

Drainage Report

**Crescent Avenue
Improvements & Extension
Determination of Adequacy
Plymouth County, Pembroke, Ma**

Prepared For:

**Roger Warren
P.O. Box 2447
Basseterre, St. Kitts, West Indies**

Prepared By:

**Collins Civil Engineering Group, Inc.
225 South Main Street
West Bridgewater, Massachusetts 02379**

Tel. (508) 580 - 2332

July 10, 2020

Drainage Report
Crescent Avenue, improvements & Extension
Plymouth County, Pembroke, Ma

Existing Conditions Site Location and Description

Crescent Avenue is located on the South side of Pembroke, off the West side of Plymouth Street, near the Halifax Town line. The entrance to Crescent Ave is approximately fourteen feet wide with degraded pressure treated timber retaining walls on both sides. There are no paved radius areas at the entrance making the street inaccessible to all large town and emergency vehicles.

The existing average pavement width, for Crescent Avenue, is twelve to fourteen feet and serves as access to three houses, house number 9, 10 and the applicant's house along Crystal Lake. The paved portion of Crescent Avenue extends approximately three hundred and twenty five feet from Plymouth Street. The applicant's access, to his house on Crystal Lake, is by way of a private drive off Crescent Avenue constructed for house number 10 that connects to his property.

There are no existing turn-around areas on Crescent Avenue therefore all traffic must use private driveways in order to prevent backing out onto Plymouth Street.

The Lot is not located within Flood Zone, as shown on FIRM Map Number 25023C0203J, Effective Date: July 17, 2012.

Soil Conservation Services (SCS) Soils Survey of Plymouth County, Massachusetts, classifies soils on the property as MfB, Merrimac sandy loam, 0 to 8 percent slopes, hydrologic group A. Permeability is moderately rapid in the solum and rapid to very rapid in the substratum. These soil types are consistent with that found on site in ground water observation holes preformed by: Collins Civil Engineering Group, Inc.

The site does not fall within an "Area of Critical Environmental Concern" (ACEC). No portion of the site is located within a Priority Habitat and Estimated Habitat area as shown on the Massachusetts Natural Heritage Atlas, 13Th Edition.

Storm Water Run-Off Existing Conditions

There are two sub watershed areas, **EWSA-1**, & **EWSA-2** as noted in this report, for the existing conditions. These two sub watershed areas make up the proposed limit of work, disturbed area. The limit of work has a calculated area of 66,487 square feet consisting of impervious pavement, gravel drives, grass and wooded areas.

EWSA-1: is a small area of the existing paved road, Crescent Avenue, that directs storm water run-off northeast, directly into Plymouth Street. **EWSA-1** has a calculated area of 3,780 square feet consisting of impervious pavement and grass areas. Storm water run-off, from **EWSA-1**, into Plymouth Street, is calculated to be 0.10, 0.21, 0.27 and 0.39 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

EWSA-2: is a portion of the, proposed limit of work area, existing conditions, located to the west side of a high point on Crescent Avenue that has a calculated area of 62,707 square feet consisting of impervious pavement and roof, gravel access drives, grass and wooded areas. Storm water run-off flows southwesterly, directly into Crystal Lake, located in Halifax. Storm water run-off, from **EWSA-2** into Crystal Lake, is calculated to be 0.09, 0.60, 1.06 and 1.99c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Combined storm water run-off, from **EWSA-1**, & **EWSA-2** is calculated to be 0.11, 0.68, 1.18 and 2.16 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Proposed Conditions Road Improvements and Extension

The applicant owns four plots of land located along the undeveloped portion of Crescent Avenue in the Town of Pembroke, Ma. With proposed improvements, the applicant will be able to access three buildable lots bringing the total number of single-family homes on Crescent Avenue to five.

Proposed improvements to Crescent Avenue are as follows:

- 1) The intersection at Plymouth Street to be widen with radius areas on both sides to allow larger vehicles such as highway trucks, ambulance and fire trucks to access the street. New retaining walls, on both sides, will be constructed to accommodate the wider access.
- 2) The existing paved width of Crescent Avenue will be increased from twelve to fourteen feet wide to eighteen feet wide. A monolithically pored cape cod berm, one foot wide, will be constructed on both sides of the street bringing the effective width to twenty feet.
- 3) The proposed paved access will extend to a length of seven hundred and twenty five feet to allow access for the three buildable lots.

- 4) Drainage structures and underground recharge areas have been designed to prevent any increase in stormwater run-off, prevent erosion to surrounding areas, remove suspended solids and clean street run-off before discharge into the ground.
- 5) A turn-around is provided at the intersection of Crescent Avenue and Sherman Street that meets the "Pierce Turning Performance Analysis" standards. This will allow all traffic, including larger vehicles, to exist Crescent Avenue without backing up on to Plymouth Street.
- 6) The existing structure, located in Halifax along Crystal Lake, shown on assessors map 11 lots 2600 to 2607, to be razed and a new, single family, house is proposed in the Town of Pembroke. The existing house demolition and new house construction are not part of the proposed road improvements, however, it will be a part of the "Notice of Intent" filed with both the Pembroke and Halifax Conservation Commissions and therefor added to this plan.

The post construction limit of work has a calculated area of 66,487 square feet consisting of impervious pavement, gravel drives, grass and wooded areas.

There are four sub watershed areas on the proposed site, PWSA-1A, PWSA-2A, PWSA-2B and PWSA-2C as noted in this report.

PWSA-1A: is a small area of the post development site that flows directly into Plymouth Street. PWSA-1A has a calculated area of 3,780 square feet consisting of impervious pavement and landscape lawn areas. Storm water run-off, from PWSA-1A into Plymouth Street, is calculated to be 0.08, 0.18, 0.25 and 0.36 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

PWSA-2A: is a small area of the post development total water shed area that flows into a set of proposed catch basin, then routed into a proposed recharge area, PRA-1 as noted in this report. PRA-1 is designed with a controlling outlet pipe to a proposed rip-rap outlet directing flow southerly towards Crystal Lake. PWSA-2A has a calculated area of 13,455 square feet consisting impervious pavement and newly graded lawn areas. Storm water run-off, from PWSA-2A into PRA-1, is calculated to be 0.25, 0.61, 0.84 and 1.25 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

PRA-1 consist of twelve (12) Cultec 330XLHD and eight (8) HVLV F-24 feeder units set in a 32 foot long by 18 foot wide by 3.54 foot high stone volume. Bottom of stone is a minimum of two (2) feet above observed ground water at elevation 56.50. Bottom of 330XLHD and HVL F-24 units are set at elevation 57.00, top of 330XLHD units are at elevation 59.54 and the top of stone is at elevation 60.00.

PRA-1 is designed with a six (6) inch HDPE controlling outlet pipe set at invert 58.00 discharging storm water run-off out to a rip-rap area designed to prevent erosion. Storm water run-off will then flow southerly towards Crystal Lake.

Calculated storm water run-off flowing into PRA-1 is 0.25, 0.61, 0.84 and 1.25 c.f.s. (cubic feet per second) in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Calculated flood storage elevation is 57.22, 58.22, 58.40 and 58.86 feet in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Calculated storm water discharge, from PRA-1 to the rip-rap area, is 0.05, 0.19, 0.41 and 0.75 c.f.s. (cubic feet per second) in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

PWSA-2B: is a small area of the post development total water shed area that flows into a set of proposed catch basin, then routed into a proposed recharge area, PRA-2 as noted in this report. PRA-2 is designed with a controlling outlet pipe to a proposed rip-rap outlet directing flow southerly towards Crystal Lake. **PWSA-2B** has a calculated area of 17,424 square feet consisting impervious pavement and newly graded lawn areas. Storm water run-off, from **PWSA-2B** into PRA-2, is calculated to be 0.41, 0.84, 1.09 and 1.53 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

PRA-2 consist of fifteen (15) Cultec 330XLHD and ten (10) HVLV F-24 feeder units set in a 39 foot long by 18 foot wide by 3.54 foot high stone volume. Bottom of stone is a minimum of two (2) feet above observed ground water at elevation 54.15. Bottom of 330XLHD and HVL F-24 units are set at elevation 54.65, top of 330XLHD units are at elevation 57.19 and the top of stone is at elevation 57.70.

PRA-2 is designed with a six (6) inch HDPE controlling outlet pipe set at invert 55.65 discharging storm water run-off out to a rip-rap area designed to prevent erosion. Storm water run-off will then flow southerly towards Crystal Lake.

Calculated storm water run-off flowing into PRA-2 is 0.41, 0.84, 1.09 and 1.53 c.f.s. (cubic feet per second) in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Calculated flood storage elevation is 55.48, 56.11, 56.40 and 57.32 feet in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Calculated storm water discharge, from PRA-2 to the rip-rap area, is 0.07, 0.50, 0.72 and 1.00 c.f.s. (cubic feet per second) in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

PWSA-2C: is a portion of the, proposed limit of work area, existing conditions, located to the west side of a high point on Crescent Avenue that has a calculated area of 31,828 square feet consisting of newly graded grass area. Storm water run-off flows southerly, directly into Crystal Lake, located in Halifax. Storm water run-off, from **PWSA-2C** into Crystal Lake, is calculated to be 0.00, 0.02, 0.08 and 0.28 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Combined storm water run-off, from **PWSA-2A**, **PWSA-2B** & **PWSA-2C**, into Crystal Lake, is calculated to be 0.00, 0.57, 1.06 and 1.84 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Combined storm water run-off, from **PWSA-1A**, **PWSA-2A**, **PWSA-2B** & **PWSA-2C** is calculated to be 0.08, 0.63, 1.17 and 2.01 c.f.s. (cubic feet per second), in a 2, 10, 25 and 100 year, 24 hour storm, respectively.

Table 1: Drainage calculations for Crescent Avenue Improvements & Extension

Pre-development conditions storm water run-off: (expressed in cubic feet per second)

Water Shed Sub Area	2 year storm	10 year storm	25 year storm	100 year storm
EWSA-1 into Plymouth Street	0.10	0.21	0.27	0.39
EWSA-2 into Crystal Lake	0.09	0.60	1.06	1.99
Total Existing	0.11	0.68	1.18	2.16

Note: individual sub-areas have different times of concentration and therefore peaks can't be added. Total reflects the addition of sub-area hydrographs.

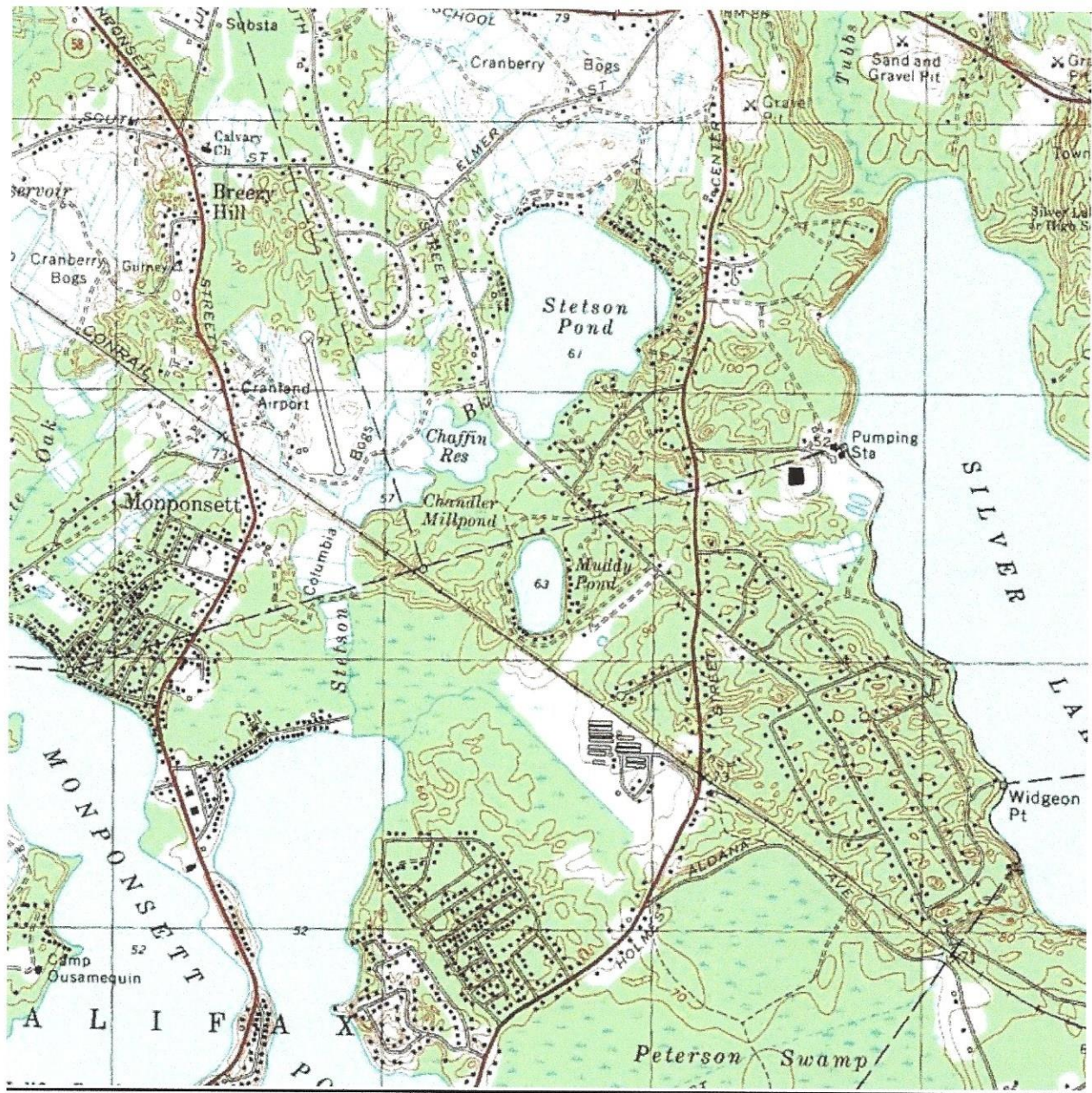
Table 2: Drainage calculations for Crescent Avenue Improvements & Extension

Post-development conditions: (expressed in cubic feet per second)

Water Shed Sub Area	2 Year Storm	10 Year storm	25 Year Storm	100 Year Storm
PWSA-1A into Plymouth Street	0.08	0.18	0.25	0.36
PWSA-2A to PWSA-2C into Crystal Lake	0.00	0.57	1.06	1.84
Total Proposed	0.08	0.63	1.17	2.01

Note: individual sub-areas have different times of concentration and therefore peaks can't be added. Total reflects the addition of sub-area hydrographs.

USGS MAP



[illegible]

SOILS MAP



PLYMOUTH COUNTY, MASSACHUSETTS SOIL SURVEY UPDATE

Merrimac Soils: Very deep, somewhat excessively drained soil formed in glacial outwash. Merrimac soils are on broad areas of outwash plains and deltas; less extensive areas occur on glacial lake plains.

[Link to Official Series Description](#)

[S08MA023003 \(Forested\)](#) | [S08MA023002 \(Cropped\)](#) | [Merrimac Pedon Description 2325401](#) | [Merrimac Pedon Description 2325402](#) | [Merrimac Pedon Description 2325403](#) | [Merrimac Pedon Description 2325404](#) | [Merrimac Pedon Description 2325405](#) | [Merrimac Pedon Description 2325307](#)

Map Unit(s): 254A, 254B, 254C

Map Phases:

- 254A Merrimac sandy loam, 0 to 3 percent slopes.
- 254B Merrimac sandy loam, 3 to 8 percent slopes.
- 254C Merrimac sandy loam, 8 to 15 percent slopes.

Taxonomic Classification: Sandy, mixed, mesic, Typic Dystrochrepts.

Drainage Class: Somewhat excessively drained.

Parent Material: Gravelly glacial fluvial deposits.

Permeability: Moderately rapid or rapid in the solum and rapid or very rapid in the substratum.

Available Water Holding Capacity: Low.

Soil Reaction: Extremely acid to moderately acid throughout.

Depth to Bedrock: Greater than 65 inches.

Seasonal High Watertable: Depth: greater than 5 feet.

Type: apparent.

Months:

Hydrologic Group: A.

Hydric Soil: No.

Flooding/Ponding Potential: Frequency and Type: None.

Potential Inclusions: Barnstable, Windsor, Hinckley and Carver soils are similar inclusions. Moderately well drained Sudbury and Deerfield soils are on lower elevations. Poorly drained Wareham and Pipestone soils are along drainageways.

Soil Suitability:

Agriculture: Map units 254A and 254B are prime farmland soil map units. 254C is an important farmland map unit. Irrigation is needed for optimal production.

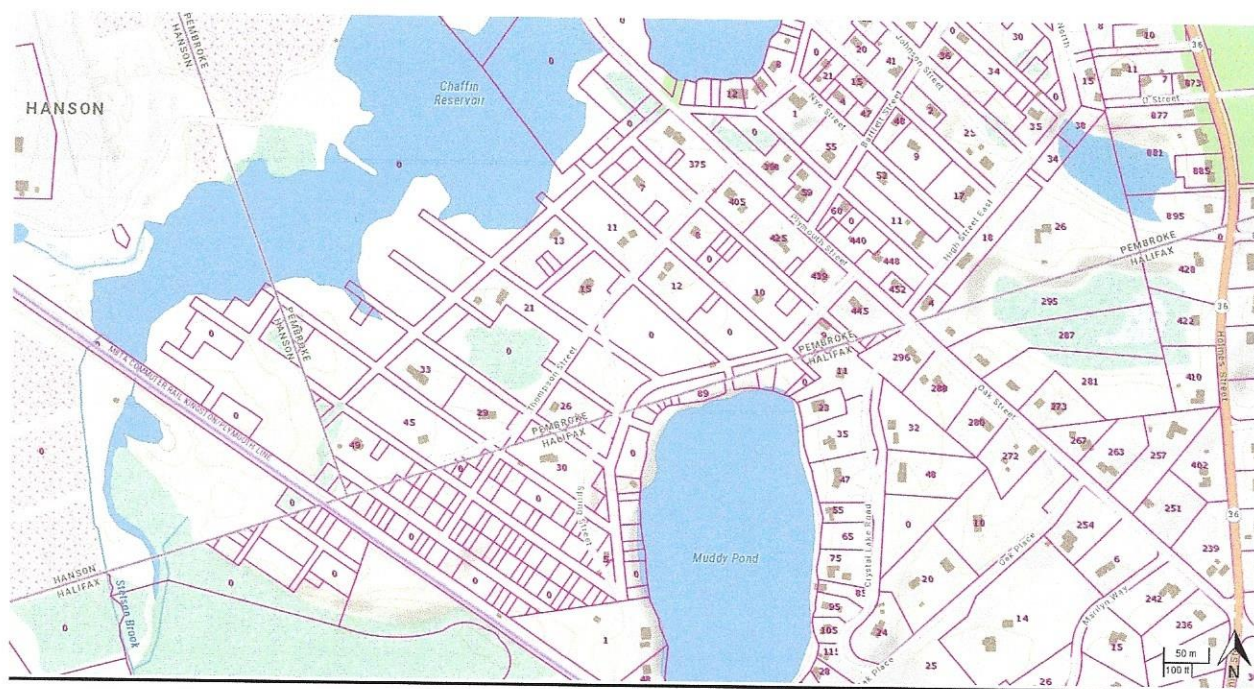
Woodland: Well suited for woodland.

Development: Merrimac soils have few limitations for development. They are associated with aquifer recharge areas and measures should be taken to protect the aquifer.

[Back to Homepage](#)

[Back to Legend](#)

The map displays the Chaffin Reservoir and its immediate surroundings. To the north and west are areas labeled "HANSON". To the east is a residential neighborhood with streets such as "Chaffin Street", "Chaffin Avenue", and "Chaffin Road". Numerous lots are numbered throughout the map. Other labels include "Pembroke Halifax", "Muddy Pond", and "Sullivan Creek". A scale bar at the bottom right shows distances up to 50 meters.



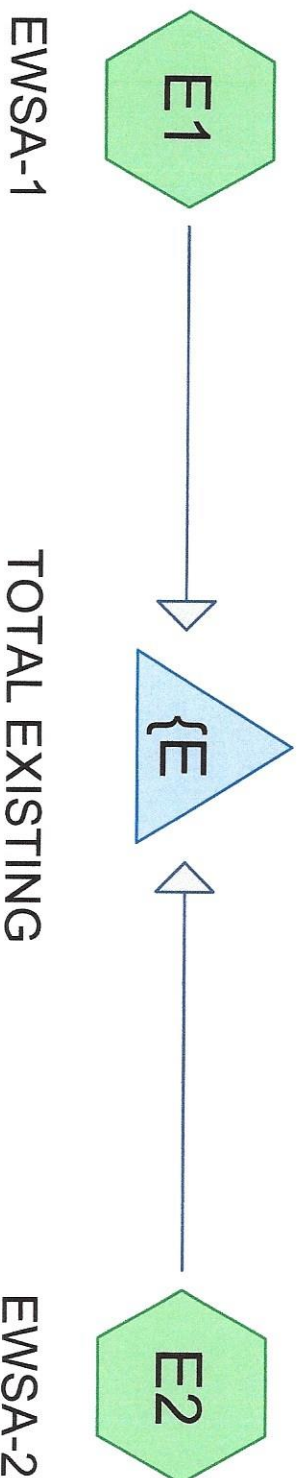
Watershed Areas

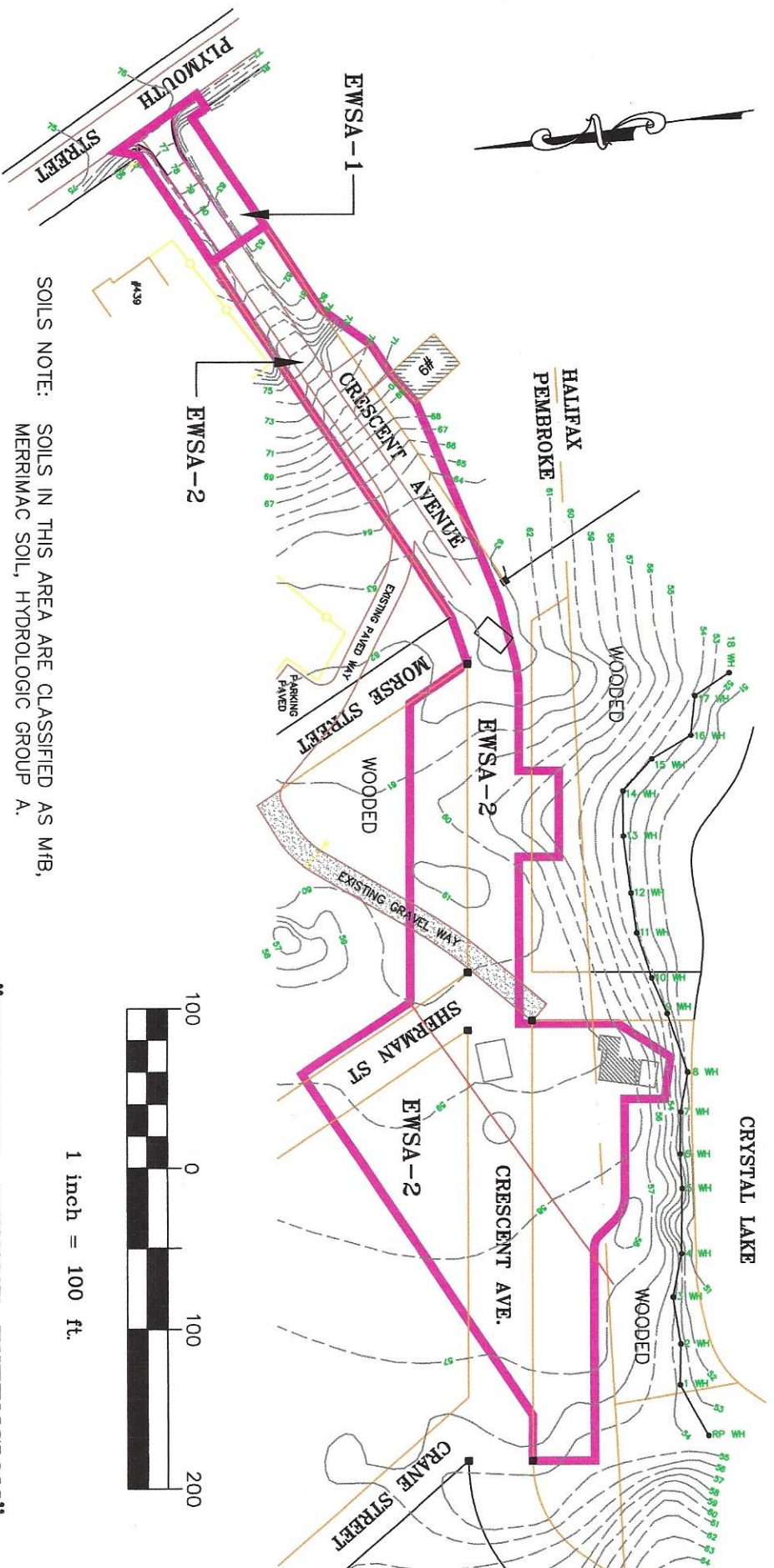
&

Flow Routs

Existing & Proposed

Site Conditions





SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS M1B,
MERRIMAC SOIL, HYDROLOGIC GROUP A.

EWSA-1 & EWSA-2 GROUND COVER:

TOTAL WATERSHED AREA = 66,487 S.F.

IMPERVIOUS PAVEMENT = 7,785 S.F.	CN = 98
EXISTING GRAVEL DRIVE = 1,355 S.F.	CN = 76
GRASS AREA "POOR" = 12,561 S.F.	CN = 56
WOODS "FAIR" = 44,786 S.F.	CN = 42

"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA

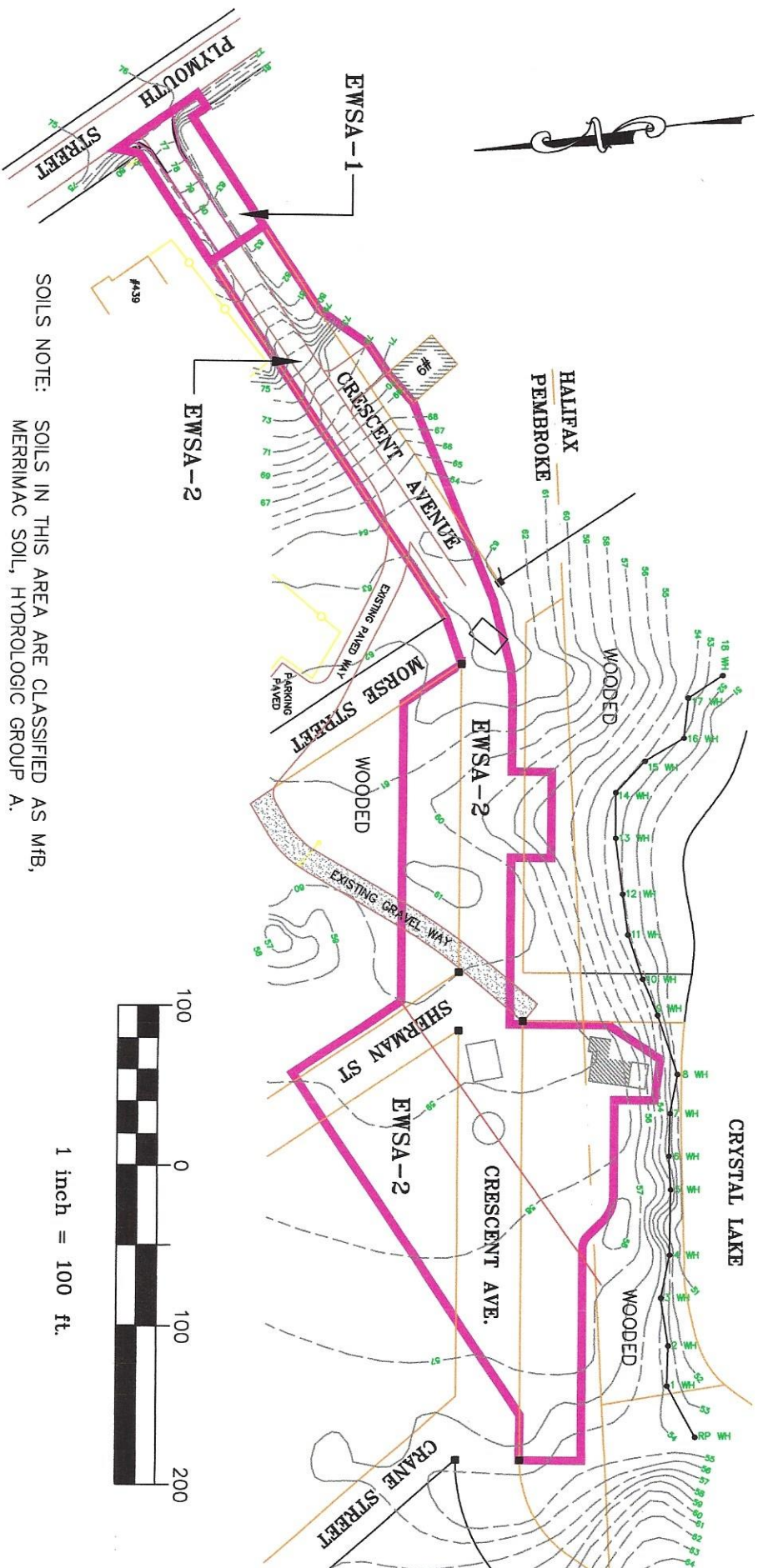
EXISTING CONDITIONS

TOTAL EXISTING WATERSHED AREA

GROUND COVER

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TEL:508-580-2332 MOBILE: 617-347-1363 E-MAIL:GRCPE@AOL.COM



SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS M1B, MERRIMAC SOIL, HYDROLOGIC GROUP A.

EWSA-1: EXISTING STORM WATER FLOW DIRECTLY INTO PLYMOUTH STREET

TOTAL WATERSHED AREA = 3,780 S.F.

IMPERVIOUS PAVEMENT = 1,490 S.F. CN = 98
 GRASS AREA "POOR" = 2,290 S.F. CN = 56

Tc = 6 MIN. MINIMUM

"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA

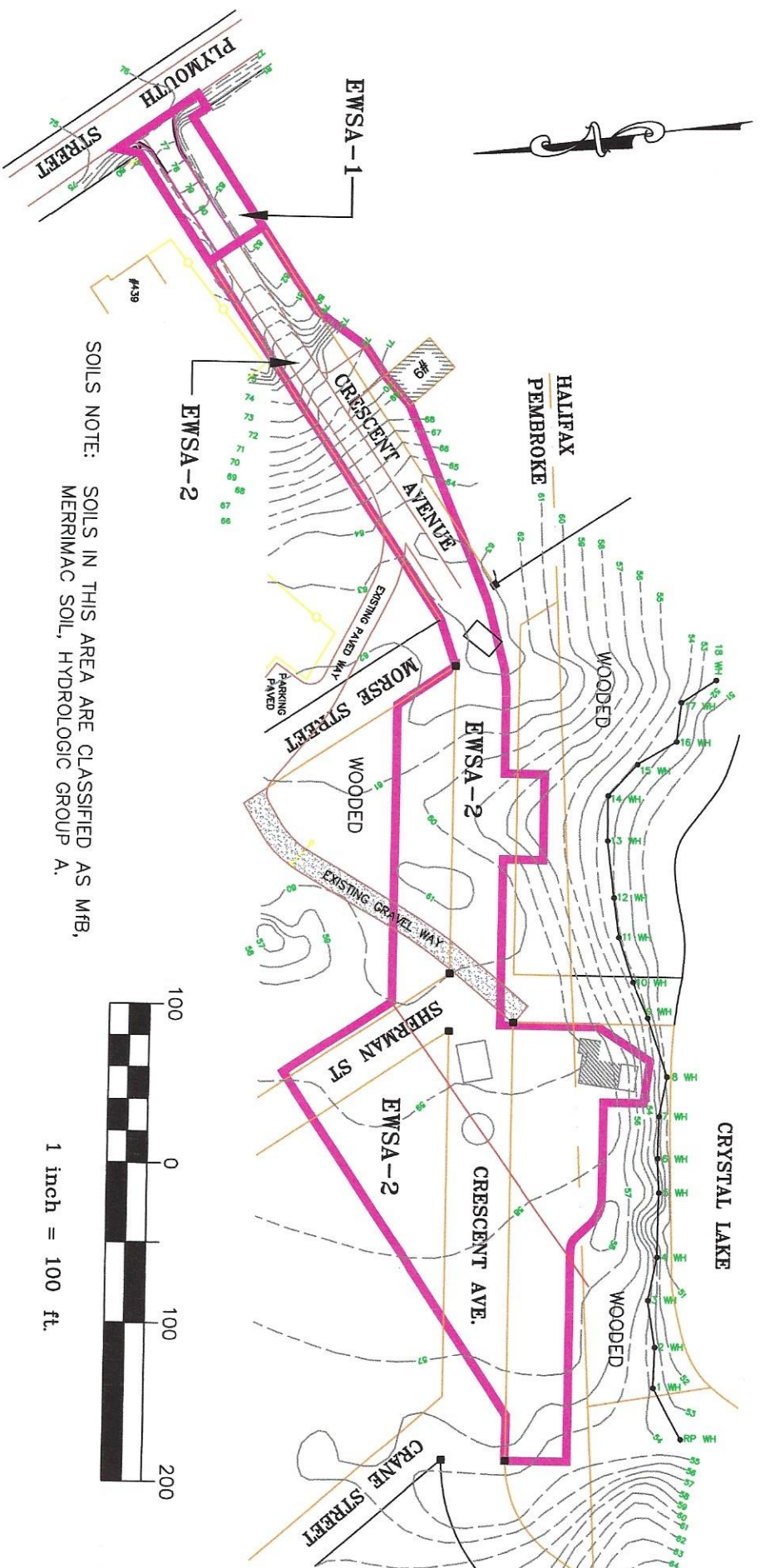
EXISTING CONDITIONS

SUB WATERSHED AREAS 1 (WSA-1)

AREA, GROUND COVER & Tc

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EWSA-2: EXISTING STORM WATER FLOW DIRECTLY INTO CRYSTAL LAKE

TOTAL WATERSHED AREA = 62,707 S.F.

IMPERVIOUS PAVE / ROOF	= 6,295 S.F.	CN	= 98
EXISTING GRAVEL DRIVE	= 1,355 S.F.	CN	= 76
GRASS	"POOR"	CN	= 68
WOODS	"FAIR"	CN	= 42
	= 44,786 S.F.		

Tc: SHEET FLOW SHALLOW FLOW

L=50', S=0.012	L=170'
P2=3.25	S=0.012
Tc=15 MIN.	Tc=5.2 MIN

TOTAL Tc = 20.2 MIN.

“CRESCENT AVENUE EXTENSION”

PLAN OF LAND IN PEMBROKE, MA

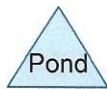
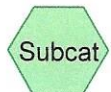
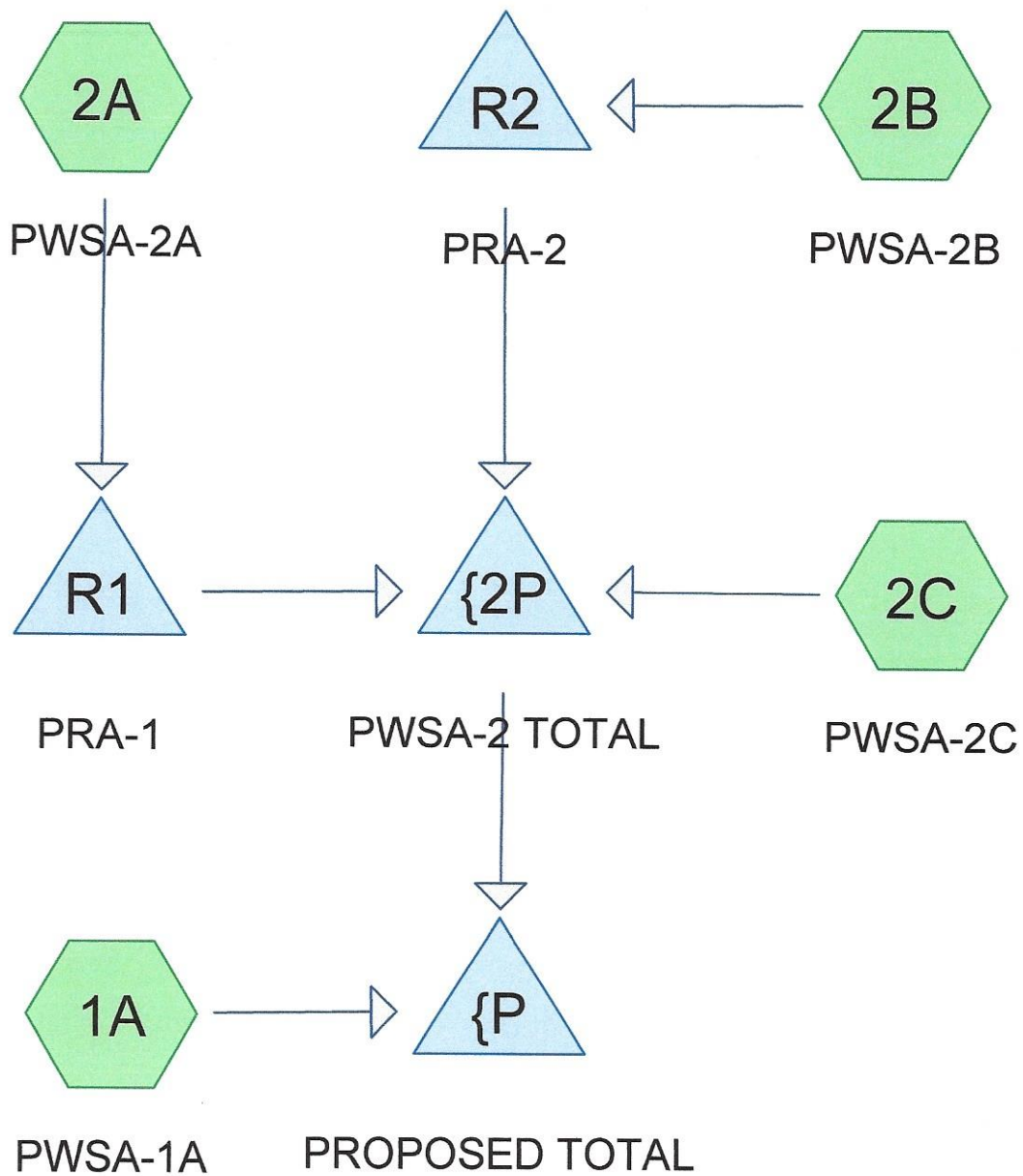
EXISTING CONDITIONS

SUB WATERSHED AREAS 2 (WSA-2)

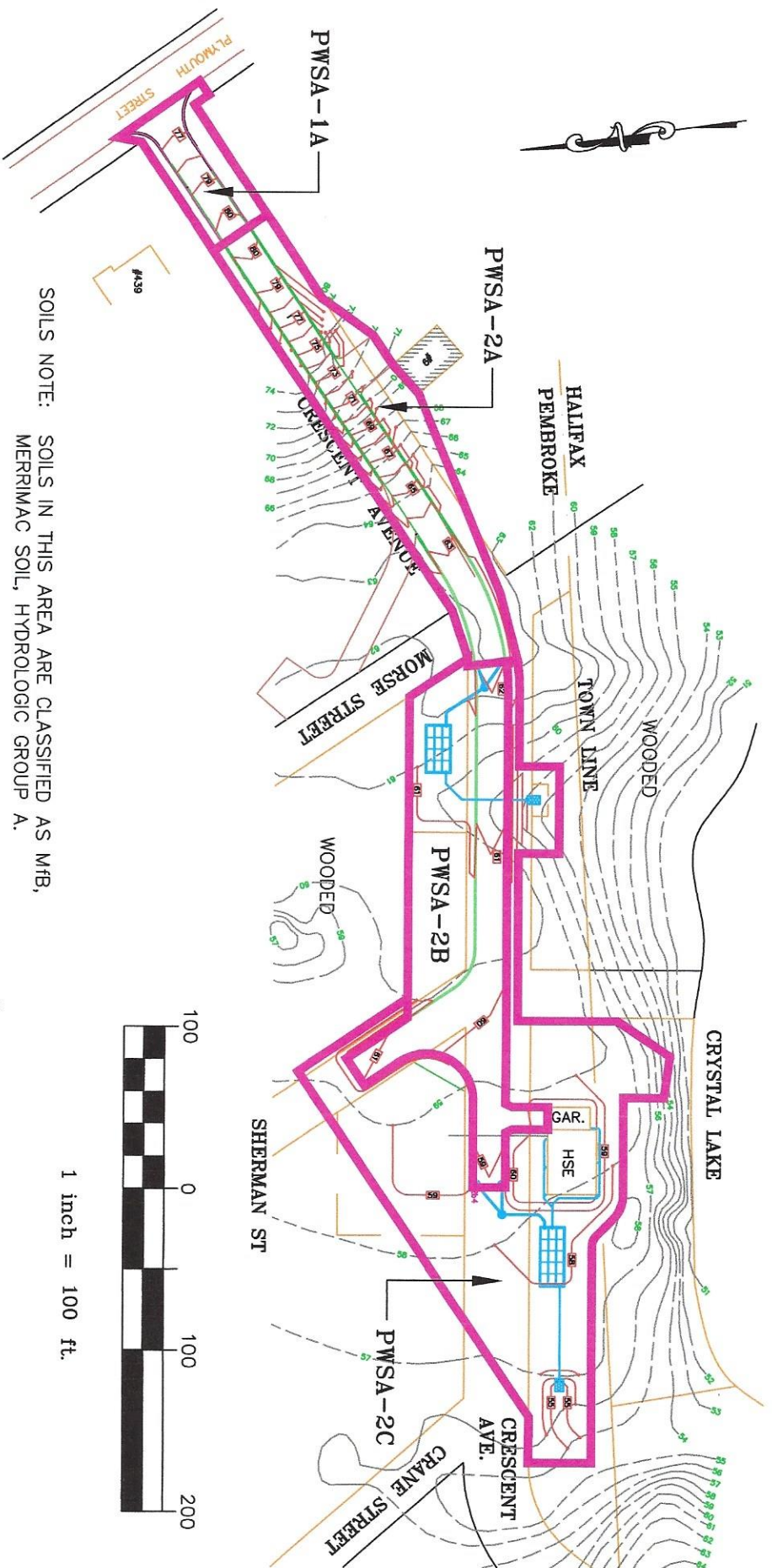
AREA, GROUND COVER & Tc

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Drainage Diagram for CRESCENT AVENUE - PROPOSED CONDITIONS
 Prepared by {enter your company name here}, Printed 6/8/2020
 HydroCAD® 8.50 s/n 002199 © 2007 HydroCAD Software Solutions LLC



SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS MFB, MERRIMAC SOIL, HYDROLOGIC GROUP A.

PWSA-1A, PWSA-2A, PWSA-2B & PWSA-2C GROUND COVER:

TOTAL WATERSHED AREA = 66,487 S.F.

IMPERVIOUS PAVEMENT = 7,785 S.F.	CN = 98
EXISTING GRAVEL DRIVE = 1,355 S.F.	CN = 76
GRASS AREA "POOR" = 12,561 S.F.	CN = 56
WOODS "FAIR" = 44,786 S.F.	CN = 42

"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA

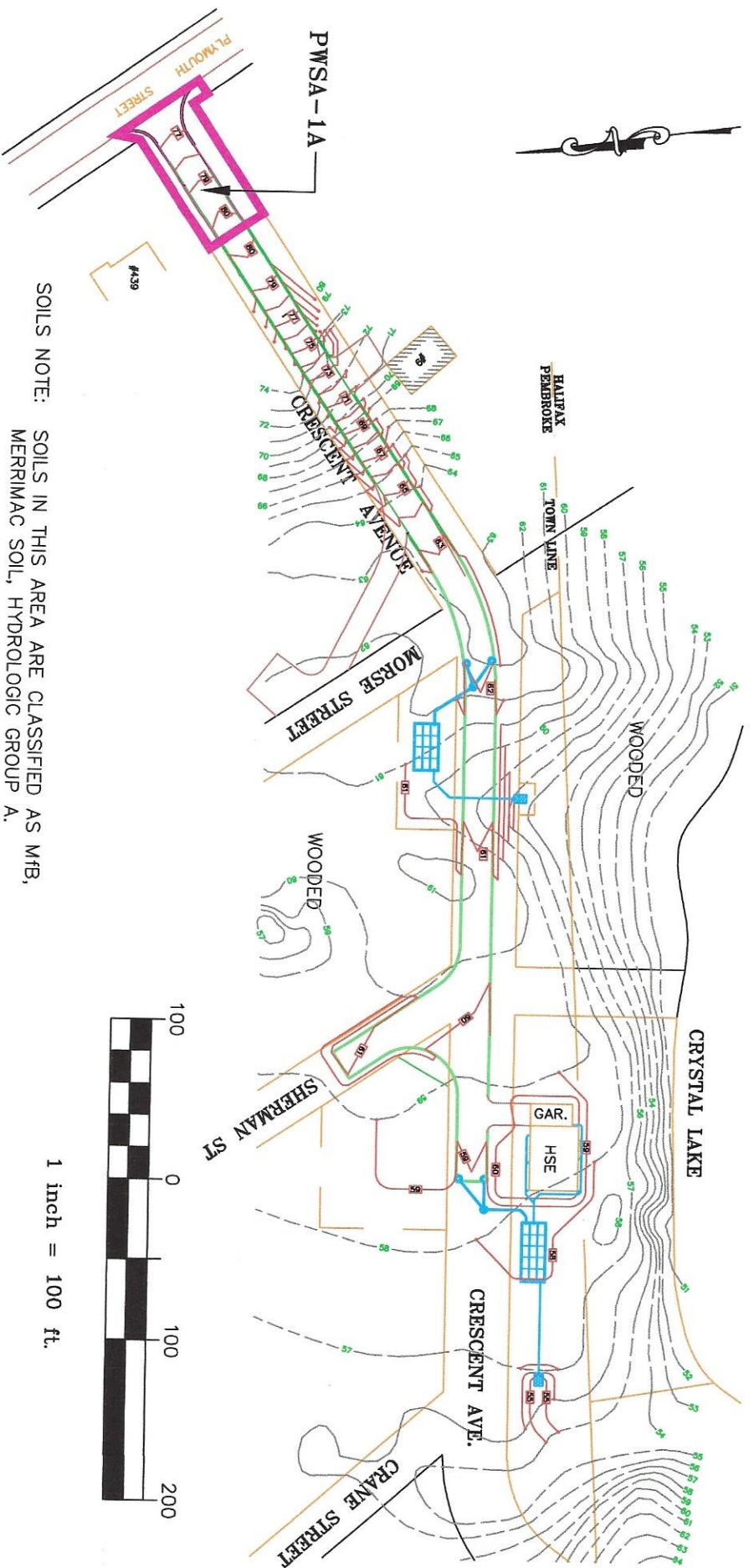
PROPOSED CONDITIONS

TOTAL PROPOSED WATERSHED AREA

GROUND COVER

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"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA

PROPOSED CONDITIONS

SUB WATERSHED AREA 1A (PWSA-1A)

AREA, GROUND COVER & Tc

PWSA-1A: PROPOSED STORM WATER FLOW DIRECTLY INTO PLYMOUTH STREET

TOTAL WATERSHED AREA = 3,780 S.F.

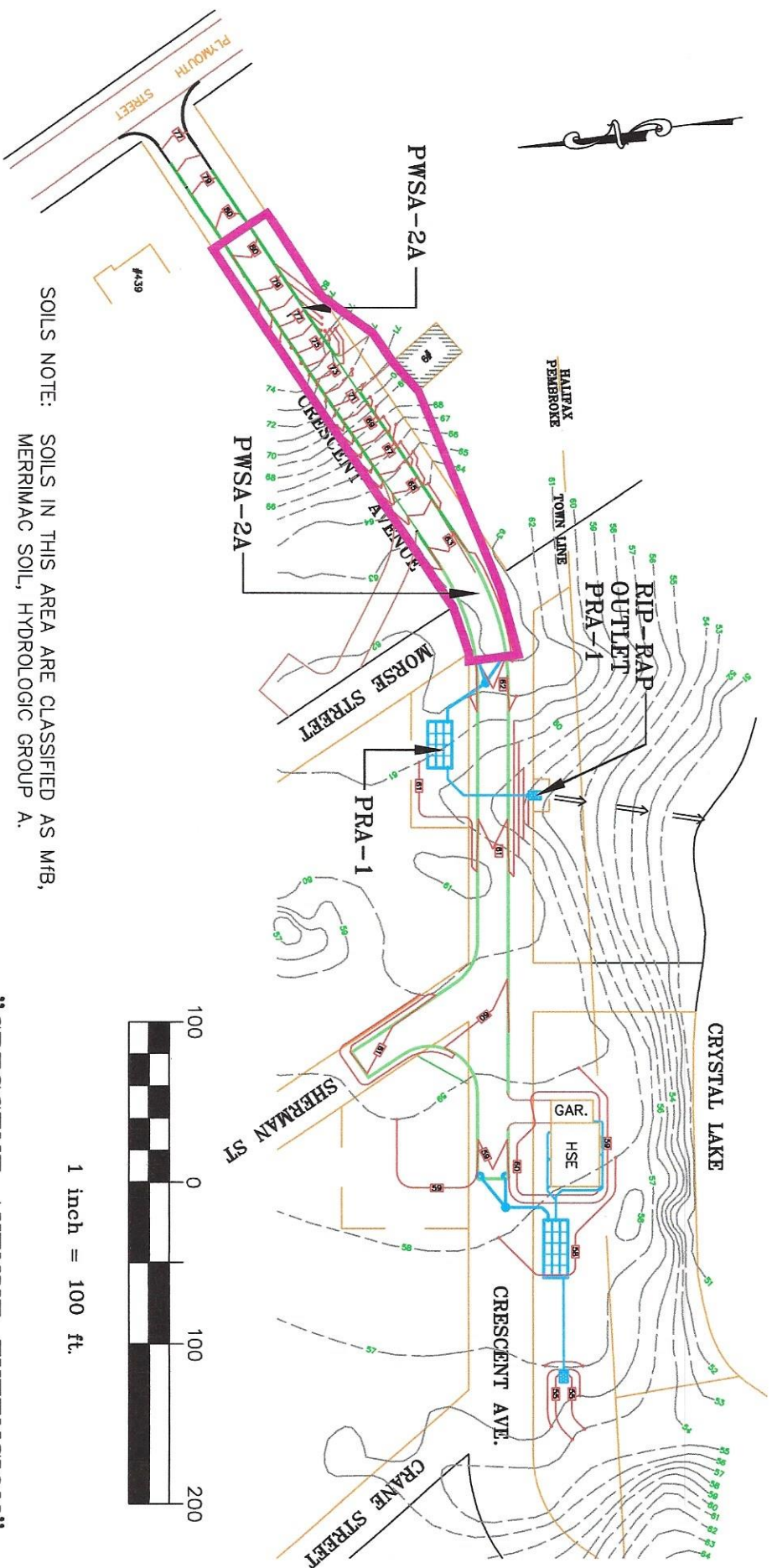
IMPERVIOUS PAVEMENT = 1,989 S.F.
GRASS AREA "GOOD" = 1,791 S.F.

CN = 98
CN = 39

Tc = 6 MIN. MINIMUM

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PWSA-2A: PROPOSED STORM WATER FLOW ROUTED DIRECTLY INTO PRA-1
WITH A CONTROLLING OUTLET STRUCTURE TOWARDS CRYSTAL LAKE.

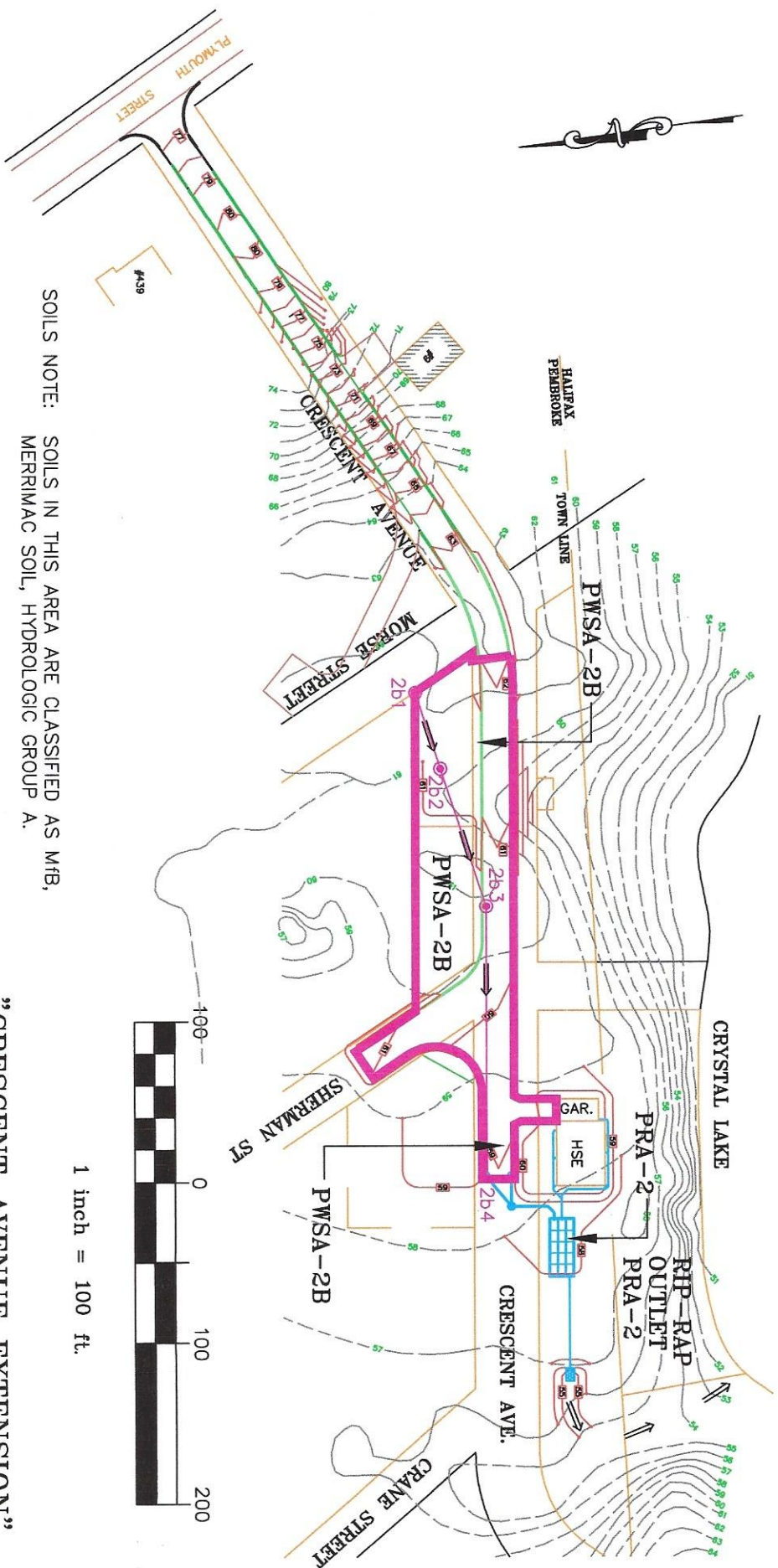
SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS MfB,
MERRIMAC SOIL, HYDROLOGIC GROUP A.

TOTAL WATERSHED AREA = 13,455 S.F.
IMPERVIOUS PAVEMENT = 6,768 S.F. CN = 98
GRASS AREA "GOOD" = 6,687 S.F. CN = 39
Tc = 6 MIN. MINIMUM

"CRESCENT AVENUE EXTENSION" PLAN OF LAND IN PEMBROKE, MA PROPOSED CONDITIONS

SUB WATERSHED AREA 2A (PWSA-2A)
AREA, GROUND COVER & Tc

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SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS MfB, MERRIMAC SOIL, HYDROLOGIC GROUP A.

PWSA-2B: PROPOSED STORM WATER FLOW ROUTED DIRECTLY INTO PRA-2 WITH A CONTROLLING OUTLET STRUCTURE TOWARDS CRYSTAL LAKE.

TOTAL WATERSHED AREA = 17,924 S.F.

IMPERVIOUS PAVEMENT = 9,493 S.F. CN = 98
 GRASS AREA "GOOD" = 8,431 S.F. CN = 39

Tc = SHEET FLOW	SHALLOW FLOW	CHANNEL FLOW
2b1 TO 2b2	2b2 TO 2b3	2b3 TO 2b4
GRASS "GOOD"	GRASS "SHORT"	PAVED
L=50', S=0.01	L=125', S=0.01	X-SEC.=0.04 S.F.
P2=3.25		PERIMETER=4.26 Ft.
		L=160', S=0.01

Tc = 14.2 MIN.

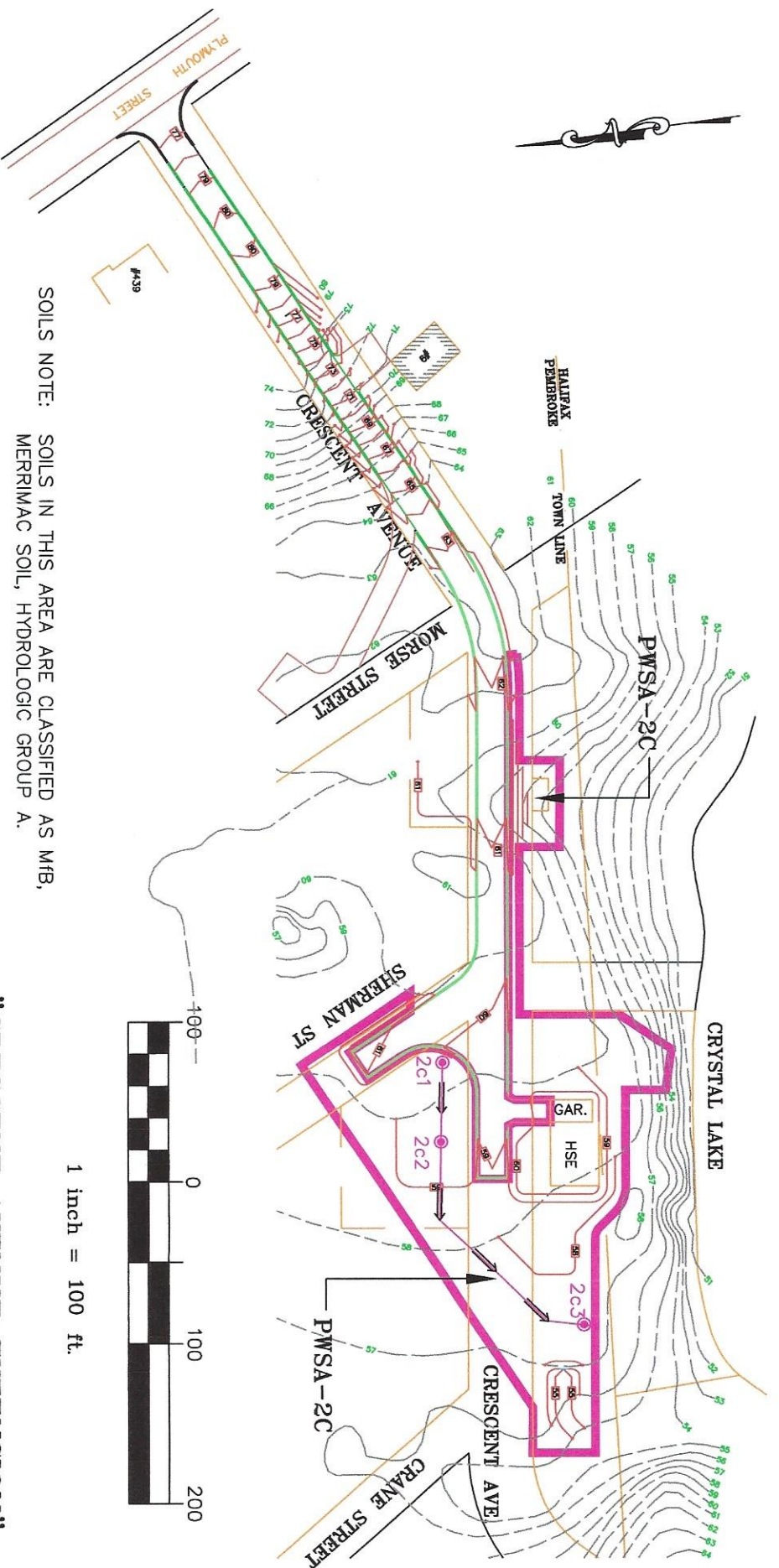
"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA
 PROPOSED CONDITIONS

SUB WATERSHED AREA 2B (PWSA-2B)
 AREA, GROUND COVER & Tc

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SOILS NOTE: SOILS IN THIS AREA ARE CLASSIFIED AS MFB, MERRIMAC SOIL, HYDROLOGIC GROUP A.

PWSA-2C: PROPOSED STORM WATER FLOWING DIRECTLY TOWARDS CRYSTAL LAKE.

TOTAL WATERSHED AREA = 31,828 S.F.

GRASS AREA "GOOD" = 31,828 S.F. CN = 39

Tc = SHEET FLOW
 2c1 TO 2c2
 GRASS "SHORT"
 L=50', S=0.01
 P2=3.25

SHALLOW FLOW
 2c2 TO 2c3
 GRASS "SHORT"
 L=115', S=0.02

Tc = 9.3 MIN.

"CRESCENT AVENUE EXTENSION"

PLAN OF LAND IN PEMBROKE, MA

PROPOSED CONDITIONS

SUB WATERSHED AREA 2C (PWSA-2C)

AREA, GROUND COVER & Tc

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2 Year Storm
for
Existing & Proposed
Site Conditions

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

HydroCAD® 8.50 s/n 002199 © 2007 HydroCAD Software Solutions LLC

Type III 24-hr 2 YEAR Rainfall=3.25"

Printed 6/8/2020

Page 1

Summary for Subcatchment E1: EWSA-1

Runoff = 0.10 cfs @ 12.10 hrs, Volume= 0.007 af, Depth= 1.01"

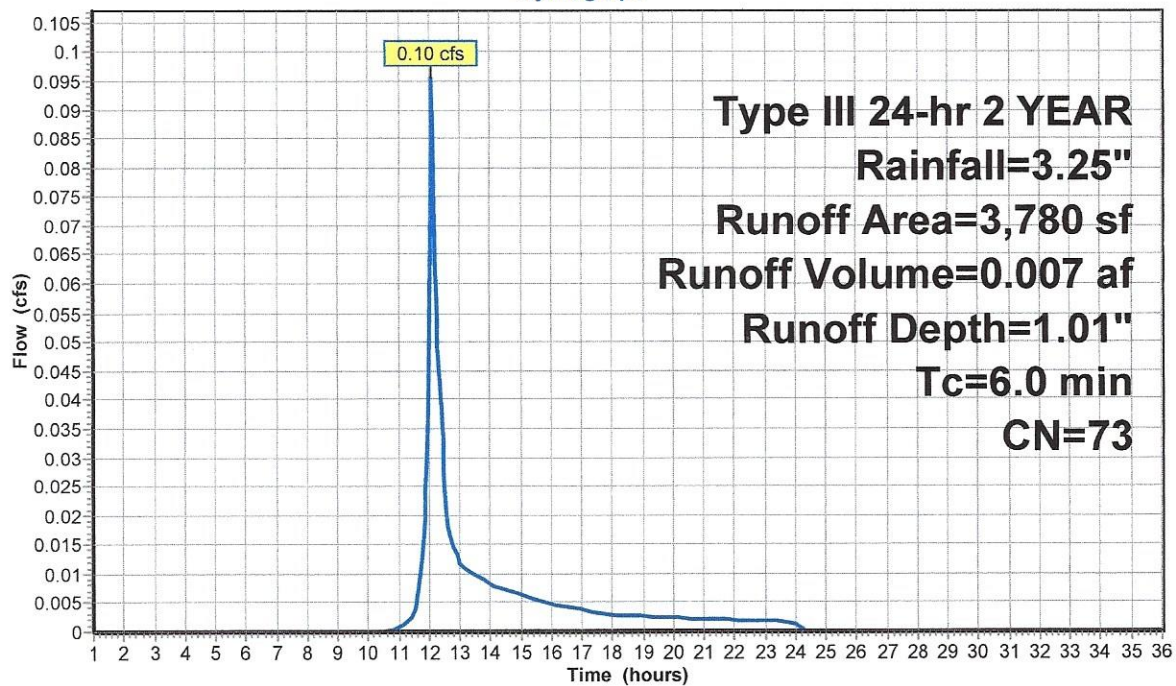
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.25"

	Area (sf)	CN	Description
	1,490	98	Paved parking & roofs
*	2,290	56	<50% Grass cover, Poor, HSG A
	3,780	73	Weighted Average
	2,290		Pervious Area
	1,490		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment E1: EWSA-1

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment E1: EWSA-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	1.01	0.00
1.50	0.05	0.00	0.00	27.50	3.25	1.01	0.00
2.00	0.06	0.00	0.00	28.00	3.25	1.01	0.00
2.50	0.08	0.00	0.00	28.50	3.25	1.01	0.00
3.00	0.10	0.00	0.00	29.00	3.25	1.01	0.00
3.50	0.12	0.00	0.00	29.50	3.25	1.01	0.00
4.00	0.14	0.00	0.00	30.00	3.25	1.01	0.00
4.50	0.16	0.00	0.00	30.50	3.25	1.01	0.00
5.00	0.18	0.00	0.00	31.00	3.25	1.01	0.00
5.50	0.21	0.00	0.00	31.50	3.25	1.01	0.00
6.00	0.23	0.00	0.00	32.00	3.25	1.01	0.00
6.50	0.26	0.00	0.00	32.50	3.25	1.01	0.00
7.00	0.29	0.00	0.00	33.00	3.25	1.01	0.00
7.50	0.33	0.00	0.00	33.50	3.25	1.01	0.00
8.00	0.37	0.00	0.00	34.00	3.25	1.01	0.00
8.50	0.42	0.00	0.00	34.50	3.25	1.01	0.00
9.00	0.47	0.00	0.00	35.00	3.25	1.01	0.00
9.50	0.54	0.00	0.00	35.50	3.25	1.01	0.00
10.00	0.61	0.00	0.00	36.00	3.25	1.01	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.00	0.00				
11.50	0.97	0.01	0.00				
12.00	1.62	0.17	0.05				
12.50	2.28	0.45	0.03				
13.00	2.44	0.53	0.01				
13.50	2.55	0.59	0.01				
14.00	2.64	0.64	0.01				
14.50	2.71	0.69	0.01				
15.00	2.78	0.72	0.01				
15.50	2.83	0.76	0.01				
16.00	2.88	0.78	0.00				
16.50	2.92	0.81	0.00				
17.00	2.96	0.83	0.00				
17.50	2.99	0.85	0.00				
18.00	3.02	0.87	0.00				
18.50	3.04	0.88	0.00				
19.00	3.07	0.90	0.00				
19.50	3.09	0.91	0.00				
20.00	3.11	0.93	0.00				
20.50	3.13	0.94	0.00				
21.00	3.15	0.95	0.00				
21.50	3.17	0.96	0.00				
22.00	3.19	0.97	0.00				
22.50	3.20	0.99	0.00				
23.00	3.22	1.00	0.00				
23.50	3.24	1.01	0.00				
24.00	3.25	1.01	0.00				
24.50	3.25	1.01	0.00				
25.00	3.25	1.01	0.00				
25.50	3.25	1.01	0.00				
26.00	3.25	1.01	0.00				
26.50	3.25	1.01	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

Prepared by {enter your company name here}

Printed 6/8/2020

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Page 1

Summary for Subcatchment E2: EWSA-2

Runoff = 0.09 cfs @ 12.59 hrs, Volume= 0.025 af, Depth= 0.21"

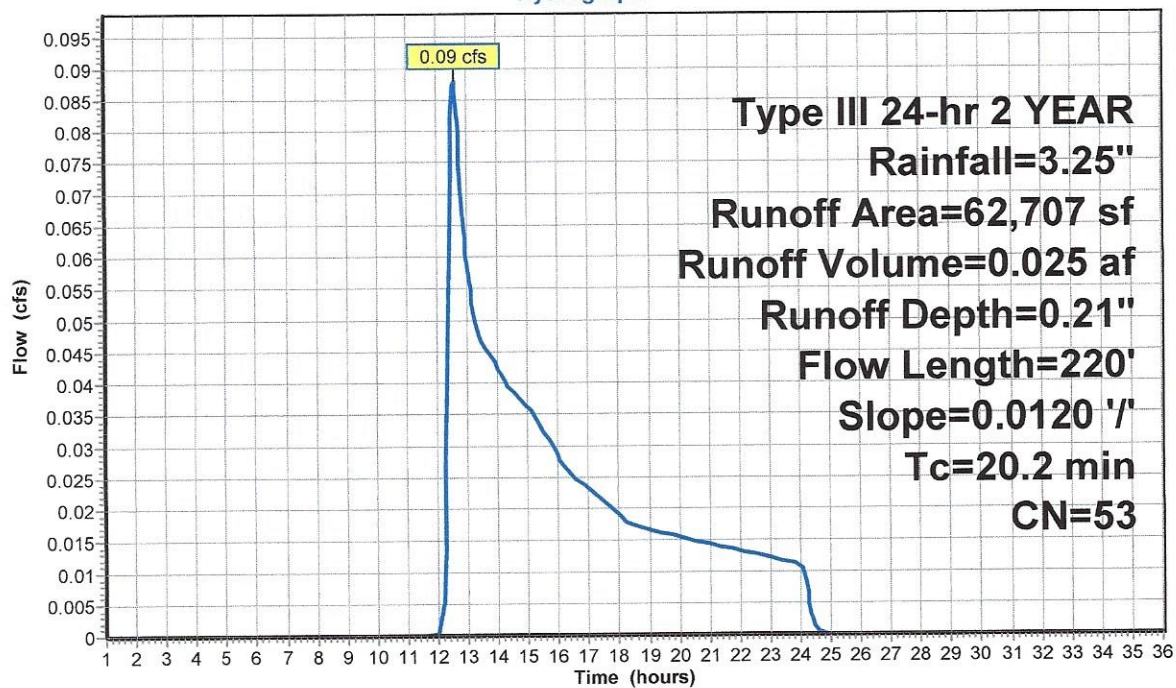
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.25"

Area (sf)	CN	Description
4,591	98	Paved parking & roofs
1,704	98	Paved parking & roofs
1,355	76	Gravel roads, HSG A
10,271	68	<50% Grass cover, Poor, HSG A
* 44,786	42	Woods, Fair, HSG A
62,707	53	Weighted Average
56,412		Pervious Area
6,295		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	50	0.0120	0.06		Sheet Flow, 2a to 2b
					Woods: Light underbrush n= 0.400 P2= 3.25"
5.2	170	0.0120	0.55		Shallow Concentrated Flow, 2b to 2c
					Woodland Kv= 5.0 fps
20.2	220	Total			

Subcatchment E2: EWSA-2

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment E2: EWSA-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	0.21	0.00
1.50	0.05	0.00	0.00	27.50	3.25	0.21	0.00
2.00	0.06	0.00	0.00	28.00	3.25	0.21	0.00
2.50	0.08	0.00	0.00	28.50	3.25	0.21	0.00
3.00	0.10	0.00	0.00	29.00	3.25	0.21	0.00
3.50	0.12	0.00	0.00	29.50	3.25	0.21	0.00
4.00	0.14	0.00	0.00	30.00	3.25	0.21	0.00
4.50	0.16	0.00	0.00	30.50	3.25	0.21	0.00
5.00	0.18	0.00	0.00	31.00	3.25	0.21	0.00
5.50	0.21	0.00	0.00	31.50	3.25	0.21	0.00
6.00	0.23	0.00	0.00	32.00	3.25	0.21	0.00
6.50	0.26	0.00	0.00	32.50	3.25	0.21	0.00
7.00	0.29	0.00	0.00	33.00	3.25	0.21	0.00
7.50	0.33	0.00	0.00	33.50	3.25	0.21	0.00
8.00	0.37	0.00	0.00	34.00	3.25	0.21	0.00
8.50	0.42	0.00	0.00	34.50	3.25	0.21	0.00
9.00	0.47	0.00	0.00	35.00	3.25	0.21	0.00
9.50	0.54	0.00	0.00	35.50	3.25	0.21	0.00
10.00	0.61	0.00	0.00	36.00	3.25	0.21	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.00	0.00				
11.50	0.97	0.00	0.00				
12.00	1.62	0.00	0.00				
12.50	2.28	0.03	0.08				
13.00	2.44	0.05	0.06				
13.50	2.55	0.06	0.05				
14.00	2.64	0.08	0.04				
14.50	2.71	0.09	0.04				
15.00	2.78	0.10	0.04				
15.50	2.83	0.11	0.03				
16.00	2.88	0.12	0.03				
16.50	2.92	0.13	0.03				
17.00	2.96	0.14	0.02				
17.50	2.99	0.15	0.02				
18.00	3.02	0.15	0.02				
18.50	3.04	0.16	0.02				
19.00	3.07	0.16	0.02				
19.50	3.09	0.17	0.02				
20.00	3.11	0.18	0.02				
20.50	3.13	0.18	0.01				
21.00	3.15	0.19	0.01				
21.50	3.17	0.19	0.01				
22.00	3.19	0.19	0.01				
22.50	3.20	0.20	0.01				
23.00	3.22	0.20	0.01				
23.50	3.24	0.21	0.01				
24.00	3.25	0.21	0.01				
24.50	3.25	0.21	0.00				
25.00	3.25	0.21	0.00				
25.50	3.25	0.21	0.00				
26.00	3.25	0.21	0.00				
26.50	3.25	0.21	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

Prepared by {enter your company name here}

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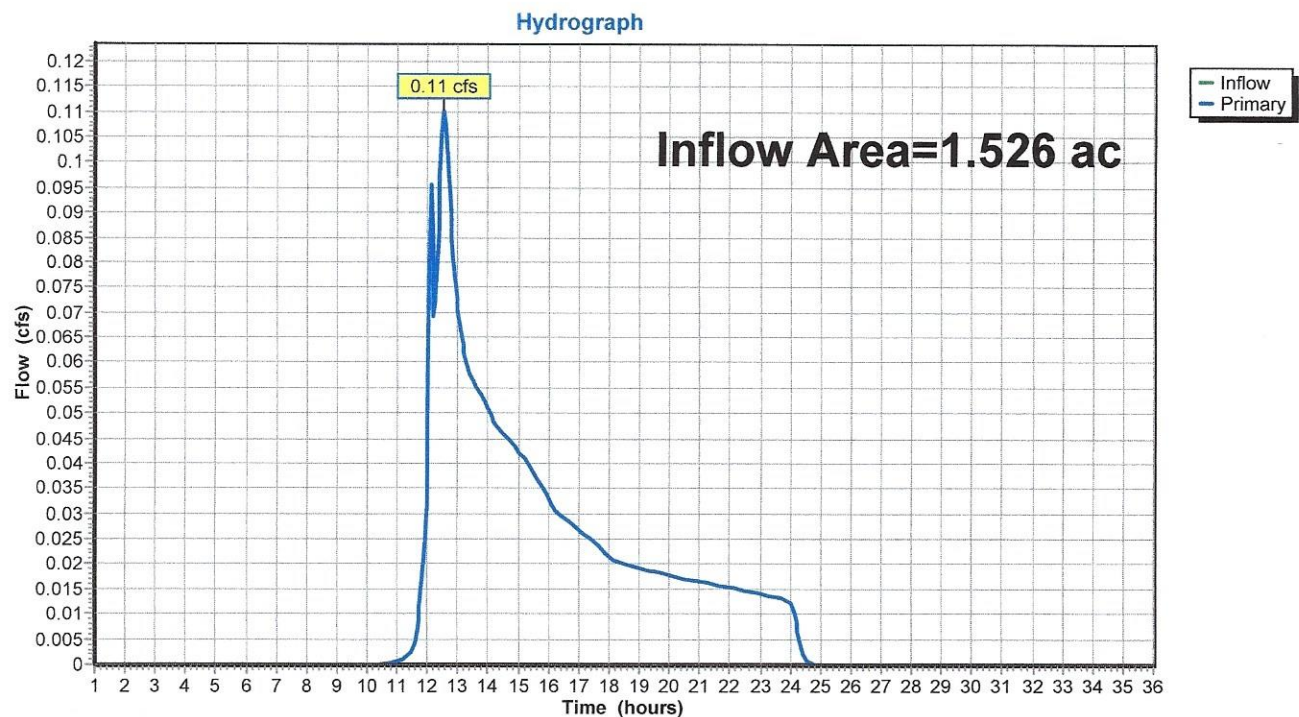
Page 1

Summary for Pond {E: TOTAL EXISTING}

Inflow Area = 1.526 ac, 11.71% Impervious, Inflow Depth = 0.26" for 2 YEAR event
Inflow = 0.11 cfs @ 12.52 hrs, Volume= 0.033 af
Primary = 0.11 cfs @ 12.52 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {E: TOTAL EXISTING



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Pond {E: TOTAL EXISTING

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.05		0.05				
12.50	0.11		0.11				
13.00	0.07		0.07				
13.50	0.06		0.06				
14.00	0.05		0.05				
14.50	0.05		0.05				
15.00	0.04		0.04				
15.50	0.04		0.04				
16.00	0.03		0.03				
16.50	0.03		0.03				
17.00	0.03		0.03				
17.50	0.02		0.02				
18.00	0.02		0.02				
18.50	0.02		0.02				
19.00	0.02		0.02				
19.50	0.02		0.02				
20.00	0.02		0.02				
20.50	0.02		0.02				
21.00	0.02		0.02				
21.50	0.02		0.02				
22.00	0.02		0.02				
22.50	0.01		0.01				
23.00	0.01		0.01				
23.50	0.01		0.01				
24.00	0.01		0.01				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment 1A: PWSA-1A

Runoff = 0.08 cfs @ 12.10 hrs, Volume= 0.006 af, Depth= 0.86"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

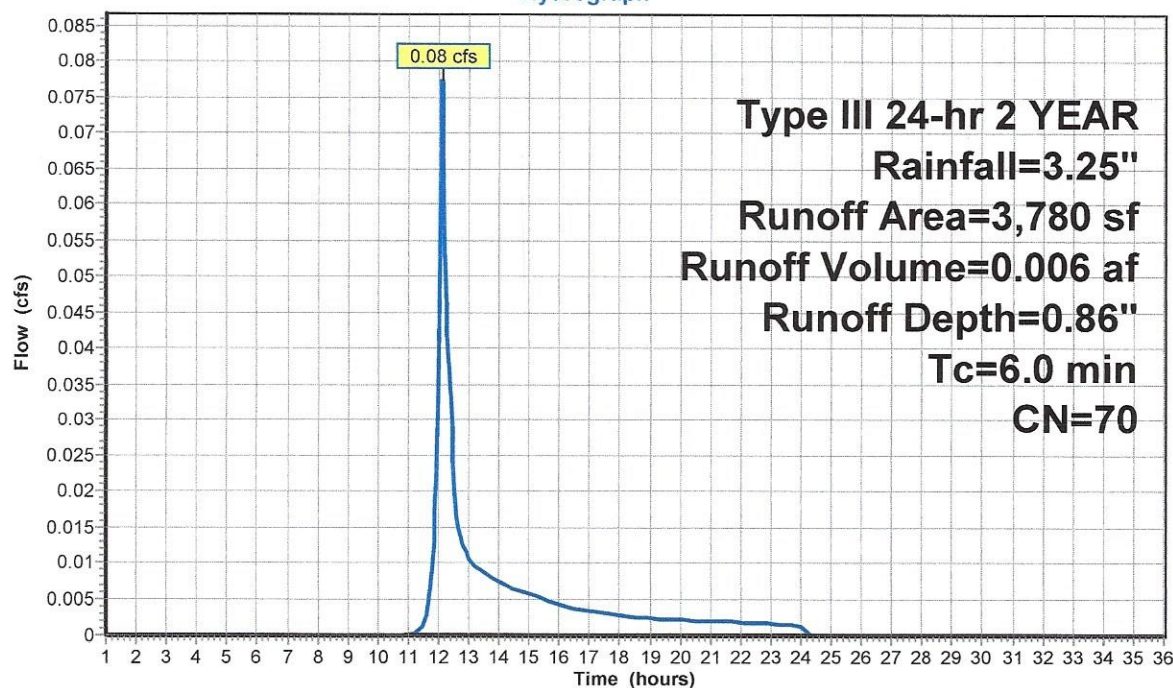
Type III 24-hr 2 YEAR Rainfall=3.25"

Area (sf)	CN	Description
1,989	98	Paved parking & roofs
1,791	39	>75% Grass cover, Good, HSG A
3,780	70	Weighted Average
1,791		Pervious Area
1,989		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 1A: PWSA-1A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment 1A: PWSA-1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	0.86	0.00
1.50	0.05	0.00	0.00	27.50	3.25	0.86	0.00
2.00	0.06	0.00	0.00	28.00	3.25	0.86	0.00
2.50	0.08	0.00	0.00	28.50	3.25	0.86	0.00
3.00	0.10	0.00	0.00	29.00	3.25	0.86	0.00
3.50	0.12	0.00	0.00	29.50	3.25	0.86	0.00
4.00	0.14	0.00	0.00	30.00	3.25	0.86	0.00
4.50	0.16	0.00	0.00	30.50	3.25	0.86	0.00
5.00	0.18	0.00	0.00	31.00	3.25	0.86	0.00
5.50	0.21	0.00	0.00	31.50	3.25	0.86	0.00
6.00	0.23	0.00	0.00	32.00	3.25	0.86	0.00
6.50	0.26	0.00	0.00	32.50	3.25	0.86	0.00
7.00	0.29	0.00	0.00	33.00	3.25	0.86	0.00
7.50	0.33	0.00	0.00	33.50	3.25	0.86	0.00
8.00	0.37	0.00	0.00	34.00	3.25	0.86	0.00
8.50	0.42	0.00	0.00	34.50	3.25	0.86	0.00
9.00	0.47	0.00	0.00	35.00	3.25	0.86	0.00
9.50	0.54	0.00	0.00	35.50	3.25	0.86	0.00
10.00	0.61	0.00	0.00	36.00	3.25	0.86	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.00	0.00				
11.50	0.97	0.00	0.00				
12.00	1.62	0.12	0.04				
12.50	2.28	0.36	0.02				
13.00	2.44	0.43	0.01				
13.50	2.55	0.48	0.01				
14.00	2.64	0.52	0.01				
14.50	2.71	0.56	0.01				
15.00	2.78	0.59	0.01				
15.50	2.83	0.62	0.00				
16.00	2.88	0.65	0.00				
16.50	2.92	0.67	0.00				
17.00	2.96	0.69	0.00				
17.50	2.99	0.71	0.00				
18.00	3.02	0.72	0.00				
18.50	3.04	0.74	0.00				
19.00	3.07	0.75	0.00				
19.50	3.09	0.76	0.00				
20.00	3.11	0.78	0.00				
20.50	3.13	0.79	0.00				
21.00	3.15	0.80	0.00				
21.50	3.17	0.81	0.00				
22.00	3.19	0.82	0.00				
22.50	3.20	0.83	0.00				
23.00	3.22	0.84	0.00				
23.50	3.24	0.85	0.00				
24.00	3.25	0.86	0.00				
24.50	3.25	0.86	0.00				
25.00	3.25	0.86	0.00				
25.50	3.25	0.86	0.00				
26.00	3.25	0.86	0.00				
26.50	3.25	0.86	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment 2A: PWSA-2A

Runoff = 0.25 cfs @ 12.11 hrs, Volume= 0.021 af, Depth= 0.81"

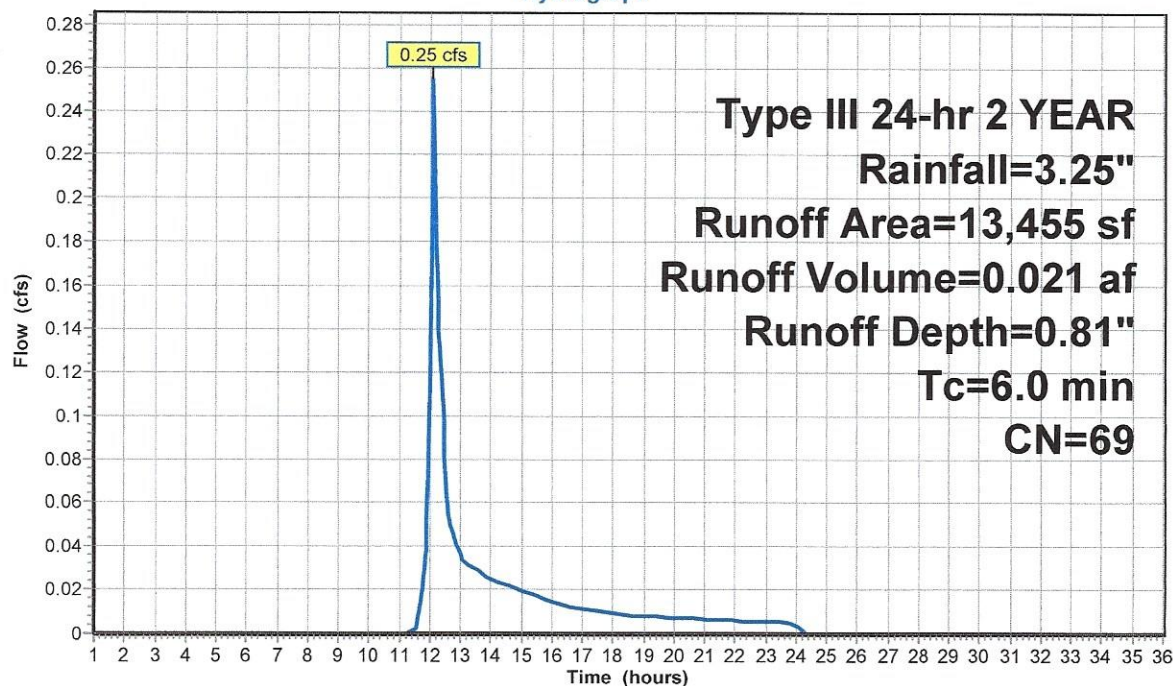
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.25"

Area (sf)	CN	Description
6,768	98	Paved parking & roofs
6,687	39	>75% Grass cover, Good, HSG A
13,455	69	Weighted Average
6,687		Pervious Area
6,768		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 2A: PWSA-2A

Hydrograph



Runoff

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment 2A: PWSA-2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	0.81	0.00
1.50	0.05	0.00	0.00	27.50	3.25	0.81	0.00
2.00	0.06	0.00	0.00	28.00	3.25	0.81	0.00
2.50	0.08	0.00	0.00	28.50	3.25	0.81	0.00
3.00	0.10	0.00	0.00	29.00	3.25	0.81	0.00
3.50	0.12	0.00	0.00	29.50	3.25	0.81	0.00
4.00	0.14	0.00	0.00	30.00	3.25	0.81	0.00
4.50	0.16	0.00	0.00	30.50	3.25	0.81	0.00
5.00	0.18	0.00	0.00	31.00	3.25	0.81	0.00
5.50	0.21	0.00	0.00	31.50	3.25	0.81	0.00
6.00	0.23	0.00	0.00	32.00	3.25	0.81	0.00
6.50	0.26	0.00	0.00	32.50	3.25	0.81	0.00
7.00	0.29	0.00	0.00	33.00	3.25	0.81	0.00
7.50	0.33	0.00	0.00	33.50	3.25	0.81	0.00
8.00	0.37	0.00	0.00	34.00	3.25	0.81	0.00
8.50	0.42	0.00	0.00	34.50	3.25	0.81	0.00
9.00	0.47	0.00	0.00	35.00	3.25	0.81	0.00
9.50	0.54	0.00	0.00	35.50	3.25	0.81	0.00
10.00	0.61	0.00	0.00	36.00	3.25	0.81	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.00	0.00				
11.50	0.97	0.00	0.00				
12.00	1.62	0.10	0.12				
12.50	2.28	0.33	0.08				
13.00	2.44	0.39	0.04				
13.50	2.55	0.44	0.03				
14.00	2.64	0.48	0.02				
14.50	2.71	0.52	0.02				
15.00	2.78	0.55	0.02				
15.50	2.83	0.58	0.02				
16.00	2.88	0.61	0.01				
16.50	2.92	0.63	0.01				
17.00	2.96	0.65	0.01				
17.50	2.99	0.66	0.01				
18.00	3.02	0.68	0.01				
18.50	3.04	0.69	0.01				
19.00	3.07	0.71	0.01				
19.50	3.09	0.72	0.01				
20.00	3.11	0.73	0.01				
20.50	3.13	0.74	0.01				
21.00	3.15	0.75	0.01				
21.50	3.17	0.76	0.01				
22.00	3.19	0.77	0.01				
22.50	3.20	0.78	0.01				
23.00	3.22	0.79	0.01				
23.50	3.24	0.80	0.01				
24.00	3.25	0.81	0.00				
24.50	3.25	0.81	0.00				
25.00	3.25	0.81	0.00				
25.50	3.25	0.81	0.00				
26.00	3.25	0.81	0.00				
26.50	3.25	0.81	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 1

Summary for Pond R1: PRA-1

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 0.81" for 2 YEAR event
 Inflow = 0.25 cfs @ 12.11 hrs, Volume= 0.021 af
 Outflow = 0.05 cfs @ 12.00 hrs, Volume= 0.021 af, Atten= 79%, Lag= 0.0 min
 Discarded = 0.05 cfs @ 12.00 hrs, Volume= 0.021 af
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 57.22' @ 12.62 hrs Surf.Area= 576 sf Storage= 206 cf

Flood Elev= 60.00' Surf.Area= 576 sf Storage= 1,146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 24.8 min (903.0 - 878.2)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	589 cf	18.00'W x 32.00'L x 3.54'H STONE VOLUME 2,039 cf Overall - 565 cf Embedded = 1,474 cf x 40.0% Voids
#2	57.00'	559 cf	Cultec R-330 x 12 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	57.00'	7 cf	Cultec HVLV F-24 @ 1.00' L x 8 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
		1,155 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	6.0" Round 6" HDPE L= 60.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 58.00' / 57.40' S= 0.0100 ' / ' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	56.50'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 12.00 hrs HW=56.54' (Free Discharge)

↳2=Exfiltration (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=56.50' TW=0.00' (Dynamic Tailwater)

↳1=6" HDPE (Controls 0.00 cfs)

CRESCENT AVENUE - PROPOSED CONDITIONS

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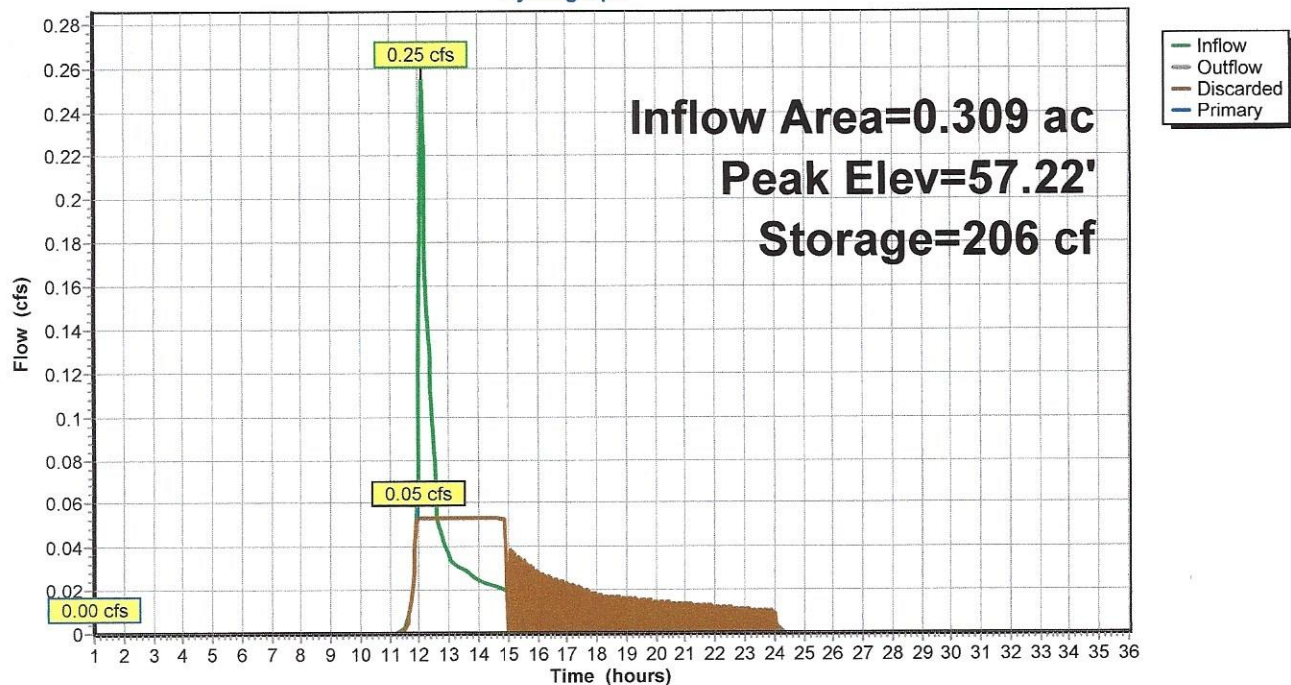
Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

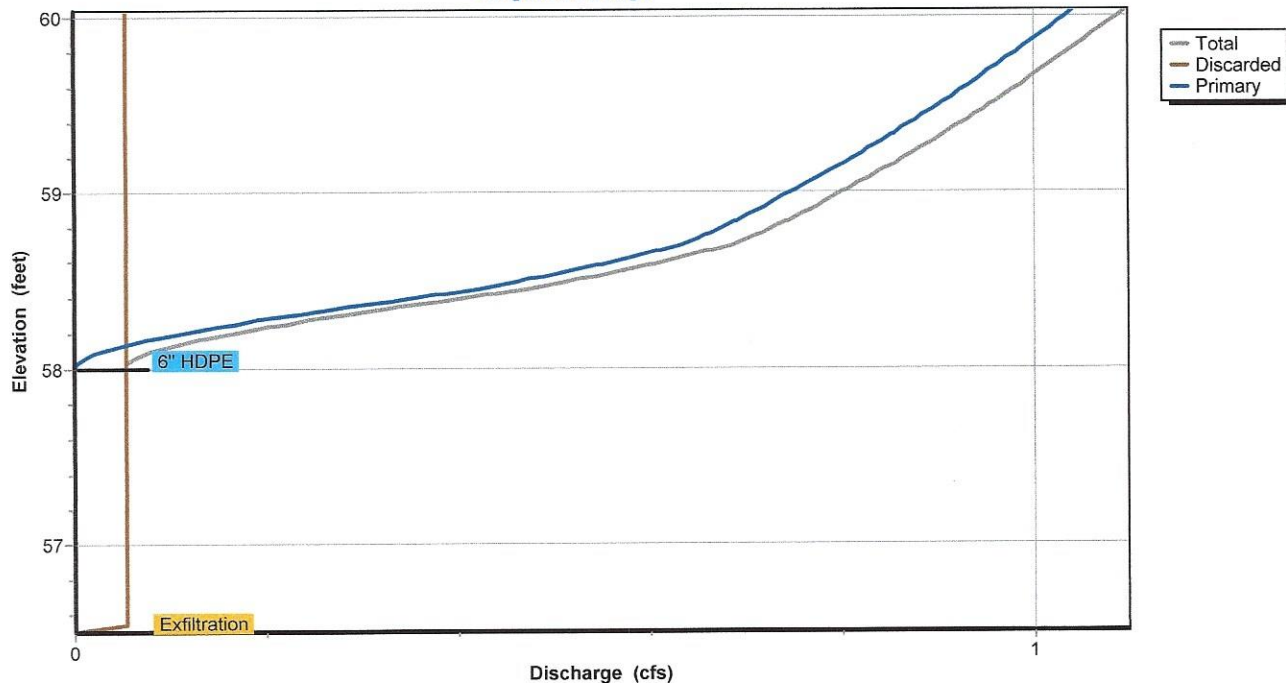
Pond R1: PRA-1

Hydrograph



Pond R1: PRA-1

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

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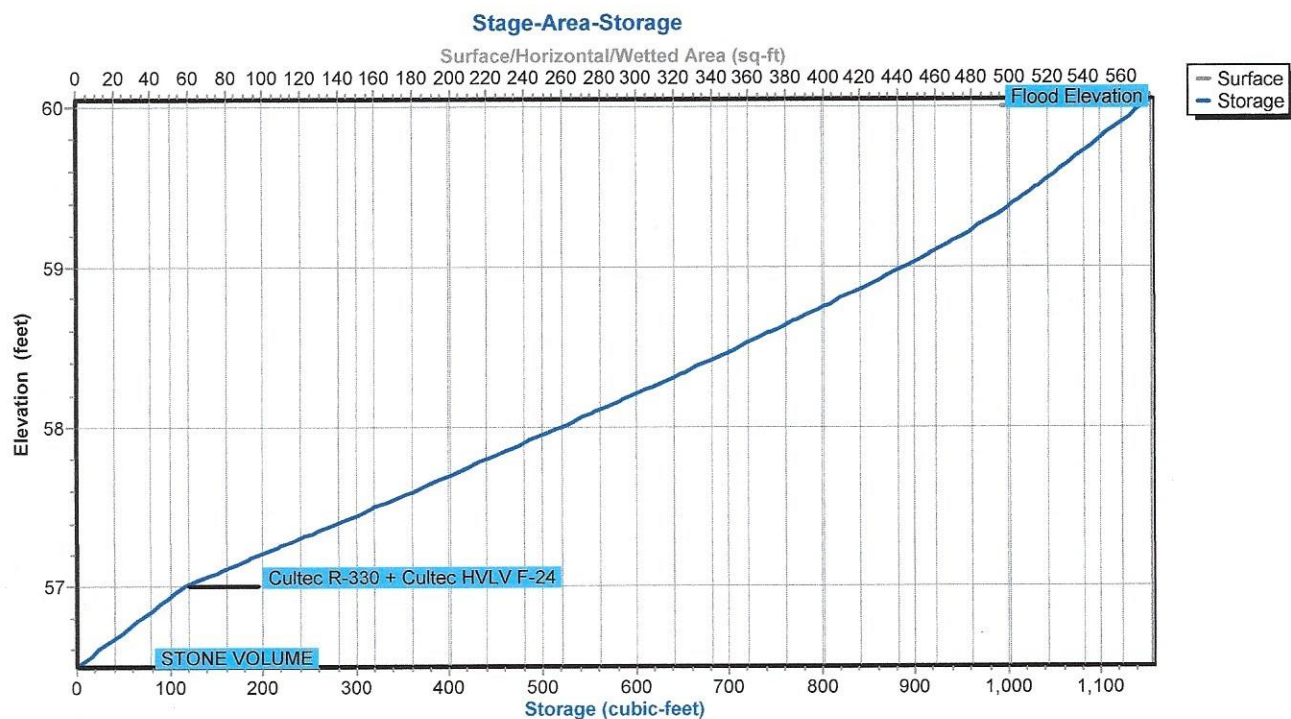
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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 3

Pond R1: PRA-1



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 4

Hydrograph for Pond R1: PRA-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	56.50	0.00	0.00	0.00
2.00	0.00	0	56.50	0.00	0.00	0.00
3.00	0.00	0	56.50	0.00	0.00	0.00
4.00	0.00	0	56.50	0.00	0.00	0.00
5.00	0.00	0	56.50	0.00	0.00	0.00
6.00	0.00	0	56.50	0.00	0.00	0.00
7.00	0.00	0	56.50	0.00	0.00	0.00
8.00	0.00	0	56.50	0.00	0.00	0.00
9.00	0.00	0	56.50	0.00	0.00	0.00
10.00	0.00	0	56.50	0.00	0.00	0.00
11.00	0.00	0	56.50	0.00	0.00	0.00
12.00	0.12	10	56.54	0.05	0.05	0.00
13.00	0.04	192	57.19	0.05	0.05	0.00
14.00	0.02	106	56.96	0.05	0.05	0.00
15.00	0.02	0	56.50	0.00	0.00	0.00
16.00	0.01	0	56.50	0.00	0.00	0.00
17.00	0.01	0	56.50	0.00	0.00	0.00
18.00	0.01	0	56.50	0.00	0.00	0.00
19.00	0.01	0	56.50	0.00	0.00	0.00
20.00	0.01	0	56.50	0.00	0.00	0.00
21.00	0.01	0	56.50	0.00	0.00	0.00
22.00	0.01	0	56.50	0.00	0.00	0.00
23.00	0.01	0	56.50	0.00	0.00	0.00
24.00	0.00	0	56.50	0.00	0.00	0.00
25.00	0.00	0	56.50	0.00	0.00	0.00
26.00	0.00	0	56.50	0.00	0.00	0.00
27.00	0.00	0	56.50	0.00	0.00	0.00
28.00	0.00	0	56.50	0.00	0.00	0.00
29.00	0.00	0	56.50	0.00	0.00	0.00
30.00	0.00	0	56.50	0.00	0.00	0.00
31.00	0.00	0	56.50	0.00	0.00	0.00
32.00	0.00	0	56.50	0.00	0.00	0.00
33.00	0.00	0	56.50	0.00	0.00	0.00
34.00	0.00	0	56.50	0.00	0.00	0.00
35.00	0.00	0	56.50	0.00	0.00	0.00
36.00	0.00	0	56.50	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 1

Summary for Subcatchment 2B: PWSA-2B

Runoff = 0.41 cfs @ 12.21 hrs, Volume= 0.040 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

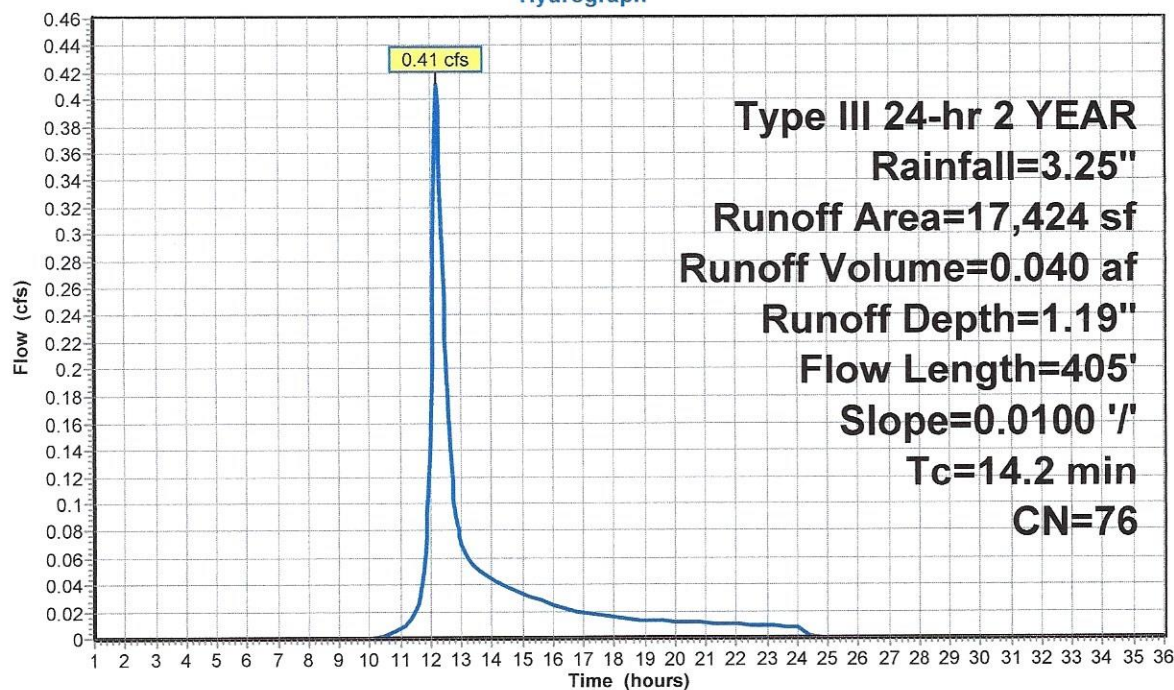
Type III 24-hr 2 YEAR Rainfall=3.25"

Area (sf)	CN	Description
10,974	98	Paved parking & roofs
6,450	39	>75% Grass cover, Good, HSG A
17,424	76	Weighted Average
6,450		Pervious Area
10,974		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2b1 TO 2b2 Grass: Short n= 0.150 P2= 3.25"
2.1	90	0.0100	0.70		Shallow Concentrated Flow, 2b2 TO 2b3 Short Grass Pasture Kv= 7.0 fps
4.7	265	0.0100	0.95	0.09	Channel Flow, 2b3 TO 2b4 Area= 0.1 sf Perim= 4.2' r= 0.02' n= 0.013 Asphalt, smooth
14.2	405	Total			

Subcatchment 2B: PWSA-2B

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment 2B: PWSA-2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	1.19	0.00
1.50	0.05	0.00	0.00	27.50	3.25	1.19	0.00
2.00	0.06	0.00	0.00	28.00	3.25	1.19	0.00
2.50	0.08	0.00	0.00	28.50	3.25	1.19	0.00
3.00	0.10	0.00	0.00	29.00	3.25	1.19	0.00
3.50	0.12	0.00	0.00	29.50	3.25	1.19	0.00
4.00	0.14	0.00	0.00	30.00	3.25	1.19	0.00
4.50	0.16	0.00	0.00	30.50	3.25	1.19	0.00
5.00	0.18	0.00	0.00	31.00	3.25	1.19	0.00
5.50	0.21	0.00	0.00	31.50	3.25	1.19	0.00
6.00	0.23	0.00	0.00	32.00	3.25	1.19	0.00
6.50	0.26	0.00	0.00	32.50	3.25	1.19	0.00
7.00	0.29	0.00	0.00	33.00	3.25	1.19	0.00
7.50	0.33	0.00	0.00	33.50	3.25	1.19	0.00
8.00	0.37	0.00	0.00	34.00	3.25	1.19	0.00
8.50	0.42	0.00	0.00	34.50	3.25	1.19	0.00
9.00	0.47	0.00	0.00	35.00	3.25	1.19	0.00
9.50	0.54	0.00	0.00	35.50	3.25	1.19	0.00
10.00	0.61	0.00	0.00	36.00	3.25	1.19	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.01	0.01				
11.50	0.97	0.03	0.02				
12.00	1.62	0.24	0.15				
12.50	2.28	0.57	0.22				
13.00	2.44	0.66	0.07				
13.50	2.55	0.72	0.05				
14.00	2.64	0.78	0.04				
14.50	2.71	0.83	0.04				
15.00	2.78	0.87	0.03				
15.50	2.83	0.90	0.03				
16.00	2.88	0.93	0.02				
16.50	2.92	0.96	0.02				
17.00	2.96	0.99	0.02				
17.50	2.99	1.01	0.02				
18.00	3.02	1.03	0.02				
18.50	3.04	1.04	0.01				
19.00	3.07	1.06	0.01				
19.50	3.09	1.08	0.01				
20.00	3.11	1.09	0.01				
20.50	3.13	1.10	0.01				
21.00	3.15	1.12	0.01				
21.50	3.17	1.13	0.01				
22.00	3.19	1.14	0.01				
22.50	3.20	1.16	0.01				
23.00	3.22	1.17	0.01				
23.50	3.24	1.18	0.01				
24.00	3.25	1.19	0.01				
24.50	3.25	1.19	0.00				
25.00	3.25	1.19	0.00				
25.50	3.25	1.19	0.00				
26.00	3.25	1.19	0.00				
26.50	3.25	1.19	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R2: PRA-2

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 1.19" for 2 YEAR event
 Inflow = 0.41 cfs @ 12.21 hrs, Volume= 0.040 af
 Outflow = 0.07 cfs @ 11.95 hrs, Volume= 0.040 af, Atten= 84%, Lag= 0.0 min
 Discarded = 0.07 cfs @ 11.95 hrs, Volume= 0.040 af
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 55.48' @ 13.11 hrs Surf.Area= 702 sf Storage= 559 cf

Flood Elev= 57.70' Surf.Area= 702 sf Storage= 1,418 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 71.4 min (933.7 - 862.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.15'	711 cf	18.00'W x 39.00'L x 3.54'H STONE VOLUME 2,485 cf Overall - 707 cf Embedded = 1,778 cf x 40.0% Voids
#2	54.65'	699 cf	Cultec R-330 x 15 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	54.65'	8 cf	Cultec HVLV F-24 @ 1.00' L x 10 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
1,418 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	55.65'	6.0" Round 6" HDPE L= 65.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 55.65' / 55.00' S= 0.0100 '/ Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	54.15'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.07 cfs @ 11.95 hrs HW=54.19' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 0.07 cfs)**Primary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=54.15' TW=0.00' (Dynamic Tailwater)↑ **1=6" HDPE** (Controls 0.00 cfs)

CRESCENT AVENUE - PROPOSED CONDITIONS

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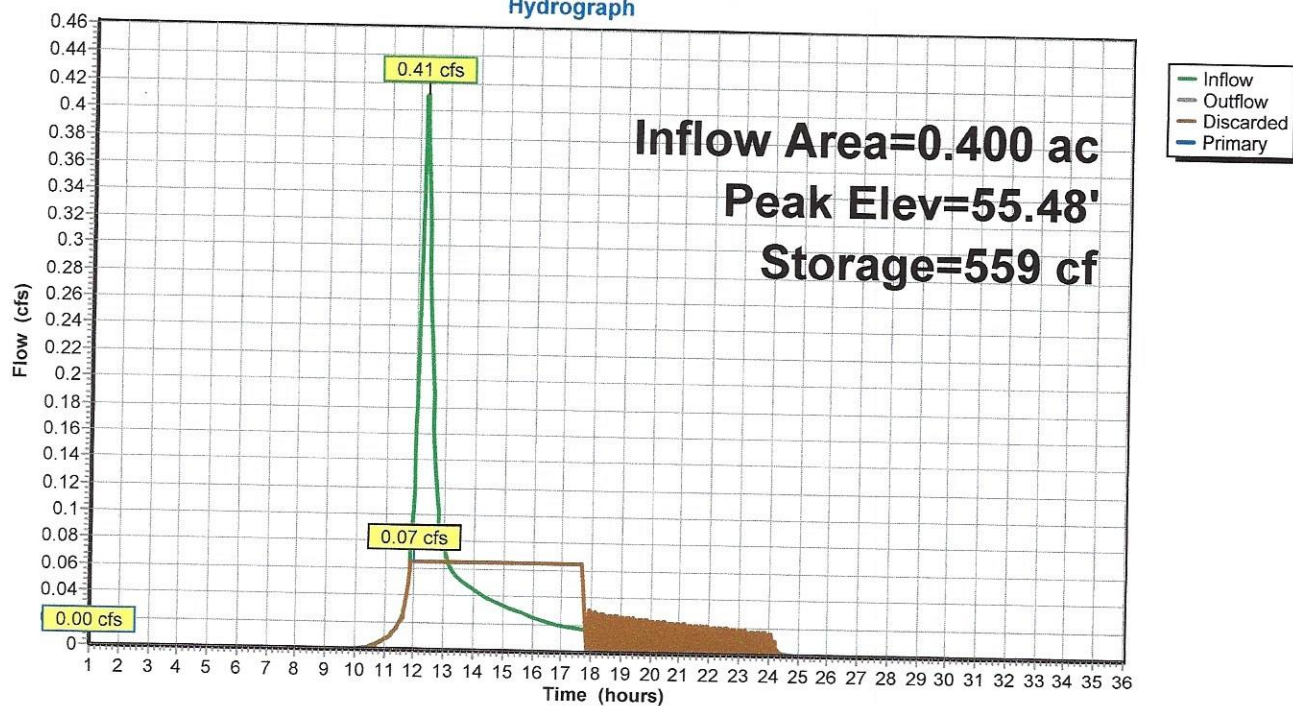
Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

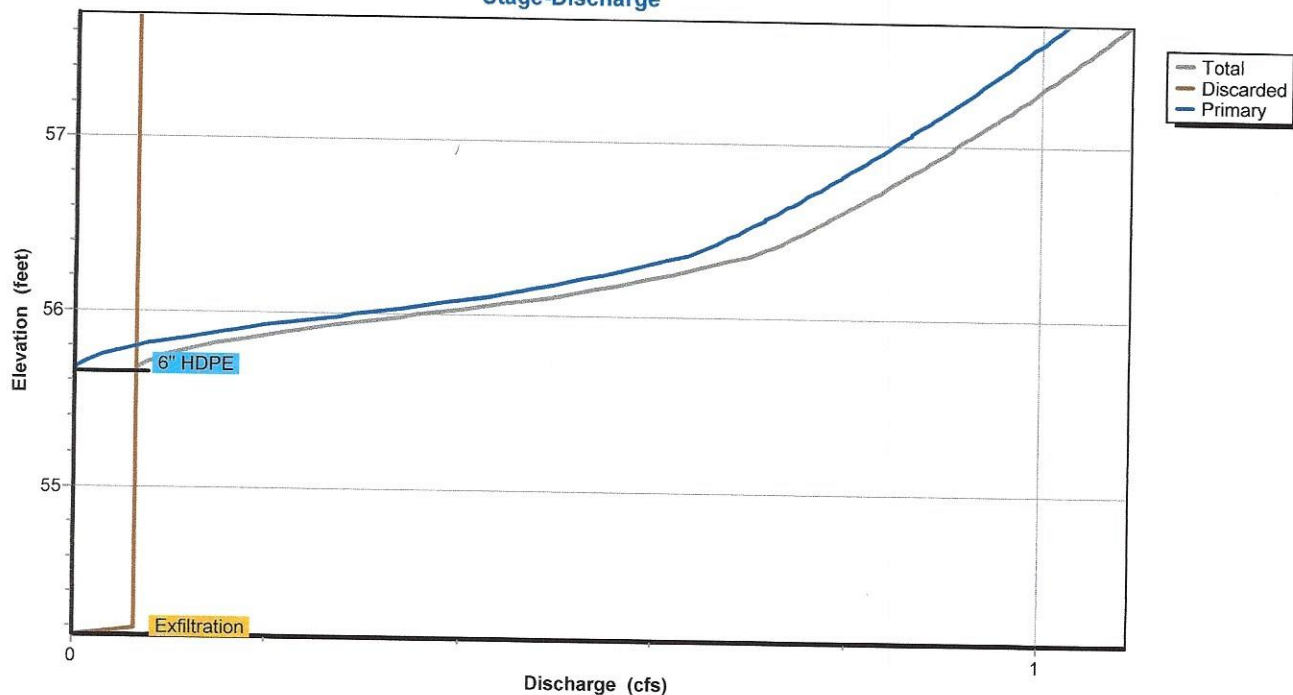
Pond R2: PRA-2

Hydrograph



Pond R2: PRA-2

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

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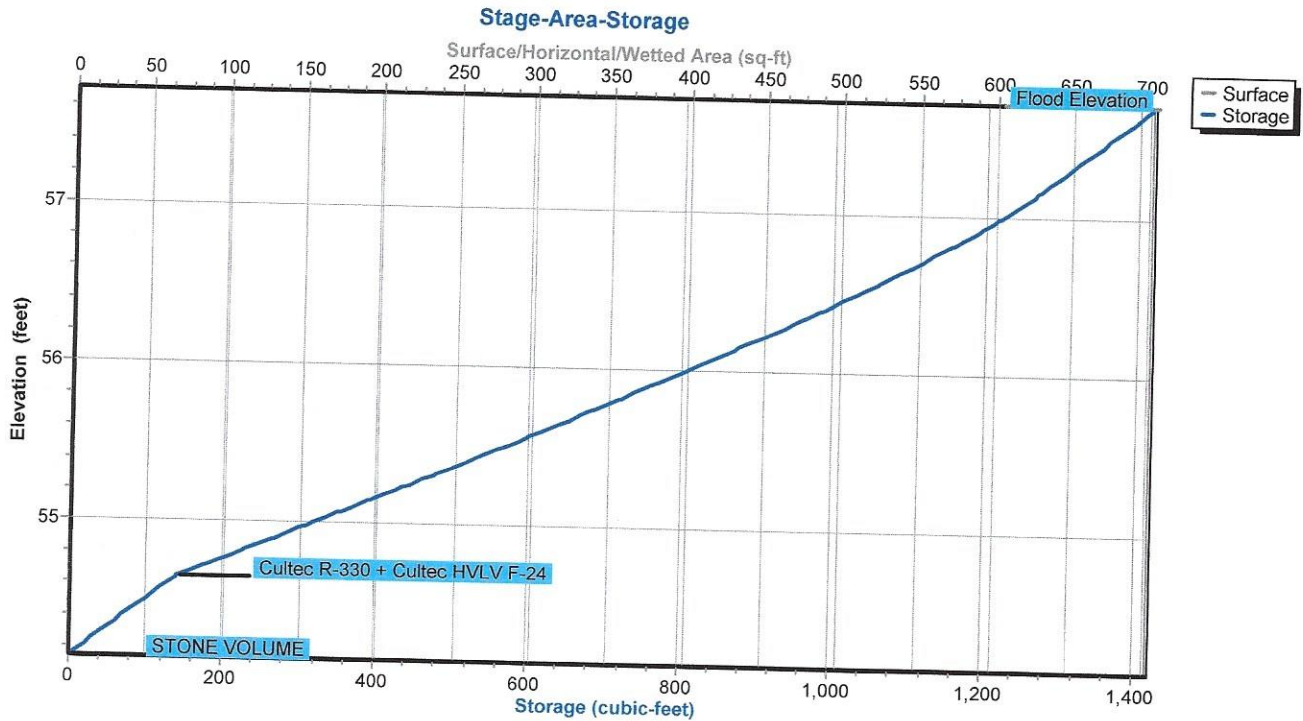
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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 3

Pond R2: PRA-2



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 4

Hydrograph for Pond R2: PRA-2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	54.15	0.00	0.00	0.00
2.00	0.00	0	54.15	0.00	0.00	0.00
3.00	0.00	0	54.15	0.00	0.00	0.00
4.00	0.00	0	54.15	0.00	0.00	0.00
5.00	0.00	0	54.15	0.00	0.00	0.00
6.00	0.00	0	54.15	0.00	0.00	0.00
7.00	0.00	0	54.15	0.00	0.00	0.00
8.00	0.00	0	54.15	0.00	0.00	0.00
9.00	0.00	0	54.15	0.00	0.00	0.00
10.00	0.00	0	54.15	0.00	0.00	0.00
11.00	0.01	0	54.15	0.01	0.01	0.00
12.00	0.15	23	54.23	0.07	0.07	0.00
13.00	0.07	558	55.48	0.07	0.07	0.00
14.00	0.04	519	55.40	0.07	0.07	0.00
15.00	0.03	422	55.21	0.07	0.07	0.00
16.00	0.02	293	54.95	0.07	0.07	0.00
17.00	0.02	136	54.64	0.07	0.07	0.00
18.00	0.02	0	54.15	0.03	0.03	0.00
19.00	0.01	0	54.15	0.03	0.03	0.00
20.00	0.01	0	54.15	0.02	0.02	0.00
21.00	0.01	0	54.15	0.02	0.02	0.00
22.00	0.01	0	54.15	0.02	0.02	0.00
23.00	0.01	0	54.15	0.02	0.02	0.00
24.00	0.01	0	54.15	0.02	0.02	0.00
25.00	0.00	0	54.15	0.00	0.00	0.00
26.00	0.00	0	54.15	0.00	0.00	0.00
27.00	0.00	0	54.15	0.00	0.00	0.00
28.00	0.00	0	54.15	0.00	0.00	0.00
29.00	0.00	0	54.15	0.00	0.00	0.00
30.00	0.00	0	54.15	0.00	0.00	0.00
31.00	0.00	0	54.15	0.00	0.00	0.00
32.00	0.00	0	54.15	0.00	0.00	0.00
33.00	0.00	0	54.15	0.00	0.00	0.00
34.00	0.00	0	54.15	0.00	0.00	0.00
35.00	0.00	0	54.15	0.00	0.00	0.00
36.00	0.00	0	54.15	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 1

Summary for Subcatchment 2C: PWSA-2C

Runoff = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Depth= 0.00"

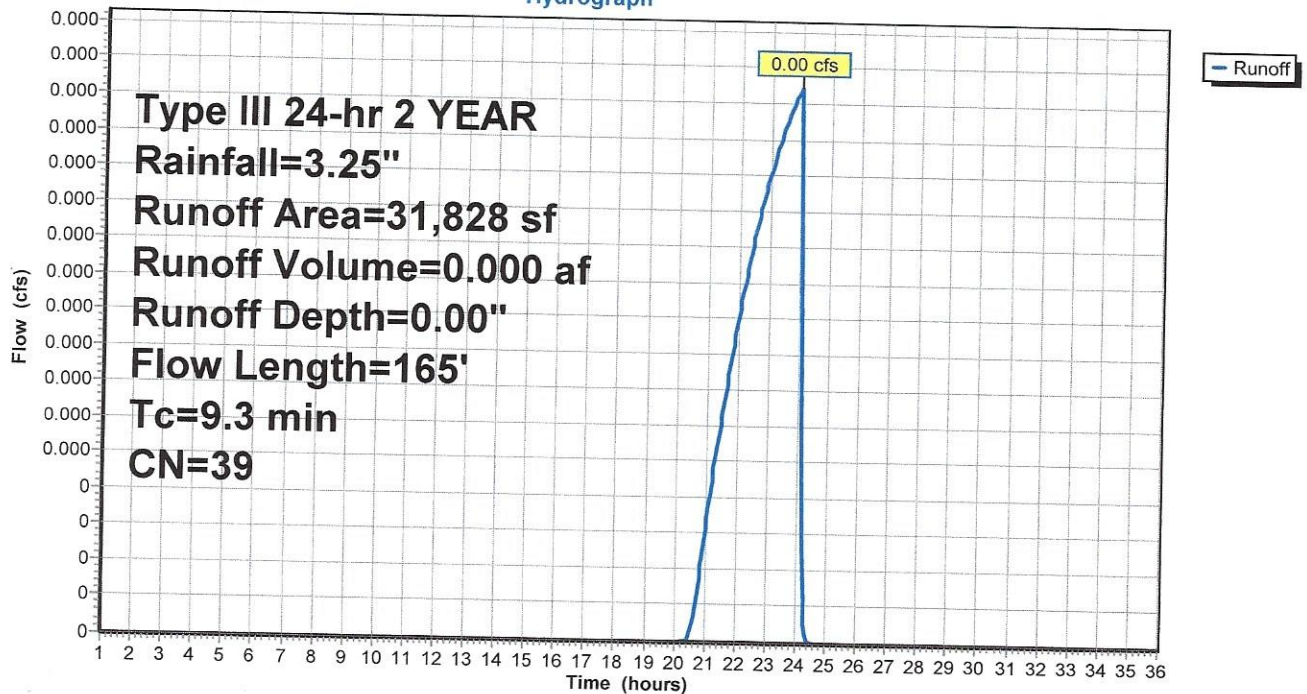
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.25"

Area (sf)	CN	Description
31,828	39	>75% Grass cover, Good, HSG A
31,828		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2c1 TO 2c2
1.9	115	0.0200	0.99		Grass: Short n= 0.150 P2= 3.25" Shallow Concentrated Flow, 2c2 TO 2c3
9.3	165	Total			Short Grass Pasture Kv= 7.0 fps

Subcatchment 2C: PWSA-2C

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Subcatchment 2C: PWSA-2C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.03	0.00	0.00	27.00	3.25	0.00	0.00
1.50	0.05	0.00	0.00	27.50	3.25	0.00	0.00
2.00	0.06	0.00	0.00	28.00	3.25	0.00	0.00
2.50	0.08	0.00	0.00	28.50	3.25	0.00	0.00
3.00	0.10	0.00	0.00	29.00	3.25	0.00	0.00
3.50	0.12	0.00	0.00	29.50	3.25	0.00	0.00
4.00	0.14	0.00	0.00	30.00	3.25	0.00	0.00
4.50	0.16	0.00	0.00	30.50	3.25	0.00	0.00
5.00	0.18	0.00	0.00	31.00	3.25	0.00	0.00
5.50	0.21	0.00	0.00	31.50	3.25	0.00	0.00
6.00	0.23	0.00	0.00	32.00	3.25	0.00	0.00
6.50	0.26	0.00	0.00	32.50	3.25	0.00	0.00
7.00	0.29	0.00	0.00	33.00	3.25	0.00	0.00
7.50	0.33	0.00	0.00	33.50	3.25	0.00	0.00
8.00	0.37	0.00	0.00	34.00	3.25	0.00	0.00
8.50	0.42	0.00	0.00	34.50	3.25	0.00	0.00
9.00	0.47	0.00	0.00	35.00	3.25	0.00	0.00
9.50	0.54	0.00	0.00	35.50	3.25	0.00	0.00
10.00	0.61	0.00	0.00	36.00	3.25	0.00	0.00
10.50	0.70	0.00	0.00				
11.00	0.81	0.00	0.00				
11.50	0.97	0.00	0.00				
12.00	1.62	0.00	0.00				
12.50	2.28	0.00	0.00				
13.00	2.44	0.00	0.00				
13.50	2.55	0.00	0.00				
14.00	2.64	0.00	0.00				
14.50	2.71	0.00	0.00				
15.00	2.78	0.00	0.00				
15.50	2.83	0.00	0.00				
16.00	2.88	0.00	0.00				
16.50	2.92	0.00	0.00				
17.00	2.96	0.00	0.00				
17.50	2.99	0.00	0.00				
18.00	3.02	0.00	0.00				
18.50	3.04	0.00	0.00				
19.00	3.07	0.00	0.00				
19.50	3.09	0.00	0.00				
20.00	3.11	0.00	0.00				
20.50	3.13	0.00	0.00				
21.00	3.15	0.00	0.00				
21.50	3.17	0.00	0.00				
22.00	3.19	0.00	0.00				
22.50	3.20	0.00	0.00				
23.00	3.22	0.00	0.00				
23.50	3.24	0.00	0.00				
24.00	3.25	0.00	0.00				
24.50	3.25	0.00	0.00				
25.00	3.25	0.00	0.00				
25.50	3.25	0.00	0.00				
26.00	3.25	0.00	0.00				
26.50	3.25	0.00	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 1

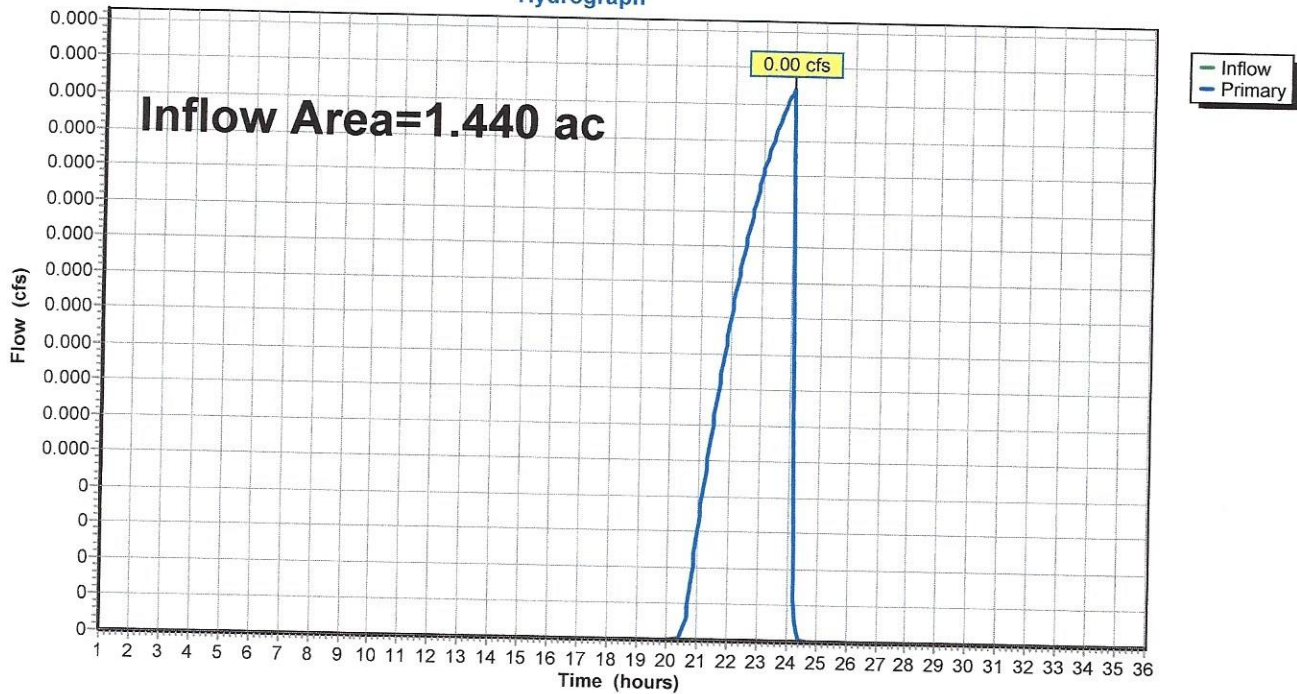
Summary for Pond {2P: PWSA-2 TOTAL}

Inflow Area = 1.440 ac, 28.29% Impervious, Inflow Depth = 0.00" for 2 YEAR event
Inflow = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 24.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {2P: PWSA-2 TOTAL}

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Pond {2P: PWSA-2 TOTAL}

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.00		0.00				
12.50	0.00		0.00				
13.00	0.00		0.00				
13.50	0.00		0.00				
14.00	0.00		0.00				
14.50	0.00		0.00				
15.00	0.00		0.00				
15.50	0.00		0.00				
16.00	0.00		0.00				
16.50	0.00		0.00				
17.00	0.00		0.00				
17.50	0.00		0.00				
18.00	0.00		0.00				
18.50	0.00		0.00				
19.00	0.00		0.00				
19.50	0.00		0.00				
20.00	0.00		0.00				
20.50	0.00		0.00				
21.00	0.00		0.00				
21.50	0.00		0.00				
22.00	0.00		0.00				
22.50	0.00		0.00				
23.00	0.00		0.00				
23.50	0.00		0.00				
24.00	0.00		0.00				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 2 YEAR Rainfall=3.25"

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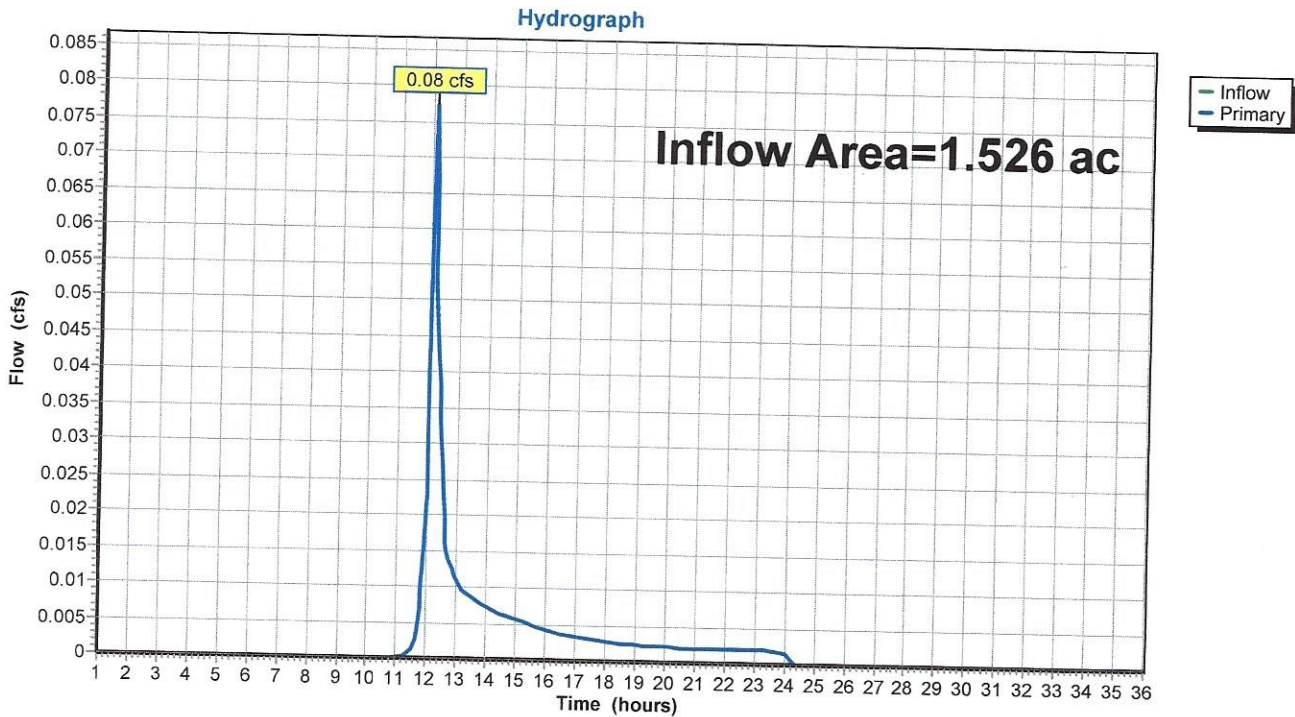
Page 1

Summary for Pond {P: PROPOSED TOTAL}

Inflow Area = 1.526 ac, 29.68% Impervious, Inflow Depth = 0.05" for 2 YEAR event
Inflow = 0.08 cfs @ 12.10 hrs, Volume= 0.006 af
Primary = 0.08 cfs @ 12.10 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {P: PROPOSED TOTAL}



CRESCENT AVENUE - PROPOSED CONDITIONS

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Type III 24-hr 2 YEAR Rainfall=3.25"

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Page 2

Hydrograph for Pond {P: PROPOSED TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.04		0.04				
12.50	0.02		0.02				
13.00	0.01		0.01				
13.50	0.01		0.01				
14.00	0.01		0.01				
14.50	0.01		0.01				
15.00	0.01		0.01				
15.50	0.00		0.00				
16.00	0.00		0.00				
16.50	0.00		0.00				
17.00	0.00		0.00				
17.50	0.00		0.00				
18.00	0.00		0.00				
18.50	0.00		0.00				
19.00	0.00		0.00				
19.50	0.00		0.00				
20.00	0.00		0.00				
20.50	0.00		0.00				
21.00	0.00		0.00				
21.50	0.00		0.00				
22.00	0.00		0.00				
22.50	0.00		0.00				
23.00	0.00		0.00				
23.50	0.00		0.00				
24.00	0.00		0.00				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

10 Year Storm
for
Existing & Proposed
Site Conditions

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 1

Summary for Subcatchment E1: EWSA-1

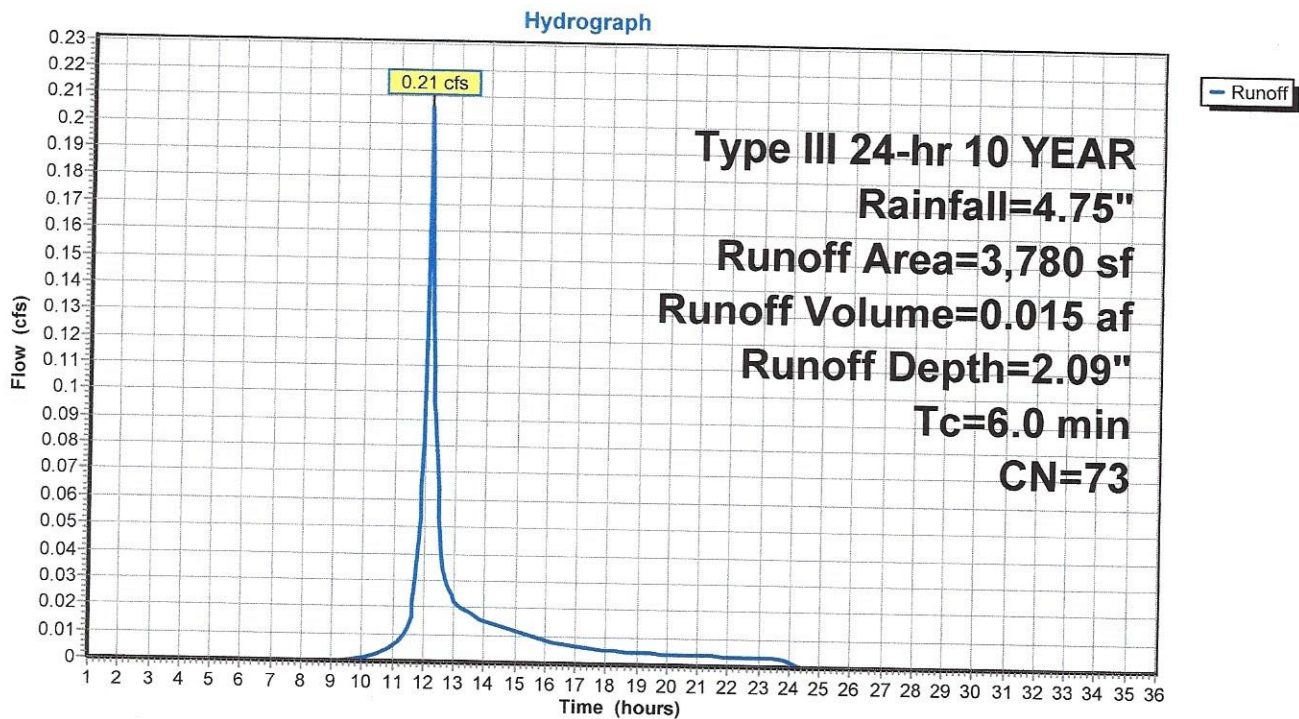
Runoff = 0.21 cfs @ 12.10 hrs, Volume= 0.015 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
1,490	98	Paved parking & roofs
* 2,290	56	<50% Grass cover, Poor, HSG A
3,780	73	Weighted Average
2,290		Pervious Area
1,490		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment E1: EWSA-1



CRESCENT AVENUE - EXISTING CONDITIONS

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Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment E1: EWSA-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	2.09	0.00
1.50	0.07	0.00	0.00	27.50	4.75	2.09	0.00
2.00	0.09	0.00	0.00	28.00	4.75	2.09	0.00
2.50	0.12	0.00	0.00	28.50	4.75	2.09	0.00
3.00	0.15	0.00	0.00	29.00	4.75	2.09	0.00
3.50	0.17	0.00	0.00	29.50	4.75	2.09	0.00
4.00	0.20	0.00	0.00	30.00	4.75	2.09	0.00
4.50	0.24	0.00	0.00	30.50	4.75	2.09	0.00
5.00	0.27	0.00	0.00	31.00	4.75	2.09	0.00
5.50	0.30	0.00	0.00	31.50	4.75	2.09	0.00
6.00	0.34	0.00	0.00	32.00	4.75	2.09	0.00
6.50	0.38	0.00	0.00	32.50	4.75	2.09	0.00
7.00	0.43	0.00	0.00	33.00	4.75	2.09	0.00
7.50	0.48	0.00	0.00	33.50	4.75	2.09	0.00
8.00	0.54	0.00	0.00	34.00	4.75	2.09	0.00
8.50	0.61	0.00	0.00	34.50	4.75	2.09	0.00
9.00	0.69	0.00	0.00	35.00	4.75	2.09	0.00
9.50	0.79	0.00	0.00	35.50	4.75	2.09	0.00
10.00	0.90	0.01	0.00	36.00	4.75	2.09	0.00
10.50	1.03	0.02	0.00				
11.00	1.19	0.05	0.01				
11.50	1.42	0.10	0.01				
12.00	2.37	0.50	0.12				
12.50	3.33	1.07	0.05				
13.00	3.56	1.22	0.02				
13.50	3.72	1.33	0.02				
14.00	3.85	1.42	0.01				
14.50	3.96	1.50	0.01				
15.00	4.06	1.57	0.01				
15.50	4.14	1.63	0.01				
16.00	4.21	1.68	0.01				
16.50	4.27	1.72	0.01				
17.00	4.32	1.76	0.01				
17.50	4.37	1.80	0.01				
18.00	4.41	1.83	0.01				
18.50	4.45	1.85	0.00				
19.00	4.48	1.88	0.00				
19.50	4.51	1.91	0.00				
20.00	4.55	1.93	0.00				
20.50	4.58	1.95	0.00				
21.00	4.60	1.98	0.00				
21.50	4.63	2.00	0.00				
22.00	4.66	2.02	0.00				
22.50	4.68	2.04	0.00				
23.00	4.71	2.05	0.00				
23.50	4.73	2.07	0.00				
24.00	4.75	2.09	0.00				
24.50	4.75	2.09	0.00				
25.00	4.75	2.09	0.00				
25.50	4.75	2.09	0.00				
26.00	4.75	2.09	0.00				
26.50	4.75	2.09	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 10 YEAR Rainfall=4.75"

Printed 6/8/2020

Page 1

Summary for Subcatchment E2: EWSA-2

Runoff = 0.60 cfs @ 12.38 hrs, Volume= 0.090 af, Depth= 0.75"

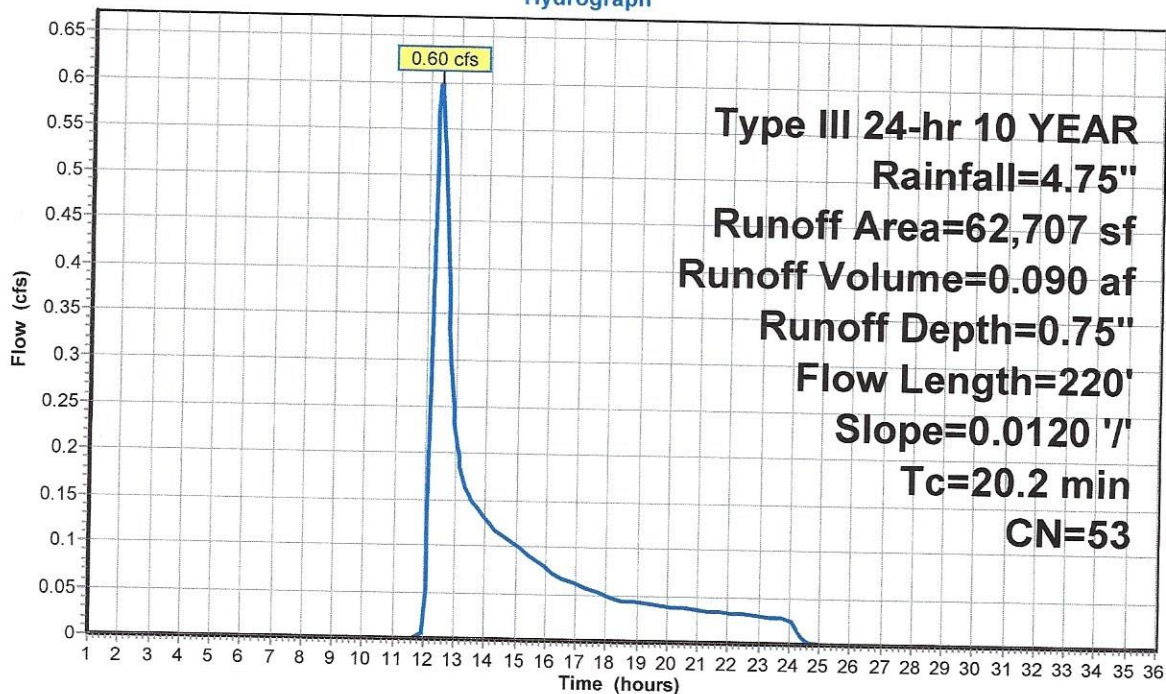
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
4,591	98	Paved parking & roofs
1,704	98	Paved parking & roofs
1,355	76	Gravel roads, HSG A
10,271	68	<50% Grass cover, Poor, HSG A
* 44,786	42	Woods, Fair, HSG A
62,707	53	Weighted Average
56,412		Pervious Area
6,295		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	50	0.0120	0.06		Sheet Flow, 2a to 2b
5.2	170	0.0120	0.55		Woods: Light underbrush n= 0.400 P2= 3.25"
					Shallow Concentrated Flow, 2b to 2c
					Woodland Kv= 5.0 fps
20.2	220	Total			

Subcatchment E2: EWSA-2

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

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Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment E2: EWSA-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	0.75	0.00
1.50	0.07	0.00	0.00	27.50	4.75	0.75	0.00
2.00	0.09	0.00	0.00	28.00	4.75	0.75	0.00
2.50	0.12	0.00	0.00	28.50	4.75	0.75	0.00
3.00	0.15	0.00	0.00	29.00	4.75	0.75	0.00
3.50	0.17	0.00	0.00	29.50	4.75	0.75	0.00
4.00	0.20	0.00	0.00	30.00	4.75	0.75	0.00
4.50	0.24	0.00	0.00	30.50	4.75	0.75	0.00
5.00	0.27	0.00	0.00	31.00	4.75	0.75	0.00
5.50	0.30	0.00	0.00	31.50	4.75	0.75	0.00
6.00	0.34	0.00	0.00	32.00	4.75	0.75	0.00
6.50	0.38	0.00	0.00	32.50	4.75	0.75	0.00
7.00	0.43	0.00	0.00	33.00	4.75	0.75	0.00
7.50	0.48	0.00	0.00	33.50	4.75	0.75	0.00
8.00	0.54	0.00	0.00	34.00	4.75	0.75	0.00
8.50	0.61	0.00	0.00	34.50	4.75	0.75	0.00
9.00	0.69	0.00	0.00	35.00	4.75	0.75	0.00
9.50	0.79	0.00	0.00	35.50	4.75	0.75	0.00
10.00	0.90	0.00	0.00	36.00	4.75	0.75	0.00
10.50	1.03	0.00	0.00				
11.00	1.19	0.00	0.00				
11.50	1.42	0.00	0.00				
12.00	2.37	0.04	0.02				
12.50	3.33	0.23	0.55				
13.00	3.56	0.30	0.22				
13.50	3.72	0.35	0.15				
14.00	3.85	0.39	0.13				
14.50	3.96	0.43	0.11				
15.00	4.06	0.47	0.10				
15.50	4.14	0.50	0.09				
16.00	4.21	0.52	0.08				
16.50	4.27	0.55	0.07				
17.00	4.32	0.57	0.06				
17.50	4.37	0.59	0.06				
18.00	4.41	0.60	0.05				
18.50	4.45	0.62	0.04				
19.00	4.48	0.63	0.04				
19.50	4.51	0.65	0.04				
20.00	4.55	0.66	0.04				
20.50	4.58	0.67	0.04				
21.00	4.60	0.69	0.04				
21.50	4.63	0.70	0.03				
22.00	4.66	0.71	0.03				
22.50	4.68	0.72	0.03				
23.00	4.71	0.73	0.03				
23.50	4.73	0.74	0.03				
24.00	4.75	0.75	0.03				
24.50	4.75	0.75	0.00				
25.00	4.75	0.75	0.00				
25.50	4.75	0.75	0.00				
26.00	4.75	0.75	0.00				
26.50	4.75	0.75	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 10 YEAR Rainfall=4.75"

Printed 6/8/2020

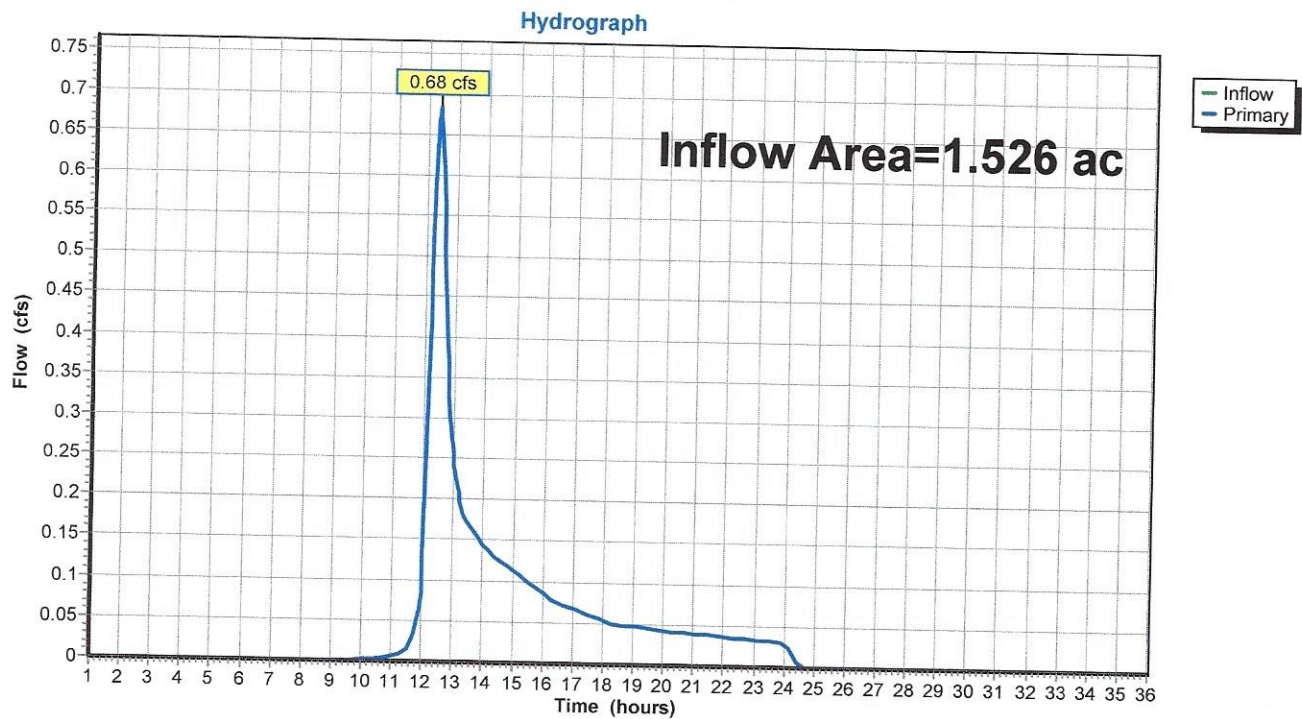
Page 1

Summary for Pond {E: TOTAL EXISTING}

Inflow Area = 1.526 ac, 11.71% Impervious, Inflow Depth = 0.82" for 10 YEAR event
Inflow = 0.68 cfs @ 12.36 hrs, Volume= 0.105 af
Primary = 0.68 cfs @ 12.36 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {E: TOTAL EXISTING



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

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Page 2

Hydrograph for Pond {E: TOTAL EXISTING

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.01		0.01				
11.50	0.01		0.01				
12.00	0.14		0.14				
12.50	0.61		0.61				
13.00	0.24		0.24				
13.50	0.17		0.17				
14.00	0.14		0.14				
14.50	0.13		0.13				
15.00	0.11		0.11				
15.50	0.10		0.10				
16.00	0.09		0.09				
16.50	0.07		0.07				
17.00	0.07		0.07				
17.50	0.06		0.06				
18.00	0.05		0.05				
18.50	0.05		0.05				
19.00	0.05		0.05				
19.50	0.04		0.04				
20.00	0.04		0.04				
20.50	0.04		0.04				
21.00	0.04		0.04				
21.50	0.04		0.04				
22.00	0.04		0.04				
22.50	0.03		0.03				
23.00	0.03		0.03				
23.50	0.03		0.03				
24.00	0.03		0.03				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 10 YEAR Rainfall=4.75"

Printed 6/8/2020

Page 1

Summary for Subcatchment E1: EWSA-1

Runoff = 0.21 cfs @ 12.10 hrs, Volume= 0.015 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

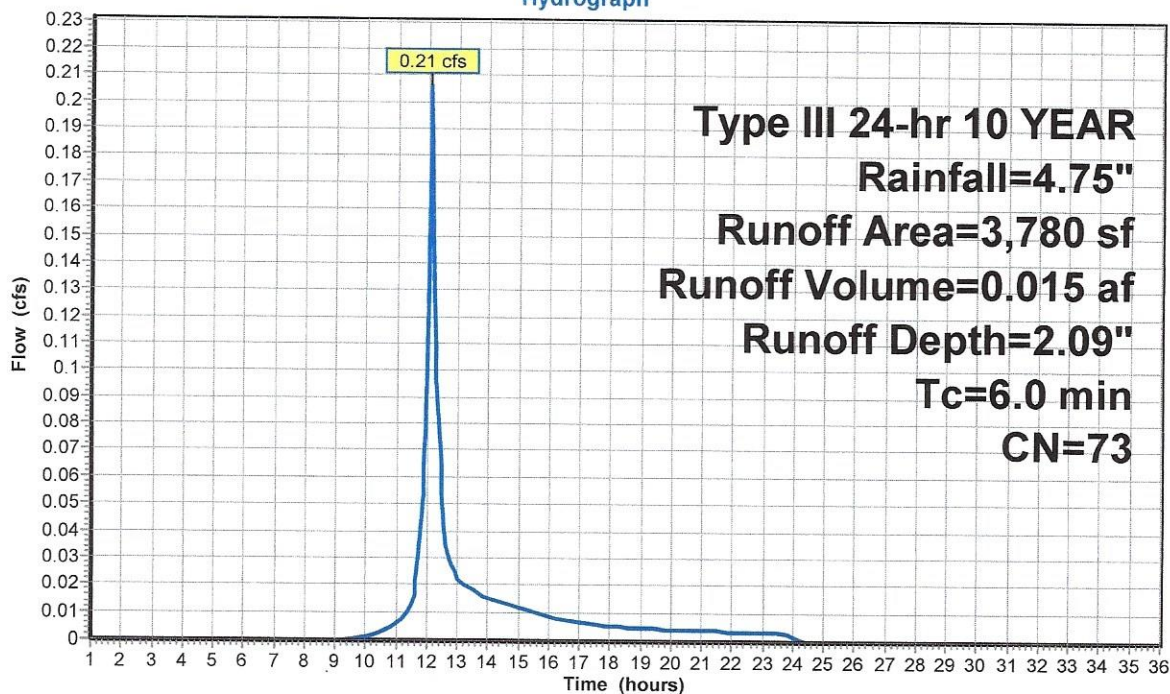
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
1,490	98	Paved parking & roofs
* 2,290	56	<50% Grass cover, Poor, HSG A
3,780	73	Weighted Average
2,290		Pervious Area
1,490		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment E1: EWSA-1

Hydrograph



Runoff

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment E1: EWSA-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	2.09	0.00
1.50	0.07	0.00	0.00	27.50	4.75	2.09	0.00
2.00	0.09	0.00	0.00	28.00	4.75	2.09	0.00
2.50	0.12	0.00	0.00	28.50	4.75	2.09	0.00
3.00	0.15	0.00	0.00	29.00	4.75	2.09	0.00
3.50	0.17	0.00	0.00	29.50	4.75	2.09	0.00
4.00	0.20	0.00	0.00	30.00	4.75	2.09	0.00
4.50	0.24	0.00	0.00	30.50	4.75	2.09	0.00
5.00	0.27	0.00	0.00	31.00	4.75	2.09	0.00
5.50	0.30	0.00	0.00	31.50	4.75	2.09	0.00
6.00	0.34	0.00	0.00	32.00	4.75	2.09	0.00
6.50	0.38	0.00	0.00	32.50	4.75	2.09	0.00
7.00	0.43	0.00	0.00	33.00	4.75	2.09	0.00
7.50	0.48	0.00	0.00	33.50	4.75	2.09	0.00
8.00	0.54	0.00	0.00	34.00	4.75	2.09	0.00
8.50	0.61	0.00	0.00	34.50	4.75	2.09	0.00
9.00	0.69	0.00	0.00	35.00	4.75	2.09	0.00
9.50	0.79	0.00	0.00	35.50	4.75	2.09	0.00
10.00	0.90	0.01	0.00	36.00	4.75	2.09	0.00
10.50	1.03	0.02	0.00				
11.00	1.19	0.05	0.01				
11.50	1.42	0.10	0.01				
12.00	2.37	0.50	0.12				
12.50	3.33	1.07	0.05				
13.00	3.56	1.22	0.02				
13.50	3.72	1.33	0.02				
14.00	3.85	1.42	0.01				
14.50	3.96	1.50	0.01				
15.00	4.06	1.57	0.01				
15.50	4.14	1.63	0.01				
16.00	4.21	1.68	0.01				
16.50	4.27	1.72	0.01				
17.00	4.32	1.76	0.01				
17.50	4.37	1.80	0.01				
18.00	4.41	1.83	0.01				
18.50	4.45	1.85	0.00				
19.00	4.48	1.88	0.00				
19.50	4.51	1.91	0.00				
20.00	4.55	1.93	0.00				
20.50	4.58	1.95	0.00				
21.00	4.60	1.98	0.00				
21.50	4.63	2.00	0.00				
22.00	4.66	2.02	0.00				
22.50	4.68	2.04	0.00				
23.00	4.71	2.05	0.00				
23.50	4.73	2.07	0.00				
24.00	4.75	2.09	0.00				
24.50	4.75	2.09	0.00				
25.00	4.75	2.09	0.00				
25.50	4.75	2.09	0.00				
26.00	4.75	2.09	0.00				
26.50	4.75	2.09	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

Printed 6/8/2020

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Page 1

Summary for Subcatchment E2: EWSA-2

Runoff = 0.60 cfs @ 12.38 hrs, Volume= 0.090 af, Depth= 0.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

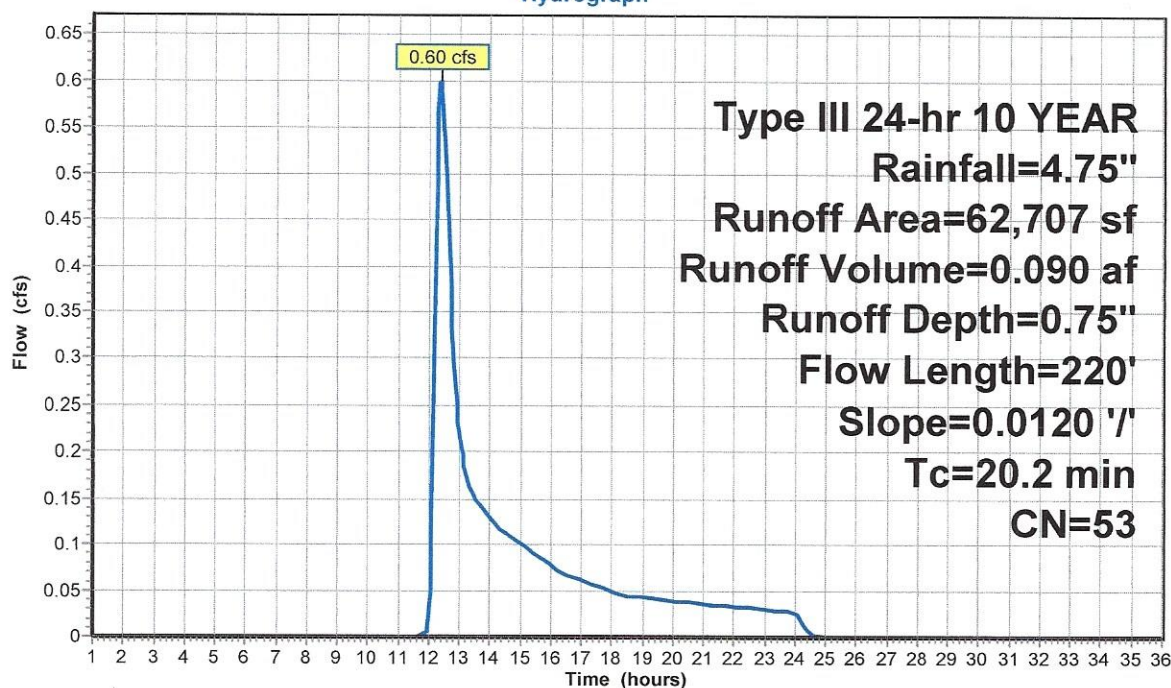
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
4,591	98	Paved parking & roofs
1,704	98	Paved parking & roofs
1,355	76	Gravel roads, HSG A
10,271	68	<50% Grass cover, Poor, HSG A
* 44,786	42	Woods, Fair, HSG A
62,707	53	Weighted Average
56,412		Pervious Area
6,295		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	50	0.0120	0.06		Sheet Flow, 2a to 2b
					Woods: Light underbrush n= 0.400 P2= 3.25"
5.2	170	0.0120	0.55		Shallow Concentrated Flow, 2b to 2c
					Woodland Kv= 5.0 fps
20.2	220	Total			

Subcatchment E2: EWSA-2

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment E2: EWSA-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	0.75	0.00
1.50	0.07	0.00	0.00	27.50	4.75	0.75	0.00
2.00	0.09	0.00	0.00	28.00	4.75	0.75	0.00
2.50	0.12	0.00	0.00	28.50	4.75	0.75	0.00
3.00	0.15	0.00	0.00	29.00	4.75	0.75	0.00
3.50	0.17	0.00	0.00	29.50	4.75	0.75	0.00
4.00	0.20	0.00	0.00	30.00	4.75	0.75	0.00
4.50	0.24	0.00	0.00	30.50	4.75	0.75	0.00
5.00	0.27	0.00	0.00	31.00	4.75	0.75	0.00
5.50	0.30	0.00	0.00	31.50	4.75	0.75	0.00
6.00	0.34	0.00	0.00	32.00	4.75	0.75	0.00
6.50	0.38	0.00	0.00	32.50	4.75	0.75	0.00
7.00	0.43	0.00	0.00	33.00	4.75	0.75	0.00
7.50	0.48	0.00	0.00	33.50	4.75	0.75	0.00
8.00	0.54	0.00	0.00	34.00	4.75	0.75	0.00
8.50	0.61	0.00	0.00	34.50	4.75	0.75	0.00
9.00	0.69	0.00	0.00	35.00	4.75	0.75	0.00
9.50	0.79	0.00	0.00	35.50	4.75	0.75	0.00
10.00	0.90	0.00	0.00	36.00	4.75	0.75	0.00
10.50	1.03	0.00	0.00				
11.00	1.19	0.00	0.00				
11.50	1.42	0.00	0.00				
12.00	2.37	0.04	0.02				
12.50	3.33	0.23	0.55				
13.00	3.56	0.30	0.22				
13.50	3.72	0.35	0.15				
14.00	3.85	0.39	0.13				
14.50	3.96	0.43	0.11				
15.00	4.06	0.47	0.10				
15.50	4.14	0.50	0.09				
16.00	4.21	0.52	0.08				
16.50	4.27	0.55	0.07				
17.00	4.32	0.57	0.06				
17.50	4.37	0.59	0.06				
18.00	4.41	0.60	0.05				
18.50	4.45	0.62	0.04				
19.00	4.48	0.63	0.04				
19.50	4.51	0.65	0.04				
20.00	4.55	0.66	0.04				
20.50	4.58	0.67	0.04				
21.00	4.60	0.69	0.04				
21.50	4.63	0.70	0.03				
22.00	4.66	0.71	0.03				
22.50	4.68	0.72	0.03				
23.00	4.71	0.73	0.03				
23.50	4.73	0.74	0.03				
24.00	4.75	0.75	0.03				
24.50	4.75	0.75	0.00				
25.00	4.75	0.75	0.00				
25.50	4.75	0.75	0.00				
26.00	4.75	0.75	0.00				
26.50	4.75	0.75	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

Printed 6/8/2020

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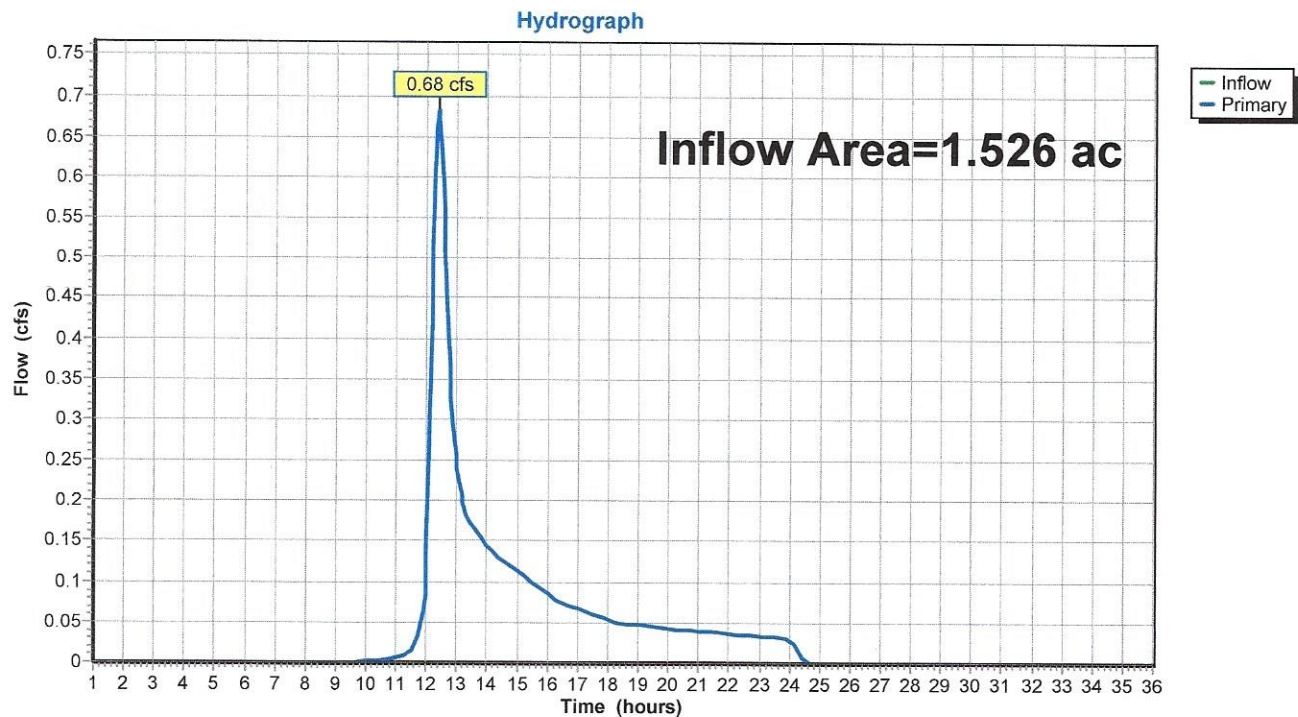
Page 1

Summary for Pond {E: TOTAL EXISTING}

Inflow Area = 1.526 ac, 11.71% Impervious, Inflow Depth = 0.82" for 10 YEAR event
Inflow = 0.68 cfs @ 12.36 hrs, Volume= 0.105 af
Primary = 0.68 cfs @ 12.36 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {E: TOTAL EXISTING



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Pond {E: TOTAL EXISTING

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.01		0.01				
11.50	0.01		0.01				
12.00	0.14		0.14				
12.50	0.61		0.61				
13.00	0.24		0.24				
13.50	0.17		0.17				
14.00	0.14		0.14				
14.50	0.13		0.13				
15.00	0.11		0.11				
15.50	0.10		0.10				
16.00	0.09		0.09				
16.50	0.07		0.07				
17.00	0.07		0.07				
17.50	0.06		0.06				
18.00	0.05		0.05				
18.50	0.05		0.05				
19.00	0.05		0.05				
19.50	0.04		0.04				
20.00	0.04		0.04				
20.50	0.04		0.04				
21.00	0.04		0.04				
21.50	0.04		0.04				
22.00	0.04		0.04				
22.50	0.03		0.03				
23.00	0.03		0.03				
23.50	0.03		0.03				
24.00	0.03		0.03				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment 1A: PWSA-1A

Runoff = 0.18 cfs @ 12.10 hrs, Volume= 0.013 af, Depth= 1.85"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

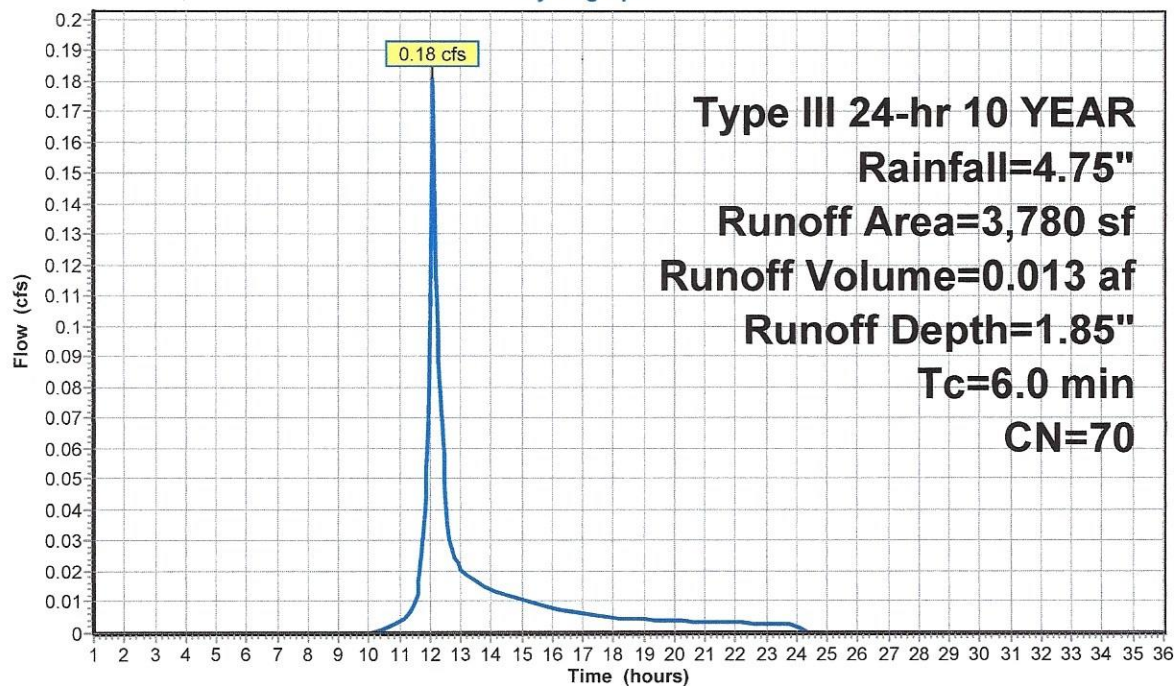
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
1,989	98	Paved parking & roofs
1,791	39	>75% Grass cover, Good, HSG A
3,780	70	Weighted Average
1,791		Pervious Area
1,989		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 1A: PWSA-1A

Hydrograph



Runoff

CRESCENT AVENUE - PROPOSED CONDITIONS*Type III 24-hr 10 YEAR Rainfall=4.75"*

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Page 2

Hydrograph for Subcatchment 1A: PWSA-1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	1.85	0.00
1.50	0.07	0.00	0.00	27.50	4.75	1.85	0.00
2.00	0.09	0.00	0.00	28.00	4.75	1.85	0.00
2.50	0.12	0.00	0.00	28.50	4.75	1.85	0.00
3.00	0.15	0.00	0.00	29.00	4.75	1.85	0.00
3.50	0.17	0.00	0.00	29.50	4.75	1.85	0.00
4.00	0.20	0.00	0.00	30.00	4.75	1.85	0.00
4.50	0.24	0.00	0.00	30.50	4.75	1.85	0.00
5.00	0.27	0.00	0.00	31.00	4.75	1.85	0.00
5.50	0.30	0.00	0.00	31.50	4.75	1.85	0.00
6.00	0.34	0.00	0.00	32.00	4.75	1.85	0.00
6.50	0.38	0.00	0.00	32.50	4.75	1.85	0.00
7.00	0.43	0.00	0.00	33.00	4.75	1.85	0.00
7.50	0.48	0.00	0.00	33.50	4.75	1.85	0.00
8.00	0.54	0.00	0.00	34.00	4.75	1.85	0.00
8.50	0.61	0.00	0.00	34.50	4.75	1.85	0.00
9.00	0.69	0.00	0.00	35.00	4.75	1.85	0.00
9.50	0.79	0.00	0.00	35.50	4.75	1.85	0.00
10.00	0.90	0.00	0.00	36.00	4.75	1.85	0.00
10.50	1.03	0.01	0.00				
11.00	1.19	0.02	0.00				
11.50	1.42	0.06	0.01				
12.00	2.37	0.40	0.10				
12.50	3.33	0.91	0.05				
13.00	3.56	1.05	0.02				
13.50	3.72	1.15	0.02				
14.00	3.85	1.23	0.01				
14.50	3.96	1.30	0.01				
15.00	4.06	1.37	0.01				
15.50	4.14	1.42	0.01				
16.00	4.21	1.47	0.01				
16.50	4.27	1.51	0.01				
17.00	4.32	1.55	0.01				
17.50	4.37	1.58	0.01				
18.00	4.41	1.61	0.00				
18.50	4.45	1.64	0.00				
19.00	4.48	1.66	0.00				
19.50	4.51	1.68	0.00				
20.00	4.55	1.71	0.00				
20.50	4.58	1.73	0.00				
21.00	4.60	1.75	0.00				
21.50	4.63	1.77	0.00				
22.00	4.66	1.79	0.00				
22.50	4.68	1.80	0.00				
23.00	4.71	1.82	0.00				
23.50	4.73	1.84	0.00				
24.00	4.75	1.85	0.00				
24.50	4.75	1.85	0.00				
25.00	4.75	1.85	0.00				
25.50	4.75	1.85	0.00				
26.00	4.75	1.85	0.00				
26.50	4.75	1.85	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

Printed 6/8/2020

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Page 1

Summary for Subcatchment 2A: PWSA-2A

Runoff = 0.61 cfs @ 12.10 hrs, Volume= 0.046 af, Depth= 1.78"

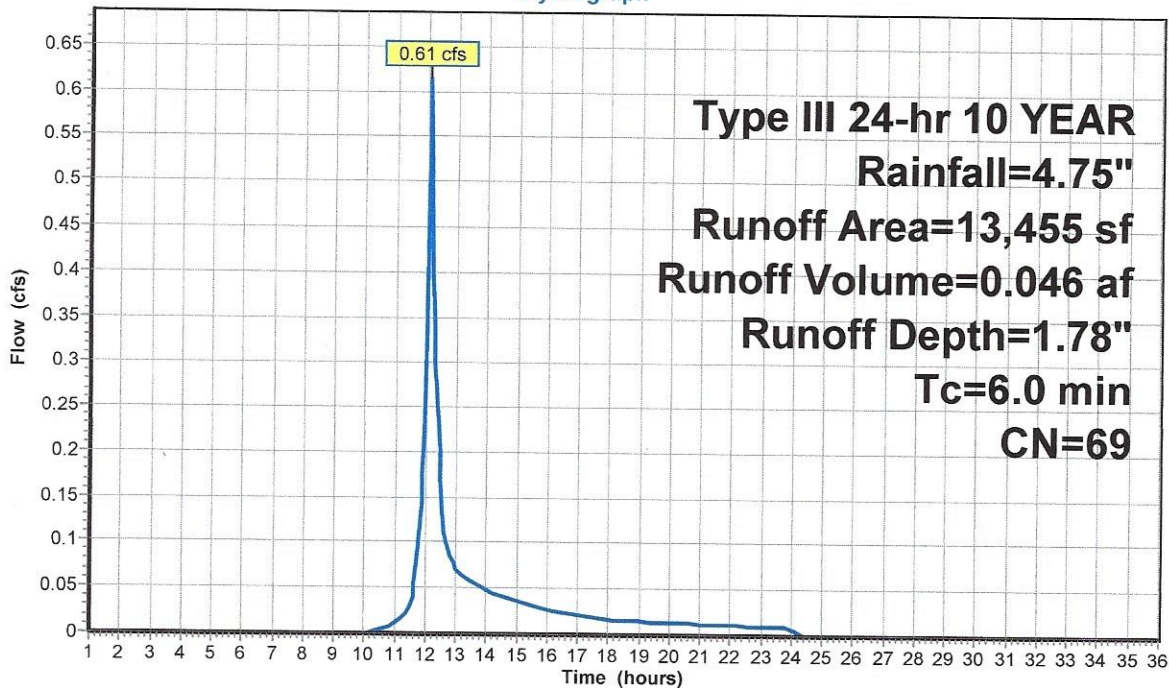
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
6,768	98	Paved parking & roofs
6,687	39	>75% Grass cover, Good, HSG A
13,455	69	Weighted Average
6,687		Pervious Area
6,768		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 2A: PWSA-2A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment 2A: PWSA-2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	1.78	0.00
1.50	0.07	0.00	0.00	27.50	4.75	1.78	0.00
2.00	0.09	0.00	0.00	28.00	4.75	1.78	0.00
2.50	0.12	0.00	0.00	28.50	4.75	1.78	0.00
3.00	0.15	0.00	0.00	29.00	4.75	1.78	0.00
3.50	0.17	0.00	0.00	29.50	4.75	1.78	0.00
4.00	0.20	0.00	0.00	30.00	4.75	1.78	0.00
4.50	0.24	0.00	0.00	30.50	4.75	1.78	0.00
5.00	0.27	0.00	0.00	31.00	4.75	1.78	0.00
5.50	0.30	0.00	0.00	31.50	4.75	1.78	0.00
6.00	0.34	0.00	0.00	32.00	4.75	1.78	0.00
6.50	0.38	0.00	0.00	32.50	4.75	1.78	0.00
7.00	0.43	0.00	0.00	33.00	4.75	1.78	0.00
7.50	0.48	0.00	0.00	33.50	4.75	1.78	0.00
8.00	0.54	0.00	0.00	34.00	4.75	1.78	0.00
8.50	0.61	0.00	0.00	34.50	4.75	1.78	0.00
9.00	0.69	0.00	0.00	35.00	4.75	1.78	0.00
9.50	0.79	0.00	0.00	35.50	4.75	1.78	0.00
10.00	0.90	0.00	0.00	36.00	4.75	1.78	0.00
10.50	1.03	0.00	0.00				
11.00	1.19	0.02	0.01				
11.50	1.42	0.05	0.03				
12.00	2.37	0.37	0.34				
12.50	3.33	0.86	0.17				
13.00	3.56	0.99	0.07				
13.50	3.72	1.09	0.06				
14.00	3.85	1.17	0.05				
14.50	3.96	1.24	0.04				
15.00	4.06	1.30	0.04				
15.50	4.14	1.36	0.03				
16.00	4.21	1.40	0.03				
16.50	4.27	1.44	0.02				
17.00	4.32	1.48	0.02				
17.50	4.37	1.51	0.02				
18.00	4.41	1.54	0.02				
18.50	4.45	1.56	0.02				
19.00	4.48	1.59	0.01				
19.50	4.51	1.61	0.01				
20.00	4.55	1.63	0.01				
20.50	4.58	1.66	0.01				
21.00	4.60	1.68	0.01				
21.50	4.63	1.69	0.01				
22.00	4.66	1.71	0.01				
22.50	4.68	1.73	0.01				
23.00	4.71	1.75	0.01				
23.50	4.73	1.76	0.01				
24.00	4.75	1.78	0.01				
24.50	4.75	1.78	0.00				
25.00	4.75	1.78	0.00				
25.50	4.75	1.78	0.00				
26.00	4.75	1.78	0.00				
26.50	4.75	1.78	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R1: PRA-1

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 1.78" for 10 YEAR event
 Inflow = 0.61 cfs @ 12.10 hrs, Volume= 0.046 af
 Outflow = 0.19 cfs @ 12.47 hrs, Volume= 0.046 af, Atten= 69%, Lag= 22.5 min
 Discarded = 0.05 cfs @ 11.80 hrs, Volume= 0.040 af
 Primary = 0.14 cfs @ 12.47 hrs, Volume= 0.006 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 58.22' @ 12.47 hrs Surf.Area= 576 sf Storage= 608 cf

Flood Elev= 60.00' Surf.Area= 576 sf Storage= 1,146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 84.1 min (937.2 - 853.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	589 cf	18.00'W x 32.00'L x 3.54'H STONE VOLUME 2,039 cf Overall - 565 cf Embedded = 1,474 cf x 40.0% Voids
#2	57.00'	559 cf	Cultec R-330 x 12 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	57.00'	7 cf	Cultec HVLV F-24 @ 1.00' L x 8 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
		1,155 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	6.0" Round 6" HDPE L= 60.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 58.00' / 57.40' S= 0.0100 ' / Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	56.50'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 11.80 hrs HW=56.57' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.13 cfs @ 12.47 hrs HW=58.22' TW=0.00' (Dynamic Tailwater)↑ **1=6" HDPE** (Inlet Controls 0.13 cfs @ 1.60 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

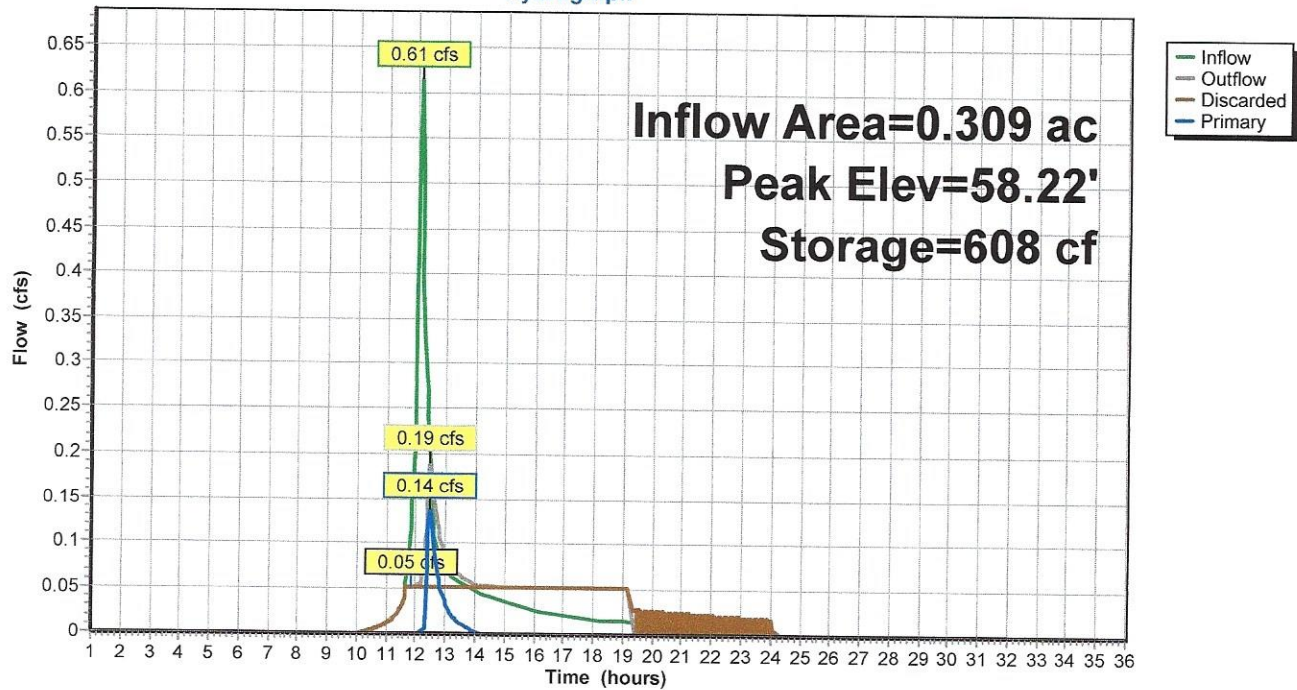
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Page 2

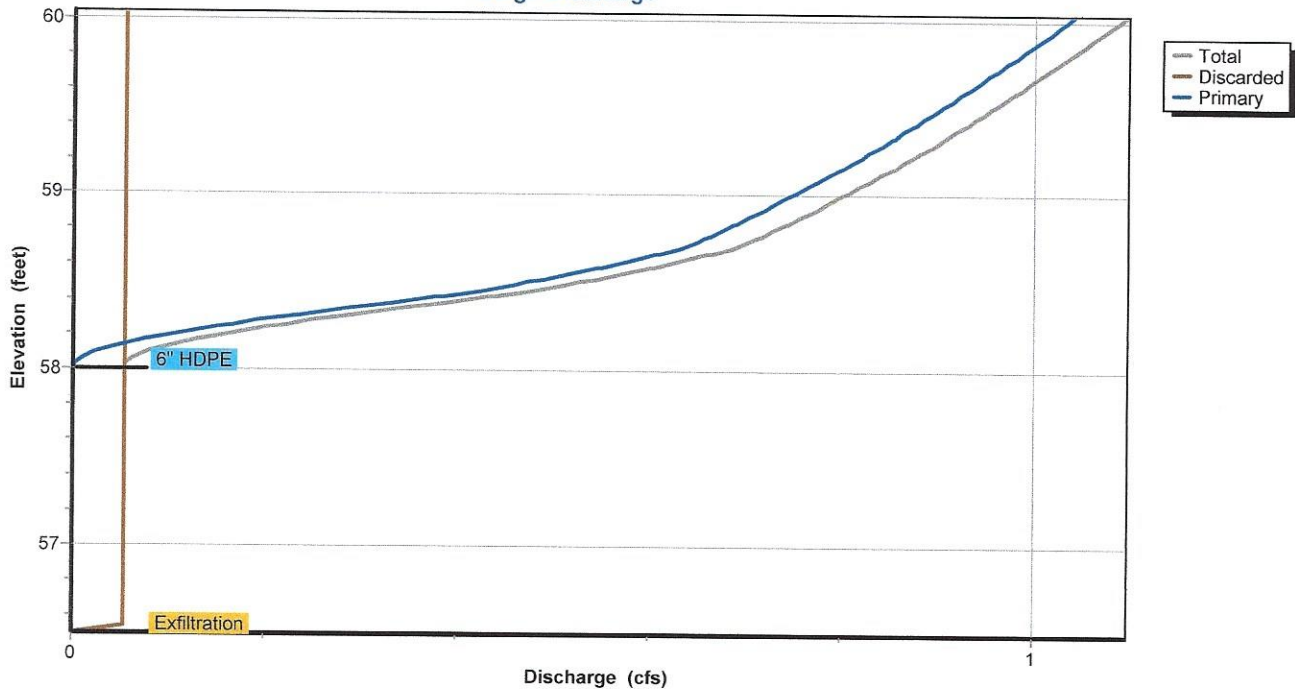
Pond R1: PRA-1

Hydrograph



Pond R1: PRA-1

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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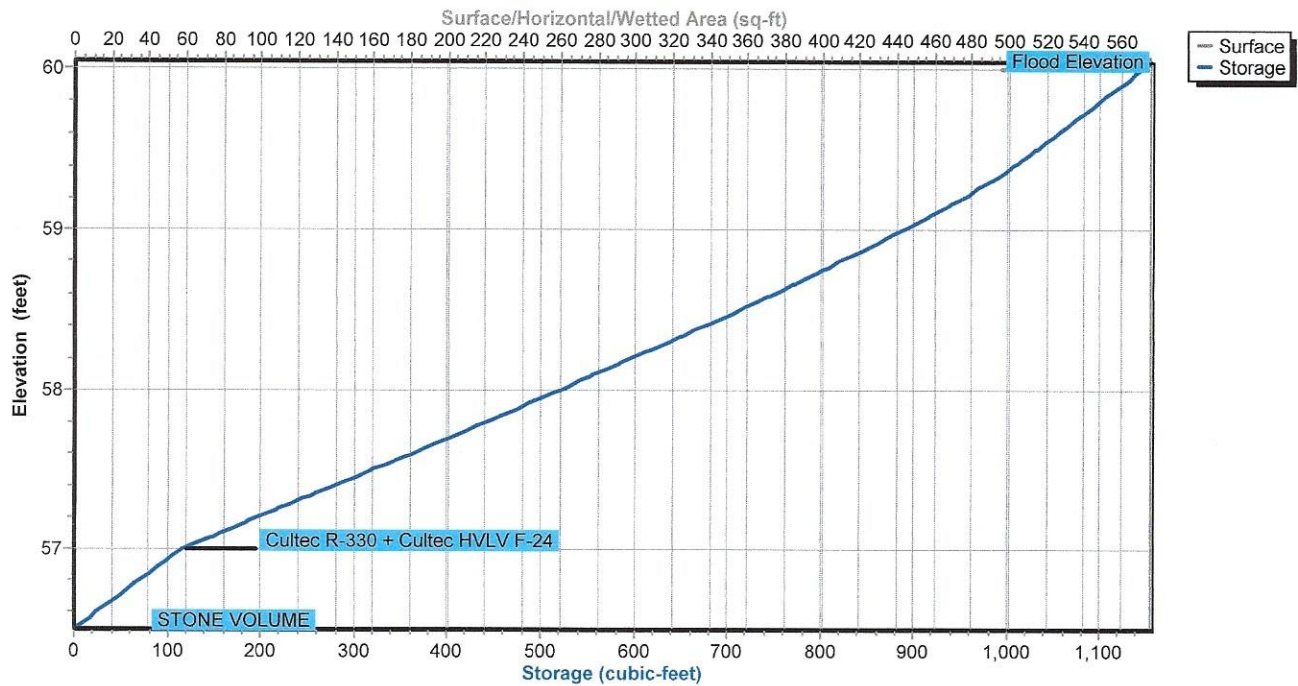
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Pond R1: PRA-1

Stage-Area-Storage



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 4

Hydrograph for Pond R1: PRA-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	56.50	0.00	0.00	0.00
2.00	0.00	0	56.50	0.00	0.00	0.00
3.00	0.00	0	56.50	0.00	0.00	0.00
4.00	0.00	0	56.50	0.00	0.00	0.00
5.00	0.00	0	56.50	0.00	0.00	0.00
6.00	0.00	0	56.50	0.00	0.00	0.00
7.00	0.00	0	56.50	0.00	0.00	0.00
8.00	0.00	0	56.50	0.00	0.00	0.00
9.00	0.00	0	56.50	0.00	0.00	0.00
10.00	0.00	0	56.50	0.00	0.00	0.00
11.00	0.01	0	56.50	0.01	0.01	0.00
12.00	0.34	116	57.00	0.05	0.05	0.00
13.00	0.07	562	58.11	0.09	0.05	0.03
14.00	0.05	532	58.03	0.06	0.05	0.00
15.00	0.04	491	57.93	0.05	0.05	0.00
16.00	0.03	415	57.73	0.05	0.05	0.00
17.00	0.02	309	57.47	0.05	0.05	0.00
18.00	0.02	185	57.17	0.05	0.05	0.00
19.00	0.01	50	56.72	0.05	0.05	0.00
20.00	0.01	0	56.50	0.00	0.00	0.00
21.00	0.01	0	56.50	0.00	0.00	0.00
22.00	0.01	0	56.50	0.00	0.00	0.00
23.00	0.01	0	56.50	0.00	0.00	0.00
24.00	0.01	0	56.50	0.00	0.00	0.00
25.00	0.00	0	56.50	0.00	0.00	0.00
26.00	0.00	0	56.50	0.00	0.00	0.00
27.00	0.00	0	56.50	0.00	0.00	0.00
28.00	0.00	0	56.50	0.00	0.00	0.00
29.00	0.00	0	56.50	0.00	0.00	0.00
30.00	0.00	0	56.50	0.00	0.00	0.00
31.00	0.00	0	56.50	0.00	0.00	0.00
32.00	0.00	0	56.50	0.00	0.00	0.00
33.00	0.00	0	56.50	0.00	0.00	0.00
34.00	0.00	0	56.50	0.00	0.00	0.00
35.00	0.00	0	56.50	0.00	0.00	0.00
36.00	0.00	0	56.50	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 1

Summary for Subcatchment 2B: PWSA-2B

Runoff = 0.84 cfs @ 12.20 hrs, Volume= 0.078 af, Depth= 2.33"

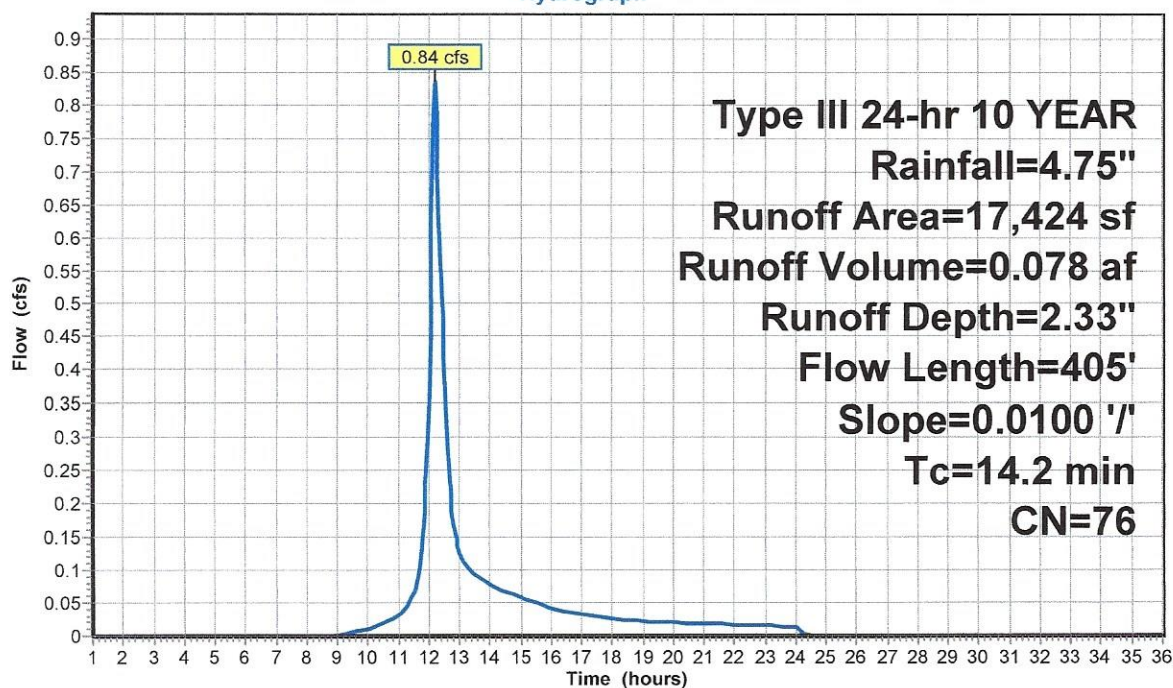
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
10,974	98	Paved parking & roofs
6,450	39	>75% Grass cover, Good, HSG A
17,424	76	Weighted Average
6,450		Pervious Area
10,974		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2b1 TO 2b2 Grass: Short n= 0.150 P2= 3.25"
2.1	90	0.0100	0.70		Shallow Concentrated Flow, 2b2 TO 2b3 Short Grass Pasture Kv= 7.0 fps
4.7	265	0.0100	0.95	0.09	Channel Flow, 2b3 TO 2b4 Area= 0.1 sf Perim= 4.2' r= 0.02' n= 0.013 Asphalt, smooth
14.2	405	Total			

Subcatchment 2B: PWSA-2B

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment 2B: PWSA-2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	2.33	0.00
1.50	0.07	0.00	0.00	27.50	4.75	2.33	0.00
2.00	0.09	0.00	0.00	28.00	4.75	2.33	0.00
2.50	0.12	0.00	0.00	28.50	4.75	2.33	0.00
3.00	0.15	0.00	0.00	29.00	4.75	2.33	0.00
3.50	0.17	0.00	0.00	29.50	4.75	2.33	0.00
4.00	0.20	0.00	0.00	30.00	4.75	2.33	0.00
4.50	0.24	0.00	0.00	30.50	4.75	2.33	0.00
5.00	0.27	0.00	0.00	31.00	4.75	2.33	0.00
5.50	0.30	0.00	0.00	31.50	4.75	2.33	0.00
6.00	0.34	0.00	0.00	32.00	4.75	2.33	0.00
6.50	0.38	0.00	0.00	32.50	4.75	2.33	0.00
7.00	0.43	0.00	0.00	33.00	4.75	2.33	0.00
7.50	0.48	0.00	0.00	33.50	4.75	2.33	0.00
8.00	0.54	0.00	0.00	34.00	4.75	2.33	0.00
8.50	0.61	0.00	0.00	34.50	4.75	2.33	0.00
9.00	0.69	0.00	0.00	35.00	4.75	2.33	0.00
9.50	0.79	0.01	0.01	35.50	4.75	2.33	0.00
10.00	0.90	0.02	0.01	36.00	4.75	2.33	0.00
10.50	1.03	0.04	0.02				
11.00	1.19	0.08	0.03				
11.50	1.42	0.16	0.06				
12.00	2.37	0.62	0.34				
12.50	3.33	1.25	0.42				
13.00	3.56	1.41	0.13				
13.50	3.72	1.53	0.09				
14.00	3.85	1.63	0.08				
14.50	3.96	1.71	0.07				
15.00	4.06	1.78	0.06				
15.50	4.14	1.85	0.05				
16.00	4.21	1.90	0.04				
16.50	4.27	1.95	0.04				
17.00	4.32	1.99	0.03				
17.50	4.37	2.02	0.03				
18.00	4.41	2.06	0.03				
18.50	4.45	2.09	0.02				
19.00	4.48	2.11	0.02				
19.50	4.51	2.14	0.02				
20.00	4.55	2.17	0.02				
20.50	4.58	2.19	0.02				
21.00	4.60	2.21	0.02				
21.50	4.63	2.24	0.02				
22.00	4.66	2.26	0.02				
22.50	4.68	2.28	0.02				
23.00	4.71	2.30	0.02				
23.50	4.73	2.31	0.01				
24.00	4.75	2.33	0.01				
24.50	4.75	2.33	0.00				
25.00	4.75	2.33	0.00				
25.50	4.75	2.33	0.00				
26.00	4.75	2.33	0.00				
26.50	4.75	2.33	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R2: PRA-2

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 2.33" for 10 YEAR event
 Inflow = 0.84 cfs @ 12.20 hrs, Volume= 0.078 af
 Outflow = 0.50 cfs @ 12.44 hrs, Volume= 0.078 af, Atten= 40%, Lag= 14.2 min
 Discarded = 0.07 cfs @ 11.75 hrs, Volume= 0.057 af
 Primary = 0.43 cfs @ 12.44 hrs, Volume= 0.021 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 56.11' @ 12.44 hrs Surf.Area= 702 sf Storage= 857 cf

Flood Elev= 57.70' Surf.Area= 702 sf Storage= 1,418 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 73.7 min (916.1 - 842.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.15'	711 cf	18.00'W x 39.00'L x 3.54'H STONE VOLUME 2,485 cf Overall - 707 cf Embedded = 1,778 cf x 40.0% Voids
#2	54.65'	699 cf	Cultec R-330 x 15 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	54.65'	8 cf	Cultec HVLV F-24 @ 1.00' L x 10 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
1,418 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	55.65'	6.0" Round 6" HDPE L= 65.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 55.65' / 55.00' S= 0.0100 ' /' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	54.15'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.07 cfs @ 11.75 hrs HW=54.20' (Free Discharge)↑ **2=Exfiltration** (Exfiltration Controls 0.07 cfs)**Primary OutFlow** Max=0.43 cfs @ 12.44 hrs HW=56.11' TW=0.00' (Dynamic Tailwater)↑ **1=6" HDPE** (Inlet Controls 0.43 cfs @ 2.30 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

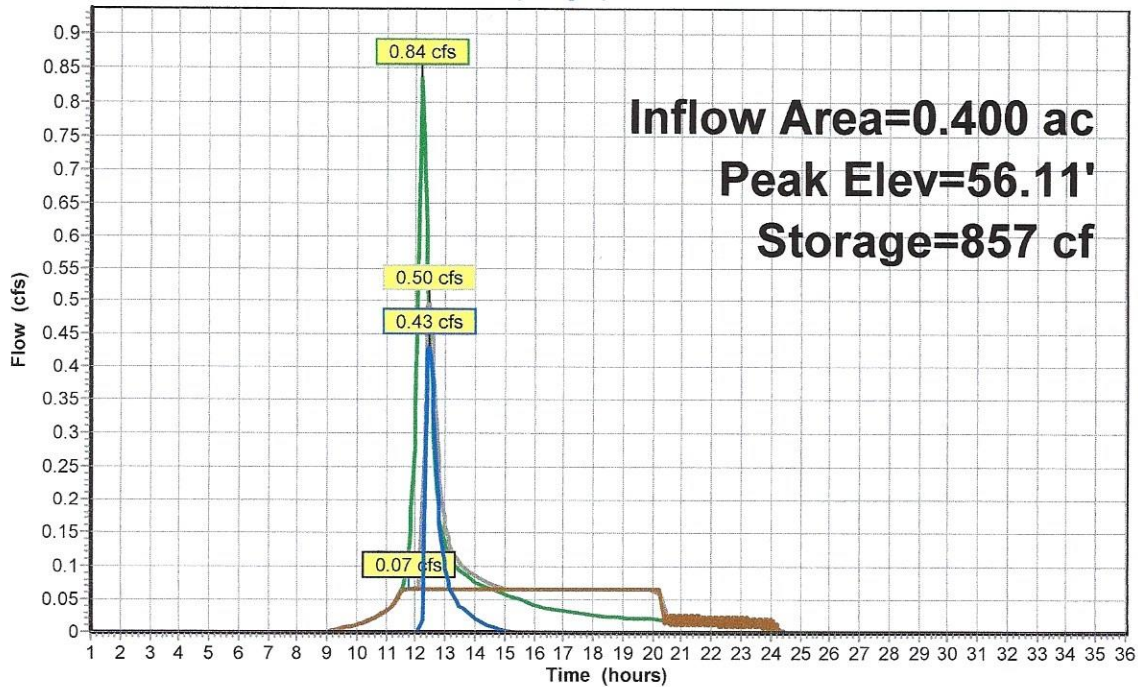
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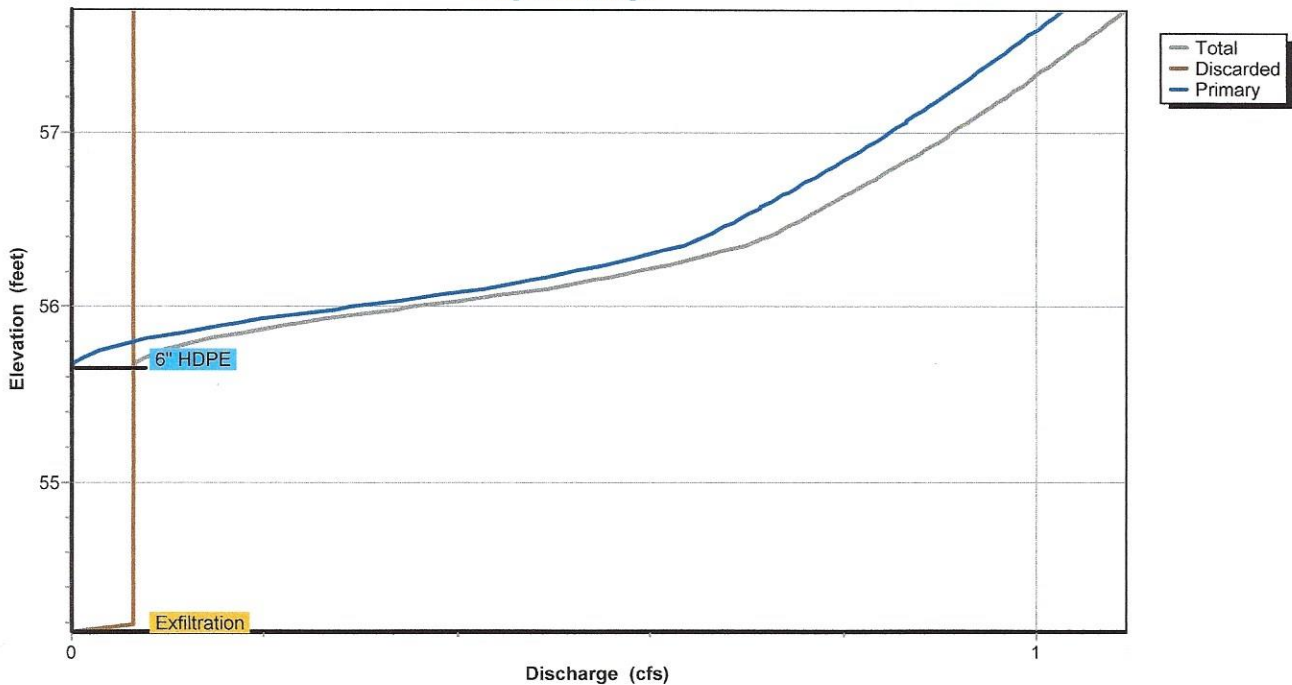
Pond R2: PRA-2

Hydrograph



Pond R2: PRA-2

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

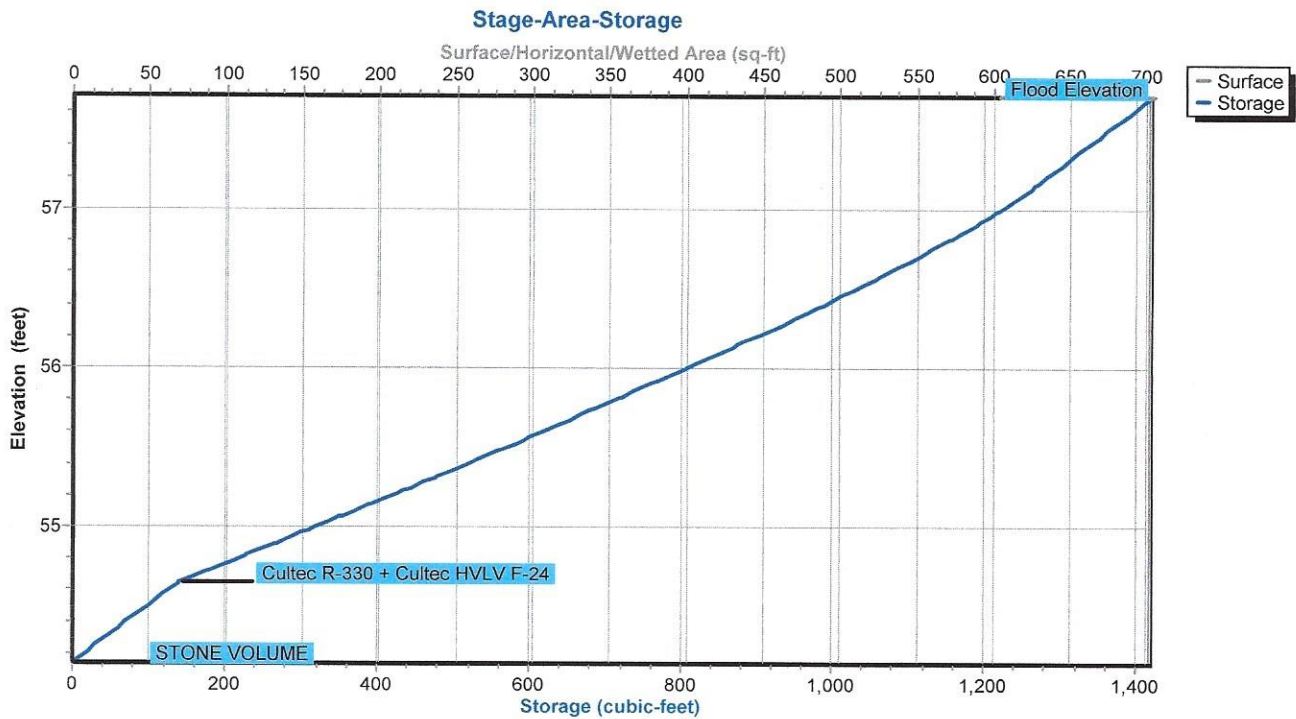
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Page 3

Pond R2: PRA-2



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 4

Hydrograph for Pond R2: PRA-2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	54.15	0.00	0.00	0.00
2.00	0.00	0	54.15	0.00	0.00	0.00
3.00	0.00	0	54.15	0.00	0.00	0.00
4.00	0.00	0	54.15	0.00	0.00	0.00
5.00	0.00	0	54.15	0.00	0.00	0.00
6.00	0.00	0	54.15	0.00	0.00	0.00
7.00	0.00	0	54.15	0.00	0.00	0.00
8.00	0.00	0	54.15	0.00	0.00	0.00
9.00	0.00	0	54.15	0.00	0.00	0.00
10.00	0.01	0	54.15	0.01	0.01	0.00
11.00	0.03	0	54.15	0.03	0.03	0.00
12.00	0.34	151	54.67	0.07	0.07	0.00
13.00	0.13	729	55.83	0.16	0.07	0.10
14.00	0.08	680	55.73	0.09	0.07	0.02
15.00	0.06	653	55.68	0.07	0.07	0.00
16.00	0.04	601	55.57	0.07	0.07	0.00
17.00	0.03	500	55.36	0.07	0.07	0.00
18.00	0.03	373	55.11	0.07	0.07	0.00
19.00	0.02	225	54.82	0.07	0.07	0.00
20.00	0.02	68	54.39	0.07	0.07	0.00
21.00	0.02	0	54.15	0.03	0.03	0.00
22.00	0.02	0	54.15	0.02	0.02	0.00
23.00	0.02	0	54.15	0.02	0.02	0.00
24.00	0.01	0	54.15	0.02	0.02	0.00
25.00	0.00	0	54.15	0.00	0.00	0.00
26.00	0.00	0	54.15	0.00	0.00	0.00
27.00	0.00	0	54.15	0.00	0.00	0.00
28.00	0.00	0	54.15	0.00	0.00	0.00
29.00	0.00	0	54.15	0.00	0.00	0.00
30.00	0.00	0	54.15	0.00	0.00	0.00
31.00	0.00	0	54.15	0.00	0.00	0.00
32.00	0.00	0	54.15	0.00	0.00	0.00
33.00	0.00	0	54.15	0.00	0.00	0.00
34.00	0.00	0	54.15	0.00	0.00	0.00
35.00	0.00	0	54.15	0.00	0.00	0.00
36.00	0.00	0	54.15	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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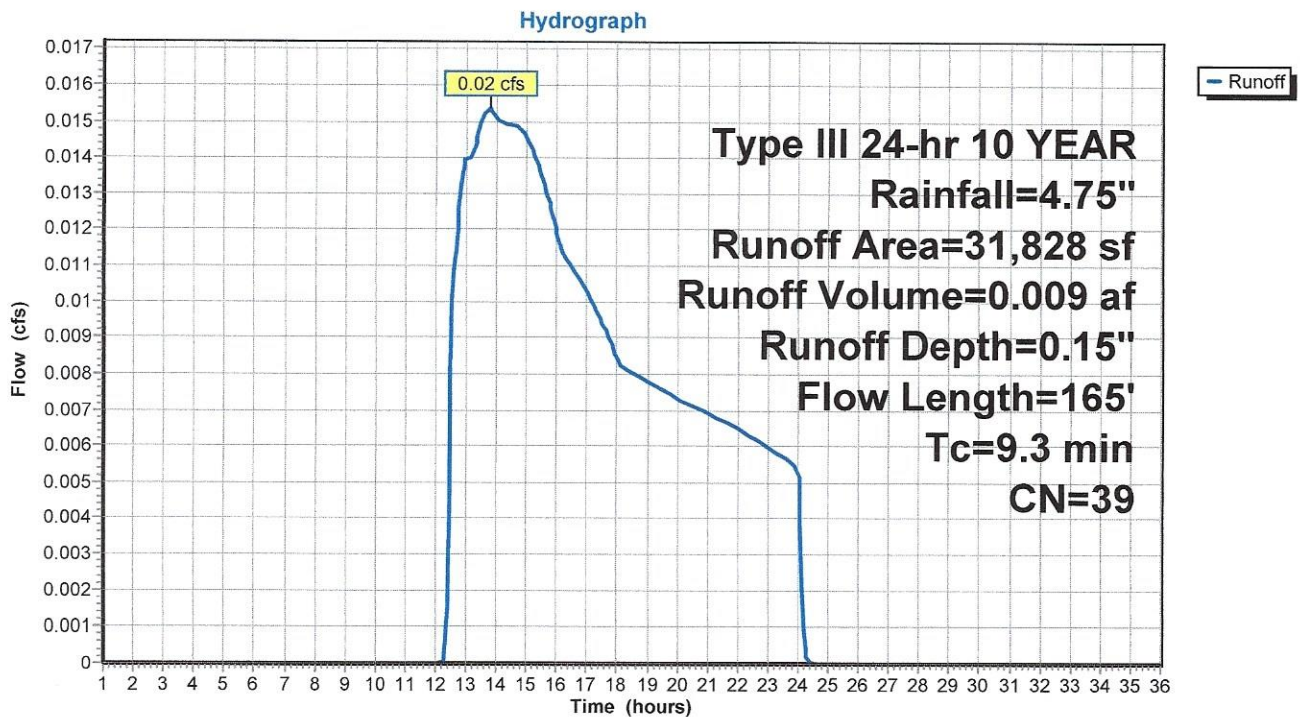
Summary for Subcatchment 2C: PWSA-2C

Runoff = 0.02 cfs @ 13.77 hrs, Volume= 0.009 af, Depth= 0.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.75"

Area (sf)	CN	Description
31,828	39	>75% Grass cover, Good, HSG A
31,828		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2c1 TO 2c2 Grass: Short n= 0.150 P2= 3.25"
1.9	115	0.0200	0.99		Shallow Concentrated Flow, 2c2 TO 2c3 Short Grass Pasture Kv= 7.0 fps
9.3	165	Total			

Subcatchment 2C: PWSA-2C

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Subcatchment 2C: PWSA-2C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.05	0.00	0.00	27.00	4.75	0.15	0.00
1.50	0.07	0.00	0.00	27.50	4.75	0.15	0.00
2.00	0.09	0.00	0.00	28.00	4.75	0.15	0.00
2.50	0.12	0.00	0.00	28.50	4.75	0.15	0.00
3.00	0.15	0.00	0.00	29.00	4.75	0.15	0.00
3.50	0.17	0.00	0.00	29.50	4.75	0.15	0.00
4.00	0.20	0.00	0.00	30.00	4.75	0.15	0.00
4.50	0.24	0.00	0.00	30.50	4.75	0.15	0.00
5.00	0.27	0.00	0.00	31.00	4.75	0.15	0.00
5.50	0.30	0.00	0.00	31.50	4.75	0.15	0.00
6.00	0.34	0.00	0.00	32.00	4.75	0.15	0.00
6.50	0.38	0.00	0.00	32.50	4.75	0.15	0.00
7.00	0.43	0.00	0.00	33.00	4.75	0.15	0.00
7.50	0.48	0.00	0.00	33.50	4.75	0.15	0.00
8.00	0.54	0.00	0.00	34.00	4.75	0.15	0.00
8.50	0.61	0.00	0.00	34.50	4.75	0.15	0.00
9.00	0.69	0.00	0.00	35.00	4.75	0.15	0.00
9.50	0.79	0.00	0.00	35.50	4.75	0.15	0.00
10.00	0.90	0.00	0.00	36.00	4.75	0.15	0.00
10.50	1.03	0.00	0.00				
11.00	1.19	0.00	0.00				
11.50	1.42	0.00	0.00				
12.00	2.37	0.00	0.00				
12.50	3.33	0.00	0.01				
13.00	3.56	0.01	0.01				
13.50	3.72	0.02	0.02				
14.00	3.85	0.03	0.02				
14.50	3.96	0.04	0.01				
15.00	4.06	0.05	0.01				
15.50	4.14	0.06	0.01				
16.00	4.21	0.07	0.01				
16.50	4.27	0.08	0.01				
17.00	4.32	0.08	0.01				
17.50	4.37	0.09	0.01				
18.00	4.41	0.10	0.01				
18.50	4.45	0.10	0.01				
19.00	4.48	0.11	0.01				
19.50	4.51	0.11	0.01				
20.00	4.55	0.12	0.01				
20.50	4.58	0.12	0.01				
21.00	4.60	0.13	0.01				
21.50	4.63	0.13	0.01				
22.00	4.66	0.14	0.01				
22.50	4.68	0.14	0.01				
23.00	4.71	0.14	0.01				
23.50	4.73	0.15	0.01				
24.00	4.75	0.15	0.01				
24.50	4.75	0.15	0.00				
25.00	4.75	0.15	0.00				
25.50	4.75	0.15	0.00				
26.00	4.75	0.15	0.00				
26.50	4.75	0.15	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

Prepared by {enter your company name here}

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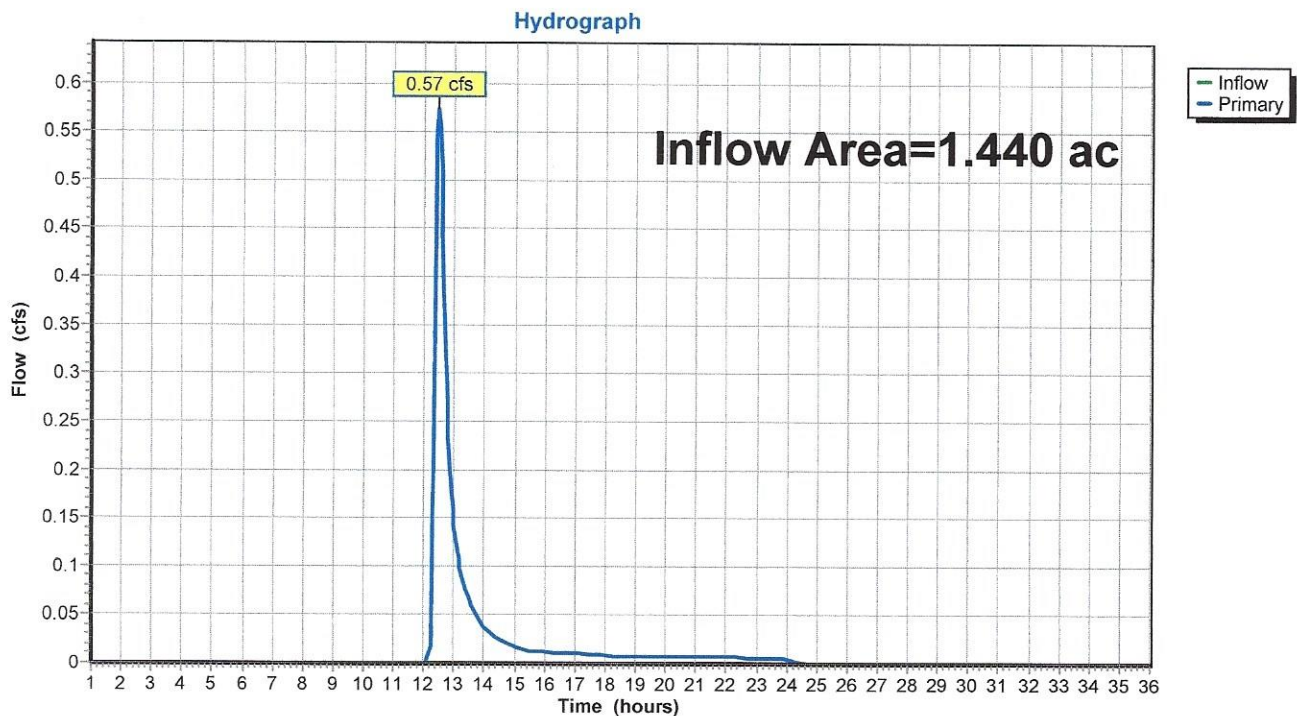
Page 1

Summary for Pond {2P: PWSA-2 TOTAL}

Inflow Area = 1.440 ac, 28.29% Impervious, Inflow Depth = 0.30" for 10 YEAR event
Inflow = 0.57 cfs @ 12.46 hrs, Volume= 0.036 af
Primary = 0.57 cfs @ 12.46 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {2P: PWSA-2 TOTAL}



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Pond {2P: PWSA-2 TOTAL}

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.00		0.00				
12.50	0.56		0.56				
13.00	0.14		0.14				
13.50	0.07		0.07				
14.00	0.04		0.04				
14.50	0.02		0.02				
15.00	0.02		0.02				
15.50	0.01		0.01				
16.00	0.01		0.01				
16.50	0.01		0.01				
17.00	0.01		0.01				
17.50	0.01		0.01				
18.00	0.01		0.01				
18.50	0.01		0.01				
19.00	0.01		0.01				
19.50	0.01		0.01				
20.00	0.01		0.01				
20.50	0.01		0.01				
21.00	0.01		0.01				
21.50	0.01		0.01				
22.00	0.01		0.01				
22.50	0.01		0.01				
23.00	0.01		0.01				
23.50	0.01		0.01				
24.00	0.01		0.01				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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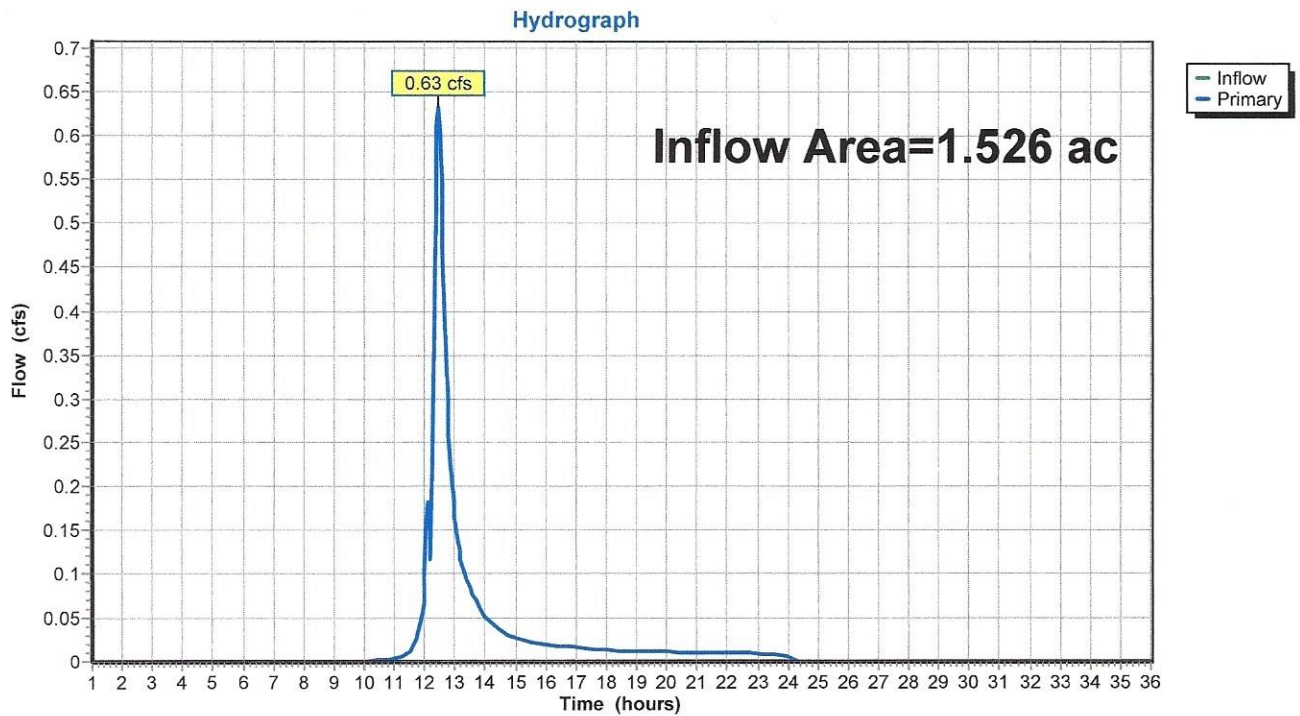
Page 1

Summary for Pond {P: PROPOSED TOTAL

Inflow Area = 1.526 ac, 29.68% Impervious, Inflow Depth = 0.39" for 10 YEAR event
Inflow = 0.63 cfs @ 12.45 hrs, Volume= 0.049 af
Primary = 0.63 cfs @ 12.45 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {P: PROPOSED TOTAL



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 10 YEAR Rainfall=4.75"

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Page 2

Hydrograph for Pond {P: PROPOSED TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.01		0.01				
12.00	0.10		0.10				
12.50	0.61		0.61				
13.00	0.16		0.16				
13.50	0.08		0.08				
14.00	0.05		0.05				
14.50	0.04		0.04				
15.00	0.03		0.03				
15.50	0.02		0.02				
16.00	0.02		0.02				
16.50	0.02		0.02				
17.00	0.02		0.02				
17.50	0.01		0.01				
18.00	0.01		0.01				
18.50	0.01		0.01				
19.00	0.01		0.01				
19.50	0.01		0.01				
20.00	0.01		0.01				
20.50	0.01		0.01				
21.00	0.01		0.01				
21.50	0.01		0.01				
22.00	0.01		0.01				
22.50	0.01		0.01				
23.00	0.01		0.01				
23.50	0.01		0.01				
24.00	0.01		0.01				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

25 Year Storm
for
Existing & Proposed
Site Conditions
(Pipe Sizing Calculations)

CRESCENT AVENUE - EXISTING CONDITIONS

Prepared by {enter your company name here}

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Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 1

Summary for Subcatchment E1: EWSA-1

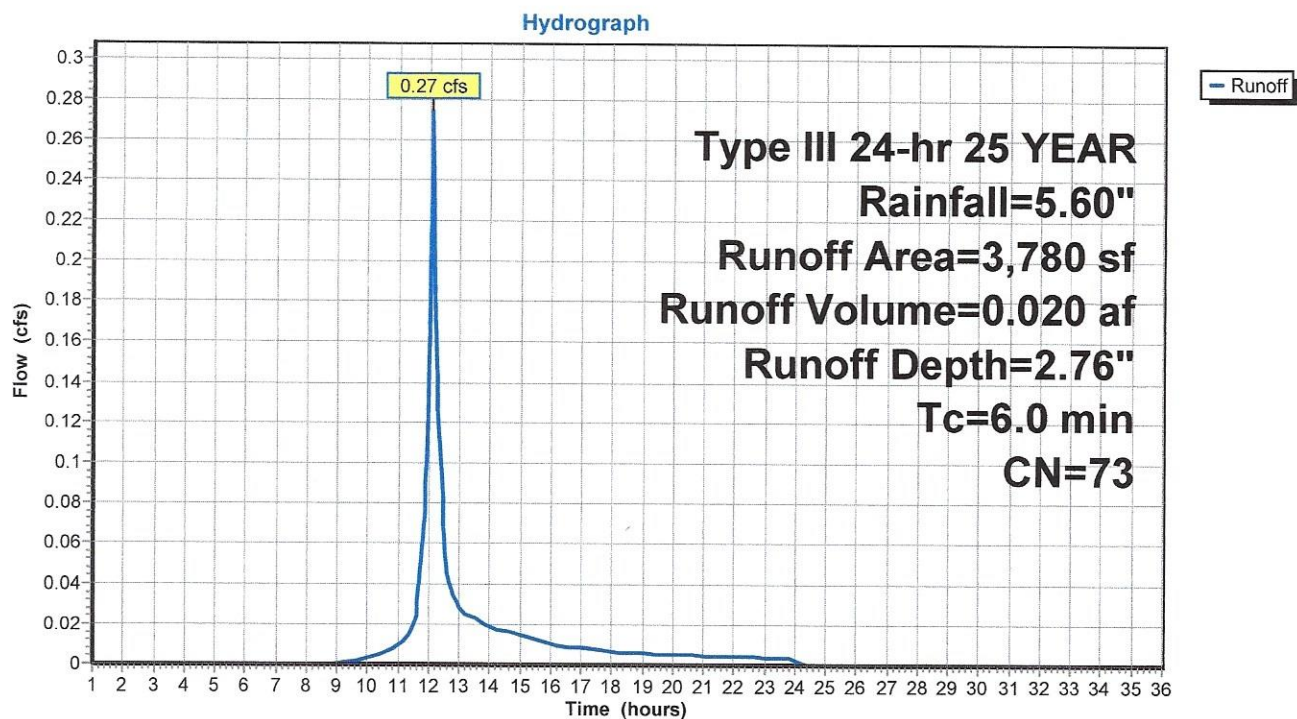
Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 2.76"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

	Area (sf)	CN	Description
	1,490	98	Paved parking & roofs
*	2,290	56	<50% Grass cover, Poor, HSG A
	3,780	73	Weighted Average
	2,290		Pervious Area
	1,490		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment E1: EWSA-1



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 2

Hydrograph for Subcatchment E1: EWSA-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	2.76	0.00
1.50	0.08	0.00	0.00	27.50	5.60	2.76	0.00
2.00	0.11	0.00	0.00	28.00	5.60	2.76	0.00
2.50	0.14	0.00	0.00	28.50	5.60	2.76	0.00
3.00	0.17	0.00	0.00	29.00	5.60	2.76	0.00
3.50	0.21	0.00	0.00	29.50	5.60	2.76	0.00
4.00	0.24	0.00	0.00	30.00	5.60	2.76	0.00
4.50	0.28	0.00	0.00	30.50	5.60	2.76	0.00
5.00	0.32	0.00	0.00	31.00	5.60	2.76	0.00
5.50	0.36	0.00	0.00	31.50	5.60	2.76	0.00
6.00	0.40	0.00	0.00	32.00	5.60	2.76	0.00
6.50	0.45	0.00	0.00	32.50	5.60	2.76	0.00
7.00	0.51	0.00	0.00	33.00	5.60	2.76	0.00
7.50	0.57	0.00	0.00	33.50	5.60	2.76	0.00
8.00	0.64	0.00	0.00	34.00	5.60	2.76	0.00
8.50	0.72	0.00	0.00	34.50	5.60	2.76	0.00
9.00	0.82	0.00	0.00	35.00	5.60	2.76	0.00
9.50	0.93	0.01	0.00	35.50	5.60	2.76	0.00
10.00	1.06	0.03	0.00	36.00	5.60	2.76	0.00
10.50	1.21	0.05	0.01				
11.00	1.40	0.10	0.01				
11.50	1.67	0.19	0.02				
12.00	2.80	0.74	0.16				
12.50	3.93	1.48	0.07				
13.00	4.20	1.67	0.03				
13.50	4.39	1.81	0.02				
14.00	4.54	1.93	0.02				
14.50	4.67	2.03	0.02				
15.00	4.78	2.11	0.01				
15.50	4.88	2.19	0.01				
16.00	4.96	2.25	0.01				
16.50	5.03	2.30	0.01				
17.00	5.09	2.35	0.01				
17.50	5.15	2.40	0.01				
18.00	5.20	2.44	0.01				
18.50	5.24	2.47	0.01				
19.00	5.28	2.50	0.01				
19.50	5.32	2.54	0.01				
20.00	5.36	2.57	0.01				
20.50	5.39	2.59	0.00				
21.00	5.43	2.62	0.00				
21.50	5.46	2.65	0.00				
22.00	5.49	2.67	0.00				
22.50	5.52	2.70	0.00				
23.00	5.55	2.72	0.00				
23.50	5.58	2.74	0.00				
24.00	5.60	2.76	0.00				
24.50	5.60	2.76	0.00				
25.00	5.60	2.76	0.00				
25.50	5.60	2.76	0.00				
26.00	5.60	2.76	0.00				
26.50	5.60	2.76	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Summary for Subcatchment E2: EWSA-2

Runoff = 1.06 cfs @ 12.34 hrs, Volume= 0.138 af, Depth= 1.15"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

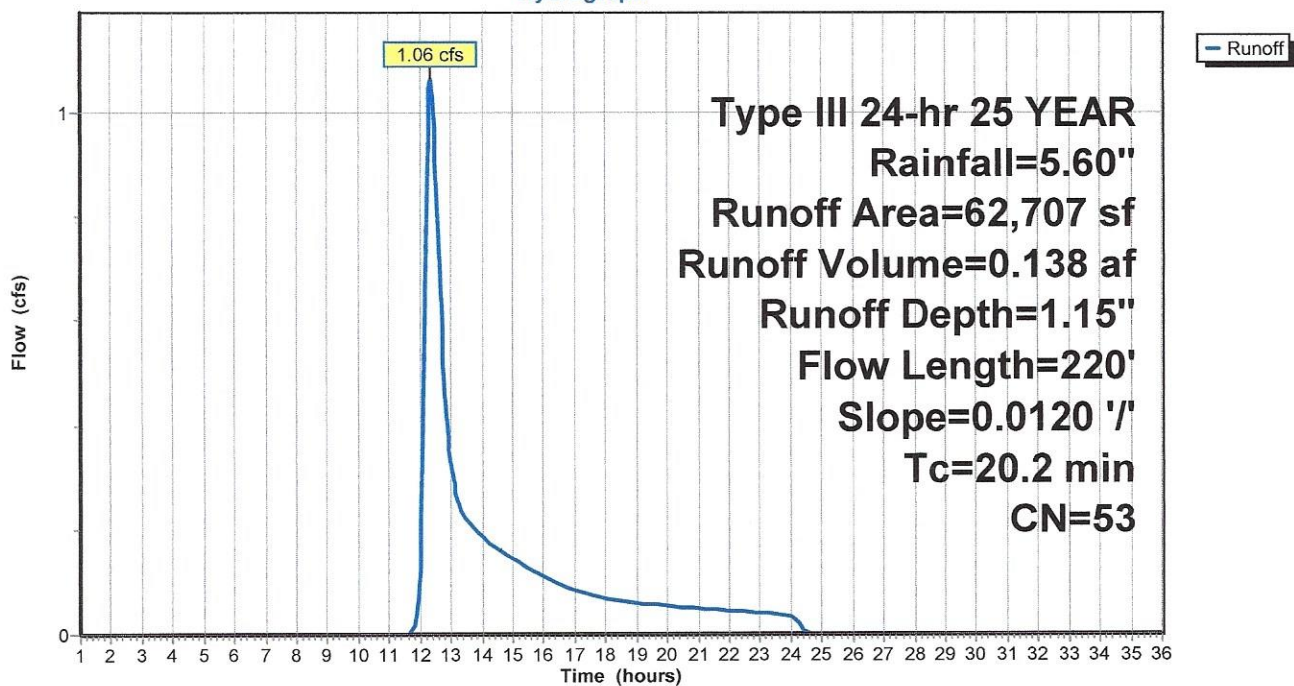
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
4,591	98	Paved parking & roofs
1,704	98	Paved parking & roofs
1,355	76	Gravel roads, HSG A
10,271	68	<50% Grass cover, Poor, HSG A
* 44,786	42	Woods, Fair, HSG A
62,707	53	Weighted Average
56,412		Pervious Area
6,295		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	50	0.0120	0.06		Sheet Flow, 2a to 2b
					Woods: Light underbrush n= 0.400 P2= 3.25"
5.2	170	0.0120	0.55		Shallow Concentrated Flow, 2b to 2c
					Woodland Kv= 5.0 fps
20.2	220	Total			

Subcatchment E2: EWSA-2

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 2

Hydrograph for Subcatchment E2: EWSA-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	1.15	0.00
1.50	0.08	0.00	0.00	27.50	5.60	1.15	0.00
2.00	0.11	0.00	0.00	28.00	5.60	1.15	0.00
2.50	0.14	0.00	0.00	28.50	5.60	1.15	0.00
3.00	0.17	0.00	0.00	29.00	5.60	1.15	0.00
3.50	0.21	0.00	0.00	29.50	5.60	1.15	0.00
4.00	0.24	0.00	0.00	30.00	5.60	1.15	0.00
4.50	0.28	0.00	0.00	30.50	5.60	1.15	0.00
5.00	0.32	0.00	0.00	31.00	5.60	1.15	0.00
5.50	0.36	0.00	0.00	31.50	5.60	1.15	0.00
6.00	0.40	0.00	0.00	32.00	5.60	1.15	0.00
6.50	0.45	0.00	0.00	32.50	5.60	1.15	0.00
7.00	0.51	0.00	0.00	33.00	5.60	1.15	0.00
7.50	0.57	0.00	0.00	33.50	5.60	1.15	0.00
8.00	0.64	0.00	0.00	34.00	5.60	1.15	0.00
8.50	0.72	0.00	0.00	34.50	5.60	1.15	0.00
9.00	0.82	0.00	0.00	35.00	5.60	1.15	0.00
9.50	0.93	0.00	0.00	35.50	5.60	1.15	0.00
10.00	1.06	0.00	0.00	36.00	5.60	1.15	0.00
10.50	1.21	0.00	0.00				
11.00	1.40	0.00	0.00				
11.50	1.67	0.00	0.00				
12.00	2.80	0.11	0.13				
12.50	3.93	0.42	0.91				
13.00	4.20	0.52	0.33				
13.50	4.39	0.60	0.22				
14.00	4.54	0.66	0.19				
14.50	4.67	0.71	0.16				
15.00	4.78	0.76	0.15				
15.50	4.88	0.81	0.13				
16.00	4.96	0.84	0.11				
16.50	5.03	0.88	0.09				
17.00	5.09	0.90	0.09				
17.50	5.15	0.93	0.08				
18.00	5.20	0.95	0.07				
18.50	5.24	0.97	0.06				
19.00	5.28	0.99	0.06				
19.50	5.32	1.01	0.06				
20.00	5.36	1.03	0.05				
20.50	5.39	1.05	0.05				
21.00	5.43	1.07	0.05				
21.50	5.46	1.08	0.05				
22.00	5.49	1.10	0.05				
22.50	5.52	1.11	0.04				
23.00	5.55	1.13	0.04				
23.50	5.58	1.14	0.04				
24.00	5.60	1.15	0.04				
24.50	5.60	1.15	0.00				
25.00	5.60	1.15	0.00				
25.50	5.60	1.15	0.00				
26.00	5.60	1.15	0.00				
26.50	5.60	1.15	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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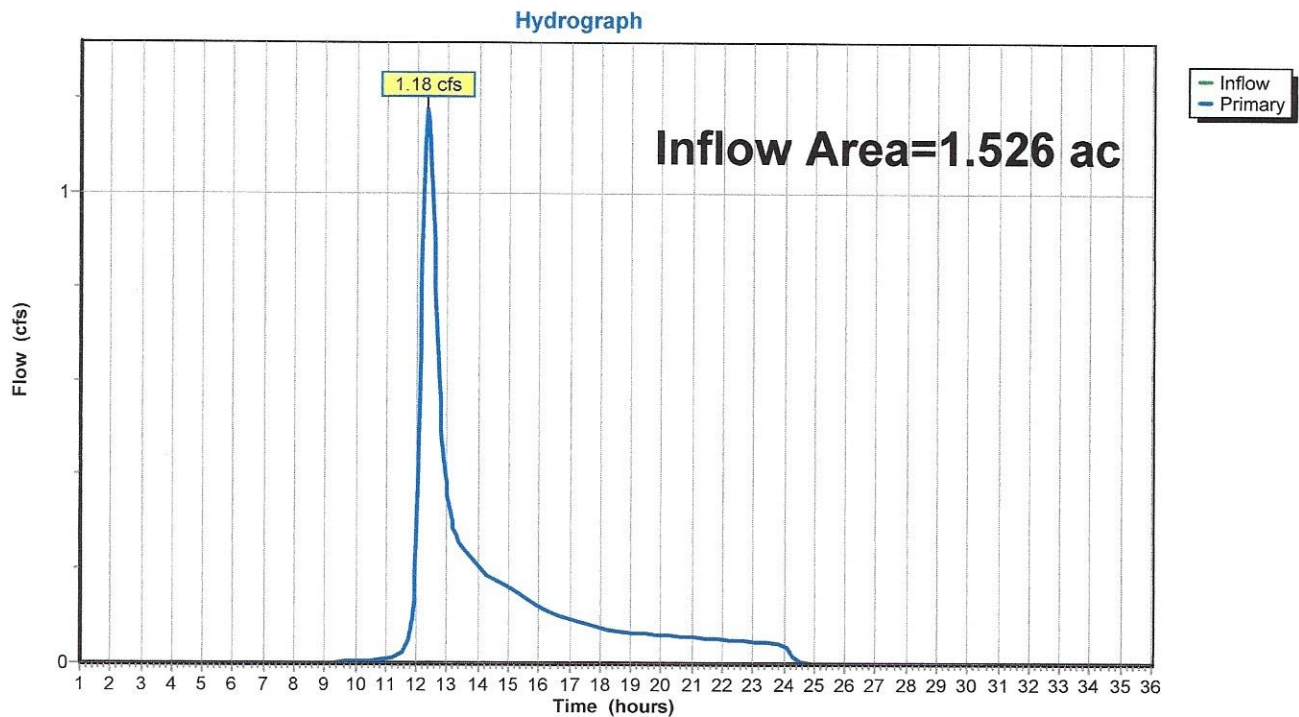
Page 1

Summary for Pond {E: TOTAL EXISTING}

Inflow Area = 1.526 ac, 11.71% Impervious, Inflow Depth = 1.24" for 25 YEAR event
Inflow = 1.18 cfs @ 12.33 hrs, Volume= 0.158 af
Primary = 1.18 cfs @ 12.33 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {E: TOTAL EXISTING



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 2

Hydrograph for Pond {E: TOTAL EXISTING

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.01		0.01				
11.00	0.01		0.01				
11.50	0.02		0.02				
12.00	0.29		0.29				
12.50	0.98		0.98				
13.00	0.36		0.36				
13.50	0.24		0.24				
14.00	0.21		0.21				
14.50	0.18		0.18				
15.00	0.16		0.16				
15.50	0.14		0.14				
16.00	0.12		0.12				
16.50	0.10		0.10				
17.00	0.09		0.09				
17.50	0.08		0.08				
18.00	0.07		0.07				
18.50	0.07		0.07				
19.00	0.06		0.06				
19.50	0.06		0.06				
20.00	0.06		0.06				
20.50	0.06		0.06				
21.00	0.05		0.05				
21.50	0.05		0.05				
22.00	0.05		0.05				
22.50	0.05		0.05				
23.00	0.04		0.04				
23.50	0.04		0.04				
24.00	0.04		0.04				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Summary for Subcatchment 1A: PWSA-1A

Runoff = 0.25 cfs @ 12.10 hrs, Volume= 0.018 af, Depth= 2.49"

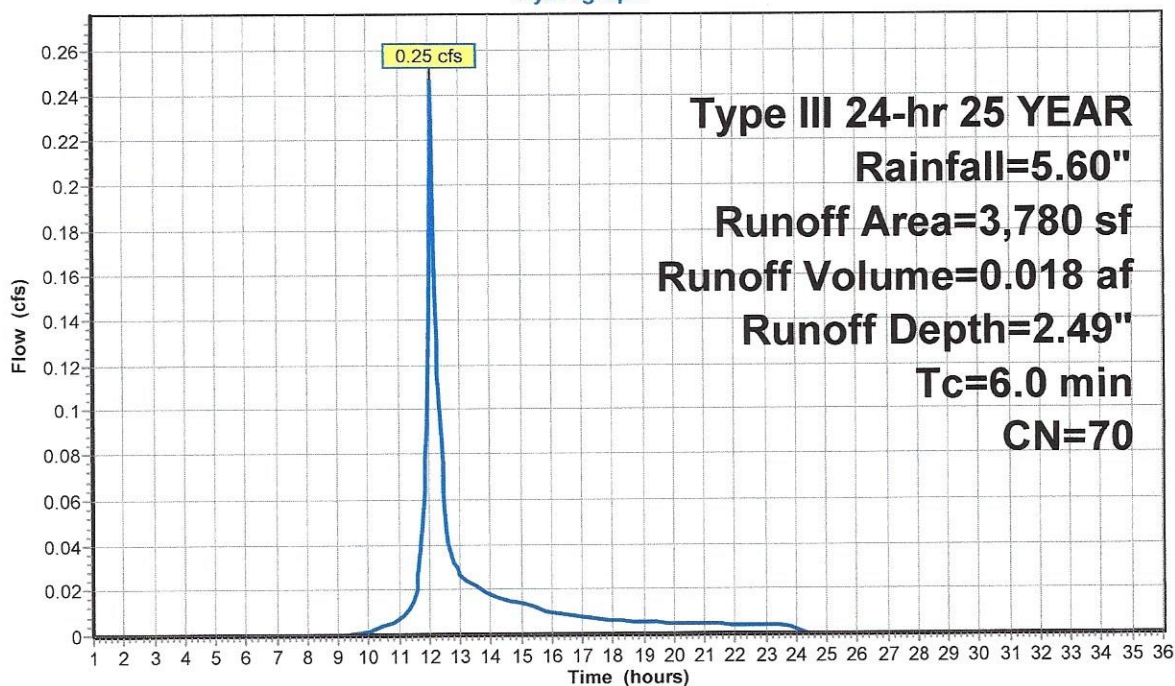
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
1,989	98	Paved parking & roofs
1,791	39	>75% Grass cover, Good, HSG A
3,780	70	Weighted Average
1,791		Pervious Area
1,989		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 1A: PWSA-1A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS*Type III 24-hr 25 YEAR Rainfall=5.60"*

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Hydrograph for Subcatchment 1A: PWSA-1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	2.49	0.00
1.50	0.08	0.00	0.00	27.50	5.60	2.49	0.00
2.00	0.11	0.00	0.00	28.00	5.60	2.49	0.00
2.50	0.14	0.00	0.00	28.50	5.60	2.49	0.00
3.00	0.17	0.00	0.00	29.00	5.60	2.49	0.00
3.50	0.21	0.00	0.00	29.50	5.60	2.49	0.00
4.00	0.24	0.00	0.00	30.00	5.60	2.49	0.00
4.50	0.28	0.00	0.00	30.50	5.60	2.49	0.00
5.00	0.32	0.00	0.00	31.00	5.60	2.49	0.00
5.50	0.36	0.00	0.00	31.50	5.60	2.49	0.00
6.00	0.40	0.00	0.00	32.00	5.60	2.49	0.00
6.50	0.45	0.00	0.00	32.50	5.60	2.49	0.00
7.00	0.51	0.00	0.00	33.00	5.60	2.49	0.00
7.50	0.57	0.00	0.00	33.50	5.60	2.49	0.00
8.00	0.64	0.00	0.00	34.00	5.60	2.49	0.00
8.50	0.72	0.00	0.00	34.50	5.60	2.49	0.00
9.00	0.82	0.00	0.00	35.00	5.60	2.49	0.00
9.50	0.93	0.00	0.00	35.50	5.60	2.49	0.00
10.00	1.06	0.01	0.00	36.00	5.60	2.49	0.00
10.50	1.21	0.03	0.00				
11.00	1.40	0.06	0.01				
11.50	1.67	0.13	0.01				
12.00	2.80	0.61	0.14				
12.50	3.93	1.28	0.06				
13.00	4.20	1.46	0.03				
13.50	4.39	1.59	0.02				
14.00	4.54	1.70	0.02				
14.50	4.67	1.80	0.02				
15.00	4.78	1.88	0.01				
15.50	4.88	1.95	0.01				
16.00	4.96	2.01	0.01				
16.50	5.03	2.06	0.01				
17.00	5.09	2.11	0.01				
17.50	5.15	2.15	0.01				
18.00	5.20	2.18	0.01				
18.50	5.24	2.22	0.01				
19.00	5.28	2.25	0.01				
19.50	5.32	2.28	0.01				
20.00	5.36	2.31	0.00				
20.50	5.39	2.33	0.00				
21.00	5.43	2.36	0.00				
21.50	5.46	2.38	0.00				
22.00	5.49	2.41	0.00				
22.50	5.52	2.43	0.00				
23.00	5.55	2.45	0.00				
23.50	5.58	2.47	0.00				
24.00	5.60	2.49	0.00				
24.50	5.60	2.49	0.00				
25.00	5.60	2.49	0.00				
25.50	5.60	2.49	0.00				
26.00	5.60	2.49	0.00				
26.50	5.60	2.49	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment 2A: PWSA-2A

Runoff = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af, Depth= 2.40"

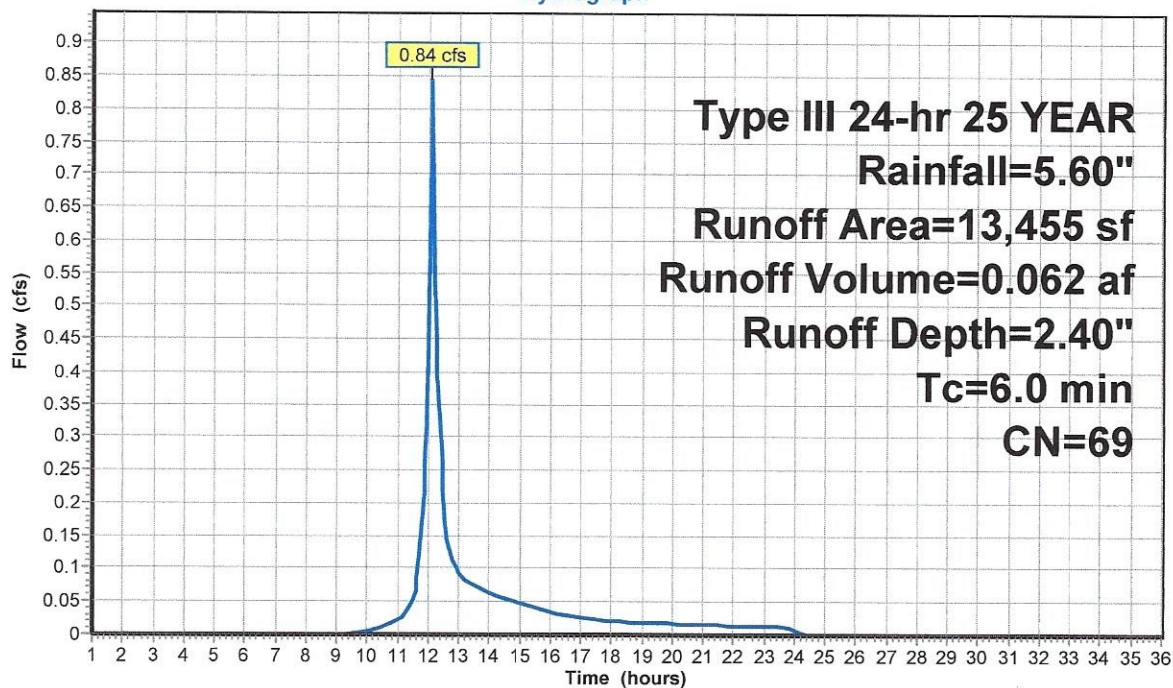
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
6,768	98	Paved parking & roofs
6,687	39	>75% Grass cover, Good, HSG A
13,455	69	Weighted Average
6,687		Pervious Area
6,768		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 2A: PWSA-2A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 2

Hydrograph for Subcatchment 2A: PWSA-2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	2.40	0.00
1.50	0.08	0.00	0.00	27.50	5.60	2.40	0.00
2.00	0.11	0.00	0.00	28.00	5.60	2.40	0.00
2.50	0.14	0.00	0.00	28.50	5.60	2.40	0.00
3.00	0.17	0.00	0.00	29.00	5.60	2.40	0.00
3.50	0.21	0.00	0.00	29.50	5.60	2.40	0.00
4.00	0.24	0.00	0.00	30.00	5.60	2.40	0.00
4.50	0.28	0.00	0.00	30.50	5.60	2.40	0.00
5.00	0.32	0.00	0.00	31.00	5.60	2.40	0.00
5.50	0.36	0.00	0.00	31.50	5.60	2.40	0.00
6.00	0.40	0.00	0.00	32.00	5.60	2.40	0.00
6.50	0.45	0.00	0.00	32.50	5.60	2.40	0.00
7.00	0.51	0.00	0.00	33.00	5.60	2.40	0.00
7.50	0.57	0.00	0.00	33.50	5.60	2.40	0.00
8.00	0.64	0.00	0.00	34.00	5.60	2.40	0.00
8.50	0.72	0.00	0.00	34.50	5.60	2.40	0.00
9.00	0.82	0.00	0.00	35.00	5.60	2.40	0.00
9.50	0.93	0.00	0.00	35.50	5.60	2.40	0.00
10.00	1.06	0.01	0.00	36.00	5.60	2.40	0.00
10.50	1.21	0.02	0.01				
11.00	1.40	0.05	0.02				
11.50	1.67	0.11	0.05				
12.00	2.80	0.57	0.48				
12.50	3.93	1.22	0.22				
13.00	4.20	1.40	0.09				
13.50	4.39	1.53	0.08				
14.00	4.54	1.63	0.06				
14.50	4.67	1.72	0.05				
15.00	4.78	1.80	0.05				
15.50	4.88	1.87	0.04				
16.00	4.96	1.93	0.03				
16.50	5.03	1.98	0.03				
17.00	5.09	2.03	0.03				
17.50	5.15	2.07	0.02				
18.00	5.20	2.10	0.02				
18.50	5.24	2.13	0.02				
19.00	5.28	2.16	0.02				
19.50	5.32	2.19	0.02				
20.00	5.36	2.22	0.02				
20.50	5.39	2.25	0.02				
21.00	5.43	2.27	0.02				
21.50	5.46	2.30	0.02				
22.00	5.49	2.32	0.01				
22.50	5.52	2.34	0.01				
23.00	5.55	2.37	0.01				
23.50	5.58	2.39	0.01				
24.00	5.60	2.40	0.01				
24.50	5.60	2.40	0.00				
25.00	5.60	2.40	0.00				
25.50	5.60	2.40	0.00				
26.00	5.60	2.40	0.00				
26.50	5.60	2.40	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

Prepared by {enter your company name here}

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Page 1

Summary for Pond 1P: PCB-1 & 2

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 2.40" for 25 YEAR event
Inflow = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af
Outflow = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 59.11' @ 12.10 hrs

Flood Elev= 61.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.60'	12.0" x 15.0' long 12" HDPE RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 58.45' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.84 cfs @ 12.10 hrs HW=59.10' TW=58.82' (Dynamic Tailwater)↑**1=12" HDPE** (Barrel Controls 0.84 cfs @ 3.09 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 1

Summary for Pond 2P: PDMH-1

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 2.40" for 25 YEAR event
Inflow = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af
Outflow = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 58.82' @ 12.10 hrs

Flood Elev= 61.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	58.35'	12.0" x 35.0' long 12" HDPE RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 58.00' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.84 cfs @ 12.10 hrs HW=58.82' TW=57.97' (Dynamic Tailwater)
↑ **1=12" HDPE** (Inlet Controls 0.84 cfs @ 2.33 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R1: PRA-1

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 2.40" for 25 YEAR event
 Inflow = 0.84 cfs @ 12.10 hrs, Volume= 0.062 af
 Outflow = 0.41 cfs @ 12.30 hrs, Volume= 0.062 af, Atten= 51%, Lag= 12.2 min
 Discarded = 0.05 cfs @ 11.70 hrs, Volume= 0.046 af
 Primary = 0.36 cfs @ 12.30 hrs, Volume= 0.016 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 58.40' @ 12.30 hrs Surf.Area= 576 sf Storage= 673 cf

Flood Elev= 60.00' Surf.Area= 576 sf Storage= 1,146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 75.1 min (919.3 - 844.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	589 cf	18.00'W x 32.00'L x 3.54'H STONE VOLUME 2,039 cf Overall - 565 cf Embedded = 1,474 cf x 40.0% Voids
#2	57.00'	559 cf	Cultec R-330 x 12 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	57.00'	7 cf	Cultec HVLV F-24 @ 1.00' L x 8 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
		1,155 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	6.0" Round 6" HDPE L= 60.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 58.00' / 57.40' S= 0.0100 ' ' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	56.50'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 11.70 hrs HW=56.56' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.36 cfs @ 12.30 hrs HW=58.40' TW=0.00' (Dynamic Tailwater)↑**1=6" HDPE** (Inlet Controls 0.36 cfs @ 2.14 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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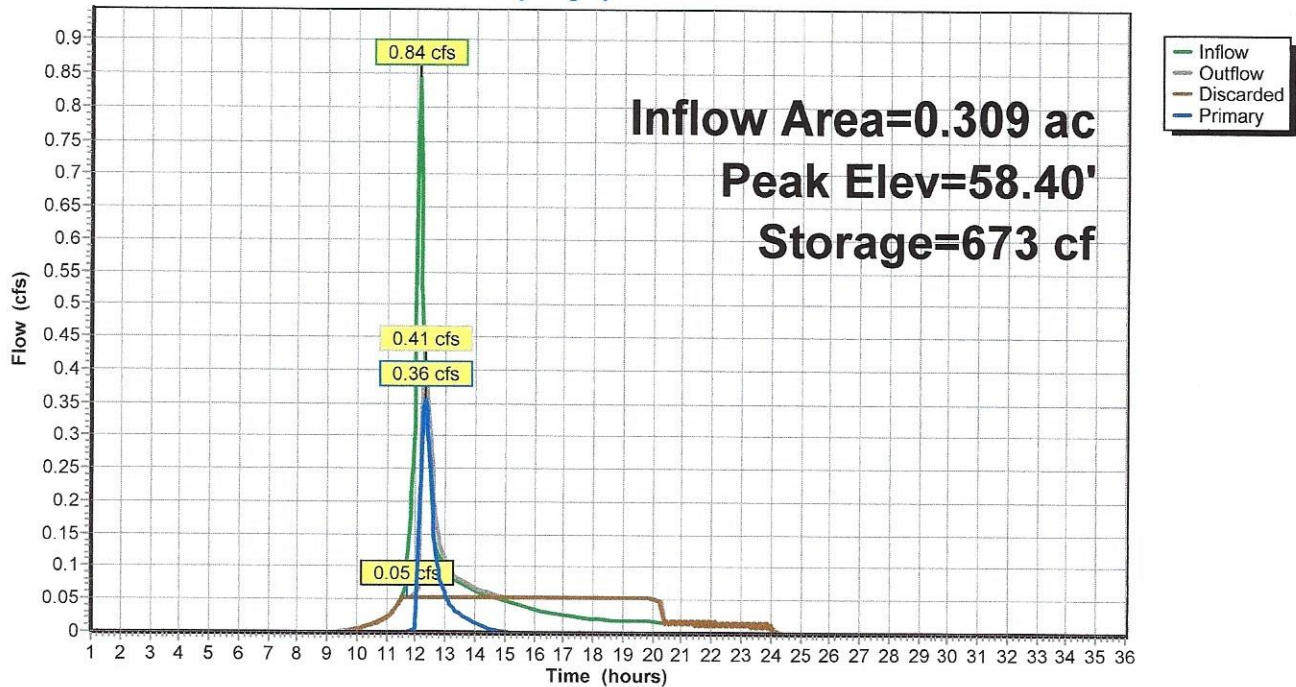
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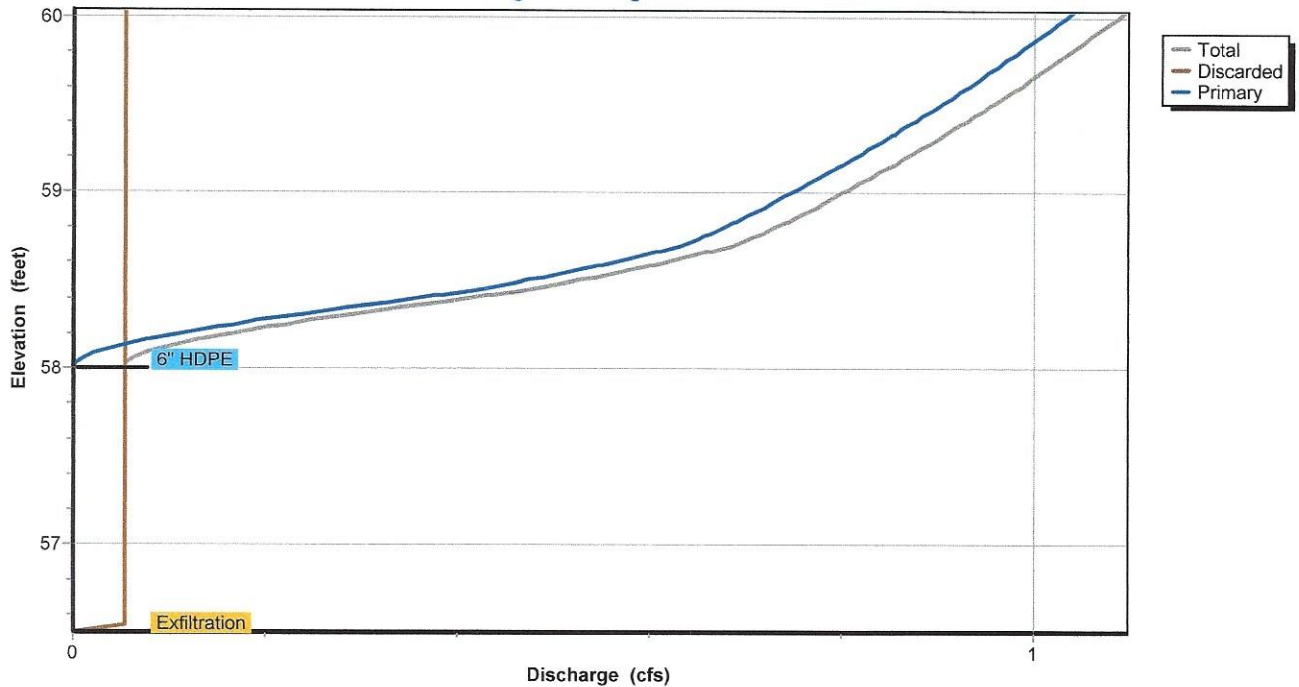
Pond R1: PRA-1

Hydrograph



Pond R1: PRA-1

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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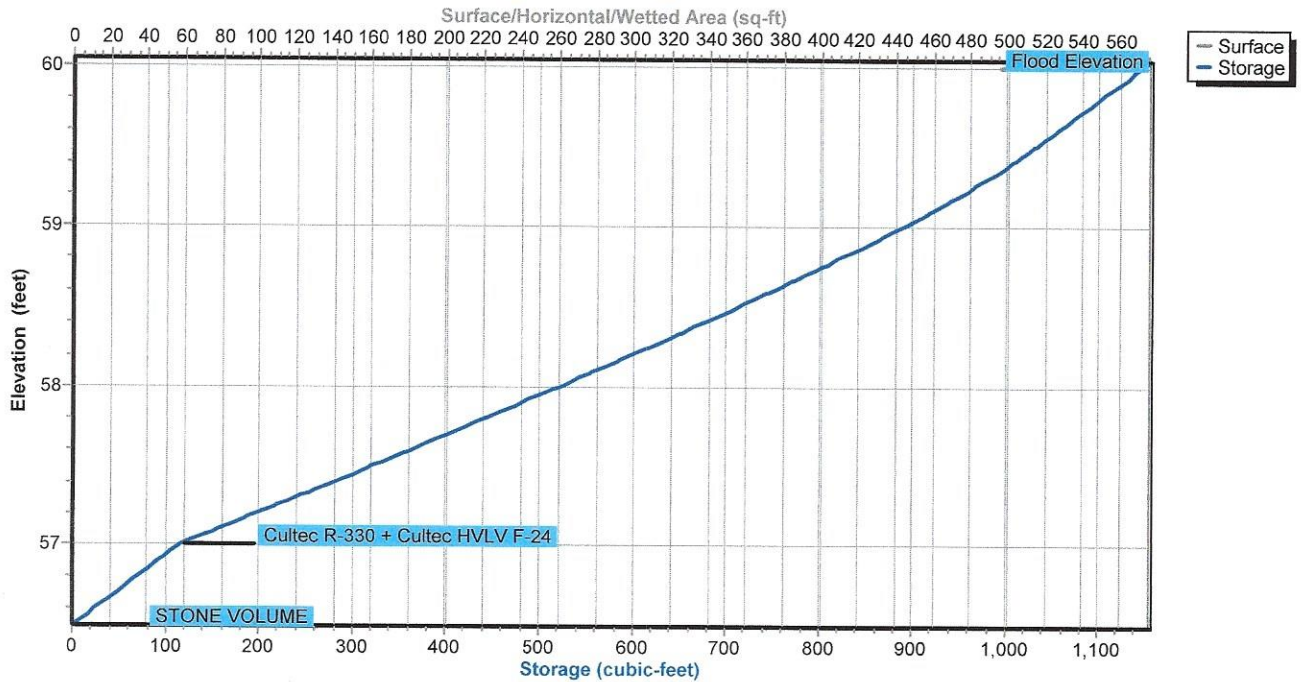
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Page 3

Pond R1: PRA-1

Stage-Area-Storage



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 4

Hydrograph for Pond R1: PRA-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	56.50	0.00	0.00	0.00
2.00	0.00	0	56.50	0.00	0.00	0.00
3.00	0.00	0	56.50	0.00	0.00	0.00
4.00	0.00	0	56.50	0.00	0.00	0.00
5.00	0.00	0	56.50	0.00	0.00	0.00
6.00	0.00	0	56.50	0.00	0.00	0.00
7.00	0.00	0	56.50	0.00	0.00	0.00
8.00	0.00	0	56.50	0.00	0.00	0.00
9.00	0.00	0	56.50	0.00	0.00	0.00
10.00	0.00	0	56.50	0.00	0.00	0.00
11.00	0.02	0	56.50	0.02	0.02	0.00
12.00	0.48	210	57.23	0.05	0.05	0.00
13.00	0.09	575	58.14	0.11	0.05	0.06
14.00	0.06	548	58.07	0.07	0.05	0.01
15.00	0.05	528	58.02	0.05	0.05	0.00
16.00	0.03	484	57.91	0.05	0.05	0.00
17.00	0.03	401	57.70	0.05	0.05	0.00
18.00	0.02	297	57.44	0.05	0.05	0.00
19.00	0.02	177	57.15	0.05	0.05	0.00
20.00	0.02	50	56.72	0.05	0.05	0.00
21.00	0.02	0	56.50	0.02	0.02	0.00
22.00	0.01	0	56.50	0.02	0.02	0.00
23.00	0.01	0	56.50	0.02	0.02	0.00
24.00	0.01	0	56.50	0.01	0.01	0.00
25.00	0.00	0	56.50	0.00	0.00	0.00
26.00	0.00	0	56.50	0.00	0.00	0.00
27.00	0.00	0	56.50	0.00	0.00	0.00
28.00	0.00	0	56.50	0.00	0.00	0.00
29.00	0.00	0	56.50	0.00	0.00	0.00
30.00	0.00	0	56.50	0.00	0.00	0.00
31.00	0.00	0	56.50	0.00	0.00	0.00
32.00	0.00	0	56.50	0.00	0.00	0.00
33.00	0.00	0	56.50	0.00	0.00	0.00
34.00	0.00	0	56.50	0.00	0.00	0.00
35.00	0.00	0	56.50	0.00	0.00	0.00
36.00	0.00	0	56.50	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 1

Summary for Subcatchment 2B: PWSA-2B

Runoff = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af, Depth= 3.04"

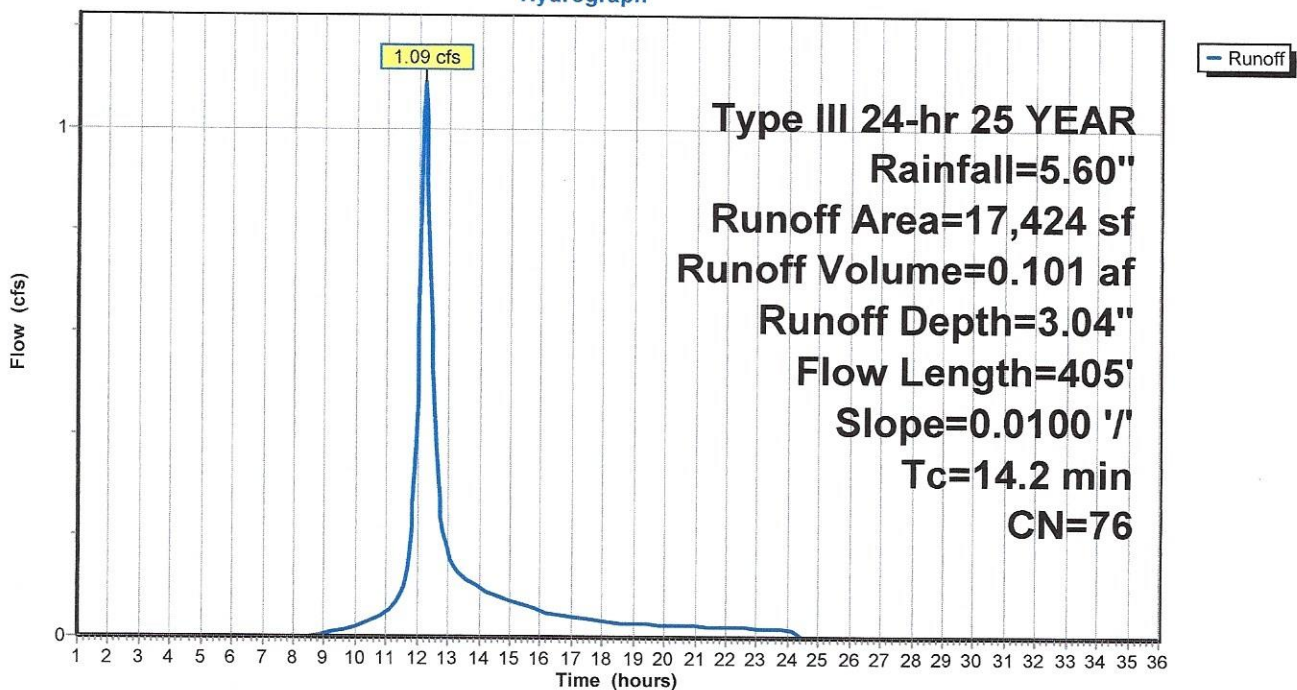
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
10,974	98	Paved parking & roofs
6,450	39	>75% Grass cover, Good, HSG A
17,424	76	Weighted Average
6,450		Pervious Area
10,974		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2b1 TO 2b2
2.1	90	0.0100	0.70		Grass: Short n= 0.150 P2= 3.25"
					Shallow Concentrated Flow, 2b2 TO 2b3
					Short Grass Pasture Kv= 7.0 fps
4.7	265	0.0100	0.95	0.09	Channel Flow, 2b3 TO 2b4
					Area= 0.1 sf Perim= 4.2' r= 0.02'
					n= 0.013 Asphalt, smooth
14.2	405	Total			

Subcatchment 2B: PWSA-2B

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 2

Hydrograph for Subcatchment 2B: PWSA-2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	3.04	0.00
1.50	0.08	0.00	0.00	27.50	5.60	3.04	0.00
2.00	0.11	0.00	0.00	28.00	5.60	3.04	0.00
2.50	0.14	0.00	0.00	28.50	5.60	3.04	0.00
3.00	0.17	0.00	0.00	29.00	5.60	3.04	0.00
3.50	0.21	0.00	0.00	29.50	5.60	3.04	0.00
4.00	0.24	0.00	0.00	30.00	5.60	3.04	0.00
4.50	0.28	0.00	0.00	30.50	5.60	3.04	0.00
5.00	0.32	0.00	0.00	31.00	5.60	3.04	0.00
5.50	0.36	0.00	0.00	31.50	5.60	3.04	0.00
6.00	0.40	0.00	0.00	32.00	5.60	3.04	0.00
6.50	0.45	0.00	0.00	32.50	5.60	3.04	0.00
7.00	0.51	0.00	0.00	33.00	5.60	3.04	0.00
7.50	0.57	0.00	0.00	33.50	5.60	3.04	0.00
8.00	0.64	0.00	0.00	34.00	5.60	3.04	0.00
8.50	0.72	0.00	0.00	34.50	5.60	3.04	0.00
9.00	0.82	0.01	0.01	35.00	5.60	3.04	0.00
9.50	0.93	0.03	0.01	35.50	5.60	3.04	0.00
10.00	1.06	0.05	0.02	36.00	5.60	3.04	0.00
10.50	1.21	0.09	0.03				
11.00	1.40	0.15	0.05				
11.50	1.67	0.26	0.09				
12.00	2.80	0.88	0.46				
12.50	3.93	1.69	0.53				
13.00	4.20	1.89	0.16				
13.50	4.39	2.04	0.12				
14.00	4.54	2.16	0.10				
14.50	4.67	2.27	0.08				
15.00	4.78	2.36	0.07				
15.50	4.88	2.44	0.06				
16.00	4.96	2.50	0.05				
16.50	5.03	2.56	0.05				
17.00	5.09	2.61	0.04				
17.50	5.15	2.66	0.04				
18.00	5.20	2.70	0.03				
18.50	5.24	2.74	0.03				
19.00	5.28	2.77	0.03				
19.50	5.32	2.80	0.03				
20.00	5.36	2.83	0.03				
20.50	5.39	2.86	0.02				
21.00	5.43	2.89	0.02				
21.50	5.46	2.92	0.02				
22.00	5.49	2.95	0.02				
22.50	5.52	2.97	0.02				
23.00	5.55	2.99	0.02				
23.50	5.58	3.02	0.02				
24.00	5.60	3.04	0.02				
24.50	5.60	3.04	0.00				
25.00	5.60	3.04	0.00				
25.50	5.60	3.04	0.00				
26.00	5.60	3.04	0.00				
26.50	5.60	3.04	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Summary for Pond 3P: PCB-3 & 4

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 3.04" for 25 YEAR event
Inflow = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af
Outflow = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 56.82' @ 12.21 hrs

Flood Elev= 57.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	56.25'	12.0" x 20.0' long 12" HDPE RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 56.05' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=1.07 cfs @ 12.20 hrs HW=56.82' TW=56.50' (Dynamic Tailwater)↑ **1=12" HDPE** (Outlet Controls 1.07 cfs @ 3.30 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Summary for Pond 4P: PDMH-2

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 3.04" for 25 YEAR event
Inflow = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af
Outflow = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 56.61' @ 12.40 hrs

Flood Elev= 57.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	55.95'	12.0" x 30.0' long 12" HDPE RCP, sq.cut end projecting, Ke= 0.500 Outlet Invert= 55.65' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=0.99 cfs @ 12.20 hrs HW=56.50' TW=56.14' (Dynamic Tailwater)
↑ **1=12" HDPE** (Outlet Controls 0.99 cfs @ 3.27 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 1

Summary for Pond R2: PRA-2

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 3.04" for 25 YEAR event
 Inflow = 1.09 cfs @ 12.20 hrs, Volume= 0.101 af
 Outflow = 0.72 cfs @ 12.39 hrs, Volume= 0.101 af, Atten= 34%, Lag= 11.3 min
 Discarded = 0.07 cfs @ 11.55 hrs, Volume= 0.064 af
 Primary = 0.66 cfs @ 12.39 hrs, Volume= 0.037 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 56.40' @ 12.39 hrs Surf.Area= 702 sf Storage= 988 cf

Flood Elev= 57.70' Surf.Area= 702 sf Storage= 1,418 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 66.7 min (901.4 - 834.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.15'	711 cf	18.00'W x 39.00'L x 3.54'H STONE VOLUME 2,485 cf Overall - 707 cf Embedded = 1,778 cf x 40.0% Voids
#2	54.65'	699 cf	Cultec R-330 x 15 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	54.65'	8 cf	Cultec HVLV F-24 @ 1.00' L x 10 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
		1,418 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	55.65'	6.0" Round 6" HDPE L= 65.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 55.65' / 55.00' S= 0.0100 ' /' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	54.15'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.07 cfs @ 11.55 hrs HW=54.20' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.07 cfs)**Primary OutFlow** Max=0.66 cfs @ 12.39 hrs HW=56.40' TW=0.00' (Dynamic Tailwater)↑**1=6" HDPE** (Barrel Controls 0.66 cfs @ 3.34 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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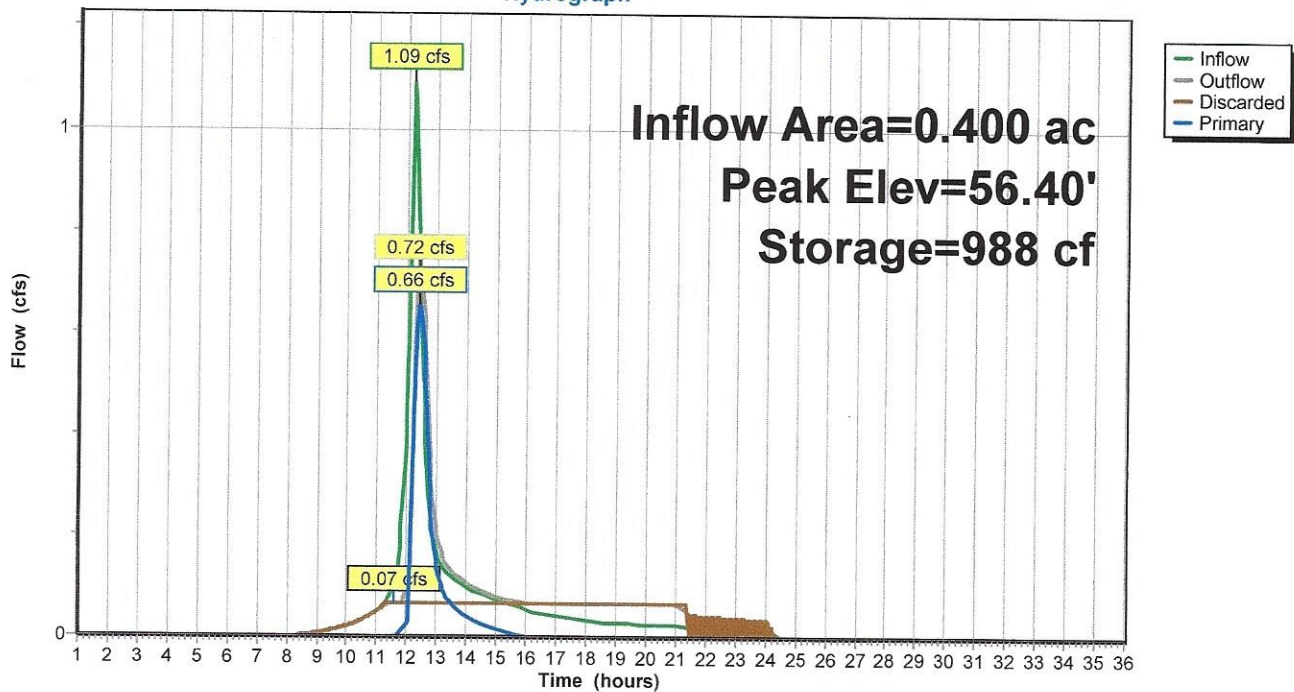
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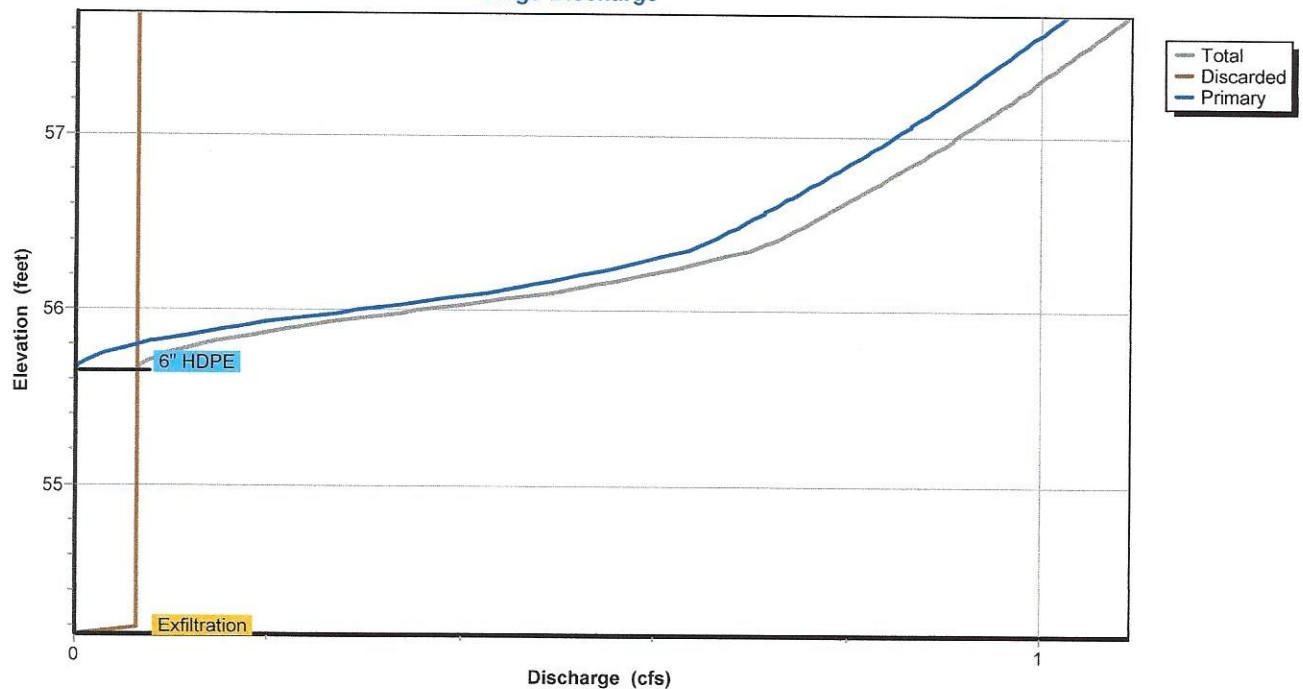
Pond R2: PRA-2

Hydrograph



Pond R2: PRA-2

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

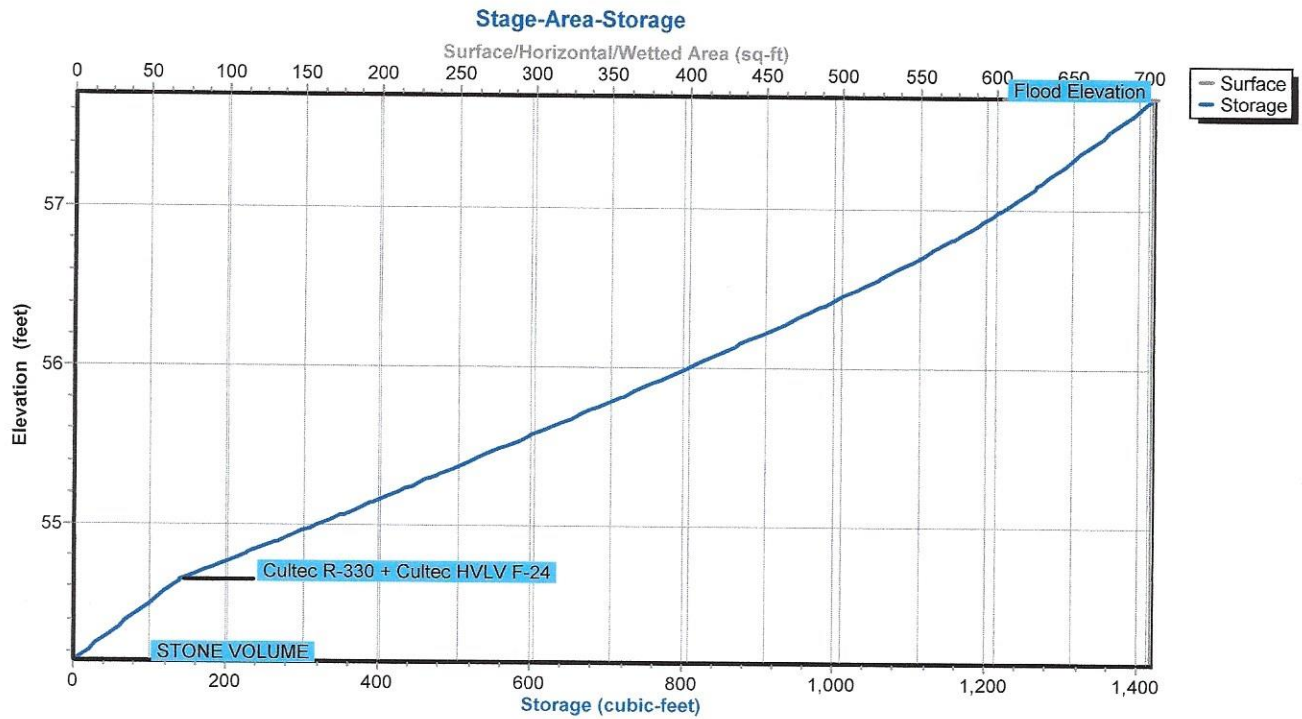
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Pond R2: PRA-2



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Page 4

Hydrograph for Pond R2: PRA-2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	54.15	0.00	0.00	0.00
2.00	0.00	0	54.15	0.00	0.00	0.00
3.00	0.00	0	54.15	0.00	0.00	0.00
4.00	0.00	0	54.15	0.00	0.00	0.00
5.00	0.00	0	54.15	0.00	0.00	0.00
6.00	0.00	0	54.15	0.00	0.00	0.00
7.00	0.00	0	54.15	0.00	0.00	0.00
8.00	0.00	0	54.15	0.00	0.00	0.00
9.00	0.01	0	54.15	0.01	0.01	0.00
10.00	0.02	0	54.15	0.02	0.02	0.00
11.00	0.05	0	54.15	0.05	0.05	0.00
12.00	0.46	266	54.90	0.07	0.07	0.00
13.00	0.16	747	55.87	0.20	0.07	0.14
14.00	0.10	696	55.77	0.11	0.07	0.04
15.00	0.07	673	55.72	0.08	0.07	0.01
16.00	0.05	644	55.66	0.07	0.07	0.00
17.00	0.04	576	55.52	0.07	0.07	0.00
18.00	0.03	474	55.31	0.07	0.07	0.00
19.00	0.03	347	55.06	0.07	0.07	0.00
20.00	0.03	208	54.78	0.07	0.07	0.00
21.00	0.02	61	54.37	0.07	0.07	0.00
22.00	0.02	0	54.15	0.04	0.04	0.00
23.00	0.02	0	54.15	0.04	0.04	0.00
24.00	0.02	0	54.15	0.03	0.03	0.00
25.00	0.00	0	54.15	0.00	0.00	0.00
26.00	0.00	0	54.15	0.00	0.00	0.00
27.00	0.00	0	54.15	0.00	0.00	0.00
28.00	0.00	0	54.15	0.00	0.00	0.00
29.00	0.00	0	54.15	0.00	0.00	0.00
30.00	0.00	0	54.15	0.00	0.00	0.00
31.00	0.00	0	54.15	0.00	0.00	0.00
32.00	0.00	0	54.15	0.00	0.00	0.00
33.00	0.00	0	54.15	0.00	0.00	0.00
34.00	0.00	0	54.15	0.00	0.00	0.00
35.00	0.00	0	54.15	0.00	0.00	0.00
36.00	0.00	0	54.15	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Summary for Subcatchment 2C: PWSA-2C

Runoff = 0.08 cfs @ 12.44 hrs, Volume= 0.021 af, Depth= 0.34"

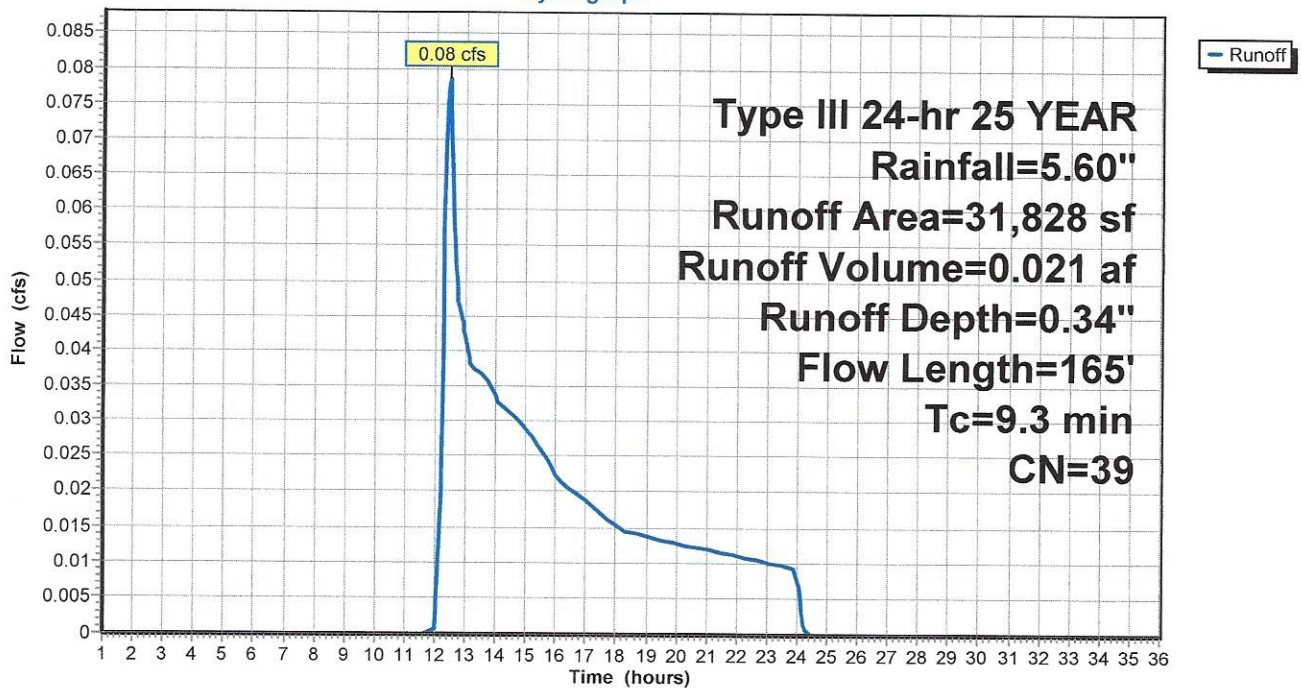
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR Rainfall=5.60"

Area (sf)	CN	Description
31,828	39	>75% Grass cover, Good, HSG A
31,828		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2c1 TO 2c2
1.9	115	0.0200	0.99		Grass: Short n= 0.150 P2= 3.25"
					Shallow Concentrated Flow, 2c2 TO 2c3
					Short Grass Pasture Kv= 7.0 fps
9.3	165	Total			

Subcatchment 2C: PWSA-2C

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Hydrograph for Subcatchment 2C: PWSA-2C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.06	0.00	0.00	27.00	5.60	0.34	0.00
1.50	0.08	0.00	0.00	27.50	5.60	0.34	0.00
2.00	0.11	0.00	0.00	28.00	5.60	0.34	0.00
2.50	0.14	0.00	0.00	28.50	5.60	0.34	0.00
3.00	0.17	0.00	0.00	29.00	5.60	0.34	0.00
3.50	0.21	0.00	0.00	29.50	5.60	0.34	0.00
4.00	0.24	0.00	0.00	30.00	5.60	0.34	0.00
4.50	0.28	0.00	0.00	30.50	5.60	0.34	0.00
5.00	0.32	0.00	0.00	31.00	5.60	0.34	0.00
5.50	0.36	0.00	0.00	31.50	5.60	0.34	0.00
6.00	0.40	0.00	0.00	32.00	5.60	0.34	0.00
6.50	0.45	0.00	0.00	32.50	5.60	0.34	0.00
7.00	0.51	0.00	0.00	33.00	5.60	0.34	0.00
7.50	0.57	0.00	0.00	33.50	5.60	0.34	0.00
8.00	0.64	0.00	0.00	34.00	5.60	0.34	0.00
8.50	0.72	0.00	0.00	34.50	5.60	0.34	0.00
9.00	0.82	0.00	0.00	35.00	5.60	0.34	0.00
9.50	0.93	0.00	0.00	35.50	5.60	0.34	0.00
10.00	1.06	0.00	0.00	36.00	5.60	0.34	0.00
10.50	1.21	0.00	0.00				
11.00	1.40	0.00	0.00				
11.50	1.67	0.00	0.00				
12.00	2.80	0.00	0.00				
12.50	3.93	0.04	0.08				
13.00	4.20	0.07	0.04				
13.50	4.39	0.09	0.04				
14.00	4.54	0.12	0.03				
14.50	4.67	0.14	0.03				
15.00	4.78	0.16	0.03				
15.50	4.88	0.18	0.03				
16.00	4.96	0.19	0.02				
16.50	5.03	0.21	0.02				
17.00	5.09	0.22	0.02				
17.50	5.15	0.23	0.02				
18.00	5.20	0.24	0.02				
18.50	5.24	0.25	0.01				
19.00	5.28	0.26	0.01				
19.50	5.32	0.27	0.01				
20.00	5.36	0.28	0.01				
20.50	5.39	0.29	0.01				
21.00	5.43	0.30	0.01				
21.50	5.46	0.30	0.01				
22.00	5.49	0.31	0.01				
22.50	5.52	0.32	0.01				
23.00	5.55	0.32	0.01				
23.50	5.58	0.33	0.01				
24.00	5.60	0.34	0.01				
24.50	5.60	0.34	0.00				
25.00	5.60	0.34	0.00				
25.50	5.60	0.34	0.00				
26.00	5.60	0.34	0.00				
26.50	5.60	0.34	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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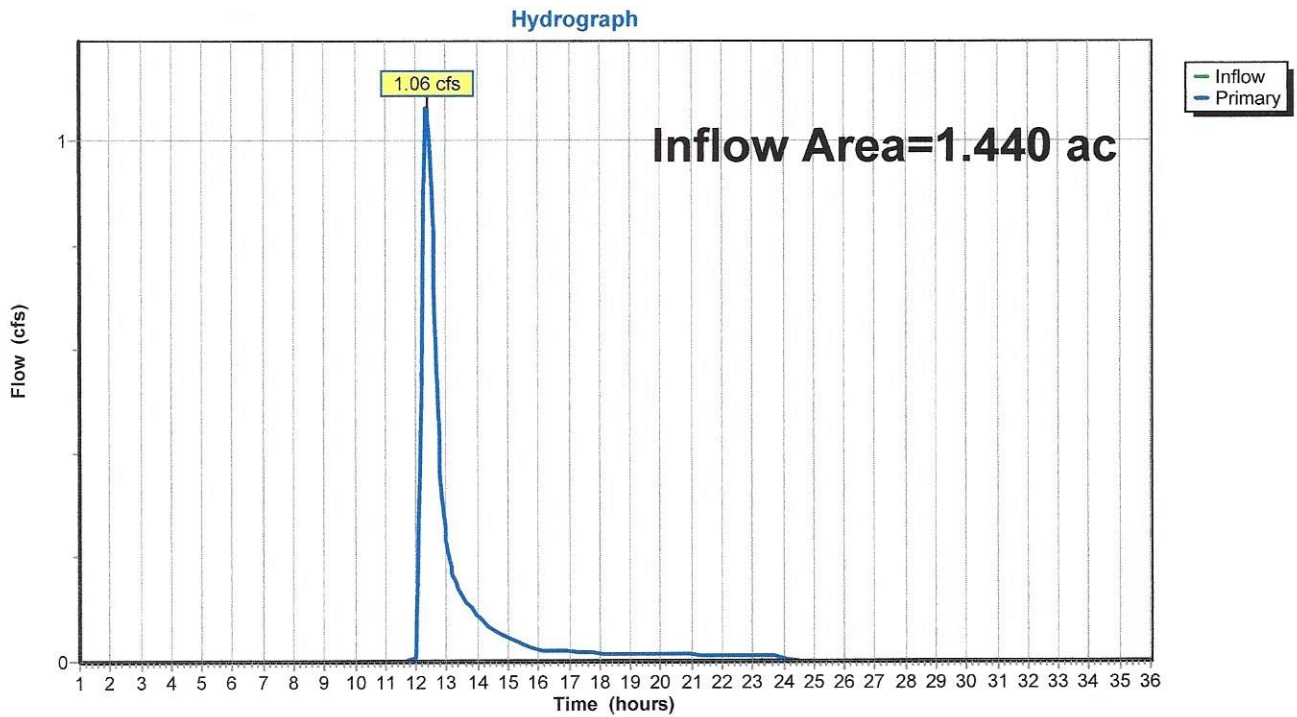
Page 1

Summary for Pond {2P: PWSA-2 TOTAL}

Inflow Area = 1.440 ac, 28.29% Impervious, Inflow Depth = 0.61" for 25 YEAR event
Inflow = 1.06 cfs @ 12.36 hrs, Volume= 0.074 af
Primary = 1.06 cfs @ 12.36 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {2P: PWSA-2 TOTAL}



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

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Hydrograph for Pond {2P: PWSA-2 TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.00		0.00				
12.50	0.93		0.93				
13.00	0.23		0.23				
13.50	0.13		0.13				
14.00	0.09		0.09				
14.50	0.06		0.06				
15.00	0.04		0.04				
15.50	0.03		0.03				
16.00	0.02		0.02				
16.50	0.02		0.02				
17.00	0.02		0.02				
17.50	0.02		0.02				
18.00	0.02		0.02				
18.50	0.01		0.01				
19.00	0.01		0.01				
19.50	0.01		0.01				
20.00	0.01		0.01				
20.50	0.01		0.01				
21.00	0.01		0.01				
21.50	0.01		0.01				
22.00	0.01		0.01				
22.50	0.01		0.01				
23.00	0.01		0.01				
23.50	0.01		0.01				
24.00	0.01		0.01				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

Prepared by {enter your company name here}

Printed 7/8/2020

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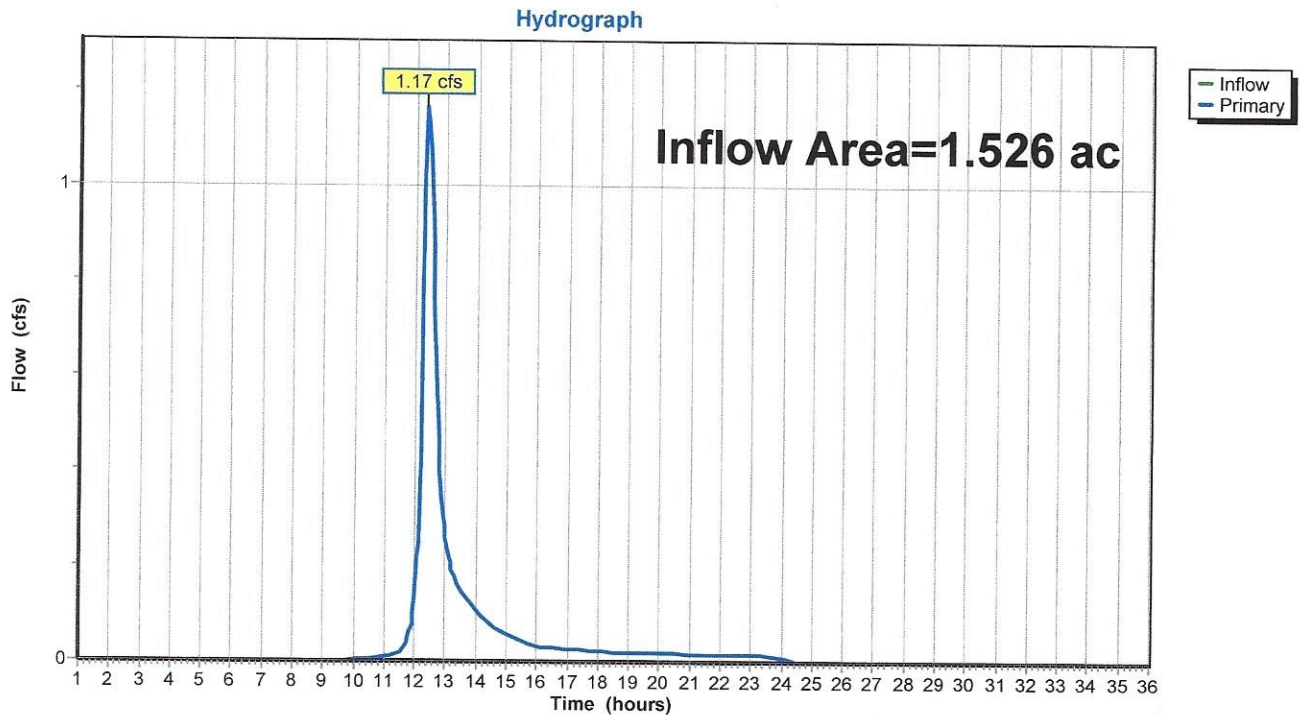
Page 1

Summary for Pond {P: PROPOSED TOTAL

Inflow Area = 1.526 ac, 29.68% Impervious, Inflow Depth = 0.72" for 25 YEAR event
Inflow = 1.17 cfs @ 12.34 hrs, Volume= 0.092 af
Primary = 1.17 cfs @ 12.34 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {P: PROPOSED TOTAL



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 25 YEAR Rainfall=5.60"

Prepared by {enter your company name here}

Printed 7/8/2020

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Page 2

Hydrograph for Pond {P: PROPOSED TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.01		0.01				
11.50	0.01		0.01				
12.00	0.14		0.14				
12.50	0.99		0.99				
13.00	0.26		0.26				
13.50	0.15		0.15				
14.00	0.11		0.11				
14.50	0.08		0.08				
15.00	0.06		0.06				
15.50	0.04		0.04				
16.00	0.03		0.03				
16.50	0.03		0.03				
17.00	0.03		0.03				
17.50	0.02		0.02				
18.00	0.02		0.02				
18.50	0.02		0.02				
19.00	0.02		0.02				
19.50	0.02		0.02				
20.00	0.02		0.02				
20.50	0.02		0.02				
21.00	0.02		0.02				
21.50	0.02		0.02				
22.00	0.02		0.02				
22.50	0.01		0.01				
23.00	0.01		0.01				
23.50	0.01		0.01				
24.00	0.01		0.01				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

100 Year Storm
for
Existing & Proposed
Site Conditions

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment E1: EWSA-1

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 3.94"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

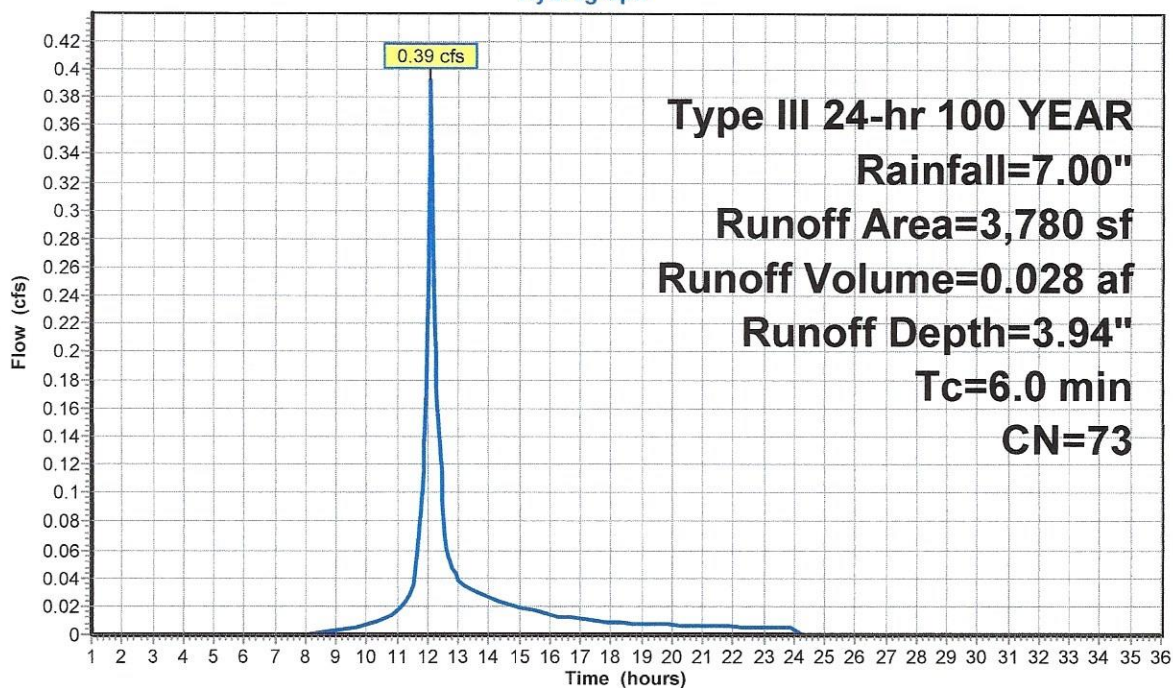
Type III 24-hr 100 YEAR Rainfall=7.00"

	Area (sf)	CN	Description
	1,490	98	Paved parking & roofs
*	2,290	56	<50% Grass cover, Poor, HSG A
	3,780	73	Weighted Average
	2,290		Pervious Area
	1,490		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment E1: EWSA-1

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment E1: EWSA-1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	3.94	0.00
1.50	0.10	0.00	0.00	27.50	7.00	3.94	0.00
2.00	0.14	0.00	0.00	28.00	7.00	3.94	0.00
2.50	0.18	0.00	0.00	28.50	7.00	3.94	0.00
3.00	0.22	0.00	0.00	29.00	7.00	3.94	0.00
3.50	0.26	0.00	0.00	29.50	7.00	3.94	0.00
4.00	0.30	0.00	0.00	30.00	7.00	3.94	0.00
4.50	0.35	0.00	0.00	30.50	7.00	3.94	0.00
5.00	0.40	0.00	0.00	31.00	7.00	3.94	0.00
5.50	0.45	0.00	0.00	31.50	7.00	3.94	0.00
6.00	0.50	0.00	0.00	32.00	7.00	3.94	0.00
6.50	0.56	0.00	0.00	32.50	7.00	3.94	0.00
7.00	0.63	0.00	0.00	33.00	7.00	3.94	0.00
7.50	0.71	0.00	0.00	33.50	7.00	3.94	0.00
8.00	0.80	0.00	0.00	34.00	7.00	3.94	0.00
8.50	0.90	0.01	0.00	34.50	7.00	3.94	0.00
9.00	1.02	0.02	0.00	35.00	7.00	3.94	0.00
9.50	1.16	0.04	0.00	35.50	7.00	3.94	0.00
10.00	1.32	0.08	0.01	36.00	7.00	3.94	0.00
10.50	1.52	0.13	0.01				
11.00	1.75	0.22	0.02				
11.50	2.09	0.36	0.03				
12.00	3.50	1.18	0.23				
12.50	4.91	2.21	0.09				
13.00	5.25	2.48	0.04				
13.50	5.48	2.67	0.03				
14.00	5.68	2.82	0.03				
14.50	5.84	2.96	0.02				
15.00	5.98	3.07	0.02				
15.50	6.10	3.17	0.02				
16.00	6.20	3.26	0.01				
16.50	6.29	3.33	0.01				
17.00	6.37	3.40	0.01				
17.50	6.44	3.45	0.01				
18.00	6.50	3.50	0.01				
18.50	6.55	3.55	0.01				
19.00	6.60	3.60	0.01				
19.50	6.65	3.64	0.01				
20.00	6.70	3.68	0.01				
20.50	6.74	3.72	0.01				
21.00	6.79	3.75	0.01				
21.50	6.83	3.79	0.01				
22.00	6.87	3.82	0.01				
22.50	6.90	3.85	0.01				
23.00	6.94	3.88	0.01				
23.50	6.97	3.91	0.00				
24.00	7.00	3.94	0.00				
24.50	7.00	3.94	0.00				
25.00	7.00	3.94	0.00				
25.50	7.00	3.94	0.00				
26.00	7.00	3.94	0.00				
26.50	7.00	3.94	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

Printed 6/8/2020

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Page 1

Summary for Subcatchment E2: EWSA-2

Runoff = 1.99 cfs @ 12.31 hrs, Volume= 0.232 af, Depth= 1.94"

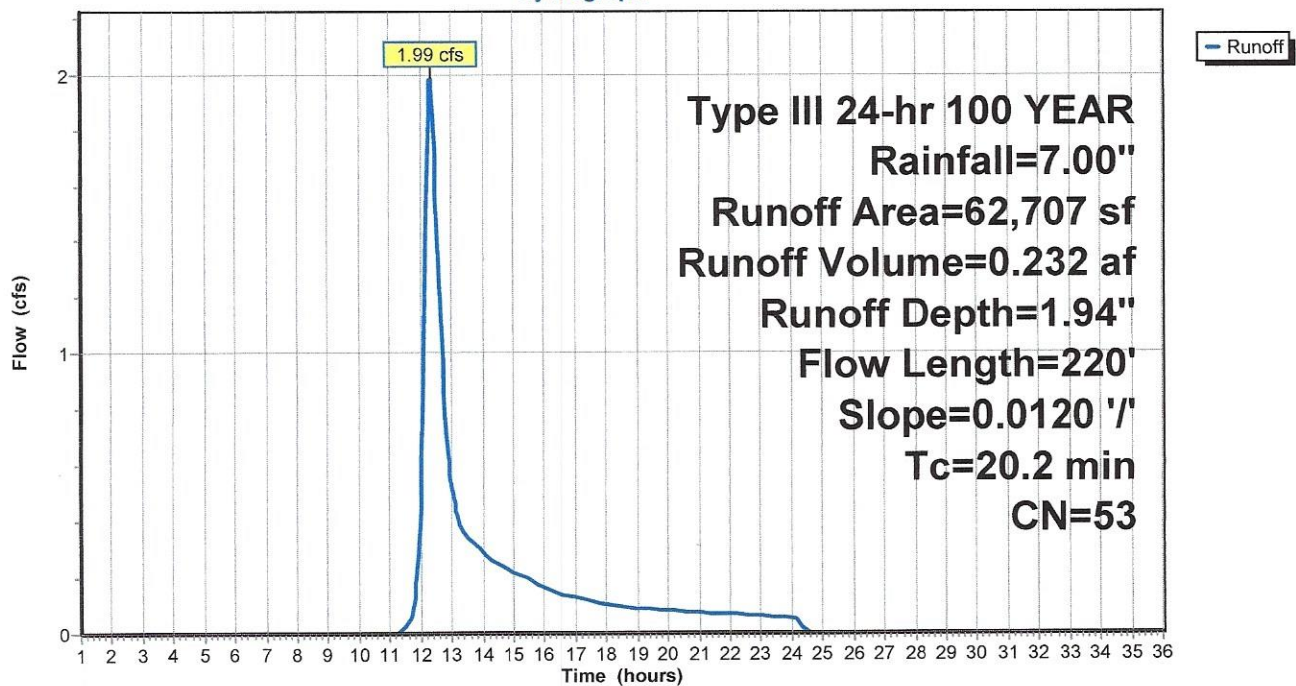
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
4,591	98	Paved parking & roofs
1,704	98	Paved parking & roofs
1,355	76	Gravel roads, HSG A
10,271	68	<50% Grass cover, Poor, HSG A
* 44,786	42	Woods, Fair, HSG A
62,707	53	Weighted Average
56,412		Pervious Area
6,295		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.0	50	0.0120	0.06		Sheet Flow, 2a to 2b
					Woods: Light underbrush n= 0.400 P2= 3.25"
5.2	170	0.0120	0.55		Shallow Concentrated Flow, 2b to 2c
					Woodland Kv= 5.0 fps
20.2	220	Total			

Subcatchment E2: EWSA-2

Hydrograph



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment E2: EWSA-2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	1.94	0.00
1.50	0.10	0.00	0.00	27.50	7.00	1.94	0.00
2.00	0.14	0.00	0.00	28.00	7.00	1.94	0.00
2.50	0.18	0.00	0.00	28.50	7.00	1.94	0.00
3.00	0.22	0.00	0.00	29.00	7.00	1.94	0.00
3.50	0.26	0.00	0.00	29.50	7.00	1.94	0.00
4.00	0.30	0.00	0.00	30.00	7.00	1.94	0.00
4.50	0.35	0.00	0.00	30.50	7.00	1.94	0.00
5.00	0.40	0.00	0.00	31.00	7.00	1.94	0.00
5.50	0.45	0.00	0.00	31.50	7.00	1.94	0.00
6.00	0.50	0.00	0.00	32.00	7.00	1.94	0.00
6.50	0.56	0.00	0.00	32.50	7.00	1.94	0.00
7.00	0.63	0.00	0.00	33.00	7.00	1.94	0.00
7.50	0.71	0.00	0.00	33.50	7.00	1.94	0.00
8.00	0.80	0.00	0.00	34.00	7.00	1.94	0.00
8.50	0.90	0.00	0.00	34.50	7.00	1.94	0.00
9.00	1.02	0.00	0.00	35.00	7.00	1.94	0.00
9.50	1.16	0.00	0.00	35.50	7.00	1.94	0.00
10.00	1.32	0.00	0.00	36.00	7.00	1.94	0.00
10.50	1.52	0.00	0.00				
11.00	1.75	0.00	0.00				
11.50	2.09	0.01	0.02				
12.00	3.50	0.28	0.45				
12.50	4.91	0.82	1.58				
13.00	5.25	0.98	0.53				
13.50	5.48	1.09	0.35				
14.00	5.68	1.19	0.29				
14.50	5.84	1.28	0.25				
15.00	5.98	1.35	0.22				
15.50	6.10	1.42	0.20				
16.00	6.20	1.47	0.17				
16.50	6.29	1.52	0.14				
17.00	6.37	1.57	0.13				
17.50	6.44	1.61	0.12				
18.00	6.50	1.64	0.10				
18.50	6.55	1.67	0.09				
19.00	6.60	1.70	0.09				
19.50	6.65	1.73	0.08				
20.00	6.70	1.76	0.08				
20.50	6.74	1.78	0.08				
21.00	6.79	1.81	0.07				
21.50	6.83	1.83	0.07				
22.00	6.87	1.86	0.07				
22.50	6.90	1.88	0.06				
23.00	6.94	1.90	0.06				
23.50	6.97	1.92	0.06				
24.00	7.00	1.94	0.05				
24.50	7.00	1.94	0.01				
25.00	7.00	1.94	0.00				
25.50	7.00	1.94	0.00				
26.00	7.00	1.94	0.00				
26.50	7.00	1.94	0.00				

CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

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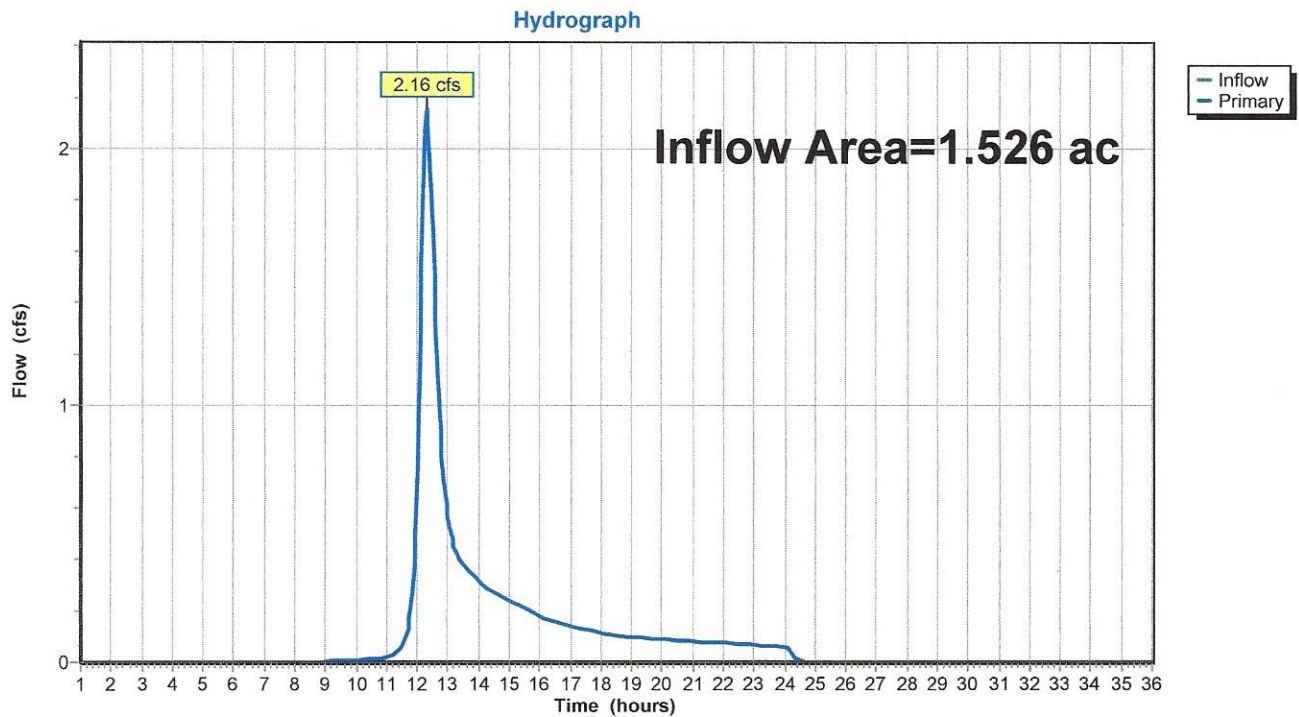
Page 1

Summary for Pond {E: TOTAL EXISTING

Inflow Area = 1.526 ac, 11.71% Impervious, Inflow Depth = 2.05" for 100 YEAR event
Inflow = 2.16 cfs @ 12.31 hrs, Volume= 0.261 af
Primary = 2.16 cfs @ 12.31 hrs, Volume= 0.261 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {E: TOTAL EXISTING



CRESCENT AVENUE - EXISTING CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Pond {E: TOTAL EXISTING

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.01		0.01	36.00	0.00		0.00
10.50	0.01		0.01				
11.00	0.02		0.02				
11.50	0.05		0.05				
12.00	0.68		0.68				
12.50	1.67		1.67				
13.00	0.57		0.57				
13.50	0.38		0.38				
14.00	0.32		0.32				
14.50	0.27		0.27				
15.00	0.24		0.24				
15.50	0.21		0.21				
16.00	0.18		0.18				
16.50	0.15		0.15				
17.00	0.14		0.14				
17.50	0.13		0.13				
18.00	0.11		0.11				
18.50	0.10		0.10				
19.00	0.10		0.10				
19.50	0.09		0.09				
20.00	0.09		0.09				
20.50	0.08		0.08				
21.00	0.08		0.08				
21.50	0.08		0.08				
22.00	0.07		0.07				
22.50	0.07		0.07				
23.00	0.07		0.07				
23.50	0.06		0.06				
24.00	0.06		0.06				
24.50	0.01		0.01				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

Printed 6/8/2020

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Page 1

Summary for Subcatchment 1A: PWSA-1A

Runoff = 0.36 cfs @ 12.09 hrs, Volume= 0.026 af, Depth= 3.62"

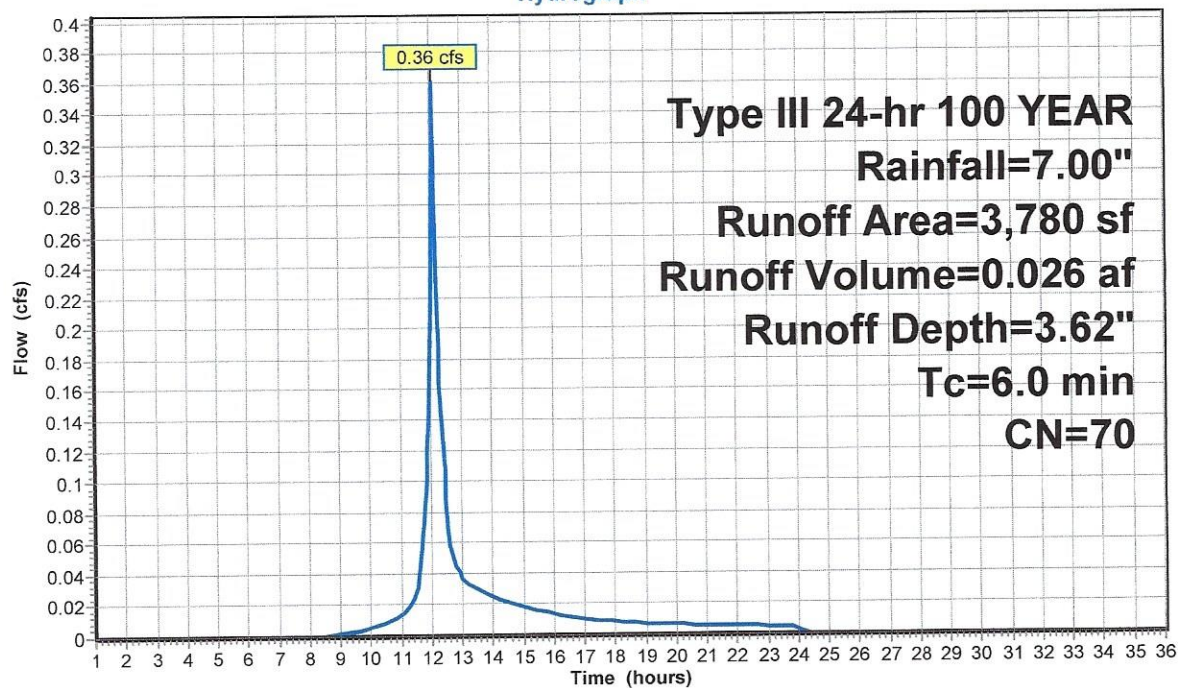
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
1,989	98	Paved parking & roofs
1,791	39	>75% Grass cover, Good, HSG A
3,780	70	Weighted Average
1,791		Pervious Area
1,989		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 1A: PWSA-1A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment 1A: PWSA-1A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	3.62	0.00
1.50	0.10	0.00	0.00	27.50	7.00	3.62	0.00
2.00	0.14	0.00	0.00	28.00	7.00	3.62	0.00
2.50	0.18	0.00	0.00	28.50	7.00	3.62	0.00
3.00	0.22	0.00	0.00	29.00	7.00	3.62	0.00
3.50	0.26	0.00	0.00	29.50	7.00	3.62	0.00
4.00	0.30	0.00	0.00	30.00	7.00	3.62	0.00
4.50	0.35	0.00	0.00	30.50	7.00	3.62	0.00
5.00	0.40	0.00	0.00	31.00	7.00	3.62	0.00
5.50	0.45	0.00	0.00	31.50	7.00	3.62	0.00
6.00	0.50	0.00	0.00	32.00	7.00	3.62	0.00
6.50	0.56	0.00	0.00	32.50	7.00	3.62	0.00
7.00	0.63	0.00	0.00	33.00	7.00	3.62	0.00
7.50	0.71	0.00	0.00	33.50	7.00	3.62	0.00
8.00	0.80	0.00	0.00	34.00	7.00	3.62	0.00
8.50	0.90	0.00	0.00	34.50	7.00	3.62	0.00
9.00	1.02	0.01	0.00	35.00	7.00	3.62	0.00
9.50	1.16	0.02	0.00	35.50	7.00	3.62	0.00
10.00	1.32	0.05	0.01	36.00	7.00	3.62	0.00
10.50	1.52	0.09	0.01				
11.00	1.75	0.15	0.01				
11.50	2.09	0.27	0.03				
12.00	3.50	1.01	0.21				
12.50	4.91	1.97	0.09				
13.00	5.25	2.22	0.04				
13.50	5.48	2.40	0.03				
14.00	5.68	2.55	0.02				
14.50	5.84	2.68	0.02				
15.00	5.98	2.79	0.02				
15.50	6.10	2.89	0.02				
16.00	6.20	2.97	0.01				
16.50	6.29	3.04	0.01				
17.00	6.37	3.10	0.01				
17.50	6.44	3.15	0.01				
18.00	6.50	3.20	0.01				
18.50	6.55	3.25	0.01				
19.00	6.60	3.29	0.01				
19.50	6.65	3.33	0.01				
20.00	6.70	3.37	0.01				
20.50	6.74	3.41	0.01				
21.00	6.79	3.44	0.01				
21.50	6.83	3.47	0.01				
22.00	6.87	3.51	0.01				
22.50	6.90	3.54	0.01				
23.00	6.94	3.57	0.00				
23.50	6.97	3.59	0.00				
24.00	7.00	3.62	0.00				
24.50	7.00	3.62	0.00				
25.00	7.00	3.62	0.00				
25.50	7.00	3.62	0.00				
26.00	7.00	3.62	0.00				
26.50	7.00	3.62	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

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Page 1

Summary for Subcatchment 2A: PWSA-2A

Runoff = 1.25 cfs @ 12.09 hrs, Volume= 0.090 af, Depth= 3.51"

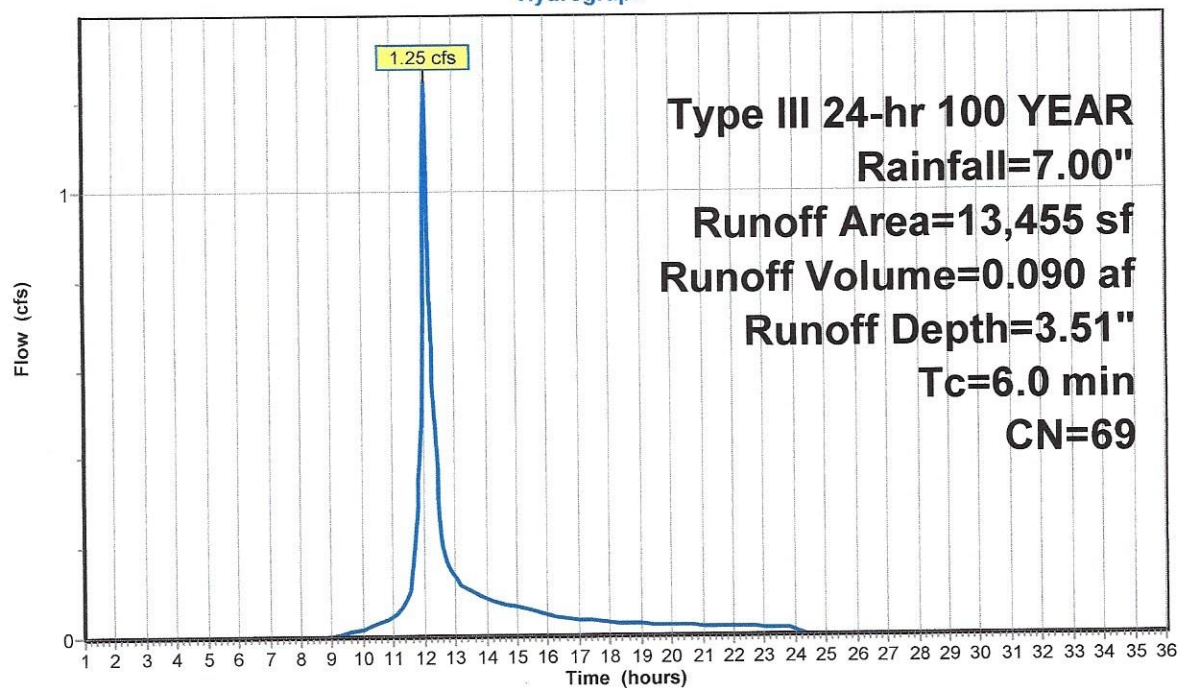
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
6,768	98	Paved parking & roofs
6,687	39	>75% Grass cover, Good, HSG A
13,455	69	Weighted Average
6,687		Pervious Area
6,768		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 6 MIN. MINIMUM

Subcatchment 2A: PWSA-2A

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment 2A: PWSA-2A

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	3.51	0.00
1.50	0.10	0.00	0.00	27.50	7.00	3.51	0.00
2.00	0.14	0.00	0.00	28.00	7.00	3.51	0.00
2.50	0.18	0.00	0.00	28.50	7.00	3.51	0.00
3.00	0.22	0.00	0.00	29.00	7.00	3.51	0.00
3.50	0.26	0.00	0.00	29.50	7.00	3.51	0.00
4.00	0.30	0.00	0.00	30.00	7.00	3.51	0.00
4.50	0.35	0.00	0.00	30.50	7.00	3.51	0.00
5.00	0.40	0.00	0.00	31.00	7.00	3.51	0.00
5.50	0.45	0.00	0.00	31.50	7.00	3.51	0.00
6.00	0.50	0.00	0.00	32.00	7.00	3.51	0.00
6.50	0.56	0.00	0.00	32.50	7.00	3.51	0.00
7.00	0.63	0.00	0.00	33.00	7.00	3.51	0.00
7.50	0.71	0.00	0.00	33.50	7.00	3.51	0.00
8.00	0.80	0.00	0.00	34.00	7.00	3.51	0.00
8.50	0.90	0.00	0.00	34.50	7.00	3.51	0.00
9.00	1.02	0.00	0.00	35.00	7.00	3.51	0.00
9.50	1.16	0.01	0.01	35.50	7.00	3.51	0.00
10.00	1.32	0.04	0.02	36.00	7.00	3.51	0.00
10.50	1.52	0.07	0.03				
11.00	1.75	0.14	0.04				
11.50	2.09	0.25	0.09				
12.00	3.50	0.95	0.73				
12.50	4.91	1.90	0.31				
13.00	5.25	2.14	0.13				
13.50	5.48	2.32	0.10				
14.00	5.68	2.46	0.09				
14.50	5.84	2.59	0.07				
15.00	5.98	2.70	0.07				
15.50	6.10	2.79	0.06				
16.00	6.20	2.87	0.05				
16.50	6.29	2.94	0.04				
17.00	6.37	3.00	0.04				
17.50	6.44	3.06	0.03				
18.00	6.50	3.11	0.03				
18.50	6.55	3.15	0.03				
19.00	6.60	3.19	0.03				
19.50	6.65	3.23	0.02				
20.00	6.70	3.27	0.02				
20.50	6.74	3.30	0.02				
21.00	6.79	3.34	0.02				
21.50	6.83	3.37	0.02				
22.00	6.87	3.40	0.02				
22.50	6.90	3.43	0.02				
23.00	6.94	3.46	0.02				
23.50	6.97	3.49	0.02				
24.00	7.00	3.51	0.02				
24.50	7.00	3.51	0.00				
25.00	7.00	3.51	0.00				
25.50	7.00	3.51	0.00				
26.00	7.00	3.51	0.00				
26.50	7.00	3.51	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R1: PRA-1

Inflow Area = 0.309 ac, 50.30% Impervious, Inflow Depth = 3.51" for 100 YEAR event
 Inflow = 1.25 cfs @ 12.09 hrs, Volume= 0.090 af
 Outflow = 0.75 cfs @ 12.22 hrs, Volume= 0.090 af, Atten= 40%, Lag= 7.3 min
 Discarded = 0.05 cfs @ 11.40 hrs, Volume= 0.054 af
 Primary = 0.70 cfs @ 12.22 hrs, Volume= 0.036 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 58.86' @ 12.22 hrs Surf.Area= 576 sf Storage= 841 cf

Flood Elev= 60.00' Surf.Area= 576 sf Storage= 1,146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass/det. time= 64.5 min (897.6 - 833.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	589 cf	18.00'W x 32.00'L x 3.54'H STONE VOLUME 2,039 cf Overall - 565 cf Embedded = 1,474 cf x 40.0% Voids
#2	57.00'	559 cf	Cultec R-330 x 12 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	57.00'	7 cf	Cultec HVLV F-24 @ 1.00' L x 8 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
1,155 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	6.0" Round 6" HDPE L= 60.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 58.00' / 57.40' S= 0.0100 ' /' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	56.50'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 11.40 hrs HW=56.54' (Free Discharge)↳ **2=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.69 cfs @ 12.22 hrs HW=58.85' TW=0.00' (Dynamic Tailwater)↳ **1=6" HDPE** (Barrel Controls 0.69 cfs @ 3.53 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

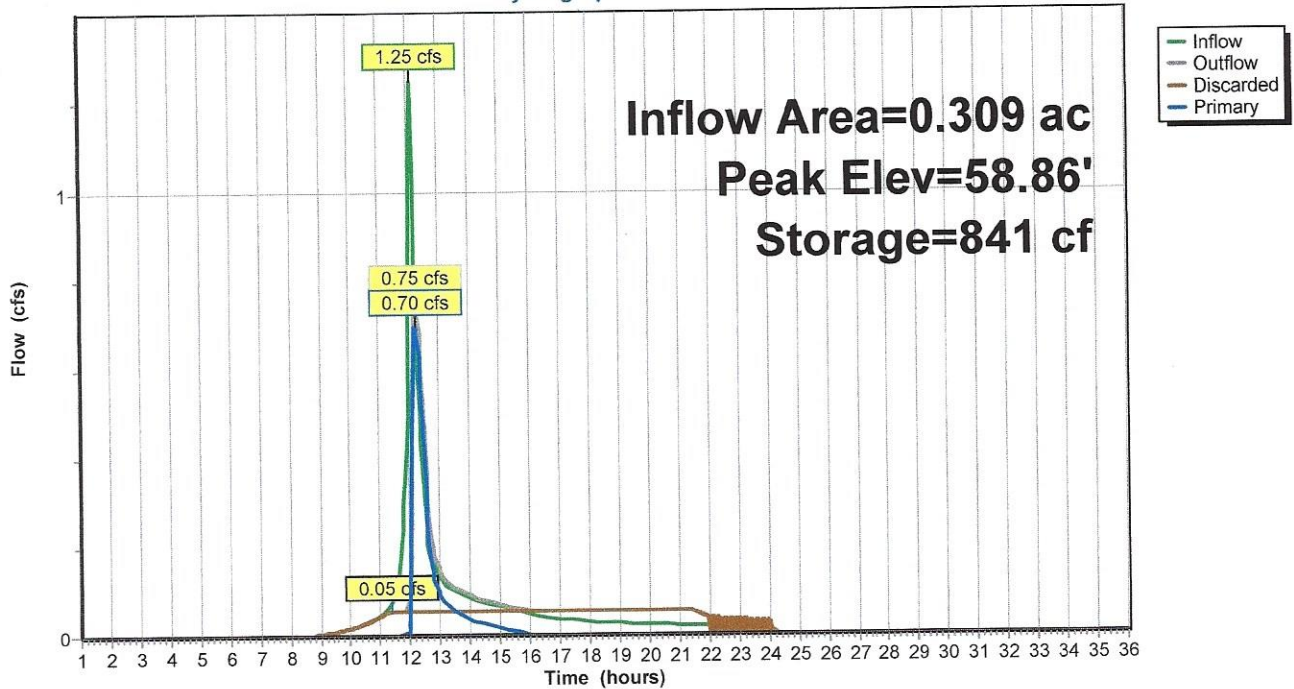
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Page 2

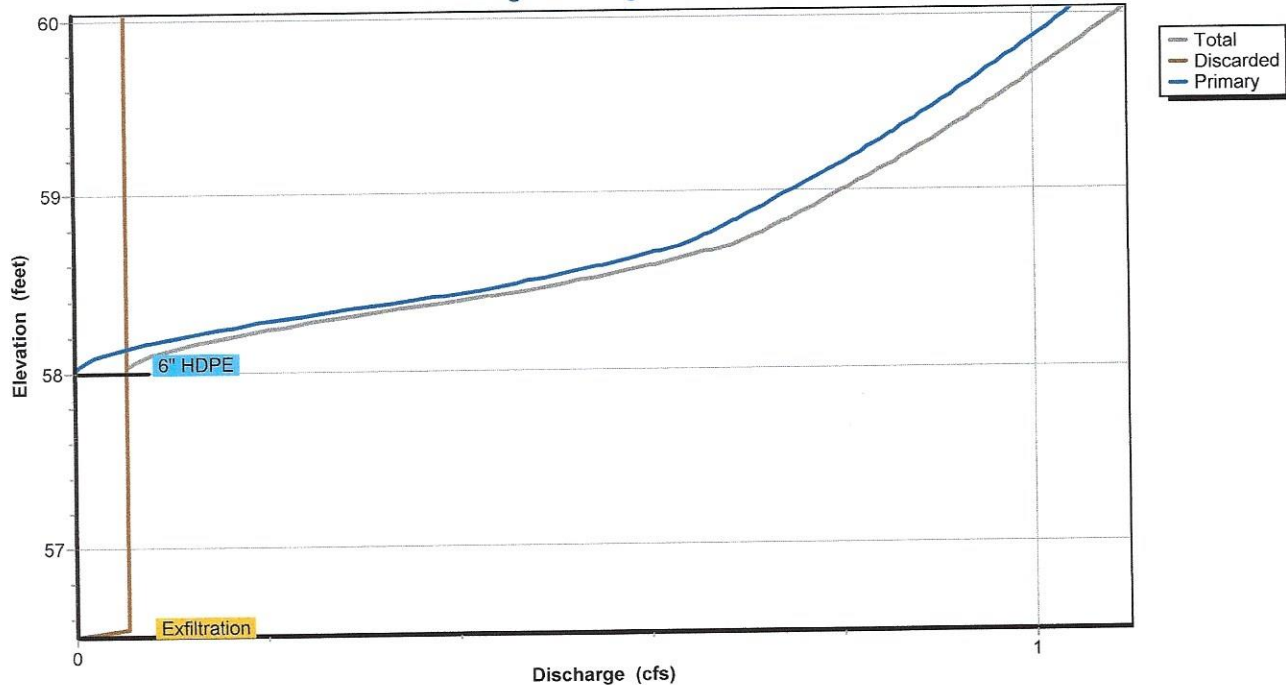
Pond R1: PRA-1

Hydrograph



Pond R1: PRA-1

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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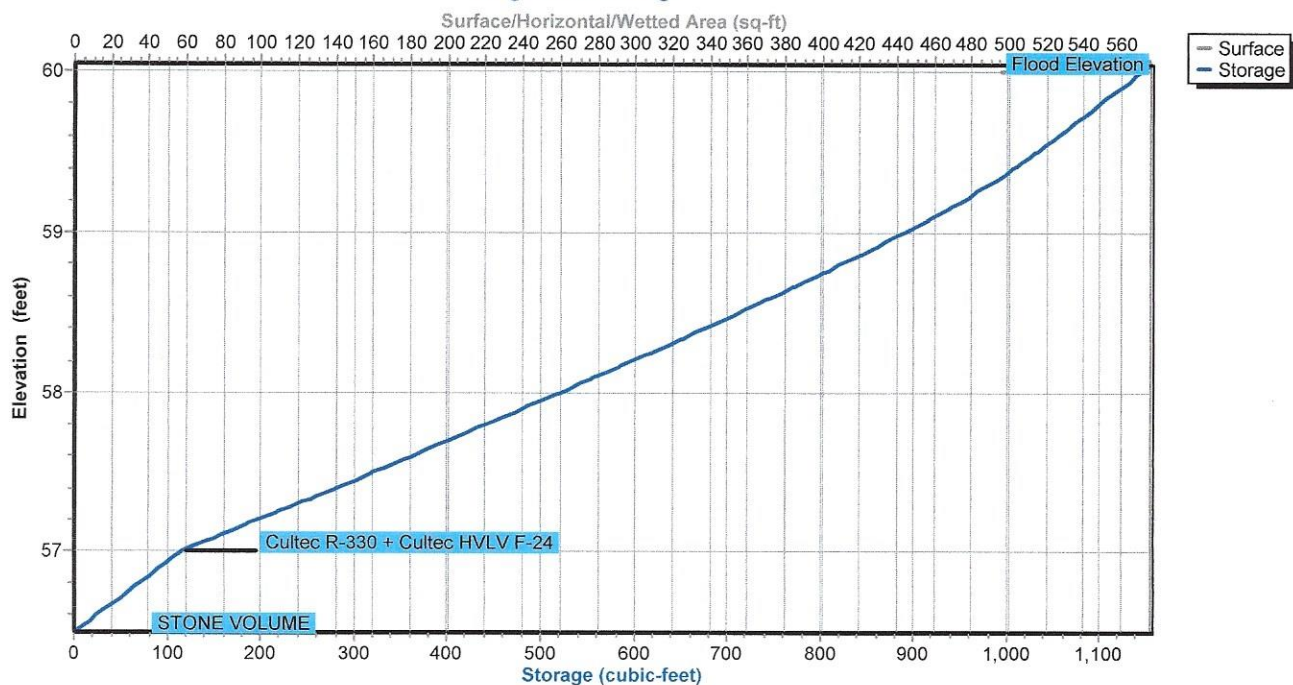
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Page 3

Pond R1: PRA-1

Stage-Area-Storage



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 4

Hydrograph for Pond R1: PRA-1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	56.50	0.00	0.00	0.00
2.00	0.00	0	56.50	0.00	0.00	0.00
3.00	0.00	0	56.50	0.00	0.00	0.00
4.00	0.00	0	56.50	0.00	0.00	0.00
5.00	0.00	0	56.50	0.00	0.00	0.00
6.00	0.00	0	56.50	0.00	0.00	0.00
7.00	0.00	0	56.50	0.00	0.00	0.00
8.00	0.00	0	56.50	0.00	0.00	0.00
9.00	0.00	0	56.50	0.00	0.00	0.00
10.00	0.02	0	56.50	0.02	0.02	0.00
11.00	0.04	0	56.50	0.04	0.04	0.00
12.00	0.73	414	57.73	0.05	0.05	0.00
13.00	0.13	592	58.18	0.15	0.05	0.09
14.00	0.09	565	58.11	0.09	0.05	0.04
15.00	0.07	549	58.07	0.07	0.05	0.02
16.00	0.05	529	58.02	0.05	0.05	0.00
17.00	0.04	486	57.91	0.05	0.05	0.00
18.00	0.03	413	57.73	0.05	0.05	0.00
19.00	0.03	318	57.49	0.05	0.05	0.00
20.00	0.02	214	57.24	0.05	0.05	0.00
21.00	0.02	102	56.94	0.05	0.05	0.00
22.00	0.02	0	56.50	0.00	0.00	0.00
23.00	0.02	0	56.50	0.00	0.00	0.00
24.00	0.02	0	56.50	0.00	0.00	0.00
25.00	0.00	0	56.50	0.00	0.00	0.00
26.00	0.00	0	56.50	0.00	0.00	0.00
27.00	0.00	0	56.50	0.00	0.00	0.00
28.00	0.00	0	56.50	0.00	0.00	0.00
29.00	0.00	0	56.50	0.00	0.00	0.00
30.00	0.00	0	56.50	0.00	0.00	0.00
31.00	0.00	0	56.50	0.00	0.00	0.00
32.00	0.00	0	56.50	0.00	0.00	0.00
33.00	0.00	0	56.50	0.00	0.00	0.00
34.00	0.00	0	56.50	0.00	0.00	0.00
35.00	0.00	0	56.50	0.00	0.00	0.00
36.00	0.00	0	56.50	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 1

Summary for Subcatchment 2B: PWSA-2B

Runoff = 1.53 cfs @ 12.20 hrs, Volume= 0.142 af, Depth= 4.26"

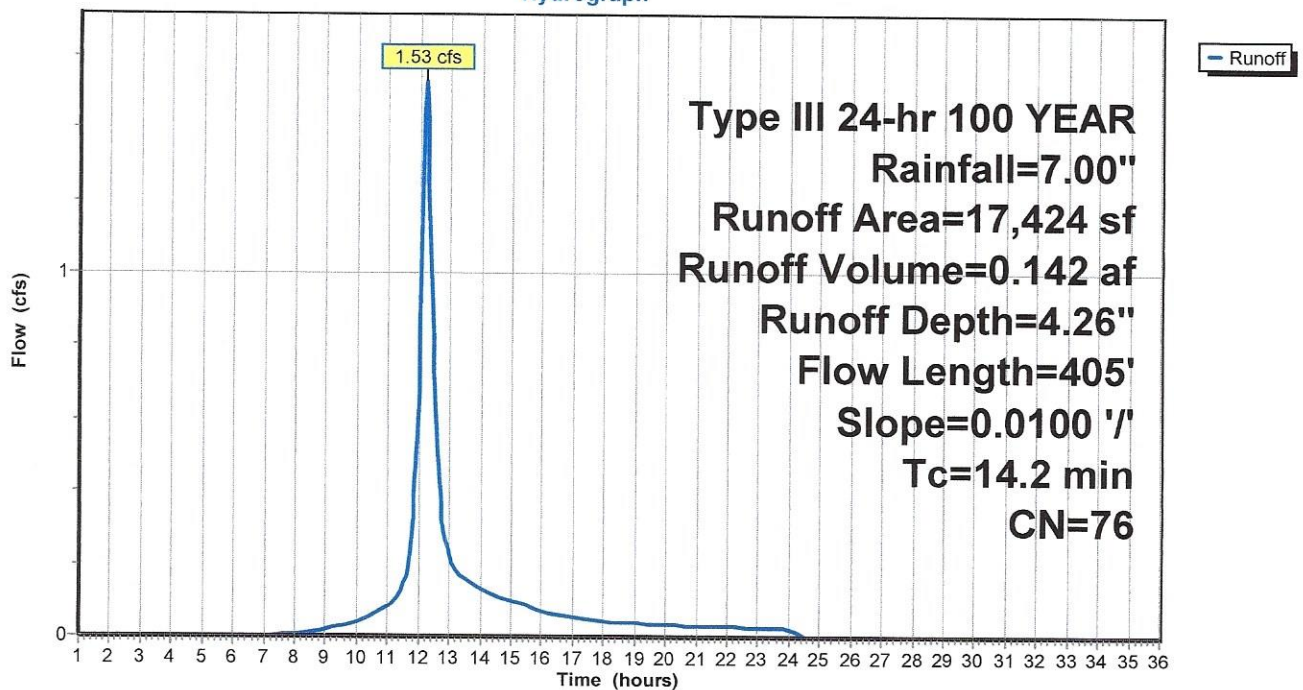
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
10,974	98	Paved parking & roofs
6,450	39	>75% Grass cover, Good, HSG A
17,424	76	Weighted Average
6,450		Pervious Area
10,974		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2b1 TO 2b2
					Grass: Short n= 0.150 P2= 3.25"
2.1	90	0.0100	0.70		Shallow Concentrated Flow, 2b2 TO 2b3
					Short Grass Pasture Kv= 7.0 fps
4.7	265	0.0100	0.95	0.09	Channel Flow, 2b3 TO 2b4
					Area= 0.1 sf Perim= 4.2' r= 0.02'
					n= 0.013 Asphalt, smooth
14.2	405	Total			

Subcatchment 2B: PWSA-2B

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment 2B: PWSA-2B

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	4.26	0.00
1.50	0.10	0.00	0.00	27.50	7.00	4.26	0.00
2.00	0.14	0.00	0.00	28.00	7.00	4.26	0.00
2.50	0.18	0.00	0.00	28.50	7.00	4.26	0.00
3.00	0.22	0.00	0.00	29.00	7.00	4.26	0.00
3.50	0.26	0.00	0.00	29.50	7.00	4.26	0.00
4.00	0.30	0.00	0.00	30.00	7.00	4.26	0.00
4.50	0.35	0.00	0.00	30.50	7.00	4.26	0.00
5.00	0.40	0.00	0.00	31.00	7.00	4.26	0.00
5.50	0.45	0.00	0.00	31.50	7.00	4.26	0.00
6.00	0.50	0.00	0.00	32.00	7.00	4.26	0.00
6.50	0.56	0.00	0.00	32.50	7.00	4.26	0.00
7.00	0.63	0.00	0.00	33.00	7.00	4.26	0.00
7.50	0.71	0.00	0.00	33.50	7.00	4.26	0.00
8.00	0.80	0.01	0.01	34.00	7.00	4.26	0.00
8.50	0.90	0.02	0.01	34.50	7.00	4.26	0.00
9.00	1.02	0.04	0.02	35.00	7.00	4.26	0.00
9.50	1.16	0.08	0.03	35.50	7.00	4.26	0.00
10.00	1.32	0.12	0.04	36.00	7.00	4.26	0.00
10.50	1.52	0.19	0.06				
11.00	1.75	0.29	0.08				
11.50	2.09	0.46	0.14				
12.00	3.50	1.37	0.68				
12.50	4.91	2.46	0.73				
13.00	5.25	2.74	0.22				
13.50	5.48	2.94	0.16				
14.00	5.68	3.10	0.13				
14.50	5.84	3.24	0.11				
15.00	5.98	3.36	0.10				
15.50	6.10	3.47	0.08				
16.00	6.20	3.56	0.07				
16.50	6.29	3.63	0.06				
17.00	6.37	3.70	0.05				
17.50	6.44	3.76	0.05				
18.00	6.50	3.81	0.04				
18.50	6.55	3.86	0.04				
19.00	6.60	3.91	0.04				
19.50	6.65	3.95	0.04				
20.00	6.70	3.99	0.03				
20.50	6.74	4.03	0.03				
21.00	6.79	4.07	0.03				
21.50	6.83	4.10	0.03				
22.00	6.87	4.14	0.03				
22.50	6.90	4.17	0.03				
23.00	6.94	4.20	0.02				
23.50	6.97	4.23	0.02				
24.00	7.00	4.26	0.02				
24.50	7.00	4.26	0.00				
25.00	7.00	4.26	0.00				
25.50	7.00	4.26	0.00				
26.00	7.00	4.26	0.00				
26.50	7.00	4.26	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

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Page 1

Summary for Pond R2: PRA-2

Inflow Area = 0.400 ac, 62.98% Impervious, Inflow Depth = 4.26" for 100 YEAR event
 Inflow = 1.53 cfs @ 12.20 hrs, Volume= 0.142 af
 Outflow = 1.00 cfs @ 12.39 hrs, Volume= 0.142 af, Atten= 35%, Lag= 11.3 min
 Discarded = 0.07 cfs @ 11.00 hrs, Volume= 0.075 af
 Primary = 0.93 cfs @ 12.39 hrs, Volume= 0.067 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 57.32' @ 12.39 hrs Surf.Area= 702 sf Storage= 1,313 cf

Flood Elev= 57.70' Surf.Area= 702 sf Storage= 1,418 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 59.2 min (884.3 - 825.0)

Volume	Invert	Avail.Storage	Storage Description
#1	54.15'	711 cf	18.00'W x 39.00'L x 3.54'H STONE VOLUME 2,485 cf Overall - 707 cf Embedded = 1,778 cf x 40.0% Voids
#2	54.65'	699 cf	Cultec R-330 x 15 Inside #1 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 6.25'L = 46.6 cf Overall Size= 52.0"W x 30.5"H x 7.50'L with 1.25' Overlap
#3	54.65'	8 cf	Cultec HVLV F-24 @ 1.00' L x 10 Inside #1 Effective Size= 15.8"W x 12.0"H => 0.82 sf x 1.00'L = 0.8 cf Overall Size= 16.0"W x 12.5"H x 2.00'L
1,418 cf			Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	55.65'	6.0" Round 6" HDPE L= 65.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 55.65' / 55.00' S= 0.0100 ' /' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Discarded	54.15'	4.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.07 cfs @ 11.00 hrs HW=54.19' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.07 cfs)**Primary OutFlow** Max=0.93 cfs @ 12.39 hrs HW=57.31' TW=0.00' (Dynamic Tailwater)↑**1=6" HDPE** (Barrel Controls 0.93 cfs @ 4.74 fps)

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

Prepared by {enter your company name here}

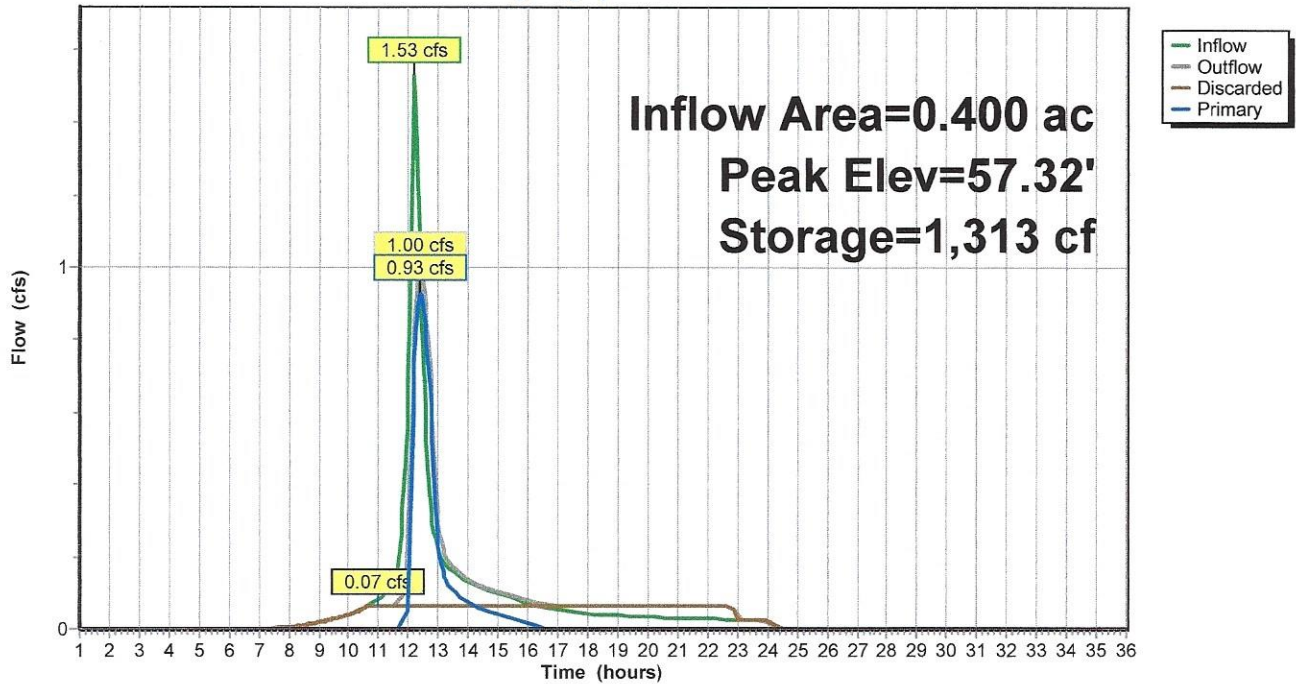
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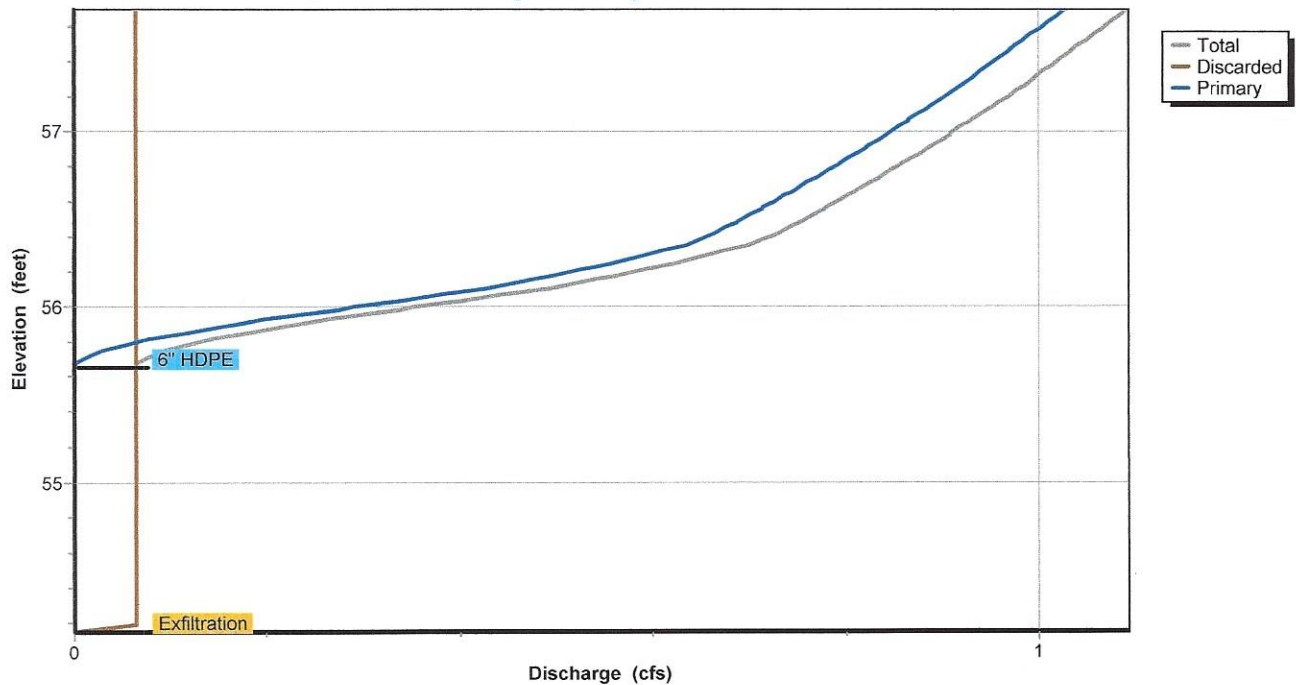
Pond R2: PRA-2

Hydrograph



Pond R2: PRA-2

Stage-Discharge



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

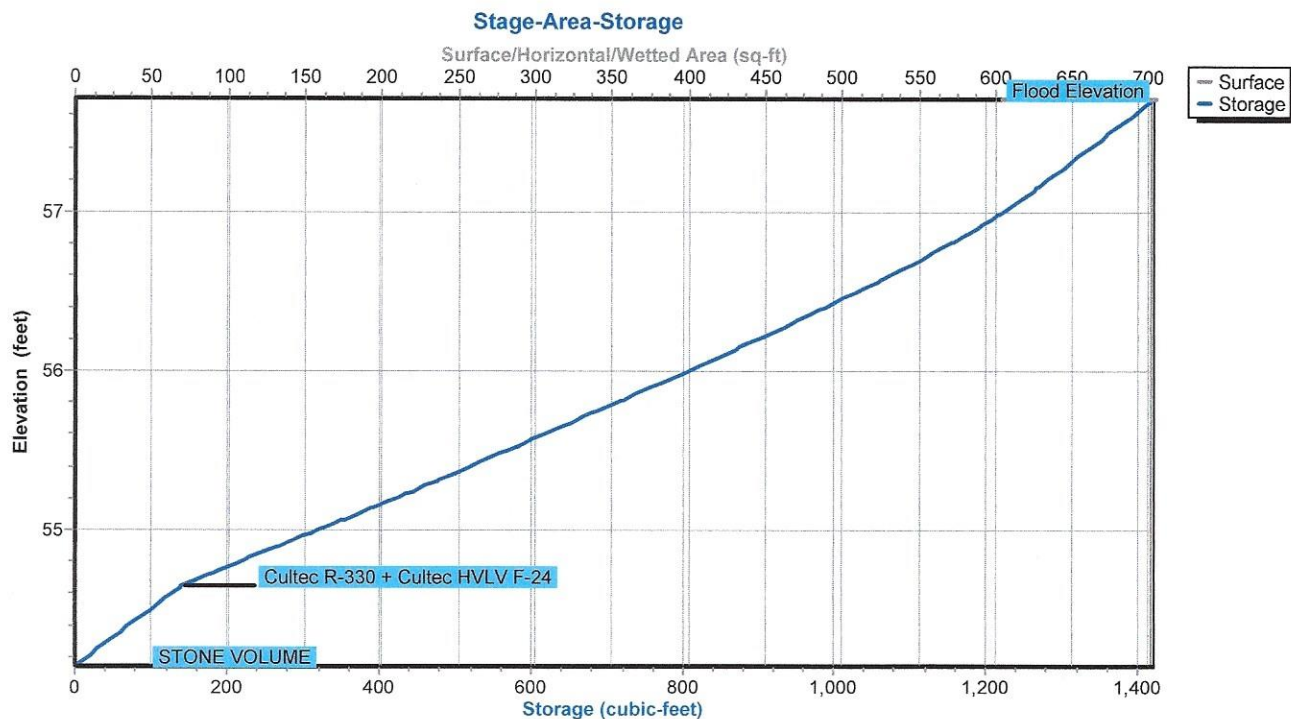
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Page 3

Pond R2: PRA-2



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 4

Hydrograph for Pond R2: PRA-2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
1.00	0.00	0	54.15	0.00	0.00	0.00
2.00	0.00	0	54.15	0.00	0.00	0.00
3.00	0.00	0	54.15	0.00	0.00	0.00
4.00	0.00	0	54.15	0.00	0.00	0.00
5.00	0.00	0	54.15	0.00	0.00	0.00
6.00	0.00	0	54.15	0.00	0.00	0.00
7.00	0.00	0	54.15	0.00	0.00	0.00
8.00	0.01	0	54.15	0.01	0.01	0.00
9.00	0.02	0	54.15	0.02	0.02	0.00
10.00	0.04	0	54.15	0.04	0.04	0.00
11.00	0.08	10	54.19	0.07	0.07	0.00
12.00	0.68	524	55.41	0.07	0.07	0.00
13.00	0.22	782	55.95	0.29	0.07	0.23
14.00	0.13	717	55.81	0.14	0.07	0.07
15.00	0.10	694	55.76	0.10	0.07	0.04
16.00	0.07	671	55.71	0.08	0.07	0.01
17.00	0.05	641	55.65	0.07	0.07	0.00
18.00	0.04	581	55.53	0.07	0.07	0.00
19.00	0.04	487	55.34	0.07	0.07	0.00
20.00	0.03	379	55.12	0.07	0.07	0.00
21.00	0.03	259	54.88	0.07	0.07	0.00
22.00	0.03	129	54.61	0.07	0.07	0.00
23.00	0.02	0	54.15	0.02	0.02	0.00
24.00	0.02	0	54.15	0.02	0.02	0.00
25.00	0.00	0	54.15	0.00	0.00	0.00
26.00	0.00	0	54.15	0.00	0.00	0.00
27.00	0.00	0	54.15	0.00	0.00	0.00
28.00	0.00	0	54.15	0.00	0.00	0.00
29.00	0.00	0	54.15	0.00	0.00	0.00
30.00	0.00	0	54.15	0.00	0.00	0.00
31.00	0.00	0	54.15	0.00	0.00	0.00
32.00	0.00	0	54.15	0.00	0.00	0.00
33.00	0.00	0	54.15	0.00	0.00	0.00
34.00	0.00	0	54.15	0.00	0.00	0.00
35.00	0.00	0	54.15	0.00	0.00	0.00
36.00	0.00	0	54.15	0.00	0.00	0.00

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 1

Summary for Subcatchment 2C: PWSA-2C

Runoff = 0.28 cfs @ 12.26 hrs, Volume= 0.047 af, Depth= 0.77"

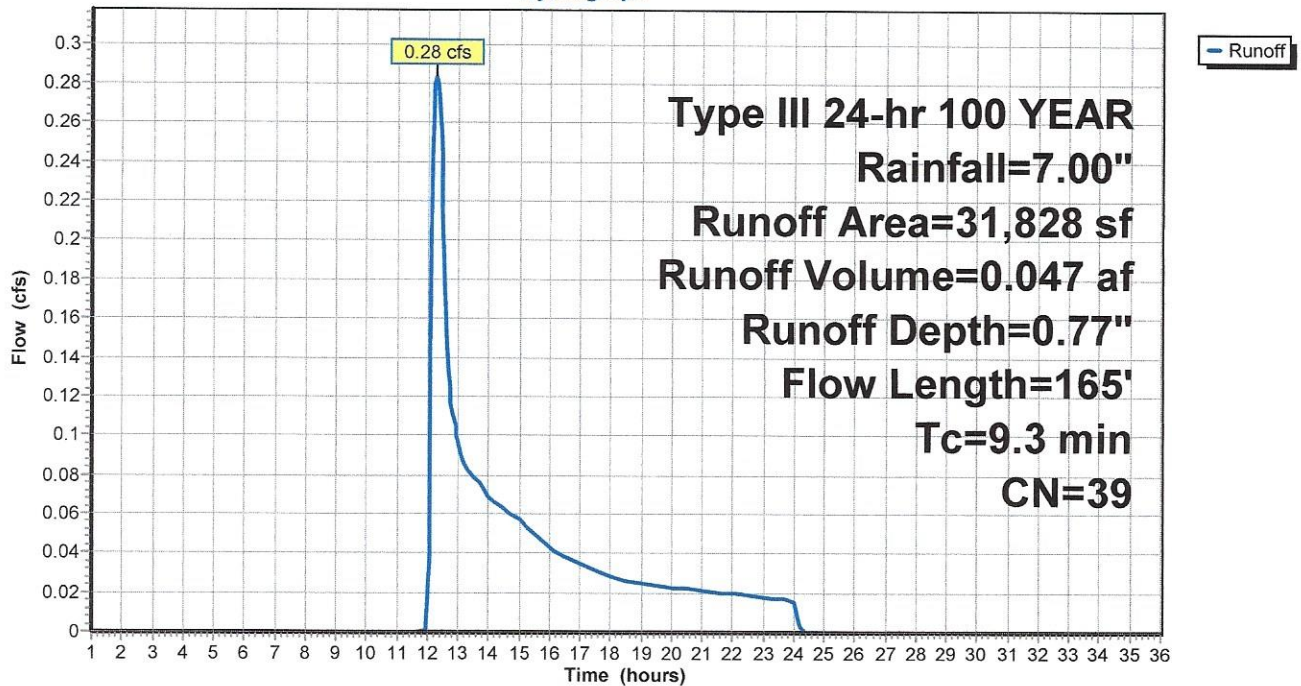
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=7.00"

Area (sf)	CN	Description
31,828	39	>75% Grass cover, Good, HSG A
31,828		Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	50	0.0100	0.11		Sheet Flow, 2c1 TO 2c2
1.9	115	0.0200	0.99		Grass: Short n= 0.150 P2= 3.25"
					Shallow Concentrated Flow, 2c2 TO 2c3
					Short Grass Pasture Kv= 7.0 fps
9.3	165	Total			

Subcatchment 2C: PWSA-2C

Hydrograph



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Subcatchment 2C: PWSA-2C

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
1.00	0.07	0.00	0.00	27.00	7.00	0.77	0.00
1.50	0.10	0.00	0.00	27.50	7.00	0.77	0.00
2.00	0.14	0.00	0.00	28.00	7.00	0.77	0.00
2.50	0.18	0.00	0.00	28.50	7.00	0.77	0.00
3.00	0.22	0.00	0.00	29.00	7.00	0.77	0.00
3.50	0.26	0.00	0.00	29.50	7.00	0.77	0.00
4.00	0.30	0.00	0.00	30.00	7.00	0.77	0.00
4.50	0.35	0.00	0.00	30.50	7.00	0.77	0.00
5.00	0.40	0.00	0.00	31.00	7.00	0.77	0.00
5.50	0.45	0.00	0.00	31.50	7.00	0.77	0.00
6.00	0.50	0.00	0.00	32.00	7.00	0.77	0.00
6.50	0.56	0.00	0.00	32.50	7.00	0.77	0.00
7.00	0.63	0.00	0.00	33.00	7.00	0.77	0.00
7.50	0.71	0.00	0.00	33.50	7.00	0.77	0.00
8.00	0.80	0.00	0.00	34.00	7.00	0.77	0.00
8.50	0.90	0.00	0.00	34.50	7.00	0.77	0.00
9.00	1.02	0.00	0.00	35.00	7.00	0.77	0.00
9.50	1.16	0.00	0.00	35.50	7.00	0.77	0.00
10.00	1.32	0.00	0.00	36.00	7.00	0.77	0.00
10.50	1.52	0.00	0.00				
11.00	1.75	0.00	0.00				
11.50	2.09	0.00	0.00				
12.00	3.50	0.01	0.00				
12.50	4.91	0.18	0.22				
13.00	5.25	0.25	0.10				
13.50	5.48	0.31	0.08				
14.00	5.68	0.36	0.07				
14.50	5.84	0.40	0.06				
15.00	5.98	0.44	0.06				
15.50	6.10	0.47	0.05				
16.00	6.20	0.50	0.04				
16.50	6.29	0.53	0.04				
17.00	6.37	0.56	0.03				
17.50	6.44	0.58	0.03				
18.00	6.50	0.60	0.03				
18.50	6.55	0.61	0.03				
19.00	6.60	0.63	0.03				
19.50	6.65	0.65	0.02				
20.00	6.70	0.66	0.02				
20.50	6.74	0.68	0.02				
21.00	6.79	0.69	0.02				
21.50	6.83	0.71	0.02				
22.00	6.87	0.72	0.02				
22.50	6.90	0.73	0.02				
23.00	6.94	0.75	0.02				
23.50	6.97	0.76	0.02				
24.00	7.00	0.77	0.02				
24.50	7.00	0.77	0.00				
25.00	7.00	0.77	0.00				
25.50	7.00	0.77	0.00				
26.00	7.00	0.77	0.00				
26.50	7.00	0.77	0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Pond {2P: PWSA-2 TOTAL}

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.00		0.00	36.00	0.00		0.00
10.50	0.00		0.00				
11.00	0.00		0.00				
11.50	0.00		0.00				
12.00	0.00		0.00				
12.50	1.52		1.52				
13.00	0.42		0.42				
13.50	0.24		0.24				
14.00	0.18		0.18				
14.50	0.14		0.14				
15.00	0.11		0.11				
15.50	0.08		0.08				
16.00	0.06		0.06				
16.50	0.04		0.04				
17.00	0.03		0.03				
17.50	0.03		0.03				
18.00	0.03		0.03				
18.50	0.03		0.03				
19.00	0.03		0.03				
19.50	0.02		0.02				
20.00	0.02		0.02				
20.50	0.02		0.02				
21.00	0.02		0.02				
21.50	0.02		0.02				
22.00	0.02		0.02				
22.50	0.02		0.02				
23.00	0.02		0.02				
23.50	0.02		0.02				
24.00	0.02		0.02				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				

CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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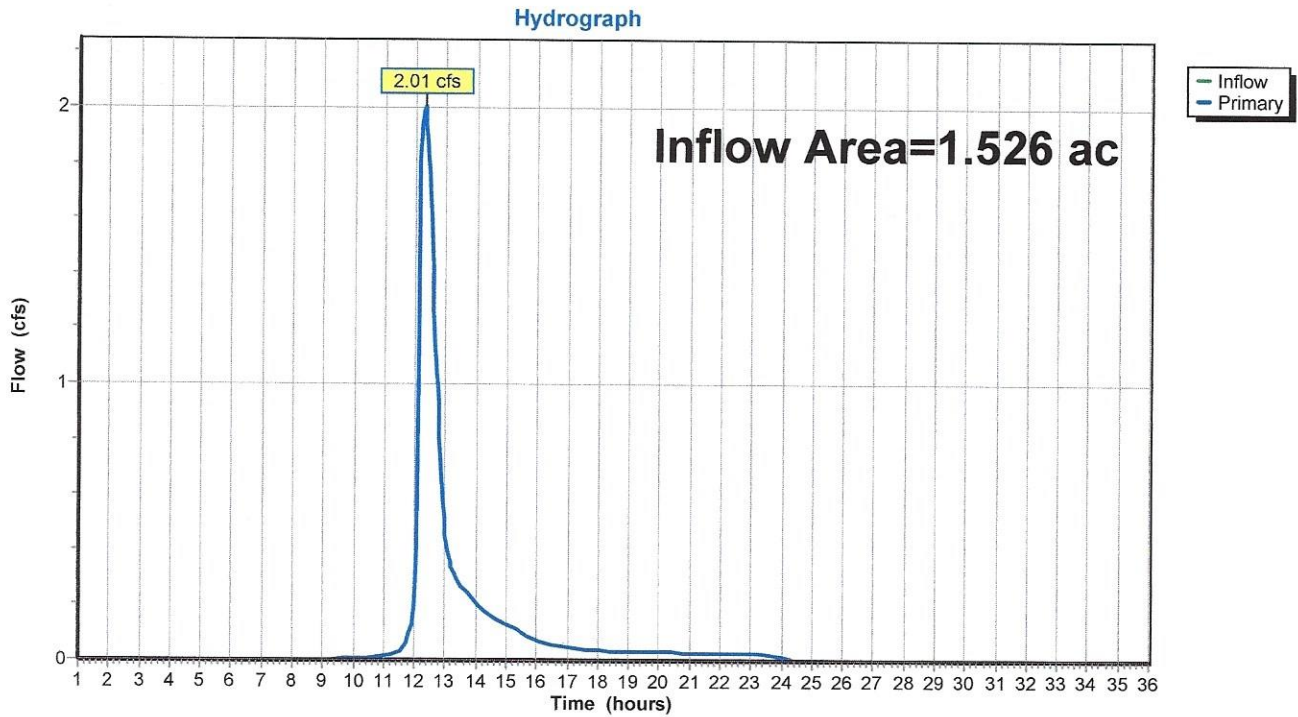
Page 1

Summary for Pond {P: PROPOSED TOTAL

Inflow Area = 1.526 ac, 29.68% Impervious, Inflow Depth = 1.39" for 100 YEAR event
Inflow = 2.01 cfs @ 12.30 hrs, Volume= 0.177 af
Primary = 2.01 cfs @ 12.30 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-36.00 hrs, dt= 0.05 hrs

Pond {P: PROPOSED TOTAL



CRESCENT AVENUE - PROPOSED CONDITIONS

Type III 24-hr 100 YEAR Rainfall=7.00"

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Page 2

Hydrograph for Pond {P: PROPOSED TOTAL

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
1.00	0.00		0.00	27.00	0.00		0.00
1.50	0.00		0.00	27.50	0.00		0.00
2.00	0.00		0.00	28.00	0.00		0.00
2.50	0.00		0.00	28.50	0.00		0.00
3.00	0.00		0.00	29.00	0.00		0.00
3.50	0.00		0.00	29.50	0.00		0.00
4.00	0.00		0.00	30.00	0.00		0.00
4.50	0.00		0.00	30.50	0.00		0.00
5.00	0.00		0.00	31.00	0.00		0.00
5.50	0.00		0.00	31.50	0.00		0.00
6.00	0.00		0.00	32.00	0.00		0.00
6.50	0.00		0.00	32.50	0.00		0.00
7.00	0.00		0.00	33.00	0.00		0.00
7.50	0.00		0.00	33.50	0.00		0.00
8.00	0.00		0.00	34.00	0.00		0.00
8.50	0.00		0.00	34.50	0.00		0.00
9.00	0.00		0.00	35.00	0.00		0.00
9.50	0.00		0.00	35.50	0.00		0.00
10.00	0.01		0.01	36.00	0.00		0.00
10.50	0.01		0.01				
11.00	0.01		0.01				
11.50	0.03		0.03				
12.00	0.22		0.22				
12.50	1.61		1.61				
13.00	0.45		0.45				
13.50	0.27		0.27				
14.00	0.20		0.20				
14.50	0.16		0.16				
15.00	0.13		0.13				
15.50	0.10		0.10				
16.00	0.07		0.07				
16.50	0.05		0.05				
17.00	0.05		0.05				
17.50	0.04		0.04				
18.00	0.04		0.04				
18.50	0.03		0.03				
19.00	0.03		0.03				
19.50	0.03		0.03				
20.00	0.03		0.03				
20.50	0.03		0.03				
21.00	0.03		0.03				
21.50	0.03		0.03				
22.00	0.03		0.03				
22.50	0.02		0.02				
23.00	0.02		0.02				
23.50	0.02		0.02				
24.00	0.02		0.02				
24.50	0.00		0.00				
25.00	0.00		0.00				
25.50	0.00		0.00				
26.00	0.00		0.00				
26.50	0.00		0.00				