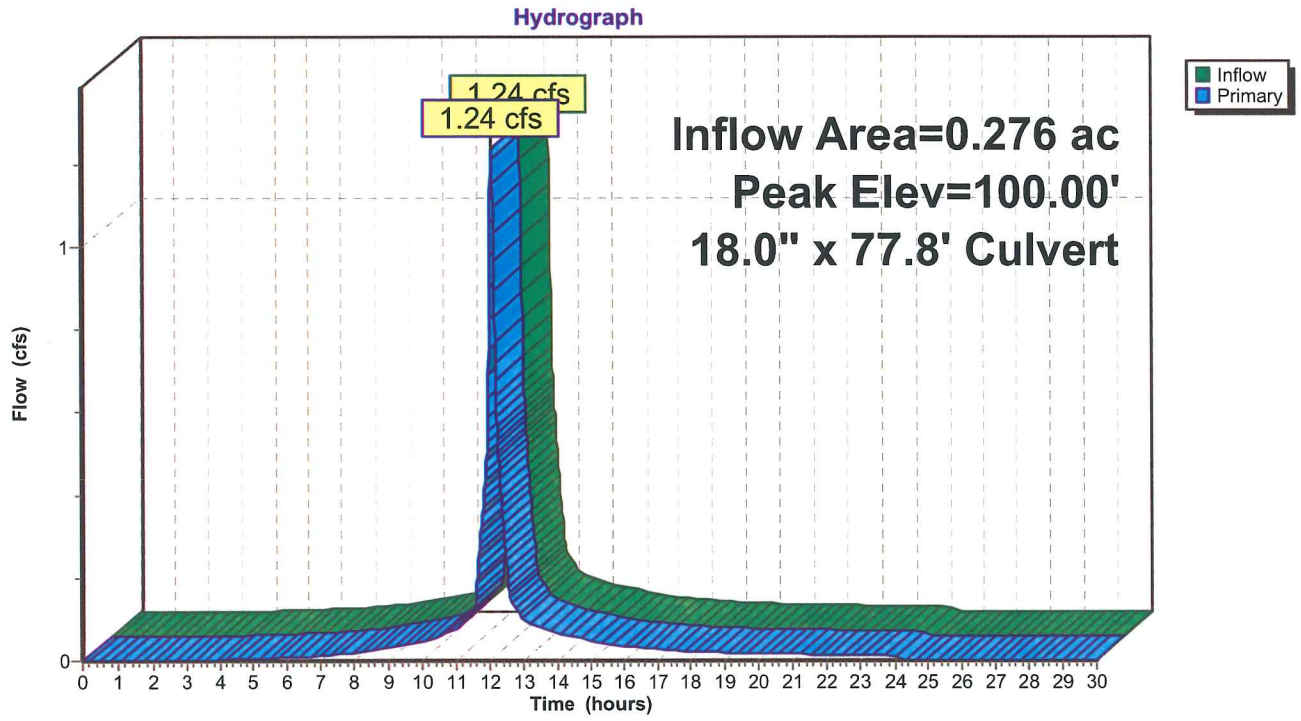
Inflow Area = 0.276 ac, Inflow Depth = 3.90" for 10 yr event
Inflow = 1.24 cfs @ 12.07 hrs, Volume= 0.090 af
Outflow = 1.24 cfs @ 12.07 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min
Primary = 1.24 cfs @ 12.07 hrs, Volume= 0.090 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.00' @ 12.07 hrs
Flood Elev= 102.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (779.2 - 779.2)

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	**18.0" x 77.8' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 97.75' S= 0.0225 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=1.24 cfs @ 12.07 hrs HW=100.00' TW=98.32' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 1.24 cfs @ 2.4 fps)

Pond CB6:



Pond CB7:

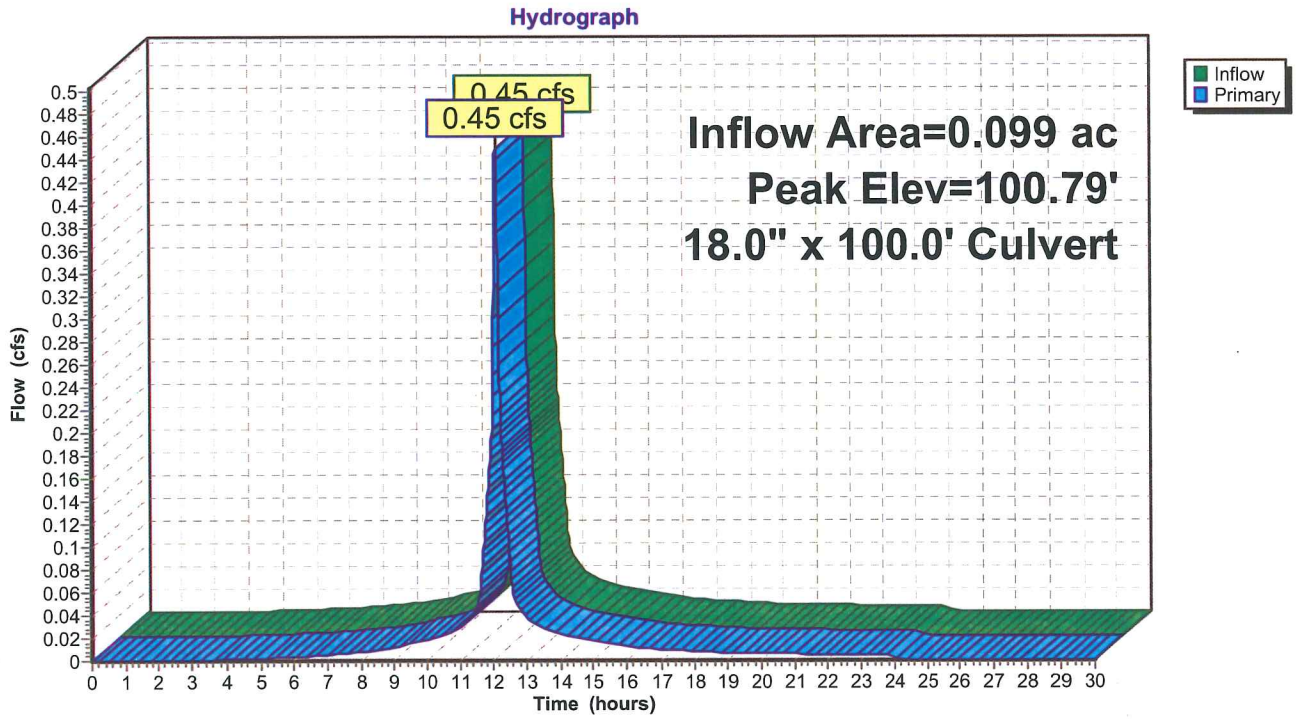
Inflow Area = 0.099 ac, Inflow Depth = 4.01" for 10 yr event
Inflow = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af
Outflow = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.45 cfs @ 12.07 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.79' @ 12.07 hrs
Flood Elev= 103.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	100.50'	**18.0" x 100.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 99.00' S= 0.0150 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.45 cfs @ 12.07 hrs HW=100.79' TW=93.02' (Dynamic Tailwater)
↳**1=Culvert** (Inlet Controls 0.45 cfs @ 1.8 fps)

Pond CB7:



Pond CB8: CB8 w/ SD10

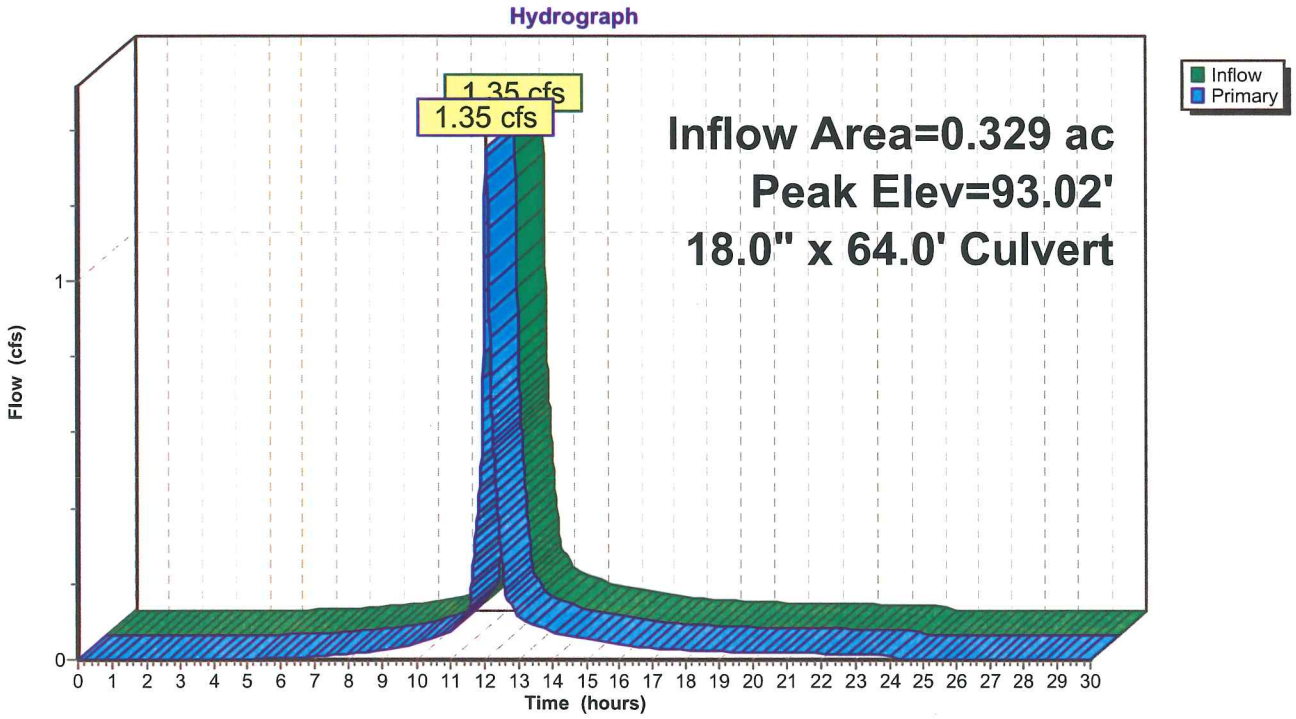
Inflow Area = 0.329 ac, Inflow Depth = 3.50" for 10 yr event
Inflow = 1.35 cfs @ 12.07 hrs, Volume= 0.096 af
Outflow = 1.35 cfs @ 12.07 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min
Primary = 1.35 cfs @ 12.07 hrs, Volume= 0.096 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 93.02' @ 12.07 hrs
Flood Elev= 96.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	92.50'	**18.0" x 64.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 91.00' S= 0.0234 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean

Primary OutFlow Max=1.35 cfs @ 12.07 hrs HW=93.02' TW=85.80' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.35 cfs @ 2.5 fps)

Pond CB8: CB8 w/ SD10



Pond DP1: Pond #1

Inflow Area = 4.178 ac, Inflow Depth = 3.84" for 10 yr event
Inflow = 18.27 cfs @ 12.07 hrs, Volume= 1.337 af
Outflow = 7.35 cfs @ 12.27 hrs, Volume= 1.100 af, Atten= 60%, Lag= 11.8 min
Primary = 7.35 cfs @ 12.27 hrs, Volume= 1.100 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 85.35' @ 12.27 hrs Surf.Area= 10,324 sf Storage= 21,743 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 96.6 min (873.8 - 777.2)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	40,053 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
83.00	8,187	0	0
84.00	9,064	8,626	8,626
85.00	9,985	9,525	18,150
86.00	10,943	10,464	28,614
87.00	11,934	11,439	40,053

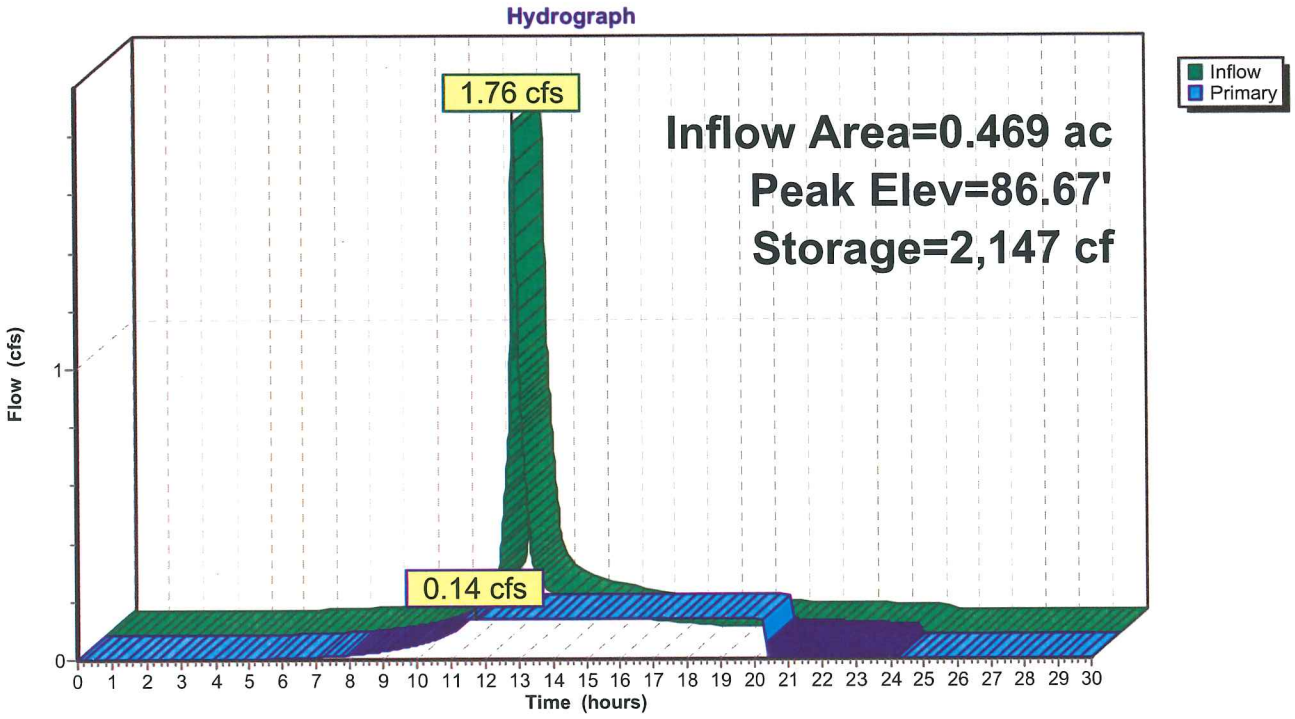
Device	Routing	Invert	Outlet Devices
#1	Primary	80.90'	**18.0" x 68.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 79.00' S= 0.0279 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	86.50'	**15.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	84.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	83.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=7.35 cfs @ 12.27 hrs HW=85.35' TW=80.64' (Dynamic Tailwater)
- **1=Culvert** (Passes 7.35 cfs of 16.38 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 7.21 cfs @ 4.4 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond DP1: Pond #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	83.00	0.00
1.00	0.00	0	83.00	0.00
2.00	0.02	0	83.00	0.02
3.00	0.03	0	83.00	0.03
4.00	0.05	0	83.00	0.05
5.00	0.08	0	83.00	0.08
6.00	0.12	0	83.00	0.12
7.00	0.19	55	83.01	0.14
8.00	0.28	380	83.05	0.14
9.00	0.46	1,172	83.14	0.14
10.00	0.68	2,700	83.32	0.14
11.00	1.11	5,365	83.63	0.14
12.00	**12.14**	**15,457**	**84.73**	**3.85**
13.00	**1.51**	**14,893**	**84.67**	**3.34**
14.00	0.96	13,644	84.54	1.00
15.00	0.73	13,568	84.53	0.75
16.00	0.51	13,494	84.52	0.54
17.00	0.41	13,448	84.52	0.42
18.00	0.31	13,406	84.51	0.33
19.00	0.28	13,385	84.51	0.28
20.00	0.25	13,370	84.51	0.26
21.00	0.23	13,357	84.51	0.23
22.00	0.21	13,343	84.51	0.21
23.00	0.19	13,329	84.51	0.19
24.00	0.16	13,312	84.50	0.17
25.00	0.00	12,844	84.45	0.14
26.00	0.00	12,340	84.40	0.14
27.00	0.00	11,836	84.35	0.14
28.00	0.00	11,332	84.29	0.14
29.00	0.00	10,828	84.24	0.14
30.00	0.00	10,324	84.19	0.14

Pond DP2: Pond #2



Pond DP3: Pond #3 (UIS Filter)

[87] Warning: Oscillations may require Finer Routing or smaller dt

Inflow Area = 1.453 ac, Inflow Depth = 2.89" for 10 yr event
Inflow = 4.02 cfs @ 12.16 hrs, Volume= 0.351 af
Outflow = 3.87 cfs @ 12.20 hrs, Volume= 0.351 af, Atten= 4%, Lag= 2.1 min
Primary = 3.87 cfs @ 12.20 hrs, Volume= 0.351 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 88.73' @ 12.20 hrs Surf.Area= 1,229 sf Storage= 1,751 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 55.3 min (876.9 - 821.6)

Volume	Invert	Avail.Storage	Storage Description
#1	87.00'	3,535 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
87.00	810	0	0
88.00	1,040	925	925
89.00	1,300	1,170	2,095
90.00	1,580	1,440	3,535

Device	Routing	Invert	Outlet Devices
#1	Primary	84.90'	**18.0" x 28.0' long Culvert** CMP, square edge headwall, Ke= 0.500 Outlet Invert= 84.50' S= 0.0143 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	89.50'	**10.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	88.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	87.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=3.86 cfs @ 12.20 hrs HW=88.73' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 3.86 cfs of 14.93 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 3.72 cfs @ 2.3 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Hydrograph for Pond DP3: Pond #3 (UIS Filter)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	87.00	0.00
1.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
3.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
5.00	0.00	0	87.00	0.00
6.00	0.00	0	87.00	0.00
7.00	0.00	0	87.00	0.00
8.00	0.02	0	87.00	0.02
9.00	0.05	0	87.00	0.05
10.00	0.10	0	87.00	0.10
11.00	0.21	70	87.08	0.14
12.00	**1.91**	**1,544**	**88.56**	**1.63**
13.00	**0.52**	**1,504**	**88.52**	**0.53**
14.00	0.31	1,493	88.51	0.32
15.00	0.24	1,488	88.51	0.24
16.00	0.17	1,482	88.50	0.17
17.00	0.13	1,475	88.50	0.14
18.00	0.10	1,394	88.43	0.14
19.00	0.09	1,231	88.28	0.14
20.00	0.08	1,035	88.10	0.14
21.00	0.07	810	87.89	0.14
22.00	0.07	560	87.63	0.14
23.00	0.06	286	87.34	0.14
24.00	0.05	0	87.00	0.11
25.00	0.00	0	87.00	0.00
26.00	0.00	0	87.00	0.00
27.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
29.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00

Hydrograph for Pond CB5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	97.50	0.00
0.50	0.00	97.50	0.00
1.00	0.00	97.50	0.00
1.50	0.00	97.50	0.00
2.00	0.00	97.50	0.00
2.50	0.00	97.50	0.00
3.00	0.00	97.50	0.00
3.50	0.00	97.51	0.00
4.00	0.00	97.52	0.00
4.50	0.01	97.53	0.01
5.00	0.01	97.54	0.01
5.50	0.01	97.55	0.01
6.00	0.02	97.55	0.02
6.50	0.02	97.56	0.02
7.00	0.03	97.57	0.03
7.50	0.04	97.58	0.04
8.00	0.04	97.59	0.04
8.50	0.06	97.60	0.06
9.00	0.07	97.62	0.07
9.50	0.09	97.63	0.09
10.00	0.11	97.64	0.11
10.50	0.14	97.66	0.14
11.00	0.18	97.69	0.18
11.50	0.30	97.74	0.30
12.00	**2.02**	**98.15**	**2.02**
12.50	**0.58**	**97.84**	**0.58**
13.00	0.25	97.72	0.25
13.50	0.20	97.69	0.20
14.00	0.16	97.67	0.16
14.50	0.14	97.66	0.14
15.00	0.12	97.65	0.12
15.50	0.10	97.64	0.10
16.00	0.08	97.63	0.08
16.50	0.08	97.62	0.08
17.00	0.07	97.61	0.07
17.50	0.06	97.60	0.06
18.00	0.05	97.60	0.05
18.50	0.05	97.59	0.05
19.00	0.05	97.59	0.05
19.50	0.04	97.59	0.04
20.00	0.04	97.59	0.04
20.50	0.04	97.59	0.04
21.00	0.04	97.58	0.04
21.50	0.04	97.58	0.04
22.00	0.03	97.58	0.03
22.50	0.03	97.58	0.03
23.00	0.03	97.58	0.03
23.50	0.03	97.57	0.03
24.00	0.03	97.57	0.03
24.50	0.00	97.50	0.00
25.00	0.00	97.50	0.00
25.50	0.00	97.50	0.00
26.00	0.00	97.50	0.00
26.50	0.00	97.50	0.00
27.00	0.00	97.50	0.00
27.50	0.00	97.50	0.00
28.00	0.00	97.50	0.00
28.50	0.00	97.50	0.00
29.00	0.00	97.50	0.00
29.50	0.00	97.50	0.00
30.00	0.00	97.50	0.00

Hydrograph for Pond CB4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	93.75	0.00
0.50	0.00	93.75	0.00
1.00	0.00	93.75	0.00
1.50	0.00	93.75	0.00
2.00	0.00	93.75	0.00
2.50	0.00	93.75	0.00
3.00	0.00	93.75	0.00
3.50	0.00	93.76	0.00
4.00	0.00	93.78	0.00
4.50	0.01	93.79	0.01
5.00	0.01	93.80	0.01
5.50	0.02	93.81	0.02
6.00	0.02	93.81	0.02
6.50	0.03	93.82	0.03
7.00	0.04	93.83	0.04
7.50	0.06	93.84	0.06
8.00	0.07	93.85	0.07
8.50	0.09	93.87	0.09
9.00	0.12	93.89	0.12
9.50	0.14	93.90	0.14
10.00	0.18	93.92	0.18
10.50	0.23	93.94	0.23
11.00	0.29	93.97	0.29
11.50	0.48	94.03	0.48
12.00	**3.22**	**94.51**	**3.22**
12.50	**0.93**	**94.14**	**0.93**
13.00	0.40	94.00	0.40
13.50	0.31	93.98	0.31
14.00	0.25	93.95	0.25
14.50	0.22	93.94	0.22
15.00	0.19	93.93	0.19
15.50	0.16	93.91	0.16
16.00	0.14	93.90	0.14
16.50	0.12	93.89	0.12
17.00	0.11	93.88	0.11
17.50	0.10	93.87	0.10
18.00	0.08	93.86	0.08
18.50	0.08	93.86	0.08
19.00	0.07	93.86	0.07
19.50	0.07	93.86	0.07
20.00	0.07	93.85	0.07
20.50	0.06	93.85	0.06
21.00	0.06	93.85	0.06
21.50	0.06	93.85	0.06
22.00	0.05	93.84	0.05
22.50	0.05	93.84	0.05
23.00	0.05	93.84	0.05
23.50	0.05	93.84	0.05
24.00	0.04	93.83	0.04
24.50	0.00	93.75	0.00
25.00	0.00	93.75	0.00
25.50	0.00	93.75	0.00
26.00	0.00	93.75	0.00
26.50	0.00	93.75	0.00
27.00	0.00	93.75	0.00
27.50	0.00	93.75	0.00
28.00	0.00	93.75	0.00
28.50	0.00	93.75	0.00
29.00	0.00	93.75	0.00
29.50	0.00	93.75	0.00
30.00	0.00	93.75	0.00

Hydrograph for Pond DP1: Pond #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	83.00	0.00
1.00	0.00	0	83.00	0.00
2.00	0.02	0	83.00	0.02
3.00	0.03	0	83.00	0.03
4.00	0.05	0	83.00	0.05
5.00	0.08	0	83.00	0.08
6.00	0.12	0	83.00	0.12
7.00	0.19	55	83.01	0.14
8.00	0.28	380	83.05	0.14
9.00	0.46	1,172	83.14	0.14
10.00	0.68	2,700	83.32	0.14
11.00	1.11	5,365	83.63	0.14
12.00	**12.14**	**15,457**	**84.73**	**3.85**
13.00	**1.51**	**14,893**	**84.67**	**3.34**
14.00	0.96	13,644	84.54	1.00
15.00	0.73	13,568	84.53	0.75
16.00	0.51	13,494	84.52	0.54
17.00	0.41	13,448	84.52	0.42
18.00	0.31	13,406	84.51	0.33
19.00	0.28	13,385	84.51	0.28
20.00	0.25	13,370	84.51	0.26
21.00	0.23	13,357	84.51	0.23
22.00	0.21	13,343	84.51	0.21
23.00	0.19	13,329	84.51	0.19
24.00	0.16	13,312	84.50	0.17
25.00	0.00	12,844	84.45	0.14
26.00	0.00	12,340	84.40	0.14
27.00	0.00	11,836	84.35	0.14
28.00	0.00	11,332	84.29	0.14
29.00	0.00	10,828	84.24	0.14
30.00	0.00	10,324	84.19	0.14

Hydrograph for Subcatchment P2&16: S corner includes some remote parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.02
7.50	0.56	0.01	0.03
8.00	0.63	0.02	0.05
8.50	0.71	0.04	0.08
9.00	0.80	0.06	0.13
9.50	0.91	0.10	0.18
10.00	1.04	0.15	0.24
10.50	1.19	0.22	0.34
11.00	1.37	0.31	0.47
11.50	1.64	0.46	0.77
12.00	2.75	1.25	**3.64**
12.50	3.86	2.17	**3.54**
13.00	4.12	2.40	1.08
13.50	4.31	2.56	0.78
14.00	4.46	2.69	0.64
14.50	4.59	2.80	0.54
15.00	4.70	2.90	0.48
15.50	4.79	2.99	0.41
16.00	4.87	3.06	0.34
16.50	4.94	3.12	0.30
17.00	5.00	3.18	0.27
17.50	5.06	3.23	0.24
18.00	5.10	3.27	0.21
18.50	5.15	3.31	0.19
19.00	5.19	3.34	0.18
19.50	5.23	3.38	0.17
20.00	5.26	3.41	0.16
20.50	5.30	3.45	0.15
21.00	5.33	3.48	0.15
21.50	5.36	3.51	0.14
22.00	5.39	3.53	0.13
22.50	5.42	3.56	0.13
23.00	5.45	3.58	0.12
23.50	5.48	3.61	0.11
24.00	**5.50**	**3.63**	0.11
24.50	5.50	3.63	0.00
25.00	5.50	3.63	0.00
25.50	5.50	3.63	0.00
26.00	5.50	3.63	0.00
26.50	5.50	3.63	0.00
27.00	5.50	3.63	0.00
27.50	5.50	3.63	0.00
28.00	5.50	3.63	0.00
28.50	5.50	3.63	0.00
29.00	5.50	3.63	0.00
29.50	5.50	3.63	0.00
30.00	5.50	3.63	0.00

Hydrograph for Subcatchment P17: Pond #2 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.00
9.00	0.80	0.03	0.01
9.50	0.91	0.06	0.01
10.00	1.04	0.10	0.01
10.50	1.19	0.15	0.02
11.00	1.37	0.23	0.02
11.50	1.64	0.36	0.04
12.00	2.75	1.07	**0.30**
12.50	3.86	1.93	**0.13**
13.00	4.12	2.15	0.05
13.50	4.31	2.30	0.04
14.00	4.46	2.43	0.03
14.50	4.59	2.54	0.03
15.00	4.70	2.63	0.03
15.50	4.79	2.71	0.02
16.00	4.87	2.78	0.02
16.50	4.94	2.84	0.02
17.00	5.00	2.89	0.01
17.50	5.06	2.94	0.01
18.00	5.10	2.98	0.01
18.50	5.15	3.02	0.01
19.00	5.19	3.06	0.01
19.50	5.23	3.09	0.01
20.00	5.26	3.12	0.01
20.50	5.30	3.15	0.01
21.00	5.33	3.18	0.01
21.50	5.36	3.21	0.01
22.00	5.39	3.24	0.01
22.50	5.42	3.26	0.01
23.00	5.45	3.29	0.01
23.50	5.48	3.31	0.01
24.00	**5.50**	**3.33**	0.01
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P17: Pond #2 Surface

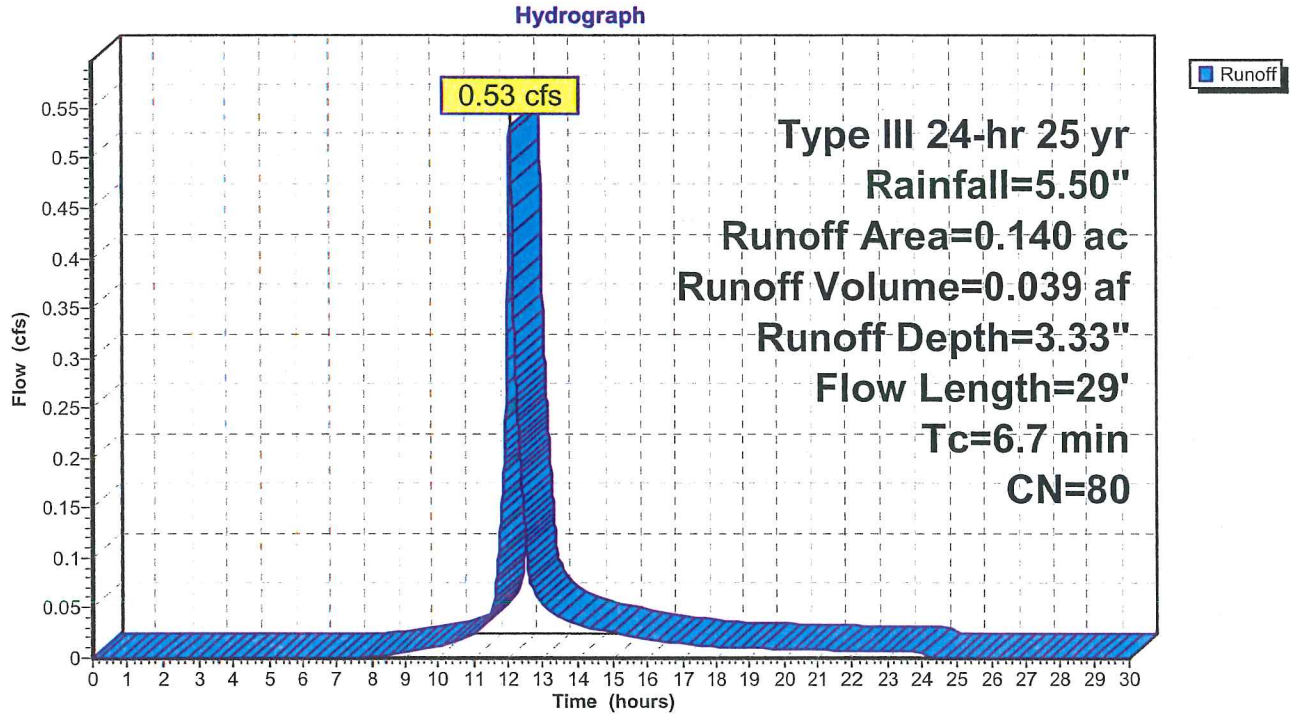
Runoff = 0.53 cfs @ 12.10 hrs, Volume= 0.039 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.140	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	29	0.2400	0.3		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.00"
5.0					**Direct Entry,**
6.7	29	Total			

Subcatchment P17: Pond #2 Surface



Hydrograph for Subcatchment P3: Pond #1 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.01
9.00	0.80	0.03	0.01
9.50	0.91	0.06	0.02
10.00	1.04	0.10	0.03
10.50	1.19	0.15	0.04
11.00	1.37	0.23	0.06
11.50	1.64	0.36	0.11
12.00	2.75	1.07	**0.85**
12.50	3.86	1.93	**0.28**
13.00	4.12	2.15	0.12
13.50	4.31	2.30	0.10
14.00	4.46	2.43	0.08
14.50	4.59	2.54	0.07
15.00	4.70	2.63	0.06
15.50	4.79	2.71	0.05
16.00	4.87	2.78	0.04
16.50	4.94	2.84	0.04
17.00	5.00	2.89	0.03
17.50	5.06	2.94	0.03
18.00	5.10	2.98	0.03
18.50	5.15	3.02	0.02
19.00	5.19	3.06	0.02
19.50	5.23	3.09	0.02
20.00	5.26	3.12	0.02
20.50	5.30	3.15	0.02
21.00	5.33	3.18	0.02
21.50	5.36	3.21	0.02
22.00	5.39	3.24	0.02
22.50	5.42	3.26	0.02
23.00	5.45	3.29	0.02
23.50	5.48	3.31	0.01
24.00	**5.50**	**3.33**	0.01
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P2&16: S corner includes some remote parking

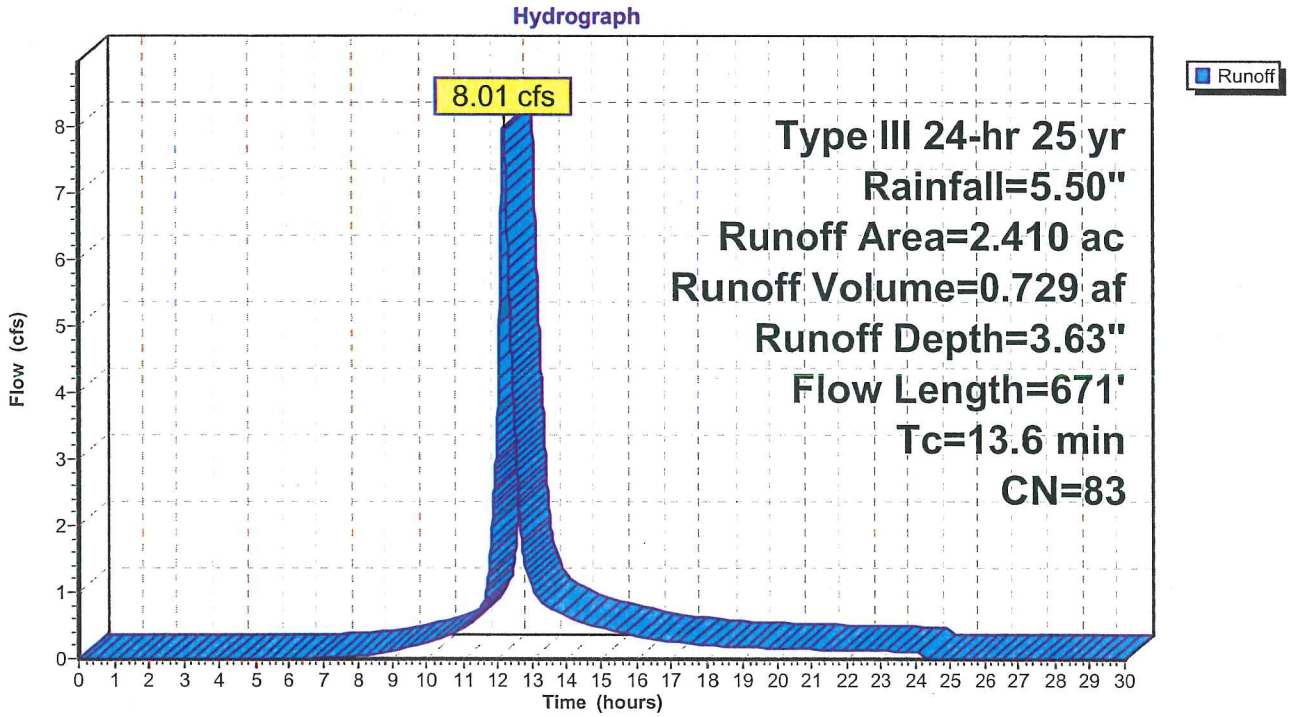
Runoff = 8.01 cfs @ 12.19 hrs, Volume= 0.729 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
1.220	80	>75% Grass cover, Good, HSG D
0.750	80	>75% Grass cover, Good, HSG D
2.410	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0500	0.1		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
0.2	43	0.3500	4.1		**Shallow Concentrated Flow, shallow** Short Grass Pasture Kv= 7.0 fps
0.9	528	0.0400	9.7	77.96	**Channel Flow, concentrated** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
13.6	671	Total			

Subcatchment P2&16: S corner includes some remote parking



Hydrograph for Subcatchment P4: E corner includes piece of P&R lot

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.01
7.50	0.56	0.01	0.02
8.00	0.63	0.02	0.03
8.50	0.71	0.04	0.05
9.00	0.80	0.06	0.08
9.50	0.91	0.10	0.11
10.00	1.04	0.15	0.14
10.50	1.19	0.22	0.20
11.00	1.37	0.31	0.28
11.50	1.64	0.46	0.46
12.00	2.75	1.25	**2.29**
12.50	3.86	2.17	**1.90**
13.00	4.12	2.40	0.61
13.50	4.31	2.56	0.45
14.00	4.46	2.69	0.37
14.50	4.59	2.80	0.31
15.00	4.70	2.90	0.28
15.50	4.79	2.99	0.24
16.00	4.87	3.06	0.20
16.50	4.94	3.12	0.17
17.00	5.00	3.18	0.15
17.50	5.06	3.23	0.14
18.00	5.10	3.27	0.12
18.50	5.15	3.31	0.11
19.00	5.19	3.34	0.10
19.50	5.23	3.38	0.10
20.00	5.26	3.41	0.09
20.50	5.30	3.45	0.09
21.00	5.33	3.48	0.09
21.50	5.36	3.51	0.08
22.00	5.39	3.53	0.08
22.50	5.42	3.56	0.07
23.00	5.45	3.58	0.07
23.50	5.48	3.61	0.07
24.00	**5.50**	**3.63**	0.06
24.50	5.50	3.63	0.00
25.00	5.50	3.63	0.00
25.50	5.50	3.63	0.00
26.00	5.50	3.63	0.00
26.50	5.50	3.63	0.00
27.00	5.50	3.63	0.00
27.50	5.50	3.63	0.00
28.00	5.50	3.63	0.00
28.50	5.50	3.63	0.00
29.00	5.50	3.63	0.00
29.50	5.50	3.63	0.00
30.00	5.50	3.63	0.00

Subcatchment P3: Pond #1 Surface

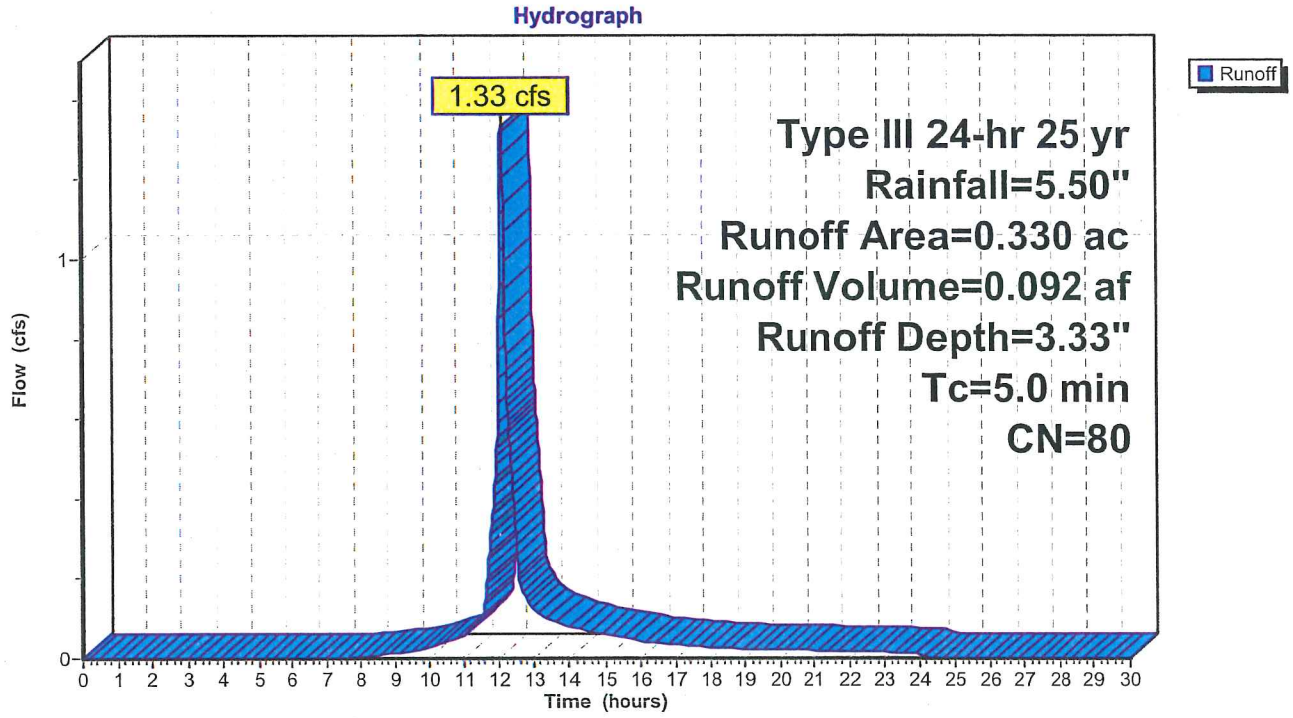
Runoff = 1.33 cfs @ 12.07 hrs, Volume= 0.092 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.330	80	>75% Grass cover, Good, HSG D

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

Subcatchment P3: Pond #1 Surface



Hydrograph for Subcatchment P5: Pond #3 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.00
9.00	0.80	0.03	0.00
9.50	0.91	0.06	0.00
10.00	1.04	0.10	0.00
10.50	1.19	0.15	0.01
11.00	1.37	0.23	0.01
11.50	1.64	0.36	0.02
12.00	2.75	1.07	**0.13**
12.50	3.86	1.93	**0.04**
13.00	4.12	2.15	0.02
13.50	4.31	2.30	0.01
14.00	4.46	2.43	0.01
14.50	4.59	2.54	0.01
15.00	4.70	2.63	0.01
15.50	4.79	2.71	0.01
16.00	4.87	2.78	0.01
16.50	4.94	2.84	0.01
17.00	5.00	2.89	0.01
17.50	5.06	2.94	0.00
18.00	5.10	2.98	0.00
18.50	5.15	3.02	0.00
19.00	5.19	3.06	0.00
19.50	5.23	3.09	0.00
20.00	5.26	3.12	0.00
20.50	5.30	3.15	0.00
21.00	5.33	3.18	0.00
21.50	5.36	3.21	0.00
22.00	5.39	3.24	0.00
22.50	5.42	3.26	0.00
23.00	5.45	3.29	0.00
23.50	5.48	3.31	0.00
24.00	**5.50**	**3.33**	0.00
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P4: E corner includes piece of P&R lot

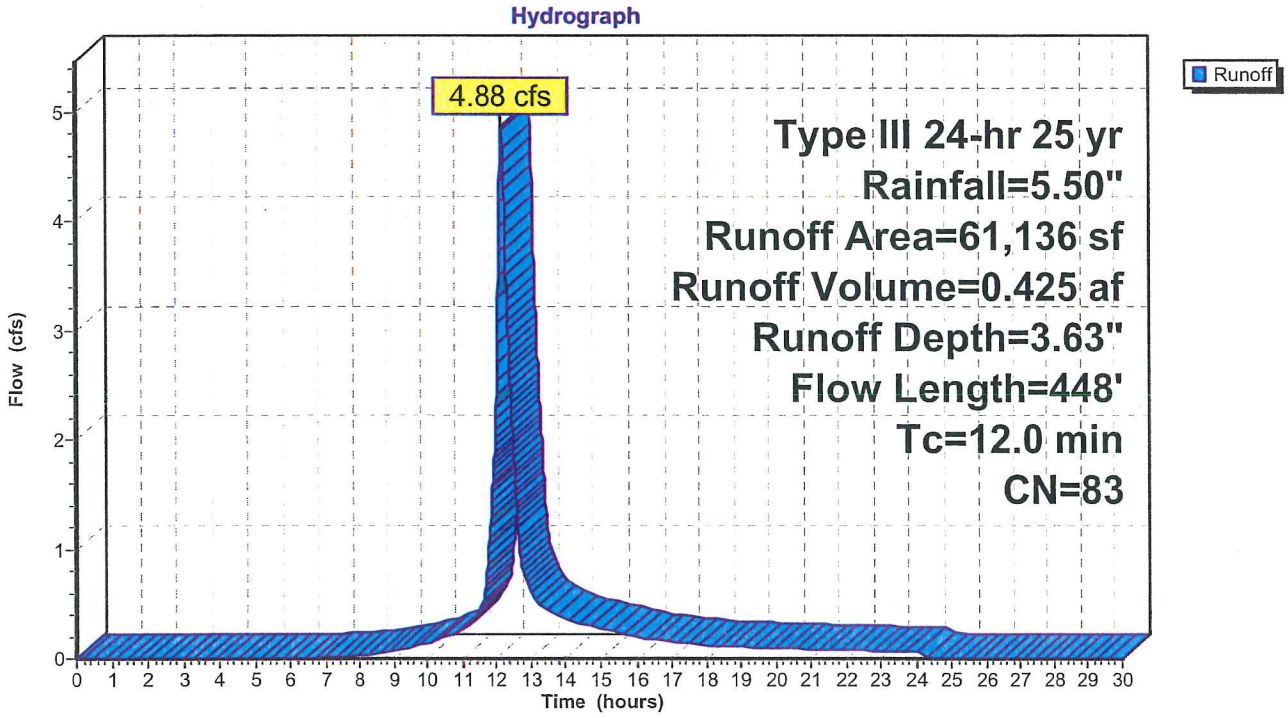
Runoff = 4.88 cfs @ 12.16 hrs, Volume= 0.425 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (sf)	CN	Description
10,661	98	Paved parking & roofs
50,475	80	>75% Grass cover, Good, HSG D
61,136	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0800	0.2		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
1.3	190	0.1200	2.4		**Shallow Concentrated Flow, shallow conc.** Short Grass Pasture Kv= 7.0 fps
0.3	158	0.0400	8.3	33.36	**Trap/Vee/Rect Channel Flow, Ditch north of path** Bot.W=0.00' D=1.00' Z= 4.0 '/' Top.W=8.00' n= 0.022 Earth, clean & straight
12.0	448	Total			

Subcatchment P4: E corner includes piece of P&R lot



Hydrograph for Subcatchment P6: W side along access rd.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.01
4.50	0.27	0.01	0.01
5.00	0.31	0.02	0.02
5.50	0.35	0.03	0.02
6.00	0.40	0.05	0.03
6.50	0.44	0.06	0.04
7.00	0.50	0.09	0.05
7.50	0.56	0.12	0.06
8.00	0.63	0.16	0.08
8.50	0.71	0.20	0.10
9.00	0.80	0.26	0.13
9.50	0.91	0.34	0.16
10.00	1.04	0.43	0.20
10.50	1.19	0.55	0.25
11.00	1.37	0.70	0.32
11.50	1.64	0.92	0.45
12.00	2.75	1.93	**1.38**
12.50	3.86	2.98	**2.81**
13.00	4.12	3.24	0.82
13.50	4.31	3.42	0.44
14.00	4.46	3.56	0.35
14.50	4.59	3.69	0.29
15.00	4.70	3.80	0.25
15.50	4.79	3.89	0.22
16.00	4.87	3.97	0.18
16.50	4.94	4.03	0.16
17.00	5.00	4.09	0.14
17.50	5.06	4.14	0.12
18.00	5.10	4.19	0.11
18.50	5.15	4.23	0.10
19.00	5.19	4.27	0.09
19.50	5.23	4.31	0.09
20.00	5.26	4.35	0.08
20.50	5.30	4.38	0.08
21.00	5.33	4.41	0.07
21.50	5.36	4.45	0.07
22.00	5.39	4.47	0.07
22.50	5.42	4.50	0.06
23.00	5.45	4.53	0.06
23.50	5.48	4.55	0.06
24.00	**5.50**	**4.58**	0.05
24.50	5.50	4.58	0.01
25.00	5.50	4.58	0.00
25.50	5.50	4.58	0.00
26.00	5.50	4.58	0.00
26.50	5.50	4.58	0.00
27.00	5.50	4.58	0.00
27.50	5.50	4.58	0.00
28.00	5.50	4.58	0.00
28.50	5.50	4.58	0.00
29.00	5.50	4.58	0.00
29.50	5.50	4.58	0.00
30.00	5.50	4.58	0.00

Subcatchment P5: Pond #3 Surface

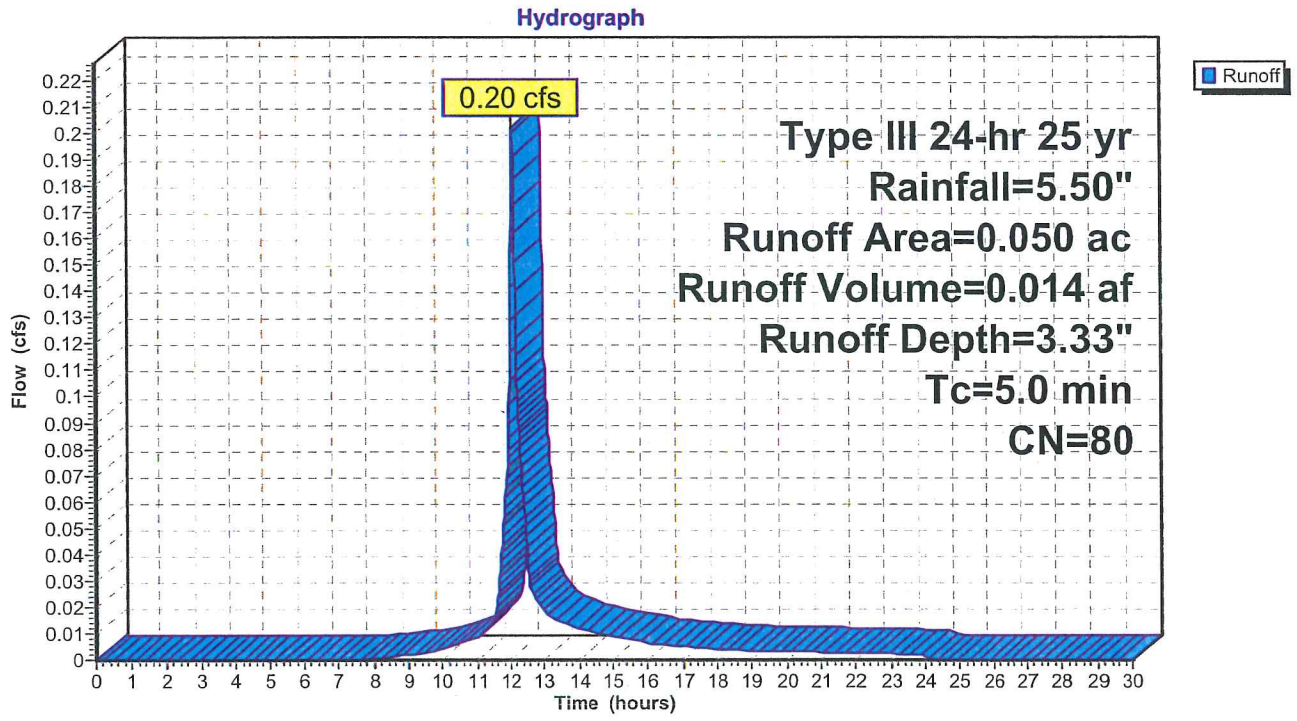
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 0.014 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.050	80	>75% Grass cover, Good, HSG D

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

Subcatchment P5: Pond #3 Surface



Hydrograph for Subcatchment P7: NW parking lot and driveway

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.01	0.01
4.50	0.27	0.02	0.01
5.00	0.31	0.03	0.02
5.50	0.35	0.04	0.02
6.00	0.40	0.06	0.02
6.50	0.44	0.08	0.03
7.00	0.50	0.11	0.04
7.50	0.56	0.14	0.05
8.00	0.63	0.18	0.05
8.50	0.71	0.24	0.07
9.00	0.80	0.30	0.09
9.50	0.91	0.38	0.11
10.00	1.04	0.48	0.13
10.50	1.19	0.60	0.17
11.00	1.37	0.76	0.21
11.50	1.64	0.99	0.34
12.00	2.75	2.02	**2.21**
12.50	3.86	3.08	**0.62**
13.00	4.12	3.34	0.27
13.50	4.31	3.52	0.21
14.00	4.46	3.67	0.17
14.50	4.59	3.79	0.15
15.00	4.70	3.90	0.13
15.50	4.79	4.00	0.11
16.00	4.87	4.07	0.09
16.50	4.94	4.14	0.08
17.00	5.00	4.20	0.07
17.50	5.06	4.25	0.06
18.00	5.10	4.30	0.06
18.50	5.15	4.34	0.05
19.00	5.19	4.38	0.05
19.50	5.23	4.42	0.05
20.00	5.26	4.46	0.04
20.50	5.30	4.49	0.04
21.00	5.33	4.52	0.04
21.50	5.36	4.56	0.04
22.00	5.39	4.59	0.04
22.50	5.42	4.61	0.03
23.00	5.45	4.64	0.03
23.50	5.48	4.67	0.03
24.00	**5.50**	**4.69**	0.03
24.50	5.50	4.69	0.00
25.00	5.50	4.69	0.00
25.50	5.50	4.69	0.00
26.00	5.50	4.69	0.00
26.50	5.50	4.69	0.00
27.00	5.50	4.69	0.00
27.50	5.50	4.69	0.00
28.00	5.50	4.69	0.00
28.50	5.50	4.69	0.00
29.00	5.50	4.69	0.00
29.50	5.50	4.69	0.00
30.00	5.50	4.69	0.00

Subcatchment P6: W side along access rd.

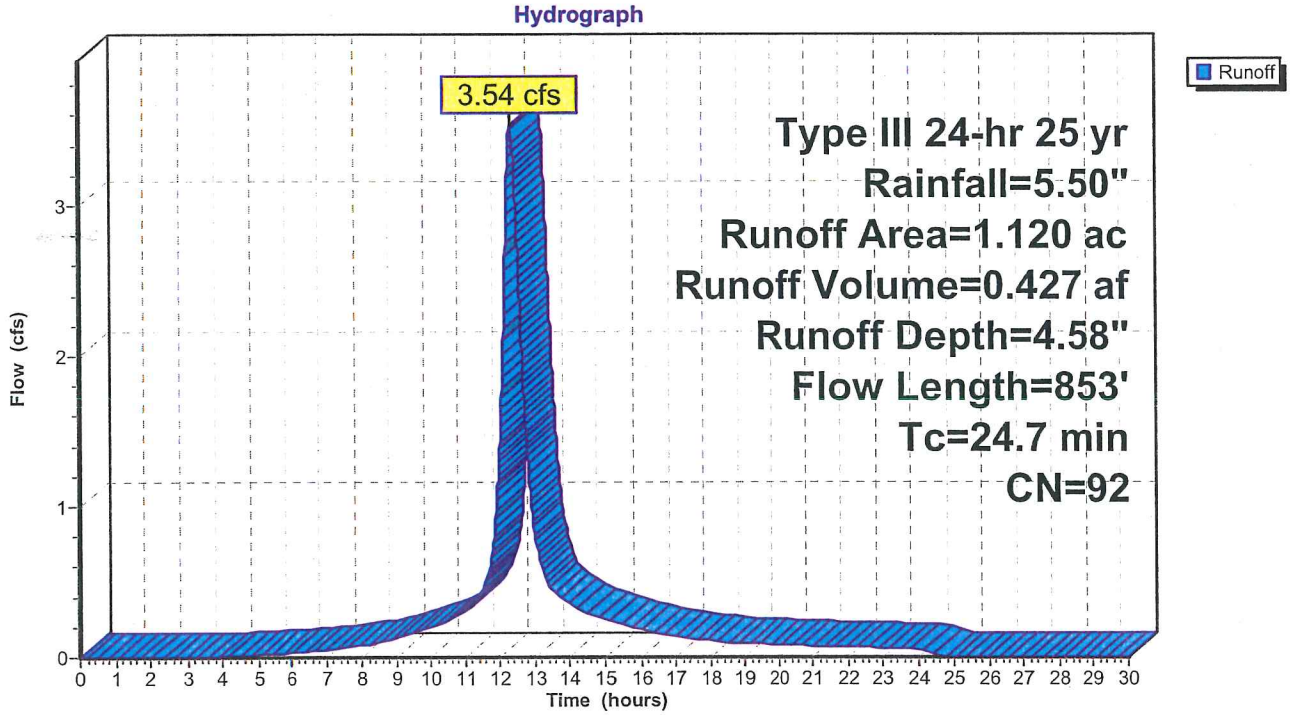
Runoff = 3.54 cfs @ 12.32 hrs, Volume= 0.427 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
1.010	93	Paved roads w/open ditches, HSG D
0.110	80	>75% Grass cover, Good, HSG D
1.120	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	100	0.0300	0.1		**Sheet Flow, sheet** Woods: Light underbrush n= 0.400 P2= 2.00"
0.6	68	0.1300	1.8		**Shallow Concentrated Flow, shallow conc** Woodland Kv= 5.0 fps
1.0	685	0.0500	10.9	87.16	**Channel Flow, channel** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
24.7	853	Total			

Subcatchment P6: W side along access rd.



Hydrograph for Subcatchment P8: south west parking area

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.01
5.00	0.31	0.01	0.01
5.50	0.35	0.02	0.01
6.00	0.40	0.03	0.02
6.50	0.44	0.05	0.02
7.00	0.50	0.07	0.03
7.50	0.56	0.10	0.04
8.00	0.63	0.13	0.05
8.50	0.71	0.17	0.07
9.00	0.80	0.23	0.09
9.50	0.91	0.30	0.11
10.00	1.04	0.39	0.13
10.50	1.19	0.50	0.17
11.00	1.37	0.64	0.22
11.50	1.64	0.85	0.36
12.00	2.75	1.84	**2.40**
12.50	3.86	2.88	**0.69**
13.00	4.12	3.14	0.30
13.50	4.31	3.31	0.23
14.00	4.46	3.46	0.19
14.50	4.59	3.58	0.17
15.00	4.70	3.69	0.14
15.50	4.79	3.78	0.12
16.00	4.87	3.86	0.10
16.50	4.94	3.92	0.09
17.00	5.00	3.98	0.08
17.50	5.06	4.04	0.07
18.00	5.10	4.08	0.06
18.50	5.15	4.12	0.06
19.00	5.19	4.16	0.06
19.50	5.23	4.20	0.05
20.00	5.26	4.24	0.05
20.50	5.30	4.27	0.05
21.00	5.33	4.30	0.05
21.50	5.36	4.34	0.04
22.00	5.39	4.37	0.04
22.50	5.42	4.39	0.04
23.00	5.45	4.42	0.04
23.50	5.48	4.45	0.03
24.00	**5.50**	**4.47**	0.03
24.50	5.50	4.47	0.00
25.00	5.50	4.47	0.00
25.50	5.50	4.47	0.00
26.00	5.50	4.47	0.00
26.50	5.50	4.47	0.00
27.00	5.50	4.47	0.00
27.50	5.50	4.47	0.00
28.00	5.50	4.47	0.00
28.50	5.50	4.47	0.00
29.00	5.50	4.47	0.00
29.50	5.50	4.47	0.00
30.00	5.50	4.47	0.00

Subcatchment P7: NW parking lot and driveway

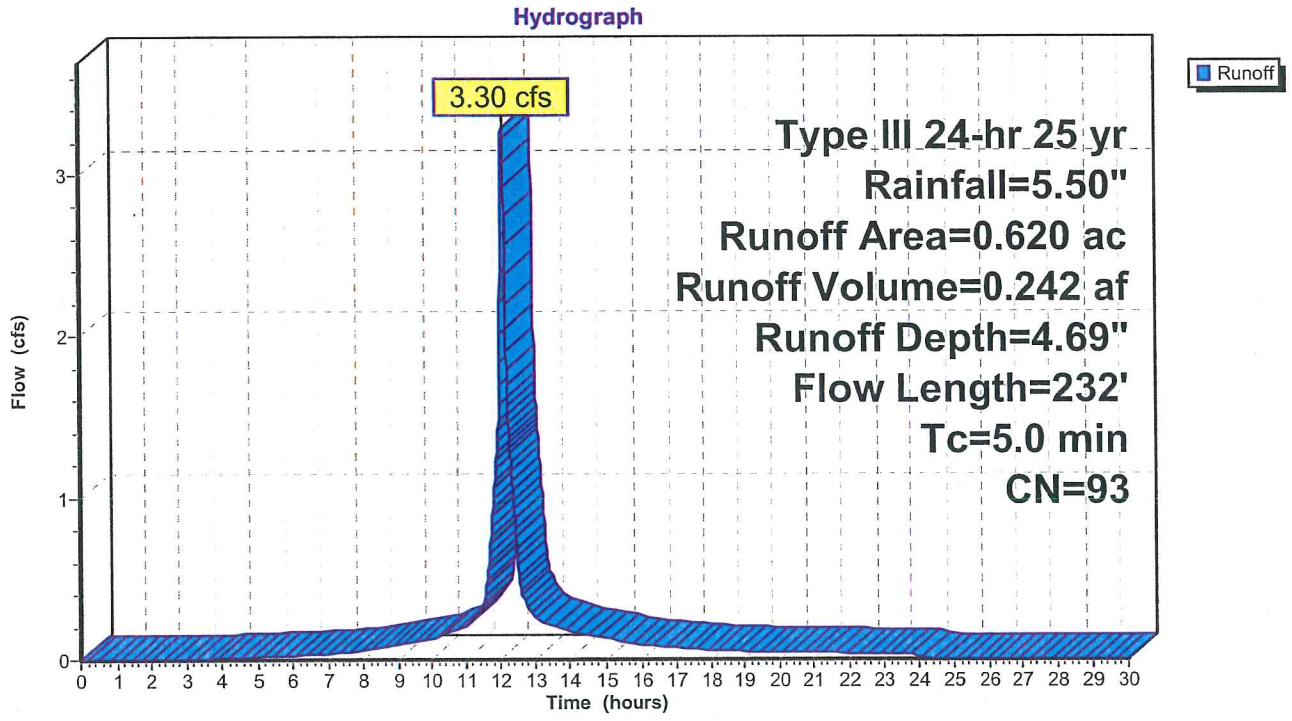
Runoff = 3.30 cfs @ 12.07 hrs, Volume= 0.242 af, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
0.180	80	>75% Grass cover, Good, HSG D
0.620	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1700	2.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.8	132	0.0200	2.9		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.5	232	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P7: NW parking lot and driveway



Hydrograph for Subcatchment P9: east near parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.01
5.00	0.31	0.02	0.01
5.50	0.35	0.03	0.01
6.00	0.40	0.05	0.01
6.50	0.44	0.06	0.02
7.00	0.50	0.09	0.02
7.50	0.56	0.12	0.03
8.00	0.63	0.16	0.03
8.50	0.71	0.20	0.04
9.00	0.80	0.26	0.05
9.50	0.91	0.34	0.07
10.00	1.04	0.43	0.08
10.50	1.19	0.55	0.11
11.00	1.37	0.70	0.13
11.50	1.64	0.92	0.22
12.00	2.75	1.93	**1.43**
12.50	3.86	2.98	**0.41**
13.00	4.12	3.24	0.18
13.50	4.31	3.42	0.14
14.00	4.46	3.56	0.11
14.50	4.59	3.69	0.10
15.00	4.70	3.80	0.08
15.50	4.79	3.89	0.07
16.00	4.87	3.97	0.06
16.50	4.94	4.03	0.05
17.00	5.00	4.09	0.05
17.50	5.06	4.14	0.04
18.00	5.10	4.19	0.04
18.50	5.15	4.23	0.03
19.00	5.19	4.27	0.03
19.50	5.23	4.31	0.03
20.00	5.26	4.35	0.03
20.50	5.30	4.38	0.03
21.00	5.33	4.41	0.03
21.50	5.36	4.45	0.03
22.00	5.39	4.47	0.02
22.50	5.42	4.50	0.02
23.00	5.45	4.53	0.02
23.50	5.48	4.55	0.02
24.00	**5.50**	**4.58**	0.02
24.50	5.50	4.58	0.00
25.00	5.50	4.58	0.00
25.50	5.50	4.58	0.00
26.00	5.50	4.58	0.00
26.50	5.50	4.58	0.00
27.00	5.50	4.58	0.00
27.50	5.50	4.58	0.00
28.00	5.50	4.58	0.00
28.50	5.50	4.58	0.00
29.00	5.50	4.58	0.00
29.50	5.50	4.58	0.00
30.00	5.50	4.58	0.00

Subcatchment P8: south west parking area

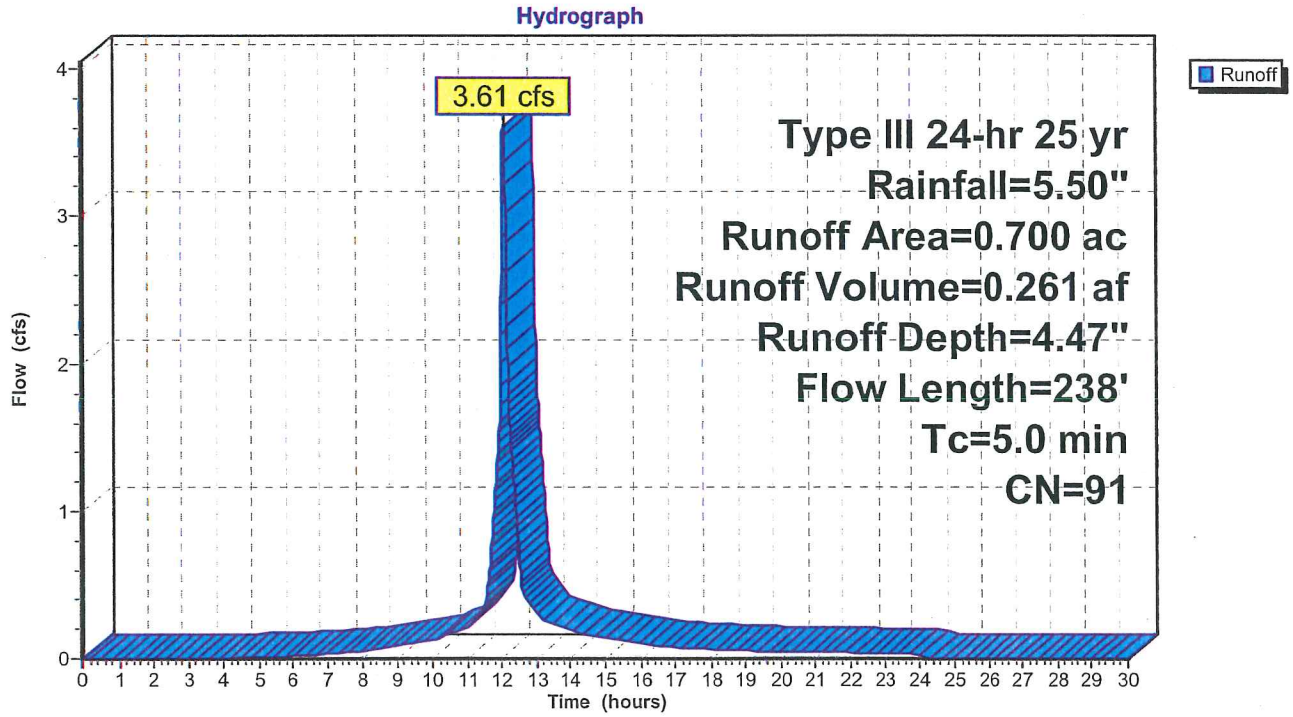
Runoff = 3.61 cfs @ 12.07 hrs, Volume= 0.261 af, Depth= 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.420	98	Paved parking & roofs
0.280	80	>75% Grass cover, Good, HSG D
0.700	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0500	1.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.4	114	0.0500	4.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
0.0	24	0.0200	8.3	66.15	**Channel Flow,** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.025 Earth, clean & straight
1.5	238	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P8: south west parking area



Hydrograph for Subcatchment Pbuilding: building

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.01	0.01
2.00	0.11	0.02	0.02
2.50	0.14	0.03	0.03
3.00	0.17	0.05	0.03
3.50	0.20	0.07	0.04
4.00	0.24	0.10	0.05
4.50	0.27	0.12	0.05
5.00	0.31	0.15	0.06
5.50	0.35	0.19	0.06
6.00	0.40	0.23	0.07
6.50	0.44	0.27	0.08
7.00	0.50	0.32	0.09
7.50	0.56	0.37	0.11
8.00	0.63	0.43	0.12
8.50	0.71	0.51	0.15
9.00	0.80	0.60	0.17
9.50	0.91	0.71	0.20
10.00	1.04	0.83	0.23
10.50	1.19	0.98	0.29
11.00	1.37	1.16	0.35
11.50	1.64	1.42	0.55
12.00	2.75	2.52	**3.40**
12.50	3.86	3.63	**0.93**
13.00	4.12	3.89	0.40
13.50	4.31	4.07	0.31
14.00	4.46	4.22	0.25
14.50	4.59	4.35	0.22
15.00	4.70	4.46	0.19
15.50	4.79	4.56	0.16
16.00	4.87	4.64	0.13
16.50	4.94	4.70	0.12
17.00	5.00	4.77	0.11
17.50	5.06	4.82	0.09
18.00	5.10	4.87	0.08
18.50	5.15	4.91	0.08
19.00	5.19	4.95	0.07
19.50	5.23	4.99	0.07
20.00	5.26	5.03	0.07
20.50	5.30	5.06	0.06
21.00	5.33	5.09	0.06
21.50	5.36	5.13	0.06
22.00	5.39	5.16	0.05
22.50	5.42	5.19	0.05
23.00	5.45	5.21	0.05
23.50	5.48	5.24	0.05
24.00	**5.50**	**5.26**	0.04
24.50	5.50	5.26	0.00
25.00	5.50	5.26	0.00
25.50	5.50	5.26	0.00
26.00	5.50	5.26	0.00
26.50	5.50	5.26	0.00
27.00	5.50	5.26	0.00
27.50	5.50	5.26	0.00
28.00	5.50	5.26	0.00
28.50	5.50	5.26	0.00
29.00	5.50	5.26	0.00
29.50	5.50	5.26	0.00
30.00	5.50	5.26	0.00

Subcatchment P9: east near parking

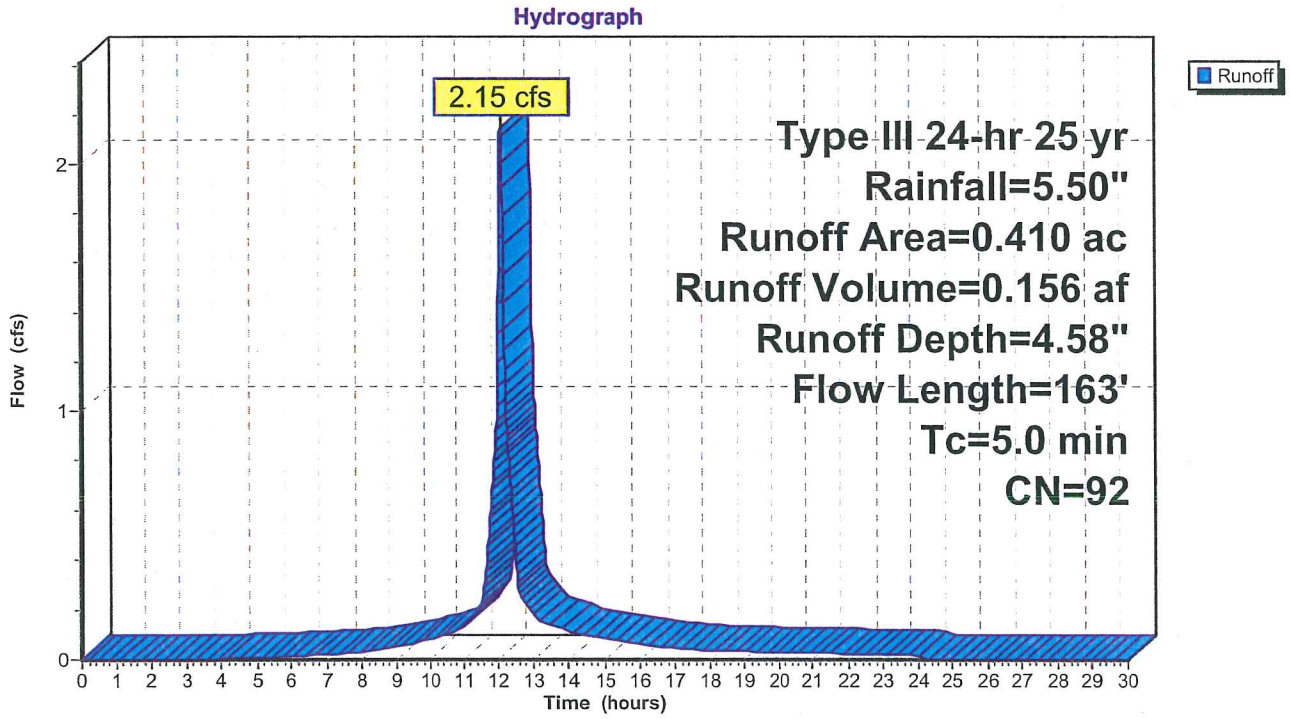
Runoff = 2.15 cfs @ 12.07 hrs, Volume= 0.156 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.280	98	Paved parking & roofs
0.130	80	>75% Grass cover, Good, HSG D
0.410	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0300	1.3		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.3	63	0.0300	3.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.6	163	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P9: east near parking



Hydrograph for Reach C1: Driveway Culvert

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	88.00	0.00
1.00	0.00	0	88.00	0.00
2.00	0.00	0	88.00	0.00
3.00	0.00	0	88.00	0.00
4.00	0.01	0	88.02	0.01
5.00	0.02	1	88.03	0.02
6.00	0.03	1	88.04	0.03
7.00	0.05	1	88.05	0.05
8.00	0.08	2	88.07	0.08
9.00	0.13	3	88.08	0.13
10.00	0.20	3	88.10	0.20
11.00	0.32	5	88.13	0.32
12.00	**1.38**	**13**	**88.25**	**1.38**
13.00	**0.82**	**9**	**88.20**	**0.82**
14.00	0.35	5	88.13	0.35
15.00	0.25	4	88.11	0.25
16.00	0.18	3	88.10	0.18
17.00	0.14	3	88.08	0.14
18.00	0.11	2	88.08	0.11
19.00	0.09	2	88.07	0.09
20.00	0.08	2	88.07	0.08
21.00	0.07	2	88.06	0.07
22.00	0.07	2	88.06	0.07
23.00	0.06	2	88.06	0.06
24.00	0.05	1	88.05	0.05
25.00	0.00	0	88.00	0.00
26.00	0.00	0	88.00	0.00
27.00	0.00	0	88.00	0.00
28.00	0.00	0	88.00	0.00
29.00	0.00	0	88.00	0.00
30.00	0.00	0	88.00	0.00

Subcatchment Pbuilding: building

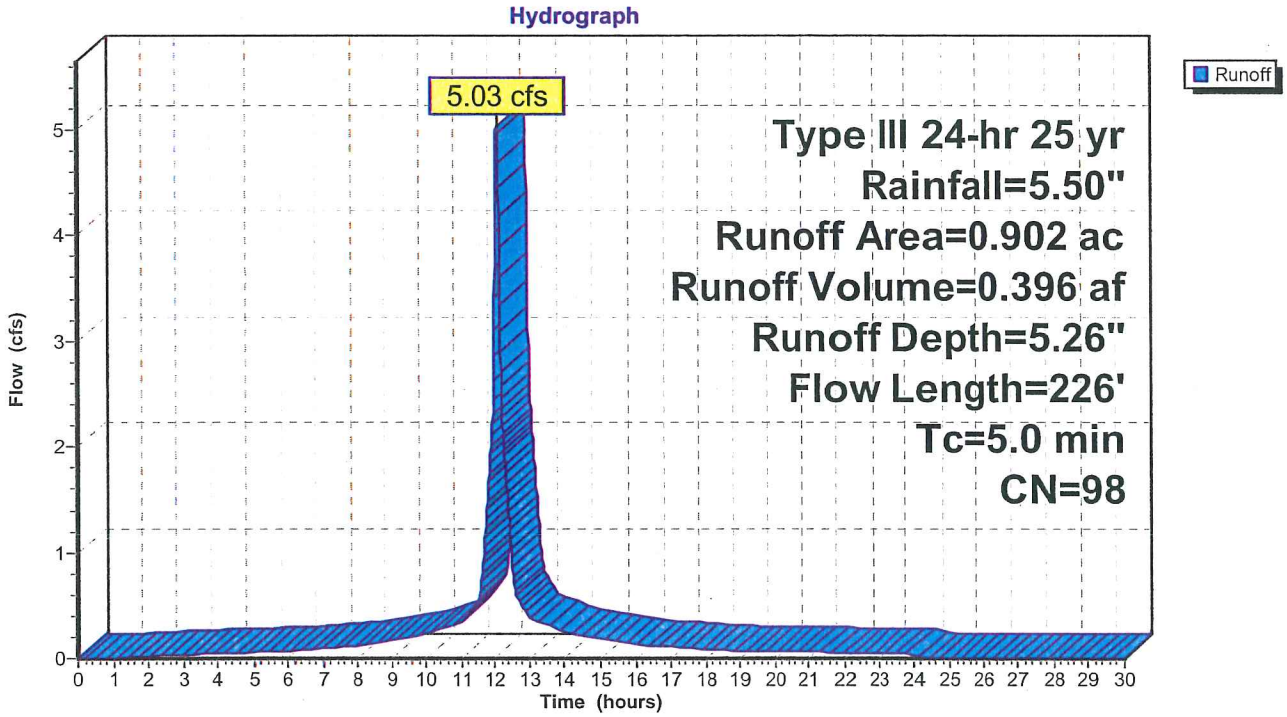
Runoff = 5.03 cfs @ 12.07 hrs, Volume= 0.396 af, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.902	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.2	126	0.0800	12.8	10.08	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
1.7	226	Total, Increased to minimum Tc = 5.0 min			

Subcatchment Pbuilding: building



Hydrograph for Reach D1: Ditch above pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	85.00	0.00
1.00	0.00	0	85.00	0.00
2.00	0.00	0	85.00	0.00
3.00	0.00	0	85.00	0.00
4.00	0.01	1	85.04	0.01
5.00	0.02	2	85.07	0.02
6.00	0.03	4	85.09	0.03
7.00	0.05	5	85.10	0.05
8.00	0.08	7	85.12	0.08
9.00	0.13	10	85.15	0.13
10.00	0.20	14	85.17	0.20
11.00	0.32	20	85.20	0.31
12.00	**1.38**	**60**	**85.35**	**1.33**
13.00	**0.82**	**42**	**85.30**	**0.84**
14.00	0.35	22	85.21	0.35
15.00	0.25	17	85.19	0.25
16.00	0.18	14	85.17	0.19
17.00	0.14	11	85.15	0.14
18.00	0.11	9	85.14	0.11
19.00	0.09	8	85.13	0.09
20.00	0.08	7	85.12	0.08
21.00	0.07	7	85.12	0.07
22.00	0.07	6	85.12	0.07
23.00	0.06	6	85.11	0.06
24.00	0.05	5	85.11	0.05
25.00	0.00	0	85.02	0.00
26.00	0.00	0	85.00	0.00
27.00	0.00	0	85.00	0.00
28.00	0.00	0	85.00	0.00
29.00	0.00	0	85.00	0.00
30.00	0.00	0	85.00	0.00

Reach C1: Driveway Culvert

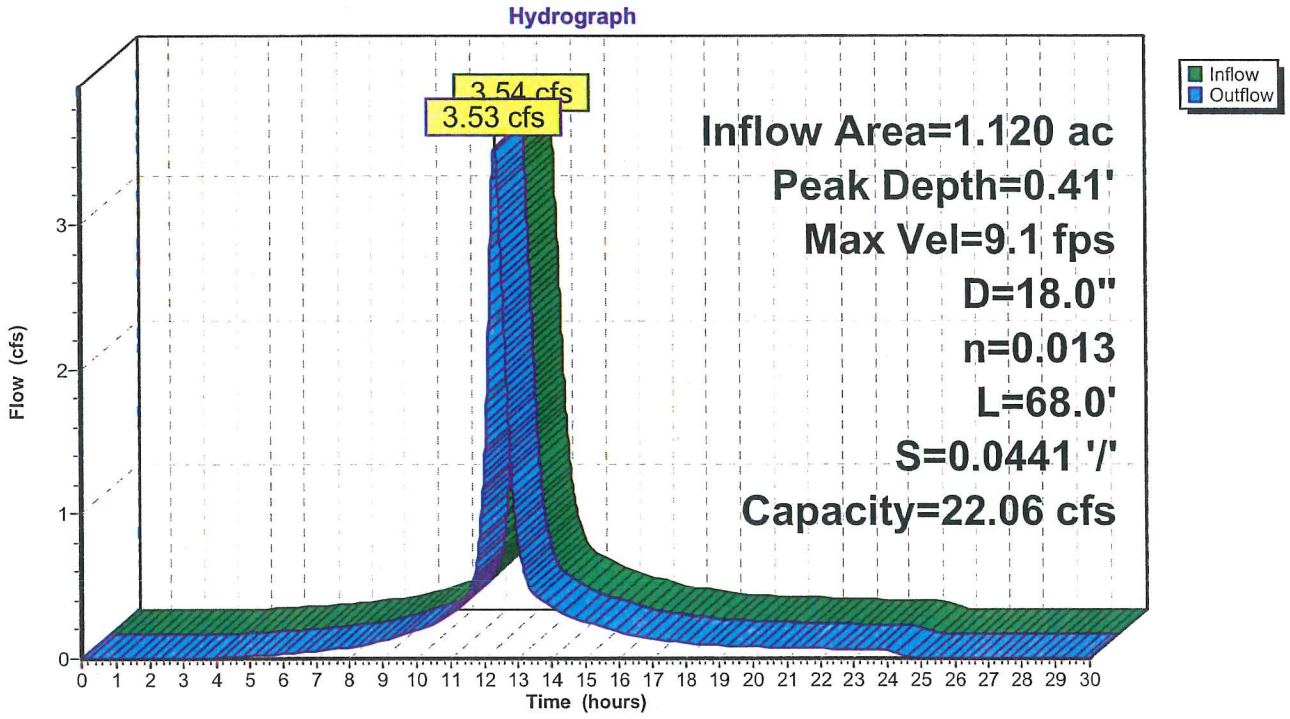
[52] Hint: Inlet conditions not evaluated

Inflow Area = 1.120 ac, Inflow Depth = 4.58" for 25 yr event
Inflow = 3.54 cfs @ 12.32 hrs, Volume= 0.427 af
Outflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 9.1 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.4 fps, Avg. Travel Time= 0.3 min

Peak Depth= 0.41' @ 12.33 hrs
Capacity at bank full= 22.06 cfs
Inlet Invert= 88.00', Outlet Invert= 85.00'
18.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 68.0' Slope= 0.0441 '/'

Reach C1: Driveway Culvert



Hydrograph for Reach D2: Ditch below pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	80.00	0.00
1.00	0.00	1	80.00	0.00
2.00	0.02	4	80.02	0.02
3.00	0.04	6	80.03	0.04
4.00	0.08	10	80.04	0.08
5.00	0.13	14	80.06	0.13
6.00	0.17	17	80.07	0.17
7.00	0.19	18	80.07	0.19
8.00	0.22	20	80.08	0.22
9.00	0.27	23	80.09	0.27
10.00	0.34	26	80.10	0.34
11.00	0.45	32	80.12	0.45
12.00	**6.73**	**205**	**80.51**	**6.58**
13.00	**5.41**	**180**	**80.47**	**5.47**
14.00	1.53	73	80.24	1.54
15.00	1.14	59	80.20	1.14
16.00	0.82	47	80.17	0.82
17.00	0.63	40	80.15	0.64
18.00	0.49	34	80.13	0.49
19.00	0.43	31	80.12	0.43
20.00	0.38	29	80.11	0.38
21.00	0.35	27	80.10	0.35
22.00	0.32	25	80.10	0.32
23.00	0.29	24	80.09	0.29
24.00	0.25	22	80.09	0.25
25.00	0.14	15	80.06	0.14
26.00	0.14	15	80.06	0.14
27.00	0.14	15	80.06	0.14
28.00	0.14	15	80.06	0.14
29.00	0.14	15	80.06	0.14
30.00	0.14	15	80.06	0.14

Reach D1: Ditch above pond

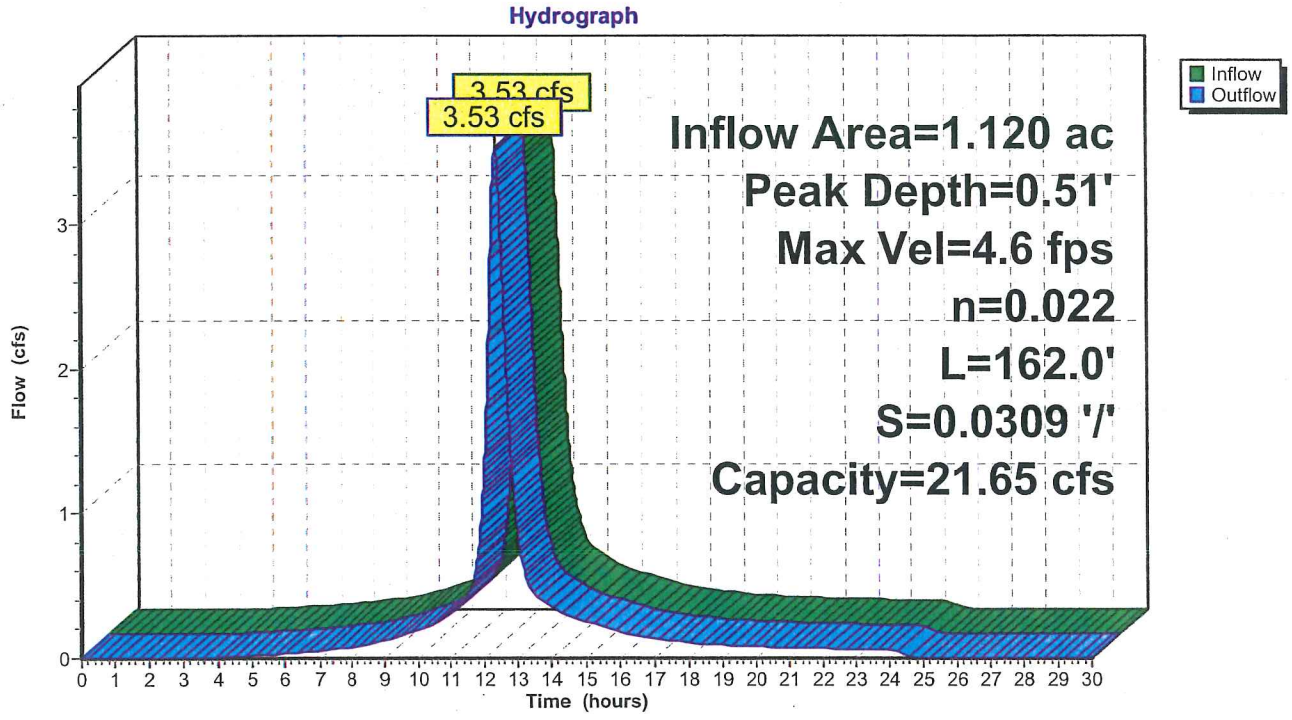
[61] Hint: Submerged 17% of Reach C1 bottom

Inflow Area = 1.120 ac, Inflow Depth = 4.58" for 25 yr event
Inflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af
Outflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.6 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.9 fps, Avg. Travel Time= 1.4 min

Peak Depth= 0.51' @ 12.33 hrs
Capacity at bank full= 21.65 cfs
Inlet Invert= 85.00', Outlet Invert= 80.00'
0.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 6.00'
Length= 162.0' Slope= 0.0309 '/'

Reach D1: Ditch above pond



Hydrograph for Pond CB1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	86.00	0.00
0.50	0.00	86.00	0.00
1.00	0.00	86.03	0.00
1.50	0.01	86.05	0.01
2.00	0.02	86.06	0.02
2.50	0.03	86.07	0.03
3.00	0.04	86.08	0.04
3.50	0.05	86.09	0.05
4.00	0.06	86.11	0.06
4.50	0.08	86.12	0.08
5.00	0.10	86.13	0.10
5.50	0.12	86.14	0.12
6.00	0.14	86.15	0.14
6.50	0.17	86.17	0.17
7.00	0.21	86.19	0.21
7.50	0.25	86.20	0.25
8.00	0.30	86.22	0.30
8.50	0.38	86.25	0.38
9.00	0.47	86.28	0.47
9.50	0.58	86.31	0.58
10.00	0.68	86.34	0.68
10.50	0.87	86.38	0.87
11.00	1.09	86.43	1.09
11.50	1.77	86.55	1.77
12.00	**11.48**	**87.60**	**11.48**
12.50	**3.25**	**86.76**	**3.25**
13.00	1.40	86.49	1.40
13.50	1.10	86.43	1.10
14.00	0.89	86.38	0.89
14.50	0.77	86.36	0.77
15.00	0.67	86.33	0.67
15.50	0.57	86.31	0.57
16.00	0.47	86.28	0.47
16.50	0.42	86.26	0.42
17.00	0.38	86.25	0.38
17.50	0.33	86.23	0.33
18.00	0.29	86.22	0.29
18.50	0.27	86.21	0.27
19.00	0.26	86.21	0.26
19.50	0.24	86.20	0.24
20.00	0.23	86.20	0.23
20.50	0.22	86.19	0.22
21.00	0.21	86.19	0.21
21.50	0.20	86.18	0.20
22.00	0.19	86.18	0.19
22.50	0.18	86.17	0.18
23.00	0.17	86.17	0.17
23.50	0.16	86.16	0.16
24.00	0.15	86.16	0.15
24.50	0.00	86.00	0.00
25.00	0.00	86.00	0.00
25.50	0.00	86.00	0.00
26.00	0.00	86.00	0.00
26.50	0.00	86.00	0.00
27.00	0.00	86.00	0.00
27.50	0.00	86.00	0.00
28.00	0.00	86.00	0.00
28.50	0.00	86.00	0.00
29.00	0.00	86.00	0.00
29.50	0.00	86.00	0.00
30.00	0.00	86.00	0.00

Reach D2: Ditch below pond

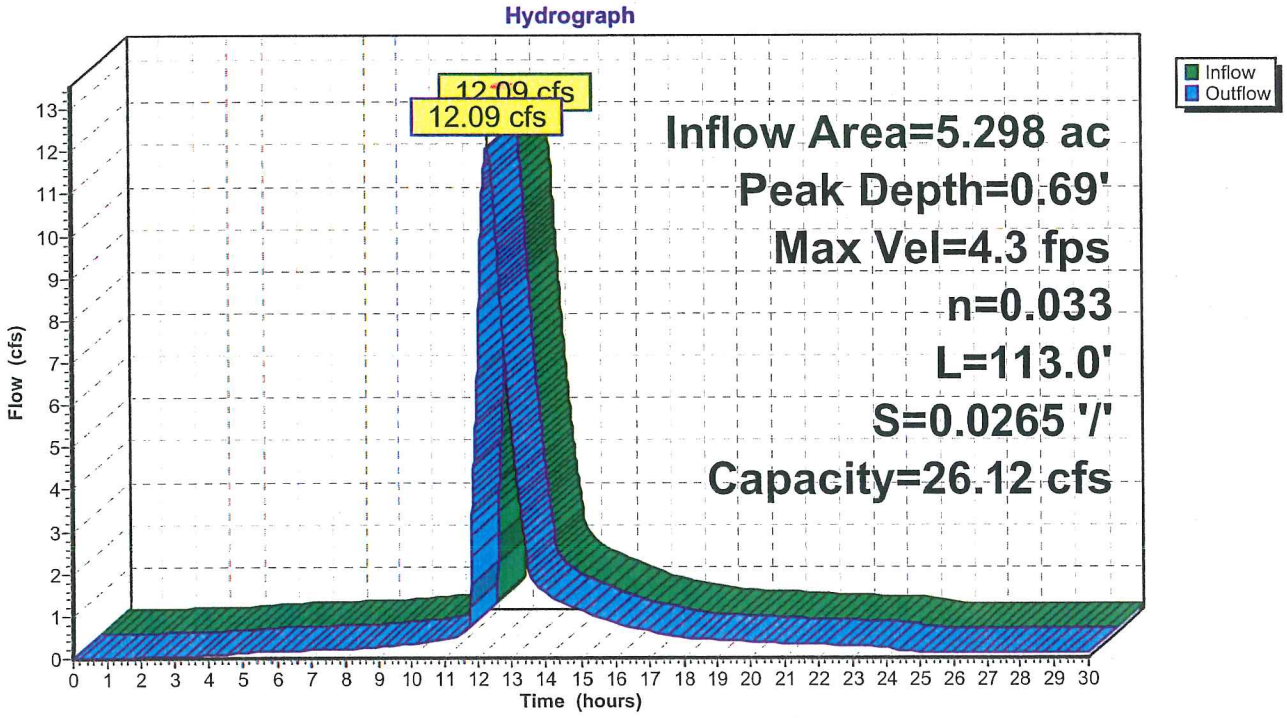
[61] Hint: Submerged 14% of Reach D1 bottom

Inflow Area = 5.298 ac, Inflow Depth > 4.07" for 25 yr event
Inflow = 12.09 cfs @ 12.32 hrs, Volume= 1.798 af
Outflow = 12.09 cfs @ 12.33 hrs, Volume= 1.798 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.3 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.5 fps, Avg. Travel Time= 1.3 min

Peak Depth= 0.69' @ 12.33 hrs
Capacity at bank full= 26.12 cfs
Inlet Invert= 80.00', Outlet Invert= 77.00'
2.00' x 1.00' deep channel, n= 0.033 Riprap
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 113.0' Slope= 0.0265 '/'

Reach D2: Ditch below pond



Hydrograph for Pond CB2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	87.65	0.00	26.50	0.00	87.65	0.00
0.50	0.00	87.65	0.00	27.00	0.00	87.65	0.00
1.00	0.00	87.65	0.00	27.50	0.00	87.65	0.00
1.50	0.00	87.65	0.00	28.00	0.00	87.65	0.00
2.00	0.00	87.65	0.00	28.50	0.00	87.65	0.00
2.50	0.00	87.65	0.00	29.00	0.00	87.65	0.00
3.00	0.00	87.66	0.00	29.50	0.00	87.65	0.00
3.50	0.00	87.68	0.00	30.00	0.00	87.65	0.00
4.00	0.01	87.70	0.01				
4.50	0.03	87.72	0.03				
5.00	0.04	87.73	0.04				
5.50	0.05	87.74	0.05				
6.00	0.06	87.75	0.06				
6.50	0.08	87.77	0.08				
7.00	0.10	87.78	0.10				
7.50	0.13	87.79	0.13				
8.00	0.16	87.81	0.16				
8.50	0.21	87.83	0.21				
9.00	0.26	87.86	0.26				
9.50	0.33	87.88	0.33				
10.00	0.40	87.90	0.40				
10.50	0.51	87.94	0.51				
11.00	0.65	87.98	0.65				
11.50	1.07	88.07	1.07				
12.00	**7.08**	**88.88**	**7.08**				
12.50	**2.03**	**88.24**	**2.03**				
13.00	0.87	88.03	0.87				
13.50	0.69	87.99	0.69				
14.00	0.56	87.95	0.56				
14.50	0.48	87.93	0.48				
15.00	0.42	87.91	0.42				
15.50	0.36	87.89	0.36				
16.00	0.30	87.87	0.30				
16.50	0.26	87.86	0.26				
17.00	0.24	87.84	0.24				
17.50	0.21	87.83	0.21				
18.00	0.18	87.82	0.18				
18.50	0.17	87.81	0.17				
19.00	0.16	87.81	0.16				
19.50	0.15	87.81	0.15				
20.00	0.14	87.80	0.14				
20.50	0.14	87.80	0.14				
21.00	0.13	87.80	0.13				
21.50	0.13	87.79	0.13				
22.00	0.12	87.79	0.12				
22.50	0.11	87.79	0.11				
23.00	0.11	87.78	0.11				
23.50	0.10	87.78	0.10				
24.00	0.09	87.77	0.09				
24.50	0.00	87.65	0.00				
25.00	0.00	87.65	0.00				
25.50	0.00	87.65	0.00				
26.00	0.00	87.65	0.00				

Pond CB1:

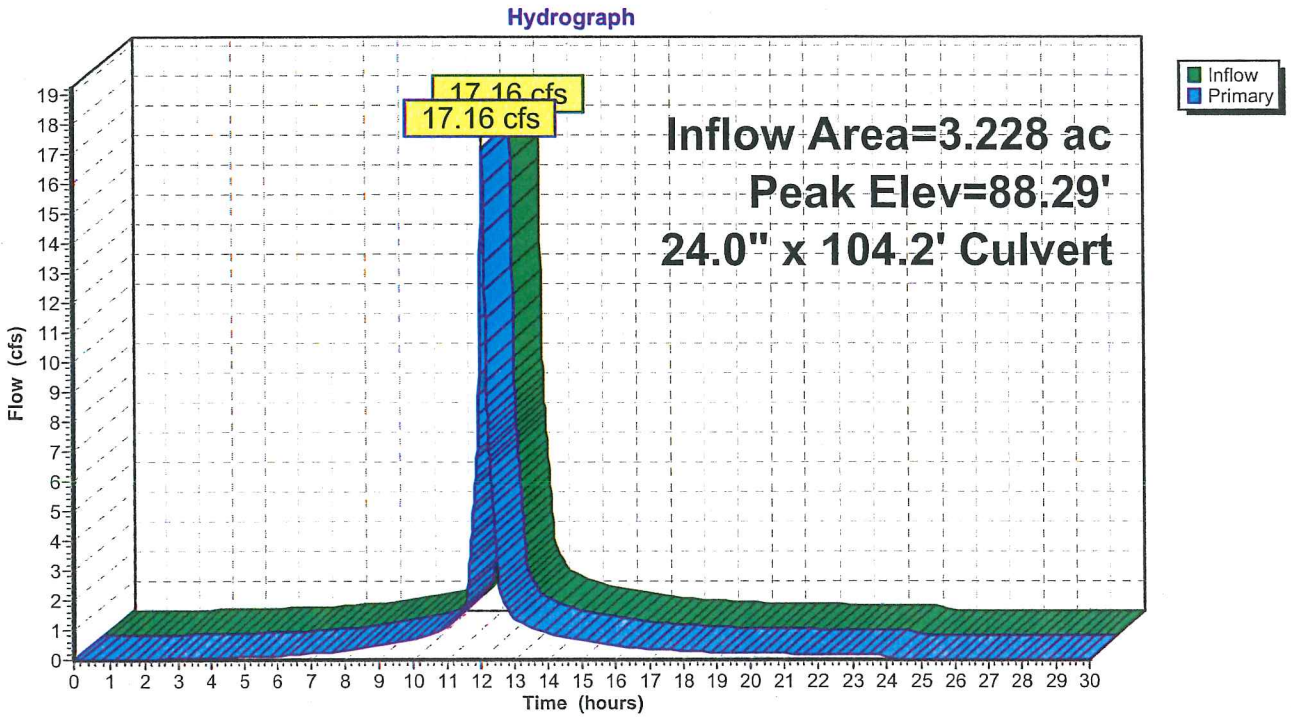
Inflow Area = 3.228 ac, Inflow Depth = 4.74" for 25 yr event
Inflow = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af
Outflow = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 88.29' @ 12.07 hrs
Flood Elev= 90.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	86.00'	**24.0" x 104.2' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 85.00' S= 0.0096 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=17.15 cfs @ 12.07 hrs HW=88.28' TW=85.28' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 17.15 cfs @ 5.5 fps)

Pond CB1:



Hydrograph for Pond CB3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	88.25	0.00
0.50	0.00	88.25	0.00
1.00	0.00	88.25	0.00
1.50	0.00	88.25	0.00
2.00	0.00	88.25	0.00
2.50	0.00	88.25	0.00
3.00	0.00	88.26	0.00
3.50	0.00	88.28	0.00
4.00	0.01	88.30	0.01
4.50	0.02	88.32	0.02
5.00	0.03	88.33	0.03
5.50	0.04	88.34	0.04
6.00	0.05	88.35	0.05
6.50	0.07	88.36	0.07
7.00	0.09	88.38	0.09
7.50	0.11	88.39	0.11
8.00	0.14	88.41	0.14
8.50	0.18	88.43	0.18
9.00	0.23	88.46	0.23
9.50	0.29	88.48	0.29
10.00	0.35	88.50	0.35
10.50	0.46	88.54	0.46
11.00	0.57	88.57	0.57
11.50	0.95	88.67	0.95
12.00	**6.25**	**89.53**	**6.25**
12.50	**1.79**	**88.85**	**1.79**
13.00	0.77	88.63	0.77
13.50	0.61	88.58	0.61
14.00	0.49	88.55	0.49
14.50	0.43	88.53	0.43
15.00	0.37	88.51	0.37
15.50	0.32	88.49	0.32
16.00	0.26	88.47	0.26
16.50	0.23	88.45	0.23
17.00	0.21	88.44	0.21
17.50	0.18	88.43	0.18
18.00	0.16	88.42	0.16
18.50	0.15	88.41	0.15
19.00	0.14	88.41	0.14
19.50	0.13	88.41	0.13
20.00	0.13	88.40	0.13
20.50	0.12	88.40	0.12
21.00	0.12	88.40	0.12
21.50	0.11	88.39	0.11
22.00	0.11	88.39	0.11
22.50	0.10	88.39	0.10
23.00	0.09	88.38	0.09
23.50	0.09	88.38	0.09
24.00	0.08	88.37	0.08
24.50	0.00	88.25	0.00
25.00	0.00	88.25	0.00
25.50	0.00	88.25	0.00
26.00	0.00	88.25	0.00
26.50	0.00	88.25	0.00
27.00	0.00	88.25	0.00
27.50	0.00	88.25	0.00
28.00	0.00	88.25	0.00
28.50	0.00	88.25	0.00
29.00	0.00	88.25	0.00
29.50	0.00	88.25	0.00
30.00	0.00	88.25	0.00

Pond CB2:

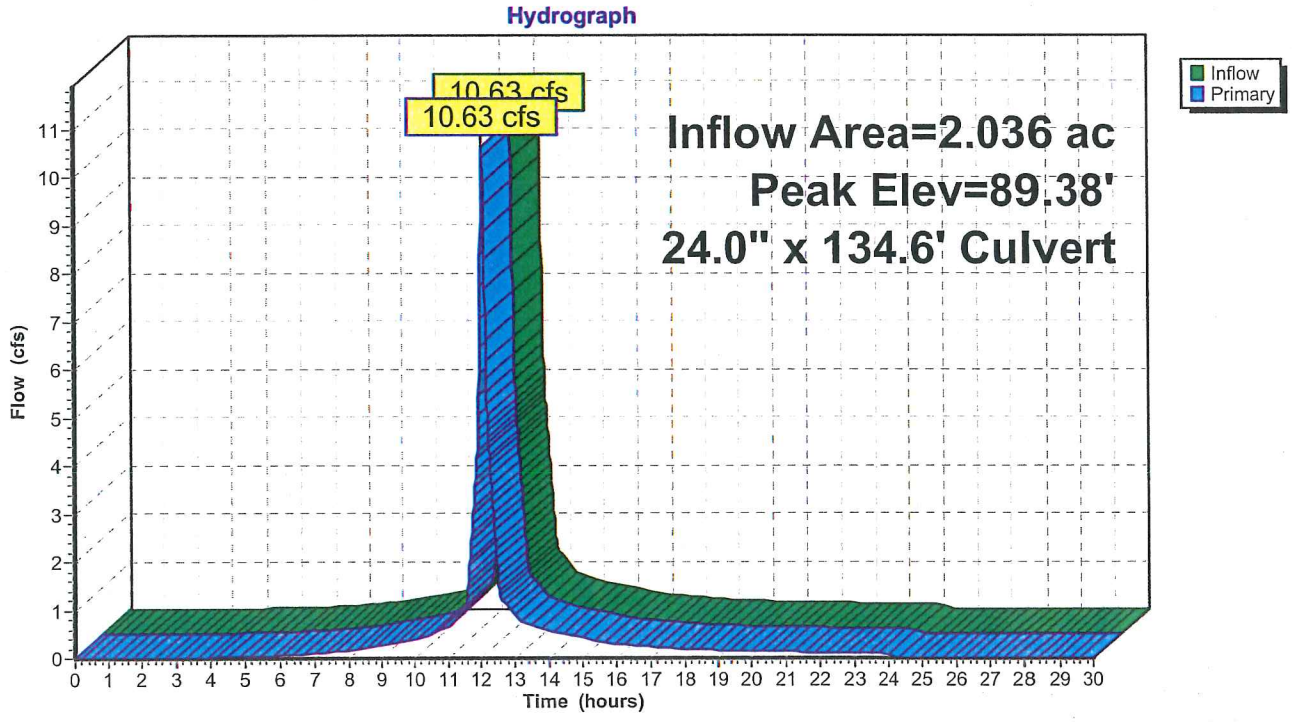
Inflow Area = 2.036 ac, Inflow Depth = 4.54" for 25 yr event
Inflow = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af
Outflow = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af, Atten= 0%, Lag= 0.0 min
Primary = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 89.38' @ 12.07 hrs
Flood Elev= 92.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	87.65'	**24.0" x 134.6' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 86.25' S= 0.0104 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=10.62 cfs @ 12.07 hrs HW=89.38' TW=88.28' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 10.62 cfs @ 4.9 fps)

Pond CB2:



Hydrograph for Pond CB4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	93.75	0.00
0.50	0.00	93.75	0.00
1.00	0.00	93.75	0.00
1.50	0.00	93.75	0.00
2.00	0.00	93.75	0.00
2.50	0.00	93.75	0.00
3.00	0.00	93.76	0.00
3.50	0.00	93.78	0.00
4.00	0.01	93.79	0.01
4.50	0.02	93.80	0.02
5.00	0.02	93.81	0.02
5.50	0.03	93.82	0.03
6.00	0.04	93.83	0.04
6.50	0.05	93.84	0.05
7.00	0.06	93.85	0.06
7.50	0.07	93.86	0.07
8.00	0.09	93.87	0.09
8.50	0.12	93.89	0.12
9.00	0.15	93.90	0.15
9.50	0.18	93.92	0.18
10.00	0.22	93.94	0.22
10.50	0.28	93.96	0.28
11.00	0.36	93.99	0.36
11.50	0.59	94.06	0.59
12.00	**3.85**	**94.58**	**3.85**
12.50	**1.10**	**94.18**	**1.10**
13.00	0.47	94.03	0.47
13.50	0.37	94.00	0.37
14.00	0.30	93.97	0.30
14.50	0.26	93.96	0.26
15.00	0.23	93.94	0.23
15.50	0.19	93.93	0.19
16.00	0.16	93.91	0.16
16.50	0.14	93.90	0.14
17.00	0.13	93.89	0.13
17.50	0.11	93.88	0.11
18.00	0.10	93.87	0.10
18.50	0.09	93.87	0.09
19.00	0.09	93.87	0.09
19.50	0.08	93.86	0.08
20.00	0.08	93.86	0.08
20.50	0.07	93.86	0.07
21.00	0.07	93.86	0.07
21.50	0.07	93.85	0.07
22.00	0.06	93.85	0.06
22.50	0.06	93.85	0.06
23.00	0.06	93.85	0.06
23.50	0.05	93.84	0.05
24.00	0.05	93.84	0.05
24.50	0.00	93.75	0.00
25.00	0.00	93.75	0.00
25.50	0.00	93.75	0.00
26.00	0.00	93.75	0.00
26.50	0.00	93.75	0.00
27.00	0.00	93.75	0.00
27.50	0.00	93.75	0.00
28.00	0.00	93.75	0.00
28.50	0.00	93.75	0.00
29.00	0.00	93.75	0.00
29.50	0.00	93.75	0.00
30.00	0.00	93.75	0.00

Pond CB4:

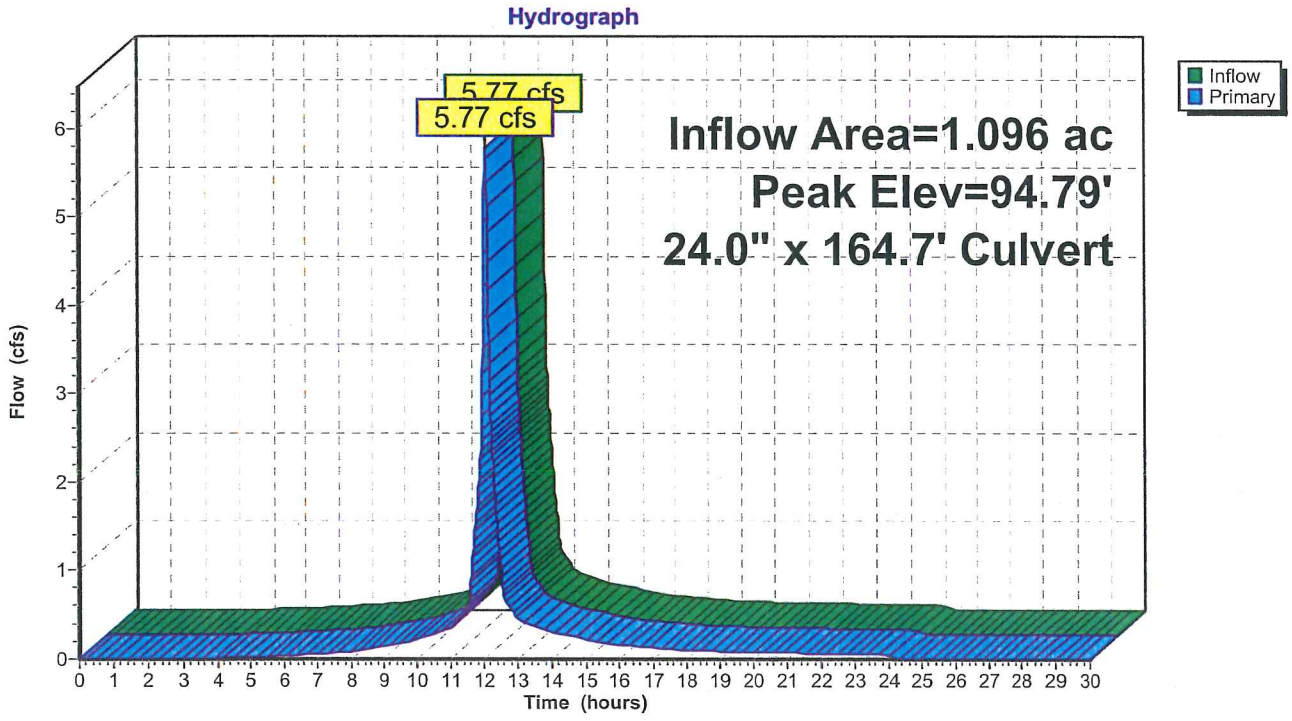
Inflow Area = 1.096 ac, Inflow Depth = 4.61" for 25 yr event
Inflow = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af
Outflow = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af, Atten= 0%, Lag= 0.0 min
Primary = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 94.79' @ 12.07 hrs
Flood Elev= 98.00'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	93.75'	**24.0" x 164.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 88.25' S= 0.0334 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=5.77 cfs @ 12.07 hrs HW=94.79' TW=90.00' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 5.77 cfs @ 3.5 fps)

Pond CB4:



Hydrograph for Pond CB5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	97.50	0.00
0.50	0.00	97.50	0.00
1.00	0.00	97.50	0.00
1.50	0.00	97.50	0.00
2.00	0.00	97.50	0.00
2.50	0.00	97.50	0.00
3.00	0.00	97.51	0.00
3.50	0.00	97.53	0.00
4.00	0.01	97.54	0.01
4.50	0.01	97.54	0.01
5.00	0.01	97.55	0.01
5.50	0.02	97.56	0.02
6.00	0.02	97.57	0.02
6.50	0.03	97.57	0.03
7.00	0.04	97.58	0.04
7.50	0.05	97.59	0.05
8.00	0.06	97.60	0.06
8.50	0.07	97.62	0.07
9.00	0.09	97.63	0.09
9.50	0.12	97.65	0.12
10.00	0.14	97.66	0.14
10.50	0.18	97.68	0.18
11.00	0.23	97.71	0.23
11.50	0.37	97.76	0.37
12.00	**2.42**	**98.22**	**2.42**
12.50	**0.69**	**97.87**	**0.69**
13.00	0.30	97.74	0.30
13.50	0.23	97.71	0.23
14.00	0.19	97.69	0.19
14.50	0.16	97.67	0.16
15.00	0.14	97.66	0.14
15.50	0.12	97.65	0.12
16.00	0.10	97.64	0.10
16.50	0.09	97.63	0.09
17.00	0.08	97.62	0.08
17.50	0.07	97.61	0.07
18.00	0.06	97.61	0.06
18.50	0.06	97.60	0.06
19.00	0.05	97.60	0.05
19.50	0.05	97.60	0.05
20.00	0.05	97.59	0.05
20.50	0.05	97.59	0.05
21.00	0.04	97.59	0.04
21.50	0.04	97.59	0.04
22.00	0.04	97.59	0.04
22.50	0.04	97.58	0.04
23.00	0.04	97.58	0.04
23.50	0.03	97.58	0.03
24.00	0.03	97.58	0.03
24.50	0.00	97.50	0.00
25.00	0.00	97.50	0.00
25.50	0.00	97.50	0.00
26.00	0.00	97.50	0.00
26.50	0.00	97.50	0.00
27.00	0.00	97.50	0.00
27.50	0.00	97.50	0.00
28.00	0.00	97.50	0.00
28.50	0.00	97.50	0.00
29.00	0.00	97.50	0.00
29.50	0.00	97.50	0.00
30.00	0.00	97.50	0.00

Pond CB5:

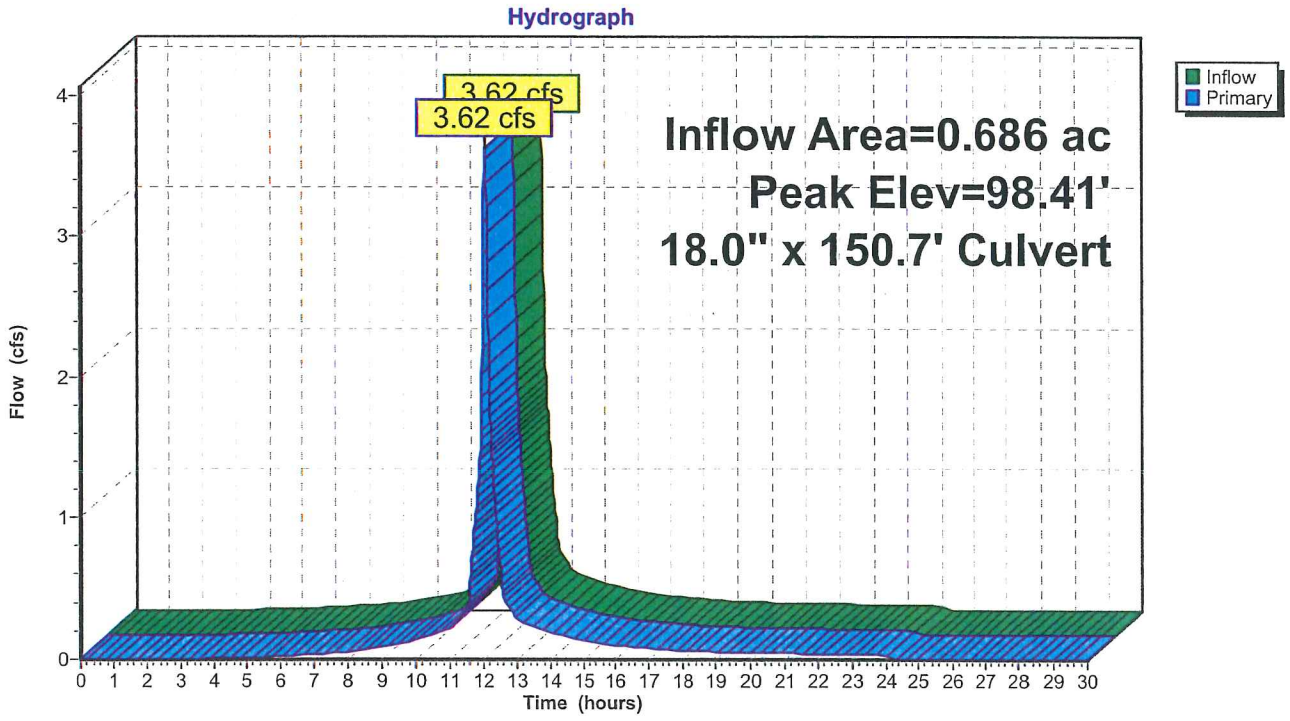
Inflow Area = 0.686 ac, Inflow Depth = 4.62" for 25 yr event
Inflow = 3.62 cfs @ 12.07 hrs, Volume= 0.264 af
Outflow = 3.62 cfs @ 12.07 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min
Primary = 3.62 cfs @ 12.07 hrs, Volume= 0.264 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 98.41' @ 12.07 hrs
Flood Elev= 101.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	**18.0" x 150.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 94.00' S= 0.0232 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=3.62 cfs @ 12.07 hrs HW=98.41' TW=94.79' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 3.62 cfs @ 3.2 fps)

Pond CB5:



Hydrograph for Pond CB6:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	99.50	0.00
0.50	0.00	99.50	0.00
1.00	0.00	99.50	0.00
1.50	0.00	99.50	0.00
2.00	0.00	99.50	0.00
2.50	0.00	99.50	0.00
3.00	0.00	99.51	0.00
3.50	0.00	99.52	0.00
4.00	0.00	99.53	0.00
4.50	0.01	99.53	0.01
5.00	0.01	99.54	0.01
5.50	0.01	99.54	0.01
6.00	0.01	99.54	0.01
6.50	0.01	99.55	0.01
7.00	0.02	99.55	0.02
7.50	0.02	99.56	0.02
8.00	0.02	99.57	0.02
8.50	0.03	99.58	0.03
9.00	0.04	99.59	0.04
9.50	0.05	99.59	0.05
10.00	0.06	99.60	0.06
10.50	0.07	99.62	0.07
11.00	0.09	99.63	0.09
11.50	0.15	99.67	0.15
12.00	**0.98**	**99.94**	**0.98**
12.50	**0.28**	**99.73**	**0.28**
13.00	0.12	99.65	0.12
13.50	0.09	99.63	0.09
14.00	0.08	99.62	0.08
14.50	0.07	99.61	0.07
15.00	0.06	99.60	0.06
15.50	0.05	99.59	0.05
16.00	0.04	99.59	0.04
16.50	0.04	99.58	0.04
17.00	0.03	99.58	0.03
17.50	0.03	99.57	0.03
18.00	0.02	99.57	0.02
18.50	0.02	99.56	0.02
19.00	0.02	99.56	0.02
19.50	0.02	99.56	0.02
20.00	0.02	99.56	0.02
20.50	0.02	99.56	0.02
21.00	0.02	99.56	0.02
21.50	0.02	99.56	0.02
22.00	0.02	99.55	0.02
22.50	0.02	99.55	0.02
23.00	0.01	99.55	0.01
23.50	0.01	99.55	0.01
24.00	0.01	99.55	0.01
24.50	0.00	99.50	0.00
25.00	0.00	99.50	0.00
25.50	0.00	99.50	0.00
26.00	0.00	99.50	0.00
26.50	0.00	99.50	0.00
27.00	0.00	99.50	0.00
27.50	0.00	99.50	0.00
28.00	0.00	99.50	0.00
28.50	0.00	99.50	0.00
29.00	0.00	99.50	0.00
29.50	0.00	99.50	0.00
30.00	0.00	99.50	0.00

Pond CB6:

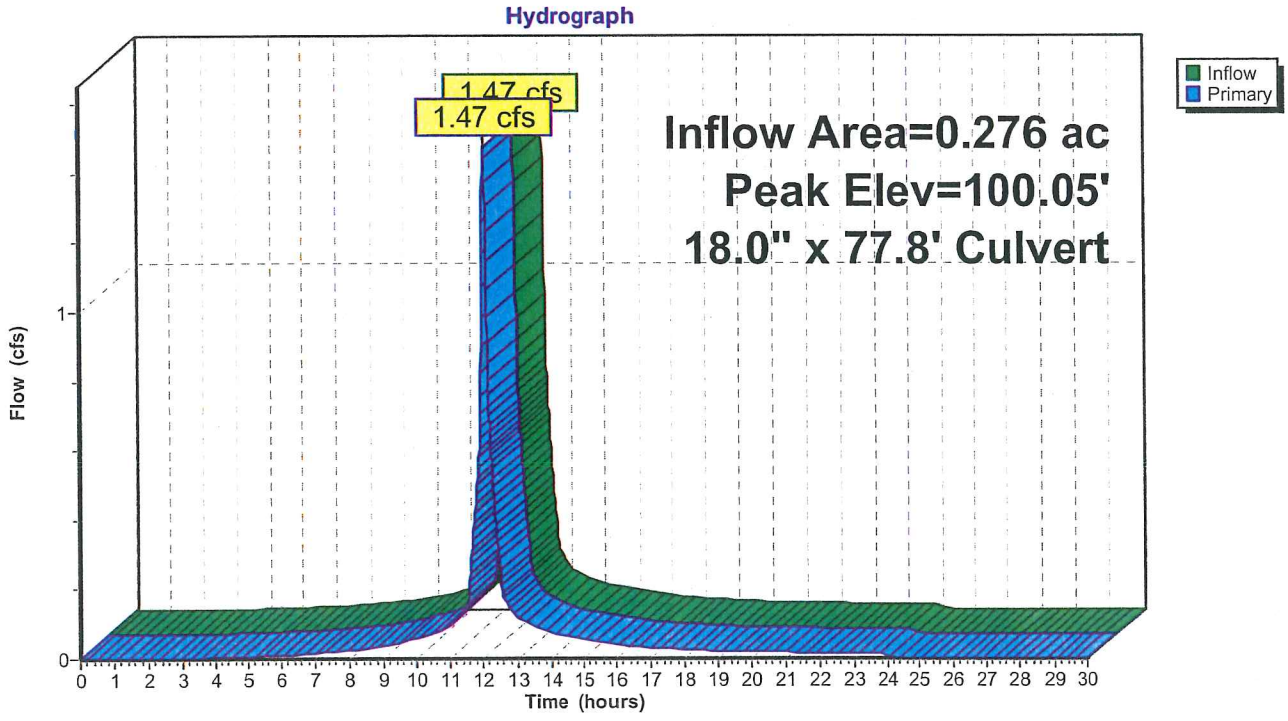
Inflow Area = 0.276 ac, Inflow Depth = 4.69" for 25 yr event
Inflow = 1.47 cfs @ 12.07 hrs, Volume= 0.108 af
Outflow = 1.47 cfs @ 12.07 hrs, Volume= 0.108 af, Atten= 0%, Lag= 0.0 min
Primary = 1.47 cfs @ 12.07 hrs, Volume= 0.108 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.05' @ 12.07 hrs
Flood Elev= 102.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (774.5 - 774.5)

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	**18.0" x 77.8' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 97.75' S= 0.0225 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=1.47 cfs @ 12.07 hrs HW=100.05' TW=98.41' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 1.47 cfs @ 2.5 fps)

Pond CB6:



Hydrograph for Pond CB7:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	100.50	0.00
0.50	0.00	100.50	0.00
1.00	0.00	100.50	0.00
1.50	0.00	100.50	0.00
2.00	0.00	100.50	0.00
2.50	0.00	100.51	0.00
3.00	0.00	100.51	0.00
3.50	0.00	100.52	0.00
4.00	0.00	100.52	0.00
4.50	0.00	100.52	0.00
5.00	0.00	100.52	0.00
5.50	0.00	100.53	0.00
6.00	0.00	100.53	0.00
6.50	0.01	100.53	0.01
7.00	0.01	100.54	0.01
7.50	0.01	100.54	0.01
8.00	0.01	100.54	0.01
8.50	0.01	100.55	0.01
9.00	0.02	100.55	0.02
9.50	0.02	100.56	0.02
10.00	0.02	100.56	0.02
10.50	0.03	100.57	0.03
11.00	0.03	100.58	0.03
11.50	0.06	100.60	0.06
12.00	**0.36**	**100.76**	**0.36**
12.50	**0.10**	**100.64**	**0.10**
13.00	0.04	100.59	0.04
13.50	0.03	100.58	0.03
14.00	0.03	100.57	0.03
14.50	0.02	100.57	0.02
15.00	0.02	100.56	0.02
15.50	0.02	100.56	0.02
16.00	0.01	100.55	0.01
16.50	0.01	100.55	0.01
17.00	0.01	100.55	0.01
17.50	0.01	100.54	0.01
18.00	0.01	100.54	0.01
18.50	0.01	100.54	0.01
19.00	0.01	100.54	0.01
19.50	0.01	100.54	0.01
20.00	0.01	100.54	0.01
20.50	0.01	100.54	0.01
21.00	0.01	100.54	0.01
21.50	0.01	100.53	0.01
22.00	0.01	100.53	0.01
22.50	0.01	100.53	0.01
23.00	0.01	100.53	0.01
23.50	0.00	100.53	0.00
24.00	0.00	100.53	0.00
24.50	0.00	100.50	0.00
25.00	0.00	100.50	0.00
25.50	0.00	100.50	0.00
26.00	0.00	100.50	0.00
26.50	0.00	100.50	0.00
27.00	0.00	100.50	0.00
27.50	0.00	100.50	0.00
28.00	0.00	100.50	0.00
28.50	0.00	100.50	0.00
29.00	0.00	100.50	0.00
29.50	0.00	100.50	0.00
30.00	0.00	100.50	0.00

Pond CB7:

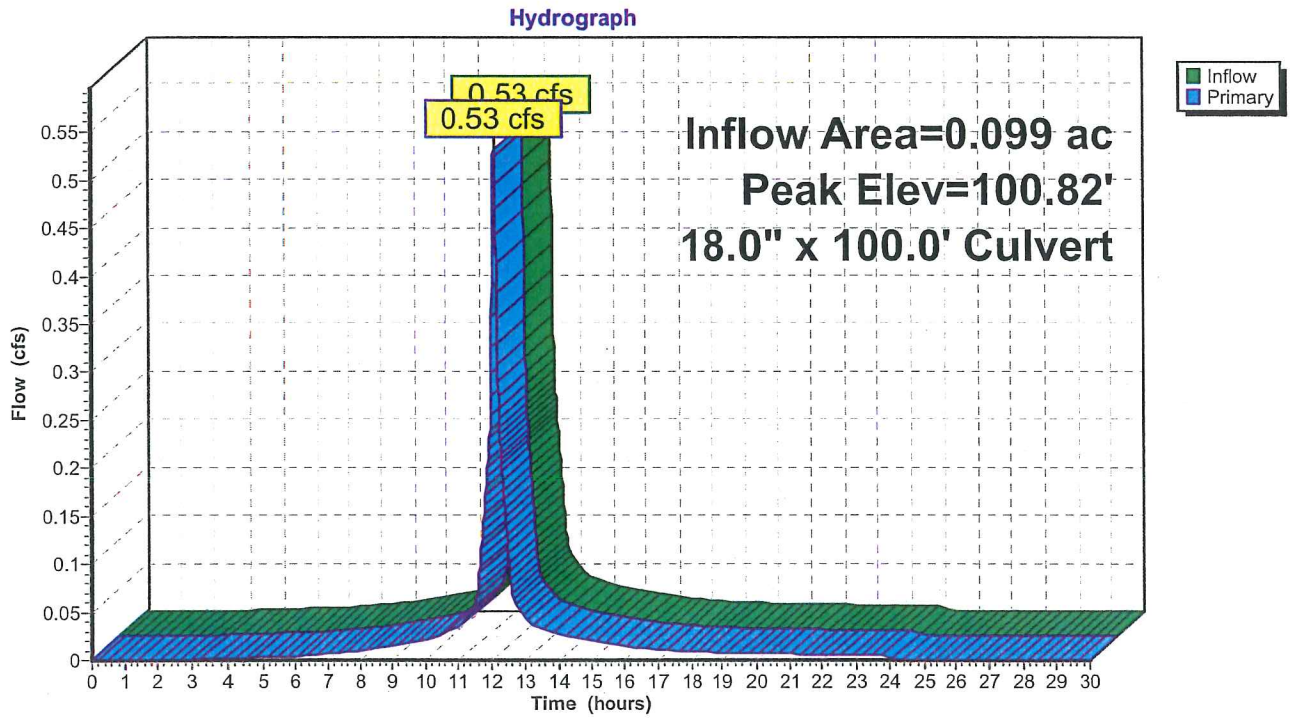
Inflow Area = 0.099 ac, Inflow Depth = 4.80" for 25 yr event
Inflow = 0.53 cfs @ 12.07 hrs, Volume= 0.040 af
Outflow = 0.53 cfs @ 12.07 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min
Primary = 0.53 cfs @ 12.07 hrs, Volume= 0.040 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.82' @ 12.07 hrs
Flood Elev= 103.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	100.50'	**18.0" x 100.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 99.00' S= 0.0150 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.53 cfs @ 12.07 hrs HW=100.82' TW=93.08' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 0.53 cfs @ 1.9 fps)

Pond CB7:



Hydrograph for Pond CB8: CB8 w/ SD10

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	92.50	0.00
0.50	0.00	92.50	0.00
1.00	0.00	92.50	0.00
1.50	0.00	92.50	0.00
2.00	0.00	92.50	0.00
2.50	0.00	92.50	0.00
3.00	0.00	92.51	0.00
3.50	0.00	92.51	0.00
4.00	0.00	92.52	0.00
4.50	0.00	92.52	0.00
5.00	0.00	92.52	0.00
5.50	0.00	92.53	0.00
6.00	0.01	92.53	0.01
6.50	0.01	92.54	0.01
7.00	0.01	92.55	0.01
7.50	0.02	92.55	0.02
8.00	0.02	92.56	0.02
8.50	0.03	92.57	0.03
9.00	0.04	92.58	0.04
9.50	0.04	92.59	0.04
10.00	0.06	92.60	0.06
10.50	0.07	92.62	0.07
11.00	0.09	92.63	0.09
11.50	0.16	92.67	0.16
12.00	**1.08**	**92.96**	**1.08**
12.50	**0.32**	**92.75**	**0.32**
13.00	0.14	92.66	0.14
13.50	0.11	92.64	0.11
14.00	0.09	92.63	0.09
14.50	0.08	92.62	0.08
15.00	0.07	92.61	0.07
15.50	0.06	92.60	0.06
16.00	0.05	92.59	0.05
16.50	0.04	92.59	0.04
17.00	0.04	92.58	0.04
17.50	0.03	92.58	0.03
18.00	0.03	92.57	0.03
18.50	0.03	92.57	0.03
19.00	0.03	92.57	0.03
19.50	0.02	92.57	0.02
20.00	0.02	92.56	0.02
20.50	0.02	92.56	0.02
21.00	0.02	92.56	0.02
21.50	0.02	92.56	0.02
22.00	0.02	92.56	0.02
22.50	0.02	92.56	0.02
23.00	0.02	92.56	0.02
23.50	0.02	92.55	0.02
24.00	0.02	92.55	0.02
24.50	0.00	92.50	0.00
25.00	0.00	92.50	0.00
25.50	0.00	92.50	0.00
26.00	0.00	92.50	0.00
26.50	0.00	92.50	0.00
27.00	0.00	92.50	0.00
27.50	0.00	92.50	0.00
28.00	0.00	92.50	0.00
28.50	0.00	92.50	0.00
29.00	0.00	92.50	0.00
29.50	0.00	92.50	0.00
30.00	0.00	92.50	0.00

Pond CB8: CB8 w/ SD10

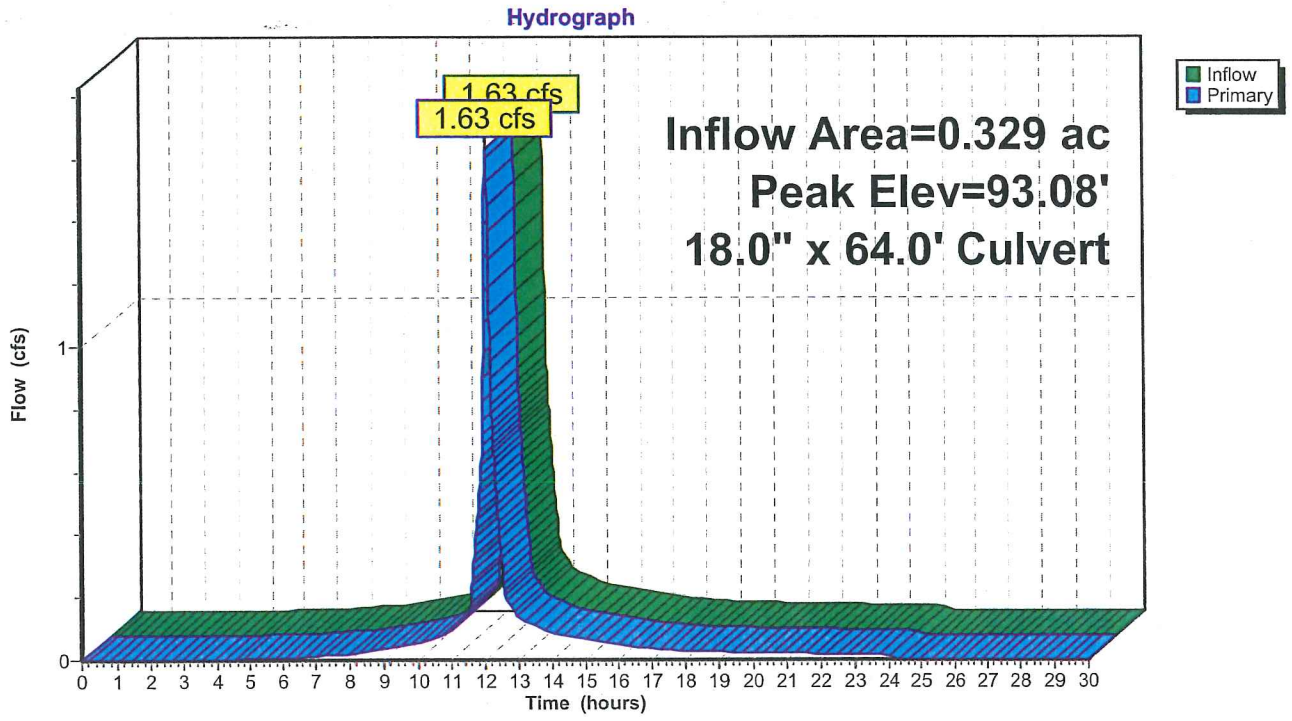
Inflow Area = 0.329 ac, Inflow Depth = 4.27" for 25 yr event
Inflow = 1.63 cfs @ 12.07 hrs, Volume= 0.117 af
Outflow = 1.63 cfs @ 12.07 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min
Primary = 1.63 cfs @ 12.07 hrs, Volume= 0.117 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 93.08' @ 12.07 hrs
Flood Elev= 96.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

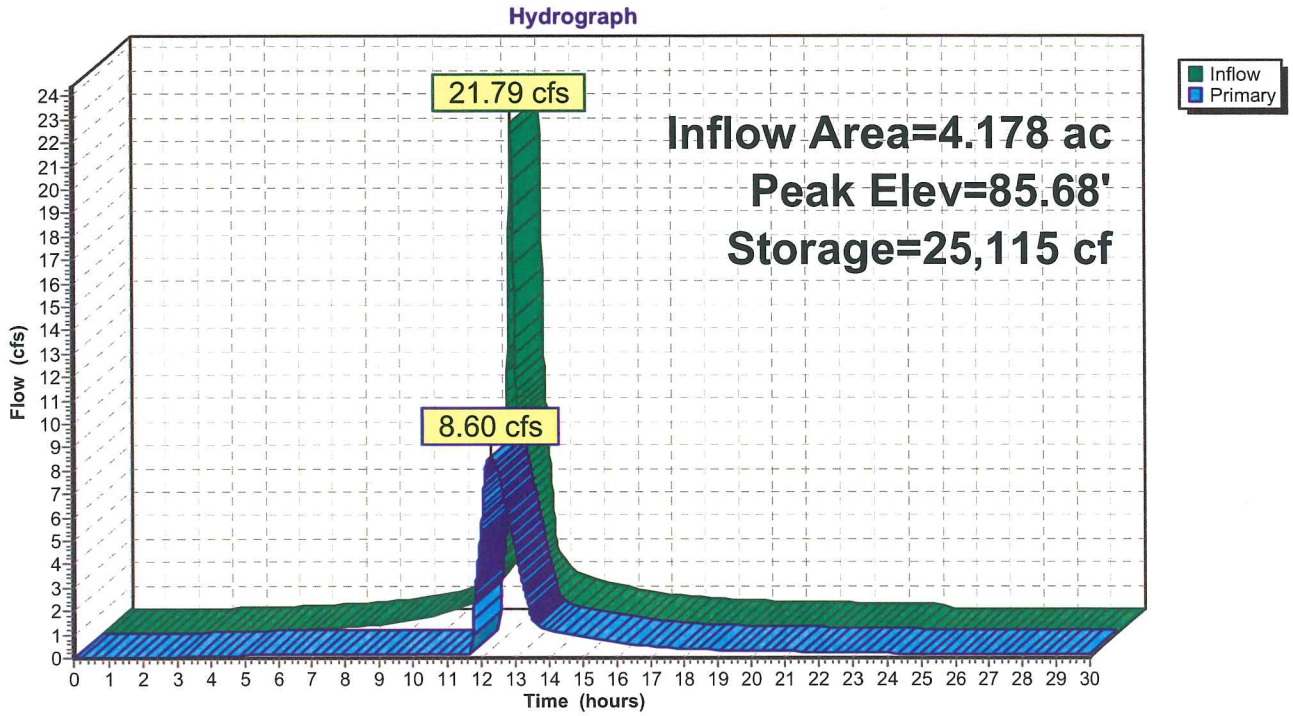
Device	Routing	Invert	Outlet Devices
#1	Primary	92.50'	**18.0" x 64.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 91.00' S= 0.0234 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean

Primary OutFlow Max=1.63 cfs @ 12.07 hrs HW=93.08' TW=86.03' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 1.63 cfs @ 2.6 fps)

Pond CB8: CB8 w/ SD10



Pond DP1: Pond #1



Pond DP1: Pond #1

Inflow Area = 4.178 ac, Inflow Depth = 4.62" for 25 yr event
Inflow = 21.79 cfs @ 12.07 hrs, Volume= 1.608 af
Outflow = 8.60 cfs @ 12.27 hrs, Volume= 1.371 af, Atten= 61%, Lag= 12.2 min
Primary = 8.60 cfs @ 12.27 hrs, Volume= 1.371 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 85.68' @ 12.27 hrs Surf.Area= 10,632 sf Storage= 25,115 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 86.2 min (859.3 - 773.0)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	40,053 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
83.00	8,187	0	0
84.00	9,064	8,626	8,626
85.00	9,985	9,525	18,150
86.00	10,943	10,464	28,614
87.00	11,934	11,439	40,053

Device	Routing	Invert	Outlet Devices
#1	Primary	80.90'	**18.0" x 68.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 79.00' S= 0.0279 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	86.50'	**15.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	84.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	83.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=8.60 cfs @ 12.27 hrs HW=85.68' TW=80.69' (Dynamic Tailwater)
- **1=Culvert** (Passes 8.60 cfs of 17.07 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 8.46 cfs @ 5.2 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DP2: Pond #2

[87] Warning: Oscillations may require Finer Routing or smaller dt

Inflow Area = 0.469 ac, Inflow Depth = 3.99" for 25 yr event
Inflow = 2.15 cfs @ 12.08 hrs, Volume= 0.156 af
Outflow = 0.25 cfs @ 12.74 hrs, Volume= 0.156 af, Atten= 89%, Lag= 39.9 min
Primary = 0.25 cfs @ 12.74 hrs, Volume= 0.156 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 87.01' @ 12.74 hrs Surf.Area= 1,730 sf Storage= 2,717 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 160.9 min (956.2 - 795.4)

Volume	Invert	Avail.Storage	Storage Description
#1	85.00'	13,186 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
85.00	987	0	0
86.00	1,344	1,166	1,166
87.00	1,726	1,535	2,701
88.00	2,152	1,939	4,640
89.00	2,604	2,378	7,018
90.00	3,080	2,842	9,860
91.00	3,573	3,327	13,186

Device	Routing	Invert	Outlet Devices
#1	Primary	82.90'	**18.0" x 44.0' long Culvert** CMP, square edge headwall, Ke= 0.500 Outlet Invert= 82.00' S= 0.0205 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	89.00'	**15.0' long (Profile 4) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 2.77 2.97 3.21
#3	Device 1	87.00'	**0.10' x 1.80' Horiz. Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	85.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=0.25 cfs @ 12.74 hrs HW=87.01' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.25 cfs of 15.60 cfs potential flow)
  - **3=Grate** (Weir Controls 0.11 cfs @ 0.3 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

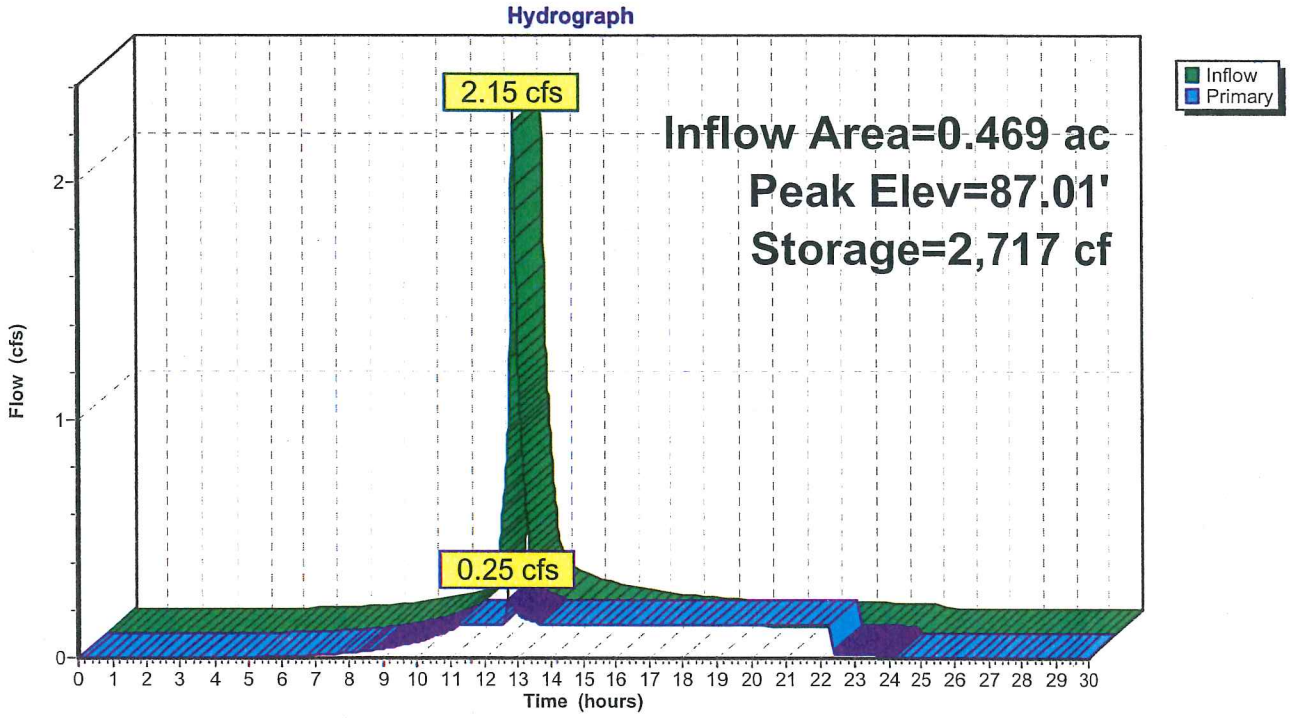
Hydrograph for Pond DP1: Pond #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	83.00	0.00
1.00	0.00	0	83.00	0.00
2.00	0.02	0	83.00	0.02
3.00	0.04	0	83.00	0.04
4.00	0.07	0	83.00	0.07
5.00	0.12	0	83.00	0.12
6.00	0.16	17	83.00	0.14
7.00	0.25	235	83.03	0.14
8.00	0.36	810	83.10	0.14
9.00	0.58	1,961	83.24	0.14
10.00	0.84	4,001	83.48	0.14
11.00	1.35	7,402	83.86	0.14
12.00	**14.53**	**17,686**	**84.95**	**5.39**
13.00	**1.79**	**16,403**	**84.82**	**4.58**
14.00	1.14	13,694	84.54	1.18
15.00	0.86	13,610	84.54	0.88
16.00	0.61	13,528	84.53	0.63
17.00	0.48	13,478	84.52	0.49
18.00	0.37	13,433	84.52	0.38
19.00	0.33	13,410	84.51	0.33
20.00	0.30	13,394	84.51	0.30
21.00	0.27	13,380	84.51	0.27
22.00	0.25	13,366	84.51	0.25
23.00	0.22	13,351	84.51	0.22
24.00	0.19	13,335	84.51	0.20
25.00	0.00	12,862	84.46	0.14
26.00	0.00	12,358	84.40	0.14
27.00	0.00	11,854	84.35	0.14
28.00	0.00	11,350	84.30	0.14
29.00	0.00	10,846	84.24	0.14
30.00	0.00	10,342	84.19	0.14

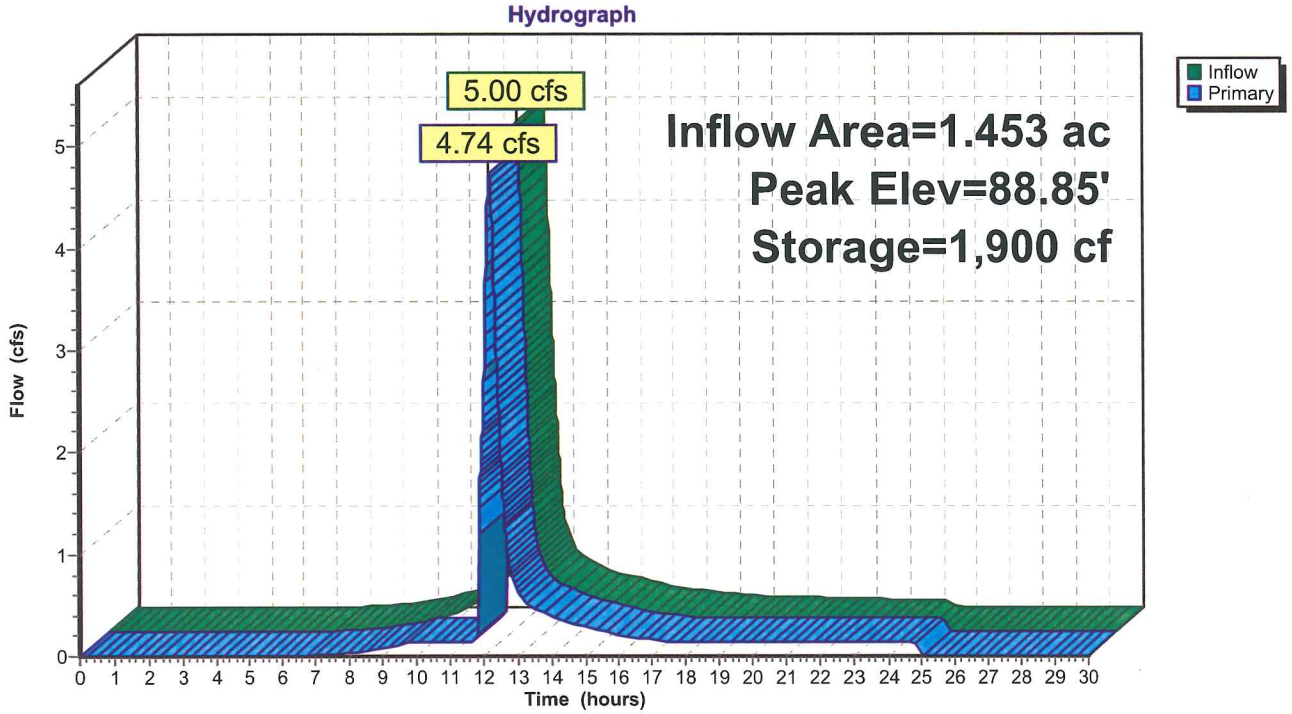
Hydrograph for Pond DP2: Pond #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	85.00	0.00
1.00	0.00	0	85.00	0.00
2.00	0.00	0	85.00	0.00
3.00	0.00	0	85.00	0.00
4.00	0.00	0	85.00	0.00
5.00	0.00	0	85.00	0.00
6.00	0.01	0	85.00	0.01
7.00	0.01	0	85.00	0.01
8.00	0.02	0	85.00	0.02
9.00	0.04	0	85.00	0.04
10.00	0.07	0	85.00	0.07
11.00	0.12	0	85.00	0.12
12.00	**1.38**	**775**	**85.70**	**0.14**
13.00	**0.19**	**2,712**	**87.01**	**0.20**
14.00	0.12	2,691	86.99	0.14
15.00	0.09	2,568	86.92	0.14
16.00	0.07	2,347	86.79	0.14
17.00	0.05	2,052	86.61	0.14
18.00	0.04	1,713	86.39	0.14
19.00	0.04	1,343	86.13	0.14
20.00	0.03	961	85.84	0.14
21.00	0.03	566	85.52	0.14
22.00	0.03	162	85.16	0.14
23.00	0.02	0	85.00	0.03
24.00	0.02	0	85.00	0.03
25.00	0.00	0	85.00	0.00
26.00	0.00	0	85.00	0.00
27.00	0.00	0	85.00	0.00
28.00	0.00	0	85.00	0.00
29.00	0.00	0	85.00	0.00
30.00	0.00	0	85.00	0.00

Pond DP2: Pond #2



Pond DP3: Pond #3 (UIS Filter)



Pond DP3: Pond #3 (UIS Filter)

Inflow Area = 1.453 ac, Inflow Depth = 3.62" for 25 yr event
Inflow = 5.00 cfs @ 12.16 hrs, Volume= 0.438 af
Outflow = 4.74 cfs @ 12.20 hrs, Volume= 0.438 af, Atten= 5%, Lag= 2.5 min
Primary = 4.74 cfs @ 12.20 hrs, Volume= 0.438 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 88.85' @ 12.20 hrs Surf.Area= 1,260 sf Storage= 1,900 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 51.0 min (866.3 - 815.2)

Volume	Invert	Avail.Storage	Storage Description
#1	87.00'	3,535 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
87.00	810	0	0
88.00	1,040	925	925
89.00	1,300	1,170	2,095
90.00	1,580	1,440	3,535

Device	Routing	Invert	Outlet Devices
#1	Primary	84.90'	**18.0" x 28.0' long Culvert** CMP, square edge headwall, Ke= 0.500 Outlet Invert= 84.50' S= 0.0143 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	89.50'	**10.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	88.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	87.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=4.74 cfs @ 12.20 hrs HW=88.85' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 4.74 cfs of 15.21 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 4.60 cfs @ 2.8 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

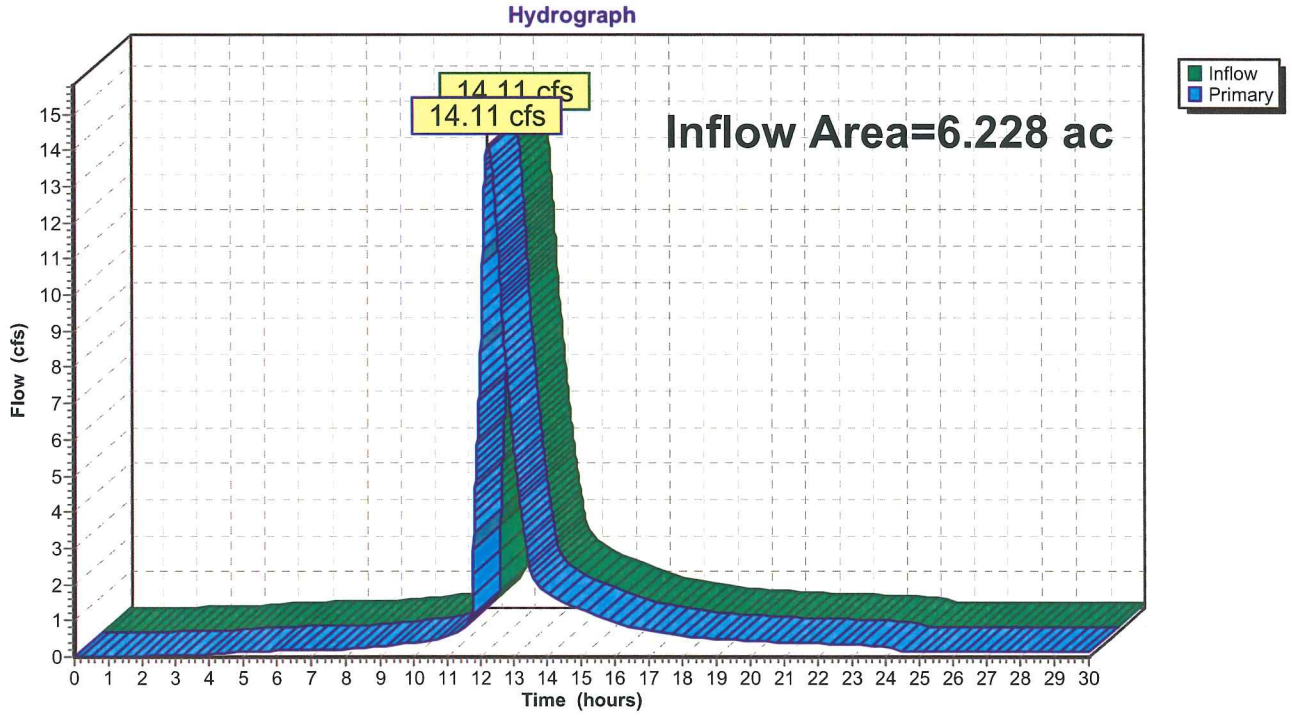
Pond SP1: Study Point #1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.228 ac, Inflow Depth > 3.92" for 25 yr event
Inflow = 14.11 cfs @ 12.26 hrs, Volume= 2.034 af
Primary = 14.11 cfs @ 12.26 hrs, Volume= 2.034 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Pond SP1: Study Point #1



Hydrograph for Pond DP3: Pond #3 (UIS Filter)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	87.00	0.00
1.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
3.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
5.00	0.00	0	87.00	0.00
6.00	0.00	0	87.00	0.00
7.00	0.01	0	87.00	0.01
8.00	0.03	0	87.00	0.03
9.00	0.08	0	87.00	0.08
10.00	0.15	2	87.00	0.14
11.00	0.28	249	87.30	0.14
12.00	**2.42**	**1,566**	**88.57**	**2.27**
13.00	**0.63**	**1,509**	**88.53**	**0.64**
14.00	0.38	1,497	88.52	0.38
15.00	0.29	1,492	88.51	0.29
16.00	0.20	1,486	88.51	0.21
17.00	0.16	1,481	88.50	0.16
18.00	0.12	1,464	88.49	0.14
19.00	0.11	1,371	88.41	0.14
20.00	0.10	1,237	88.29	0.14
21.00	0.09	1,068	88.14	0.14
22.00	0.08	869	87.95	0.14
23.00	0.07	641	87.72	0.14
24.00	0.06	383	87.44	0.14
25.00	0.00	0	87.00	0.00
26.00	0.00	0	87.00	0.00
27.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
29.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00

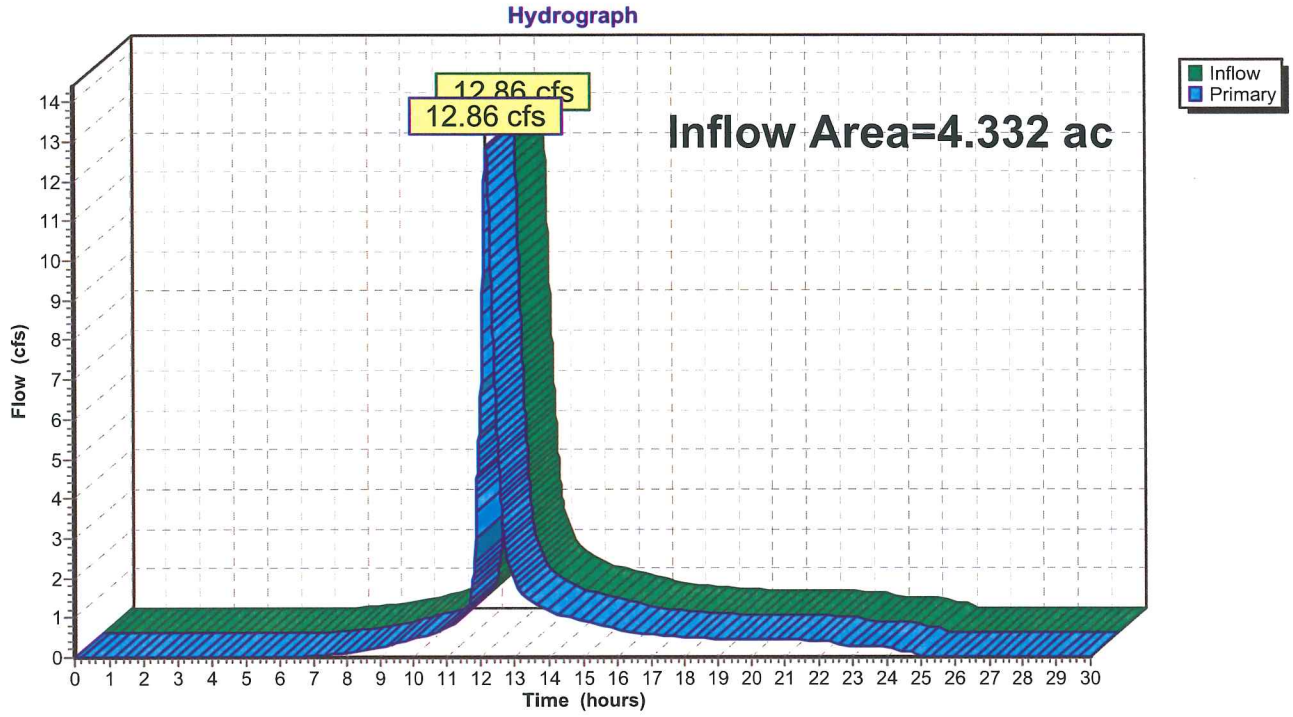
Pond SP2: Study Point #2

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.332 ac, Inflow Depth = 3.67" for 25 yr event
Inflow = 12.86 cfs @ 12.19 hrs, Volume= 1.323 af
Primary = 12.86 cfs @ 12.19 hrs, Volume= 1.323 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Pond SP2: Study Point #2



Hydrograph for Pond SP1: Study Point #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
0.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
1.50	0.01	0.00	0.01
2.00	0.02	0.00	0.02
2.50	0.03	0.00	0.03
3.00	0.04	0.00	0.04
3.50	0.05	0.00	0.05
4.00	0.08	0.00	0.08
4.50	0.10	0.00	0.10
5.00	0.13	0.00	0.13
5.50	0.16	0.00	0.16
6.00	0.17	0.00	0.17
6.50	0.18	0.00	0.18
7.00	0.19	0.00	0.19
7.50	0.20	0.00	0.20
8.00	0.22	0.00	0.22
8.50	0.25	0.00	0.25
9.00	0.29	0.00	0.29
9.50	0.33	0.00	0.33
10.00	0.39	0.00	0.39
10.50	0.46	0.00	0.46
11.00	0.57	0.00	0.57
11.50	0.79	0.00	0.79
12.00	**7.79**	0.00	**7.79**
12.50	**12.06**	0.00	**12.06**
13.00	5.84	0.00	5.84
13.50	2.33	0.00	2.33
14.00	1.76	0.00	1.76
14.50	1.50	0.00	1.50
15.00	1.31	0.00	1.31
15.50	1.12	0.00	1.12
16.00	0.94	0.00	0.94
16.50	0.81	0.00	0.81
17.00	0.73	0.00	0.73
17.50	0.65	0.00	0.65
18.00	0.57	0.00	0.57
18.50	0.52	0.00	0.52
19.00	0.49	0.00	0.49
19.50	0.47	0.00	0.47
20.00	0.44	0.00	0.44
20.50	0.42	0.00	0.42
21.00	0.40	0.00	0.40
21.50	0.38	0.00	0.38
22.00	0.37	0.00	0.37
22.50	0.35	0.00	0.35
23.00	0.33	0.00	0.33
23.50	0.31	0.00	0.31
24.00	0.29	0.00	0.29
24.50	0.16	0.00	0.16
25.00	0.14	0.00	0.14
25.50	0.14	0.00	0.14
26.00	0.14	0.00	0.14
26.50	0.14	0.00	0.14
27.00	0.14	0.00	0.14
27.50	0.14	0.00	0.14
28.00	0.14	0.00	0.14
28.50	0.14	0.00	0.14
29.00	0.14	0.00	0.14
29.50	0.14	0.00	0.14
30.00	0.14	0.00	0.14

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P1: N corner adjacent to congress st. Runoff Area=0.930 ac Runoff Depth=4.10"
Flow Length=595' Tc=12.2 min CN=77 Runoff=3.65 cfs 0.318 af

Subcatchment P10: parking west of entrance Runoff Area=0.410 ac Runoff Depth=5.76"
Flow Length=181' Tc=5.0 min CN=92 Runoff=2.67 cfs 0.197 af

Subcatchment P11: east mid parking Runoff Area=12,044 sf Runoff Depth=5.87"
Flow Length=148' Tc=5.0 min CN=93 Runoff=1.82 cfs 0.135 af

Subcatchment P12: east far parking Runoff Area=4,301 sf Runoff Depth=5.99"
Flow Length=127' Tc=5.0 min CN=94 Runoff=0.66 cfs 0.049 af

Subcatchment P13: west side parking Runoff Area=0.290 ac Runoff Depth=5.64"
Flow Length=245' Tc=5.0 min CN=91 Runoff=1.87 cfs 0.136 af

Subcatchment P14: SW police entrance and drive Runoff Area=0.240 ac Runoff Depth=5.64"
Flow Length=125' Tc=5.0 min CN=91 Runoff=1.54 cfs 0.113 af

Subcatchment P15: access road Runoff Area=0.230 ac Runoff Depth=5.19"
Flow Length=269' Tc=5.0 min CN=87 Runoff=1.40 cfs 0.099 af

Subcatchment P17: Pond #2 Surface Runoff Area=0.140 ac Runoff Depth=4.42"
Flow Length=29' Tc=6.7 min CN=80 Runoff=0.70 cfs 0.052 af

Subcatchment P2&16: S corner includes some remote parkin Runoff Area=2.410 ac Runoff Depth=4.75"
Flow Length=671' Tc=13.6 min CN=83 Runoff=10.39 cfs 0.953 af

Subcatchment P3: Pond #1 Surface Runoff Area=0.330 ac Runoff Depth=4.42"
Tc=5.0 min CN=80 Runoff=1.76 cfs 0.122 af

Subcatchment P4: E corner includes piece of P&R lot Runoff Area=61,136 sf Runoff Depth=4.75"
Flow Length=448' Tc=12.0 min CN=83 Runoff=6.32 cfs 0.555 af

Subcatchment P5: Pond #3 Surface Runoff Area=0.050 ac Runoff Depth=4.42"
Tc=5.0 min CN=80 Runoff=0.27 cfs 0.018 af

Subcatchment P6: W side along access rd. Runoff Area=1.120 ac Runoff Depth=5.76"
Flow Length=853' Tc=24.7 min CN=92 Runoff=4.39 cfs 0.537 af

Subcatchment P7: NW parking lot and driveway Runoff Area=0.620 ac Runoff Depth=5.87"
Flow Length=232' Tc=5.0 min CN=93 Runoff=4.08 cfs 0.304 af

Subcatchment P8: south west parking area Runoff Area=0.700 ac Runoff Depth=5.64"
Flow Length=238' Tc=5.0 min CN=91 Runoff=4.50 cfs 0.329 af

Hydrograph for Pond SP2: Study Point #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
0.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00
6.00	0.01	0.00	0.01
6.50	0.01	0.00	0.01
7.00	0.04	0.00	0.04
7.50	0.07	0.00	0.07
8.00	0.11	0.00	0.11
8.50	0.17	0.00	0.17
9.00	0.25	0.00	0.25
9.50	0.34	0.00	0.34
10.00	0.45	0.00	0.45
10.50	0.57	0.00	0.57
11.00	0.72	0.00	0.72
11.50	1.05	0.00	1.05
12.00	**6.05**	0.00	**6.05**
12.50	**5.69**	0.00	**5.69**
13.00	1.92	0.00	1.92
13.50	1.39	0.00	1.39
14.00	1.16	0.00	1.16
14.50	1.01	0.00	1.01
15.00	0.90	0.00	0.90
15.50	0.80	0.00	0.80
16.00	0.69	0.00	0.69
16.50	0.61	0.00	0.61
17.00	0.57	0.00	0.57
17.50	0.52	0.00	0.52
18.00	0.49	0.00	0.49
18.50	0.47	0.00	0.47
19.00	0.46	0.00	0.46
19.50	0.45	0.00	0.45
20.00	0.44	0.00	0.44
20.50	0.43	0.00	0.43
21.00	0.43	0.00	0.43
21.50	0.42	0.00	0.42
22.00	0.41	0.00	0.41
22.50	0.30	0.00	0.30
23.00	0.30	0.00	0.30
23.50	0.29	0.00	0.29
24.00	0.28	0.00	0.28
24.50	0.14	0.00	0.14
25.00	0.00	0.00	0.00
25.50	0.00	0.00	0.00
26.00	0.00	0.00	0.00
26.50	0.00	0.00	0.00
27.00	0.00	0.00	0.00
27.50	0.00	0.00	0.00
28.00	0.00	0.00	0.00
28.50	0.00	0.00	0.00
29.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00
30.00	0.00	0.00	0.00

Pond SP2: Study Point #2

Inflow=16.67 cfs 1.727 af
Primary=16.67 cfs 1.727 af

Total Runoff Area = 10.561 ac Runoff Volume = 4.600 af Average Runoff Depth = 5.23"

Subcatchment P9: east near parking Runoff Area=0.410 ac Runoff Depth=5.76"
Flow Length=163' Tc=5.0 min CN=92 Runoff=2.67 cfs 0.197 af

Subcatchment Pbuilding: building Runoff Area=0.902 ac Runoff Depth=6.46"
Flow Length=226' Tc=5.0 min CN=98 Runoff=6.14 cfs 0.486 af

Reach C1: Driveway Culvert Peak Depth=0.45' Max Vel=9.7 fps Inflow=4.39 cfs 0.537 af
D=18.0" n=0.013 L=68.0' S=0.0441 '/' Capacity=22.06 cfs Outflow=4.39 cfs 0.537 af

Reach D1: Ditch above pond Peak Depth=0.55' Max Vel=4.8 fps Inflow=4.39 cfs 0.537 af
n=0.022 L=162.0' S=0.0309 '/' Capacity=21.65 cfs Outflow=4.39 cfs 0.537 af

Reach D2: Ditch below pond Peak Depth=0.76' Max Vel=4.5 fps Inflow=14.42 cfs 2.318 af
n=0.033 L=113.0' S=0.0265 '/' Capacity=26.12 cfs Outflow=14.42 cfs 2.317 af

Pond CB1: Peak Elev=88.98' Inflow=21.21 cfs 1.593 af
24.0" x 104.2' Culvert Outflow=21.21 cfs 1.593 af

Pond CB2: Peak Elev=89.92' Inflow=13.21 cfs 0.971 af
24.0" x 134.6' Culvert Outflow=13.21 cfs 0.971 af

Pond CB3: Peak Elev=90.51' Inflow=11.66 cfs 0.858 af
24.0" x 66.5' Culvert Outflow=11.66 cfs 0.858 af

Pond CB4: Peak Elev=94.93' Inflow=7.16 cfs 0.529 af
24.0" x 164.7' Culvert Outflow=7.16 cfs 0.529 af

Pond CB5: Peak Elev=98.53' Inflow=4.49 cfs 0.332 af
18.0" x 150.7' Culvert Outflow=4.49 cfs 0.332 af

Pond CB6: Peak Elev=100.11' Inflow=1.82 cfs 0.135 af
18.0" x 77.8' Culvert Outflow=1.82 cfs 0.135 af

Pond CB7: Peak Elev=100.86' Inflow=0.66 cfs 0.049 af
18.0" x 100.0' Culvert Outflow=0.66 cfs 0.049 af

Pond CB8: CB8 w/ SD10 Peak Elev=93.16' Inflow=2.05 cfs 0.149 af
18.0" x 64.0' Culvert Outflow=2.05 cfs 0.149 af

Pond DP1: Pond #1 Peak Elev=86.11' Storage=29,865 cf Inflow=27.05 cfs 2.018 af
Outflow=10.05 cfs 1.780 af

Pond DP2: Pond #2 Peak Elev=87.04' Storage=2,778 cf Inflow=2.73 cfs 0.200 af
Outflow=1.20 cfs 0.200 af

Pond DP3: Pond #3 (UIS Filter) Peak Elev=89.06' Storage=2,178 cf Inflow=6.49 cfs 0.573 af
Outflow=6.00 cfs 0.573 af

Pond SP1: Study Point #1 Inflow=17.09 cfs 2.635 af
Primary=17.09 cfs 2.635 af

Hydrograph for Subcatchment P1: N corner adjacent to congress st.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.00
6.50	0.54	0.00	0.00
7.00	0.61	0.00	0.00
7.50	0.68	0.00	0.01
8.00	0.76	0.01	0.01
8.50	0.86	0.02	0.03
9.00	0.98	0.04	0.04
9.50	1.11	0.08	0.06
10.00	1.27	0.12	0.09
10.50	1.45	0.19	0.13
11.00	1.67	0.29	0.19
11.50	2.00	0.45	0.32
12.00	3.35	1.32	**1.67**
12.50	4.70	2.38	**1.47**
13.00	5.02	2.64	0.47
13.50	5.25	2.83	0.35
14.00	5.43	2.99	0.29
14.50	5.59	3.12	0.24
15.00	5.72	3.24	0.22
15.50	5.84	3.34	0.18
16.00	5.94	3.42	0.15
16.50	6.02	3.50	0.13
17.00	6.09	3.56	0.12
17.50	6.16	3.62	0.11
18.00	6.22	3.67	0.09
18.50	6.27	3.72	0.09
19.00	6.32	3.76	0.08
19.50	6.37	3.80	0.08
20.00	6.41	3.84	0.07
20.50	6.45	3.88	0.07
21.00	6.50	3.92	0.07
21.50	6.53	3.95	0.06
22.00	6.57	3.98	0.06
22.50	6.61	4.01	0.06
23.00	6.64	4.04	0.06
23.50	6.67	4.07	0.05
24.00	**6.70**	**4.10**	0.05
24.50	6.70	4.10	0.00
25.00	6.70	4.10	0.00
25.50	6.70	4.10	0.00
26.00	6.70	4.10	0.00
26.50	6.70	4.10	0.00
27.00	6.70	4.10	0.00
27.50	6.70	4.10	0.00
28.00	6.70	4.10	0.00
28.50	6.70	4.10	0.00
29.00	6.70	4.10	0.00
29.50	6.70	4.10	0.00
30.00	6.70	4.10	0.00

Subcatchment P1: N corner adjacent to congress st.

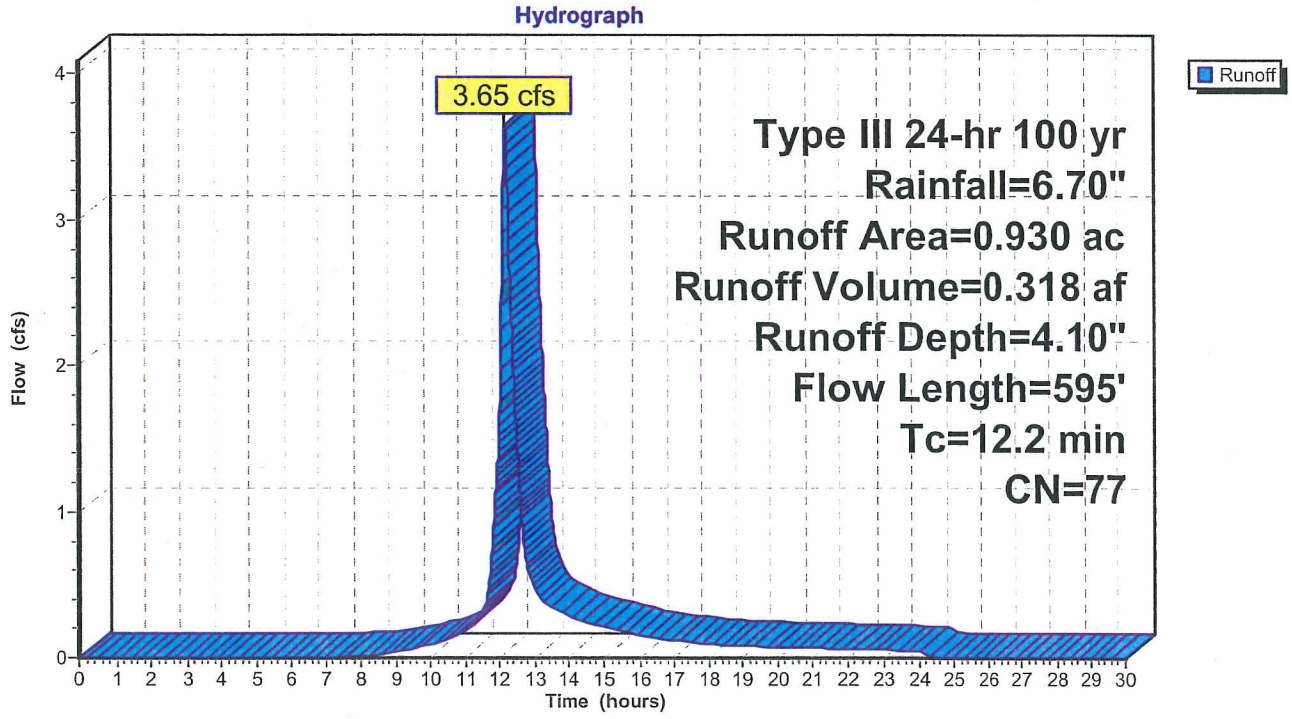
Runoff = 3.65 cfs @ 12.16 hrs, Volume= 0.318 af, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.500	74	>75% Grass cover, Good, HSG C
0.240	80	>75% Grass cover, Good, HSG D
0.190	79	Woods, Fair, HSG D
0.930	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.1700	0.2		**Sheet Flow, Sheet** Grass: Dense n= 0.240 P2= 2.00"
4.5	495	0.0700	1.9		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
12.2	595	Total			

Subcatchment P1: N corner adjacent to congress st.



Hydrograph for Subcatchment P10: parking west of entrance

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.01	0.00
4.00	0.29	0.01	0.01
4.50	0.33	0.02	0.01
5.00	0.38	0.04	0.01
5.50	0.43	0.06	0.02
6.00	0.48	0.08	0.02
6.50	0.54	0.11	0.02
7.00	0.61	0.14	0.03
7.50	0.68	0.19	0.04
8.00	0.76	0.24	0.05
8.50	0.86	0.30	0.06
9.00	0.98	0.39	0.07
9.50	1.11	0.49	0.09
10.00	1.27	0.61	0.11
10.50	1.45	0.76	0.14
11.00	1.67	0.95	0.17
11.50	2.00	1.23	0.28
12.00	3.35	2.49	**1.79**
12.50	4.70	3.80	**0.50**
13.00	5.02	4.11	0.22
13.50	5.25	4.33	0.17
14.00	5.43	4.51	0.14
14.50	5.59	4.67	0.12
15.00	5.72	4.80	0.10
15.50	5.84	4.91	0.09
16.00	5.94	5.01	0.07
16.50	6.02	5.09	0.07
17.00	6.09	5.16	0.06
17.50	6.16	5.23	0.05
18.00	6.22	5.28	0.04
18.50	6.27	5.34	0.04
19.00	6.32	5.38	0.04
19.50	6.37	5.43	0.04
20.00	6.41	5.47	0.04
20.50	6.45	5.52	0.03
21.00	6.50	5.56	0.03
21.50	6.53	5.60	0.03
22.00	6.57	5.63	0.03
22.50	6.61	5.67	0.03
23.00	6.64	5.70	0.03
23.50	6.67	5.73	0.02
24.00	**6.70**	**5.76**	0.02
24.50	6.70	5.76	0.00
25.00	6.70	5.76	0.00
25.50	6.70	5.76	0.00
26.00	6.70	5.76	0.00
26.50	6.70	5.76	0.00
27.00	6.70	5.76	0.00
27.50	6.70	5.76	0.00
28.00	6.70	5.76	0.00
28.50	6.70	5.76	0.00
29.00	6.70	5.76	0.00
29.50	6.70	5.76	0.00
30.00	6.70	5.76	0.00

Subcatchment P10: parking west of entrance

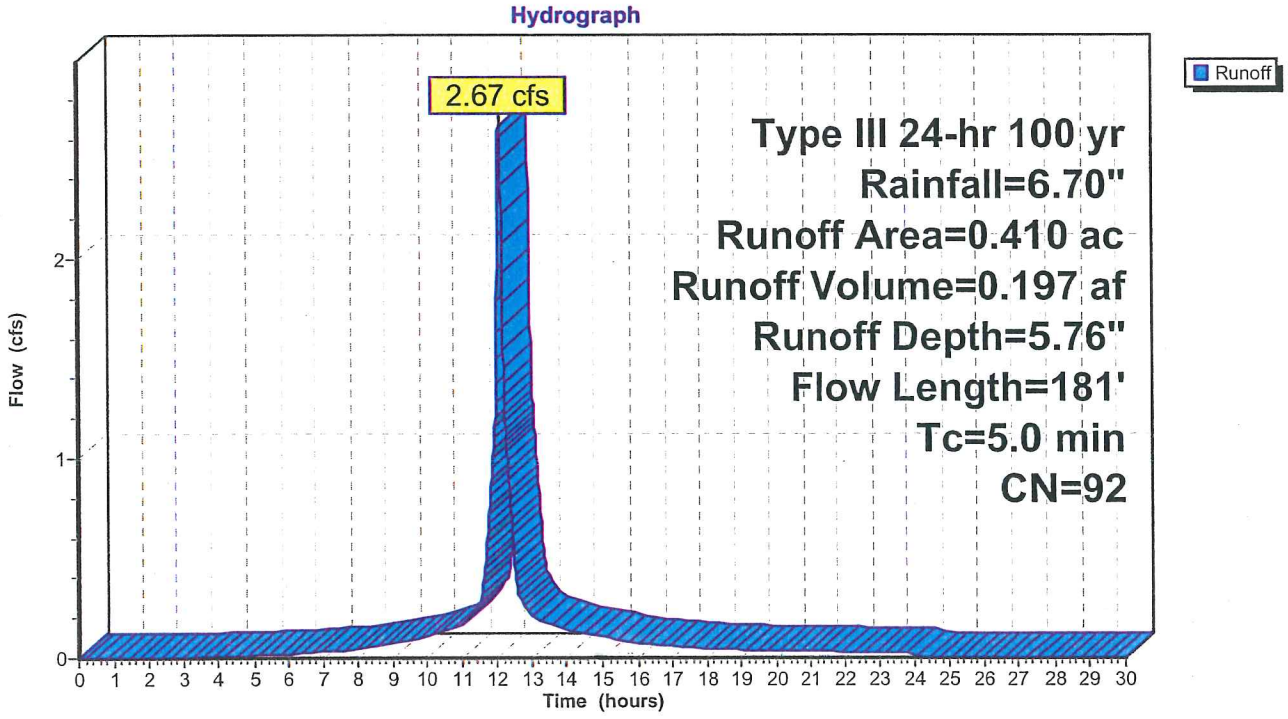
Runoff = 2.67 cfs @ 12.07 hrs, Volume= 0.197 af, Depth= 5.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.280	98	Paved parking & roofs
0.130	80	>75% Grass cover, Good, HSG D
0.410	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	134	0.0400	1.5		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	47	0.0100	5.5	43.64	**Channel Flow,** Area= 8.0 sf Perim= 6.0' r= 1.33' n= 0.033 Earth, grassed & winding
1.6	181	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P10: parking west of entrance



Hydrograph for Subcatchment P11: east mid parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.01	0.00
4.00	0.29	0.02	0.01
4.50	0.33	0.04	0.01
5.00	0.38	0.05	0.01
5.50	0.43	0.08	0.01
6.00	0.48	0.10	0.02
6.50	0.54	0.13	0.02
7.00	0.61	0.17	0.02
7.50	0.68	0.22	0.03
8.00	0.76	0.28	0.03
8.50	0.86	0.34	0.04
9.00	0.98	0.43	0.05
9.50	1.11	0.54	0.06
10.00	1.27	0.67	0.07
10.50	1.45	0.82	0.10
11.00	1.67	1.02	0.12
11.50	2.00	1.31	0.19
12.00	3.35	2.59	**1.22**
12.50	4.70	3.91	**0.34**
13.00	5.02	4.22	0.15
13.50	5.25	4.44	0.12
14.00	5.43	4.62	0.09
14.50	5.59	4.78	0.08
15.00	5.72	4.91	0.07
15.50	5.84	5.02	0.06
16.00	5.94	5.12	0.05
16.50	6.02	5.20	0.04
17.00	6.09	5.28	0.04
17.50	6.16	5.34	0.03
18.00	6.22	5.40	0.03
18.50	6.27	5.45	0.03
19.00	6.32	5.50	0.03
19.50	6.37	5.55	0.03
20.00	6.41	5.59	0.02
20.50	6.45	5.63	0.02
21.00	6.50	5.67	0.02
21.50	6.53	5.71	0.02
22.00	6.57	5.75	0.02
22.50	6.61	5.78	0.02
23.00	6.64	5.81	0.02
23.50	6.67	5.85	0.02
24.00	**6.70**	**5.87**	0.02
24.50	6.70	5.87	0.00
25.00	6.70	5.87	0.00
25.50	6.70	5.87	0.00
26.00	6.70	5.87	0.00
26.50	6.70	5.87	0.00
27.00	6.70	5.87	0.00
27.50	6.70	5.87	0.00
28.00	6.70	5.87	0.00
28.50	6.70	5.87	0.00
29.00	6.70	5.87	0.00
29.50	6.70	5.87	0.00
30.00	6.70	5.87	0.00

Subcatchment P11: east mid parking

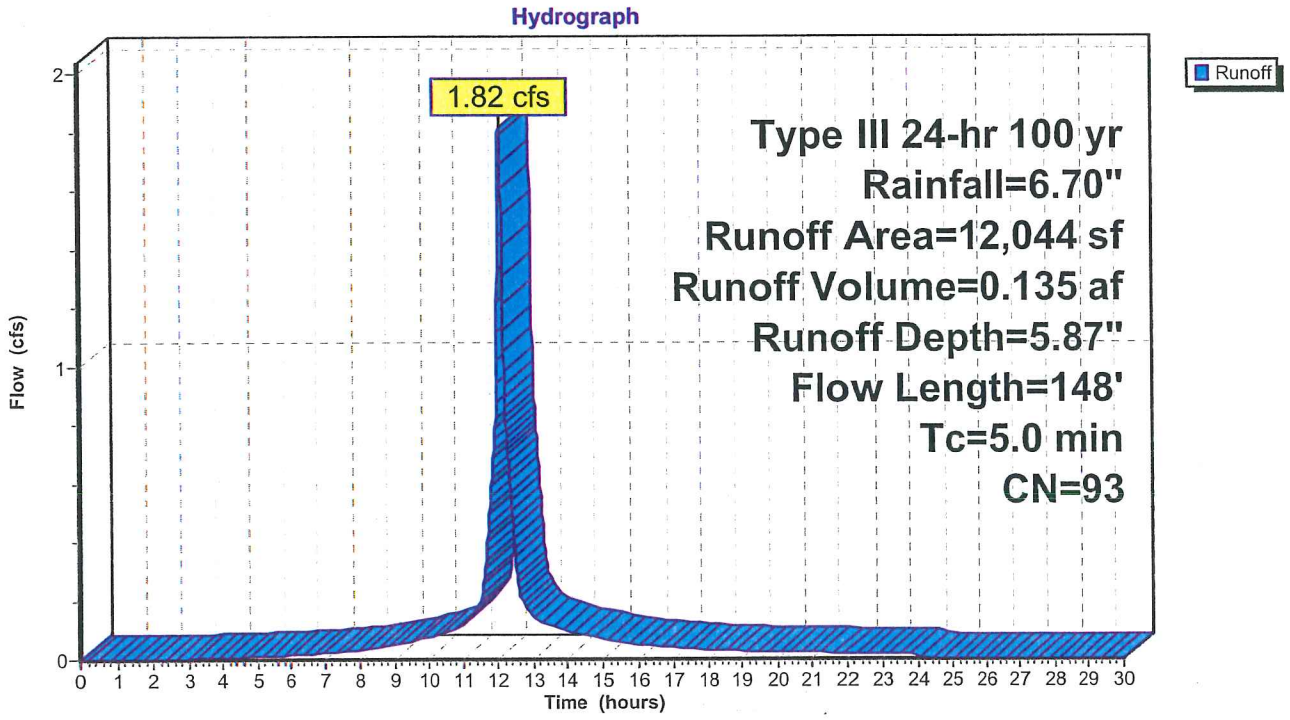
Runoff = 1.82 cfs @ 12.07 hrs, Volume= 0.135 af, Depth= 5.87"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (sf)	CN	Description
8,559	98	Paved parking & roofs
3,485	80	>75% Grass cover, Good, HSG D
12,044	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	70	0.0400	1.3		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.4	78	0.0400	3.0		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.3	148	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P11: east mid parking



Hydrograph for Subcatchment P12: east far parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.01	0.00
3.50	0.25	0.02	0.00
4.00	0.29	0.03	0.00
4.50	0.33	0.05	0.00
5.00	0.38	0.07	0.00
5.50	0.43	0.10	0.01
6.00	0.48	0.13	0.01
6.50	0.54	0.16	0.01
7.00	0.61	0.21	0.01
7.50	0.68	0.26	0.01
8.00	0.76	0.32	0.01
8.50	0.86	0.39	0.02
9.00	0.98	0.48	0.02
9.50	1.11	0.60	0.02
10.00	1.27	0.73	0.03
10.50	1.45	0.89	0.04
11.00	1.67	1.10	0.04
11.50	2.00	1.39	0.07
12.00	3.35	2.69	**0.44**
12.50	4.70	4.02	**0.12**
13.00	5.02	4.33	0.05
13.50	5.25	4.55	0.04
14.00	5.43	4.74	0.03
14.50	5.59	4.89	0.03
15.00	5.72	5.02	0.03
15.50	5.84	5.14	0.02
16.00	5.94	5.23	0.02
16.50	6.02	5.32	0.02
17.00	6.09	5.39	0.01
17.50	6.16	5.45	0.01
18.00	6.22	5.51	0.01
18.50	6.27	5.56	0.01
19.00	6.32	5.61	0.01
19.50	6.37	5.66	0.01
20.00	6.41	5.70	0.01
20.50	6.45	5.75	0.01
21.00	6.50	5.79	0.01
21.50	6.53	5.83	0.01
22.00	6.57	5.86	0.01
22.50	6.61	5.90	0.01
23.00	6.64	5.93	0.01
23.50	6.67	5.96	0.01
24.00	**6.70**	**5.99**	0.01
24.50	6.70	5.99	0.00
25.00	6.70	5.99	0.00
25.50	6.70	5.99	0.00
26.00	6.70	5.99	0.00
26.50	6.70	5.99	0.00
27.00	6.70	5.99	0.00
27.50	6.70	5.99	0.00
28.00	6.70	5.99	0.00
28.50	6.70	5.99	0.00
29.00	6.70	5.99	0.00
29.50	6.70	5.99	0.00
30.00	6.70	5.99	0.00

Subcatchment P12: east far parking

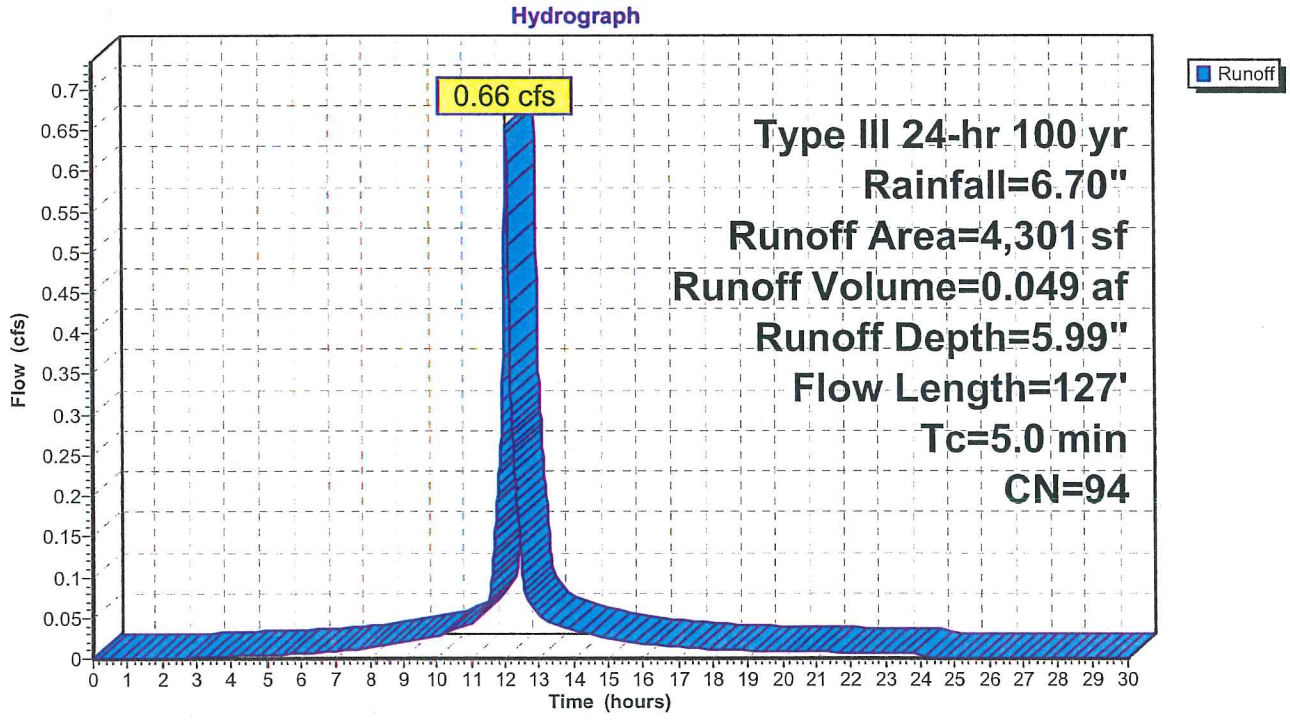
Runoff = 0.66 cfs @ 12.07 hrs, Volume= 0.049 af, Depth= 5.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (sf)	CN	Description
3,400	98	Paved parking & roofs
901	80	>75% Grass cover, Good, HSG D
4,301	94	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0400	1.4		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	27	0.0400	4.1		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	127	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P12: east far parking



Hydrograph for Subcatchment P13: west side parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.01	0.00
4.50	0.33	0.02	0.01
5.00	0.38	0.03	0.01
5.50	0.43	0.04	0.01
6.00	0.48	0.06	0.01
6.50	0.54	0.09	0.02
7.00	0.61	0.12	0.02
7.50	0.68	0.16	0.02
8.00	0.76	0.21	0.03
8.50	0.86	0.27	0.04
9.00	0.98	0.34	0.05
9.50	1.11	0.44	0.06
10.00	1.27	0.55	0.07
10.50	1.45	0.70	0.09
11.00	1.67	0.88	0.12
11.50	2.00	1.16	0.19
12.00	3.35	2.40	**1.25**
12.50	4.70	3.69	**0.35**
13.00	5.02	4.01	0.15
13.50	5.25	4.22	0.12
14.00	5.43	4.40	0.10
14.50	5.59	4.55	0.08
15.00	5.72	4.69	0.07
15.50	5.84	4.80	0.06
16.00	5.94	4.89	0.05
16.50	6.02	4.98	0.05
17.00	6.09	5.05	0.04
17.50	6.16	5.11	0.04
18.00	6.22	5.17	0.03
18.50	6.27	5.22	0.03
19.00	6.32	5.27	0.03
19.50	6.37	5.32	0.03
20.00	6.41	5.36	0.03
20.50	6.45	5.40	0.02
21.00	6.50	5.44	0.02
21.50	6.53	5.48	0.02
22.00	6.57	5.52	0.02
22.50	6.61	5.55	0.02
23.00	6.64	5.58	0.02
23.50	6.67	5.61	0.02
24.00	**6.70**	**5.64**	0.02
24.50	6.70	5.64	0.00
25.00	6.70	5.64	0.00
25.50	6.70	5.64	0.00
26.00	6.70	5.64	0.00
26.50	6.70	5.64	0.00
27.00	6.70	5.64	0.00
27.50	6.70	5.64	0.00
28.00	6.70	5.64	0.00
28.50	6.70	5.64	0.00
29.00	6.70	5.64	0.00
29.50	6.70	5.64	0.00
30.00	6.70	5.64	0.00

Subcatchment P13: west side parking

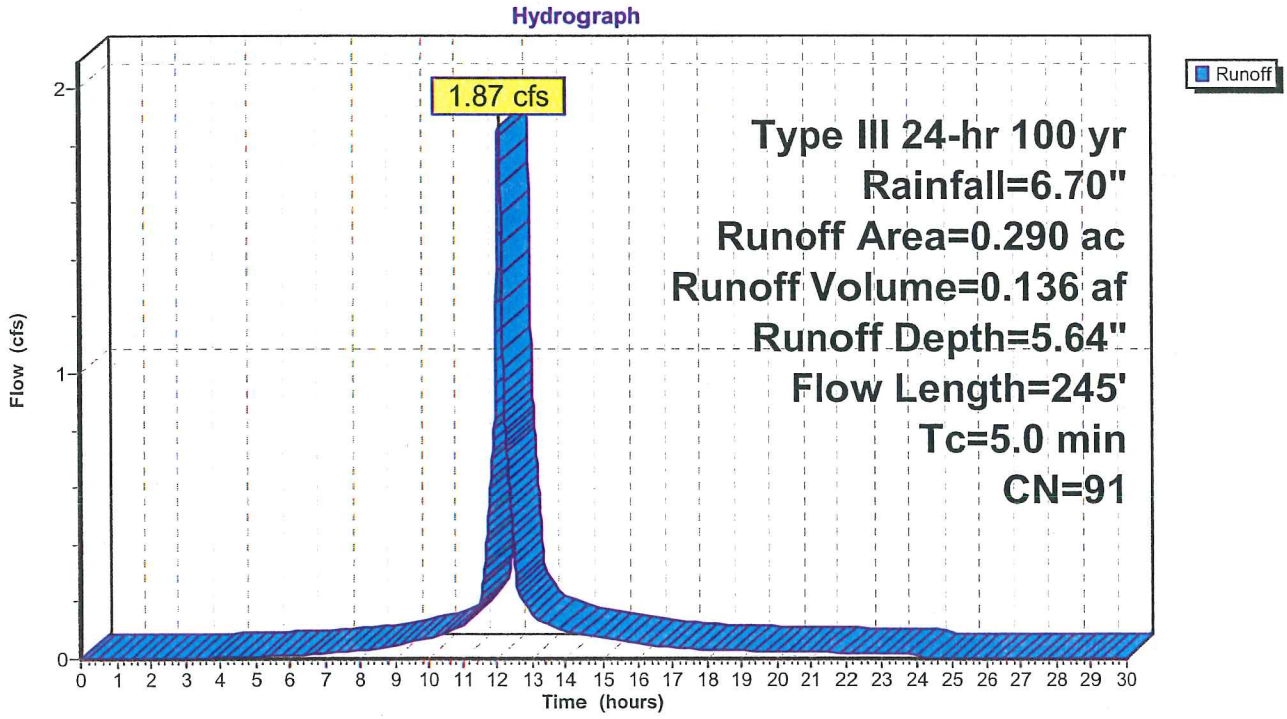
Runoff = 1.87 cfs @ 12.07 hrs, Volume= 0.136 af, Depth= 5.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.110	80	>75% Grass cover, Good, HSG D
0.290	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.7	145	0.0300	3.5		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.2	245	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P13: west side parking



Hydrograph for Subcatchment P14: SW police entrance and drive

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.01	0.00
4.50	0.33	0.02	0.00
5.00	0.38	0.03	0.01
5.50	0.43	0.04	0.01
6.00	0.48	0.06	0.01
6.50	0.54	0.09	0.01
7.00	0.61	0.12	0.02
7.50	0.68	0.16	0.02
8.00	0.76	0.21	0.02
8.50	0.86	0.27	0.03
9.00	0.98	0.34	0.04
9.50	1.11	0.44	0.05
10.00	1.27	0.55	0.06
10.50	1.45	0.70	0.08
11.00	1.67	0.88	0.10
11.50	2.00	1.16	0.16
12.00	3.35	2.40	**1.03**
12.50	4.70	3.69	**0.29**
13.00	5.02	4.01	0.13
13.50	5.25	4.22	0.10
14.00	5.43	4.40	0.08
14.50	5.59	4.55	0.07
15.00	5.72	4.69	0.06
15.50	5.84	4.80	0.05
16.00	5.94	4.89	0.04
16.50	6.02	4.98	0.04
17.00	6.09	5.05	0.03
17.50	6.16	5.11	0.03
18.00	6.22	5.17	0.03
18.50	6.27	5.22	0.02
19.00	6.32	5.27	0.02
19.50	6.37	5.32	0.02
20.00	6.41	5.36	0.02
20.50	6.45	5.40	0.02
21.00	6.50	5.44	0.02
21.50	6.53	5.48	0.02
22.00	6.57	5.52	0.02
22.50	6.61	5.55	0.02
23.00	6.64	5.58	0.02
23.50	6.67	5.61	0.01
24.00	**6.70**	**5.64**	0.01
24.50	6.70	5.64	0.00
25.00	6.70	5.64	0.00
25.50	6.70	5.64	0.00
26.00	6.70	5.64	0.00
26.50	6.70	5.64	0.00
27.00	6.70	5.64	0.00
27.50	6.70	5.64	0.00
28.00	6.70	5.64	0.00
28.50	6.70	5.64	0.00
29.00	6.70	5.64	0.00
29.50	6.70	5.64	0.00
30.00	6.70	5.64	0.00

Hydrograph for Subcatchment P14: SW police entrance and drive

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.01	0.00
4.50	0.33	0.02	0.00
5.00	0.38	0.03	0.01
5.50	0.43	0.04	0.01
6.00	0.48	0.06	0.01
6.50	0.54	0.09	0.01
7.00	0.61	0.12	0.02
7.50	0.68	0.16	0.02
8.00	0.76	0.21	0.02
8.50	0.86	0.27	0.03
9.00	0.98	0.34	0.04
9.50	1.11	0.44	0.05
10.00	1.27	0.55	0.06
10.50	1.45	0.70	0.08
11.00	1.67	0.88	0.10
11.50	2.00	1.16	0.16
12.00	3.35	2.40	**1.03**
12.50	4.70	3.69	**0.29**
13.00	5.02	4.01	0.13
13.50	5.25	4.22	0.10
14.00	5.43	4.40	0.08
14.50	5.59	4.55	0.07
15.00	5.72	4.69	0.06
15.50	5.84	4.80	0.05
16.00	5.94	4.89	0.04
16.50	6.02	4.98	0.04
17.00	6.09	5.05	0.03
17.50	6.16	5.11	0.03
18.00	6.22	5.17	0.03
18.50	6.27	5.22	0.02
19.00	6.32	5.27	0.02
19.50	6.37	5.32	0.02
20.00	6.41	5.36	0.02
20.50	6.45	5.40	0.02
21.00	6.50	5.44	0.02
21.50	6.53	5.48	0.02
22.00	6.57	5.52	0.02
22.50	6.61	5.55	0.02
23.00	6.64	5.58	0.02
23.50	6.67	5.61	0.01
24.00	**6.70**	**5.64**	0.01
24.50	6.70	5.64	0.00
25.00	6.70	5.64	0.00
25.50	6.70	5.64	0.00
26.00	6.70	5.64	0.00
26.50	6.70	5.64	0.00
27.00	6.70	5.64	0.00
27.50	6.70	5.64	0.00
28.00	6.70	5.64	0.00
28.50	6.70	5.64	0.00
29.00	6.70	5.64	0.00
29.50	6.70	5.64	0.00
30.00	6.70	5.64	0.00

Subcatchment P14: SW police entrance and drive

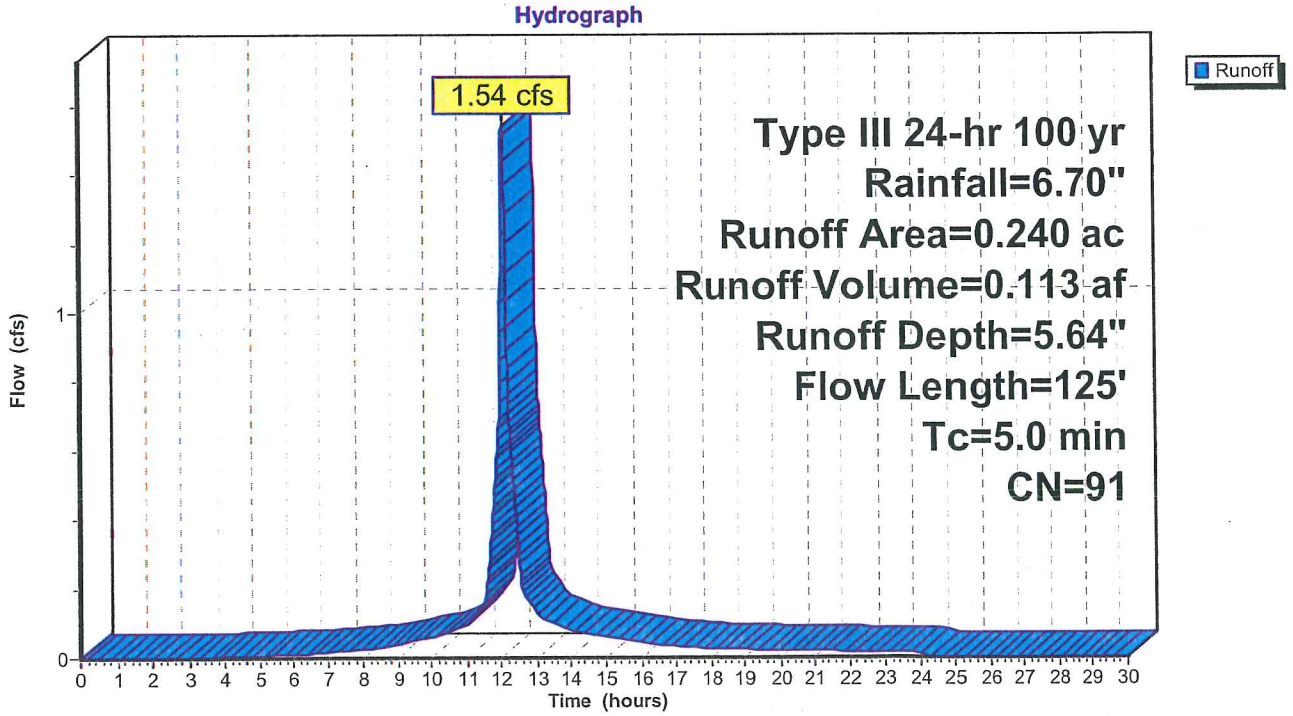
Runoff = 1.54 cfs @ 12.07 hrs, Volume= 0.113 af, Depth= 5.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.150	98	Paved parking & roofs
0.090	80	>75% Grass cover, Good, HSG D
0.240	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.0	100	0.0100	0.8		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	25	0.0400	4.1		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	125	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P14: SW police entrance and drive



Hydrograph for Subcatchment P15: access road

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.01	0.00
6.00	0.48	0.02	0.00
6.50	0.54	0.03	0.01
7.00	0.61	0.05	0.01
7.50	0.68	0.08	0.01
8.00	0.76	0.11	0.02
8.50	0.86	0.15	0.02
9.00	0.98	0.21	0.03
9.50	1.11	0.29	0.04
10.00	1.27	0.38	0.05
10.50	1.45	0.50	0.06
11.00	1.67	0.66	0.08
11.50	2.00	0.90	0.13
12.00	3.35	2.05	**0.92**
12.50	4.70	3.29	**0.27**
13.00	5.02	3.59	0.12
13.50	5.25	3.80	0.09
14.00	5.43	3.98	0.07
14.50	5.59	4.12	0.07
15.00	5.72	4.25	0.06
15.50	5.84	4.36	0.05
16.00	5.94	4.46	0.04
16.50	6.02	4.54	0.04
17.00	6.09	4.61	0.03
17.50	6.16	4.67	0.03
18.00	6.22	4.73	0.02
18.50	6.27	4.78	0.02
19.00	6.32	4.82	0.02
19.50	6.37	4.87	0.02
20.00	6.41	4.91	0.02
20.50	6.45	4.95	0.02
21.00	6.50	4.99	0.02
21.50	6.53	5.03	0.02
22.00	6.57	5.07	0.02
22.50	6.61	5.10	0.02
23.00	6.64	5.13	0.01
23.50	6.67	5.16	0.01
24.00	**6.70**	**5.19**	0.01
24.50	6.70	5.19	0.00
25.00	6.70	5.19	0.00
25.50	6.70	5.19	0.00
26.00	6.70	5.19	0.00
26.50	6.70	5.19	0.00
27.00	6.70	5.19	0.00
27.50	6.70	5.19	0.00
28.00	6.70	5.19	0.00
28.50	6.70	5.19	0.00
29.00	6.70	5.19	0.00
29.50	6.70	5.19	0.00
30.00	6.70	5.19	0.00

Subcatchment P15: access road

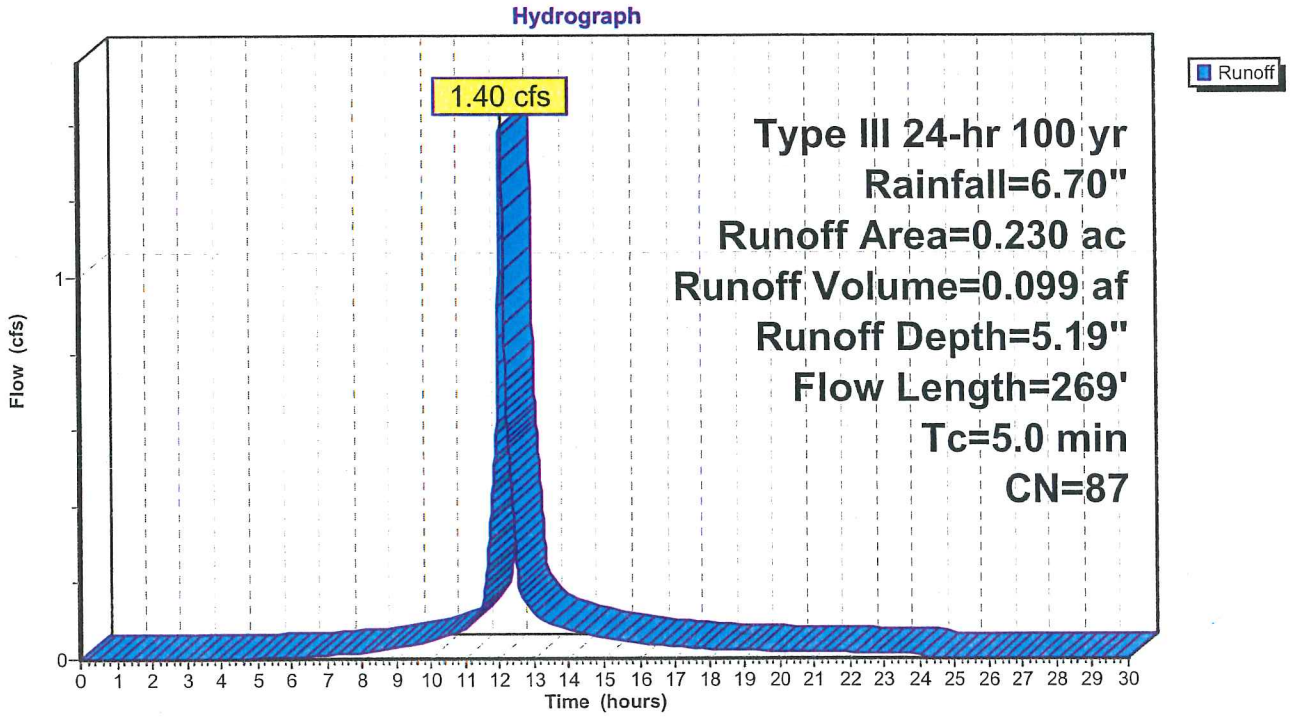
Runoff = 1.40 cfs @ 12.07 hrs, Volume= 0.099 af, Depth= 5.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.130	93	Paved roads w/open ditches, HSG D
0.100	80	>75% Grass cover, Good, HSG D
0.230	87	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.3	169	0.0300	10.1	81.02	**Channel Flow,** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.025 Earth, clean & straight
1.8	269	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P15: access road



Hydrograph for Subcatchment P17: Pond #2 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.00
6.50	0.54	0.00	0.00
7.00	0.61	0.00	0.00
7.50	0.68	0.01	0.00
8.00	0.76	0.03	0.00
8.50	0.86	0.05	0.01
9.00	0.98	0.08	0.01
9.50	1.11	0.12	0.01
10.00	1.27	0.18	0.02
10.50	1.45	0.26	0.03
11.00	1.67	0.38	0.03
11.50	2.00	0.56	0.06
12.00	3.35	1.52	**0.40**
12.50	4.70	2.64	**0.17**
13.00	5.02	2.91	0.07
13.50	5.25	3.11	0.05
14.00	5.43	3.27	0.04
14.50	5.59	3.41	0.04
15.00	5.72	3.53	0.03
15.50	5.84	3.64	0.03
16.00	5.94	3.72	0.02
16.50	6.02	3.80	0.02
17.00	6.09	3.87	0.02
17.50	6.16	3.93	0.02
18.00	6.22	3.98	0.01
18.50	6.27	4.03	0.01
19.00	6.32	4.07	0.01
19.50	6.37	4.11	0.01
20.00	6.41	4.15	0.01
20.50	6.45	4.19	0.01
21.00	6.50	4.23	0.01
21.50	6.53	4.27	0.01
22.00	6.57	4.30	0.01
22.50	6.61	4.33	0.01
23.00	6.64	4.36	0.01
23.50	6.67	4.39	0.01
24.00	**6.70**	**4.42**	0.01
24.50	6.70	4.42	0.00
25.00	6.70	4.42	0.00
25.50	6.70	4.42	0.00
26.00	6.70	4.42	0.00
26.50	6.70	4.42	0.00
27.00	6.70	4.42	0.00
27.50	6.70	4.42	0.00
28.00	6.70	4.42	0.00
28.50	6.70	4.42	0.00
29.00	6.70	4.42	0.00
29.50	6.70	4.42	0.00
30.00	6.70	4.42	0.00

Subcatchment P17: Pond #2 Surface

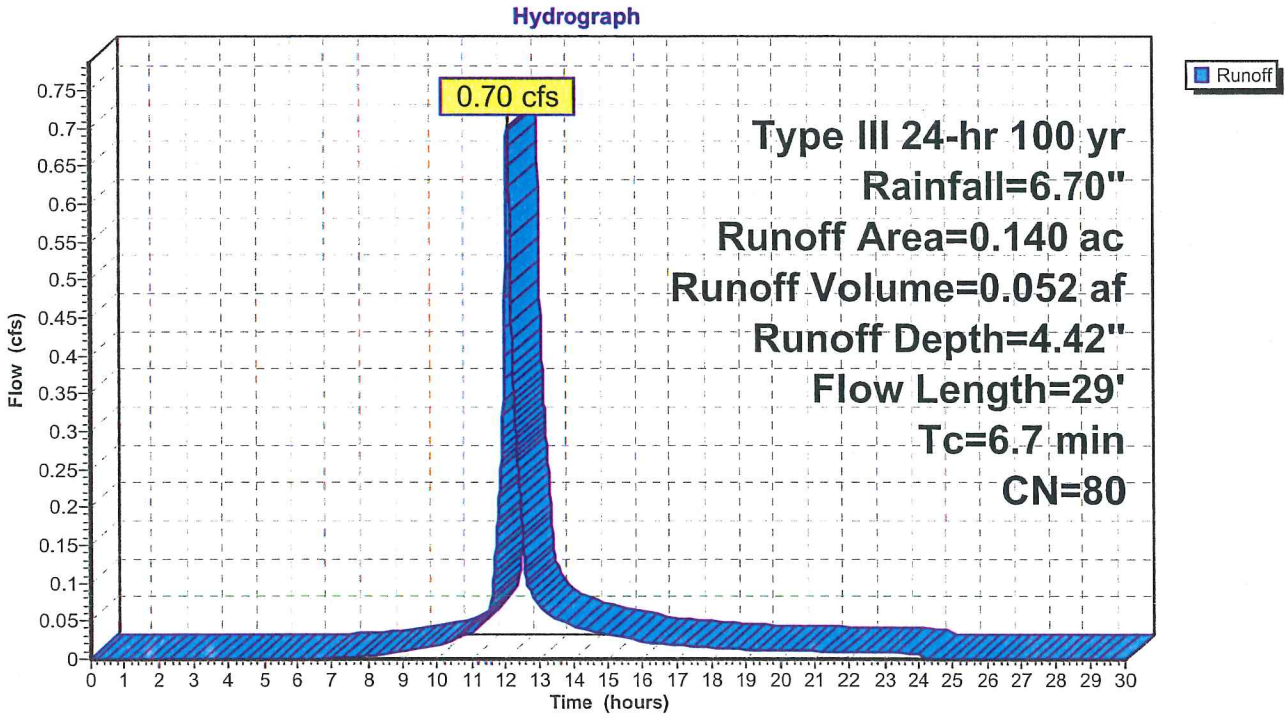
Runoff = 0.70 cfs @ 12.10 hrs, Volume= 0.052 af, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.140	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	29	0.2400	0.3		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.00"
5.0					**Direct Entry,**
6.7	29	Total			

Subcatchment P17: Pond #2 Surface



Hydrograph for Subcatchment P2&16: S corner includes some remote parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.01
6.50	0.54	0.01	0.03
7.00	0.61	0.02	0.05
7.50	0.68	0.03	0.07
8.00	0.76	0.05	0.10
8.50	0.86	0.08	0.15
9.00	0.98	0.12	0.21
9.50	1.11	0.18	0.28
10.00	1.27	0.25	0.36
10.50	1.45	0.35	0.49
11.00	1.67	0.48	0.66
11.50	2.00	0.69	1.06
12.00	3.35	1.73	**4.82**
12.50	4.70	2.91	**4.52**
13.00	5.02	3.20	1.37
13.50	5.25	3.40	0.98
14.00	5.43	3.57	0.80
14.50	5.59	3.71	0.68
15.00	5.72	3.84	0.60
15.50	5.84	3.94	0.51
16.00	5.94	4.03	0.43
16.50	6.02	4.11	0.37
17.00	6.09	4.18	0.33
17.50	6.16	4.24	0.30
18.00	6.22	4.29	0.26
18.50	6.27	4.34	0.24
19.00	6.32	4.39	0.23
19.50	6.37	4.43	0.21
20.00	6.41	4.48	0.20
20.50	6.45	4.52	0.19
21.00	6.50	4.55	0.18
21.50	6.53	4.59	0.18
22.00	6.57	4.62	0.17
22.50	6.61	4.66	0.16
23.00	6.64	4.69	0.15
23.50	6.67	4.72	0.14
24.00	**6.70**	**4.75**	0.13
24.50	6.70	4.75	0.00
25.00	6.70	4.75	0.00
25.50	6.70	4.75	0.00
26.00	6.70	4.75	0.00
26.50	6.70	4.75	0.00
27.00	6.70	4.75	0.00
27.50	6.70	4.75	0.00
28.00	6.70	4.75	0.00
28.50	6.70	4.75	0.00
29.00	6.70	4.75	0.00
29.50	6.70	4.75	0.00
30.00	6.70	4.75	0.00

Subcatchment P2&16: S corner includes some remote parking

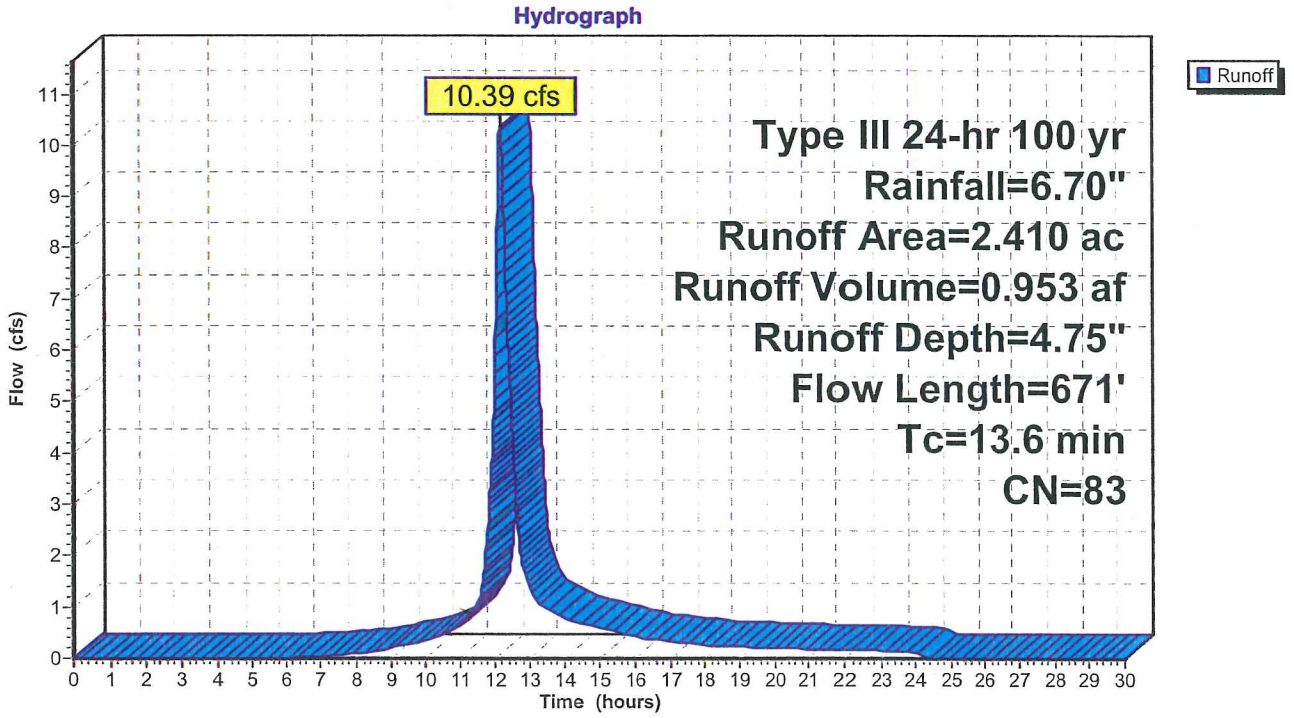
Runoff = 10.39 cfs @ 12.18 hrs, Volume= 0.953 af, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
1.220	80	>75% Grass cover, Good, HSG D
0.750	80	>75% Grass cover, Good, HSG D
2.410	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0500	0.1		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
0.2	43	0.3500	4.1		**Shallow Concentrated Flow, shallow** Short Grass Pasture Kv= 7.0 fps
0.9	528	0.0400	9.7	77.96	**Channel Flow, concentrated** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
13.6	671	Total			

Subcatchment P2&16: S corner includes some remote parking



Hydrograph for Subcatchment P3: Pond #1 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.00
6.50	0.54	0.00	0.00
7.00	0.61	0.00	0.00
7.50	0.68	0.01	0.01
8.00	0.76	0.03	0.01
8.50	0.86	0.05	0.02
9.00	0.98	0.08	0.02
9.50	1.11	0.12	0.03
10.00	1.27	0.18	0.04
10.50	1.45	0.26	0.06
11.00	1.67	0.38	0.08
11.50	2.00	0.56	0.15
12.00	3.35	1.52	**1.13**
12.50	4.70	2.64	**0.36**
13.00	5.02	2.91	0.16
13.50	5.25	3.11	0.12
14.00	5.43	3.27	0.10
14.50	5.59	3.41	0.09
15.00	5.72	3.53	0.08
15.50	5.84	3.64	0.07
16.00	5.94	3.72	0.05
16.50	6.02	3.80	0.05
17.00	6.09	3.87	0.04
17.50	6.16	3.93	0.04
18.00	6.22	3.98	0.03
18.50	6.27	4.03	0.03
19.00	6.32	4.07	0.03
19.50	6.37	4.11	0.03
20.00	6.41	4.15	0.03
20.50	6.45	4.19	0.03
21.00	6.50	4.23	0.02
21.50	6.53	4.27	0.02
22.00	6.57	4.30	0.02
22.50	6.61	4.33	0.02
23.00	6.64	4.36	0.02
23.50	6.67	4.39	0.02
24.00	**6.70**	**4.42**	0.02
24.50	6.70	4.42	0.00
25.00	6.70	4.42	0.00
25.50	6.70	4.42	0.00
26.00	6.70	4.42	0.00
26.50	6.70	4.42	0.00
27.00	6.70	4.42	0.00
27.50	6.70	4.42	0.00
28.00	6.70	4.42	0.00
28.50	6.70	4.42	0.00
29.00	6.70	4.42	0.00
29.50	6.70	4.42	0.00
30.00	6.70	4.42	0.00

Subcatchment P3: Pond #1 Surface

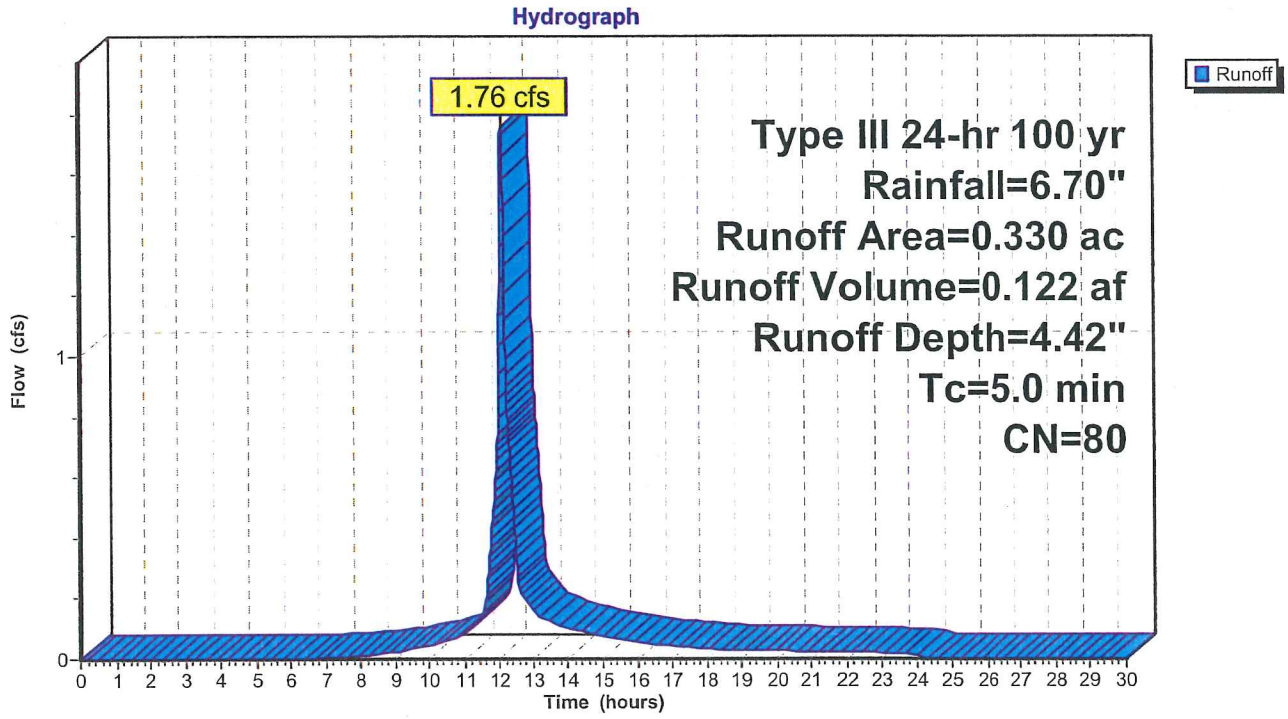
Runoff = 1.76 cfs @ 12.07 hrs, Volume= 0.122 af, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.330	80	>75% Grass cover, Good, HSG D

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

Subcatchment P3: Pond #1 Surface



Hydrograph for Subcatchment P4: E corner includes piece of P&R lot

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.01
6.50	0.54	0.01	0.02
7.00	0.61	0.02	0.03
7.50	0.68	0.03	0.04
8.00	0.76	0.05	0.06
8.50	0.86	0.08	0.09
9.00	0.98	0.12	0.12
9.50	1.11	0.18	0.17
10.00	1.27	0.25	0.21
10.50	1.45	0.35	0.29
11.00	1.67	0.48	0.39
11.50	2.00	0.69	0.64
12.00	3.35	1.73	**3.03**
12.50	4.70	2.91	**2.42**
13.00	5.02	3.20	0.77
13.50	5.25	3.40	0.56
14.00	5.43	3.57	0.46
14.50	5.59	3.71	0.40
15.00	5.72	3.84	0.35
15.50	5.84	3.94	0.30
16.00	5.94	4.03	0.25
16.50	6.02	4.11	0.21
17.00	6.09	4.18	0.19
17.50	6.16	4.24	0.17
18.00	6.22	4.29	0.15
18.50	6.27	4.34	0.14
19.00	6.32	4.39	0.13
19.50	6.37	4.43	0.12
20.00	6.41	4.48	0.12
20.50	6.45	4.52	0.11
21.00	6.50	4.55	0.11
21.50	6.53	4.59	0.10
22.00	6.57	4.62	0.10
22.50	6.61	4.66	0.09
23.00	6.64	4.69	0.09
23.50	6.67	4.72	0.08
24.00	**6.70**	**4.75**	0.08
24.50	6.70	4.75	0.00
25.00	6.70	4.75	0.00
25.50	6.70	4.75	0.00
26.00	6.70	4.75	0.00
26.50	6.70	4.75	0.00
27.00	6.70	4.75	0.00
27.50	6.70	4.75	0.00
28.00	6.70	4.75	0.00
28.50	6.70	4.75	0.00
29.00	6.70	4.75	0.00
29.50	6.70	4.75	0.00
30.00	6.70	4.75	0.00

Subcatchment P4: E corner includes piece of P&R lot

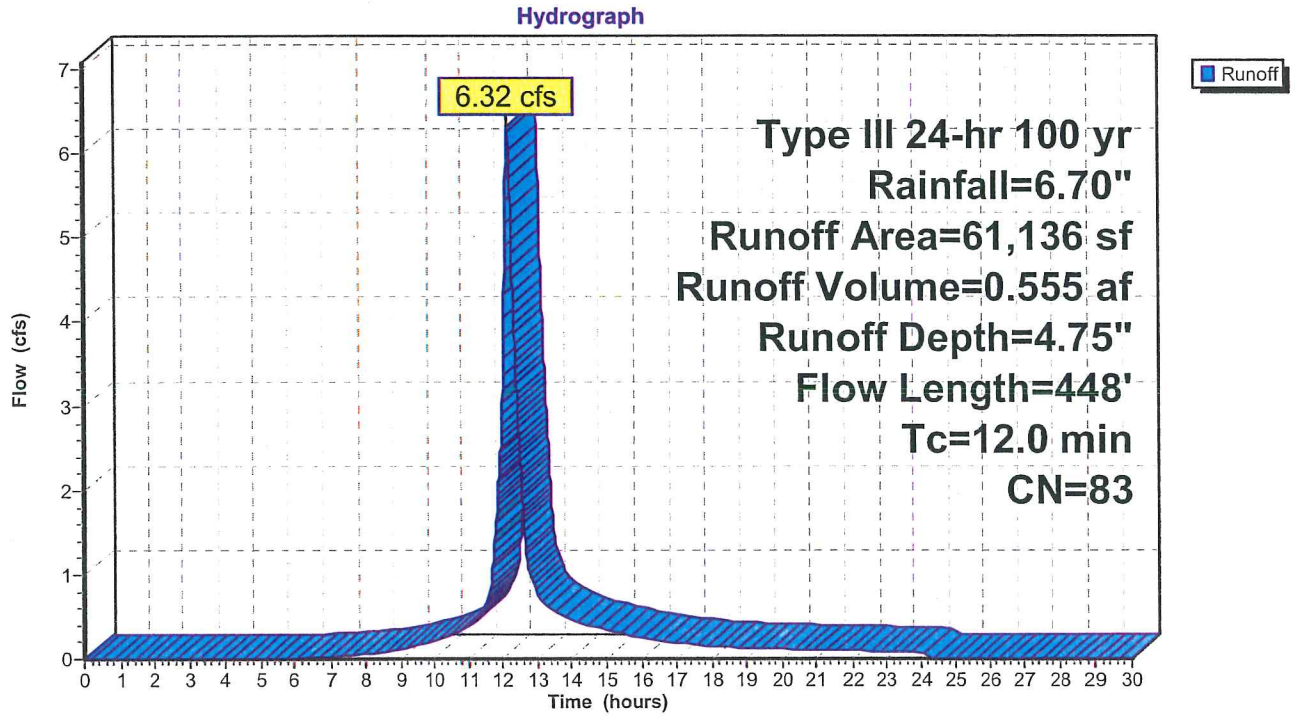
Runoff = 6.32 cfs @ 12.16 hrs, Volume= 0.555 af, Depth= 4.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (sf)	CN	Description
10,661	98	Paved parking & roofs
50,475	80	>75% Grass cover, Good, HSG D
61,136	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0800	0.2		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
1.3	190	0.1200	2.4		**Shallow Concentrated Flow, shallow conc.** Short Grass Pasture Kv= 7.0 fps
0.3	158	0.0400	8.3	33.36	**Trap/Vee/Rect Channel Flow, Ditch north of path** Bot.W=0.00' D=1.00' Z= 4.0 '/' Top.W=8.00' n= 0.022 Earth, clean & straight
12.0	448	Total			

Subcatchment P4: E corner includes piece of P&R lot



Hydrograph for Subcatchment P5: Pond #3 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.00	0.00
4.50	0.33	0.00	0.00
5.00	0.38	0.00	0.00
5.50	0.43	0.00	0.00
6.00	0.48	0.00	0.00
6.50	0.54	0.00	0.00
7.00	0.61	0.00	0.00
7.50	0.68	0.01	0.00
8.00	0.76	0.03	0.00
8.50	0.86	0.05	0.00
9.00	0.98	0.08	0.00
9.50	1.11	0.12	0.00
10.00	1.27	0.18	0.01
10.50	1.45	0.26	0.01
11.00	1.67	0.38	0.01
11.50	2.00	0.56	0.02
12.00	3.35	1.52	**0.17**
12.50	4.70	2.64	**0.05**
13.00	5.02	2.91	0.02
13.50	5.25	3.11	0.02
14.00	5.43	3.27	0.02
14.50	5.59	3.41	0.01
15.00	5.72	3.53	0.01
15.50	5.84	3.64	0.01
16.00	5.94	3.72	0.01
16.50	6.02	3.80	0.01
17.00	6.09	3.87	0.01
17.50	6.16	3.93	0.01
18.00	6.22	3.98	0.01
18.50	6.27	4.03	0.00
19.00	6.32	4.07	0.00
19.50	6.37	4.11	0.00
20.00	6.41	4.15	0.00
20.50	6.45	4.19	0.00
21.00	6.50	4.23	0.00
21.50	6.53	4.27	0.00
22.00	6.57	4.30	0.00
22.50	6.61	4.33	0.00
23.00	6.64	4.36	0.00
23.50	6.67	4.39	0.00
24.00	**6.70**	**4.42**	0.00
24.50	6.70	4.42	0.00
25.00	6.70	4.42	0.00
25.50	6.70	4.42	0.00
26.00	6.70	4.42	0.00
26.50	6.70	4.42	0.00
27.00	6.70	4.42	0.00
27.50	6.70	4.42	0.00
28.00	6.70	4.42	0.00
28.50	6.70	4.42	0.00
29.00	6.70	4.42	0.00
29.50	6.70	4.42	0.00
30.00	6.70	4.42	0.00

Subcatchment P5: Pond #3 Surface

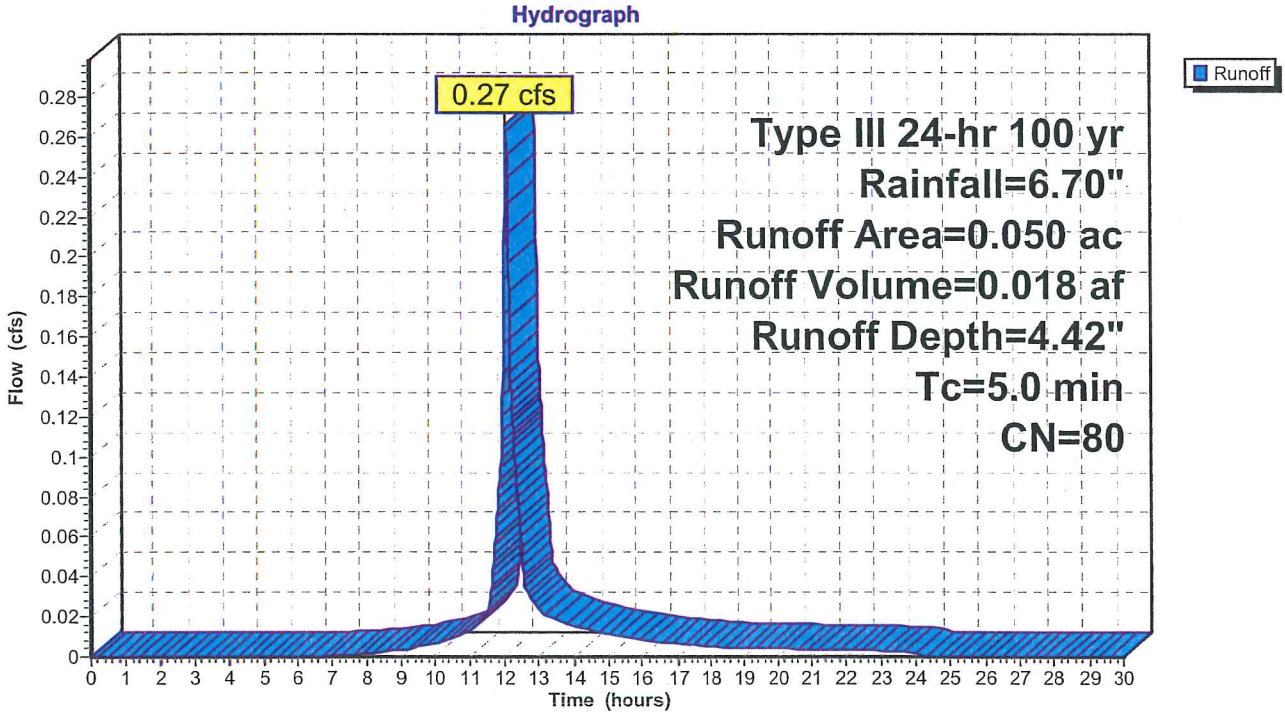
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 0.018 af, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.050	80	>75% Grass cover, Good, HSG D

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

Subcatchment P5: Pond #3 Surface



Subcatchment P5: Pond #3 Surface

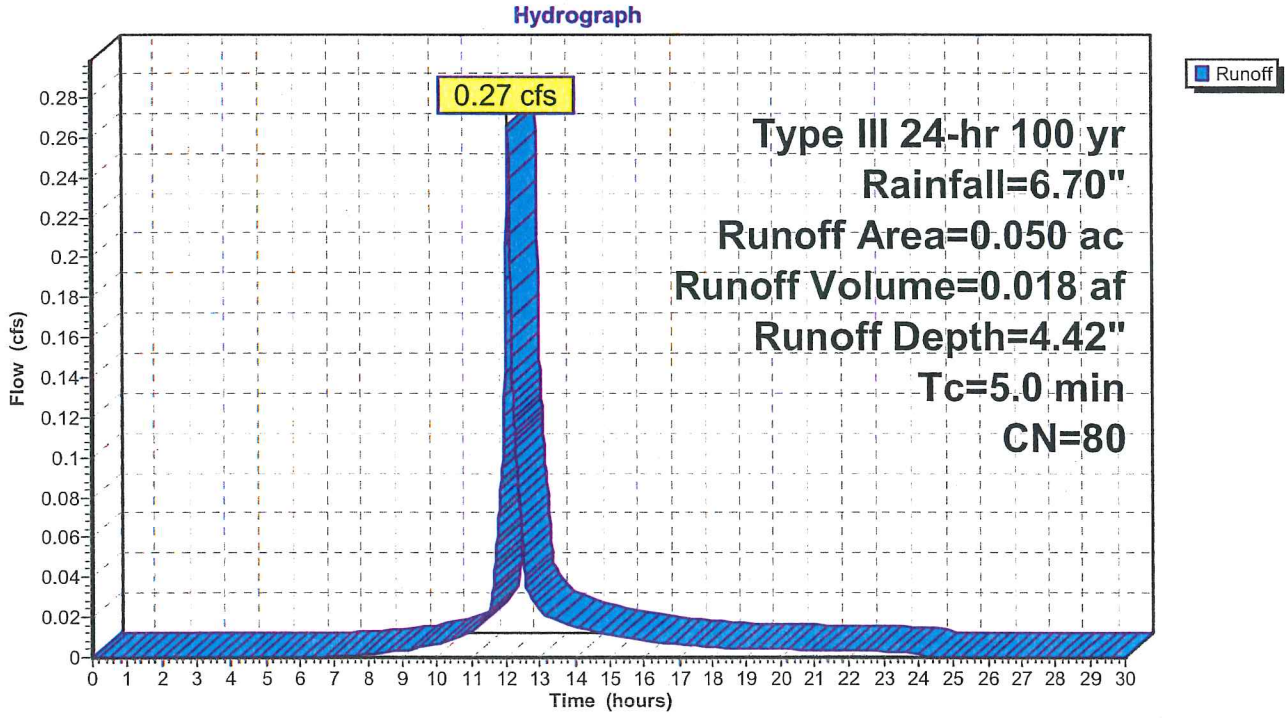
Runoff = 0.27 cfs @ 12.07 hrs, Volume= 0.018 af, Depth= 4.42"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.050	80	>75% Grass cover, Good, HSG D

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

Subcatchment P5: Pond #3 Surface



Hydrograph for Subcatchment P6: W side along access rd.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.01	0.01
4.00	0.29	0.01	0.02
4.50	0.33	0.02	0.02
5.00	0.38	0.04	0.03
5.50	0.43	0.06	0.04
6.00	0.48	0.08	0.05
6.50	0.54	0.11	0.06
7.00	0.61	0.14	0.07
7.50	0.68	0.19	0.09
8.00	0.76	0.24	0.11
8.50	0.86	0.30	0.14
9.00	0.98	0.39	0.17
9.50	1.11	0.49	0.22
10.00	1.27	0.61	0.26
10.50	1.45	0.76	0.32
11.00	1.67	0.95	0.41
11.50	2.00	1.23	0.57
12.00	3.35	2.49	**1.74**
12.50	4.70	3.80	**3.48**
13.00	5.02	4.11	1.01
13.50	5.25	4.33	0.54
14.00	5.43	4.51	0.43
14.50	5.59	4.67	0.36
15.00	5.72	4.80	0.31
15.50	5.84	4.91	0.27
16.00	5.94	5.01	0.23
16.50	6.02	5.09	0.19
17.00	6.09	5.16	0.17
17.50	6.16	5.23	0.15
18.00	6.22	5.28	0.13
18.50	6.27	5.34	0.12
19.00	6.32	5.38	0.11
19.50	6.37	5.43	0.11
20.00	6.41	5.47	0.10
20.50	6.45	5.52	0.10
21.00	6.50	5.56	0.09
21.50	6.53	5.60	0.09
22.00	6.57	5.63	0.08
22.50	6.61	5.67	0.08
23.00	6.64	5.70	0.07
23.50	6.67	5.73	0.07
24.00	**6.70**	**5.76**	0.07
24.50	6.70	5.76	0.01
25.00	6.70	5.76	0.00
25.50	6.70	5.76	0.00
26.00	6.70	5.76	0.00
26.50	6.70	5.76	0.00
27.00	6.70	5.76	0.00
27.50	6.70	5.76	0.00
28.00	6.70	5.76	0.00
28.50	6.70	5.76	0.00
29.00	6.70	5.76	0.00
29.50	6.70	5.76	0.00
30.00	6.70	5.76	0.00

Subcatchment P6: W side along access rd.

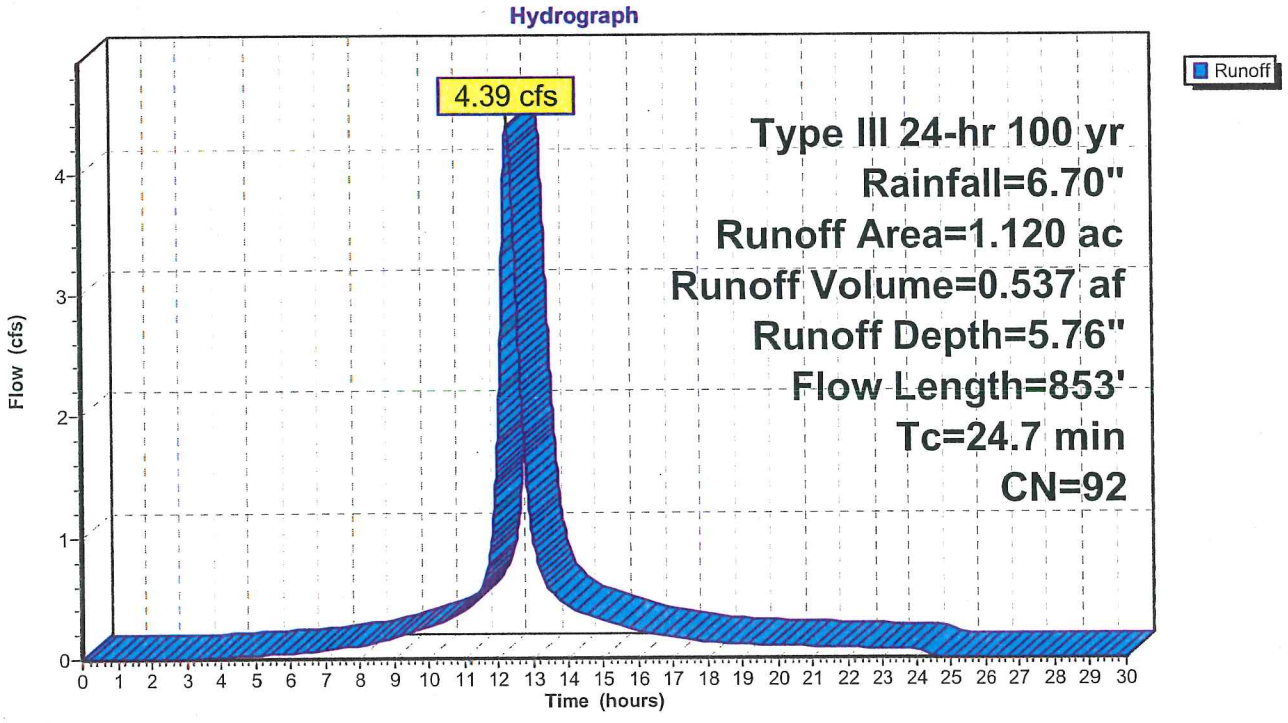
Runoff = 4.39 cfs @ 12.32 hrs, Volume= 0.537 af, Depth= 5.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
1.010	93	Paved roads w/open ditches, HSG D
0.110	80	>75% Grass cover, Good, HSG D
1.120	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	100	0.0300	0.1		**Sheet Flow, sheet** Woods: Light underbrush n= 0.400 P2= 2.00"
0.6	68	0.1300	1.8		**Shallow Concentrated Flow, shallow conc** Woodland Kv= 5.0 fps
1.0	685	0.0500	10.9	87.16	**Channel Flow, channel** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
24.7	853	Total			

Subcatchment P6: W side along access rd.



Hydrograph for Subcatchment P7: NW parking lot and driveway

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.01
3.50	0.25	0.01	0.01
4.00	0.29	0.02	0.01
4.50	0.33	0.04	0.02
5.00	0.38	0.05	0.02
5.50	0.43	0.08	0.03
6.00	0.48	0.10	0.03
6.50	0.54	0.13	0.04
7.00	0.61	0.17	0.05
7.50	0.68	0.22	0.06
8.00	0.76	0.28	0.07
8.50	0.86	0.34	0.09
9.00	0.98	0.43	0.12
9.50	1.11	0.54	0.14
10.00	1.27	0.67	0.17
10.50	1.45	0.82	0.21
11.00	1.67	1.02	0.26
11.50	2.00	1.31	0.43
12.00	3.35	2.59	**2.74**
12.50	4.70	3.91	**0.77**
13.00	5.02	4.22	0.33
13.50	5.25	4.44	0.26
14.00	5.43	4.62	0.21
14.50	5.59	4.78	0.18
15.00	5.72	4.91	0.16
15.50	5.84	5.02	0.13
16.00	5.94	5.12	0.11
16.50	6.02	5.20	0.10
17.00	6.09	5.28	0.09
17.50	6.16	5.34	0.08
18.00	6.22	5.40	0.07
18.50	6.27	5.45	0.06
19.00	6.32	5.50	0.06
19.50	6.37	5.55	0.06
20.00	6.41	5.59	0.05
20.50	6.45	5.63	0.05
21.00	6.50	5.67	0.05
21.50	6.53	5.71	0.05
22.00	6.57	5.75	0.04
22.50	6.61	5.78	0.04
23.00	6.64	5.81	0.04
23.50	6.67	5.85	0.04
24.00	**6.70**	**5.87**	0.04
24.50	6.70	5.87	0.00
25.00	6.70	5.87	0.00
25.50	6.70	5.87	0.00
26.00	6.70	5.87	0.00
26.50	6.70	5.87	0.00
27.00	6.70	5.87	0.00
27.50	6.70	5.87	0.00
28.00	6.70	5.87	0.00
28.50	6.70	5.87	0.00
29.00	6.70	5.87	0.00
29.50	6.70	5.87	0.00
30.00	6.70	5.87	0.00

Subcatchment P7: NW parking lot and driveway

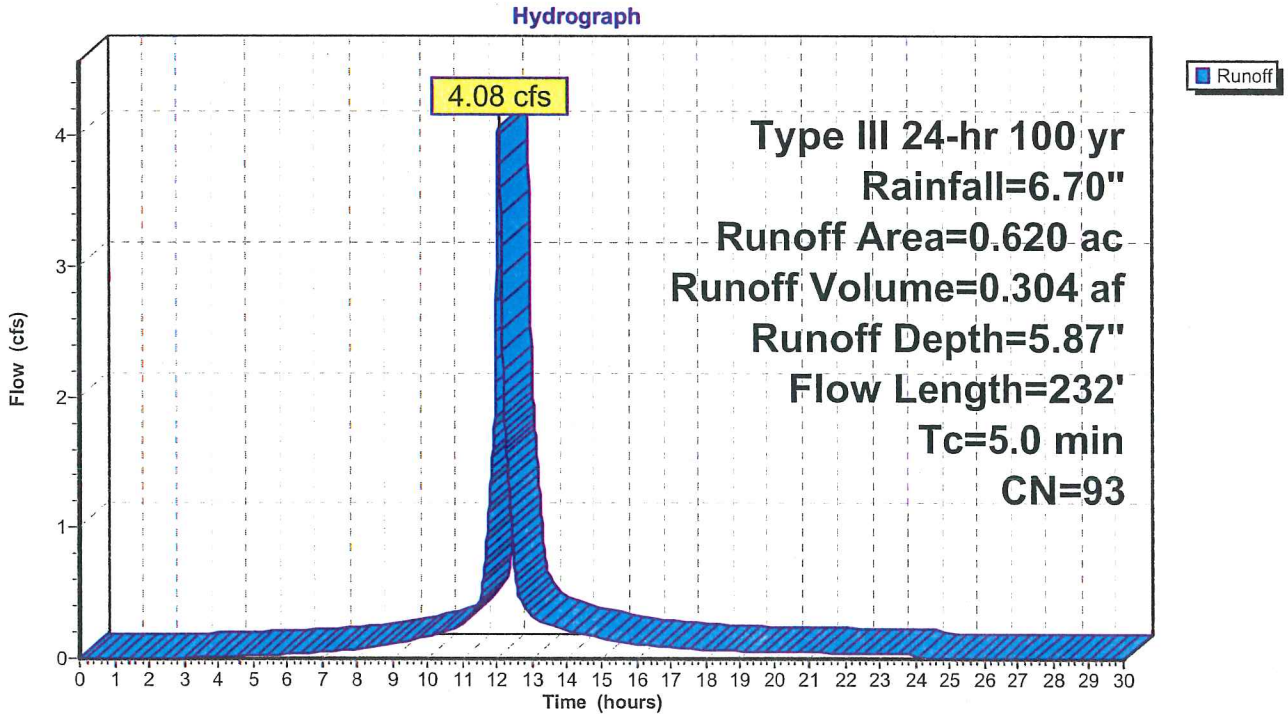
Runoff = 4.08 cfs @ 12.07 hrs, Volume= 0.304 af, Depth= 5.87"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
0.180	80	>75% Grass cover, Good, HSG D
0.620	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1700	2.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.8	132	0.0200	2.9		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.5	232	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P7: NW parking lot and driveway



Hydrograph for Subcatchment P8: south west parking area

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.00	0.00
4.00	0.29	0.01	0.01
4.50	0.33	0.02	0.01
5.00	0.38	0.03	0.02
5.50	0.43	0.04	0.02
6.00	0.48	0.06	0.03
6.50	0.54	0.09	0.04
7.00	0.61	0.12	0.05
7.50	0.68	0.16	0.06
8.00	0.76	0.21	0.07
8.50	0.86	0.27	0.09
9.00	0.98	0.34	0.12
9.50	1.11	0.44	0.14
10.00	1.27	0.55	0.17
10.50	1.45	0.70	0.22
11.00	1.67	0.88	0.28
11.50	2.00	1.16	0.46
12.00	3.35	2.40	**3.01**
12.50	4.70	3.69	**0.85**
13.00	5.02	4.01	0.37
13.50	5.25	4.22	0.29
14.00	5.43	4.40	0.23
14.50	5.59	4.55	0.20
15.00	5.72	4.69	0.18
15.50	5.84	4.80	0.15
16.00	5.94	4.89	0.12
16.50	6.02	4.98	0.11
17.00	6.09	5.05	0.10
17.50	6.16	5.11	0.09
18.00	6.22	5.17	0.08
18.50	6.27	5.22	0.07
19.00	6.32	5.27	0.07
19.50	6.37	5.32	0.06
20.00	6.41	5.36	0.06
20.50	6.45	5.40	0.06
21.00	6.50	5.44	0.06
21.50	6.53	5.48	0.05
22.00	6.57	5.52	0.05
22.50	6.61	5.55	0.05
23.00	6.64	5.58	0.05
23.50	6.67	5.61	0.04
24.00	**6.70**	**5.64**	0.04
24.50	6.70	5.64	0.00
25.00	6.70	5.64	0.00
25.50	6.70	5.64	0.00
26.00	6.70	5.64	0.00
26.50	6.70	5.64	0.00
27.00	6.70	5.64	0.00
27.50	6.70	5.64	0.00
28.00	6.70	5.64	0.00
28.50	6.70	5.64	0.00
29.00	6.70	5.64	0.00
29.50	6.70	5.64	0.00
30.00	6.70	5.64	0.00

Subcatchment P8: south west parking area

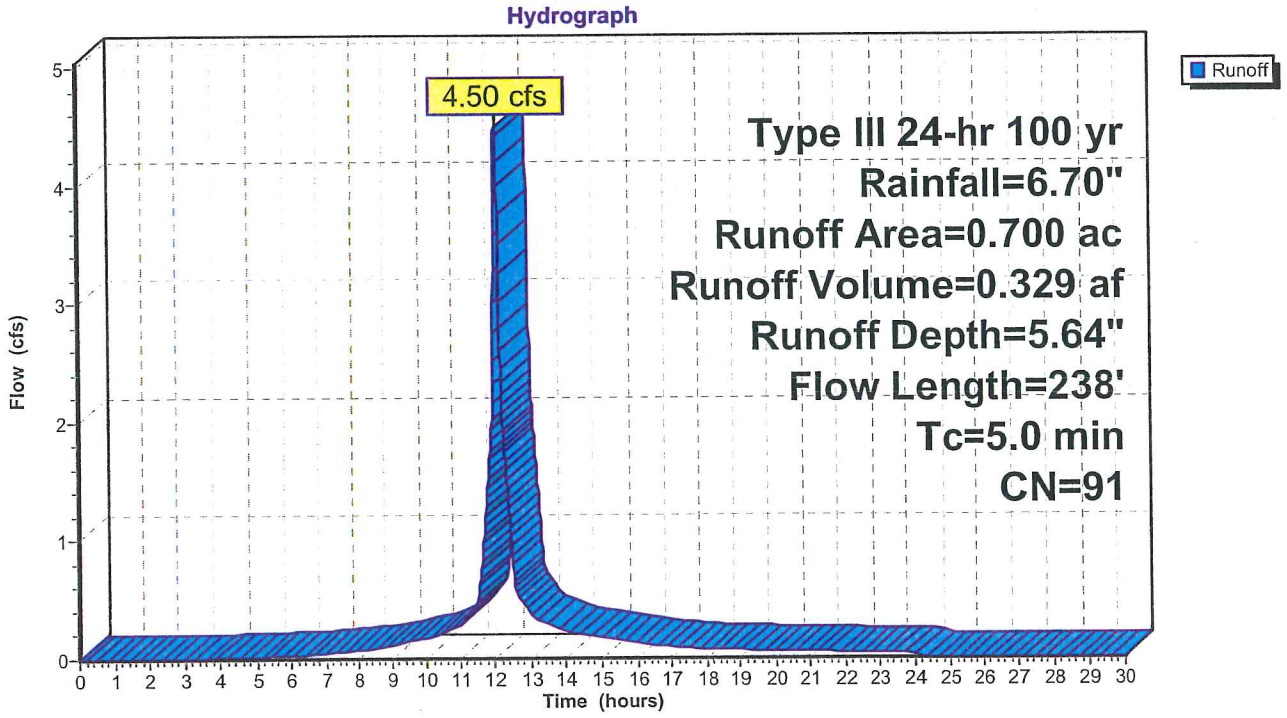
Runoff = 4.50 cfs @ 12.07 hrs, Volume= 0.329 af, Depth= 5.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.420	98	Paved parking & roofs
0.280	80	>75% Grass cover, Good, HSG D
0.700	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0500	1.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.4	114	0.0500	4.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
0.0	24	0.0200	8.3	66.15	**Channel Flow,** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.025 Earth, clean & straight
1.5	238	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P8: south west parking area



Hydrograph for Subcatchment P9: east near parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.00
1.50	0.10	0.00	0.00
2.00	0.13	0.00	0.00
2.50	0.17	0.00	0.00
3.00	0.21	0.00	0.00
3.50	0.25	0.01	0.00
4.00	0.29	0.01	0.01
4.50	0.33	0.02	0.01
5.00	0.38	0.04	0.01
5.50	0.43	0.06	0.02
6.00	0.48	0.08	0.02
6.50	0.54	0.11	0.02
7.00	0.61	0.14	0.03
7.50	0.68	0.19	0.04
8.00	0.76	0.24	0.05
8.50	0.86	0.30	0.06
9.00	0.98	0.39	0.07
9.50	1.11	0.49	0.09
10.00	1.27	0.61	0.11
10.50	1.45	0.76	0.14
11.00	1.67	0.95	0.17
11.50	2.00	1.23	0.28
12.00	3.35	2.49	**1.79**
12.50	4.70	3.80	**0.50**
13.00	5.02	4.11	0.22
13.50	5.25	4.33	0.17
14.00	5.43	4.51	0.14
14.50	5.59	4.67	0.12
15.00	5.72	4.80	0.10
15.50	5.84	4.91	0.09
16.00	5.94	5.01	0.07
16.50	6.02	5.09	0.07
17.00	6.09	5.16	0.06
17.50	6.16	5.23	0.05
18.00	6.22	5.28	0.04
18.50	6.27	5.34	0.04
19.00	6.32	5.38	0.04
19.50	6.37	5.43	0.04
20.00	6.41	5.47	0.04
20.50	6.45	5.52	0.03
21.00	6.50	5.56	0.03
21.50	6.53	5.60	0.03
22.00	6.57	5.63	0.03
22.50	6.61	5.67	0.03
23.00	6.64	5.70	0.03
23.50	6.67	5.73	0.02
24.00	**6.70**	**5.76**	0.02
24.50	6.70	5.76	0.00
25.00	6.70	5.76	0.00
25.50	6.70	5.76	0.00
26.00	6.70	5.76	0.00
26.50	6.70	5.76	0.00
27.00	6.70	5.76	0.00
27.50	6.70	5.76	0.00
28.00	6.70	5.76	0.00
28.50	6.70	5.76	0.00
29.00	6.70	5.76	0.00
29.50	6.70	5.76	0.00
30.00	6.70	5.76	0.00

Subcatchment P9: east near parking

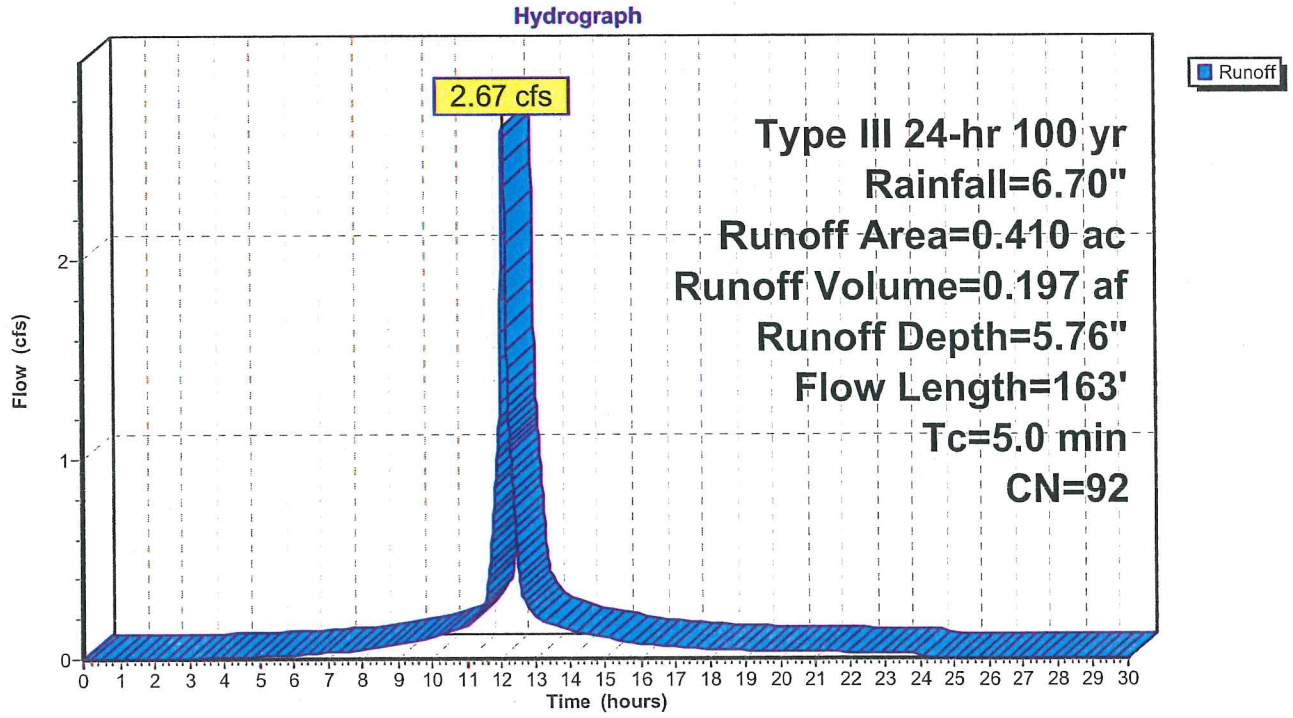
Runoff = 2.67 cfs @ 12.07 hrs, Volume= 0.197 af, Depth= 5.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.280	98	Paved parking & roofs
0.130	80	>75% Grass cover, Good, HSG D
0.410	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0300	1.3		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.3	63	0.0300	3.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.6	163	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P9: east near parking



Hydrograph for Subcatchment Pbuilding: building

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.07	0.00	0.01
1.50	0.10	0.01	0.02
2.00	0.13	0.03	0.03
2.50	0.17	0.05	0.04
3.00	0.21	0.07	0.05
3.50	0.25	0.10	0.05
4.00	0.29	0.14	0.06
4.50	0.33	0.17	0.07
5.00	0.38	0.21	0.07
5.50	0.43	0.26	0.08
6.00	0.48	0.30	0.09
6.50	0.54	0.35	0.10
7.00	0.61	0.42	0.12
7.50	0.68	0.49	0.13
8.00	0.76	0.56	0.15
8.50	0.86	0.66	0.18
9.00	0.98	0.77	0.22
9.50	1.11	0.90	0.25
10.00	1.27	1.05	0.29
10.50	1.45	1.23	0.35
11.00	1.67	1.45	0.43
11.50	2.00	1.77	0.68
12.00	3.35	3.12	**4.15**
12.50	4.70	4.47	**1.14**
13.00	5.02	4.79	0.49
13.50	5.25	5.01	0.38
14.00	5.43	5.20	0.31
14.50	5.59	5.35	0.27
15.00	5.72	5.49	0.23
15.50	5.84	5.60	0.20
16.00	5.94	5.70	0.16
16.50	6.02	5.78	0.15
17.00	6.09	5.86	0.13
17.50	6.16	5.92	0.11
18.00	6.22	5.98	0.10
18.50	6.27	6.03	0.09
19.00	6.32	6.08	0.09
19.50	6.37	6.13	0.08
20.00	6.41	6.17	0.08
20.50	6.45	6.22	0.08
21.00	6.50	6.26	0.07
21.50	6.53	6.30	0.07
22.00	6.57	6.33	0.07
22.50	6.61	6.37	0.06
23.00	6.64	6.40	0.06
23.50	6.67	6.43	0.06
24.00	**6.70**	**6.46**	0.05
24.50	6.70	6.46	0.00
25.00	6.70	6.46	0.00
25.50	6.70	6.46	0.00
26.00	6.70	6.46	0.00
26.50	6.70	6.46	0.00
27.00	6.70	6.46	0.00
27.50	6.70	6.46	0.00
28.00	6.70	6.46	0.00
28.50	6.70	6.46	0.00
29.00	6.70	6.46	0.00
29.50	6.70	6.46	0.00
30.00	6.70	6.46	0.00

Subcatchment Pbuilding: building

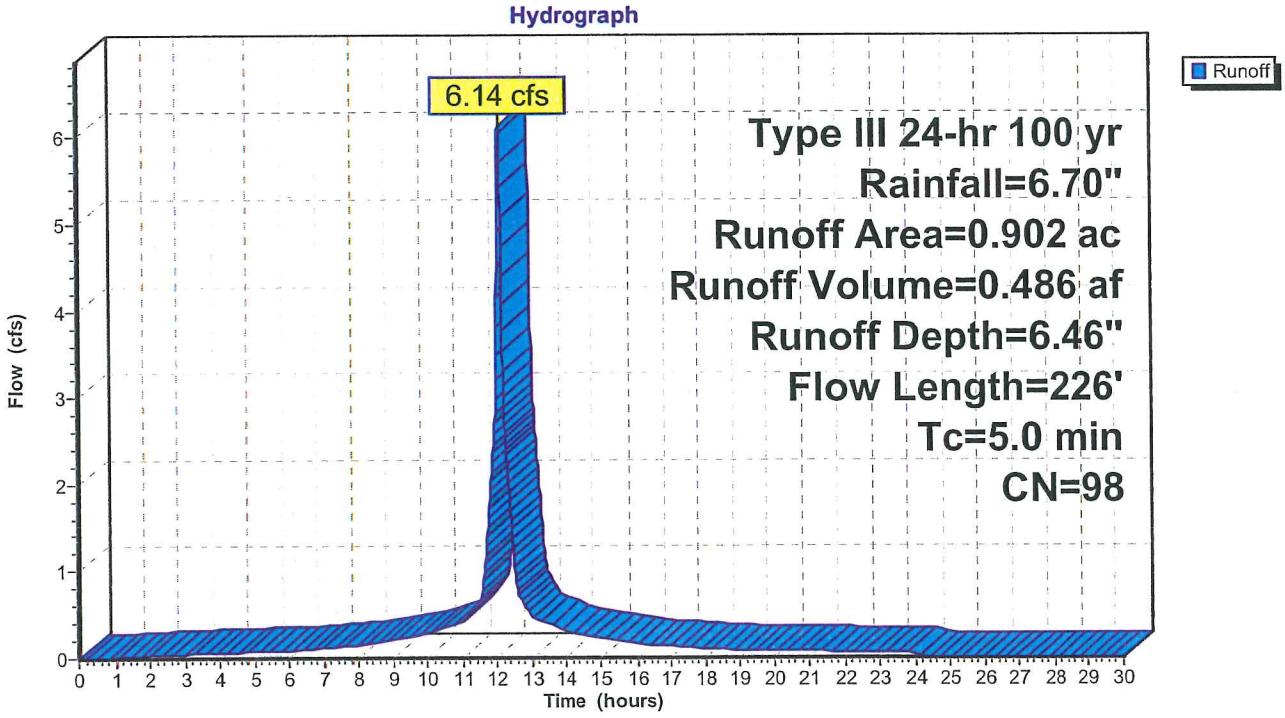
Runoff = 6.14 cfs @ 12.07 hrs, Volume= 0.486 af, Depth= 6.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100 yr Rainfall=6.70"

Area (ac)	CN	Description
0.902	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.2	126	0.0800	12.8	10.08	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
1.7	226	Total, Increased to minimum Tc = 5.0 min			

Subcatchment Pbuilding: building



Hydrograph for Reach C1: Driveway Culvert

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	88.00	0.00
1.00	0.00	0	88.00	0.00
2.00	0.00	0	88.00	0.00
3.00	0.00	0	88.01	0.00
4.00	0.02	1	88.03	0.02
5.00	0.03	1	88.04	0.03
6.00	0.05	1	88.05	0.05
7.00	0.07	2	88.06	0.07
8.00	0.11	2	88.08	0.11
9.00	0.17	3	88.09	0.17
10.00	0.26	4	88.11	0.26
11.00	0.41	6	88.14	0.41
12.00	**1.74**	**16**	**88.28**	**1.73**
13.00	**1.01**	**11**	**88.22**	**1.01**
14.00	0.43	6	88.15	0.43
15.00	0.31	5	88.12	0.31
16.00	0.23	4	88.11	0.23
17.00	0.17	3	88.09	0.17
18.00	0.13	3	88.08	0.13
19.00	0.11	2	88.08	0.11
20.00	0.10	2	88.07	0.10
21.00	0.09	2	88.07	0.09
22.00	0.08	2	88.07	0.08
23.00	0.07	2	88.06	0.07
24.00	0.07	2	88.06	0.07
25.00	0.00	0	88.00	0.00
26.00	0.00	0	88.00	0.00
27.00	0.00	0	88.00	0.00
28.00	0.00	0	88.00	0.00
29.00	0.00	0	88.00	0.00
30.00	0.00	0	88.00	0.00

Reach C1: Driveway Culvert

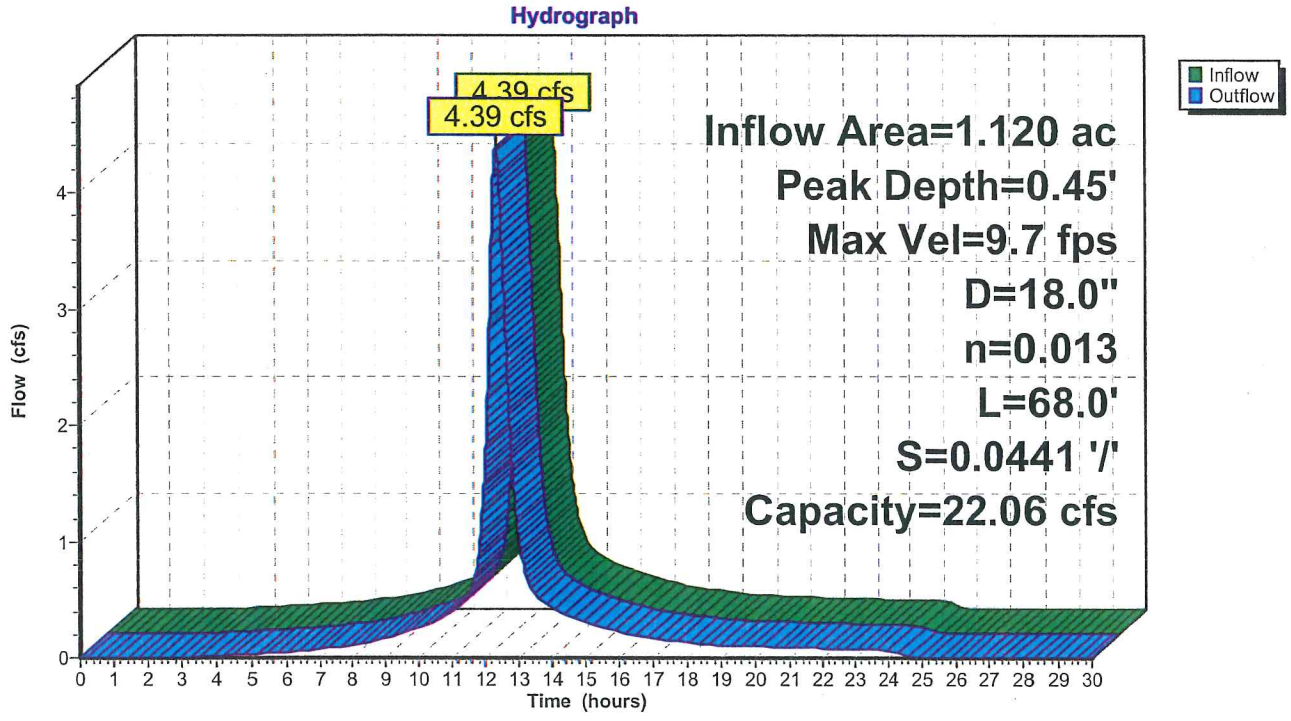
[52] Hint: Inlet conditions not evaluated

Inflow Area = 1.120 ac, Inflow Depth = 5.76" for 100 yr event
Inflow = 4.39 cfs @ 12.32 hrs, Volume= 0.537 af
Outflow = 4.39 cfs @ 12.32 hrs, Volume= 0.537 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 9.7 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.6 fps, Avg. Travel Time= 0.3 min

Peak Depth= 0.45' @ 12.32 hrs
Capacity at bank full= 22.06 cfs
Inlet Invert= 88.00', Outlet Invert= 85.00'
18.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 68.0' Slope= 0.0441 '/'

Reach C1: Driveway Culvert



Hydrograph for Reach D1: Ditch above pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	85.00	0.00
1.00	0.00	0	85.00	0.00
2.00	0.00	0	85.00	0.00
3.00	0.00	0	85.02	0.00
4.00	0.02	2	85.06	0.01
5.00	0.03	4	85.09	0.03
6.00	0.05	5	85.10	0.05
7.00	0.07	7	85.12	0.07
8.00	0.11	9	85.14	0.11
9.00	0.17	13	85.16	0.17
10.00	0.26	18	85.19	0.26
11.00	0.41	25	85.22	0.40
12.00	**1.73**	**72**	**85.38**	**1.68**
13.00	**1.01**	**49**	**85.32**	**1.03**
14.00	0.43	26	85.23	0.43
15.00	0.31	20	85.20	0.31
16.00	0.23	16	85.18	0.23
17.00	0.17	13	85.16	0.17
18.00	0.13	11	85.15	0.13
19.00	0.11	9	85.14	0.11
20.00	0.10	9	85.13	0.10
21.00	0.09	8	85.13	0.09
22.00	0.08	8	85.12	0.08
23.00	0.07	7	85.12	0.08
24.00	0.07	6	85.11	0.07
25.00	0.00	0	85.02	0.00
26.00	0.00	0	85.00	0.00
27.00	0.00	0	85.00	0.00
28.00	0.00	0	85.00	0.00
29.00	0.00	0	85.00	0.00
30.00	0.00	0	85.00	0.00

Reach D1: Ditch above pond

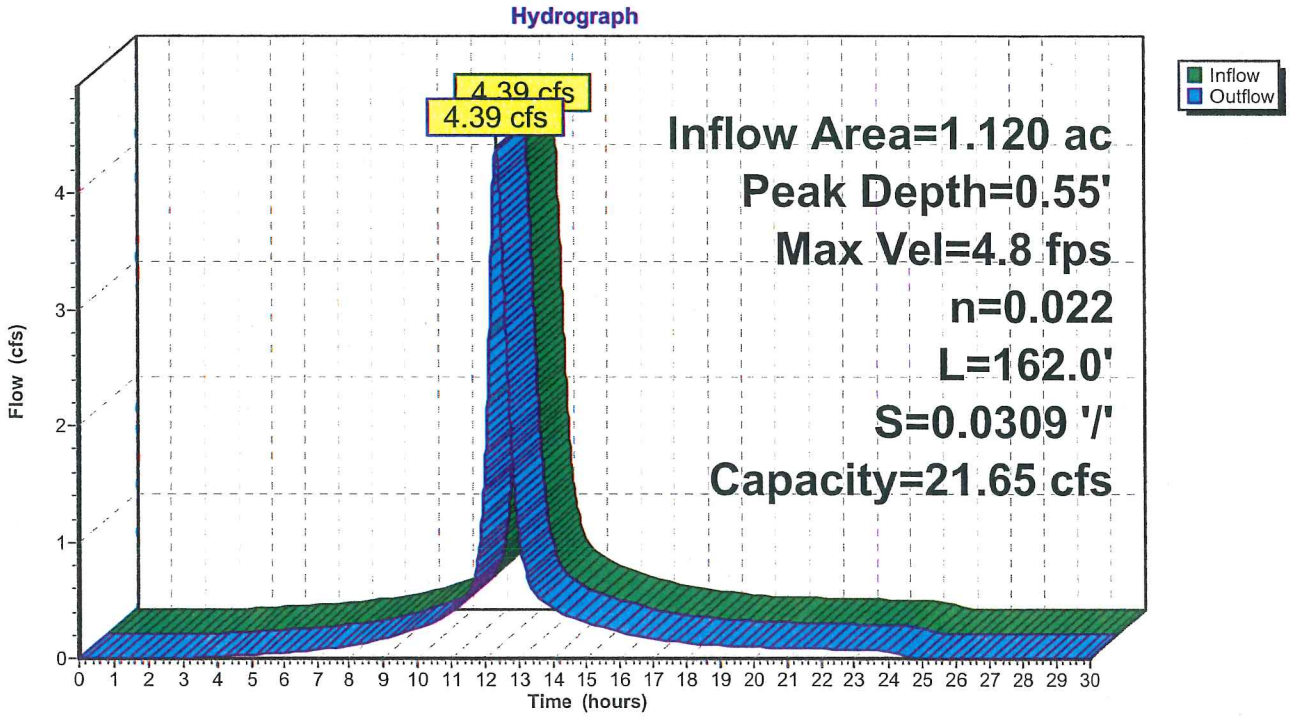
[61] Hint: Submerged 18% of Reach C1 bottom

Inflow Area = 1.120 ac, Inflow Depth = 5.76" for 100 yr event
Inflow = 4.39 cfs @ 12.32 hrs, Volume= 0.537 af
Outflow = 4.39 cfs @ 12.33 hrs, Volume= 0.537 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.8 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.0 fps, Avg. Travel Time= 1.3 min

Peak Depth= 0.55' @ 12.33 hrs
Capacity at bank full= 21.65 cfs
Inlet Invert= 85.00', Outlet Invert= 80.00'
0.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 6.00'
Length= 162.0' Slope= 0.0309 '/'

Reach D1: Ditch above pond



Hydrograph for Reach D2: Ditch below pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	80.00	0.00
1.00	0.01	3	80.01	0.01
2.00	0.03	6	80.02	0.03
3.00	0.06	9	80.04	0.06
4.00	0.13	14	80.06	0.13
5.00	0.17	17	80.07	0.17
6.00	0.19	18	80.07	0.19
7.00	0.21	19	80.08	0.21
8.00	0.25	22	80.08	0.25
9.00	0.31	25	80.10	0.31
10.00	0.40	29	80.11	0.40
11.00	0.54	36	80.13	0.54
12.00	**8.34**	**241**	**80.57**	**8.20**
13.00	**7.24**	**222**	**80.54**	**7.30**
14.00	1.89	84	80.27	1.89
15.00	1.40	68	80.23	1.40
16.00	1.00	54	80.19	1.00
17.00	0.78	46	80.16	0.78
18.00	0.60	39	80.14	0.60
19.00	0.52	35	80.13	0.52
20.00	0.47	33	80.12	0.47
21.00	0.43	31	80.12	0.43
22.00	0.39	29	80.11	0.39
23.00	0.35	27	80.10	0.35
24.00	0.31	25	80.10	0.31
25.00	0.14	15	80.06	0.14
26.00	0.14	15	80.06	0.14
27.00	0.14	15	80.06	0.14
28.00	0.14	15	80.06	0.14
29.00	0.14	15	80.06	0.14
30.00	0.14	15	80.06	0.14

Reach D2: Ditch below pond

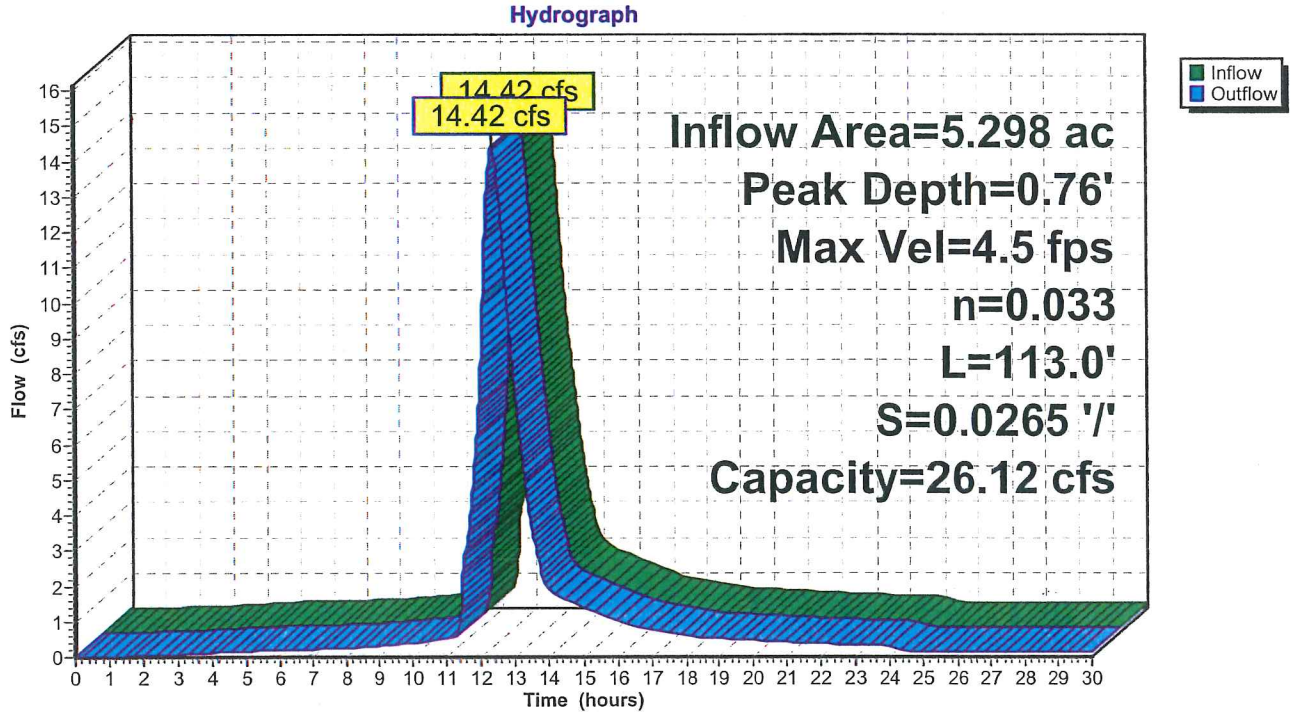
[61] Hint: Submerged 15% of Reach D1 bottom

Inflow Area = 5.298 ac, Inflow Depth > 5.25" for 100 yr event
Inflow = 14.42 cfs @ 12.33 hrs, Volume= 2.318 af
Outflow = 14.42 cfs @ 12.33 hrs, Volume= 2.317 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.5 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.6 fps, Avg. Travel Time= 1.2 min

Peak Depth= 0.76' @ 12.33 hrs
Capacity at bank full= 26.12 cfs
Inlet Invert= 80.00', Outlet Invert= 77.00'
2.00' x 1.00' deep channel, n= 0.033 Riprap
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 113.0' Slope= 0.0265 '/'

Reach D2: Ditch below pond



Hydrograph for Pond CB1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	86.00	0.00
0.50	0.00	86.00	0.00
1.00	0.01	86.05	0.01
1.50	0.02	86.07	0.02
2.00	0.03	86.08	0.03
2.50	0.04	86.09	0.04
3.00	0.05	86.10	0.05
3.50	0.08	86.12	0.08
4.00	0.10	86.13	0.10
4.50	0.12	86.14	0.12
5.00	0.15	86.16	0.15
5.50	0.17	86.17	0.17
6.00	0.19	86.18	0.19
6.50	0.24	86.20	0.24
7.00	0.29	86.22	0.29
7.50	0.34	86.24	0.34
8.00	0.40	86.25	0.40
8.50	0.50	86.29	0.50
9.00	0.62	86.32	0.62
9.50	0.75	86.35	0.75
10.00	0.88	86.38	0.88
10.50	1.11	86.43	1.11
11.00	1.38	86.48	1.38
11.50	2.23	86.62	2.23
12.00	**14.23**	**87.87**	**14.23**
12.50	**3.99**	**86.91**	**3.99**
13.00	1.71	86.54	1.71
13.50	1.35	86.48	1.35
14.00	1.09	86.43	1.09
14.50	0.95	86.40	0.95
15.00	0.82	86.37	0.82
15.50	0.70	86.34	0.70
16.00	0.58	86.31	0.58
16.50	0.51	86.29	0.51
17.00	0.46	86.27	0.46
17.50	0.41	86.26	0.41
18.00	0.35	86.24	0.35
18.50	0.33	86.23	0.33
19.00	0.31	86.23	0.31
19.50	0.30	86.22	0.30
20.00	0.28	86.22	0.28
20.50	0.27	86.21	0.27
21.00	0.26	86.21	0.26
21.50	0.25	86.20	0.25
22.00	0.23	86.20	0.23
22.50	0.22	86.19	0.22
23.00	0.21	86.19	0.21
23.50	0.20	86.18	0.20
24.00	0.19	86.18	0.19
24.50	0.00	86.00	0.00
25.00	0.00	86.00	0.00
25.50	0.00	86.00	0.00
26.00	0.00	86.00	0.00
26.50	0.00	86.00	0.00
27.00	0.00	86.00	0.00
27.50	0.00	86.00	0.00
28.00	0.00	86.00	0.00
28.50	0.00	86.00	0.00
29.00	0.00	86.00	0.00
29.50	0.00	86.00	0.00
30.00	0.00	86.00	0.00

Pond CB1:

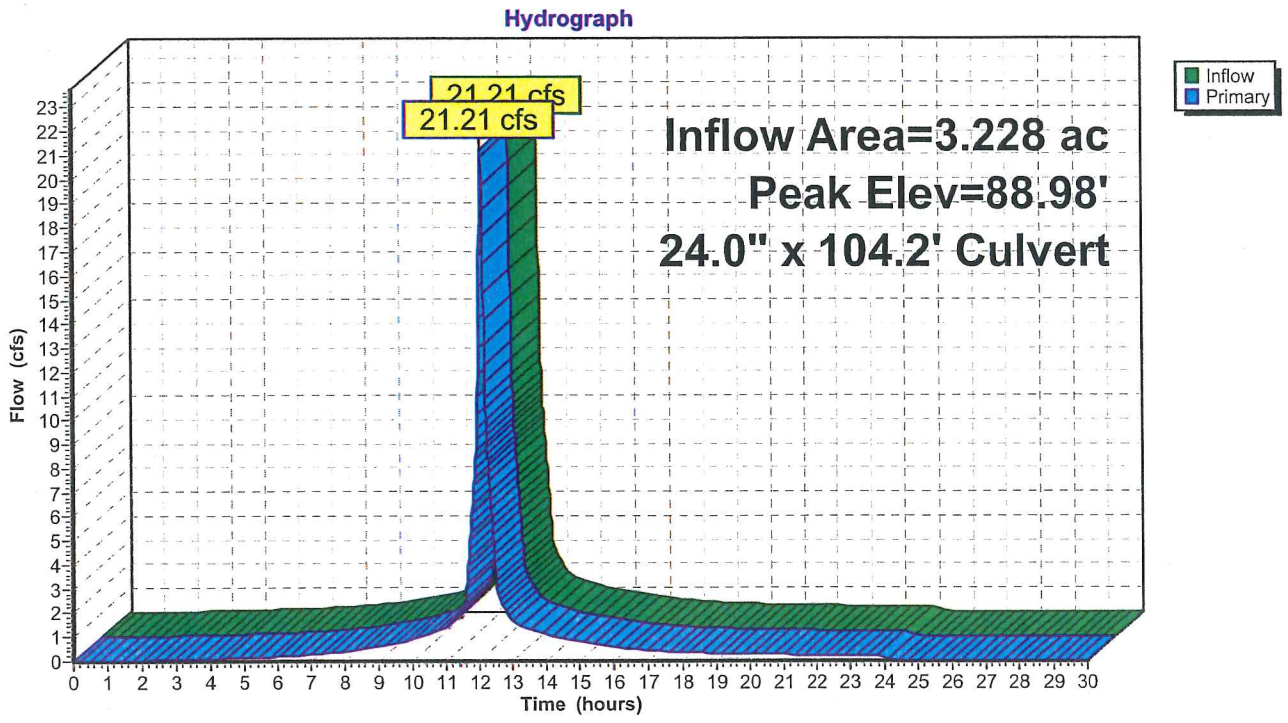
Inflow Area = 3.228 ac, Inflow Depth = 5.92" for 100 yr event
Inflow = 21.21 cfs @ 12.07 hrs, Volume= 1.593 af
Outflow = 21.21 cfs @ 12.07 hrs, Volume= 1.593 af, Atten= 0%, Lag= 0.0 min
Primary = 21.21 cfs @ 12.07 hrs, Volume= 1.593 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 88.98' @ 12.07 hrs
Flood Elev= 90.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (764.8 - 764.8)

Device	Routing	Invert	Outlet Devices
#1	Primary	86.00'	**24.0" x 104.2' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 85.00' S= 0.0096 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=21.20 cfs @ 12.07 hrs HW=88.98' TW=85.59' (Dynamic Tailwater)
↳**1=Culvert** (Barrel Controls 21.20 cfs @ 6.7 fps)

Pond CB1:



Hydrograph for Pond CB2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	87.65	0.00
0.50	0.00	87.65	0.00
1.00	0.00	87.65	0.00
1.50	0.00	87.65	0.00
2.00	0.00	87.65	0.00
2.50	0.00	87.66	0.00
3.00	0.01	87.69	0.01
3.50	0.02	87.71	0.02
4.00	0.03	87.73	0.03
4.50	0.05	87.74	0.05
5.00	0.06	87.75	0.06
5.50	0.08	87.76	0.08
6.00	0.09	87.77	0.09
6.50	0.12	87.79	0.12
7.00	0.15	87.81	0.15
7.50	0.18	87.82	0.18
8.00	0.22	87.84	0.22
8.50	0.28	87.86	0.28
9.00	0.36	87.89	0.36
9.50	0.44	87.92	0.44
10.00	0.52	87.94	0.52
10.50	0.67	87.98	0.67
11.00	0.83	88.02	0.83
11.50	1.36	88.13	1.36
12.00	**8.83**	**89.10**	**8.83**
12.50	**2.50**	**88.31**	**2.50**
13.00	1.07	88.07	1.07
13.50	0.84	88.02	0.84
14.00	0.68	87.99	0.68
14.50	0.59	87.96	0.59
15.00	0.52	87.94	0.52
15.50	0.44	87.92	0.44
16.00	0.36	87.89	0.36
16.50	0.32	87.88	0.32
17.00	0.29	87.87	0.29
17.50	0.26	87.85	0.26
18.00	0.22	87.84	0.22
18.50	0.21	87.83	0.21
19.00	0.20	87.83	0.20
19.50	0.19	87.82	0.19
20.00	0.18	87.82	0.18
20.50	0.17	87.81	0.17
21.00	0.16	87.81	0.16
21.50	0.15	87.81	0.15
22.00	0.15	87.80	0.15
22.50	0.14	87.80	0.14
23.00	0.13	87.80	0.13
23.50	0.12	87.79	0.12
24.00	0.12	87.79	0.12
24.50	0.00	87.65	0.00
25.00	0.00	87.65	0.00
25.50	0.00	87.65	0.00
26.00	0.00	87.65	0.00
26.50	0.00	87.65	0.00
27.00	0.00	87.65	0.00
27.50	0.00	87.65	0.00
28.00	0.00	87.65	0.00
28.50	0.00	87.65	0.00
29.00	0.00	87.65	0.00
29.50	0.00	87.65	0.00
30.00	0.00	87.65	0.00

Pond CB2:

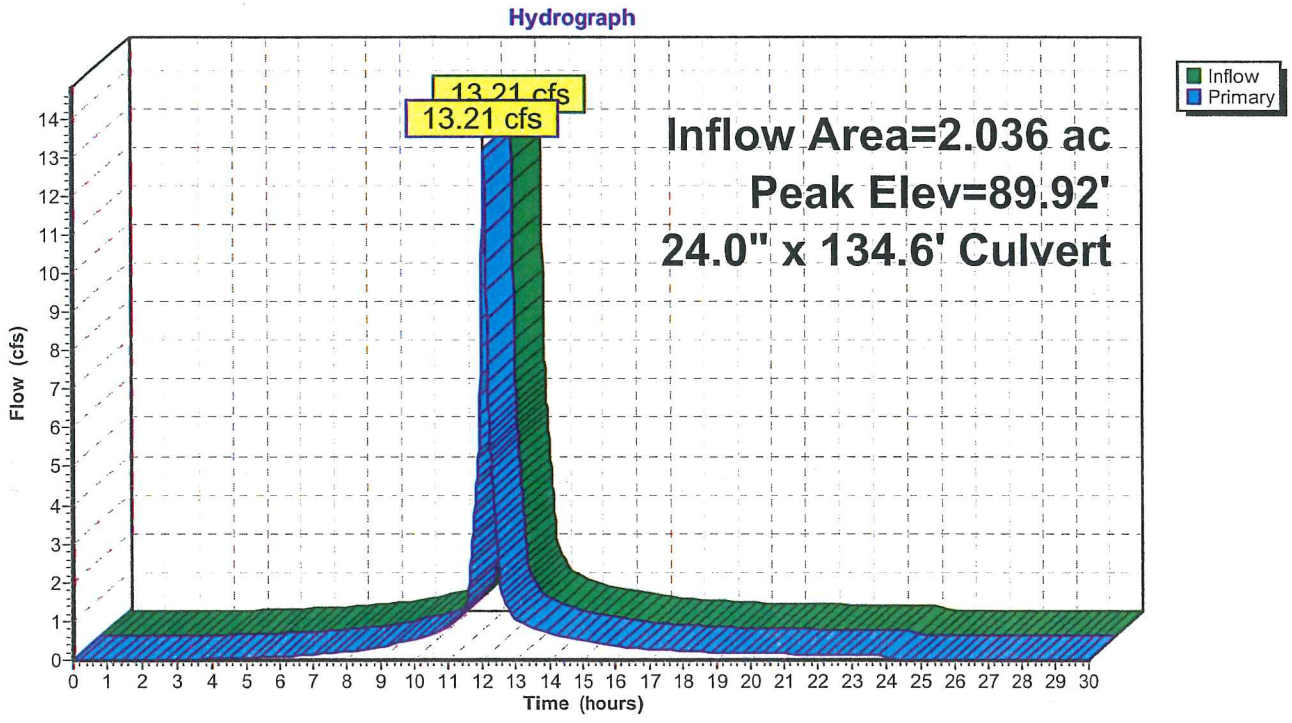
Inflow Area = 2.036 ac, Inflow Depth = 5.72" for 100 yr event
Inflow = 13.21 cfs @ 12.07 hrs, Volume= 0.971 af
Outflow = 13.21 cfs @ 12.07 hrs, Volume= 0.971 af, Atten= 0%, Lag= 0.0 min
Primary = 13.21 cfs @ 12.07 hrs, Volume= 0.971 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 89.92' @ 12.07 hrs
Flood Elev= 92.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	87.65'	**24.0" x 134.6' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 86.25' S= 0.0104 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=13.20 cfs @ 12.07 hrs HW=89.91' TW=88.98' (Dynamic Tailwater)
1=Culvert (Outlet Controls 13.20 cfs @ 4.6 fps)

Pond CB2:



Hydrograph for Pond CB3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	88.25	0.00
0.50	0.00	88.25	0.00
1.00	0.00	88.25	0.00
1.50	0.00	88.25	0.00
2.00	0.00	88.25	0.00
2.50	0.00	88.26	0.00
3.00	0.01	88.29	0.01
3.50	0.02	88.31	0.02
4.00	0.03	88.33	0.03
4.50	0.04	88.34	0.04
5.00	0.06	88.35	0.06
5.50	0.07	88.36	0.07
6.00	0.08	88.37	0.08
6.50	0.11	88.39	0.11
7.00	0.13	88.41	0.13
7.50	0.16	88.42	0.16
8.00	0.19	88.44	0.19
8.50	0.25	88.46	0.25
9.00	0.32	88.49	0.32
9.50	0.39	88.51	0.39
10.00	0.46	88.54	0.46
10.50	0.59	88.58	0.59
11.00	0.74	88.62	0.74
11.50	1.20	88.73	1.20
12.00	**7.80**	**89.75**	**7.80**
12.50	**2.20**	**88.92**	**2.20**
13.00	0.95	88.67	0.95
13.50	0.75	88.62	0.75
14.00	0.60	88.58	0.60
14.50	0.52	88.56	0.52
15.00	0.46	88.54	0.46
15.50	0.39	88.52	0.39
16.00	0.32	88.49	0.32
16.50	0.28	88.48	0.28
17.00	0.25	88.46	0.25
17.50	0.23	88.45	0.23
18.00	0.20	88.44	0.20
18.50	0.18	88.43	0.18
19.00	0.17	88.43	0.17
19.50	0.17	88.42	0.17
20.00	0.16	88.42	0.16
20.50	0.15	88.41	0.15
21.00	0.14	88.41	0.14
21.50	0.14	88.41	0.14
22.00	0.13	88.40	0.13
22.50	0.12	88.40	0.12
23.00	0.12	88.40	0.12
23.50	0.11	88.39	0.11
24.00	0.10	88.39	0.10
24.50	0.00	88.25	0.00
25.00	0.00	88.25	0.00
25.50	0.00	88.25	0.00
26.00	0.00	88.25	0.00
26.50	0.00	88.25	0.00
27.00	0.00	88.25	0.00
27.50	0.00	88.25	0.00
28.00	0.00	88.25	0.00
28.50	0.00	88.25	0.00
29.00	0.00	88.25	0.00
29.50	0.00	88.25	0.00
30.00	0.00	88.25	0.00

Pond CB3:

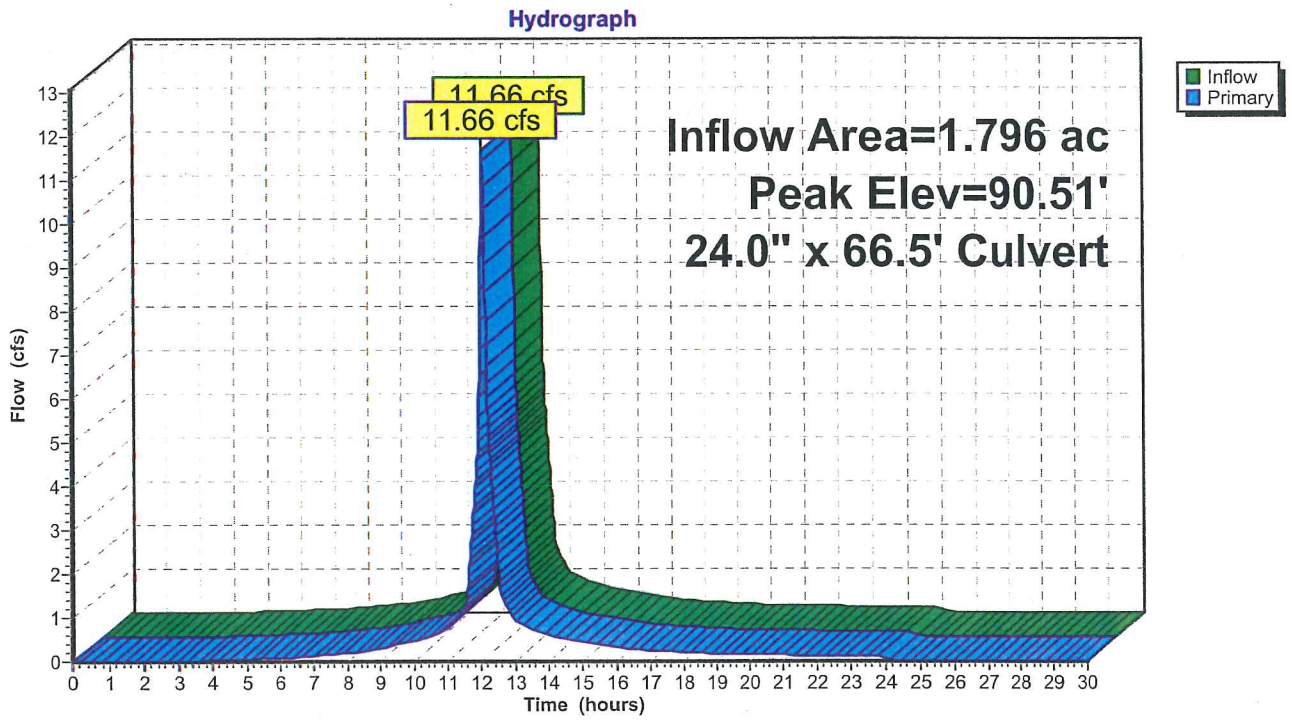
Inflow Area = 1.796 ac, Inflow Depth = 5.73" for 100 yr event
Inflow = 11.66 cfs @ 12.07 hrs, Volume= 0.858 af
Outflow = 11.66 cfs @ 12.07 hrs, Volume= 0.858 af, Atten= 0%, Lag= 0.0 min
Primary = 11.66 cfs @ 12.07 hrs, Volume= 0.858 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 90.51' @ 12.07 hrs
Flood Elev= 92.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	88.25'	**24.0" x 66.5' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 87.65' S= 0.0090 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=11.66 cfs @ 12.07 hrs HW=90.51' TW=89.91' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 11.66 cfs @ 3.7 fps)

Pond CB3:



Hydrograph for Pond CB4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	93.75	0.00
0.50	0.00	93.75	0.00
1.00	0.00	93.75	0.00
1.50	0.00	93.75	0.00
2.00	0.00	93.75	0.00
2.50	0.00	93.76	0.00
3.00	0.01	93.78	0.01
3.50	0.01	93.80	0.01
4.00	0.02	93.81	0.02
4.50	0.03	93.82	0.03
5.00	0.04	93.83	0.04
5.50	0.05	93.84	0.05
6.00	0.05	93.84	0.05
6.50	0.07	93.85	0.07
7.00	0.09	93.87	0.09
7.50	0.10	93.88	0.10
8.00	0.12	93.89	0.12
8.50	0.16	93.91	0.16
9.00	0.20	93.93	0.20
9.50	0.24	93.95	0.24
10.00	0.29	93.97	0.29
10.50	0.37	93.99	0.37
11.00	0.46	94.02	0.46
11.50	0.74	94.10	0.74
12.00	**4.79**	**94.69**	**4.79**
12.50	**1.35**	**94.23**	**1.35**
13.00	0.58	94.06	0.58
13.50	0.46	94.02	0.46
14.00	0.37	93.99	0.37
14.50	0.32	93.98	0.32
15.00	0.28	93.96	0.28
15.50	0.24	93.95	0.24
16.00	0.20	93.93	0.20
16.50	0.17	93.92	0.17
17.00	0.16	93.91	0.16
17.50	0.14	93.90	0.14
18.00	0.12	93.89	0.12
18.50	0.11	93.88	0.11
19.00	0.11	93.88	0.11
19.50	0.10	93.88	0.10
20.00	0.10	93.87	0.10
20.50	0.09	93.87	0.09
21.00	0.09	93.87	0.09
21.50	0.08	93.86	0.08
22.00	0.08	93.86	0.08
22.50	0.08	93.86	0.08
23.00	0.07	93.86	0.07
23.50	0.07	93.85	0.07
24.00	0.06	93.85	0.06
24.50	0.00	93.75	0.00
25.00	0.00	93.75	0.00
25.50	0.00	93.75	0.00
26.00	0.00	93.75	0.00
26.50	0.00	93.75	0.00
27.00	0.00	93.75	0.00
27.50	0.00	93.75	0.00
28.00	0.00	93.75	0.00
28.50	0.00	93.75	0.00
29.00	0.00	93.75	0.00
29.50	0.00	93.75	0.00
30.00	0.00	93.75	0.00

Pond CB4:

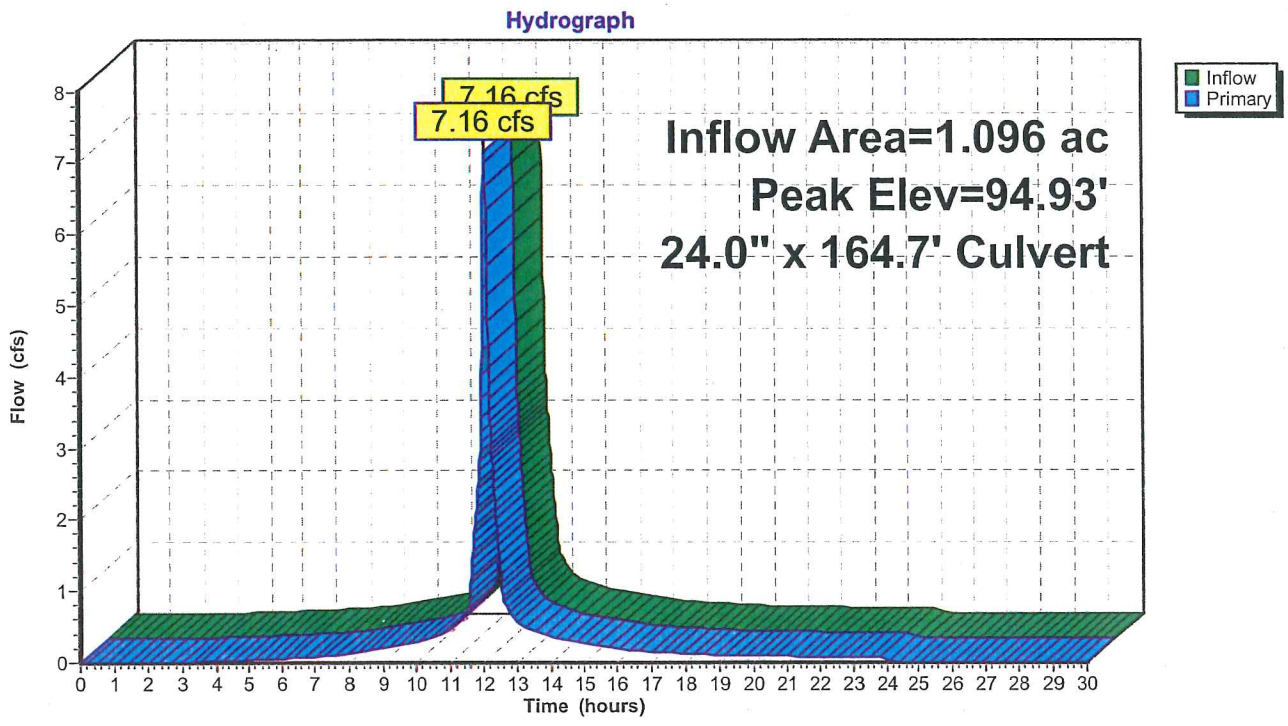
Inflow Area = 1.096 ac, Inflow Depth = 5.79" for 100 yr event
Inflow = 7.16 cfs @ 12.07 hrs, Volume= 0.529 af
Outflow = 7.16 cfs @ 12.07 hrs, Volume= 0.529 af, Atten= 0%, Lag= 0.0 min
Primary = 7.16 cfs @ 12.07 hrs, Volume= 0.529 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 94.93' @ 12.07 hrs
Flood Elev= 98.00'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	93.75'	**24.0" x 164.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 88.25' S= 0.0334 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=7.15 cfs @ 12.07 hrs HW=94.93' TW=90.51' (Dynamic Tailwater)
1=Culvert (Inlet Controls 7.15 cfs @ 3.7 fps)

Pond CB4:



Hydrograph for Pond CB5:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	97.50	0.00
0.50	0.00	97.50	0.00
1.00	0.00	97.50	0.00
1.50	0.00	97.50	0.00
2.00	0.00	97.50	0.00
2.50	0.00	97.51	0.00
3.00	0.00	97.53	0.00
3.50	0.01	97.54	0.01
4.00	0.01	97.55	0.01
4.50	0.02	97.56	0.02
5.00	0.02	97.57	0.02
5.50	0.03	97.57	0.03
6.00	0.03	97.58	0.03
6.50	0.04	97.59	0.04
7.00	0.05	97.60	0.05
7.50	0.07	97.61	0.07
8.00	0.08	97.62	0.08
8.50	0.10	97.64	0.10
9.00	0.13	97.65	0.13
9.50	0.15	97.67	0.15
10.00	0.18	97.68	0.18
10.50	0.23	97.71	0.23
11.00	0.29	97.73	0.29
11.50	0.47	97.80	0.47
12.00	**3.01**	**98.31**	**3.01**
12.50	**0.85**	**97.91**	**0.85**
13.00	0.36	97.76	0.36
13.50	0.29	97.73	0.29
14.00	0.23	97.71	0.23
14.50	0.20	97.69	0.20
15.00	0.18	97.68	0.18
15.50	0.15	97.67	0.15
16.00	0.12	97.65	0.12
16.50	0.11	97.64	0.11
17.00	0.10	97.63	0.10
17.50	0.09	97.63	0.09
18.00	0.07	97.62	0.07
18.50	0.07	97.61	0.07
19.00	0.07	97.61	0.07
19.50	0.06	97.61	0.06
20.00	0.06	97.61	0.06
20.50	0.06	97.60	0.06
21.00	0.05	97.60	0.05
21.50	0.05	97.60	0.05
22.00	0.05	97.60	0.05
22.50	0.05	97.59	0.05
23.00	0.04	97.59	0.04
23.50	0.04	97.59	0.04
24.00	0.04	97.58	0.04
24.50	0.00	97.50	0.00
25.00	0.00	97.50	0.00
25.50	0.00	97.50	0.00
26.00	0.00	97.50	0.00
26.50	0.00	97.50	0.00
27.00	0.00	97.50	0.00
27.50	0.00	97.50	0.00
28.00	0.00	97.50	0.00
28.50	0.00	97.50	0.00
29.00	0.00	97.50	0.00
29.50	0.00	97.50	0.00
30.00	0.00	97.50	0.00

Pond CB5:

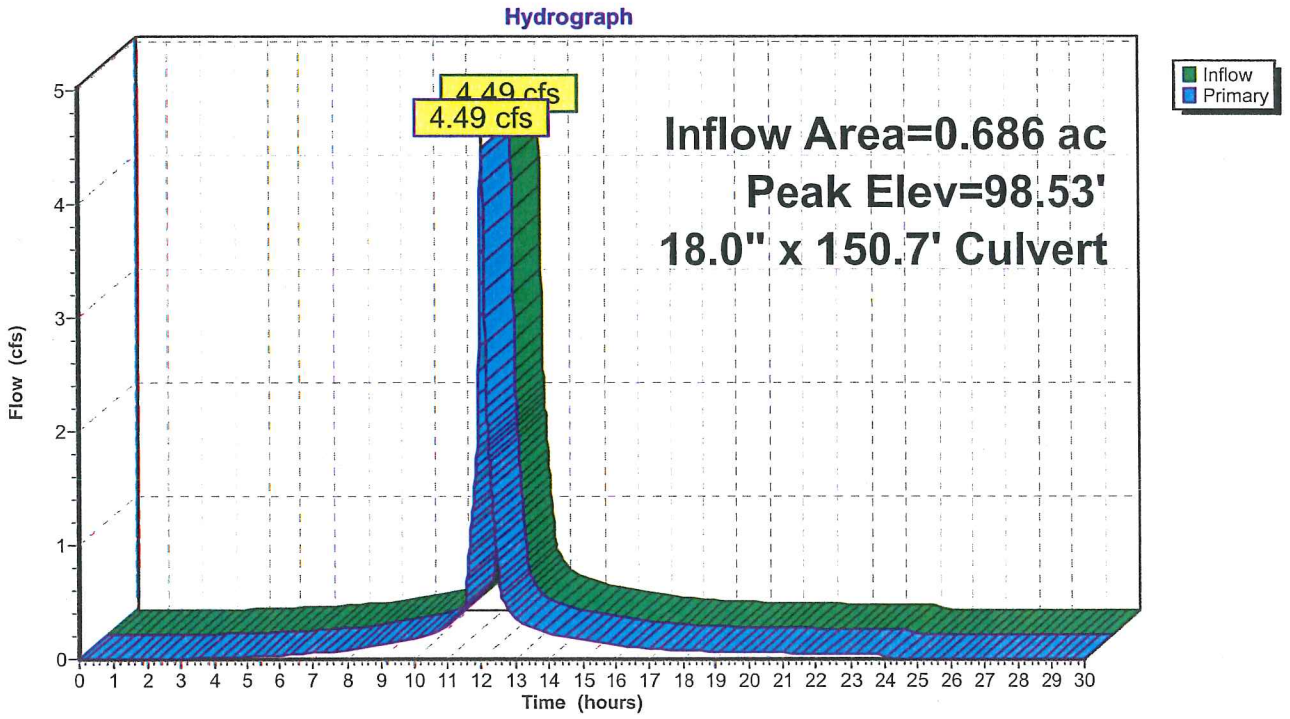
Inflow Area = 0.686 ac, Inflow Depth = 5.81" for 100 yr event
Inflow = 4.49 cfs @ 12.07 hrs, Volume= 0.332 af
Outflow = 4.49 cfs @ 12.07 hrs, Volume= 0.332 af, Atten= 0%, Lag= 0.0 min
Primary = 4.49 cfs @ 12.07 hrs, Volume= 0.332 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 98.53' @ 12.07 hrs
Flood Elev= 101.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	**18.0" x 150.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 94.00' S= 0.0232 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=4.49 cfs @ 12.07 hrs HW=98.53' TW=94.93' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 4.49 cfs @ 3.5 fps)

Pond CB5:



Hydrograph for Pond CB6:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	99.50	0.00
0.50	0.00	99.50	0.00
1.00	0.00	99.50	0.00
1.50	0.00	99.50	0.00
2.00	0.00	99.50	0.00
2.50	0.00	99.51	0.00
3.00	0.00	99.52	0.00
3.50	0.00	99.53	0.00
4.00	0.01	99.53	0.01
4.50	0.01	99.54	0.01
5.00	0.01	99.54	0.01
5.50	0.01	99.55	0.01
6.00	0.02	99.55	0.02
6.50	0.02	99.56	0.02
7.00	0.02	99.57	0.02
7.50	0.03	99.57	0.03
8.00	0.03	99.58	0.03
8.50	0.04	99.59	0.04
9.00	0.05	99.60	0.05
9.50	0.06	99.61	0.06
10.00	0.07	99.62	0.07
10.50	0.10	99.63	0.10
11.00	0.12	99.65	0.12
11.50	0.19	99.69	0.19
12.00	**1.22**	**100.00**	**1.22**
12.50	**0.34**	**99.75**	**0.34**
13.00	0.15	99.67	0.15
13.50	0.12	99.65	0.12
14.00	0.09	99.63	0.09
14.50	0.08	99.62	0.08
15.00	0.07	99.61	0.07
15.50	0.06	99.61	0.06
16.00	0.05	99.60	0.05
16.50	0.04	99.59	0.04
17.00	0.04	99.58	0.04
17.50	0.03	99.58	0.03
18.00	0.03	99.57	0.03
18.50	0.03	99.57	0.03
19.00	0.03	99.57	0.03
19.50	0.03	99.57	0.03
20.00	0.02	99.57	0.02
20.50	0.02	99.56	0.02
21.00	0.02	99.56	0.02
21.50	0.02	99.56	0.02
22.00	0.02	99.56	0.02
22.50	0.02	99.56	0.02
23.00	0.02	99.56	0.02
23.50	0.02	99.56	0.02
24.00	0.02	99.55	0.02
24.50	0.00	99.50	0.00
25.00	0.00	99.50	0.00
25.50	0.00	99.50	0.00
26.00	0.00	99.50	0.00
26.50	0.00	99.50	0.00
27.00	0.00	99.50	0.00
27.50	0.00	99.50	0.00
28.00	0.00	99.50	0.00
28.50	0.00	99.50	0.00
29.00	0.00	99.50	0.00
29.50	0.00	99.50	0.00
30.00	0.00	99.50	0.00

Pond CB6:

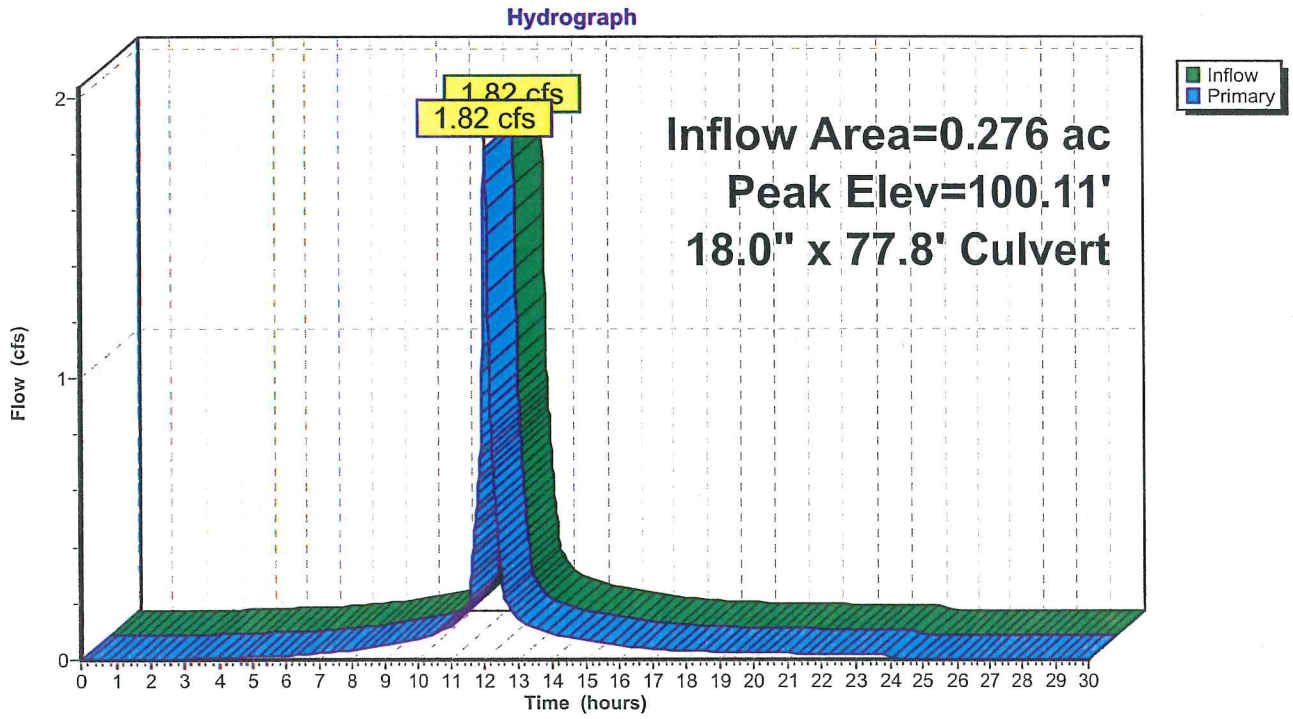
Inflow Area = 0.276 ac, Inflow Depth = 5.87" for 100 yr event
Inflow = 1.82 cfs @ 12.07 hrs, Volume= 0.135 af
Outflow = 1.82 cfs @ 12.07 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 12.07 hrs, Volume= 0.135 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.11' @ 12.07 hrs
Flood Elev= 102.75'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (769.0 - 769.0)

Device	Routing	Invert	Outlet Devices
#1	Primary	99.50'	**18.0" x 77.8' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 97.75' S= 0.0225 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=1.82 cfs @ 12.07 hrs HW=100.11' TW=98.53' (Dynamic Tailwater)
↑**1=Culvert** (Inlet Controls 1.82 cfs @ 2.7 fps)

Pond CB6:



Hydrograph for Pond CB7:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	100.50	0.00
0.50	0.00	100.50	0.00
1.00	0.00	100.50	0.00
1.50	0.00	100.50	0.00
2.00	0.00	100.50	0.00
2.50	0.00	100.51	0.00
3.00	0.00	100.52	0.00
3.50	0.00	100.52	0.00
4.00	0.00	100.52	0.00
4.50	0.00	100.53	0.00
5.00	0.00	100.53	0.00
5.50	0.01	100.53	0.01
6.00	0.01	100.53	0.01
6.50	0.01	100.54	0.01
7.00	0.01	100.54	0.01
7.50	0.01	100.54	0.01
8.00	0.01	100.55	0.01
8.50	0.02	100.55	0.02
9.00	0.02	100.56	0.02
9.50	0.02	100.57	0.02
10.00	0.03	100.57	0.03
10.50	0.04	100.58	0.04
11.00	0.04	100.59	0.04
11.50	0.07	100.61	0.07
12.00	**0.44**	**100.79**	**0.44**
12.50	**0.12**	**100.65**	**0.12**
13.00	0.05	100.60	0.05
13.50	0.04	100.59	0.04
14.00	0.03	100.58	0.03
14.50	0.03	100.57	0.03
15.00	0.03	100.57	0.03
15.50	0.02	100.56	0.02
16.00	0.02	100.56	0.02
16.50	0.02	100.55	0.02
17.00	0.01	100.55	0.01
17.50	0.01	100.55	0.01
18.00	0.01	100.54	0.01
18.50	0.01	100.54	0.01
19.00	0.01	100.54	0.01
19.50	0.01	100.54	0.01
20.00	0.01	100.54	0.01
20.50	0.01	100.54	0.01
21.00	0.01	100.54	0.01
21.50	0.01	100.54	0.01
22.00	0.01	100.54	0.01
22.50	0.01	100.54	0.01
23.00	0.01	100.53	0.01
23.50	0.01	100.53	0.01
24.00	0.01	100.53	0.01
24.50	0.00	100.50	0.00
25.00	0.00	100.50	0.00
25.50	0.00	100.50	0.00
26.00	0.00	100.50	0.00
26.50	0.00	100.50	0.00
27.00	0.00	100.50	0.00
27.50	0.00	100.50	0.00
28.00	0.00	100.50	0.00
28.50	0.00	100.50	0.00
29.00	0.00	100.50	0.00
29.50	0.00	100.50	0.00
30.00	0.00	100.50	0.00

Pond CB7:

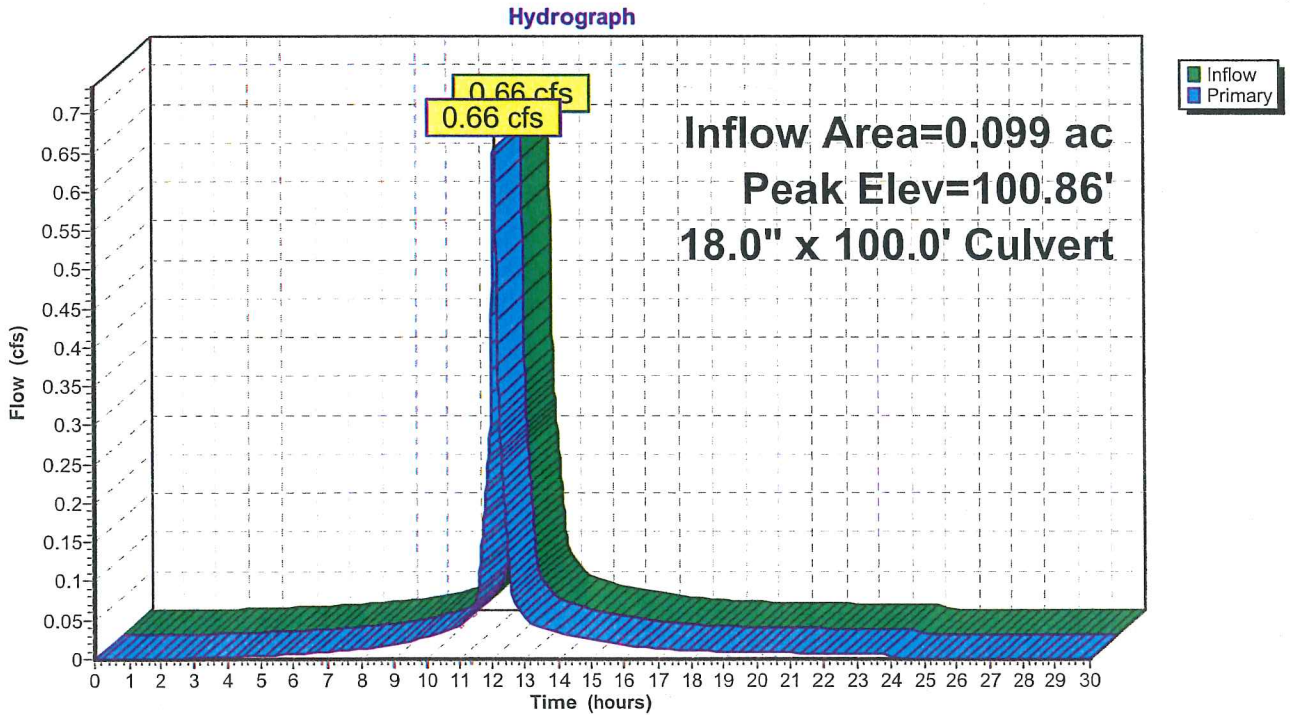
Inflow Area = 0.099 ac, Inflow Depth = 5.99" for 100 yr event
Inflow = 0.66 cfs @ 12.07 hrs, Volume= 0.049 af
Outflow = 0.66 cfs @ 12.07 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.07 hrs, Volume= 0.049 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 100.86' @ 12.07 hrs
Flood Elev= 103.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	100.50'	**18.0" x 100.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 99.00' S= 0.0150 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=0.66 cfs @ 12.07 hrs HW=100.86' TW=93.16' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 0.66 cfs @ 2.0 fps)

Pond CB7:



Hydrograph for Pond CB8: CB8 w/ SD10

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	92.50	0.00
0.50	0.00	92.50	0.00
1.00	0.00	92.50	0.00
1.50	0.00	92.50	0.00
2.00	0.00	92.50	0.00
2.50	0.00	92.51	0.00
3.00	0.00	92.52	0.00
3.50	0.00	92.52	0.00
4.00	0.00	92.52	0.00
4.50	0.00	92.53	0.00
5.00	0.01	92.53	0.01
5.50	0.01	92.54	0.01
6.00	0.01	92.54	0.01
6.50	0.01	92.55	0.01
7.00	0.02	92.56	0.02
7.50	0.02	92.57	0.02
8.00	0.03	92.57	0.03
8.50	0.04	92.58	0.04
9.00	0.05	92.60	0.05
9.50	0.06	92.61	0.06
10.00	0.07	92.62	0.07
10.50	0.10	92.63	0.10
11.00	0.12	92.65	0.12
11.50	0.20	92.70	0.20
12.00	**1.36**	**93.03**	**1.36**
12.50	**0.39**	**92.77**	**0.39**
13.00	0.17	92.68	0.17
13.50	0.13	92.66	0.13
14.00	0.11	92.64	0.11
14.50	0.09	92.63	0.09
15.00	0.08	92.62	0.08
15.50	0.07	92.61	0.07
16.00	0.06	92.60	0.06
16.50	0.05	92.60	0.05
17.00	0.05	92.59	0.05
17.50	0.04	92.59	0.04
18.00	0.04	92.58	0.04
18.50	0.03	92.58	0.03
19.00	0.03	92.58	0.03
19.50	0.03	92.57	0.03
20.00	0.03	92.57	0.03
20.50	0.03	92.57	0.03
21.00	0.03	92.57	0.03
21.50	0.02	92.57	0.02
22.00	0.02	92.57	0.02
22.50	0.02	92.56	0.02
23.00	0.02	92.56	0.02
23.50	0.02	92.56	0.02
24.00	0.02	92.56	0.02
24.50	0.00	92.50	0.00
25.00	0.00	92.50	0.00
25.50	0.00	92.50	0.00
26.00	0.00	92.50	0.00
26.50	0.00	92.50	0.00
27.00	0.00	92.50	0.00
27.50	0.00	92.50	0.00
28.00	0.00	92.50	0.00
28.50	0.00	92.50	0.00
29.00	0.00	92.50	0.00
29.50	0.00	92.50	0.00
30.00	0.00	92.50	0.00

Pond CB8: CB8 w/ SD10

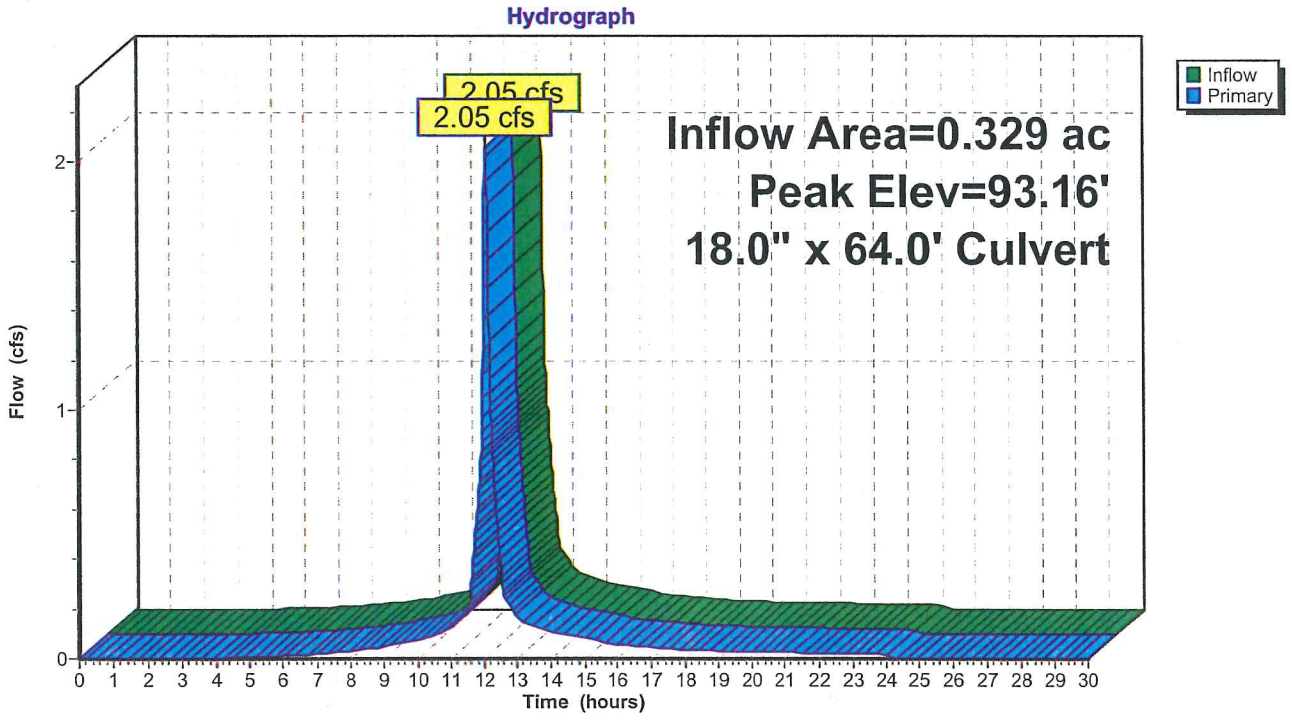
Inflow Area = 0.329 ac, Inflow Depth = 5.43" for 100 yr event
Inflow = 2.05 cfs @ 12.07 hrs, Volume= 0.149 af
Outflow = 2.05 cfs @ 12.07 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min
Primary = 2.05 cfs @ 12.07 hrs, Volume= 0.149 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 93.16' @ 12.07 hrs
Flood Elev= 96.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

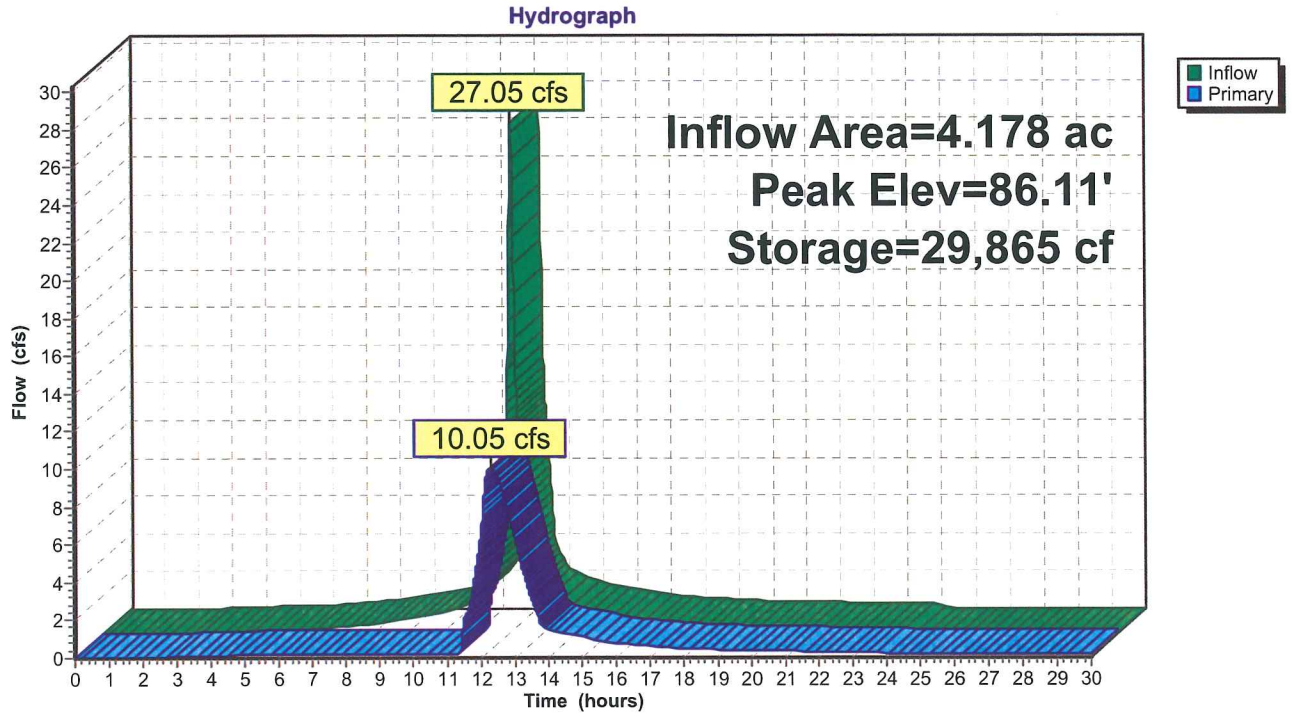
Device	Routing	Invert	Outlet Devices
#1	Primary	92.50'	**18.0" x 64.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 91.00' S= 0.0234 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean

Primary OutFlow Max=2.05 cfs @ 12.07 hrs HW=93.16' TW=86.39' (Dynamic Tailwater)
└**1=Culvert** (Inlet Controls 2.05 cfs @ 2.8 fps)

Pond CB8: CB8 w/ SD10



Pond DP1: Pond #1



Pond DP1: Pond #1

Inflow Area = 4.178 ac, Inflow Depth = 5.80" for 100 yr event
Inflow = 27.05 cfs @ 12.07 hrs, Volume= 2.018 af
Outflow = 10.05 cfs @ 12.30 hrs, Volume= 1.780 af, Atten= 63%, Lag= 13.5 min
Primary = 10.05 cfs @ 12.30 hrs, Volume= 1.780 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 86.11' @ 12.30 hrs Surf.Area= 11,056 sf Storage= 29,865 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 77.6 min (845.6 - 768.1)

Volume	Invert	Avail.Storage	Storage Description
#1	83.00'	40,053 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
83.00	8,187	0	0
84.00	9,064	8,626	8,626
85.00	9,985	9,525	18,150
86.00	10,943	10,464	28,614
87.00	11,934	11,439	40,053

Device	Routing	Invert	Outlet Devices
#1	Primary	80.90'	**18.0" x 68.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 79.00' S= 0.0279 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	86.50'	**15.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	84.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	83.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=10.05 cfs @ 12.30 hrs HW=86.11' TW=80.75' (Dynamic Tailwater)
- **1=Culvert** (Passes 10.05 cfs of 17.98 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 9.91 cfs @ 6.1 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond DP2: Pond #2

[87] Warning: Oscillations may require Finer Routing or smaller dt

Inflow Area = 0.469 ac, Inflow Depth = 5.13" for 100 yr event
Inflow = 2.73 cfs @ 12.08 hrs, Volume= 0.200 af
Outflow = 1.20 cfs @ 12.26 hrs, Volume= 0.200 af, Atten= 56%, Lag= 11.1 min
Primary = 1.20 cfs @ 12.26 hrs, Volume= 0.200 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 87.04' @ 12.26 hrs Surf.Area= 1,745 sf Storage= 2,778 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 143.2 min (932.2 - 789.0)

Volume	Invert	Avail.Storage	Storage Description
#1	85.00'	13,186 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
85.00	987	0	0
86.00	1,344	1,166	1,166
87.00	1,726	1,535	2,701
88.00	2,152	1,939	4,640
89.00	2,604	2,378	7,018
90.00	3,080	2,842	9,860
91.00	3,573	3,327	13,186

Device	Routing	Invert	Outlet Devices
#1	Primary	82.90'	**18.0" x 44.0' long Culvert** CMP, square edge headwall, Ke= 0.500 Outlet Invert= 82.00' S= 0.0205 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	89.00'	**15.0' long (Profile 4) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 2.77 2.97 3.21
#3	Device 1	87.00'	**0.10' x 1.80' Horiz. Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	85.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=1.20 cfs @ 12.26 hrs HW=87.04' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.20 cfs of 15.68 cfs potential flow)
  - **3=Grate** (Weir Controls 1.06 cfs @ 0.7 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

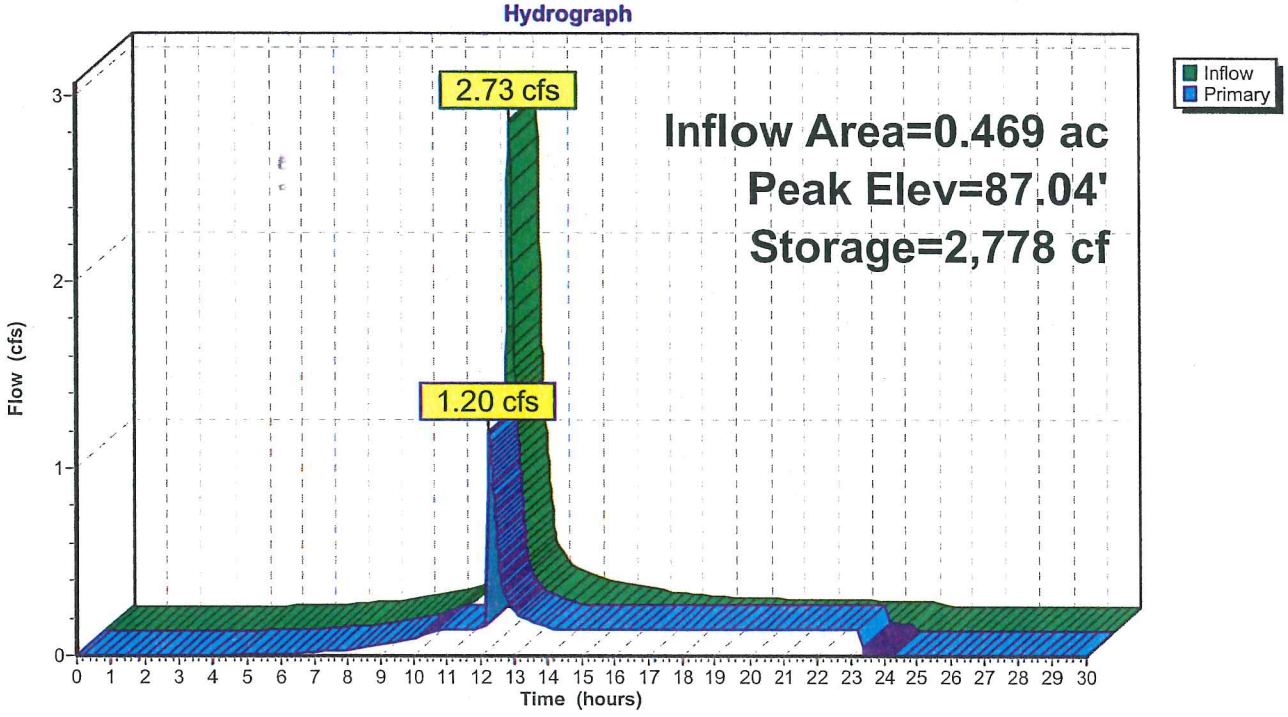
Hydrograph for Pond DP1: Pond #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	83.00	0.00
1.00	0.01	0	83.00	0.01
2.00	0.03	0	83.00	0.03
3.00	0.06	0	83.00	0.06
4.00	0.11	0	83.00	0.11
5.00	0.17	30	83.00	0.14
6.00	0.23	240	83.03	0.14
7.00	0.34	746	83.09	0.14
8.00	0.48	1,719	83.21	0.14
9.00	0.76	3,425	83.41	0.14
10.00	1.09	6,249	83.73	0.14
11.00	1.73	10,762	84.23	0.14
12.00	**18.10**	**20,143**	**85.20**	**6.66**
13.00	**2.20**	**19,217**	**85.11**	**6.21**
14.00	1.40	13,765	84.55	1.45
15.00	1.06	13,668	84.54	1.08
16.00	0.74	13,575	84.53	0.77
17.00	0.59	13,519	84.53	0.61
18.00	0.45	13,468	84.52	0.47
19.00	0.40	13,444	84.52	0.41
20.00	0.36	13,426	84.52	0.37
21.00	0.33	13,411	84.51	0.34
22.00	0.30	13,396	84.51	0.30
23.00	0.27	13,380	84.51	0.27
24.00	0.24	13,363	84.51	0.24
25.00	0.00	12,881	84.46	0.14
26.00	0.00	12,377	84.41	0.14
27.00	0.00	11,873	84.35	0.14
28.00	0.00	11,369	84.30	0.14
29.00	0.00	10,865	84.24	0.14
30.00	0.00	10,361	84.19	0.14

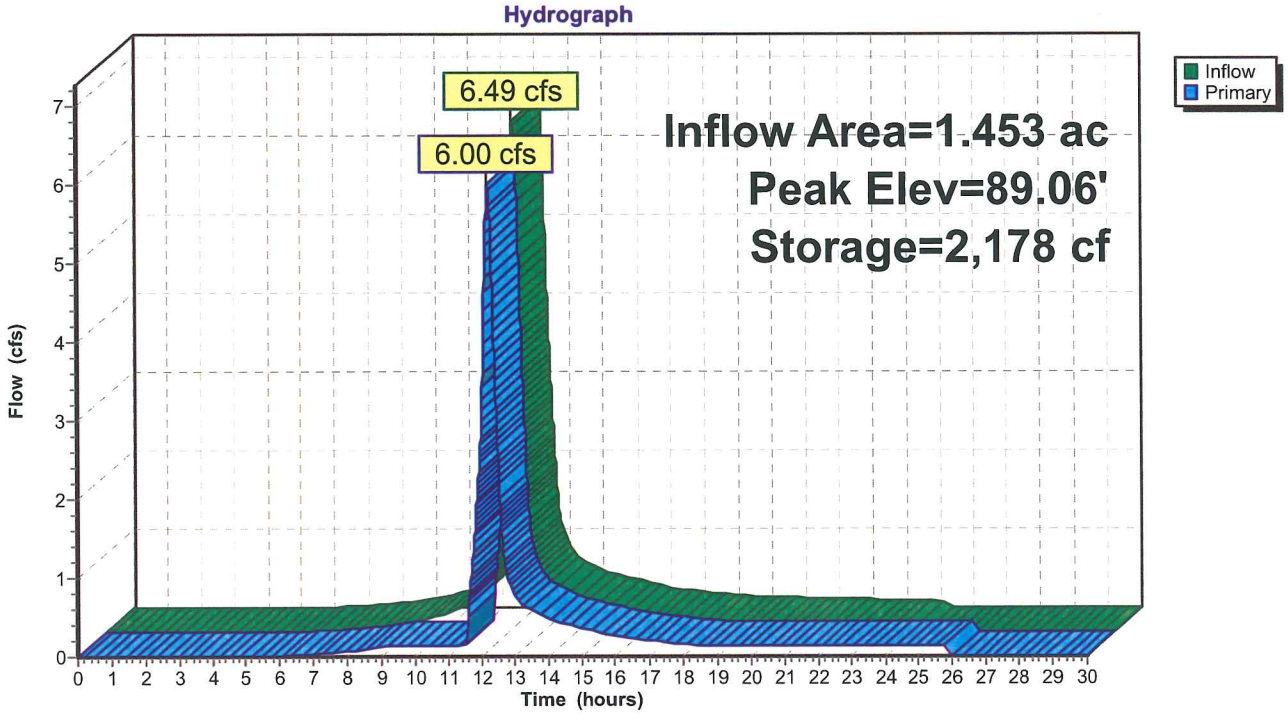
Hydrograph for Pond DP2: Pond #2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	85.00	0.00
1.00	0.00	0	85.00	0.00
2.00	0.00	0	85.00	0.00
3.00	0.00	0	85.00	0.00
4.00	0.00	0	85.00	0.00
5.00	0.01	0	85.00	0.01
6.00	0.01	0	85.00	0.01
7.00	0.02	0	85.00	0.02
8.00	0.03	0	85.00	0.03
9.00	0.06	0	85.00	0.06
10.00	0.09	0	85.00	0.09
11.00	0.16	8	85.01	0.14
12.00	**1.76**	**1,163**	**86.00**	**0.14**
13.00	**0.24**	**2,717**	**87.01**	**0.25**
14.00	0.15	2,705	87.00	0.16
15.00	0.11	2,668	86.98	0.14
16.00	0.08	2,516	86.89	0.14
17.00	0.06	2,271	86.74	0.14
18.00	0.05	1,972	86.56	0.14
19.00	0.04	1,635	86.33	0.14
20.00	0.04	1,282	86.09	0.14
21.00	0.04	914	85.81	0.14
22.00	0.03	534	85.50	0.14
23.00	0.03	142	85.14	0.14
24.00	0.03	0	85.00	0.01
25.00	0.00	0	85.00	0.00
26.00	0.00	0	85.00	0.00
27.00	0.00	0	85.00	0.00
28.00	0.00	0	85.00	0.00
29.00	0.00	0	85.00	0.00
30.00	0.00	0	85.00	0.00

Pond DP2: Pond #2



Pond DP3: Pond #3 (UIS Filter)



Pond DP3: Pond #3 (UIS Filter)

Inflow Area = 1.453 ac, Inflow Depth = 4.73" for 100 yr event
Inflow = 6.49 cfs @ 12.16 hrs, Volume= 0.573 af
Outflow = 6.00 cfs @ 12.21 hrs, Volume= 0.573 af, Atten= 8%, Lag= 3.1 min
Primary = 6.00 cfs @ 12.21 hrs, Volume= 0.573 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 89.06' @ 12.21 hrs Surf.Area= 1,318 sf Storage= 2,178 cf
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 46.6 min (854.3 - 807.7)

Volume	Invert	Avail.Storage	Storage Description
#1	87.00'	3,535 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
87.00	810	0	0
88.00	1,040	925	925
89.00	1,300	1,170	2,095
90.00	1,580	1,440	3,535

Device	Routing	Invert	Outlet Devices
#1	Primary	84.90'	**18.0" x 28.0' long Culvert** CMP, square edge headwall, Ke= 0.500 Outlet Invert= 84.50' S= 0.0143 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Primary	89.50'	**10.0' long (Profile 6) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.12 3.41 3.59
#3	Device 1	88.50'	**0.10' x 1.80' Horiz. CB Grate X 9.00** Limited to weir flow C= 0.600
#4	Device 1	87.00'	**0.14 cfs Filter Bed when above invert**

Primary OutFlow Max=6.00 cfs @ 12.21 hrs HW=89.06' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 6.00 cfs of 15.72 cfs potential flow)
  - **3=CB Grate** (Orifice Controls 5.86 cfs @ 3.6 fps)
  - **4=Filter Bed** (Exfiltration Controls 0.14 cfs)
- **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

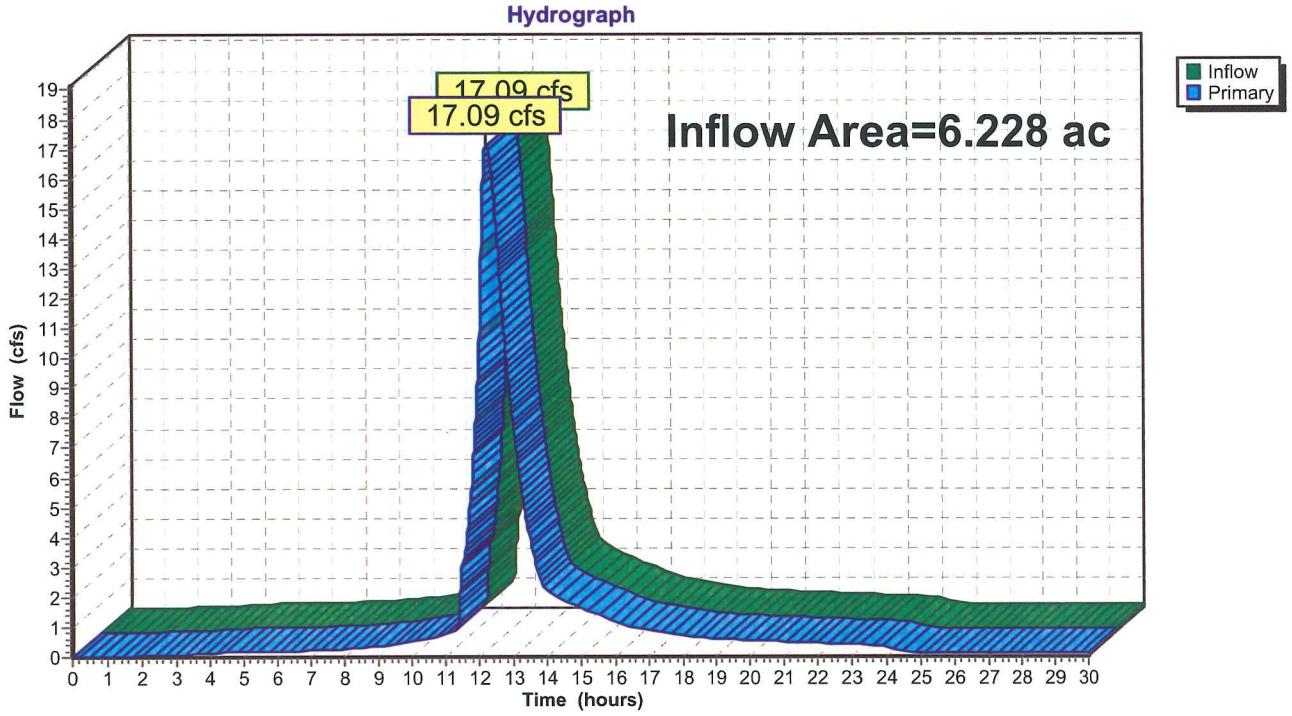
Pond SP1: Study Point #1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.228 ac, Inflow Depth > 5.08" for 100 yr event
Inflow = 17.09 cfs @ 12.25 hrs, Volume= 2.635 af
Primary = 17.09 cfs @ 12.25 hrs, Volume= 2.635 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Pond SP1: Study Point #1



Hydrograph for Pond DP3: Pond #3 (UIS Filter)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	87.00	0.00
1.00	0.00	0	87.00	0.00
2.00	0.00	0	87.00	0.00
3.00	0.00	0	87.00	0.00
4.00	0.00	0	87.00	0.00
5.00	0.00	0	87.00	0.00
6.00	0.01	0	87.00	0.01
7.00	0.03	0	87.00	0.03
8.00	0.06	0	87.00	0.06
9.00	0.13	0	87.00	0.13
10.00	0.22	117	87.14	0.14
11.00	0.40	700	87.78	0.14
12.00	**3.21**	**1,624**	**88.62**	**2.88**
13.00	**0.80**	**1,516**	**88.53**	**0.81**
14.00	0.48	1,502	88.52	0.48
15.00	0.36	1,496	88.52	0.36
16.00	0.26	1,490	88.51	0.26
17.00	0.20	1,485	88.51	0.20
18.00	0.15	1,481	88.50	0.16
19.00	0.14	1,475	88.50	0.14
20.00	0.12	1,434	88.46	0.14
21.00	0.11	1,348	88.39	0.14
22.00	0.10	1,225	88.28	0.14
23.00	0.09	1,065	88.13	0.14
24.00	0.08	868	87.95	0.14
25.00	0.00	417	87.48	0.14
26.00	0.00	0	87.00	0.00
27.00	0.00	0	87.00	0.00
28.00	0.00	0	87.00	0.00
29.00	0.00	0	87.00	0.00
30.00	0.00	0	87.00	0.00

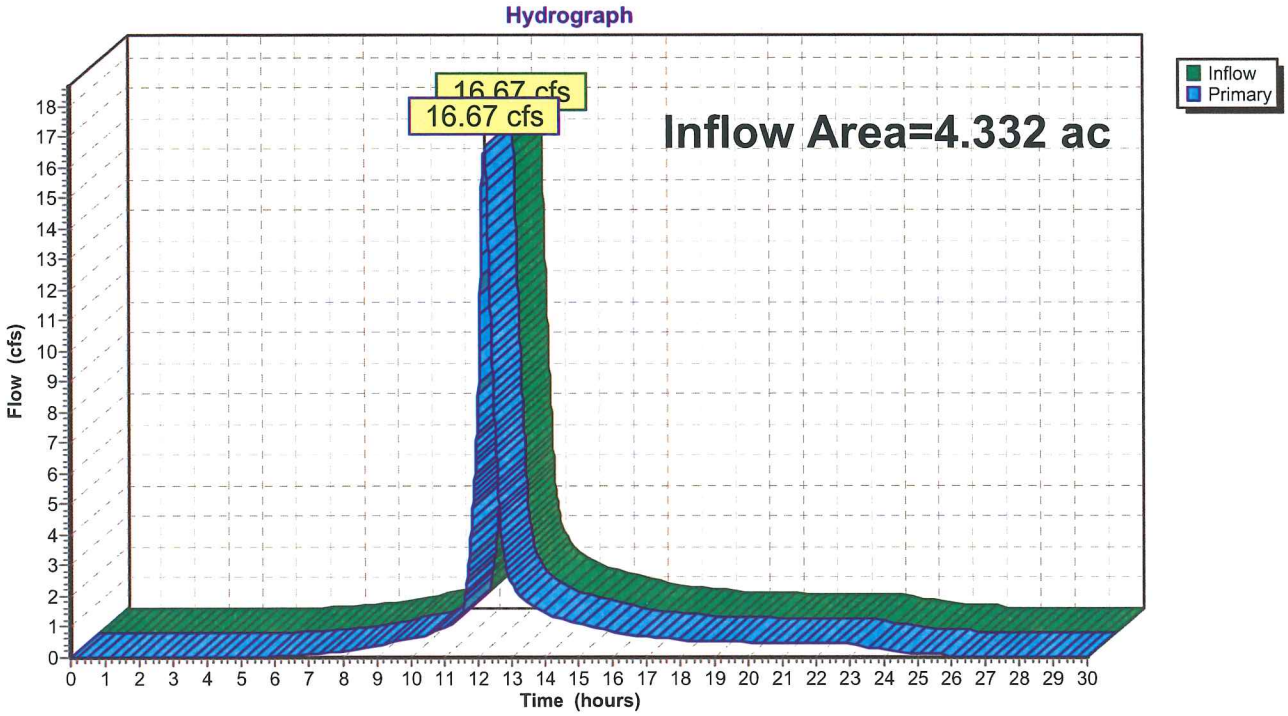
Pond SP2: Study Point #2

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 4.332 ac, Inflow Depth = 4.78" for 100 yr event
Inflow = 16.67 cfs @ 12.23 hrs, Volume= 1.727 af
Primary = 16.67 cfs @ 12.23 hrs, Volume= 1.727 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3

Pond SP2: Study Point #2



Hydrograph for Pond SP1: Study Point #1

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
0.50	0.00	0.00	0.00
1.00	0.01	0.00	0.01
1.50	0.02	0.00	0.02
2.00	0.03	0.00	0.03
2.50	0.04	0.00	0.04
3.00	0.06	0.00	0.06
3.50	0.09	0.00	0.09
4.00	0.13	0.00	0.13
4.50	0.16	0.00	0.16
5.00	0.17	0.00	0.17
5.50	0.18	0.00	0.18
6.00	0.19	0.00	0.19
6.50	0.20	0.00	0.20
7.00	0.21	0.00	0.21
7.50	0.24	0.00	0.24
8.00	0.26	0.00	0.26
8.50	0.30	0.00	0.30
9.00	0.35	0.00	0.35
9.50	0.42	0.00	0.42
10.00	0.49	0.00	0.49
10.50	0.59	0.00	0.59
11.00	0.73	0.00	0.73
11.50	3.02	0.00	3.02
12.00	**9.87**	0.00	**9.87**
12.50	**14.64**	0.00	**14.64**
13.00	7.78	0.00	7.78
13.50	3.91	0.00	3.91
14.00	2.18	0.00	2.18
14.50	1.85	0.00	1.85
15.00	1.62	0.00	1.62
15.50	1.39	0.00	1.39
16.00	1.16	0.00	1.16
16.50	1.00	0.00	1.00
17.00	0.90	0.00	0.90
17.50	0.80	0.00	0.80
18.00	0.70	0.00	0.70
18.50	0.64	0.00	0.64
19.00	0.60	0.00	0.60
19.50	0.57	0.00	0.57
20.00	0.54	0.00	0.54
20.50	0.52	0.00	0.52
21.00	0.50	0.00	0.50
21.50	0.47	0.00	0.47
22.00	0.45	0.00	0.45
22.50	0.43	0.00	0.43
23.00	0.40	0.00	0.40
23.50	0.38	0.00	0.38
24.00	0.36	0.00	0.36
24.50	0.16	0.00	0.16
25.00	0.14	0.00	0.14
25.50	0.14	0.00	0.14
26.00	0.14	0.00	0.14
26.50	0.14	0.00	0.14
27.00	0.14	0.00	0.14
27.50	0.14	0.00	0.14
28.00	0.14	0.00	0.14
28.50	0.14	0.00	0.14
29.00	0.14	0.00	0.14
29.50	0.14	0.00	0.14
30.00	0.14	0.00	0.14

Hydrograph for Pond SP2: Study Point #2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	**0.00**	0.00
0.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00
5.00	0.01	0.00	0.01
5.50	0.01	0.00	0.01
6.00	0.03	0.00	0.03
6.50	0.06	0.00	0.06
7.00	0.10	0.00	0.10
7.50	0.14	0.00	0.14
8.00	0.20	0.00	0.20
8.50	0.28	0.00	0.28
9.00	0.39	0.00	0.39
9.50	0.50	0.00	0.50
10.00	0.60	0.00	0.60
10.50	0.75	0.00	0.75
11.00	0.94	0.00	0.94
11.50	1.34	0.00	1.34
12.00	**7.84**	0.00	**7.84**
12.50	**7.88**	0.00	**7.88**
13.00	2.42	0.00	2.42
13.50	1.75	0.00	1.75
14.00	1.44	0.00	1.44
14.50	1.23	0.00	1.23
15.00	1.10	0.00	1.10
15.50	0.96	0.00	0.96
16.00	0.83	0.00	0.83
16.50	0.73	0.00	0.73
17.00	0.67	0.00	0.67
17.50	0.61	0.00	0.61
18.00	0.55	0.00	0.55
18.50	0.52	0.00	0.52
19.00	0.51	0.00	0.51
19.50	0.49	0.00	0.49
20.00	0.48	0.00	0.48
20.50	0.47	0.00	0.47
21.00	0.46	0.00	0.46
21.50	0.46	0.00	0.46
22.00	0.45	0.00	0.45
22.50	0.44	0.00	0.44
23.00	0.43	0.00	0.43
23.50	0.30	0.00	0.30
24.00	0.28	0.00	0.28
24.50	0.14	0.00	0.14
25.00	0.14	0.00	0.14
25.50	0.14	0.00	0.14
26.00	0.00	0.00	0.00
26.50	0.00	0.00	0.00
27.00	0.00	0.00	0.00
27.50	0.00	0.00	0.00
28.00	0.00	0.00	0.00
28.50	0.00	0.00	0.00
29.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00
30.00	0.00	0.00	0.00

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment P1: N corner adjacent to congress st. Runoff Area=0.930 ac Runoff Depth=3.05"
Flow Length=595' Tc=12.2 min CN=77 Runoff=2.71 cfs 0.236 af

Subcatchment P10: parking west of entrance Runoff Area=0.410 ac Runoff Depth=4.58"
Flow Length=181' Tc=5.0 min CN=92 Runoff=2.15 cfs 0.156 af

Subcatchment P11: east mid parking Runoff Area=12,045 sf Runoff Depth=4.69"
Flow Length=148' Tc=5.0 min CN=93 Runoff=1.47 cfs 0.108 af

Subcatchment P12: east far parking Runoff Area=4,301 sf Runoff Depth=4.80"
Flow Length=127' Tc=5.0 min CN=94 Runoff=0.53 cfs 0.040 af

Subcatchment P13: west side parking Runoff Area=0.290 ac Runoff Depth=4.47"
Flow Length=245' Tc=5.0 min CN=91 Runoff=1.50 cfs 0.108 af

Subcatchment P14: SW police entrance and drive Runoff Area=0.240 ac Runoff Depth=4.47"
Flow Length=125' Tc=5.0 min CN=91 Runoff=1.24 cfs 0.089 af

Subcatchment P15: access road Runoff Area=0.230 ac Runoff Depth=4.04"
Flow Length=269' Tc=5.0 min CN=87 Runoff=1.10 cfs 0.077 af

Subcatchment P17: Pond #2 Surface Runoff Area=0.140 ac Runoff Depth=3.33"
Flow Length=29' Tc=6.7 min CN=80 Runoff=0.53 cfs 0.039 af

Subcatchment P2&16: S corner includes some remote parkin Runoff Area=2.410 ac Runoff Depth=3.63"
Flow Length=671' Tc=13.6 min CN=83 Runoff=8.01 cfs 0.729 af

Subcatchment P3: Pond #1 Surface Runoff Area=0.330 ac Runoff Depth=3.33"
Tc=5.0 min CN=80 Runoff=1.33 cfs 0.092 af

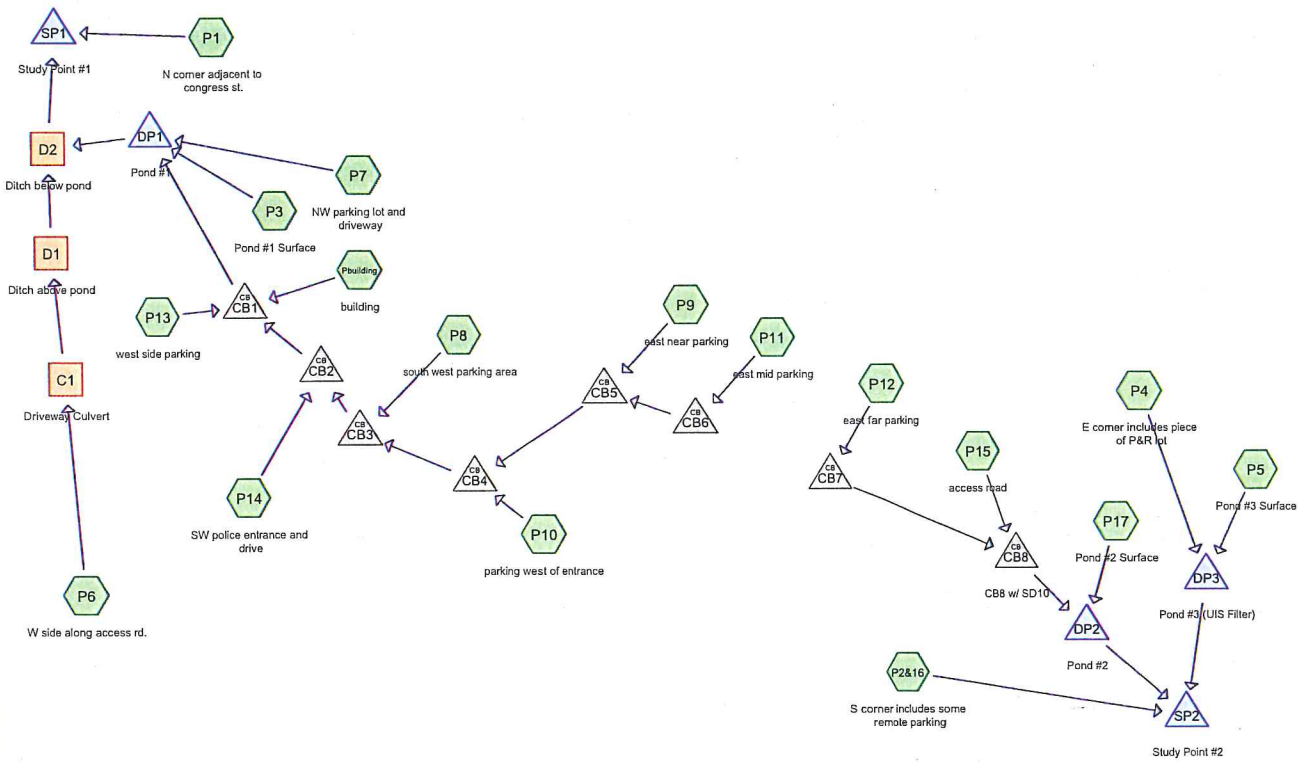
Subcatchment P4: E corner includes piece of P&R lot Runoff Area=61,136 sf Runoff Depth=3.63"
Flow Length=448' Tc=12.0 min CN=83 Runoff=4.88 cfs 0.425 af

Subcatchment P5: Pond #3 Surface Runoff Area=0.050 ac Runoff Depth=3.33"
Tc=5.0 min CN=80 Runoff=0.20 cfs 0.014 af

Subcatchment P6: W side along access rd. Runoff Area=1.120 ac Runoff Depth=4.58"
Flow Length=853' Tc=24.7 min CN=92 Runoff=3.54 cfs 0.427 af

Subcatchment P7: NW parking lot and driveway Runoff Area=0.620 ac Runoff Depth=4.69"
Flow Length=232' Tc=5.0 min CN=93 Runoff=3.30 cfs 0.242 af

Subcatchment P8: south west parking area Runoff Area=0.700 ac Runoff Depth=4.47"
Flow Length=238' Tc=5.0 min CN=91 Runoff=3.61 cfs 0.261 af



Subcat Reach Pond Link

Drainage Diagram for MTA-HQ_Proposed-25yrSpillway_PermitFinal-ADD1
Prepared by {enter your company name here} 2/8/2007
HydroCAD® 7.10 s/n 003962 © 2005 HydroCAD Software Solutions LLC

Pond SP2: Study Point #2

Inflow=12.96 cfs 1.104 af
Primary=12.96 cfs 1.104 af

Total Runoff Area = 10.561 ac Runoff Volume = 3.595 af Average Runoff Depth = 4.09"

Subcatchment P9: east near parking Runoff Area=0.410 ac Runoff Depth=4.58"
Flow Length=163' Tc=5.0 min CN=92 Runoff=2.15 cfs 0.156 af

Subcatchment Pbuilding: building Runoff Area=0.902 ac Runoff Depth=5.26"
Flow Length=226' Tc=5.0 min CN=98 Runoff=5.03 cfs 0.396 af

Reach C1: Driveway Culvert Peak Depth=0.41' Max Vel=9.1 fps Inflow=3.54 cfs 0.427 af
D=18.0" n=0.013 L=68.0' S=0.0441 '/' Capacity=22.06 cfs Outflow=3.53 cfs 0.427 af

Reach D1: Ditch above pond Peak Depth=0.51' Max Vel=4.6 fps Inflow=3.53 cfs 0.427 af
n=0.022 L=162.0' S=0.0309 '/' Capacity=21.65 cfs Outflow=3.53 cfs 0.427 af

Reach D2: Ditch below pond Peak Depth=0.67' Max Vel=4.2 fps Inflow=11.18 cfs 1.250 af
n=0.033 L=113.0' S=0.0265 '/' Capacity=26.12 cfs Outflow=11.18 cfs 1.250 af

Pond CB1: Peak Elev=88.29' Inflow=17.16 cfs 1.275 af
24.0" x 104.2' Culvert Outflow=17.16 cfs 1.275 af

Pond CB2: Peak Elev=89.38' Inflow=10.63 cfs 0.771 af
24.0" x 134.6' Culvert Outflow=10.63 cfs 0.771 af

Pond CB3: Peak Elev=90.00' Inflow=9.39 cfs 0.682 af
24.0" x 66.5' Culvert Outflow=9.39 cfs 0.682 af

Pond CB4: Peak Elev=94.79' Inflow=5.77 cfs 0.421 af
24.0" x 164.7' Culvert Outflow=5.77 cfs 0.421 af

Pond CB5: Peak Elev=98.41' Inflow=3.62 cfs 0.264 af
18.0" x 150.7' Culvert Outflow=3.62 cfs 0.264 af

Pond CB6: Peak Elev=100.05' Inflow=1.47 cfs 0.108 af
18.0" x 77.8' Culvert Outflow=1.47 cfs 0.108 af

Pond CB7: Peak Elev=100.82' Inflow=0.53 cfs 0.040 af
18.0" x 100.0' Culvert Outflow=0.53 cfs 0.040 af

Pond CB8: CB8 w/ SD10 Peak Elev=93.08' Inflow=1.63 cfs 0.117 af
18.0" x 64.0' Culvert Outflow=1.63 cfs 0.117 af

Pond DP1: Pond #1 Peak Elev=86.80' Storage=37,675 cf Inflow=21.79 cfs 1.608 af
Outflow=7.66 cfs 0.823 af

Pond DP2: Pond #2 Peak Elev=88.91' Storage=6,788 cf Inflow=2.15 cfs 0.156 af
Outflow=0.00 cfs 0.000 af

Pond DP3: Pond #3 (UIS Filter) Peak Elev=89.79' Storage=3,215 cf Inflow=5.00 cfs 0.438 af
Outflow=4.96 cfs 0.375 af

Pond SP1: Study Point #1 Inflow=13.02 cfs 1.486 af
Primary=13.02 cfs 1.486 af

Hydrograph for Subcatchment P1: N corner adjacent to congress st.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.00	0.00
8.50	0.71	0.00	0.01
9.00	0.80	0.01	0.02
9.50	0.91	0.03	0.03
10.00	1.04	0.06	0.05
10.50	1.19	0.10	0.08
11.00	1.37	0.16	0.12
11.50	1.64	0.27	0.22
12.00	2.75	0.90	**1.21**
12.50	3.86	1.70	**1.13**
13.00	4.12	1.91	0.37
13.50	4.31	2.06	0.27
14.00	4.46	2.18	0.22
14.50	4.59	2.28	0.19
15.00	4.70	2.37	0.17
15.50	4.79	2.45	0.14
16.00	4.87	2.52	0.12
16.50	4.94	2.57	0.11
17.00	5.00	2.62	0.09
17.50	5.06	2.67	0.08
18.00	5.10	2.71	0.07
18.50	5.15	2.75	0.07
19.00	5.19	2.78	0.06
19.50	5.23	2.81	0.06
20.00	5.26	2.84	0.06
20.50	5.30	2.87	0.06
21.00	5.33	2.90	0.05
21.50	5.36	2.93	0.05
22.00	5.39	2.96	0.05
22.50	5.42	2.98	0.05
23.00	5.45	3.00	0.04
23.50	5.48	3.03	0.04
24.00	**5.50**	**3.05**	0.04
24.50	5.50	3.05	0.00
25.00	5.50	3.05	0.00
25.50	5.50	3.05	0.00
26.00	5.50	3.05	0.00
26.50	5.50	3.05	0.00
27.00	5.50	3.05	0.00
27.50	5.50	3.05	0.00
28.00	5.50	3.05	0.00
28.50	5.50	3.05	0.00
29.00	5.50	3.05	0.00
29.50	5.50	3.05	0.00
30.00	5.50	3.05	0.00

Subcatchment P1: N corner adjacent to congress st.

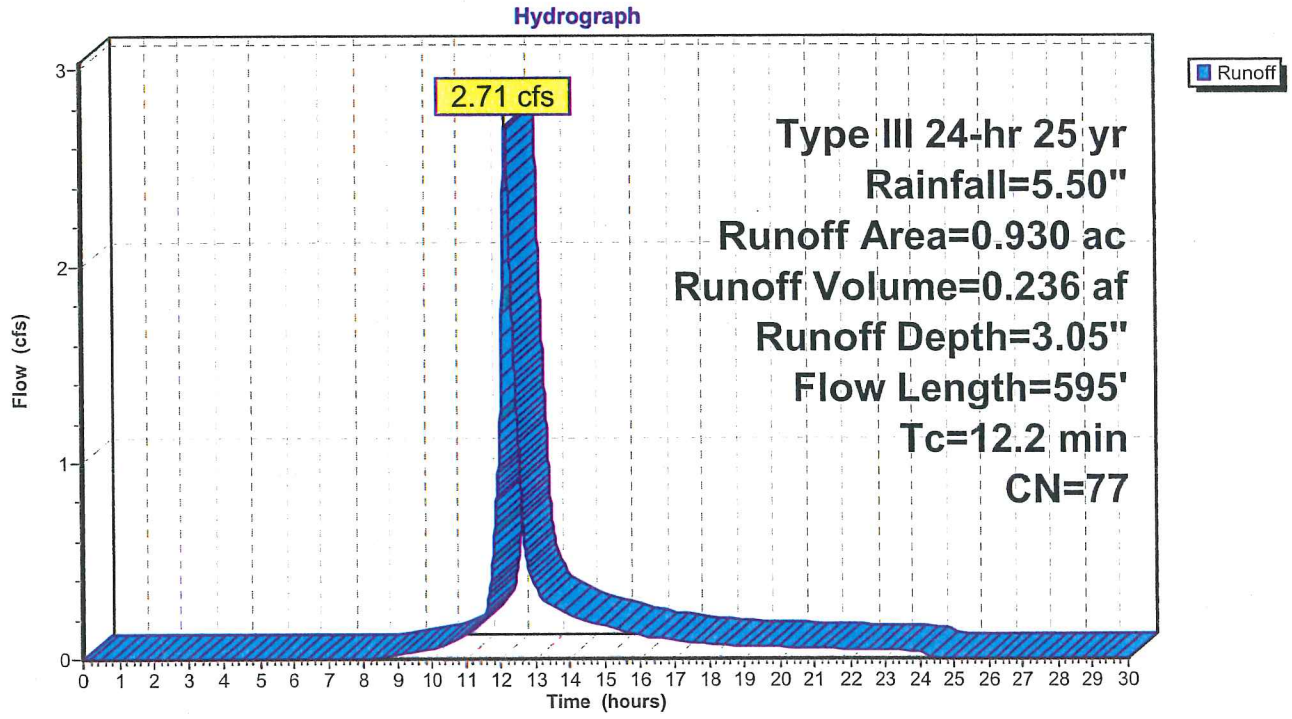
Runoff = 2.71 cfs @ 12.17 hrs, Volume= 0.236 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.500	74	>75% Grass cover, Good, HSG C
0.240	80	>75% Grass cover, Good, HSG D
0.190	79	Woods, Fair, HSG D
0.930	77	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.1700	0.2		**Sheet Flow, Sheet** Grass: Dense n= 0.240 P2= 2.00"
4.5	495	0.0700	1.9		**Shallow Concentrated Flow, Shallow Concentrated** Short Grass Pasture Kv= 7.0 fps
12.2	595	Total			

Subcatchment P1: N corner adjacent to congress st.



Hydrograph for Subcatchment P10: parking west of entrance

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.01
5.00	0.31	0.02	0.01
5.50	0.35	0.03	0.01
6.00	0.40	0.05	0.01
6.50	0.44	0.06	0.02
7.00	0.50	0.09	0.02
7.50	0.56	0.12	0.03
8.00	0.63	0.16	0.03
8.50	0.71	0.20	0.04
9.00	0.80	0.26	0.05
9.50	0.91	0.34	0.07
10.00	1.04	0.43	0.08
10.50	1.19	0.55	0.11
11.00	1.37	0.70	0.13
11.50	1.64	0.92	0.22
12.00	2.75	1.93	**1.43**
12.50	3.86	2.98	**0.41**
13.00	4.12	3.24	0.18
13.50	4.31	3.42	0.14
14.00	4.46	3.56	0.11
14.50	4.59	3.69	0.10
15.00	4.70	3.80	0.08
15.50	4.79	3.89	0.07
16.00	4.87	3.97	0.06
16.50	4.94	4.03	0.05
17.00	5.00	4.09	0.05
17.50	5.06	4.14	0.04
18.00	5.10	4.19	0.04
18.50	5.15	4.23	0.03
19.00	5.19	4.27	0.03
19.50	5.23	4.31	0.03
20.00	5.26	4.35	0.03
20.50	5.30	4.38	0.03
21.00	5.33	4.41	0.03
21.50	5.36	4.45	0.03
22.00	5.39	4.47	0.02
22.50	5.42	4.50	0.02
23.00	5.45	4.53	0.02
23.50	5.48	4.55	0.02
24.00	**5.50**	**4.58**	0.02
24.50	5.50	4.58	0.00
25.00	5.50	4.58	0.00
25.50	5.50	4.58	0.00
26.00	5.50	4.58	0.00
26.50	5.50	4.58	0.00
27.00	5.50	4.58	0.00
27.50	5.50	4.58	0.00
28.00	5.50	4.58	0.00
28.50	5.50	4.58	0.00
29.00	5.50	4.58	0.00
29.50	5.50	4.58	0.00
30.00	5.50	4.58	0.00

Subcatchment P10: parking west of entrance

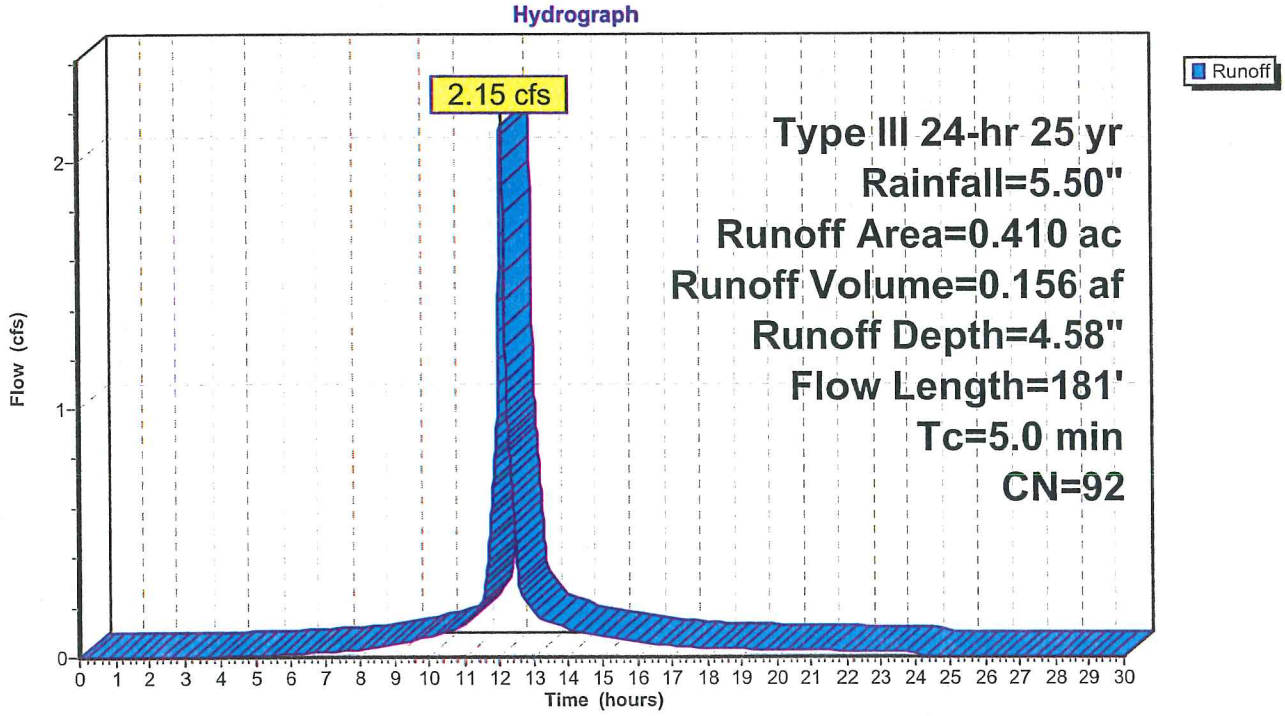
Runoff = 2.15 cfs @ 12.07 hrs, Volume= 0.156 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.280	98	Paved parking & roofs
0.130	80	>75% Grass cover, Good, HSG D
0.410	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	134	0.0400	1.5		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	47	0.0100	5.5	43.64	**Channel Flow,** Area= 8.0 sf Perim= 6.0' r= 1.33' n= 0.033 Earth, grassed & winding
1.6	181	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P10: parking west of entrance



Hydrograph for Subcatchment P11: east mid parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.01	0.00
4.50	0.27	0.02	0.01
5.00	0.31	0.03	0.01
5.50	0.35	0.04	0.01
6.00	0.40	0.06	0.01
6.50	0.44	0.08	0.01
7.00	0.50	0.11	0.02
7.50	0.56	0.14	0.02
8.00	0.63	0.18	0.02
8.50	0.71	0.24	0.03
9.00	0.80	0.30	0.04
9.50	0.91	0.38	0.05
10.00	1.04	0.48	0.06
10.50	1.19	0.60	0.07
11.00	1.37	0.76	0.09
11.50	1.64	0.99	0.15
12.00	2.75	2.02	**0.98**
12.50	3.86	3.08	**0.28**
13.00	4.12	3.34	0.12
13.50	4.31	3.52	0.09
14.00	4.46	3.67	0.08
14.50	4.59	3.79	0.07
15.00	4.70	3.90	0.06
15.50	4.79	4.00	0.05
16.00	4.87	4.07	0.04
16.50	4.94	4.14	0.04
17.00	5.00	4.20	0.03
17.50	5.06	4.25	0.03
18.00	5.10	4.30	0.02
18.50	5.15	4.34	0.02
19.00	5.19	4.38	0.02
19.50	5.23	4.42	0.02
20.00	5.26	4.46	0.02
20.50	5.30	4.49	0.02
21.00	5.33	4.52	0.02
21.50	5.36	4.56	0.02
22.00	5.39	4.59	0.02
22.50	5.42	4.61	0.02
23.00	5.45	4.64	0.01
23.50	5.48	4.67	0.01
24.00	**5.50**	**4.69**	0.01
24.50	5.50	4.69	0.00
25.00	5.50	4.69	0.00
25.50	5.50	4.69	0.00
26.00	5.50	4.69	0.00
26.50	5.50	4.69	0.00
27.00	5.50	4.69	0.00
27.50	5.50	4.69	0.00
28.00	5.50	4.69	0.00
28.50	5.50	4.69	0.00
29.00	5.50	4.69	0.00
29.50	5.50	4.69	0.00
30.00	5.50	4.69	0.00

Subcatchment P11: east mid parking

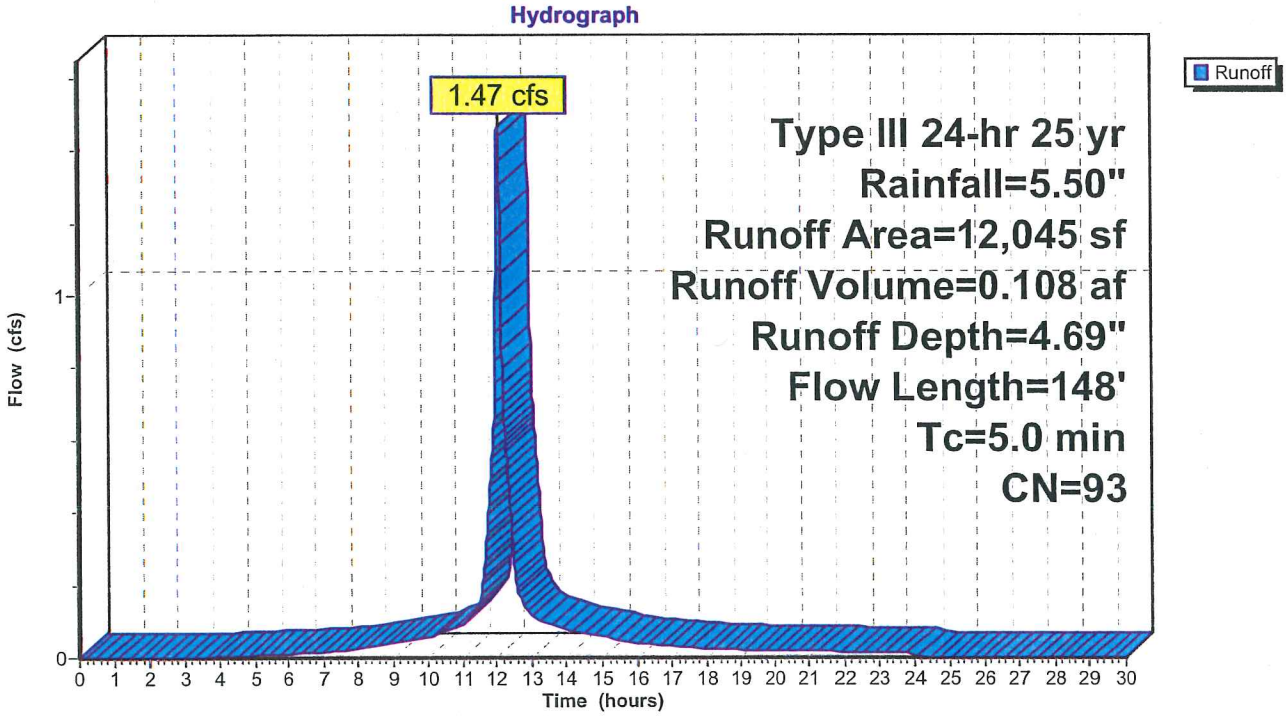
Runoff = 1.47 cfs @ 12.07 hrs, Volume= 0.108 af, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (sf)	CN	Description
8,559	98	Paved parking & roofs
3,486	80	>75% Grass cover, Good, HSG D
12,045	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.9	70	0.0400	1.3		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.4	78	0.0400	3.0		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.3	148	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P11: east mid parking



Hydrograph for Subcatchment P12: east far parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.01	0.00
4.00	0.24	0.02	0.00
4.50	0.27	0.03	0.00
5.00	0.31	0.04	0.00
5.50	0.35	0.06	0.00
6.00	0.40	0.08	0.00
6.50	0.44	0.10	0.01
7.00	0.50	0.14	0.01
7.50	0.56	0.17	0.01
8.00	0.63	0.22	0.01
8.50	0.71	0.28	0.01
9.00	0.80	0.35	0.02
9.50	0.91	0.43	0.02
10.00	1.04	0.54	0.02
10.50	1.19	0.66	0.03
11.00	1.37	0.83	0.03
11.50	1.64	1.06	0.06
12.00	2.75	2.11	**0.36**
12.50	3.86	3.19	**0.10**
13.00	4.12	3.45	0.04
13.50	4.31	3.63	0.03
14.00	4.46	3.78	0.03
14.50	4.59	3.90	0.02
15.00	4.70	4.01	0.02
15.50	4.79	4.10	0.02
16.00	4.87	4.18	0.01
16.50	4.94	4.25	0.01
17.00	5.00	4.31	0.01
17.50	5.06	4.36	0.01
18.00	5.10	4.41	0.01
18.50	5.15	4.45	0.01
19.00	5.19	4.49	0.01
19.50	5.23	4.53	0.01
20.00	5.26	4.57	0.01
20.50	5.30	4.60	0.01
21.00	5.33	4.64	0.01
21.50	5.36	4.67	0.01
22.00	5.39	4.70	0.01
22.50	5.42	4.73	0.01
23.00	5.45	4.75	0.01
23.50	5.48	4.78	0.00
24.00	**5.50**	**4.80**	0.00
24.50	5.50	4.80	0.00
25.00	5.50	4.80	0.00
25.50	5.50	4.80	0.00
26.00	5.50	4.80	0.00
26.50	5.50	4.80	0.00
27.00	5.50	4.80	0.00
27.50	5.50	4.80	0.00
28.00	5.50	4.80	0.00
28.50	5.50	4.80	0.00
29.00	5.50	4.80	0.00
29.50	5.50	4.80	0.00
30.00	5.50	4.80	0.00

Subcatchment P12: east far parking

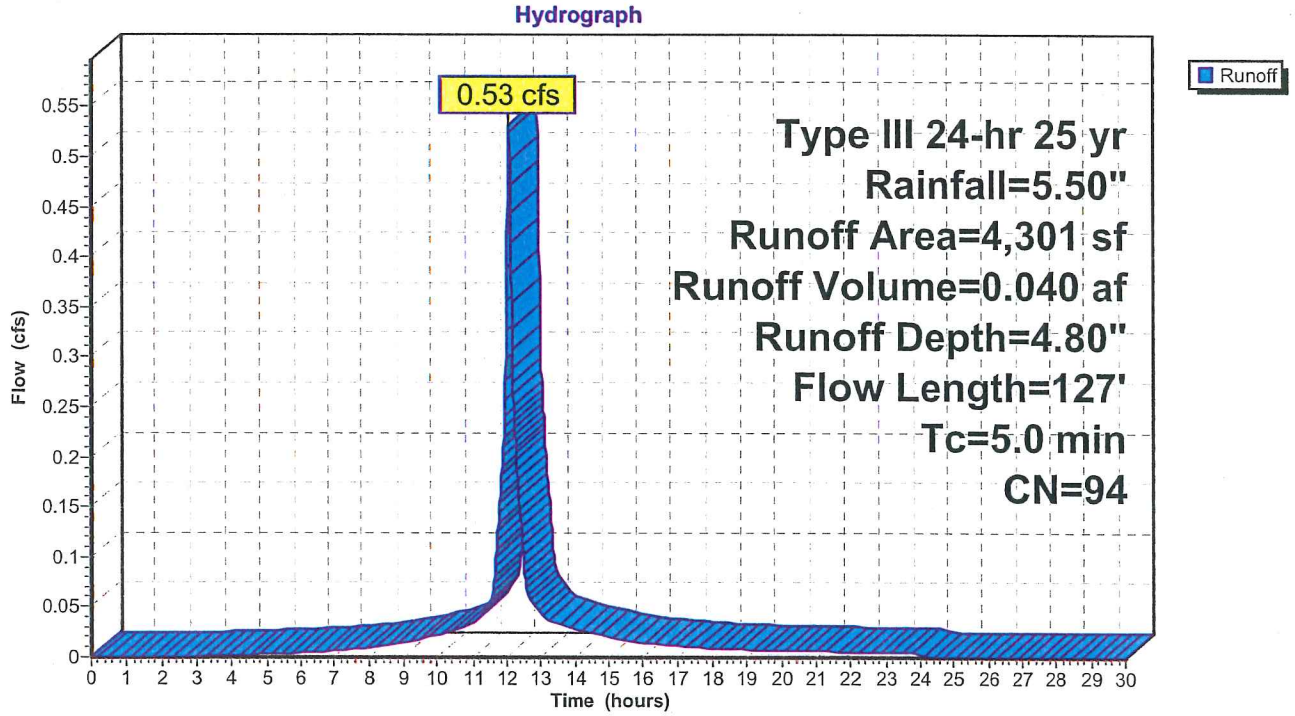
Runoff = 0.53 cfs @ 12.07 hrs, Volume= 0.040 af, Depth= 4.80"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (sf)	CN	Description
3,400	98	Paved parking & roofs
901	80	>75% Grass cover, Good, HSG D
4,301	94	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0400	1.4		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	27	0.0400	4.1		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	127	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P12: east far parking



Hydrograph for Subcatchment P13: west side parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.00
5.00	0.31	0.01	0.00
5.50	0.35	0.02	0.01
6.00	0.40	0.03	0.01
6.50	0.44	0.05	0.01
7.00	0.50	0.07	0.01
7.50	0.56	0.10	0.02
8.00	0.63	0.13	0.02
8.50	0.71	0.17	0.03
9.00	0.80	0.23	0.04
9.50	0.91	0.30	0.04
10.00	1.04	0.39	0.05
10.50	1.19	0.50	0.07
11.00	1.37	0.64	0.09
11.50	1.64	0.85	0.15
12.00	2.75	1.84	**1.00**
12.50	3.86	2.88	**0.29**
13.00	4.12	3.14	0.12
13.50	4.31	3.31	0.10
14.00	4.46	3.46	0.08
14.50	4.59	3.58	0.07
15.00	4.70	3.69	0.06
15.50	4.79	3.78	0.05
16.00	4.87	3.86	0.04
16.50	4.94	3.92	0.04
17.00	5.00	3.98	0.03
17.50	5.06	4.04	0.03
18.00	5.10	4.08	0.03
18.50	5.15	4.12	0.02
19.00	5.19	4.16	0.02
19.50	5.23	4.20	0.02
20.00	5.26	4.24	0.02
20.50	5.30	4.27	0.02
21.00	5.33	4.30	0.02
21.50	5.36	4.34	0.02
22.00	5.39	4.37	0.02
22.50	5.42	4.39	0.02
23.00	5.45	4.42	0.02
23.50	5.48	4.45	0.01
24.00	**5.50**	**4.47**	0.01
24.50	5.50	4.47	0.00
25.00	5.50	4.47	0.00
25.50	5.50	4.47	0.00
26.00	5.50	4.47	0.00
26.50	5.50	4.47	0.00
27.00	5.50	4.47	0.00
27.50	5.50	4.47	0.00
28.00	5.50	4.47	0.00
28.50	5.50	4.47	0.00
29.00	5.50	4.47	0.00
29.50	5.50	4.47	0.00
30.00	5.50	4.47	0.00

Subcatchment P13: west side parking

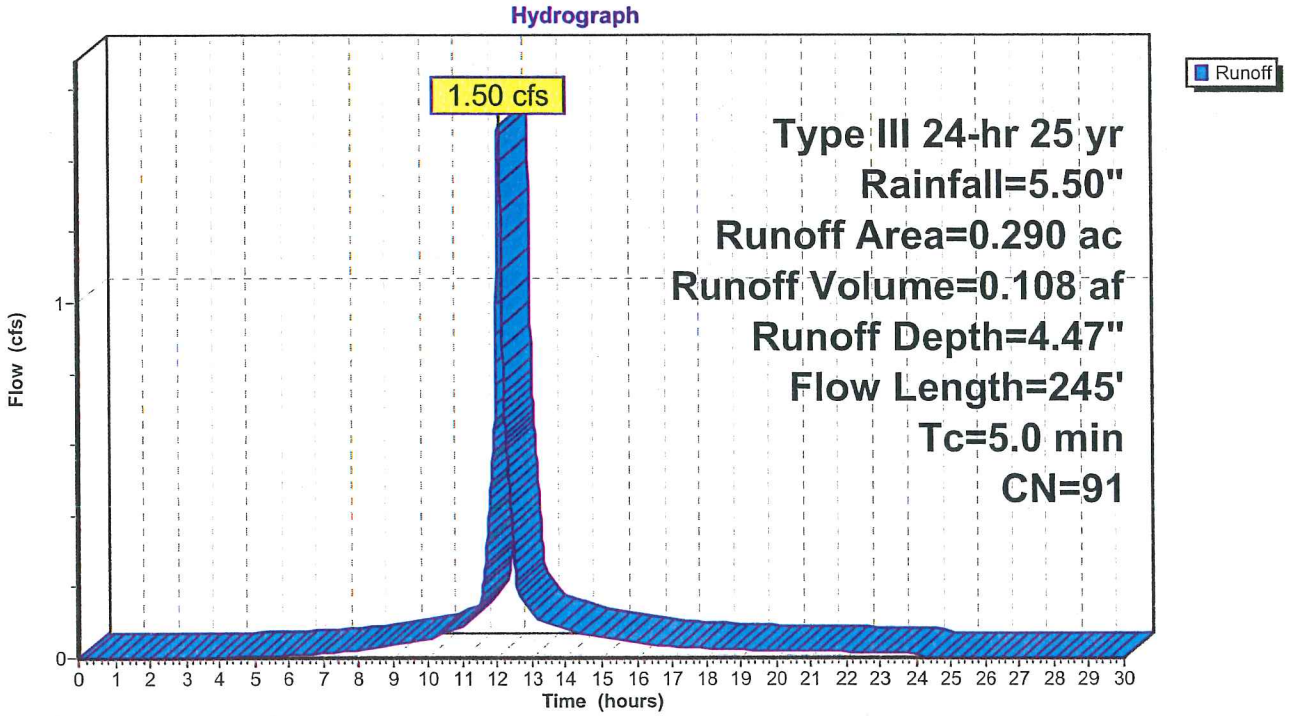
Runoff = 1.50 cfs @ 12.07 hrs, Volume= 0.108 af, Depth= 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.110	80	>75% Grass cover, Good, HSG D
0.290	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.7	145	0.0300	3.5		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.2	245	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P13: west side parking



Hydrograph for Subcatchment P14: SW police entrance and drive

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.00
5.00	0.31	0.01	0.00
5.50	0.35	0.02	0.00
6.00	0.40	0.03	0.01
6.50	0.44	0.05	0.01
7.00	0.50	0.07	0.01
7.50	0.56	0.10	0.01
8.00	0.63	0.13	0.02
8.50	0.71	0.17	0.02
9.00	0.80	0.23	0.03
9.50	0.91	0.30	0.04
10.00	1.04	0.39	0.04
10.50	1.19	0.50	0.06
11.00	1.37	0.64	0.07
11.50	1.64	0.85	0.12
12.00	2.75	1.84	**0.82**
12.50	3.86	2.88	**0.24**
13.00	4.12	3.14	0.10
13.50	4.31	3.31	0.08
14.00	4.46	3.46	0.07
14.50	4.59	3.58	0.06
15.00	4.70	3.69	0.05
15.50	4.79	3.78	0.04
16.00	4.87	3.86	0.03
16.50	4.94	3.92	0.03
17.00	5.00	3.98	0.03
17.50	5.06	4.04	0.02
18.00	5.10	4.08	0.02
18.50	5.15	4.12	0.02
19.00	5.19	4.16	0.02
19.50	5.23	4.20	0.02
20.00	5.26	4.24	0.02
20.50	5.30	4.27	0.02
21.00	5.33	4.30	0.02
21.50	5.36	4.34	0.01
22.00	5.39	4.37	0.01
22.50	5.42	4.39	0.01
23.00	5.45	4.42	0.01
23.50	5.48	4.45	0.01
24.00	**5.50**	**4.47**	0.01
24.50	5.50	4.47	0.00
25.00	5.50	4.47	0.00
25.50	5.50	4.47	0.00
26.00	5.50	4.47	0.00
26.50	5.50	4.47	0.00
27.00	5.50	4.47	0.00
27.50	5.50	4.47	0.00
28.00	5.50	4.47	0.00
28.50	5.50	4.47	0.00
29.00	5.50	4.47	0.00
29.50	5.50	4.47	0.00
30.00	5.50	4.47	0.00

Subcatchment P14: SW police entrance and drive

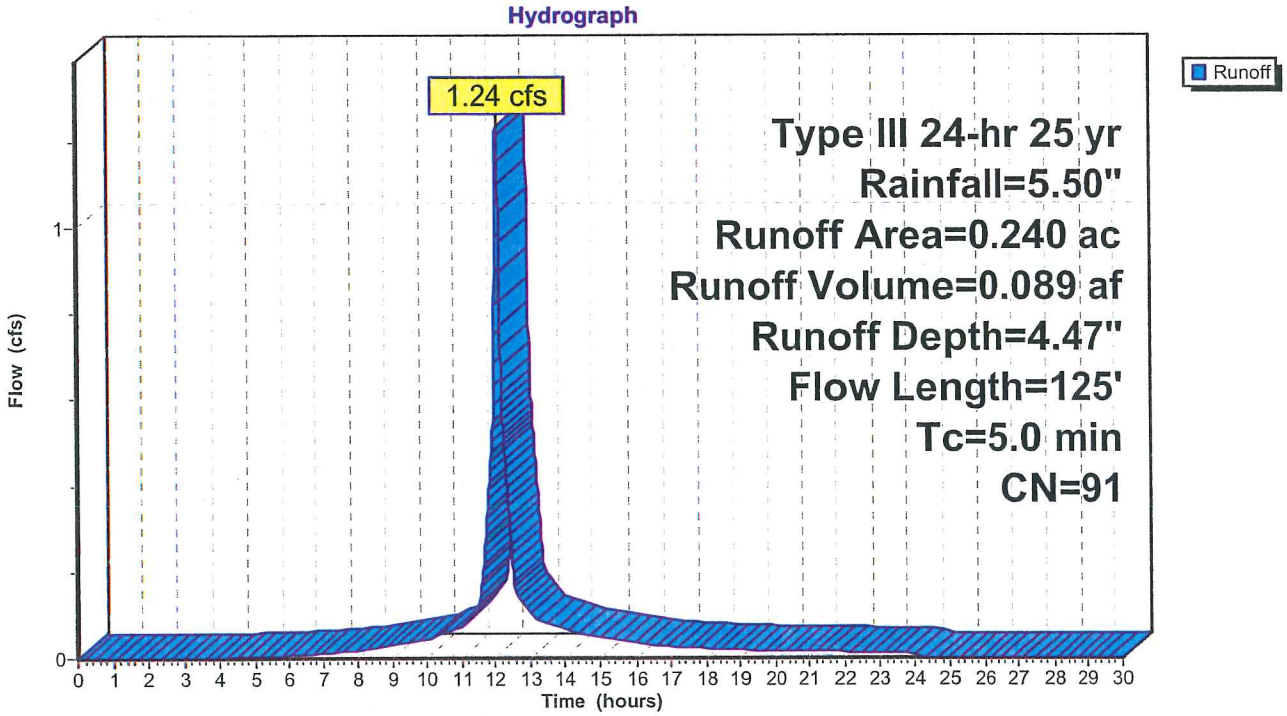
Runoff = 1.24 cfs @ 12.07 hrs, Volume= 0.089 af, Depth= 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.150	98	Paved parking & roofs
0.090	80	>75% Grass cover, Good, HSG D
0.240	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.0	100	0.0100	0.8		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.1	25	0.0400	4.1		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.1	125	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P14: SW police entrance and drive



Hydrograph for Subcatchment P15: access road

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.01	0.00
6.50	0.44	0.01	0.00
7.00	0.50	0.02	0.01
7.50	0.56	0.04	0.01
8.00	0.63	0.06	0.01
8.50	0.71	0.09	0.01
9.00	0.80	0.13	0.02
9.50	0.91	0.18	0.03
10.00	1.04	0.25	0.03
10.50	1.19	0.33	0.05
11.00	1.37	0.45	0.06
11.50	1.64	0.63	0.10
12.00	2.75	1.52	**0.72**
12.50	3.86	2.51	**0.22**
13.00	4.12	2.75	0.09
13.50	4.31	2.92	0.07
14.00	4.46	3.06	0.06
14.50	4.59	3.18	0.05
15.00	4.70	3.28	0.05
15.50	4.79	3.37	0.04
16.00	4.87	3.45	0.03
16.50	4.94	3.51	0.03
17.00	5.00	3.57	0.03
17.50	5.06	3.62	0.02
18.00	5.10	3.67	0.02
18.50	5.15	3.71	0.02
19.00	5.19	3.74	0.02
19.50	5.23	3.78	0.02
20.00	5.26	3.82	0.02
20.50	5.30	3.85	0.02
21.00	5.33	3.88	0.01
21.50	5.36	3.91	0.01
22.00	5.39	3.94	0.01
22.50	5.42	3.97	0.01
23.00	5.45	3.99	0.01
23.50	5.48	4.02	0.01
24.00	**5.50**	**4.04**	0.01
24.50	5.50	4.04	0.00
25.00	5.50	4.04	0.00
25.50	5.50	4.04	0.00
26.00	5.50	4.04	0.00
26.50	5.50	4.04	0.00
27.00	5.50	4.04	0.00
27.50	5.50	4.04	0.00
28.00	5.50	4.04	0.00
28.50	5.50	4.04	0.00
29.00	5.50	4.04	0.00
29.50	5.50	4.04	0.00
30.00	5.50	4.04	0.00

Subcatchment P15: access road

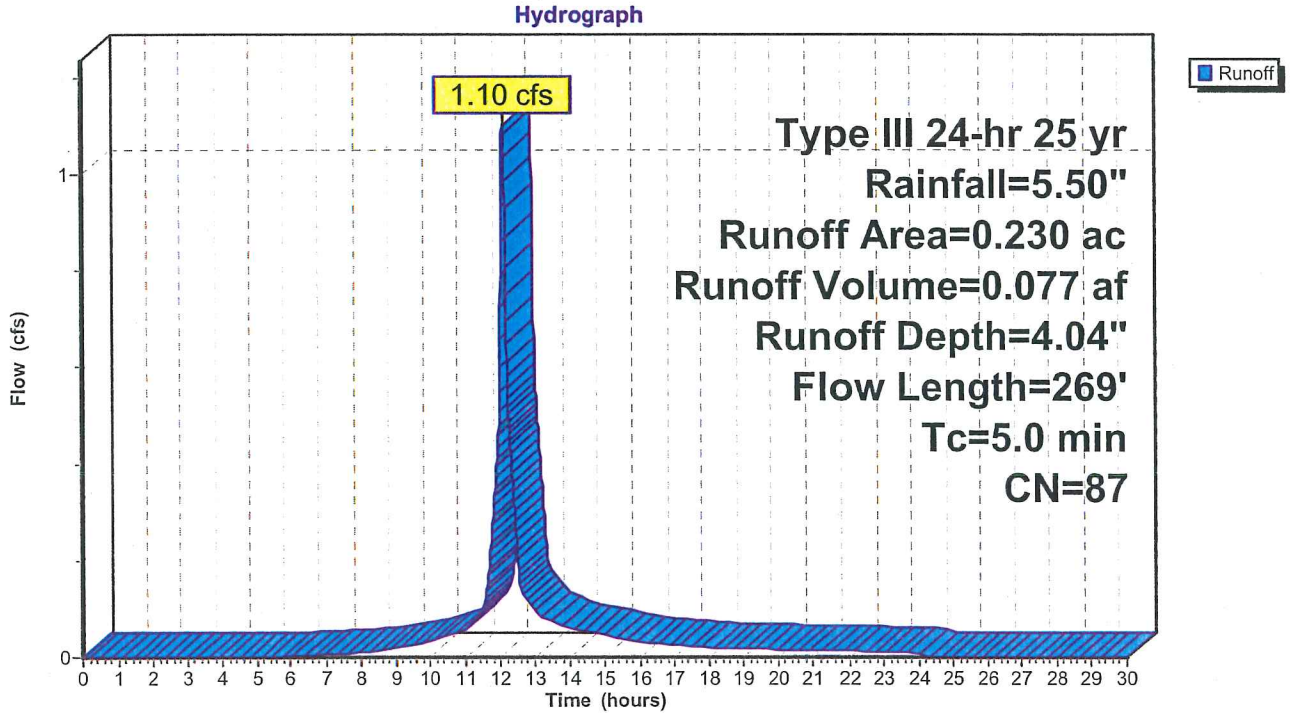
Runoff = 1.10 cfs @ 12.07 hrs, Volume= 0.077 af, Depth= 4.04"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.130	93	Paved roads w/open ditches, HSG D
0.100	80	>75% Grass cover, Good, HSG D
0.230	87	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.3	169	0.0300	10.1	81.02	**Channel Flow,** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.025 Earth, clean & straight
1.8	269	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P15: access road



Hydrograph for Subcatchment P17: Pond #2 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.00
9.00	0.80	0.03	0.01
9.50	0.91	0.06	0.01
10.00	1.04	0.10	0.01
10.50	1.19	0.15	0.02
11.00	1.37	0.23	0.02
11.50	1.64	0.36	0.04
12.00	2.75	1.07	**0.30**
12.50	3.86	1.93	**0.13**
13.00	4.12	2.15	0.05
13.50	4.31	2.30	0.04
14.00	4.46	2.43	0.03
14.50	4.59	2.54	0.03
15.00	4.70	2.63	0.03
15.50	4.79	2.71	0.02
16.00	4.87	2.78	0.02
16.50	4.94	2.84	0.02
17.00	5.00	2.89	0.01
17.50	5.06	2.94	0.01
18.00	5.10	2.98	0.01
18.50	5.15	3.02	0.01
19.00	5.19	3.06	0.01
19.50	5.23	3.09	0.01
20.00	5.26	3.12	0.01
20.50	5.30	3.15	0.01
21.00	5.33	3.18	0.01
21.50	5.36	3.21	0.01
22.00	5.39	3.24	0.01
22.50	5.42	3.26	0.01
23.00	5.45	3.29	0.01
23.50	5.48	3.31	0.01
24.00	**5.50**	**3.33**	0.01
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P17: Pond #2 Surface

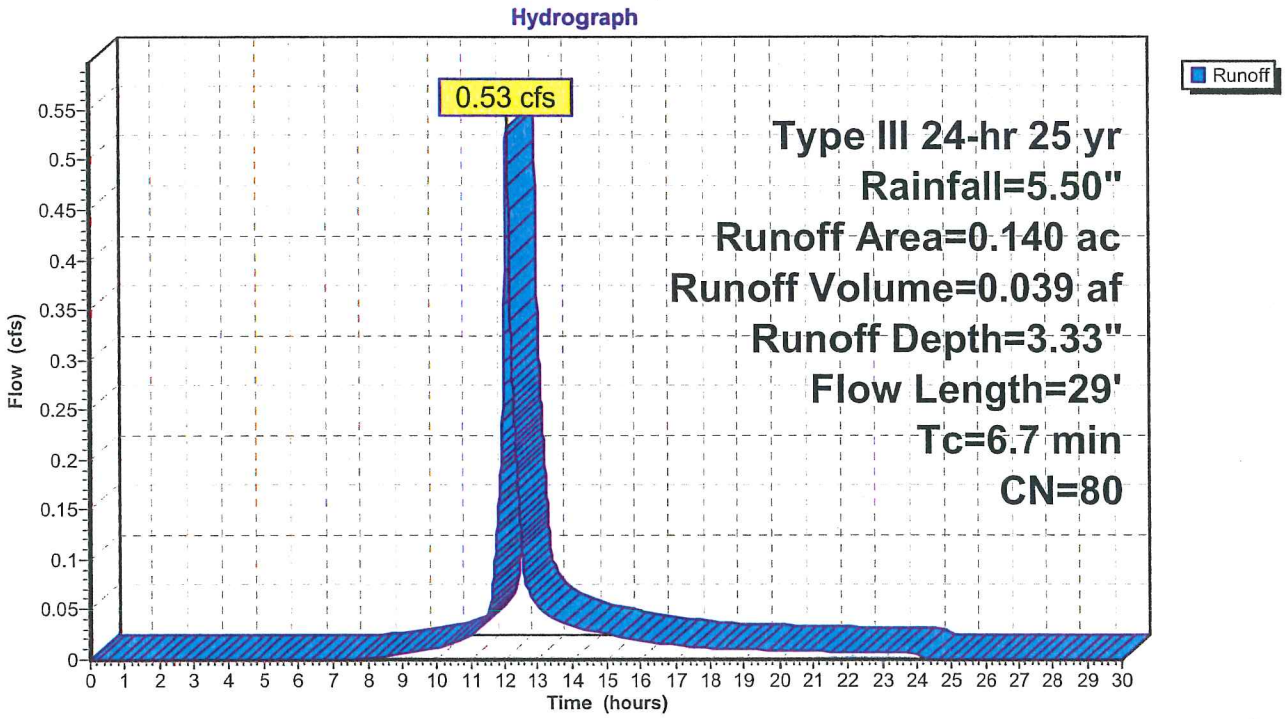
Runoff = 0.53 cfs @ 12.10 hrs, Volume= 0.039 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.140	80	>75% Grass cover, Good, HSG D

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	29	0.2400	0.3		**Sheet Flow,** Grass: Short n= 0.150 P2= 2.00"
5.0					**Direct Entry,**
6.7	29	Total			

Subcatchment P17: Pond #2 Surface



Hydrograph for Subcatchment P2&16: S corner includes some remote parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.02
7.50	0.56	0.01	0.03
8.00	0.63	0.02	0.05
8.50	0.71	0.04	0.08
9.00	0.80	0.06	0.13
9.50	0.91	0.10	0.18
10.00	1.04	0.15	0.24
10.50	1.19	0.22	0.34
11.00	1.37	0.31	0.47
11.50	1.64	0.46	0.77
12.00	2.75	1.25	**3.64**
12.50	3.86	2.17	**3.54**
13.00	4.12	2.40	1.08
13.50	4.31	2.56	0.78
14.00	4.46	2.69	0.64
14.50	4.59	2.80	0.54
15.00	4.70	2.90	0.48
15.50	4.79	2.99	0.41
16.00	4.87	3.06	0.34
16.50	4.94	3.12	0.30
17.00	5.00	3.18	0.27
17.50	5.06	3.23	0.24
18.00	5.10	3.27	0.21
18.50	5.15	3.31	0.19
19.00	5.19	3.34	0.18
19.50	5.23	3.38	0.17
20.00	5.26	3.41	0.16
20.50	5.30	3.45	0.15
21.00	5.33	3.48	0.15
21.50	5.36	3.51	0.14
22.00	5.39	3.53	0.13
22.50	5.42	3.56	0.13
23.00	5.45	3.58	0.12
23.50	5.48	3.61	0.11
24.00	**5.50**	**3.63**	0.11
24.50	5.50	3.63	0.00
25.00	5.50	3.63	0.00
25.50	5.50	3.63	0.00
26.00	5.50	3.63	0.00
26.50	5.50	3.63	0.00
27.00	5.50	3.63	0.00
27.50	5.50	3.63	0.00
28.00	5.50	3.63	0.00
28.50	5.50	3.63	0.00
29.00	5.50	3.63	0.00
29.50	5.50	3.63	0.00
30.00	5.50	3.63	0.00

Subcatchment P2&16: S corner includes some remote parking

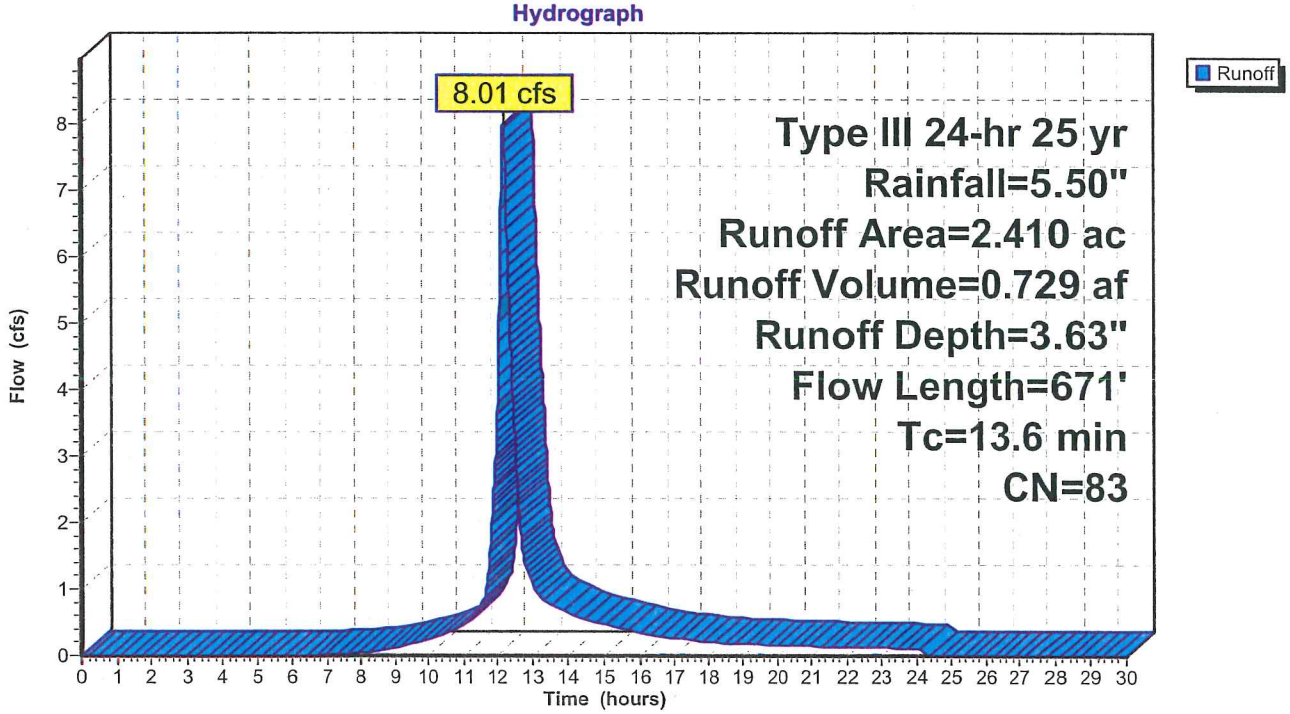
Runoff = 8.01 cfs @ 12.19 hrs, Volume= 0.729 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
1.220	80	>75% Grass cover, Good, HSG D
0.750	80	>75% Grass cover, Good, HSG D
2.410	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	100	0.0500	0.1		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
0.2	43	0.3500	4.1		**Shallow Concentrated Flow, shallow** Short Grass Pasture Kv= 7.0 fps
0.9	528	0.0400	9.7	77.96	**Channel Flow, concentrated** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
13.6	671	Total			

Subcatchment P2&16: S corner includes some remote parking



Hydrograph for Subcatchment P3: Pond #1 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.01
9.00	0.80	0.03	0.01
9.50	0.91	0.06	0.02
10.00	1.04	0.10	0.03
10.50	1.19	0.15	0.04
11.00	1.37	0.23	0.06
11.50	1.64	0.36	0.11
12.00	2.75	1.07	**0.85**
12.50	3.86	1.93	**0.28**
13.00	4.12	2.15	0.12
13.50	4.31	2.30	0.10
14.00	4.46	2.43	0.08
14.50	4.59	2.54	0.07
15.00	4.70	2.63	0.06
15.50	4.79	2.71	0.05
16.00	4.87	2.78	0.04
16.50	4.94	2.84	0.04
17.00	5.00	2.89	0.03
17.50	5.06	2.94	0.03
18.00	5.10	2.98	0.03
18.50	5.15	3.02	0.02
19.00	5.19	3.06	0.02
19.50	5.23	3.09	0.02
20.00	5.26	3.12	0.02
20.50	5.30	3.15	0.02
21.00	5.33	3.18	0.02
21.50	5.36	3.21	0.02
22.00	5.39	3.24	0.02
22.50	5.42	3.26	0.02
23.00	5.45	3.29	0.02
23.50	5.48	3.31	0.01
24.00	**5.50**	**3.33**	0.01
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P3: Pond #1 Surface

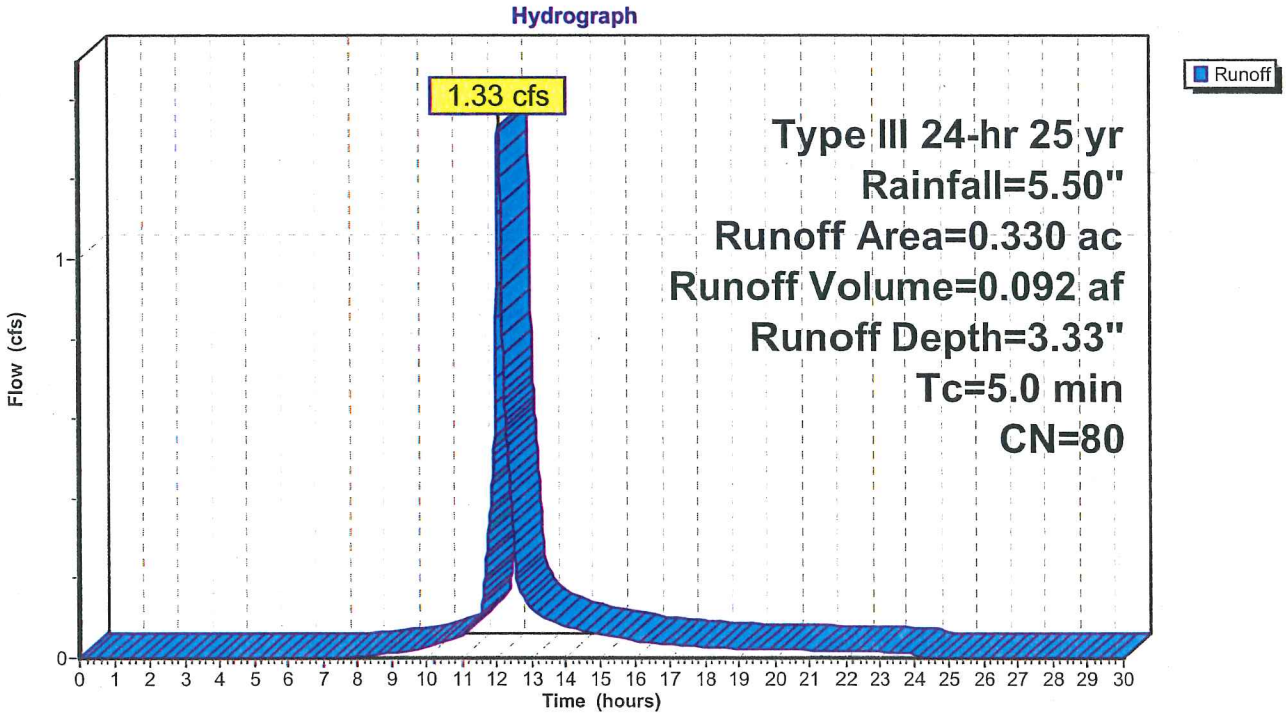
Runoff = 1.33 cfs @ 12.07 hrs, Volume= 0.092 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.330	80	>75% Grass cover, Good, HSG D

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

Subcatchment P3: Pond #1 Surface



Hydrograph for Subcatchment P4: E corner includes piece of P&R lot

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.01
7.50	0.56	0.01	0.02
8.00	0.63	0.02	0.03
8.50	0.71	0.04	0.05
9.00	0.80	0.06	0.08
9.50	0.91	0.10	0.11
10.00	1.04	0.15	0.14
10.50	1.19	0.22	0.20
11.00	1.37	0.31	0.28
11.50	1.64	0.46	0.46
12.00	2.75	1.25	**2.29**
12.50	3.86	2.17	**1.90**
13.00	4.12	2.40	0.61
13.50	4.31	2.56	0.45
14.00	4.46	2.69	0.37
14.50	4.59	2.80	0.31
15.00	4.70	2.90	0.28
15.50	4.79	2.99	0.24
16.00	4.87	3.06	0.20
16.50	4.94	3.12	0.17
17.00	5.00	3.18	0.15
17.50	5.06	3.23	0.14
18.00	5.10	3.27	0.12
18.50	5.15	3.31	0.11
19.00	5.19	3.34	0.10
19.50	5.23	3.38	0.10
20.00	5.26	3.41	0.09
20.50	5.30	3.45	0.09
21.00	5.33	3.48	0.09
21.50	5.36	3.51	0.08
22.00	5.39	3.53	0.08
22.50	5.42	3.56	0.07
23.00	5.45	3.58	0.07
23.50	5.48	3.61	0.07
24.00	**5.50**	**3.63**	0.06
24.50	5.50	3.63	0.00
25.00	5.50	3.63	0.00
25.50	5.50	3.63	0.00
26.00	5.50	3.63	0.00
26.50	5.50	3.63	0.00
27.00	5.50	3.63	0.00
27.50	5.50	3.63	0.00
28.00	5.50	3.63	0.00
28.50	5.50	3.63	0.00
29.00	5.50	3.63	0.00
29.50	5.50	3.63	0.00
30.00	5.50	3.63	0.00

Subcatchment P4: E corner includes piece of P&R lot

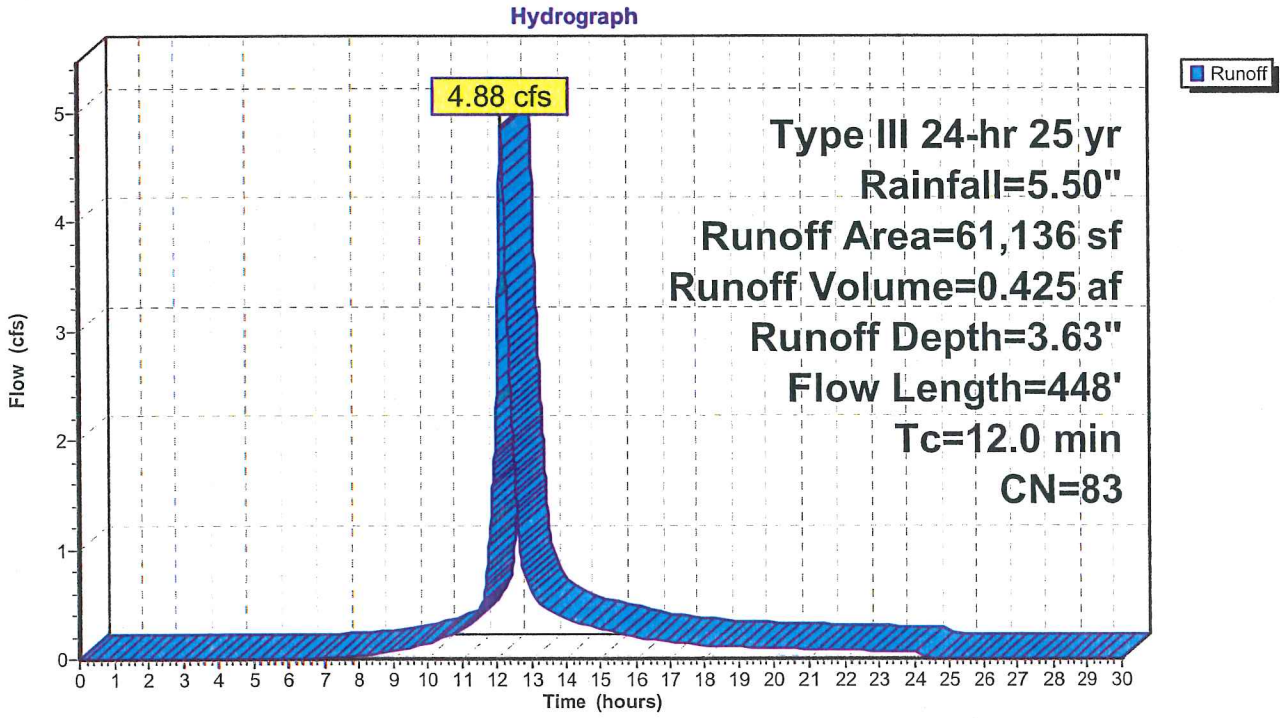
Runoff = 4.88 cfs @ 12.16 hrs, Volume= 0.425 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (sf)	CN	Description
10,661	98	Paved parking & roofs
50,475	80	>75% Grass cover, Good, HSG D
61,136	83	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0800	0.2		**Sheet Flow, sheet** Grass: Dense n= 0.240 P2= 2.00"
1.3	190	0.1200	2.4		**Shallow Concentrated Flow, shallow conc.** Short Grass Pasture Kv= 7.0 fps
0.3	158	0.0400	8.3	33.36	**Trap/Vee/Rect Channel Flow, Ditch north of path** Bot.W=0.00' D=1.00' Z= 4.0 '/' Top.W=8.00' n= 0.022 Earth, clean & straight
12.0	448	Total			

Subcatchment P4: E corner includes piece of P&R lot



Hydrograph for Subcatchment P5: Pond #3 Surface

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.00	0.00
5.00	0.31	0.00	0.00
5.50	0.35	0.00	0.00
6.00	0.40	0.00	0.00
6.50	0.44	0.00	0.00
7.00	0.50	0.00	0.00
7.50	0.56	0.00	0.00
8.00	0.63	0.01	0.00
8.50	0.71	0.02	0.00
9.00	0.80	0.03	0.00
9.50	0.91	0.06	0.00
10.00	1.04	0.10	0.00
10.50	1.19	0.15	0.01
11.00	1.37	0.23	0.01
11.50	1.64	0.36	0.02
12.00	2.75	1.07	**0.13**
12.50	3.86	1.93	**0.04**
13.00	4.12	2.15	0.02
13.50	4.31	2.30	0.01
14.00	4.46	2.43	0.01
14.50	4.59	2.54	0.01
15.00	4.70	2.63	0.01
15.50	4.79	2.71	0.01
16.00	4.87	2.78	0.01
16.50	4.94	2.84	0.01
17.00	5.00	2.89	0.01
17.50	5.06	2.94	0.00
18.00	5.10	2.98	0.00
18.50	5.15	3.02	0.00
19.00	5.19	3.06	0.00
19.50	5.23	3.09	0.00
20.00	5.26	3.12	0.00
20.50	5.30	3.15	0.00
21.00	5.33	3.18	0.00
21.50	5.36	3.21	0.00
22.00	5.39	3.24	0.00
22.50	5.42	3.26	0.00
23.00	5.45	3.29	0.00
23.50	5.48	3.31	0.00
24.00	**5.50**	**3.33**	0.00
24.50	5.50	3.33	0.00
25.00	5.50	3.33	0.00
25.50	5.50	3.33	0.00
26.00	5.50	3.33	0.00
26.50	5.50	3.33	0.00
27.00	5.50	3.33	0.00
27.50	5.50	3.33	0.00
28.00	5.50	3.33	0.00
28.50	5.50	3.33	0.00
29.00	5.50	3.33	0.00
29.50	5.50	3.33	0.00
30.00	5.50	3.33	0.00

Subcatchment P5: Pond #3 Surface

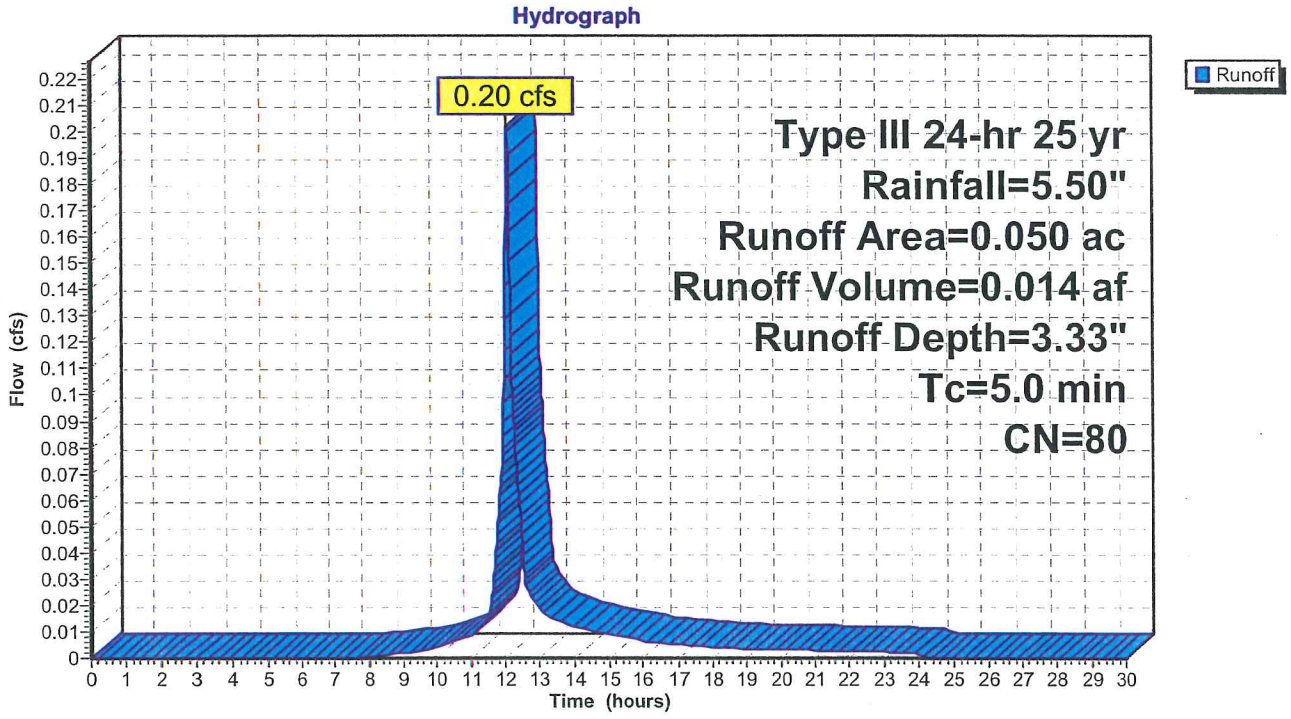
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 0.014 af, Depth= 3.33"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.050	80	>75% Grass cover, Good, HSG D

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

Subcatchment P5: Pond #3 Surface



Hydrograph for Subcatchment P6: W side along access rd.

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.01
4.50	0.27	0.01	0.01
5.00	0.31	0.02	0.02
5.50	0.35	0.03	0.02
6.00	0.40	0.05	0.03
6.50	0.44	0.06	0.04
7.00	0.50	0.09	0.05
7.50	0.56	0.12	0.06
8.00	0.63	0.16	0.08
8.50	0.71	0.20	0.10
9.00	0.80	0.26	0.13
9.50	0.91	0.34	0.16
10.00	1.04	0.43	0.20
10.50	1.19	0.55	0.25
11.00	1.37	0.70	0.32
11.50	1.64	0.92	0.45
12.00	2.75	1.93	**1.38**
12.50	3.86	2.98	**2.81**
13.00	4.12	3.24	0.82
13.50	4.31	3.42	0.44
14.00	4.46	3.56	0.35
14.50	4.59	3.69	0.29
15.00	4.70	3.80	0.25
15.50	4.79	3.89	0.22
16.00	4.87	3.97	0.18
16.50	4.94	4.03	0.16
17.00	5.00	4.09	0.14
17.50	5.06	4.14	0.12
18.00	5.10	4.19	0.11
18.50	5.15	4.23	0.10
19.00	5.19	4.27	0.09
19.50	5.23	4.31	0.09
20.00	5.26	4.35	0.08
20.50	5.30	4.38	0.08
21.00	5.33	4.41	0.07
21.50	5.36	4.45	0.07
22.00	5.39	4.47	0.07
22.50	5.42	4.50	0.06
23.00	5.45	4.53	0.06
23.50	5.48	4.55	0.06
24.00	**5.50**	**4.58**	0.05
24.50	5.50	4.58	0.01
25.00	5.50	4.58	0.00
25.50	5.50	4.58	0.00
26.00	5.50	4.58	0.00
26.50	5.50	4.58	0.00
27.00	5.50	4.58	0.00
27.50	5.50	4.58	0.00
28.00	5.50	4.58	0.00
28.50	5.50	4.58	0.00
29.00	5.50	4.58	0.00
29.50	5.50	4.58	0.00
30.00	5.50	4.58	0.00

Subcatchment P6: W side along access rd.

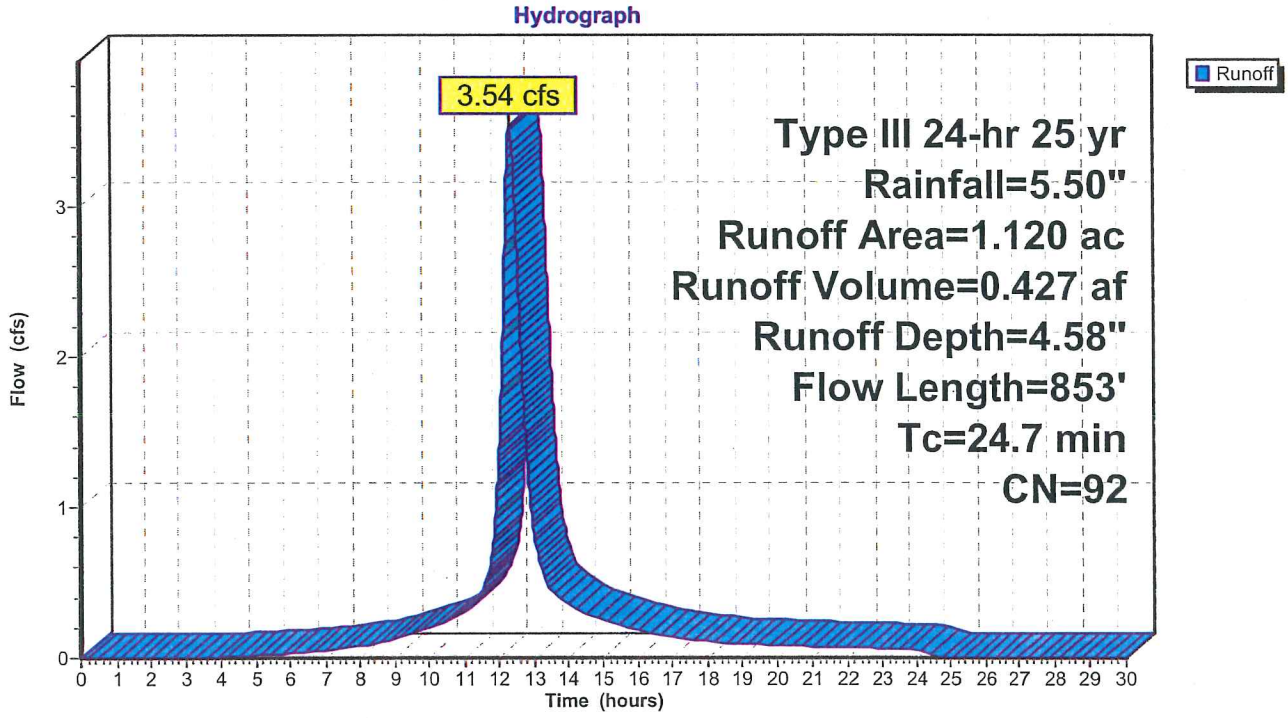
Runoff = 3.54 cfs @ 12.32 hrs, Volume= 0.427 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
1.010	93	Paved roads w/open ditches, HSG D
0.110	80	>75% Grass cover, Good, HSG D
1.120	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	100	0.0300	0.1		**Sheet Flow, sheet** Woods: Light underbrush n= 0.400 P2= 2.00"
0.6	68	0.1300	1.8		**Shallow Concentrated Flow, shallow conc** Woodland Kv= 5.0 fps
1.0	685	0.0500	10.9	87.16	**Channel Flow, channel** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.030 Earth, grassed & winding
24.7	853	Total			

Subcatchment P6: W side along access rd.



Hydrograph for Subcatchment P7: NW parking lot and driveway

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.01	0.01
4.50	0.27	0.02	0.01
5.00	0.31	0.03	0.02
5.50	0.35	0.04	0.02
6.00	0.40	0.06	0.02
6.50	0.44	0.08	0.03
7.00	0.50	0.11	0.04
7.50	0.56	0.14	0.05
8.00	0.63	0.18	0.05
8.50	0.71	0.24	0.07
9.00	0.80	0.30	0.09
9.50	0.91	0.38	0.11
10.00	1.04	0.48	0.13
10.50	1.19	0.60	0.17
11.00	1.37	0.76	0.21
11.50	1.64	0.99	0.34
12.00	2.75	2.02	**2.21**
12.50	3.86	3.08	**0.62**
13.00	4.12	3.34	0.27
13.50	4.31	3.52	0.21
14.00	4.46	3.67	0.17
14.50	4.59	3.79	0.15
15.00	4.70	3.90	0.13
15.50	4.79	4.00	0.11
16.00	4.87	4.07	0.09
16.50	4.94	4.14	0.08
17.00	5.00	4.20	0.07
17.50	5.06	4.25	0.06
18.00	5.10	4.30	0.06
18.50	5.15	4.34	0.05
19.00	5.19	4.38	0.05
19.50	5.23	4.42	0.05
20.00	5.26	4.46	0.04
20.50	5.30	4.49	0.04
21.00	5.33	4.52	0.04
21.50	5.36	4.56	0.04
22.00	5.39	4.59	0.04
22.50	5.42	4.61	0.03
23.00	5.45	4.64	0.03
23.50	5.48	4.67	0.03
24.00	**5.50**	**4.69**	0.03
24.50	5.50	4.69	0.00
25.00	5.50	4.69	0.00
25.50	5.50	4.69	0.00
26.00	5.50	4.69	0.00
26.50	5.50	4.69	0.00
27.00	5.50	4.69	0.00
27.50	5.50	4.69	0.00
28.00	5.50	4.69	0.00
28.50	5.50	4.69	0.00
29.00	5.50	4.69	0.00
29.50	5.50	4.69	0.00
30.00	5.50	4.69	0.00

Subcatchment P7: NW parking lot and driveway

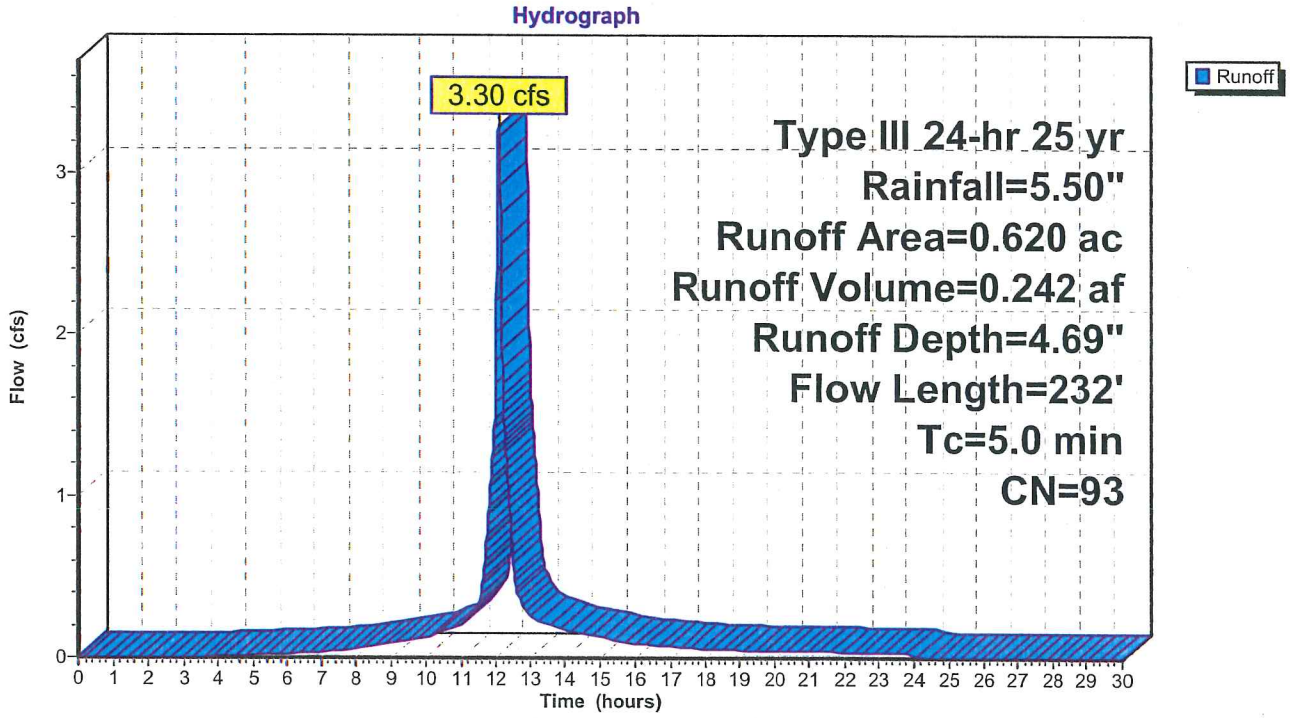
Runoff = 3.30 cfs @ 12.07 hrs, Volume= 0.242 af, Depth= 4.69"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.440	98	Paved parking & roofs
0.180	80	>75% Grass cover, Good, HSG D
0.620	93	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	100	0.1700	2.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.8	132	0.0200	2.9		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.5	232	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P7: NW parking lot and driveway



Hydrograph for Subcatchment P8: south west parking area

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.01
5.00	0.31	0.01	0.01
5.50	0.35	0.02	0.01
6.00	0.40	0.03	0.02
6.50	0.44	0.05	0.02
7.00	0.50	0.07	0.03
7.50	0.56	0.10	0.04
8.00	0.63	0.13	0.05
8.50	0.71	0.17	0.07
9.00	0.80	0.23	0.09
9.50	0.91	0.30	0.11
10.00	1.04	0.39	0.13
10.50	1.19	0.50	0.17
11.00	1.37	0.64	0.22
11.50	1.64	0.85	0.36
12.00	2.75	1.84	**2.40**
12.50	3.86	2.88	**0.69**
13.00	4.12	3.14	0.30
13.50	4.31	3.31	0.23
14.00	4.46	3.46	0.19
14.50	4.59	3.58	0.17
15.00	4.70	3.69	0.14
15.50	4.79	3.78	0.12
16.00	4.87	3.86	0.10
16.50	4.94	3.92	0.09
17.00	5.00	3.98	0.08
17.50	5.06	4.04	0.07
18.00	5.10	4.08	0.06
18.50	5.15	4.12	0.06
19.00	5.19	4.16	0.06
19.50	5.23	4.20	0.05
20.00	5.26	4.24	0.05
20.50	5.30	4.27	0.05
21.00	5.33	4.30	0.05
21.50	5.36	4.34	0.04
22.00	5.39	4.37	0.04
22.50	5.42	4.39	0.04
23.00	5.45	4.42	0.04
23.50	5.48	4.45	0.03
24.00	**5.50**	**4.47**	0.03
24.50	5.50	4.47	0.00
25.00	5.50	4.47	0.00
25.50	5.50	4.47	0.00
26.00	5.50	4.47	0.00
26.50	5.50	4.47	0.00
27.00	5.50	4.47	0.00
27.50	5.50	4.47	0.00
28.00	5.50	4.47	0.00
28.50	5.50	4.47	0.00
29.00	5.50	4.47	0.00
29.50	5.50	4.47	0.00
30.00	5.50	4.47	0.00

Subcatchment P8: south west parking area

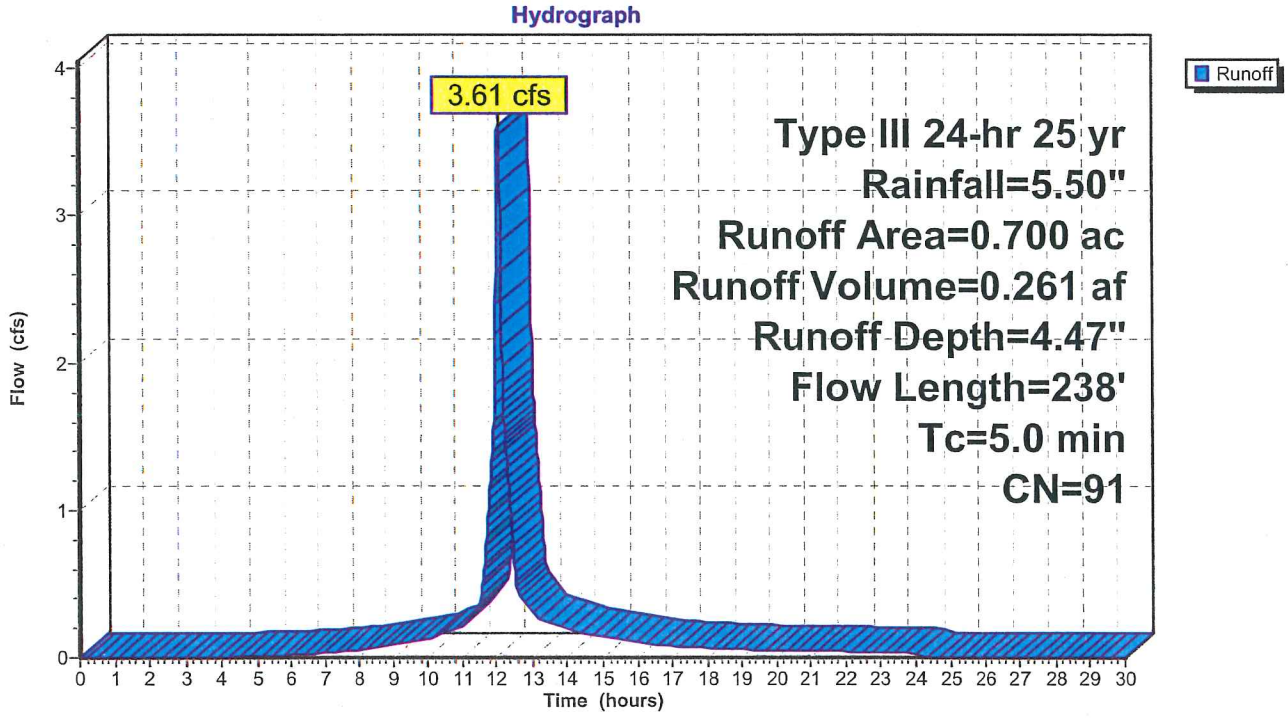
Runoff = 3.61 cfs @ 12.07 hrs, Volume= 0.261 af, Depth= 4.47"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.420	98	Paved parking & roofs
0.280	80	>75% Grass cover, Good, HSG D
0.700	91	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	100	0.0500	1.6		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.4	114	0.0500	4.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
0.0	24	0.0200	8.3	66.15	**Channel Flow,** Area= 8.0 sf Perim= 8.2' r= 0.98' n= 0.025 Earth, clean & straight
1.5	238	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P8: south west parking area



Hydrograph for Subcatchment P9: east near parking

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.00	0.00
2.00	0.11	0.00	0.00
2.50	0.14	0.00	0.00
3.00	0.17	0.00	0.00
3.50	0.20	0.00	0.00
4.00	0.24	0.00	0.00
4.50	0.27	0.01	0.01
5.00	0.31	0.02	0.01
5.50	0.35	0.03	0.01
6.00	0.40	0.05	0.01
6.50	0.44	0.06	0.02
7.00	0.50	0.09	0.02
7.50	0.56	0.12	0.03
8.00	0.63	0.16	0.03
8.50	0.71	0.20	0.04
9.00	0.80	0.26	0.05
9.50	0.91	0.34	0.07
10.00	1.04	0.43	0.08
10.50	1.19	0.55	0.11
11.00	1.37	0.70	0.13
11.50	1.64	0.92	0.22
12.00	2.75	1.93	**1.43**
12.50	3.86	2.98	**0.41**
13.00	4.12	3.24	0.18
13.50	4.31	3.42	0.14
14.00	4.46	3.56	0.11
14.50	4.59	3.69	0.10
15.00	4.70	3.80	0.08
15.50	4.79	3.89	0.07
16.00	4.87	3.97	0.06
16.50	4.94	4.03	0.05
17.00	5.00	4.09	0.05
17.50	5.06	4.14	0.04
18.00	5.10	4.19	0.04
18.50	5.15	4.23	0.03
19.00	5.19	4.27	0.03
19.50	5.23	4.31	0.03
20.00	5.26	4.35	0.03
20.50	5.30	4.38	0.03
21.00	5.33	4.41	0.03
21.50	5.36	4.45	0.03
22.00	5.39	4.47	0.02
22.50	5.42	4.50	0.02
23.00	5.45	4.53	0.02
23.50	5.48	4.55	0.02
24.00	**5.50**	**4.58**	0.02
24.50	5.50	4.58	0.00
25.00	5.50	4.58	0.00
25.50	5.50	4.58	0.00
26.00	5.50	4.58	0.00
26.50	5.50	4.58	0.00
27.00	5.50	4.58	0.00
27.50	5.50	4.58	0.00
28.00	5.50	4.58	0.00
28.50	5.50	4.58	0.00
29.00	5.50	4.58	0.00
29.50	5.50	4.58	0.00
30.00	5.50	4.58	0.00

Subcatchment P9: east near parking

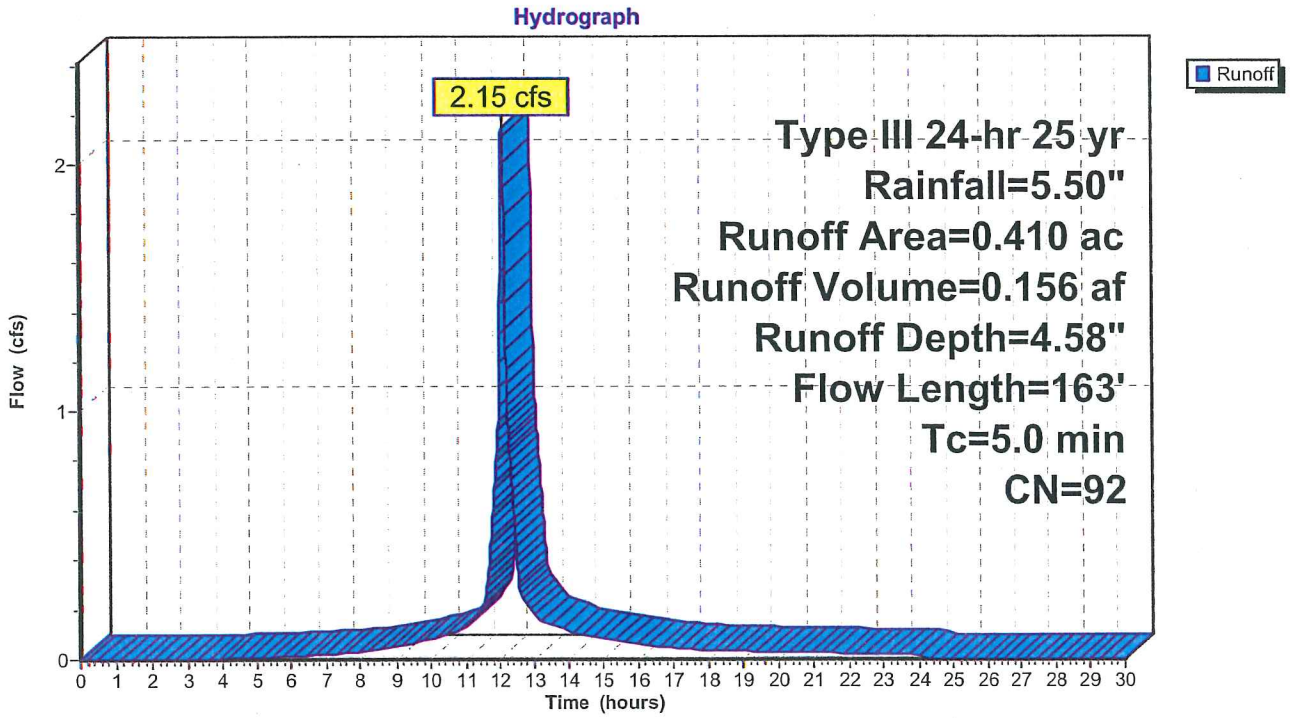
Runoff = 2.15 cfs @ 12.07 hrs, Volume= 0.156 af, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.280	98	Paved parking & roofs
0.130	80	>75% Grass cover, Good, HSG D
0.410	92	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0300	1.3		**Sheet Flow, sheet** Smooth surfaces n= 0.011 P2= 2.00"
0.3	63	0.0300	3.5		**Shallow Concentrated Flow, shallow conc** Paved Kv= 20.3 fps
1.6	163	Total, Increased to minimum Tc = 5.0 min			

Subcatchment P9: east near parking



Hydrograph for Subcatchment Pbuilding: building

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.50	0.03	0.00	0.00
1.00	0.05	0.00	0.00
1.50	0.08	0.01	0.01
2.00	0.11	0.02	0.02
2.50	0.14	0.03	0.03
3.00	0.17	0.05	0.03
3.50	0.20	0.07	0.04
4.00	0.24	0.10	0.05
4.50	0.27	0.12	0.05
5.00	0.31	0.15	0.06
5.50	0.35	0.19	0.06
6.00	0.40	0.23	0.07
6.50	0.44	0.27	0.08
7.00	0.50	0.32	0.09
7.50	0.56	0.37	0.11
8.00	0.63	0.43	0.12
8.50	0.71	0.51	0.15
9.00	0.80	0.60	0.17
9.50	0.91	0.71	0.20
10.00	1.04	0.83	0.23
10.50	1.19	0.98	0.29
11.00	1.37	1.16	0.35
11.50	1.64	1.42	0.55
12.00	2.75	2.52	**3.40**
12.50	3.86	3.63	**0.93**
13.00	4.12	3.89	0.40
13.50	4.31	4.07	0.31
14.00	4.46	4.22	0.25
14.50	4.59	4.35	0.22
15.00	4.70	4.46	0.19
15.50	4.79	4.56	0.16
16.00	4.87	4.64	0.13
16.50	4.94	4.70	0.12
17.00	5.00	4.77	0.11
17.50	5.06	4.82	0.09
18.00	5.10	4.87	0.08
18.50	5.15	4.91	0.08
19.00	5.19	4.95	0.07
19.50	5.23	4.99	0.07
20.00	5.26	5.03	0.07
20.50	5.30	5.06	0.06
21.00	5.33	5.09	0.06
21.50	5.36	5.13	0.06
22.00	5.39	5.16	0.05
22.50	5.42	5.19	0.05
23.00	5.45	5.21	0.05
23.50	5.48	5.24	0.05
24.00	**5.50**	**5.26**	0.04
24.50	5.50	5.26	0.00
25.00	5.50	5.26	0.00
25.50	5.50	5.26	0.00
26.00	5.50	5.26	0.00
26.50	5.50	5.26	0.00
27.00	5.50	5.26	0.00
27.50	5.50	5.26	0.00
28.00	5.50	5.26	0.00
28.50	5.50	5.26	0.00
29.00	5.50	5.26	0.00
29.50	5.50	5.26	0.00
30.00	5.50	5.26	0.00

Subcatchment Pbuilding: building

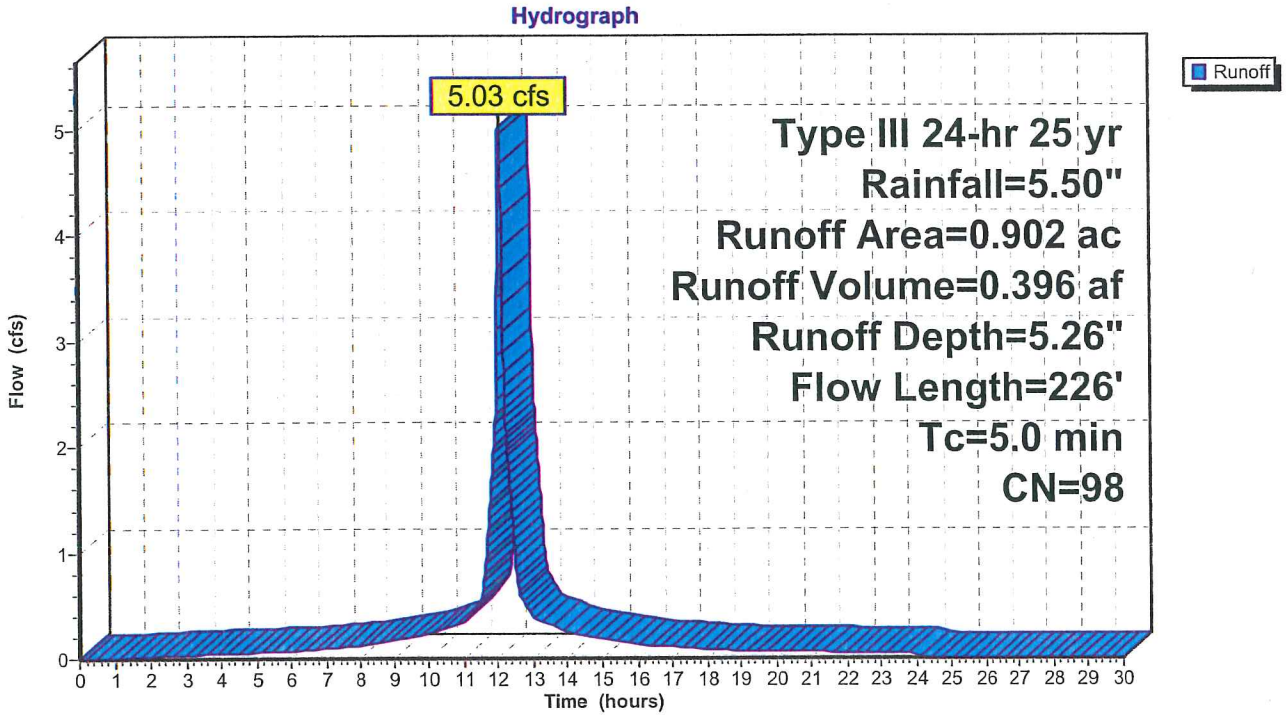
Runoff = 5.03 cfs @ 12.07 hrs, Volume= 0.396 af, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25 yr Rainfall=5.50"

Area (ac)	CN	Description
0.902	98	Paved parking & roofs

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	100	0.0200	1.1		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 2.00"
0.2	126	0.0800	12.8	10.08	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Concrete pipe, straight & clean
1.7	226	Total, Increased to minimum Tc = 5.0 min			

Subcatchment Pbuilding: building



Hydrograph for Reach C1: Driveway Culvert

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	88.00	0.00
1.00	0.00	0	88.00	0.00
2.00	0.00	0	88.00	0.00
3.00	0.00	0	88.00	0.00
4.00	0.01	0	88.02	0.01
5.00	0.02	1	88.03	0.02
6.00	0.03	1	88.04	0.03
7.00	0.05	1	88.05	0.05
8.00	0.08	2	88.07	0.08
9.00	0.13	3	88.08	0.13
10.00	0.20	3	88.10	0.20
11.00	0.32	5	88.13	0.32
12.00	**1.38**	**13**	**88.25**	**1.38**
13.00	**0.82**	**9**	**88.20**	**0.82**
14.00	0.35	5	88.13	0.35
15.00	0.25	4	88.11	0.25
16.00	0.18	3	88.10	0.18
17.00	0.14	3	88.08	0.14
18.00	0.11	2	88.08	0.11
19.00	0.09	2	88.07	0.09
20.00	0.08	2	88.07	0.08
21.00	0.07	2	88.06	0.07
22.00	0.07	2	88.06	0.07
23.00	0.06	2	88.06	0.06
24.00	0.05	1	88.05	0.05
25.00	0.00	0	88.00	0.00
26.00	0.00	0	88.00	0.00
27.00	0.00	0	88.00	0.00
28.00	0.00	0	88.00	0.00
29.00	0.00	0	88.00	0.00
30.00	0.00	0	88.00	0.00

Reach C1: Driveway Culvert

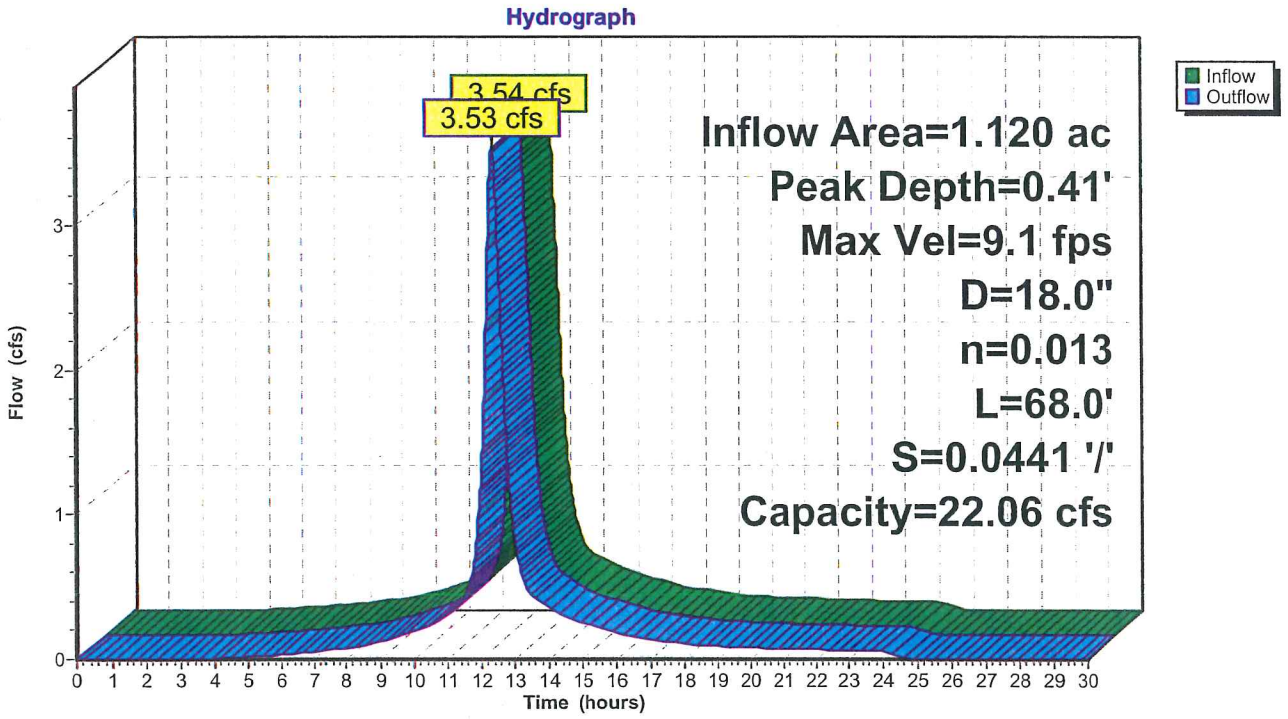
[52] Hint: Inlet conditions not evaluated

Inflow Area = 1.120 ac, Inflow Depth = 4.58" for 25 yr event
Inflow = 3.54 cfs @ 12.32 hrs, Volume= 0.427 af
Outflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 9.1 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.4 fps, Avg. Travel Time= 0.3 min

Peak Depth= 0.41' @ 12.33 hrs
Capacity at bank full= 22.06 cfs
Inlet Invert= 88.00', Outlet Invert= 85.00'
18.0" Diameter Pipe, n= 0.013 Concrete pipe, straight & clean
Length= 68.0' Slope= 0.0441 '/'

Reach C1: Driveway Culvert



Hydrograph for Reach D1: Ditch above pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	85.00	0.00
1.00	0.00	0	85.00	0.00
2.00	0.00	0	85.00	0.00
3.00	0.00	0	85.00	0.00
4.00	0.01	1	85.04	0.01
5.00	0.02	2	85.07	0.02
6.00	0.03	4	85.09	0.03
7.00	0.05	5	85.10	0.05
8.00	0.08	7	85.12	0.08
9.00	0.13	10	85.15	0.13
10.00	0.20	14	85.17	0.20
11.00	0.32	20	85.20	0.31
12.00	**1.38**	**60**	**85.35**	**1.33**
13.00	**0.82**	**42**	**85.30**	**0.84**
14.00	0.35	22	85.21	0.35
15.00	0.25	17	85.19	0.25
16.00	0.18	14	85.17	0.19
17.00	0.14	11	85.15	0.14
18.00	0.11	9	85.14	0.11
19.00	0.09	8	85.13	0.09
20.00	0.08	7	85.12	0.08
21.00	0.07	7	85.12	0.07
22.00	0.07	6	85.12	0.07
23.00	0.06	6	85.11	0.06
24.00	0.05	5	85.11	0.05
25.00	0.00	0	85.02	0.00
26.00	0.00	0	85.00	0.00
27.00	0.00	0	85.00	0.00
28.00	0.00	0	85.00	0.00
29.00	0.00	0	85.00	0.00
30.00	0.00	0	85.00	0.00

Reach D1: Ditch above pond

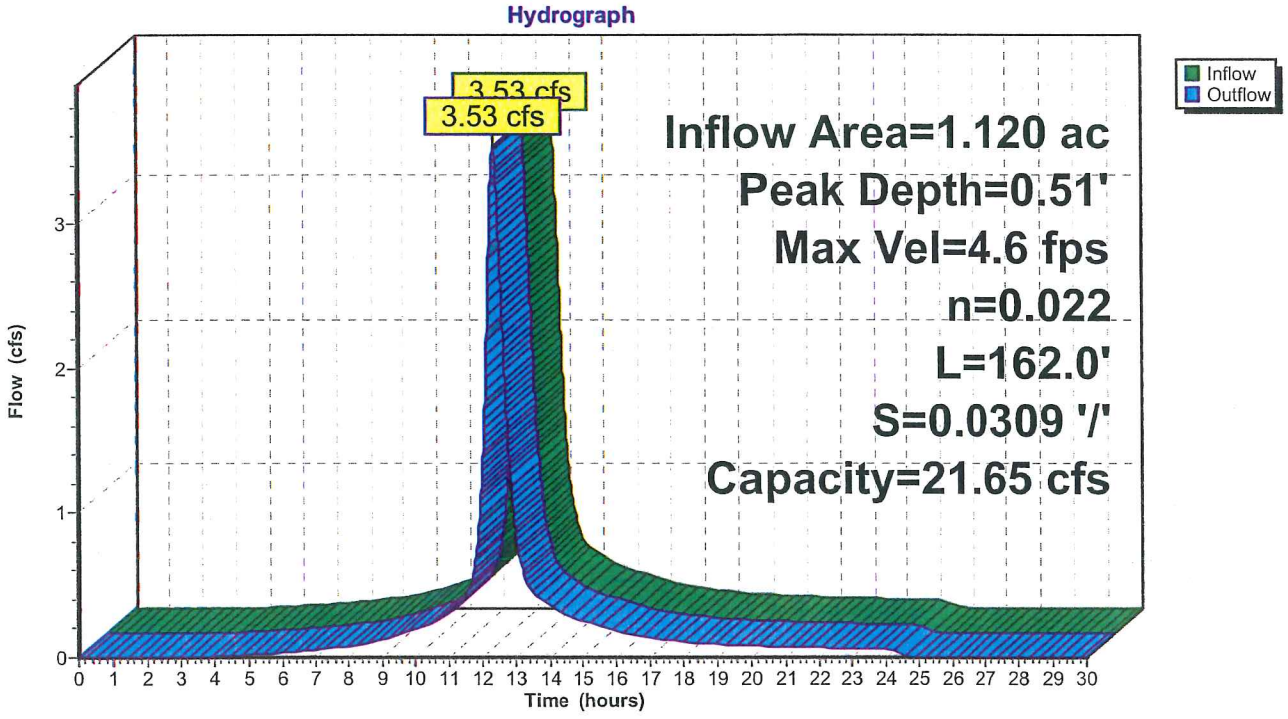
[61] Hint: Submerged 17% of Reach C1 bottom

Inflow Area = 1.120 ac, Inflow Depth = 4.58" for 25 yr event
Inflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af
Outflow = 3.53 cfs @ 12.33 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.6 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.9 fps, Avg. Travel Time= 1.4 min

Peak Depth= 0.51' @ 12.33 hrs
Capacity at bank full= 21.65 cfs
Inlet Invert= 85.00', Outlet Invert= 80.00'
0.00' x 1.00' deep channel, n= 0.022 Earth, clean & straight
Side Slope Z-value= 3.0 '/' Top Width= 6.00'
Length= 162.0' Slope= 0.0309 '/'

Reach D1: Ditch above pond



Hydrograph for Reach D2: Ditch below pond

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
0.00	0.00	0	80.00	0.00
1.00	0.00	0	80.00	0.00
2.00	0.00	0	80.00	0.00
3.00	0.00	0	80.00	0.00
4.00	0.01	2	80.01	0.00
5.00	0.02	4	80.02	0.02
6.00	0.03	6	80.02	0.03
7.00	0.05	8	80.03	0.05
8.00	0.08	10	80.04	0.08
9.00	0.13	14	80.06	0.13
10.00	0.20	18	80.07	0.20
11.00	0.31	25	80.10	0.31
12.00	**1.33**	**65**	**80.22**	**1.29**
13.00	**2.92**	**115**	**80.34**	**2.95**
14.00	1.57	74	80.24	1.58
15.00	1.16	60	80.20	1.16
16.00	0.84	48	80.17	0.84
17.00	0.64	40	80.15	0.65
18.00	0.50	34	80.13	0.51
19.00	0.43	31	80.12	0.43
20.00	0.39	29	80.11	0.39
21.00	0.35	27	80.10	0.35
22.00	0.32	25	80.10	0.32
23.00	0.29	24	80.09	0.29
24.00	0.26	22	80.09	0.26
25.00	0.02	5	80.02	0.02
26.00	0.01	2	80.01	0.01
27.00	0.00	1	80.00	0.00
28.00	0.00	0	80.00	0.00
29.00	0.00	0	80.00	0.00
30.00	0.00	0	80.00	0.00

Reach D2: Ditch below pond

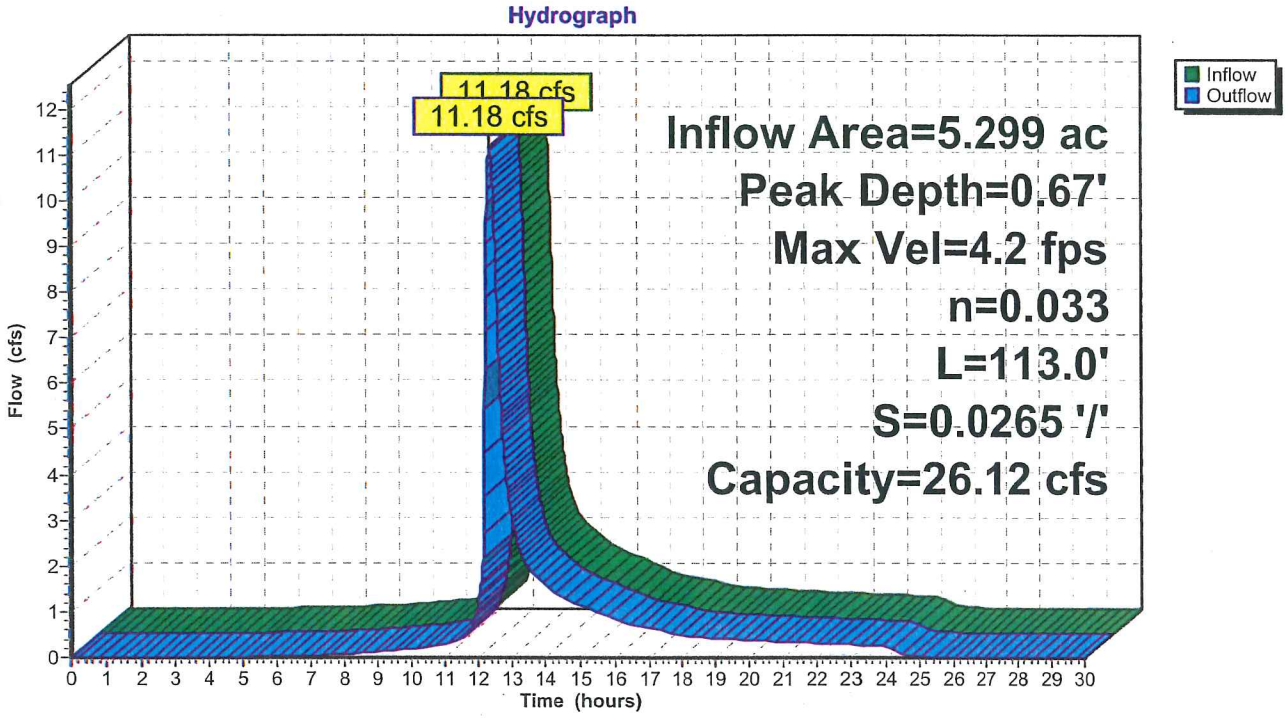
[61] Hint: Submerged 13% of Reach D1 bottom

Inflow Area = 5.299 ac, Inflow Depth = 2.83" for 25 yr event
Inflow = 11.18 cfs @ 12.32 hrs, Volume= 1.250 af
Outflow = 11.18 cfs @ 12.33 hrs, Volume= 1.250 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Max. Velocity= 4.2 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 1.2 fps, Avg. Travel Time= 1.5 min

Peak Depth= 0.67' @ 12.33 hrs
Capacity at bank full= 26.12 cfs
Inlet Invert= 80.00', Outlet Invert= 77.00'
2.00' x 1.00' deep channel, n= 0.033 Riprap
Side Slope Z-value= 3.0 '/' Top Width= 8.00'
Length= 113.0' Slope= 0.0265 '/'

Reach D2: Ditch below pond



Hydrograph for Pond CB1:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	86.00	0.00
0.50	0.00	86.00	0.00
1.00	0.00	86.03	0.00
1.50	0.01	86.05	0.01
2.00	0.02	86.06	0.02
2.50	0.03	86.07	0.03
3.00	0.04	86.08	0.04
3.50	0.05	86.09	0.05
4.00	0.06	86.11	0.06
4.50	0.08	86.12	0.08
5.00	0.10	86.13	0.10
5.50	0.12	86.14	0.12
6.00	0.14	86.15	0.14
6.50	0.17	86.17	0.17
7.00	0.21	86.19	0.21
7.50	0.25	86.20	0.25
8.00	0.30	86.22	0.30
8.50	0.38	86.25	0.38
9.00	0.47	86.28	0.47
9.50	0.58	86.31	0.58
10.00	0.68	86.34	0.68
10.50	0.87	86.38	0.87
11.00	1.09	86.43	1.09
11.50	1.77	86.55	1.77
12.00	**11.48**	**87.60**	**11.48**
12.50	**3.25**	**87.09**	**3.25**
13.00	1.40	86.80	1.40
13.50	1.10	86.74	1.10
14.00	0.89	86.70	0.89
14.50	0.77	86.68	0.77
15.00	0.67	86.65	0.67
15.50	0.57	86.63	0.57
16.00	0.47	86.61	0.47
16.50	0.42	86.60	0.42
17.00	0.38	86.59	0.38
17.50	0.33	86.58	0.33
18.00	0.29	86.57	0.29
18.50	0.27	86.56	0.27
19.00	0.26	86.56	0.26
19.50	0.24	86.56	0.24
20.00	0.23	86.55	0.23
20.50	0.22	86.55	0.22
21.00	0.21	86.55	0.21
21.50	0.20	86.55	0.20
22.00	0.19	86.54	0.19
22.50	0.18	86.54	0.18
23.00	0.17	86.54	0.17
23.50	0.16	86.54	0.16
24.00	0.15	86.54	0.15
24.50	0.00	86.50	0.00
25.00	0.00	86.50	0.00
25.50	0.00	86.50	0.00
26.00	0.00	86.50	0.00
26.50	0.00	86.50	0.00
27.00	0.00	86.50	0.00
27.50	0.00	86.50	0.00
28.00	0.00	86.50	0.00
28.50	0.00	86.50	0.00
29.00	0.00	86.50	0.00
29.50	0.00	86.50	0.00
30.00	0.00	86.50	0.00

Pond CB1:

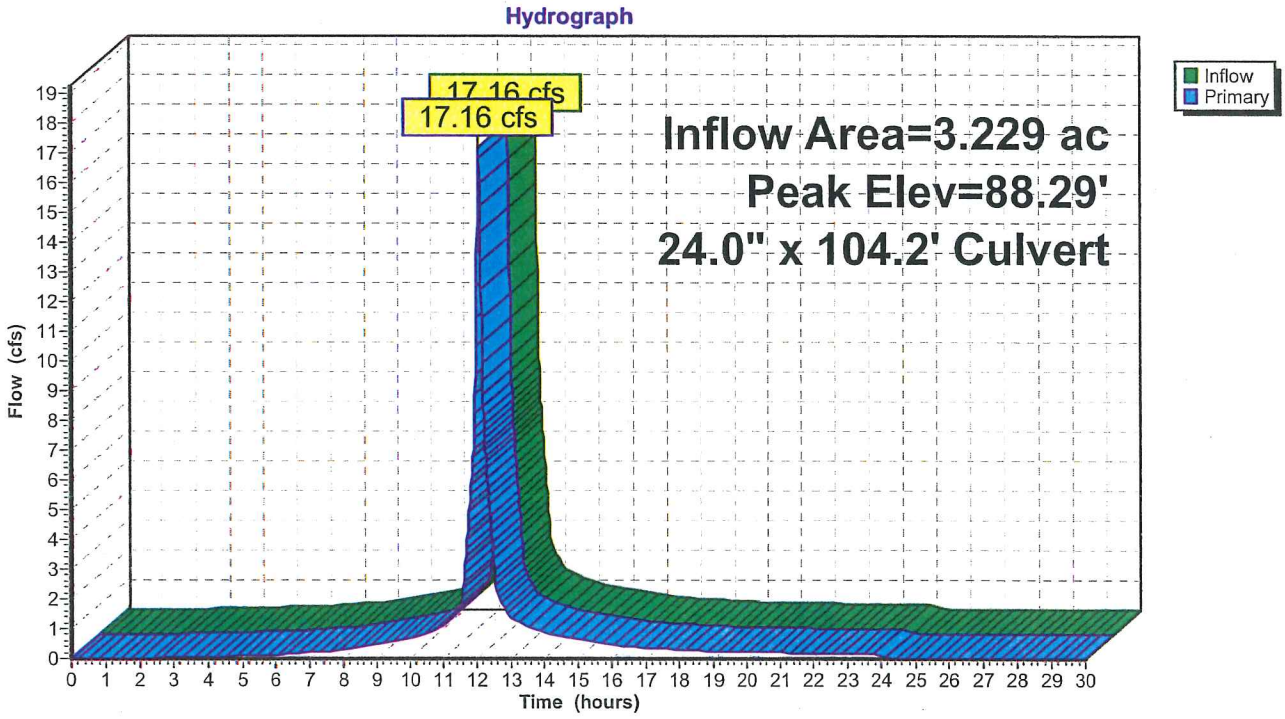
Inflow Area = 3.229 ac, Inflow Depth = 4.74" for 25 yr event
Inflow = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af
Outflow = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 17.16 cfs @ 12.07 hrs, Volume= 1.275 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 88.29' @ 12.07 hrs
Flood Elev= 90.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	86.00'	**24.0" x 104.2' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 85.00' S= 0.0096 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=17.15 cfs @ 12.07 hrs HW=88.28' TW=86.09' (Dynamic Tailwater)
1=Culvert (Inlet Controls 17.15 cfs @ 5.5 fps)

Pond CB1:



Hydrograph for Pond CB2:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	87.65	0.00
0.50	0.00	87.65	0.00
1.00	0.00	87.65	0.00
1.50	0.00	87.65	0.00
2.00	0.00	87.65	0.00
2.50	0.00	87.65	0.00
3.00	0.00	87.66	0.00
3.50	0.00	87.68	0.00
4.00	0.01	87.70	0.01
4.50	0.03	87.72	0.03
5.00	0.04	87.73	0.04
5.50	0.05	87.74	0.05
6.00	0.06	87.75	0.06
6.50	0.08	87.77	0.08
7.00	0.10	87.78	0.10
7.50	0.13	87.79	0.13
8.00	0.16	87.81	0.16
8.50	0.21	87.83	0.21
9.00	0.26	87.86	0.26
9.50	0.33	87.88	0.33
10.00	0.40	87.90	0.40
10.50	0.51	87.94	0.51
11.00	0.65	87.98	0.65
11.50	1.07	88.07	1.07
12.00	**7.08**	**88.88**	**7.08**
12.50	**2.03**	**88.26**	**2.03**
13.00	0.87	88.03	0.87
13.50	0.69	87.99	0.69
14.00	0.56	87.95	0.56
14.50	0.48	87.93	0.48
15.00	0.42	87.91	0.42
15.50	0.36	87.89	0.36
16.00	0.30	87.87	0.30
16.50	0.26	87.86	0.26
17.00	0.24	87.85	0.24
17.50	0.21	87.84	0.21
18.00	0.18	87.83	0.18
18.50	0.17	87.82	0.17
19.00	0.16	87.82	0.16
19.50	0.15	87.81	0.15
20.00	0.14	87.81	0.14
20.50	0.14	87.80	0.14
21.00	0.13	87.80	0.13
21.50	0.13	87.80	0.13
22.00	0.12	87.79	0.12
22.50	0.11	87.79	0.11
23.00	0.11	87.79	0.11
23.50	0.10	87.78	0.10
24.00	0.09	87.78	0.09
24.50	0.00	87.65	0.00
25.00	0.00	87.65	0.00
25.50	0.00	87.65	0.00
26.00	0.00	87.65	0.00
26.50	0.00	87.65	0.00
27.00	0.00	87.65	0.00
27.50	0.00	87.65	0.00
28.00	0.00	87.65	0.00
28.50	0.00	87.65	0.00
29.00	0.00	87.65	0.00
29.50	0.00	87.65	0.00
30.00	0.00	87.65	0.00

Pond CB2:

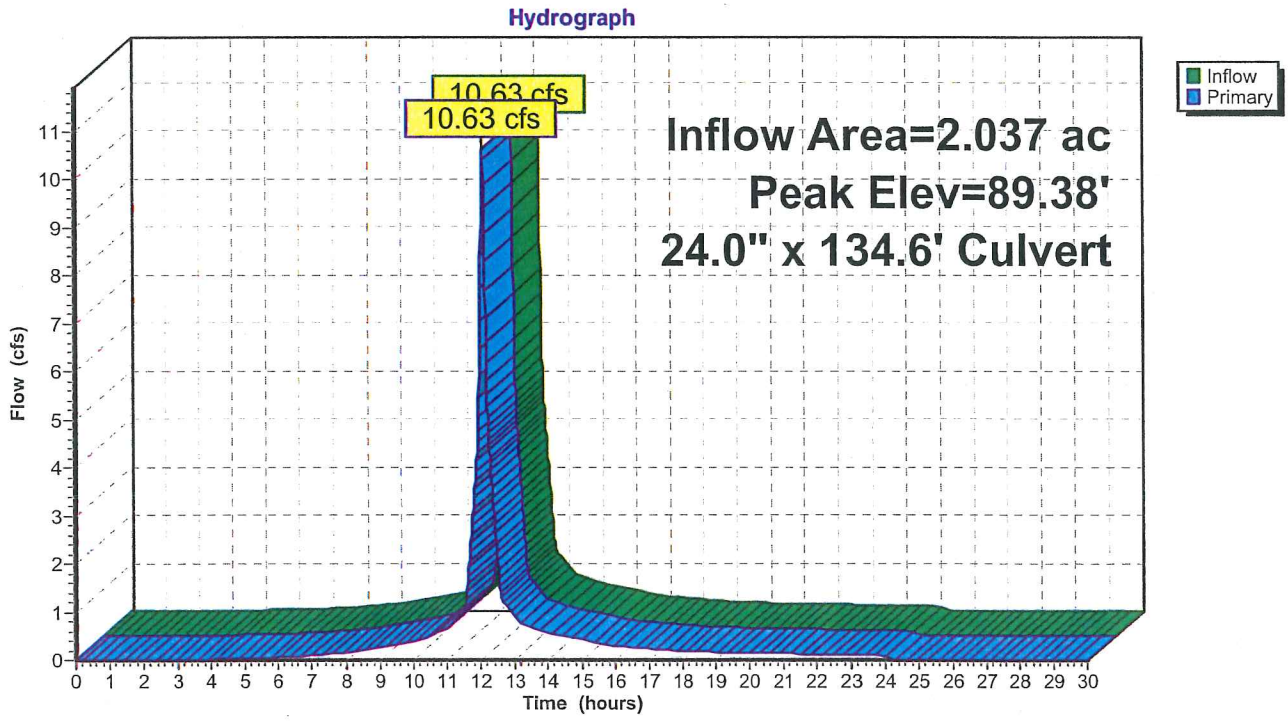
Inflow Area = 2.037 ac, Inflow Depth = 4.54" for 25 yr event
Inflow = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af
Outflow = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af, Atten= 0%, Lag= 0.0 min
Primary = 10.63 cfs @ 12.07 hrs, Volume= 0.771 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 89.38' @ 12.07 hrs
Flood Elev= 92.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	87.65'	**24.0" x 134.6' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 86.25' S= 0.0104 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=10.62 cfs @ 12.07 hrs HW=89.38' TW=88.28' (Dynamic Tailwater)
↑**1=Culvert** (Outlet Controls 10.62 cfs @ 4.9 fps)

Pond CB2:



Hydrograph for Pond CB3:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	88.25	0.00
0.50	0.00	88.25	0.00
1.00	0.00	88.25	0.00
1.50	0.00	88.25	0.00
2.00	0.00	88.25	0.00
2.50	0.00	88.25	0.00
3.00	0.00	88.26	0.00
3.50	0.00	88.28	0.00
4.00	0.01	88.30	0.01
4.50	0.02	88.32	0.02
5.00	0.03	88.33	0.03
5.50	0.04	88.34	0.04
6.00	0.05	88.35	0.05
6.50	0.07	88.36	0.07
7.00	0.09	88.38	0.09
7.50	0.11	88.39	0.11
8.00	0.14	88.41	0.14
8.50	0.18	88.43	0.18
9.00	0.23	88.46	0.23
9.50	0.29	88.48	0.29
10.00	0.35	88.50	0.35
10.50	0.46	88.54	0.46
11.00	0.57	88.57	0.57
11.50	0.95	88.67	0.95
12.00	**6.25**	**89.53**	**6.25**
12.50	**1.79**	**88.85**	**1.79**
13.00	0.77	88.63	0.77
13.50	0.61	88.58	0.61
14.00	0.49	88.55	0.49
14.50	0.43	88.53	0.43
15.00	0.37	88.51	0.37
15.50	0.32	88.49	0.32
16.00	0.26	88.47	0.26
16.50	0.23	88.45	0.23
17.00	0.21	88.44	0.21
17.50	0.18	88.43	0.18
18.00	0.16	88.42	0.16
18.50	0.15	88.41	0.15
19.00	0.14	88.41	0.14
19.50	0.13	88.41	0.13
20.00	0.13	88.40	0.13
20.50	0.12	88.40	0.12
21.00	0.12	88.40	0.12
21.50	0.11	88.39	0.11
22.00	0.11	88.39	0.11
22.50	0.10	88.39	0.10
23.00	0.09	88.38	0.09
23.50	0.09	88.38	0.09
24.00	0.08	88.37	0.08
24.50	0.00	88.25	0.00
25.00	0.00	88.25	0.00
25.50	0.00	88.25	0.00
26.00	0.00	88.25	0.00
26.50	0.00	88.25	0.00
27.00	0.00	88.25	0.00
27.50	0.00	88.25	0.00
28.00	0.00	88.25	0.00
28.50	0.00	88.25	0.00
29.00	0.00	88.25	0.00
29.50	0.00	88.25	0.00
30.00	0.00	88.25	0.00

Pond CB3:

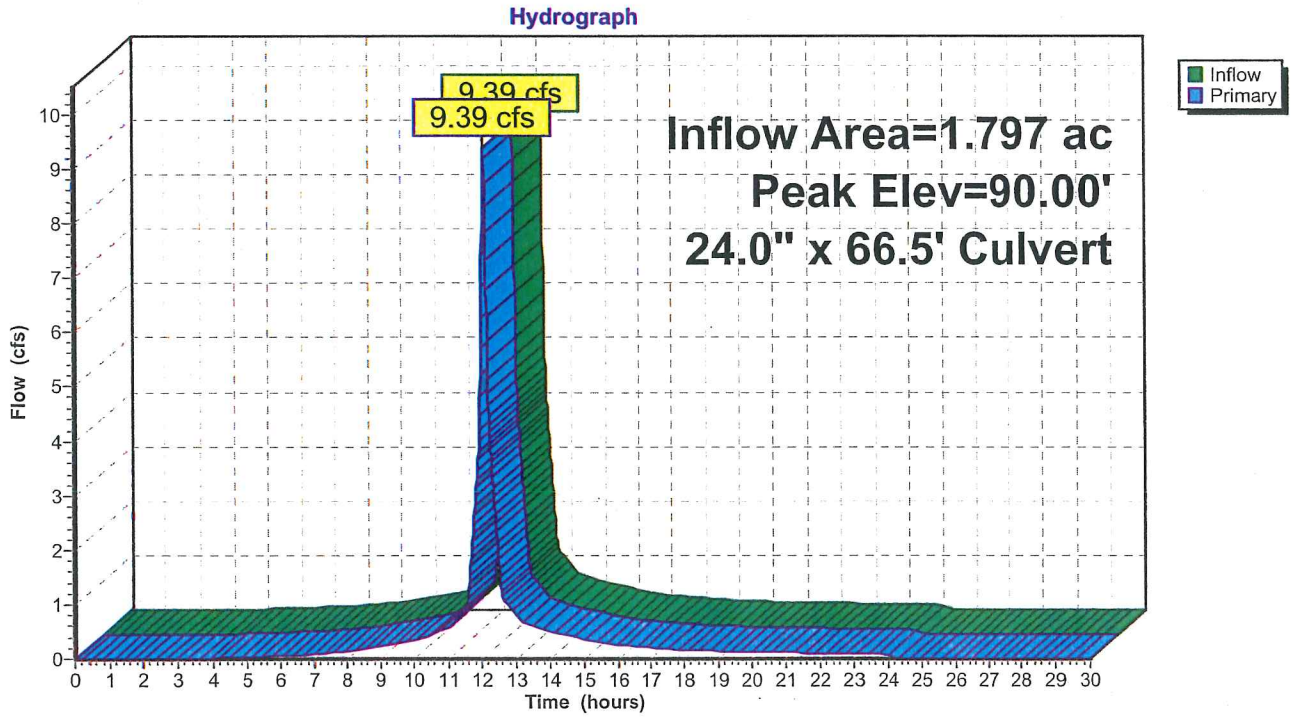
Inflow Area = 1.797 ac, Inflow Depth = 4.55" for 25 yr event
Inflow = 9.39 cfs @ 12.07 hrs, Volume= 0.682 af
Outflow = 9.39 cfs @ 12.07 hrs, Volume= 0.682 af, Atten= 0%, Lag= 0.0 min
Primary = 9.39 cfs @ 12.07 hrs, Volume= 0.682 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 90.00' @ 12.07 hrs
Flood Elev= 92.50'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	88.25'	**24.0" x 66.5' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 87.65' S= 0.0090 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=9.38 cfs @ 12.07 hrs HW=90.00' TW=89.38' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 9.38 cfs @ 4.3 fps)

Pond CB3:



Hydrograph for Pond CB4:

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	93.75	0.00
0.50	0.00	93.75	0.00
1.00	0.00	93.75	0.00
1.50	0.00	93.75	0.00
2.00	0.00	93.75	0.00
2.50	0.00	93.75	0.00
3.00	0.00	93.76	0.00
3.50	0.00	93.78	0.00
4.00	0.01	93.79	0.01
4.50	0.02	93.80	0.02
5.00	0.02	93.81	0.02
5.50	0.03	93.82	0.03
6.00	0.04	93.83	0.04
6.50	0.05	93.84	0.05
7.00	0.06	93.85	0.06
7.50	0.07	93.86	0.07
8.00	0.09	93.87	0.09
8.50	0.12	93.89	0.12
9.00	0.15	93.90	0.15
9.50	0.18	93.92	0.18
10.00	0.22	93.94	0.22
10.50	0.28	93.96	0.28
11.00	0.36	93.99	0.36
11.50	0.59	94.06	0.59
12.00	**3.85**	**94.58**	**3.85**
12.50	**1.10**	**94.18**	**1.10**
13.00	0.47	94.03	0.47
13.50	0.37	94.00	0.37
14.00	0.30	93.97	0.30
14.50	0.26	93.96	0.26
15.00	0.23	93.94	0.23
15.50	0.19	93.93	0.19
16.00	0.16	93.91	0.16
16.50	0.14	93.90	0.14
17.00	0.13	93.89	0.13
17.50	0.11	93.88	0.11
18.00	0.10	93.87	0.10
18.50	0.09	93.87	0.09
19.00	0.09	93.87	0.09
19.50	0.08	93.86	0.08
20.00	0.08	93.86	0.08
20.50	0.07	93.86	0.07
21.00	0.07	93.86	0.07
21.50	0.07	93.85	0.07
22.00	0.06	93.85	0.06
22.50	0.06	93.85	0.06
23.00	0.06	93.85	0.06
23.50	0.05	93.84	0.05
24.00	0.05	93.84	0.05
24.50	0.00	93.75	0.00
25.00	0.00	93.75	0.00
25.50	0.00	93.75	0.00
26.00	0.00	93.75	0.00
26.50	0.00	93.75	0.00
27.00	0.00	93.75	0.00
27.50	0.00	93.75	0.00
28.00	0.00	93.75	0.00
28.50	0.00	93.75	0.00
29.00	0.00	93.75	0.00
29.50	0.00	93.75	0.00
30.00	0.00	93.75	0.00

Pond CB4:

Inflow Area = 1.097 ac, Inflow Depth = 4.61" for 25 yr event
Inflow = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af
Outflow = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af, Atten= 0%, Lag= 0.0 min
Primary = 5.77 cfs @ 12.07 hrs, Volume= 0.421 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 94.79' @ 12.07 hrs
Flood Elev= 98.00'
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Device	Routing	Invert	Outlet Devices
#1	Primary	93.75'	**24.0" x 164.7' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 88.25' S= 0.0334 '/' Cc= 0.900 n= 0.013 Concrete pipe, straight & clean

Primary OutFlow Max=5.77 cfs @ 12.07 hrs HW=94.79' TW=90.00' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 5.77 cfs @ 3.5 fps)

Pond CB4: