JASON PEZZULLO - 780-3222

FILE NO. _____

CRANSTON, RHODE ISLAND
DEVELOPMENT PLAN REVIEW
SUBMISSION CHECK LIST

PROJECT DATA

Project Name:	846 OAKLAWN AVE CDP
Address:	846 OAKLAWN AVE
Assessor's plat(s): 15	Lot(s): 361
Owner(s)/Applicant:	DOMAIN REALTY LLC 800 OAKLAWN AVE CRANSTON RI
Engineer:	RICHARD PASTORE P.E. RP ENGINEERING INC

SUBMISSION REQUIREMENTS	✓	DEPARTMENT COMMENTS
6 copies of the Application including plans.	✓	
1 electronic copy of the Application including all plans and documents submitted.	✓	
Filing fee of $500 plus $20 per acre for each full acre in the Development.		
Identification of all permits required from state or federal agencies prior to commencement of construction.	N/A	
Municipal lien certificate showing that all taxes are current.	✓	PREVIOUSLY EMAILED TO J. PEZZULLO
List of the owners of all land within 200' of the perimeter of the parcel that is being reviewed.	✓	CITY INDICATED THEY WOULD ASSEMBLE SAME
Set of stamped envelopes addressed to the abutters in the order which they appear on said list.	✓	

PLAN REQUIREMENTS	✓	
Locus map referencing the Development to the surrounding area, streets and zoning district boundaries w/in 500'.	✓	
Name of the Development, north arrow, scale, assessor's plat and lot number, bench mark and datum, the dates of plans and revisions and signature blocks on all plans to be endorsed.	✓	
Name and address of the owner of record, applicant and professionals preparing the plan.	✓	
Assessor's plat and lot number and names of all owners of land abutting the Development.	✓	
Zoning district boundaries and all the data necessary to show compliance with Zoning.	✓	
Parcel area and boundaries; existing/proposed streets, lot lines, easements and public areas.	✓	
Distances to the nearest street intersections and fire hydrants measured along the ROW lines.	✓	
Existing/proposed grading at 2' contours where slopes are less than 15% and at 5' counters where slopes are 15% or more. Elevations shall be referenced to the City's datum.	✓	
Environmental features including soils, rock outcroppings, wooded areas, trees 8" caliper and above, watercourses, water bodies, wetlands, floodplains [showing base flood elevation].	✓	
Location, dimensions, GFA, floor plans and heights of existing/proposed buildings, equipment and other structures such as walls, fences, culverts and bridges. Buildings and structures to be removed shall be indicated by dashed lines.	✓	

PLAN REQUIREMENTS CONT.	Location of existing/proposed utilities including sewers, water, gas and electricity with pipe sizes, elevations, slopes and directions of flow.	✓	
	Location, type and density of land uses that will be in the Development.	N/A	
	Renderings as needed to illustrate the visual impact on abutting properties.	N/A	
	Signage including location, size, design and illumination.	✓	
	Exterior lighting including type, location, intensity, shielding and times of operation.	✓	EXISTING
	Landscape Plan including landscape materials, paving, lighting and street furniture. Said plan shall indicate the location, type and size of plantings at the time of planting and at maturity.	✓	NONE PROPOSED
	Site circulation showing access to and egress from the Development; size and location of driveways and curb cuts; parking, loading and outdoor storage areas; dumpsters and any off-site traffic improvements necessary to ensure public safety.	✓	
	Profile and cross-section of proposed streets and sidewalks showing utilities.	N/A	
DRAINAGE PLAN/REPORT	A drainage plan/report demonstrating that the development's stormwater management system will meet the standards set by the Rhode Island Stormwater Design and Installation Standards Manual as most recently amended. At a minimum said plan/report shall show the following:	✓	
	Changes in land use and the routes that storm water will flow through the Development,	✓	
	Existing/proposed drainage structures, basins and channels. [Drainage structures shall comply with City specification and shall be approved by the City Engineer.]	✓	
	Drainage calculations demonstrating that the peak rates of storm water runoff leaving the post-development parcel will not exceed the pre-development conditions for the 2-year, 10-year, 25-year and 100-year storm events. Said calculations shall be based on the rational method, SCS TR55 or other method approved by the City Engineer. 1. The drainage system shall be designed to accommodate the 25 year storm event. 2. Retention or detention basins shall be designed to accommodate a 100 year storm event.	✓	
	A drainage plan showing tributary and downstream areas affected by run-off, soil types and surficial cover characteristics for both pre- and post- development conditions.	✓	
	Design calculations to determine the size of all pipes, culverts and basins. Sizing of the piping system shall be based on the Rational Method.	✓	
	Results of percolation tests performed for any proposed retention/detention basin in order to determine the suitability of the subsurface conditions to accommodate said basin.	✓	
	A maintenance plan which shall: 1. identify all of the Control Measures that will be inspected and maintained; 2. provide an inspection schedule for each Control Measure; 3. list typical maintenance procedures for each Control Measure; 4. describe steps to take if additional repair is required; 5. provide forms and instructions for record keeping and notification to the City; 6. list the names and personnel assigned to each task and the training needed to be able to do the job.	✓	

FILE NO. _____

CRANSTON, RHODE ISLAND
APPLICATION FOR DEVELOPMENT PLAN REVIEW

PROJECT NAME: 846 OAKLAWN AVE CDP	
ADDRESS: 846 OAKLAWN AVE	
ASSESSOR'S PLAT(s): 15	LOT(s): 361
ZONING: C-3	AREA: 15473SF

OWNER: DOMAIN REALTY LLC	
ADDRESS: 800 OAKLAWN AVE CRANSTON RI	PHONE #:
APPLICANT: (if different)	
ADDRESS:	PHONE #:
ATTORNEY	PHONE #:
ENGINEER: RICHARD PASTORLE P.E.	PHONE #: 401 885 7255
SURVEYOR: NABIL RAGHID PLS	PHONE #: 401 821 0095
LANDSCAPE ARCHITECT: N/A	PHONE #:

PROJECT DESICRIPTION:

SEE ATTACHED

DOCUMENTS SUBMITTED:

SITE PLANS EXISTING + PROPOSED, HYDROCAD REPORTS, SURVEY, SOIL EVALUATIONS

_____ _____

SIGNATURE OF OWNER (s) DATE

_____ _____

SIGNATURE OF APPLICANCT (s) DATE

·ENGINEERING, INC·

March 10, 2023

Project Location : 864 Oaklawn Ave
Map 15-2 Lot 361
Area = 15,473 sf
Owner: Domain Realty

PROJECT NARRATIVE:

The project proposes to create a paved parking area of 7668 sf and an infiltration basin (with forebay) of 1088 sf on the southern portion of the lot which is presently grass. No additions to the existing building are proposed at this time. A future addition is contemplated and shown as noted but not part of this application. The zoning on the property was recently changed from residential to commercial -three. The purpose of this land development application is to obtain an approved commercial development plan consistent with the zoning designation.

Soil Evaluations:

A soil evaluation was performed by Kevin Fetzer, Ecotones on 800 Oaklawn Ave in August 2009 and found the water table below eleven feet from existing grade. Soil test holes were also performed by Jacobs Engineering in April 2000 at 828 and 836 Oaklawn Ave along with wet season water table readings and found dry holes at 10'. The RI Soil Survey indicates that the soils at these addresses are Merrimac Urban with upper horizons of sandy loam overlying sand . I am therefore concluding that the soil structure on the subject lot are similar and that the seasonal high water table is greater than 11' below existing grade. I have a RI Soil Evaluator's license #4042.

The proposed stormwater treatment system consists of a vegetated forebay which receives sheet flow from the proposed paved parking. The forebay has been sized to accommodate 116% of the water quality volume (first one inch of runoff from the pavement). The forebay discharges to an exposed stone filled infiltration basin. HydroCad was used to model the runoff for the 1,2,5,10,25,40, and 100 years storms and indicated that all of the storms will be infiltrated with no overflow off the property. It should also be noted that the modeling did not consider the infiltration which will occur in the large forebay which adds an additional safeguard against offsite overflow.

Please see drawings and HydroCad summary reports for specific design assumptions.

State of Rhode Island and Providence Plantations
Department of Environmental Management
Office of Water Resources

Site Evaluation Form
Part A - Soil Profile Description

Application Number: DRAINAGE

Property Owner: Frank DiZoglio / Garden Hills Place

Property Location: 800 Oaklawn Avenue, AP 15/2 Lot 387, Cranston, RI

Date of Test Hole: August 28, 2009

Soil Evaluator: Kevin Fetzer License Number: D-4029

Weather: Sunny Shaded: Yes ☐ No ☒ Time: 0800

TH 1 Horizon	Depth	Horizon Boundaries: Dist	Topo	Soil Colors: Matrix	Re-Dox Features	Re-Dox Description: Ab.	S.	Con.	Texture	Structure	Consistence	Soil Category
FILL ^C	35 - 24	a	s	2.5Y 2.5/1					gsl	O - m	fr	4
FILL 2^C	24 - 0	a	s	10YR 4/3					vgls	O - m	fr	4
C	0 - 60	a	s	2.5Y 4/3					sand s	O - sg	loose	1
2C	60-133			2.5Y 3/1					boulders bd gsl	O - m	fi	9

TH ____ Horizon	Depth	Horizon Boundaries: Dist	Topo	Soil Colors: Matrix	Re-Dox Features	Re-Dox Description: Ab.	S.	Con.	Texture	Structure	Consistence	Soil Category

Soil Class: Lodgement Till

Depth to Groundwater Seepage: No GW seepage observed

Estimated Seasonal High Water Table: Not discernable

Total Depth of each Test Hole: 168"

Depth to Impervious or Limiting Layer: - -

Comments: ^C = HTM = Fill

No groundwater observed. No discernable evidence of redox features throughout the test pit to a depth of 168" from existing grade.

Parent material consists of firm Lodgement Till. Boulders were encountered within the C-horizon. Excavation difficulty: high.

JACOBS ASSOCIATES

CIVIL ENGINEERING/LAND PLANNING

April 3, 2000

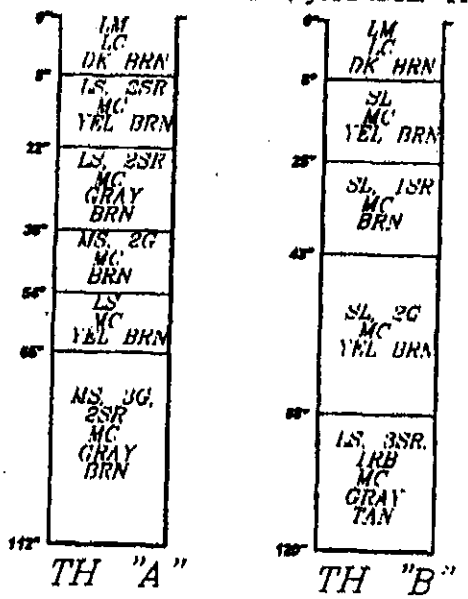
Ms. Gloria DiZoglio
The Meadows, Suite A101
1130 Ten Rod Road
North Kingstown, RI 02852

Re: Garden Hills Place Expansion
828 & 836 Oaklawn Avenue
Cranston, RI

Dear Gloria,

It is understood that you are contemplating either an expansion of the adjacent commercial strip building (Garden Hills Plaza) or a new, stand alone, commercial structure. That is providing you are able to obtain the necessary zoning approval from the City for the subject two lots. In either event, it will be necessary for you to manage the increase in stormwater runoff as a consequence of introducing an additional amount of impervious area. Since there is no outlet immediately available to accept the additional runoff, it is necessary that it be disposed of and/or stored on-site.

To that end, Jacobs Associates has conducted some initial site investigations to ascertain the feasibility of the site to accommodate the discharge of additional stormwater. Two, deep test pits were excavated on March 4, 2000. These holes are located in the rear yard area. The detailed soil logs for the holes are as follows.



No seepage, redoximorphic features or any other evidence of a high groundwater table was observed at the time of excavation. Perforated PVC pipes were installed vertically in the test holes for subsequent monitoring of the groundwater table elevation. The official year 2000 wet season in the State of Rhode Island, as established by the R.I. Department of Environmental Management, was opened on January 15 and closed on March 31, 2000 (*ref:* RIDEM ltr. dtd. 12/16/99 by Brian Moore, P.E.). Several readings were made and the observations recorded as noted on the following page.

WET SEASON Water Table Readings			
Test Hole "A"		*Test Hole "B"*	
Depth	*Date*	*Depth*	*Date*
Dry @ 112"	*03/06/00*	*Dry @ 120"*	*03/06/00*
Dry @ 112"	*03/11/00*	*Dry @ 120"*	*03/11/00*
Dry @ 112"	*03/20/00*	*Dry @ 120"*	*03/20/00*
Dry @ 112"	*03/25/00*	*Dry @ 120"*	*03/20/00*

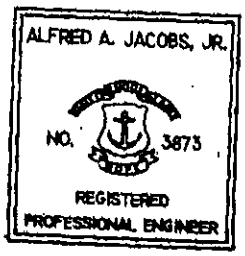
In essence, the soils found on site are comprised of sandy loams and loamy sands., The deeper horizons are primarily a medium, gravelly sand with small rocks. From an engineering stand point, this is excellent free draining material as is evidenced by the lack of a high water table during the wet season. The soils found on-site are most desirable for the disposal of stormwater via a subsurface leaching system of some sort.

The observations are also corroborated by the U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Rhode Island (issued July 1981). The soils for this location are described in this reference as a "Merrimac-Urban Land Complex" series. They are characteristically well drained and located on terraces and outwash plains. Permeability is identified as moderately rapid in the upper soil horizons to rapid in the substratum. *"The complex is mainly used for home sites, shopping centers, industrial parks, and other urban purposes."* The Survey also describes Merrimac soils as generally favorable sources for roadfill, sand, and gravel as well as being droughty and good for drainage. As such, they are typically coarse grained, have a low shrink/swell potential, a low potential for frost action and are moderately well drained.

The Soil Survey also indicates that these soils have a rapid rate of percolation in the substratum ranging from 6.0 to 20.0 inches per hour. This too was confirmed in the field. On March 4, 2000 a percolation test was conducted in the same general area of the test pits. At 36 inches deep, and after a period of soaking, water was repeatedly absorbed into the soil at a rate of 1 inch per 2½ minutes. This computes out to 24 inches per hour. Given this information, I would recommend that the design for any subsurface drainage disposal system be based upon a conservative percolation rate of 5 minutes per inch.

Per my research and on-site testing, it is my professional engineering opinion that the soils found on the subject study site present the characteristic properties which are most desirable for the disposal of stormwater runoff by subsurface means. I should likewise point out that the available of municipal sanitary sewers also precludes any potential for conflict of the two systems.

By that I mean separation distances from an on-site sewage disposal system to a drainage system are precluded as are any concern for over saturation of the soil and its ability to properly treat sewage effluent. In effect, any such concern becomes moot and a non-issue. Once you have decided exactly how you want to develop the site, Jacobs Associates will gladly assist you when it comes time to complete the actual site design. In the interim, should you need any further professional advice or have any questions relative to this report, please feel free to contact me.

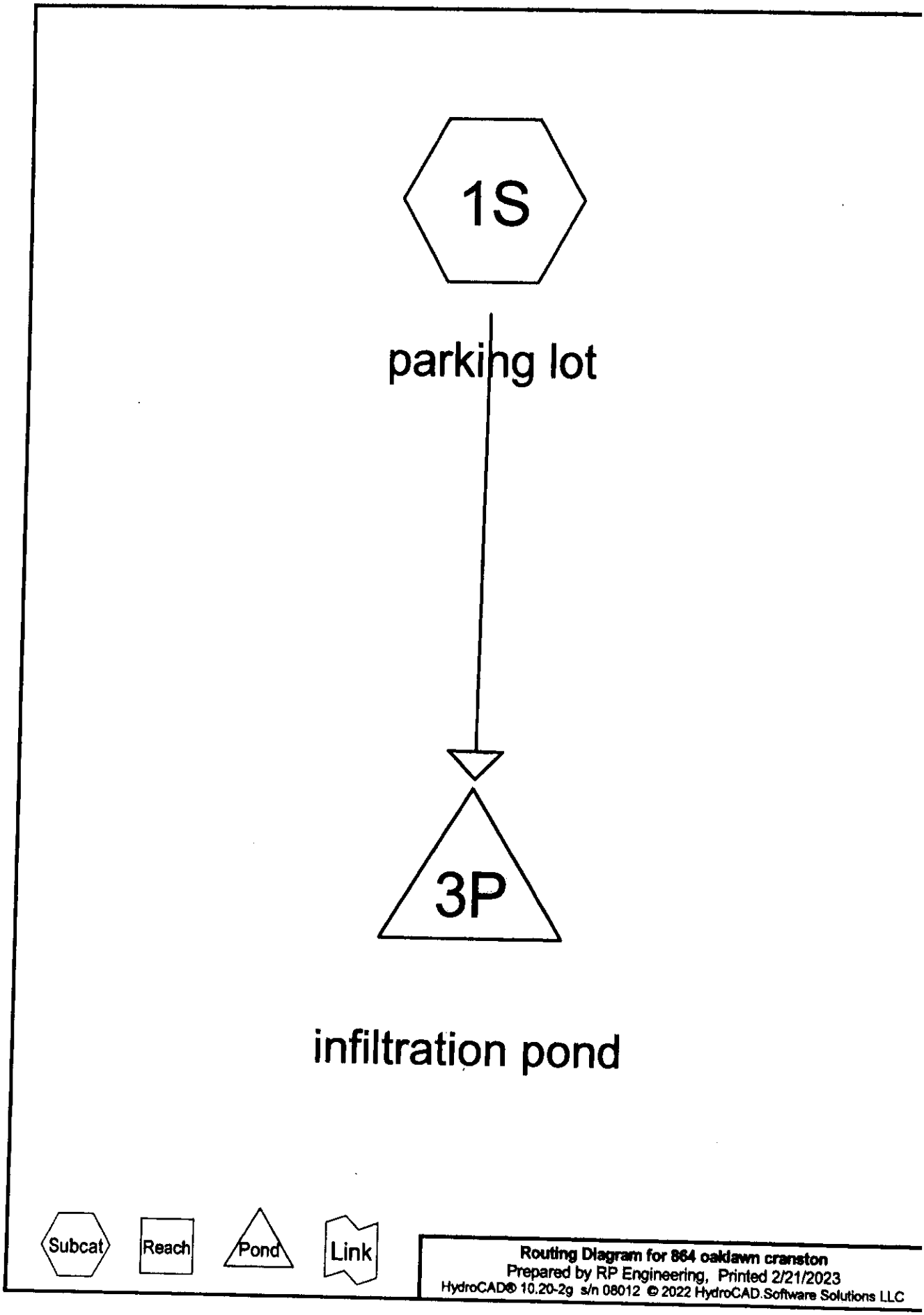


Respectfully submitted,

Alfred A. Jacobs, Jr., P.E.

file: 1156b

Jacobs Associates



Routing Diagram for 864 oaklawn cranston
Prepared by RP Engineering, Printed 2/21/2023
HydroCAD® 10.20-2g s/n 08012 © 2022 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1 yr	Type II 24-hr		Default	24.00	1	2.70	2
2	2 yr	Type II 24-hr		Default	24.00	1	3.30	2
3	5 yr	Type II 24-hr		Default	24.00	1	4.10	2
4	10 yr	Type II 24-hr		Default	24.00	1	4.90	2
5	25 yr	Type II 24-hr		Default	24.00	1	6.10	2
6	50 yr	Type II 24-hr		Default	24.00	1	7.30	2
7	100 yr	Type II 24-hr		Default	24.00	1	8.90	2

Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 2.47" for 1 yr event
Inflow = 0.08 cfs @ 11.89 hrs, Volume= 0.004 af
Outflow = 0.07 cfs @ 11.91 hrs, Volume= 0.004 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.07 cfs @ 11.91 hrs, Volume= 0.004 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.03' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.004 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (752.5 - 751.3)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

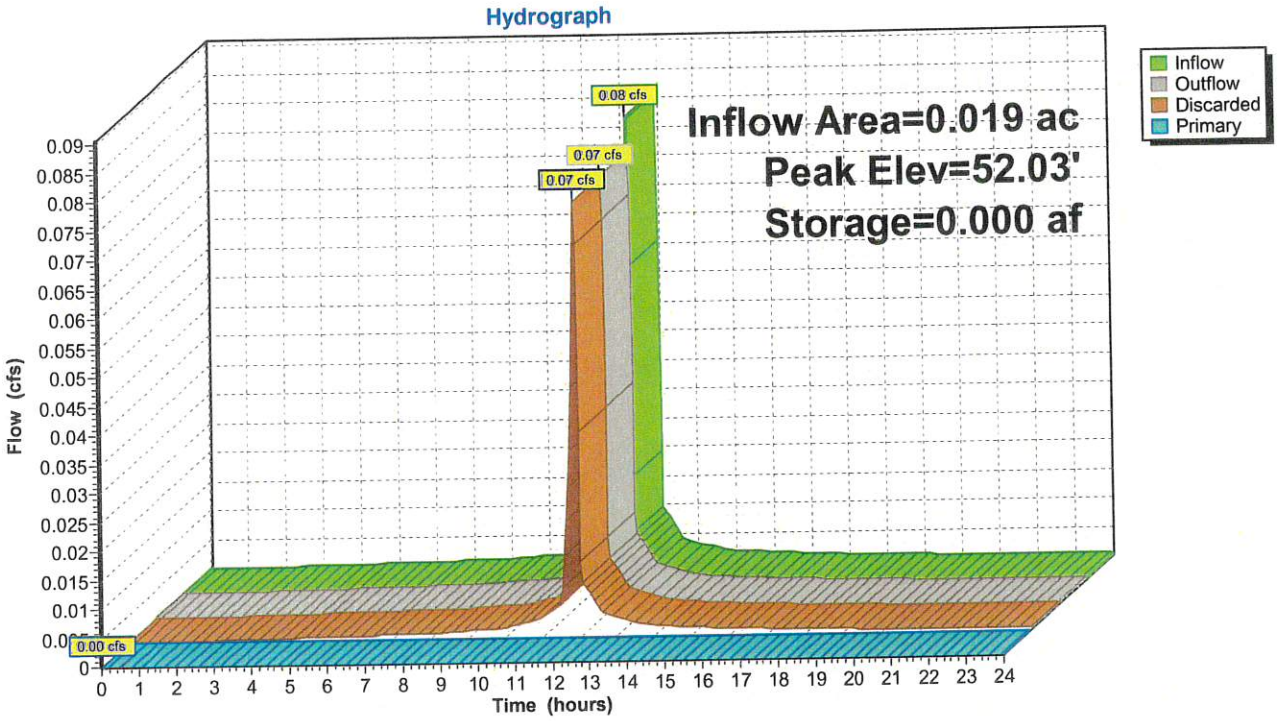
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.03' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 3.07" for 2 yr event
Inflow = 0.10 cfs @ 11.89 hrs, Volume= 0.005 af
Outflow = 0.09 cfs @ 11.91 hrs, Volume= 0.005 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.09 cfs @ 11.91 hrs, Volume= 0.005 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.03' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.005 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (748.0 - 746.8)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

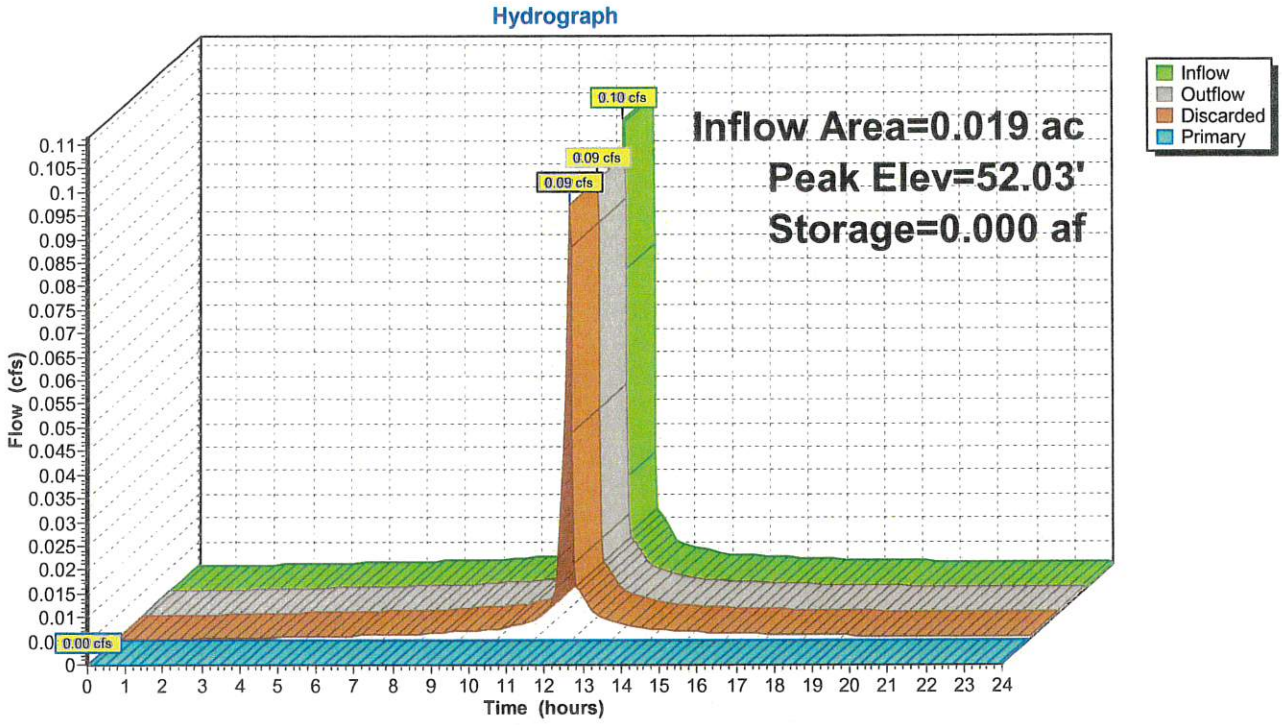
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.03' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 3.86" for 5 yr event
Inflow = 0.12 cfs @ 11.89 hrs, Volume= 0.006 af
Outflow = 0.11 cfs @ 11.91 hrs, Volume= 0.006 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.11 cfs @ 11.91 hrs, Volume= 0.006 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.04' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.006 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (743.7 - 742.5)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

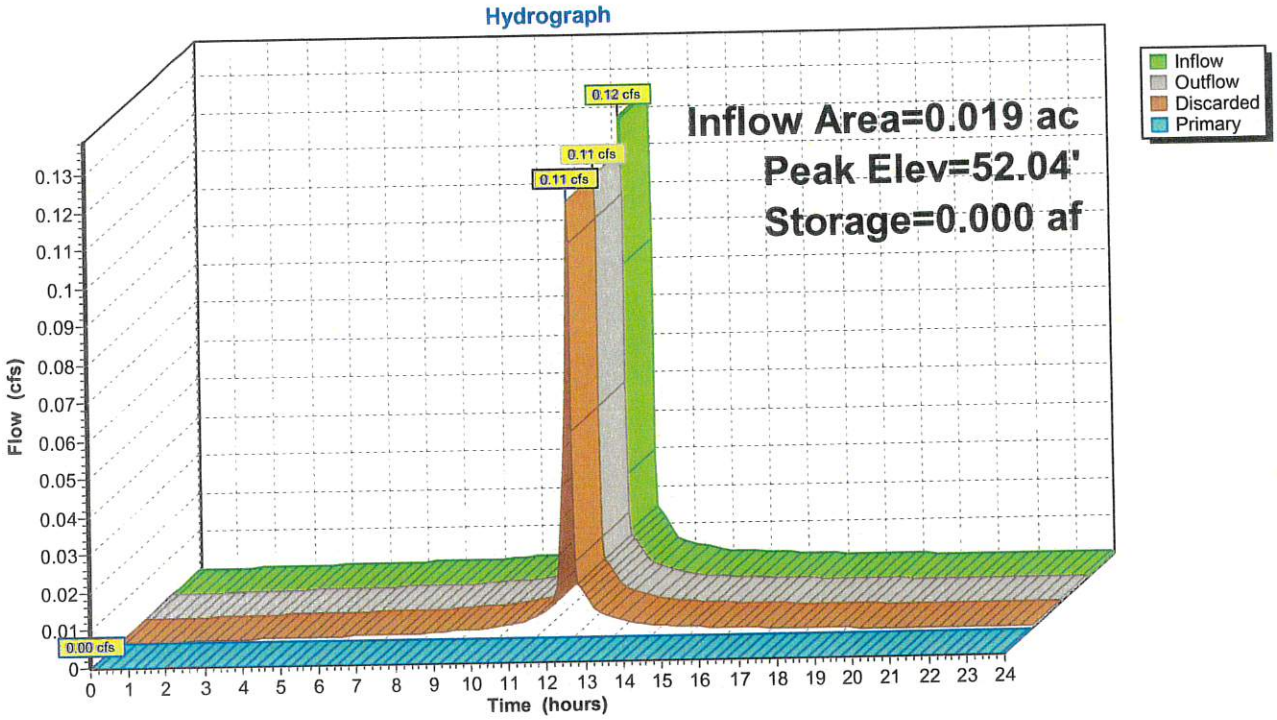
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.04' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 4.66" for 10 yr event
Inflow = 0.15 cfs @ 11.89 hrs, Volume= 0.007 af
Outflow = 0.14 cfs @ 11.91 hrs, Volume= 0.007 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.14 cfs @ 11.91 hrs, Volume= 0.007 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.05' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.007 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (740.4 - 739.3)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

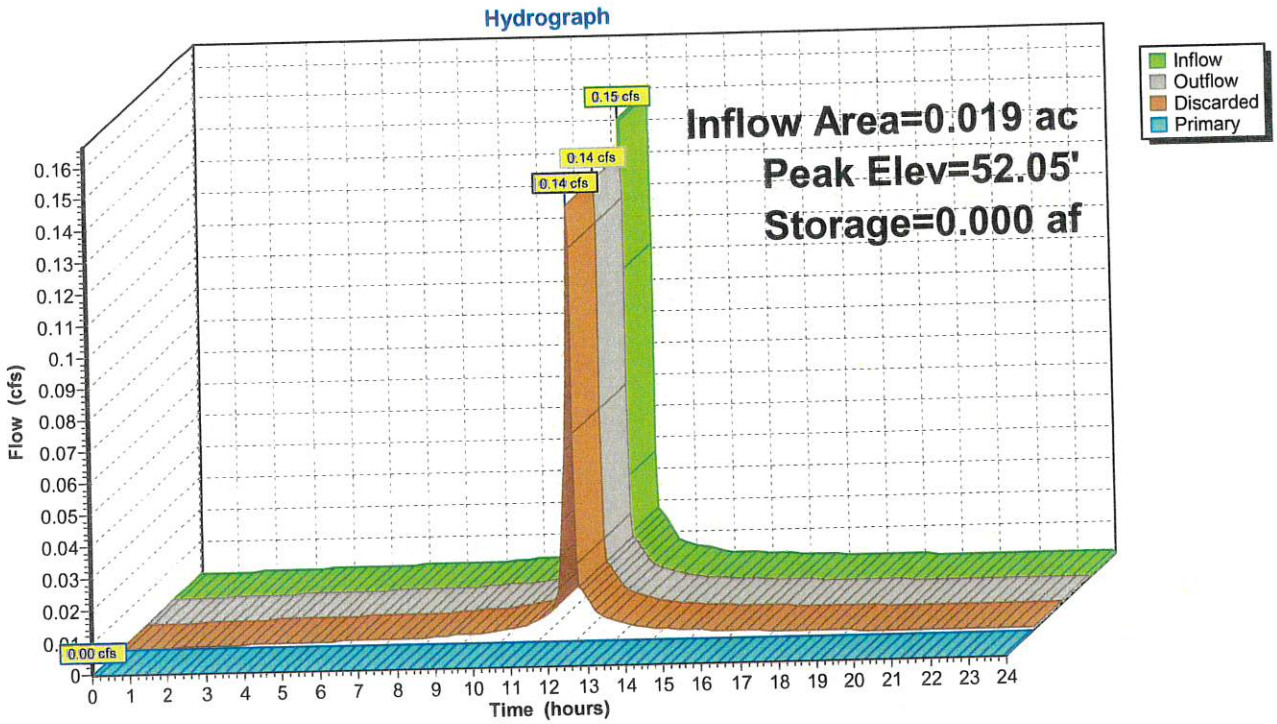
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.05' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 5.86" for 25 yr event
Inflow = 0.19 cfs @ 11.89 hrs, Volume= 0.009 af
Outflow = 0.17 cfs @ 11.91 hrs, Volume= 0.009 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.17 cfs @ 11.91 hrs, Volume= 0.009 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.06' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.009 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (736.9 - 735.7)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

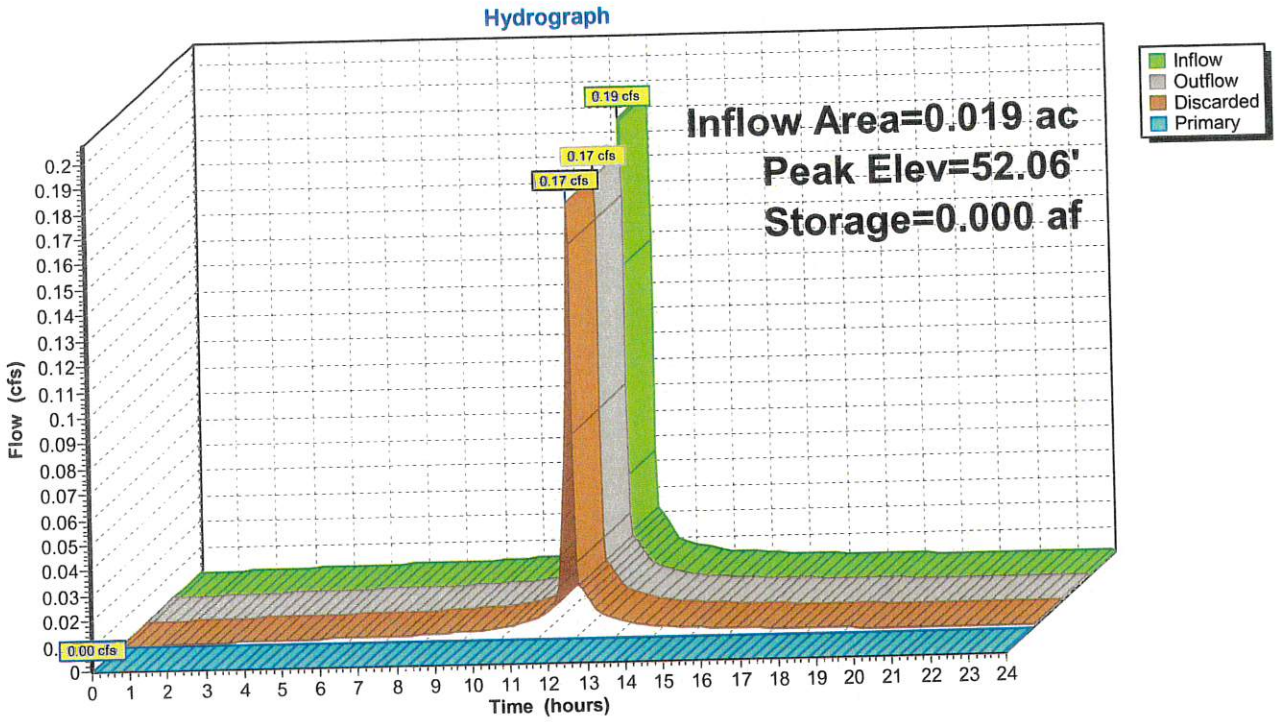
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.06' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 7.06" for 50 yr event
Inflow = 0.22 cfs @ 11.89 hrs, Volume= 0.011 af
Outflow = 0.21 cfs @ 11.91 hrs, Volume= 0.011 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.21 cfs @ 11.91 hrs, Volume= 0.011 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.07' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.011 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (734.4 - 733.2)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

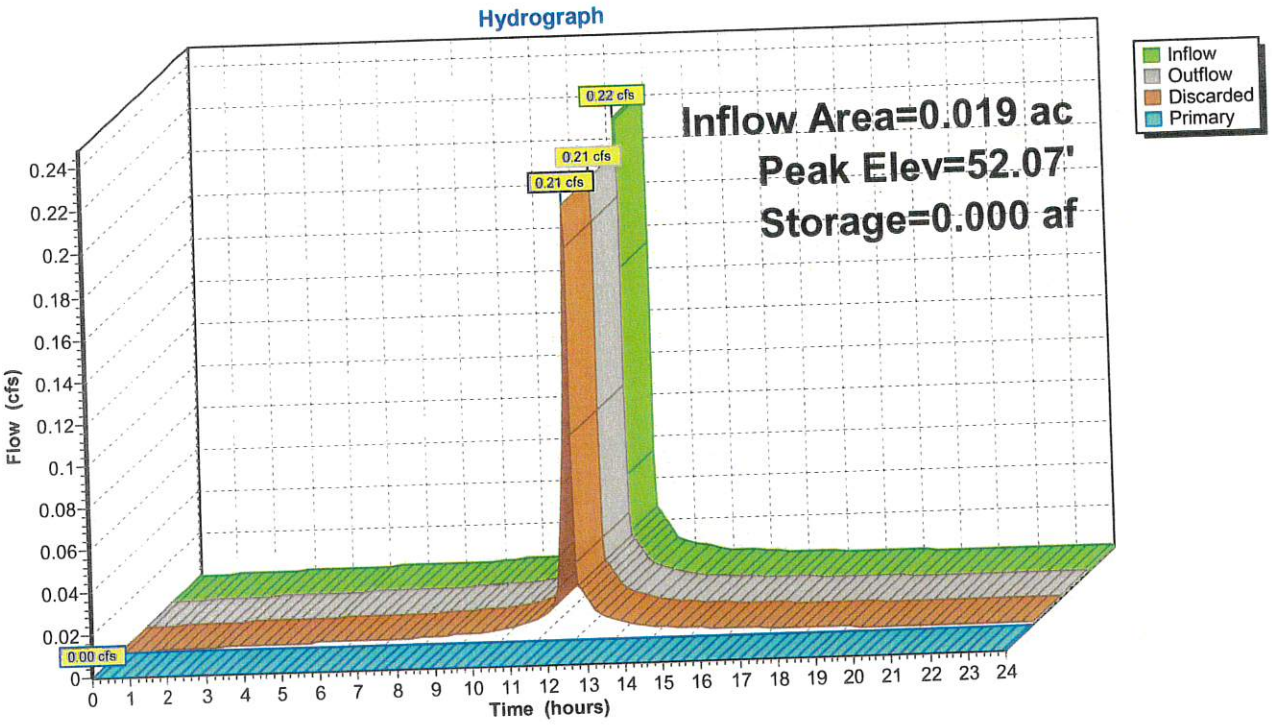
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.07' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond



Summary for Pond 3P: infiltration pond

Inflow Area = 0.019 ac,100.00% Impervious, Inflow Depth > 8.66" for 100 yr event
Inflow = 0.27 cfs @ 11.89 hrs, Volume= 0.014 af
Outflow = 0.25 cfs @ 11.91 hrs, Volume= 0.014 af, Atten= 7%, Lag= 1.0 min
Discarded = 0.25 cfs @ 11.91 hrs, Volume= 0.014 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 52.09' @ 11.91 hrs Surf.Area= 0.015 ac Storage= 0.000 af
Flood Elev= 60.00' Surf.Area= 0.015 ac Storage= 0.040 af

Plug-Flow detention time= 1.3 min calculated for 0.014 af (100% of inflow)
Center-of-Mass det. time= 1.2 min (731.9 - 730.7)

Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	0.040 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.120 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
52.00	0.015	0.000	0.000
53.00	0.015	0.015	0.015
54.00	0.015	0.015	0.030
55.00	0.015	0.015	0.045
56.00	0.015	0.015	0.060
57.00	0.015	0.015	0.075
58.00	0.015	0.015	0.090
59.00	0.015	0.015	0.105
60.00	0.015	0.015	0.120

Device	Routing	Invert	Outlet Devices
#0	Primary	60.00'	**Automatic Storage Overflow** (Discharged without head)
#1	Discarded	52.00'	**0.44 cfs Exfiltration when above 52.00'**

Discarded OutFlow Max=0.44 cfs @ 11.91 hrs HW=52.09' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)

Pond 3P: infiltration pond