



**ENVIRONMENTAL DESIGN
PARTNERSHIP, LLP.**

Shaping the physical environment

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STORMWATER MANAGEMENT FEASIBILITY MEMO

**JACOBIE'S PARK SIDE FARMS
11-29 MOREAU REC ROAD**

TOWN OF MILTON, NEW YORK

Prepared For:

CERRONE BUILDERS

Prepared By:

**THE ENVIRONMENTAL DESIGN PARTNERSHIP
900 Route 146
Clifton Park, NY 12065**

DATE: September 5, 2023

INTRODUCTION:

Cerrone Builders is proposing to develop a Mixed Use, Planned Development District (PUDD) at 11-29 Moreau Rec Road. The subject parcels (50.-2-28.2 and 64.-1-54) are located on the northern and southern sides of Moreau Rec Road, respectively. The northern parcel is approximately ±12.74 acres and the southern parcel is approximately ±14.45 acres. The total acreage of both parcels is ±27.19 acres.

The proposed PUDD consists of a combination of single-family homes, duplexes, and apartment buildings. Also included, as permanent elements of the development, are 5,950 LF of road ways, connections to municipal sewer and water, three stormwater management areas, reconfiguration of the existing Moreau Rec Road, and minor improvements to the Harry J. Betar Park.

The proposed PUDD will include a subdivision component. Subdivision construction projects that disturb more than five acres are subject to coverage under permit GP-0-20-001 of New York's State Pollutant Discharge Elimination System (SPDES). Permanent post-construction stormwater management practices must also be provided in accordance with the New York State Stormwater Management Design Manual (Design Manual).

Chapter 7 of the Design Manual outlines a selection process for determining the appropriate stormwater management practices based on land use, physical feasibility, regional factors, the individual capability of the various stormwater practices and other miscellaneous community factors. This conceptual stormwater management narrative will document the evaluation of that selection process for the Jacobie Park Side Farms project site.

LAND USE:

The current land use of the 11-29 Moreau Rec Road site consists predominantly of abandoned agricultural lands; the lands were previously operated as a pig farm.

The subject property extends west approximately 1,600 feet from the Harry J. Betar Park along Moreau Rec Road, and is located approximately 500 feet from the intersection of Moreau Rec Road and NYS Route 32.

The topography of the site varies with slopes ranging from less than 1% to 5%, with localized areas over 15%. Elevations on site range from 325 to 355 feet above sea level. According to the Federal Emergency Management Area (FEMA), the project falls within an area of minimal flood hazards. No wetlands are present on the project site.

The proposed land use would be considered a PUDD which would consist of a

combination of 47 single family homes, 14 duplexes (28 units total), and two 50-Unit apartment buildings. Four town roads are proposed to provide access to the single-family homes and a portion of the duplexes. Private roads will be provided for access to the apartment buildings and a portion of the remainder of the duplexes. The existing Moreau Park Rec Road will be reconfigured and upgraded as part of the proposed PUDD, subsequently, this project will be classified as redevelopment for stormwater management purposes. Improvements are also proposed to a parking area within the Harry Betar Park.

The total proposed impervious area on the site, including the disturbed, existing impervious areas, would be on the order of 650,000 sf.

The selection matrix in the Design Manual for residential areas suggests that nearly all stormwater management practices are at least suitable under certain conditions. The land use criterion does little to exclude stormwater choices. Wet swales, underground sand filters and perimeter sand filters are discouraged for residential areas.

PHYSICAL FEASIBILITY FACTORS:

Physical feasibility factors are the most crucial selection parameter for determining the appropriate stormwater management practices. These factors include the soils present at the project site, groundwater conditions, the size of the drainage area and the vertical elevations available to implement a particular stormwater practice.

Investigative soil testing was observed by the Environmental Design Partnership in 2020. The typical soil profile consisted of approximately eight inches of topsoil, underlain by fine and coarse sands. Seasonal high groundwater was observed in the lowest area of the site at approximately five feet below the ground surface. Infiltration testing indicated that the stabilized infiltration rate was over 100 inches per hour, indicating that the proposed development area would be suitable for infiltration.

The results from the soils testing are consistent with the USDA Web Soil Survey records. The results of the soils testing are included on the Predevelopment Stormwater Mapping, which is included with this narrative.

PREDEVELOPMENT STORMWATER ANALYSIS:

The existing hydrologic conditions, in the area of the proposed development, were analyzed using Applied Microcomputer Systems' "HydroCAD" computer modeling program. The HydroCAD stormwater modeling program employs the United States Department of Agriculture's Soil Conservation Service (SCS) Technical Release 20 (TR-20) method for stormwater analysis. Using this modeling technique, the site is divided into "subcatchments" that represent specific areas contributing stormwater runoff to an

existing, or proposed drainage feature. The subcatchments typically flow through "reaches" (i.e., swales, channels, or pipes) that convey the stormwater to storm basins or discharge areas.

A hydrologic model of the existing site was prepared using the Hydrocad program. Six subcatchments were used to represent the existing drainage condition, see Figure 2. The total predevelopment stormwater discharge was modeled for several design storms.

Stormwater model results are included with this memo. The existing parameters of topography, vegetation, slope, and soil type are all incorporated into the predevelopment model.

Table 1 presents a summary of the pre-development stormwater peak discharge for the 1-year, 10-year and 100-year design storm events at the respective Design Points.

Table 1: Pre-Development Runoff Rates

Storm Event	Design Point Peak Discharge (cfs)		Total Peak Discharge offsite (cfs)
	OFF1	OFF2	
1-Year (2.22")	0.00	0.00	0.00
10-Year (3.70")	0.07	0.03	0.10
100-Year (6.20")	3.52	1.12	4.64

The predevelopment stormwater discharge was evaluated for several design storms at the Design Points (OFF1 and OFF2). Design Point OFF1 consists of drainage to a low point off site in the wooded area near the southwestern portion of the site. Design Point OFF2 consists of drainage offsite near the southwestern portion of the site.

The pre-development Curve Number (CN) for the existing impervious, wooded and pasture/grassland was established as 98, 30 and 39, respectively. The weighted predevelopment curve number is 42. The HydroCAD model results for the pre-development conditions are included with this memo.

WATERSHED/REGIONAL FACTORS:

This design consideration has to do with factors such as sensitive streams, lakes, and aquifers. The Jacobie Park Side Farms PUDD is not located within any designated sole

source aquifers. The project is also not located in a watershed requiring enhanced phosphorus removal or impaired by construction related pollutants as identified in NYSDEC SPEDES General Permit.

The final stormwater practices are anticipated to be infiltration basins located on the southern side of the site. Stormwater runoff from the development will sheet flow to a close stormwater management system, which will be directed to the infiltration basins or sheet flow directly to the infiltration basins.

The Design Manual classifies infiltration practices as a standard stormwater management practice with runoff reduction capacity.

No discharge is anticipated from the infiltration basins; however, emergency overflows will be directed to the southern portion of the site, which is similar to the pre-development drainage corridors. Infiltration basins will be located at least three feet above seasonally high ground water, as required by the Design Manual.

The infiltration basins will be located to the rear of the single-family homes, duplexes, and apartment complexes.

STORMWATER MANAGEMENT CAPABILITY:

The various stormwater practices available to the design engineer each offer different treatment abilities. Stormwater management must meet goals related to both water quality and peak flow attenuation. The measures of this latter goal are the channel protection (CPV) and flood control criteria in the stormwater design manual. The use of infiltration basins is a valid choice for providing both water quality and peak flow attenuation treatment.

Infiltration basins would treat the runoff reduction volume for the entirety of the site. Conceptual calculations indicate the runoff reduction volume for the site would be 63,100 CF. As previously stated, the Design Manual classifies infiltration basins as standard stormwater management practice with runoff reduction capacity. Additionally, the entire CPV will be reduced as the CPV will be infiltrated.

The infiltration basins would provide a total runoff reduction of 63,100 CF. Conservative, preliminary estimates indicate approximately 3.50 acre-feet of storage will be required for the infiltration basins. Exhibit 8.11, included with this memo, would provide approximately 5.00 acre-feet of storage (assuming the basins are three feet deep), which would meet the infiltration area requirements.

COMMUNITY AND ENVIRONMENTAL FACTORS:

The final selection criteria are related to practical factors such as the ease of maintenance, affordability, safety, habitat opportunities, and community acceptance. Infiltration basins are considered to have high safety but will have low ease of maintenance and habitat. At this point, the designer must consider the proposed location of the stormwater facilities.

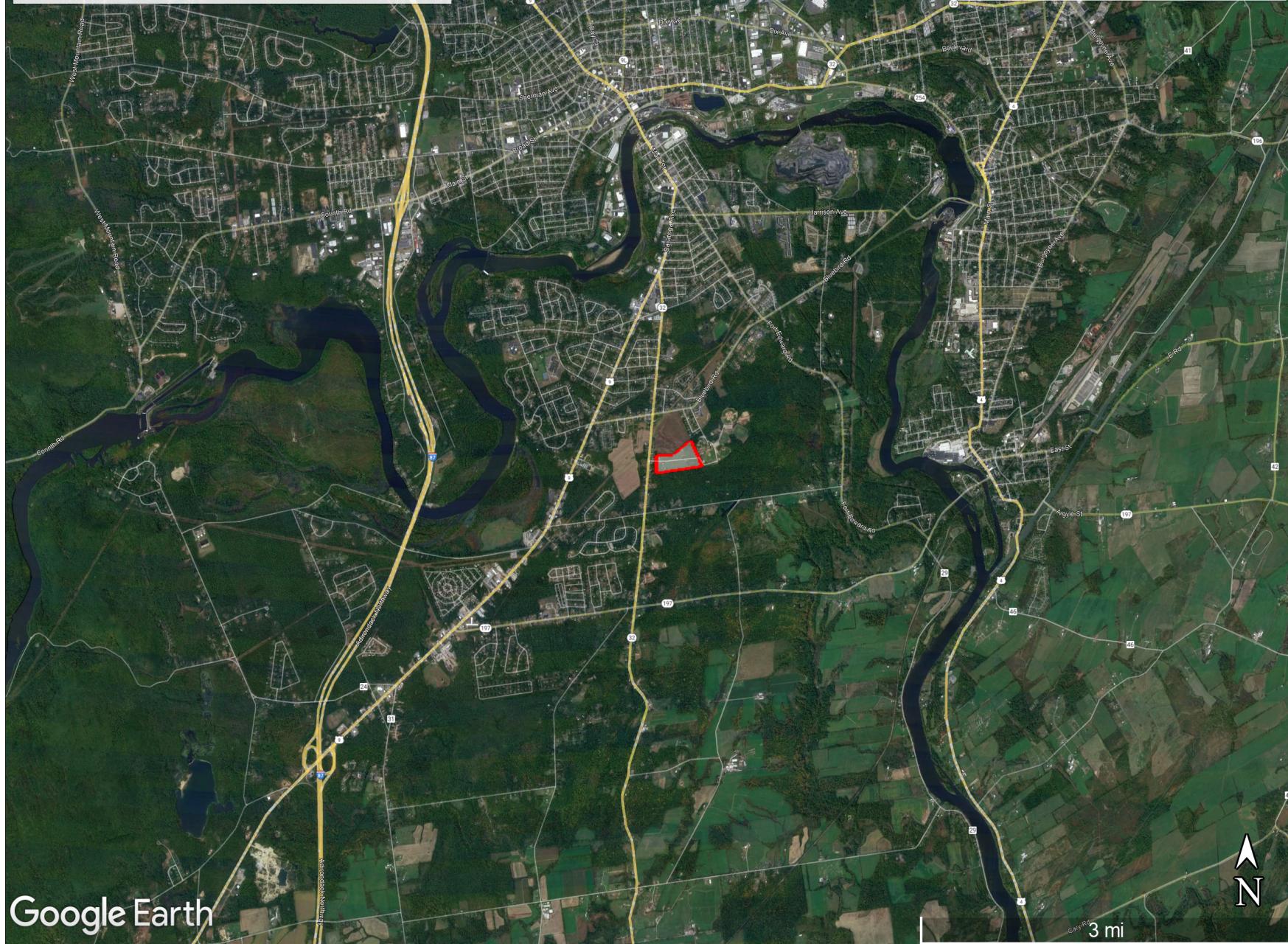
There are no community and environmental factors significant enough to further limit the available selection of stormwater practices.

PROPOSED STORMWATER FACILITIES:

Based on the results of the feasibility tests outlined in the New York State Stormwater Management Design Manual, stormwater practices consisting of infiltration basins will be the most appropriate selection for the Jacobie Parkside Farms PUDD.

JACOBIE PARK SIDE FARMS

SITE LOCATION MAP



Google Earth

Legend

Jacbie Park Side Farms Parcel

The Environmental
Design Partnership, LLP
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Figure:
1

Jacbie Park Side Farms Site Location Map

Cerrone Builders

11-29 Moreau Rec Road, Moreau, NY

Source: Google Earth 2017

Saratoga County, NY
September 5, 2023



NOT TO SCALE

SOIL DATA

MAP KEY	
	SUBCATCHMENT BOUNDARY
	SUBCATCHMENT I.D.
	DESIGN POINT
	STORMWATER DEVICE
	TC PATH

THE FOLLOWING TEST PITS WERE OBSERVED BY ENVIRONMENTAL DESIGN PARTNERSHIP, LLP ON DECEMBER 21, 2021.

TP#1
0"-8" TOPSOIL
8"-35" LIGHT BROWN FINE SAND
35"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#2
0"-8" TOPSOIL
8"-24" LIGHT BROWN FINE SAND
24"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#3
0"-6" TOPSOIL
6"-16" ORANGE BROWN, FINE SAND
16"-96" LIGHT BROWN MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#4
0"-10" TOPSOIL
10"-96" LIGHT BROWN FINE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#5
0"-7" TOPSOIL
7"-30" LIGHT BROWN FINE SAND
30"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#6
0"-9" TOPSOIL
9"-32" LIGHT BROWN FINE SAND
32"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#7 (LOW SPOT)
0"-5" TOPSOIL
5"-20" ORANGE BROWN FINE SAND
20"-62" LIGHT BROWN COARSE SAND
62"-92" LIGHT BROWN COARSE SAND
SLIGHT MOTTLING OBSERVED AT 62"

TP#8
0"-9" TOPSOIL
9"-22" ORANGISH BROWN FINE SAND
22"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#9
0"-13" TOPSOIL
13"-32" ORANGISH BROWN FINE SAND
30"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#10
0"-9" TOPSOIL
9"-24" LIGHT BROWN FINE SAND
24"-96" LIGHT BROWN LOOSE COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#11
0"-8" TOPSOIL
8"-27" LIGHT BROWN FINE SAND
27"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

TP#12
0"-10" TOPSOIL
10"-32" LIGHT BROWN FINE SAND
32"-96" LIGHT BROWN LOOSE MEDIUM COARSE SAND
NO EVIDENCE OF GROUNDWATER OBSERVED

THE FOLLOWING PERCOLATION TESTS AND INFILTRATION TESTS WERE PERFORMED BY ENVIRONMENTAL DESIGN PARTNERSHIP, LLP ON DECEMBER 21, 2020. ALL PERCOLATION TESTS PRESOAKED WITH 12" OF WATER AND ALLOWED TO COMPLETELY DRAIN.

PT#1
STABILIZED RATE OF 1 MIN 20 SECONDS PER INCH

PT#2
STABILIZED RATE OF 1 MIN 10 SECONDS PER INCH

PT#3
STABILIZED RATE OF 1 MIN 10 SECONDS PER INCH

PT#4
STABILIZED RATE OF 1 MIN 35 SECONDS PER INCH

PT#5
STABILIZED RATE OF 1 MIN 10 SECONDS PER INCH

PT#6
STABILIZED RATE OF 1 MIN 10 SECONDS PER INCH

IT#1
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE

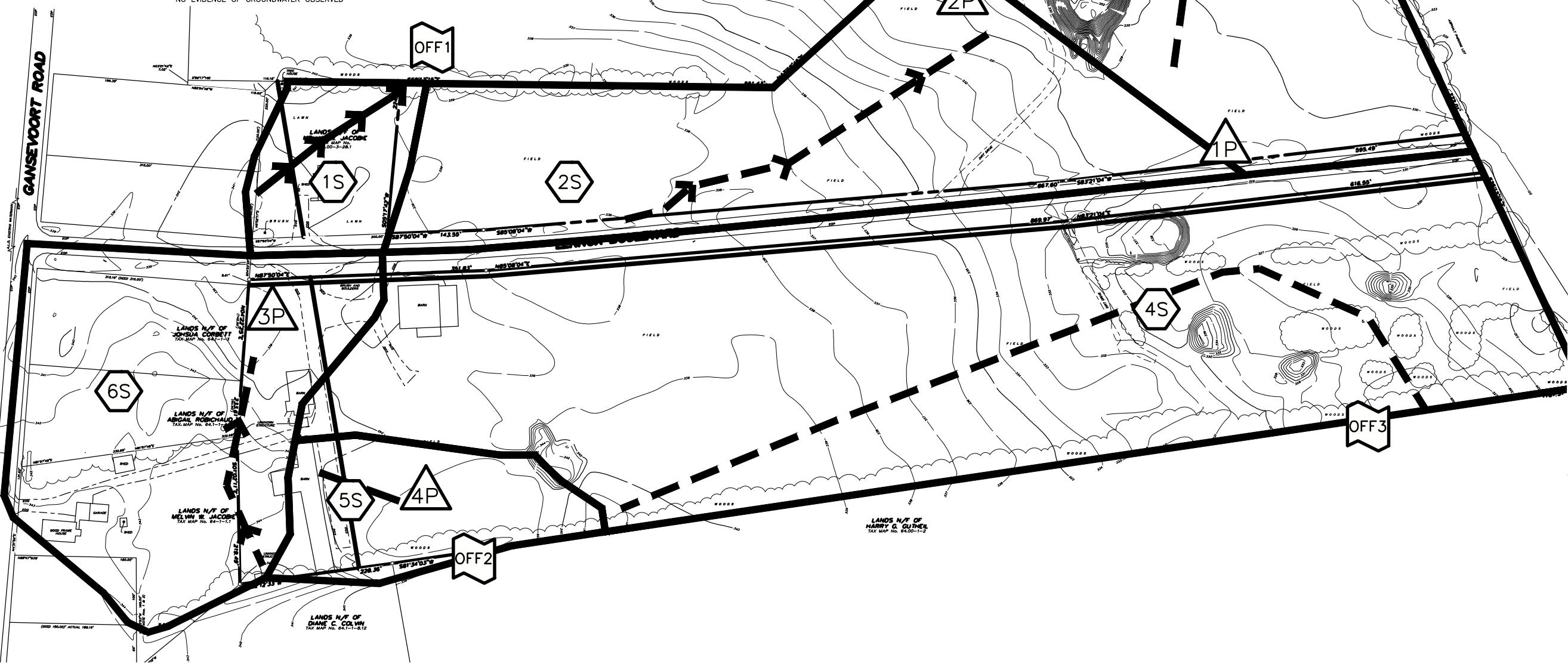
IT#2
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE

IT#3
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE

IT#4
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE

IT#5
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE

IT#6
AT 32" BELOW GRADE STABILIZED AT > 100 INCHES PER HOUSE



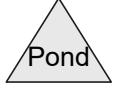
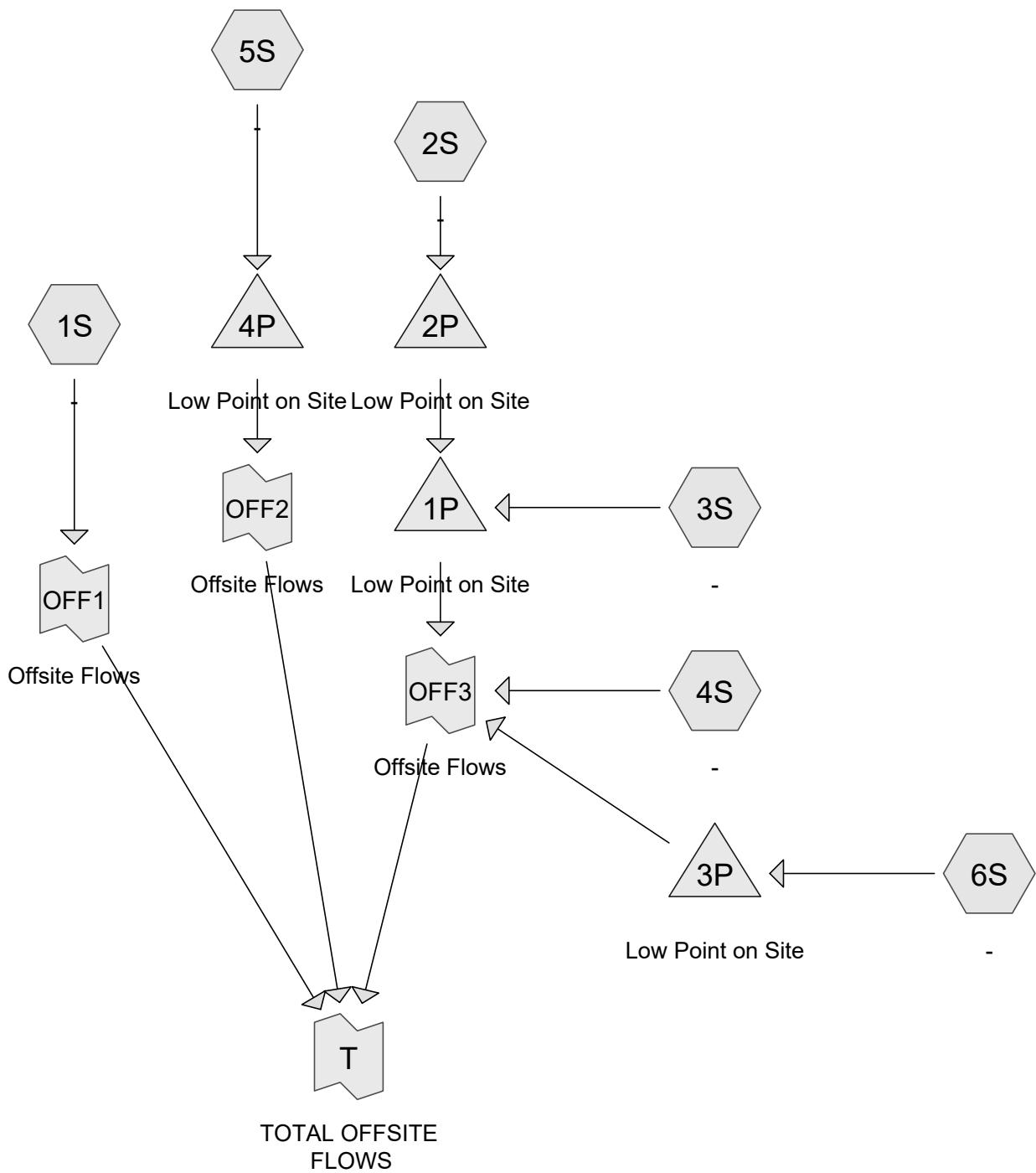
STORMWATER ANALYSIS FOR
JACOBIE FARMS NORTH

1589 GANSEVOORT ROAD
TOWN OF MOREAU
SARATOGA COUNTY, NEW YORK

REVISION DATE BY

SCALE:
1"=170'

FIGURE
PREDEVELOPMENT
STORMWATER



Routing Diagram for PREDEVELOPMENT - CERRONE_JACOBIE
 Prepared by The Environmental Design Partnership, Printed 4/22/2021
 HydroCAD® 10.00-20 s/n 10197 © 2017 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
22.074	39	>75% Grass cover, Good, HSG A (3S, 4S, 5S, 6S)
7.006	39	Pasture/grassland/range, Good, HSG A (1S, 2S)
2.623	98	Paved parking, HSG A (1S, 2S, 3S, 4S, 5S, 6S)
5.425	30	Woods, Good, HSG A (1S, 2S, 3S, 4S, 5S, 6S)
37.128	42	TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
37.128	HSG A	1S, 2S, 3S, 4S, 5S, 6S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
37.128		TOTAL AREA

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatch Numbers
22.074	0.000	0.000	0.000	0.000	22.074	>75% Grass cover, Good	
7.006	0.000	0.000	0.000	0.000	7.006	Pasture/grassland/range, Good	
2.623	0.000	0.000	0.000	0.000	2.623	Paved parking	
5.425	0.000	0.000	0.000	0.000	5.425	Woods, Good	
37.128	0.000	0.000	0.000	0.000	37.128	TOTAL AREA	

Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: -	Runoff Area=57,487 sf 11.31% Impervious Runoff Depth=0.00" Flow Length=265' Tc=17.9 min CN=45 Runoff=0.00 cfs 0.000 af
Subcatchment2S: -	Runoff Area=285,539 sf 7.69% Impervious Runoff Depth=0.00" Flow Length=612' Slope=0.0120 '/' Tc=24.5 min CN=43 Runoff=0.00 cfs 0.000 af
Subcatchment3S: -	Runoff Area=302,026 sf 1.51% Impervious Runoff Depth=0.00" Flow Length=520' Tc=15.4 min CN=37 Runoff=0.00 cfs 0.000 af
Subcatchment4S: -	Runoff Area=669,129 sf 5.19% Impervious Runoff Depth=0.00" Flow Length=1,350' Tc=38.1 min CN=41 Runoff=0.00 cfs 0.000 af
Subcatchment5S: -	Runoff Area=75,948 sf 13.42% Impervious Runoff Depth=0.00" Flow Length=125' Slope=0.0200 '/' Tc=11.3 min CN=45 Runoff=0.00 cfs 0.000 af
Subcatchment6S: -	Runoff Area=227,163 sf 16.00% Impervious Runoff Depth=0.00" Flow Length=325' Tc=15.6 min CN=47 Runoff=0.00 cfs 0.000 af
Pond 1P: Low Point on Site	Peak Elev=329.00' Storage=0 cf Inflow=0.00 cfs 0.000 af Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af
Pond 2P: Low Point on Site	Peak Elev=329.00' Storage=0 cf Inflow=0.00 cfs 0.000 af Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af
Pond 3P: Low Point on Site	Peak Elev=339.00' Storage=0 cf Inflow=0.00 cfs 0.000 af Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af
Pond 4P: Low Point on Site	Peak Elev=338.60' Storage=0 cf Inflow=0.00 cfs 0.000 af Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af
Link OFF1: Offsite Flows	Inflow=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af
Link OFF2: Offsite Flows	Inflow=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af
Link OFF3: Offsite Flows	Inflow=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af
Link T: TOTALOFFSITEFLOWS	Inflow=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af

Total Runoff Area = 37.128 ac Runoff Volume = 0.000 af Average Runoff Depth = 0.00"
92.94% Pervious = 34.505 ac 7.06% Impervious = 2.623 ac

Summary for Subcatchment 1S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
6,503	98	Paved parking, HSG A
2,934	30	Woods, Good, HSG A
48,050	39	Pasture/grassland/range, Good, HSG A
57,487	45	Weighted Average
50,984		88.69% Pervious Area
6,503		11.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	165	0.0075	0.61		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
17.9	265			Total	

Summary for Subcatchment 2S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
21,956	98	Paved parking, HSG A
6,462	30	Woods, Good, HSG A
257,121	39	Pasture/grassland/range, Good, HSG A
285,539	43	Weighted Average
263,583		92.31% Pervious Area
21,956		7.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
11.1	512	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
24.5	612			Total	

Summary for Subcatchment 3S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
4,556	98	Paved parking, HSG A
207,455	39	>75% Grass cover, Good, HSG A
90,015	30	Woods, Good, HSG A
302,026	37	Weighted Average
297,470		98.49% Pervious Area
4,556		1.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	420	0.0500	1.57		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.4	520			Total	

Summary for Subcatchment 4S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
34,710	98	Paved parking, HSG A
72,297	30	Woods, Good, HSG A
562,122	39	>75% Grass cover, Good, HSG A
669,129	41	Weighted Average
634,419		94.81% Pervious Area
34,710		5.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
27.2	1,250	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
38.1	1,350			Total	

Summary for Subcatchment 5S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
10,191	98	Paved parking, HSG A
15,938	30	Woods, Good, HSG A
49,819	39	>75% Grass cover, Good, HSG A
75,948	45	Weighted Average
65,757		86.58% Pervious Area
10,191		13.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
0.4	25	0.0200	0.99		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
11.3	125	Total			

Summary for Subcatchment 6S: -

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

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 1-YEAR Rainfall=2.22"

Area (sf)	CN	Description
36,337	98	Paved parking, HSG A
48,668	30	Woods, Good, HSG A
142,158	39	>75% Grass cover, Good, HSG A
227,163	47	Weighted Average
190,826		84.00% Pervious Area
36,337		16.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0150	0.14		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
3.4	225	0.0250	1.11		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.6	325	Total			

Summary for Pond 1P: Low Point on Site

Inflow Area = 13.489 ac, 4.51% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 329.00' @ 0.00 hrs Surf.Area= 10,606 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	329.00'	33,561 cf	Low Point (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983
330.00	79,950	1,624.0	28,832	33,561	162,042

Device	Routing	Invert	Outlet Devices
#1	Primary	329.37'	251.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 2P: Low Point on Site

Inflow Area = 6.555 ac, 7.69% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Peak Elev= 329.00' @ 0.00 hrs Surf.Area= 17,528 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	329.00'	24,570 cf	Low Point (Irregular) Listed below (Recalc)
#2	329.00'	4,729 cf	Low Point (Irregular) Listed below (Recalc)
29,299 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	6,922	531.0	0	0	6,922
329.35	25,860	694.0	5,385	5,385	22,813
330.00	33,326	1,175.0	19,184	24,570	94,355
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983

Device	Routing	Invert	Outlet Devices
#1	Primary	329.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 3P: Low Point on Site

Inflow Area =	5.215 ac, 16.00% Impervious, Inflow Depth = 0.00"	for 1-YEAR event
Inflow =	0.00 cfs @ 0.00 hrs, Volume=	0.000 af
Outflow =	0.00 cfs @ 0.00 hrs, Volume=	0.000 af, Atten= 0%, Lag= 0.0 min
Discarded =	0.00 cfs @ 0.00 hrs, Volume=	0.000 af
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.00' @ 0.00 hrs Surf.Area= 8,759 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description	
#1	339.00'	20,125 cf	Custom Stage Data (Irregular) listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
339.00	8,759	426.0	0	0
339.50	30,624	1,042.0	9,293	9,293
339.75	57,421	1,430.0	10,832	20,125
Device	Routing	Invert	Outlet Devices	
#1	Primary	339.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir	
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80	
			2.00 2.50 3.00 3.50 4.00 4.50	
			Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68	
			2.72 2.81 2.92 2.97 3.07 3.32	
#2	Discarded	339.00'	8.000 in/hr Exfiltration over Wetted area	Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.00' (Free Discharge)
 ↑ 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.00' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 4P: Low Point on Site

Inflow Area = 1.744 ac, 13.42% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.60' @ 0.00 hrs Surf.Area= 6,900 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description	
#1	338.60'	6,100 cf	Custom Stage Data (Irregular) listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
338.60	6,900	365.0	0	0
339.00	25,565	619.0	6,100	6,100

Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	40.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=338.60' (Free Discharge)
 ↑ 2=Exfiltration (Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=338.60' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Link OFF1: Offsite Flows

Inflow Area = 1.320 ac, 11.31% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF2: Offsite Flows

Inflow Area = 1.744 ac, 13.42% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF3: Offsite Flows

Inflow Area = 34.065 ac, 6.57% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link T: TOTAL OFFSITE FLOWS

Inflow Area = 37.128 ac, 7.06% Impervious, Inflow Depth = 0.00" for 1-YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: -	Runoff Area=57,487 sf 11.31% Impervious Runoff Depth=0.12" Flow Length=265' Tc=17.9 min CN=45 Runoff=0.02 cfs 0.013 af
Subcatchment2S: -	Runoff Area=285,539 sf 7.69% Impervious Runoff Depth=0.08" Flow Length=612' Slope=0.0120 '/' Tc=24.5 min CN=43 Runoff=0.05 cfs 0.042 af
Subcatchment3S: -	Runoff Area=302,026 sf 1.51% Impervious Runoff Depth=0.01" Flow Length=520' Tc=15.4 min CN=37 Runoff=0.01 cfs 0.003 af
Subcatchment4S: -	Runoff Area=669,129 sf 5.19% Impervious Runoff Depth=0.04" Flow Length=1,350' Tc=38.1 min CN=41 Runoff=0.07 cfs 0.057 af
Subcatchment5S: -	Runoff Area=75,948 sf 13.42% Impervious Runoff Depth=0.12" Flow Length=125' Slope=0.0200 '/' Tc=11.3 min CN=45 Runoff=0.03 cfs 0.017 af
Subcatchment6S: -	Runoff Area=227,163 sf 16.00% Impervious Runoff Depth=0.16" Flow Length=325' Tc=15.6 min CN=47 Runoff=0.16 cfs 0.071 af
Pond 1P: Low Point on Site	Peak Elev=329.00' Storage=0 cf Inflow=0.01 cfs 0.003 af Discarded=0.01 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.003 af
Pond 2P: Low Point on Site	Peak Elev=329.00' Storage=3 cf Inflow=0.05 cfs 0.042 af Discarded=0.05 cfs 0.042 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.042 af
Pond 3P: Low Point on Site	Peak Elev=339.00' Storage=8 cf Inflow=0.16 cfs 0.071 af Discarded=0.16 cfs 0.071 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.071 af
Pond 4P: Low Point on Site	Peak Elev=338.60' Storage=1 cf Inflow=0.03 cfs 0.017 af Discarded=0.03 cfs 0.016 af Primary=0.00 cfs 0.001 af Outflow=0.03 cfs 0.017 af
Link OFF1: Offsite Flows	Inflow=0.02 cfs 0.013 af Primary=0.02 cfs 0.013 af
Link OFF2: Offsite Flows	Inflow=0.00 cfs 0.001 af Primary=0.00 cfs 0.001 af
Link OFF3: Offsite Flows	Inflow=0.07 cfs 0.057 af Primary=0.07 cfs 0.057 af
Link T: TOTALOFFSITEFLOWS	Inflow=0.09 cfs 0.070 af Primary=0.09 cfs 0.070 af

Total Runoff Area = 37.128 ac Runoff Volume = 0.203 af Average Runoff Depth = 0.07"
92.94% Pervious = 34.505 ac 7.06% Impervious = 2.623 ac

Summary for Subcatchment 1S: -

Runoff = 0.02 cfs @ 13.04 hrs, Volume= 0.013 af, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
6,503	98	Paved parking, HSG A
2,934	30	Woods, Good, HSG A
48,050	39	Pasture/grassland/range, Good, HSG A
57,487	45	Weighted Average
50,984		88.69% Pervious Area
6,503		11.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	165	0.0075	0.61		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
17.9	265			Total	

Summary for Subcatchment 2S: -

Runoff = 0.05 cfs @ 15.21 hrs, Volume= 0.042 af, Depth= 0.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
21,956	98	Paved parking, HSG A
6,462	30	Woods, Good, HSG A
257,121	39	Pasture/grassland/range, Good, HSG A
285,539	43	Weighted Average
263,583		92.31% Pervious Area
21,956		7.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
11.1	512	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
24.5	612			Total	

Summary for Subcatchment 3S: -

Runoff = 0.01 cfs @ 24.00 hrs, Volume= 0.003 af, Depth= 0.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
4,556	98	Paved parking, HSG A
207,455	39	>75% Grass cover, Good, HSG A
90,015	30	Woods, Good, HSG A
302,026	37	Weighted Average
297,470		98.49% Pervious Area
4,556		1.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	420	0.0500	1.57		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.4	520			Total	

Summary for Subcatchment 4S: -

Runoff = 0.07 cfs @ 18.25 hrs, Volume= 0.057 af, Depth= 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
34,710	98	Paved parking, HSG A
72,297	30	Woods, Good, HSG A
562,122	39	>75% Grass cover, Good, HSG A
669,129	41	Weighted Average
634,419		94.81% Pervious Area
34,710		5.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
27.2	1,250	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
38.1	1,350			Total	

Summary for Subcatchment 5S: -

Runoff = 0.03 cfs @ 12.95 hrs, Volume= 0.017 af, Depth= 0.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
10,191	98	Paved parking, HSG A
15,938	30	Woods, Good, HSG A
49,819	39	>75% Grass cover, Good, HSG A
75,948	45	Weighted Average
65,757		86.58% Pervious Area
10,191		13.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
0.4	25	0.0200	0.99		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
11.3	125	Total			

Summary for Subcatchment 6S: -

Runoff = 0.16 cfs @ 12.46 hrs, Volume= 0.071 af, Depth= 0.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 10-YEAR Rainfall=3.70"

Area (sf)	CN	Description
36,337	98	Paved parking, HSG A
48,668	30	Woods, Good, HSG A
142,158	39	>75% Grass cover, Good, HSG A
227,163	47	Weighted Average
190,826		84.00% Pervious Area
36,337		16.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0150	0.14		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
3.4	225	0.0250	1.11		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.6	325	Total			

Summary for Pond 1P: Low Point on Site

Inflow Area = 13.489 ac, 4.51% Impervious, Inflow Depth = 0.00" for 10-YEAR event
 Inflow = 0.01 cfs @ 24.00 hrs, Volume= 0.003 af
 Outflow = 0.01 cfs @ 24.02 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.9 min
 Discarded = 0.01 cfs @ 24.02 hrs, Volume= 0.003 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 329.00' @ 24.02 hrs Surf.Area= 10,607 sf Storage= 0 cf

Plug-Flow detention time= 0.9 min calculated for 0.003 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (1,320.4 - 1,319.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	329.00'	33,561 cf	Low Point (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983
330.00	79,950	1,624.0	28,832	33,561	162,042
Device	Routing	Invert	Outlet Devices		
#1	Primary	329.37'	251.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32		
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'		

Discarded OutFlow Max=0.01 cfs @ 24.02 hrs HW=329.00' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 2P: Low Point on Site

Inflow Area = 6.555 ac, 7.69% Impervious, Inflow Depth = 0.08" for 10-YEAR event
 Inflow = 0.05 cfs @ 15.21 hrs, Volume= 0.042 af
 Outflow = 0.05 cfs @ 15.22 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.9 min
 Discarded = 0.05 cfs @ 15.22 hrs, Volume= 0.042 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Peak Elev= 329.00' @ 15.22 hrs Surf.Area= 17,536 sf Storage= 3 cf

Plug-Flow detention time= 0.9 min calculated for 0.042 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (1,098.0 - 1,097.1)

Volume	Invert	Avail.Storage	Storage Description
#1	329.00'	24,570 cf	Low Point (Irregular) Listed below (Recalc)
#2	329.00'	4,729 cf	Low Point (Irregular) Listed below (Recalc)
29,299 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	6,922	531.0	0	0	6,922
329.35	25,860	694.0	5,385	5,385	22,813
330.00	33,326	1,175.0	19,184	24,570	94,355
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983

Device	Routing	Invert	Outlet Devices
#1	Primary	329.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=0.05 cfs @ 15.22 hrs HW=329.00' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 3P: Low Point on Site

Inflow Area =	5.215 ac, 16.00% Impervious, Inflow Depth = 0.16"	for 10-YEAR event
Inflow =	0.16 cfs @ 12.46 hrs, Volume=	0.071 af
Outflow =	0.16 cfs @ 12.48 hrs, Volume=	0.071 af, Atten= 0%, Lag= 0.9 min
Discarded =	0.16 cfs @ 12.48 hrs, Volume=	0.071 af
Primary =	0.00 cfs @ 0.00 hrs, Volume=	0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.00' @ 12.48 hrs Surf.Area= 8,788 sf Storage= 8 cf

Plug-Flow detention time= 0.9 min calculated for 0.071 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (1,016.0 - 1,015.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	339.00'	20,125 cf	Custom Stage Data (Irregular) listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
339.00	8,759	426.0	0	0	8,759
339.50	30,624	1,042.0	9,293	9,293	80,721
339.75	57,421	1,430.0	10,832	20,125	157,047
Device	Routing	Invert	Outlet Devices		
#1	Primary	339.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir		
			Head (feet)	0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80	
				2.00 2.50 3.00 3.50 4.00 4.50	
			Coef. (English)	2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68	
				2.72 2.81 2.92 2.97 3.07 3.32	
#2	Discarded	339.00'	8.000 in/hr Exfiltration over Wetted area	Phase-In= 0.01'	

Discarded OutFlow Max=0.15 cfs @ 12.48 hrs HW=339.00' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 0.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.00' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 4P: Low Point on Site

Inflow Area =	1.744 ac, 13.42% Impervious, Inflow Depth = 0.12"	for 10-YEAR event
Inflow =	0.03 cfs @ 12.95 hrs, Volume=	0.017 af
Outflow =	0.03 cfs @ 12.96 hrs, Volume=	0.017 af, Atten= 0%, Lag= 0.8 min
Discarded =	0.03 cfs @ 12.96 hrs, Volume=	0.016 af
Primary =	0.00 cfs @ 12.96 hrs, Volume=	0.001 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.60' @ 12.96 hrs Surf.Area= 6,906 sf Storage= 1 cf

Plug-Flow detention time= 0.8 min calculated for 0.017 af (100% of inflow)
 Center-of-Mass det. time= 0.8 min (1,044.3 - 1,043.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	338.60'	6,100 cf	Custom Stage Data (Irregular) listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
338.60	6,900	365.0	0	0	6,900
339.00	25,565	619.0	6,100	6,100	26,790

Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	40.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=0.02 cfs @ 12.96 hrs HW=338.60' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 0.02 cfs)

Primary OutFlow Max=0.00 cfs @ 12.96 hrs HW=338.60' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir (Weir Controls 0.00 cfs @ 0.03 fps)

Summary for Link OFF1: Offsite Flows

Inflow Area = 1.320 ac, 11.31% Impervious, Inflow Depth = 0.12" for 10-YEAR event
 Inflow = 0.02 cfs @ 13.04 hrs, Volume= 0.013 af
 Primary = 0.02 cfs @ 13.04 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF2: Offsite Flows

Inflow Area = 1.744 ac, 13.42% Impervious, Inflow Depth = 0.01" for 10-YEAR event
 Inflow = 0.00 cfs @ 12.96 hrs, Volume= 0.001 af
 Primary = 0.00 cfs @ 12.96 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF3: Offsite Flows

Inflow Area = 34.065 ac, 6.57% Impervious, Inflow Depth = 0.02" for 10-YEAR event
 Inflow = 0.07 cfs @ 18.25 hrs, Volume= 0.057 af
 Primary = 0.07 cfs @ 18.25 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link T: TOTAL OFFSITE FLOWS

Inflow Area = 37.128 ac, 7.06% Impervious, Inflow Depth = 0.02" for 10-YEAR event
 Inflow = 0.09 cfs @ 18.00 hrs, Volume= 0.070 af
 Primary = 0.09 cfs @ 18.00 hrs, Volume= 0.070 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: -	Runoff Area=57,487 sf 11.31% Impervious Runoff Depth=0.88" Flow Length=265' Tc=17.9 min CN=45 Runoff=0.93 cfs 0.097 af
Subcatchment2S: -	Runoff Area=285,539 sf 7.69% Impervious Runoff Depth=0.75" Flow Length=612' Slope=0.0120 '/' Tc=24.5 min CN=43 Runoff=2.81 cfs 0.409 af
Subcatchment3S: -	Runoff Area=302,026 sf 1.51% Impervious Runoff Depth=0.39" Flow Length=520' Tc=15.4 min CN=37 Runoff=0.96 cfs 0.228 af
Subcatchment4S: -	Runoff Area=669,129 sf 5.19% Impervious Runoff Depth=0.62" Flow Length=1,350' Tc=38.1 min CN=41 Runoff=3.52 cfs 0.798 af
Subcatchment5S: -	Runoff Area=75,948 sf 13.42% Impervious Runoff Depth=0.88" Flow Length=125' Slope=0.0200 '/' Tc=11.3 min CN=45 Runoff=1.65 cfs 0.128 af
Subcatchment6S: -	Runoff Area=227,163 sf 16.00% Impervious Runoff Depth=1.02" Flow Length=325' Tc=15.6 min CN=47 Runoff=5.14 cfs 0.444 af
Pond 1P: Low Point on Site	Peak Elev=329.00' Storage=50 cf Inflow=0.96 cfs 0.228 af Discarded=0.96 cfs 0.228 af Primary=0.00 cfs 0.000 af Outflow=0.96 cfs 0.228 af
Pond 2P: Low Point on Site	Peak Elev=329.01' Storage=147 cf Inflow=2.81 cfs 0.409 af Discarded=2.80 cfs 0.409 af Primary=0.00 cfs 0.000 af Outflow=2.80 cfs 0.409 af
Pond 3P: Low Point on Site	Peak Elev=339.12' Storage=1,258 cf Inflow=5.14 cfs 0.444 af Discarded=3.76 cfs 0.444 af Primary=0.00 cfs 0.000 af Outflow=3.76 cfs 0.444 af
Pond 4P: Low Point on Site	Peak Elev=338.61' Storage=96 cf Inflow=1.65 cfs 0.128 af Discarded=1.38 cfs 0.122 af Primary=0.15 cfs 0.007 af Outflow=1.53 cfs 0.128 af
Link OFF1: Offsite Flows	Inflow=0.93 cfs 0.097 af Primary=0.93 cfs 0.097 af
Link OFF2: Offsite Flows	Inflow=0.15 cfs 0.007 af Primary=0.15 cfs 0.007 af
Link OFF3: Offsite Flows	Inflow=3.52 cfs 0.798 af Primary=3.52 cfs 0.798 af
Link T: TOTALOFFSITEFLOWS	Inflow=3.90 cfs 0.901 af Primary=3.90 cfs 0.901 af

Total Runoff Area = 37.128 ac Runoff Volume = 2.104 af Average Runoff Depth = 0.68"
92.94% Pervious = 34.505 ac 7.06% Impervious = 2.623 ac

Summary for Subcatchment 1S: -

Runoff = 0.93 cfs @ 12.15 hrs, Volume= 0.097 af, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description
6,503	98	Paved parking, HSG A
2,934	30	Woods, Good, HSG A
48,050	39	Pasture/grassland/range, Good, HSG A
57,487	45	Weighted Average
50,984		88.69% Pervious Area
6,503		11.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	165	0.0075	0.61		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
17.9	265			Total	

Summary for Subcatchment 2S: -

Runoff = 2.81 cfs @ 12.26 hrs, Volume= 0.409 af, Depth= 0.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description
21,956	98	Paved parking, HSG A
6,462	30	Woods, Good, HSG A
257,121	39	Pasture/grassland/range, Good, HSG A
285,539	43	Weighted Average
263,583		92.31% Pervious Area
21,956		7.69% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
11.1	512	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
24.5	612			Total	

Summary for Subcatchment 3S: -

Runoff = 0.96 cfs @ 12.18 hrs, Volume= 0.228 af, Depth= 0.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description		
4,556	98	Paved parking, HSG A		
207,455	39	>75% Grass cover, Good, HSG A		
90,015	30	Woods, Good, HSG A		
302,026	37	Weighted Average		
297,470		98.49% Pervious Area		
4,556		1.51% Impervious Area		
Tc (min)	Length (feet)	Slope (ft/ft) Velocity (ft/sec) Capacity (cfs) Description		
10.9	100	0.0200	0.15	Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	420	0.0500	1.57	Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.4	520	Total		

Summary for Subcatchment 4S: -

Runoff = 3.52 cfs @ 12.50 hrs, Volume= 0.798 af, Depth= 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description		
34,710	98	Paved parking, HSG A		
72,297	30	Woods, Good, HSG A		
562,122	39	>75% Grass cover, Good, HSG A		
669,129	41	Weighted Average		
634,419		94.81% Pervious Area		
34,710		5.19% Impervious Area		
Tc (min)	Length (feet)	Slope (ft/ft) Velocity (ft/sec) Capacity (cfs) Description		
10.9	100	0.0200	0.15	Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
27.2	1,250	0.0120	0.77	Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
38.1	1,350	Total		

Summary for Subcatchment 5S: -

Runoff = 1.65 cfs @ 12.06 hrs, Volume= 0.128 af, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description
10,191	98	Paved parking, HSG A
15,938	30	Woods, Good, HSG A
49,819	39	>75% Grass cover, Good, HSG A
75,948	45	Weighted Average
65,757		86.58% Pervious Area
10,191		13.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
0.4	25	0.0200	0.99		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
11.3	125	Total			

Summary for Subcatchment 6S: -

Runoff = 5.14 cfs @ 12.11 hrs, Volume= 0.444 af, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr 100-YEAR Rainfall=6.20"

Area (sf)	CN	Description
36,337	98	Paved parking, HSG A
48,668	30	Woods, Good, HSG A
142,158	39	>75% Grass cover, Good, HSG A
227,163	47	Weighted Average
190,826		84.00% Pervious Area
36,337		16.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0150	0.14		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
3.4	225	0.0250	1.11		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.6	325	Total			

Summary for Pond 1P: Low Point on Site

Inflow Area = 13.489 ac, 4.51% Impervious, Inflow Depth = 0.20" for 100-YEAR event
 Inflow = 0.96 cfs @ 12.18 hrs, Volume= 0.228 af
 Outflow = 0.96 cfs @ 12.20 hrs, Volume= 0.228 af, Atten= 0%, Lag= 1.2 min
 Discarded = 0.96 cfs @ 12.20 hrs, Volume= 0.228 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 329.00' @ 12.20 hrs Surf.Area= 10,678 sf Storage= 50 cf

Plug-Flow detention time= 0.9 min calculated for 0.228 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (983.7 - 982.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	329.00'	33,561 cf	Low Point (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983
330.00	79,950	1,624.0	28,832	33,561	162,042
Device	Routing	Invert	Outlet Devices		
#1	Primary	329.37'	251.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32		
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'		

Discarded OutFlow Max=0.94 cfs @ 12.20 hrs HW=329.00' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 0.94 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 2P: Low Point on Site

Inflow Area = 6.555 ac, 7.69% Impervious, Inflow Depth = 0.75" for 100-YEAR event
 Inflow = 2.81 cfs @ 12.26 hrs, Volume= 0.409 af
 Outflow = 2.80 cfs @ 12.27 hrs, Volume= 0.409 af, Atten= 0%, Lag= 0.8 min
 Discarded = 2.80 cfs @ 12.27 hrs, Volume= 0.409 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Peak Elev= 329.01' @ 12.27 hrs Surf.Area= 17,964 sf Storage= 147 cf

Plug-Flow detention time= 0.9 min calculated for 0.409 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (941.2 - 940.3)

Volume	Invert	Avail.Storage	Storage Description
#1	329.00'	24,570 cf	Low Point (Irregular) Listed below (Recalc)
#2	329.00'	4,729 cf	Low Point (Irregular) Listed below (Recalc)
29,299 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	6,922	531.0	0	0	6,922
329.35	25,860	694.0	5,385	5,385	22,813
330.00	33,326	1,175.0	19,184	24,570	94,355
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983

Device	Routing	Invert	Outlet Devices
#1	Primary	329.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=2.75 cfs @ 12.27 hrs HW=329.01' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 2.75 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=329.00' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 3P: Low Point on Site

Inflow Area =	5.215 ac, 16.00% Impervious, Inflow Depth = 1.02" for 100-YEAR event
Inflow =	5.14 cfs @ 12.11 hrs, Volume= 0.444 af
Outflow =	3.76 cfs @ 12.22 hrs, Volume= 0.444 af, Atten= 27%, Lag= 6.3 min
Discarded =	3.76 cfs @ 12.22 hrs, Volume= 0.444 af
Primary =	0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.12' @ 12.22 hrs Surf.Area= 12,718 sf Storage= 1,258 cf

Plug-Flow detention time= 2.0 min calculated for 0.444 af (100% of inflow)
 Center-of-Mass det. time= 2.0 min (912.4 - 910.4)

Volume	Invert	Avail.Storage	Storage Description
#1	339.00'	20,125 cf	Custom Stage Data (Irregular) listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)
339.00	8,759	426.0	0
339.50	30,624	1,042.0	9,293
339.75	57,421	1,430.0	10,832
Device	Routing	Invert	Outlet Devices
#1	Primary	339.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	339.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=3.72 cfs @ 12.22 hrs HW=339.12' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 3.72 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.00' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir(Controls 0.00 cfs)

Summary for Pond 4P: Low Point on Site

Inflow Area =	1.744 ac, 13.42% Impervious, Inflow Depth = 0.88"	for 100-YEAR event
Inflow =	1.65 cfs @ 12.06 hrs, Volume=	0.128 af
Outflow =	1.53 cfs @ 12.09 hrs, Volume=	0.128 af, Atten= 7%, Lag= 1.5 min
Discarded =	1.38 cfs @ 12.08 hrs, Volume=	0.122 af
Primary =	0.15 cfs @ 12.09 hrs, Volume=	0.007 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.61' @ 12.09 hrs Surf.Area= 7,339 sf Storage= 96 cf

Plug-Flow detention time= 0.9 min calculated for 0.128 af (100% of inflow)
 Center-of-Mass det. time= 0.9 min (917.3 - 916.4)

Volume	Invert	Avail.Storage	Storage Description
#1	338.60'	6,100 cf	Custom Stage Data (Irregular) listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)
338.60	6,900	365.0	0
339.00	25,565	619.0	6,100
Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	40.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=1.37 cfs @ 12.08 hrs HW=338.61' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.15 cfs @ 12.09 hrs HW=338.61' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir (Weir Controls 0.15 cfs @ 0.28 fps)

Summary for Link OFF1: Offsite Flows

Inflow Area = 1.320 ac, 11.31% Impervious, Inflow Depth = 0.88" for 100-YEAR event
 Inflow = 0.93 cfs @ 12.15 hrs, Volume= 0.097 af
 Primary = 0.93 cfs @ 12.15 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF2: Offsite Flows

Inflow Area = 1.744 ac, 13.42% Impervious, Inflow Depth = 0.05" for 100-YEAR event
 Inflow = 0.15 cfs @ 12.09 hrs, Volume= 0.007 af
 Primary = 0.15 cfs @ 12.09 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF3: Offsite Flows

Inflow Area = 34.065 ac, 6.57% Impervious, Inflow Depth = 0.28" for 100-YEAR event
 Inflow = 3.52 cfs @ 12.50 hrs, Volume= 0.798 af
 Primary = 3.52 cfs @ 12.50 hrs, Volume= 0.798 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link T: TOTAL OFFSITE FLOWS

Inflow Area = 37.128 ac, 7.06% Impervious, Inflow Depth = 0.29" for 100-YEAR event
 Inflow = 3.90 cfs @ 12.48 hrs, Volume= 0.901 af
 Primary = 3.90 cfs @ 12.48 hrs, Volume= 0.901 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Time span=0.00-200.00 hrs, dt=0.05 hrs, 4001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: - Runoff Area=57,487 sf 11.31% Impervious Runoff Depth=2.50"
Flow Length=265' Tc=17.9 min AMC Adjusted CN=65 Runoff=3.81 cfs 0.275 af

Subcatchment2S: - Runoff Area=285,539 sf 7.69% Impervious Runoff Depth=2.32"
Flow Length=612' Slope=0.0120 '/' Tc=24.5 min AMC Adjusted CN=63 Runoff=14.40 cfs 1.266 af

Subcatchment3S: - Runoff Area=302,026 sf 1.51% Impervious Runoff Depth=1.80"
Flow Length=520' Tc=15.4 min AMC Adjusted CN=57 Runoff=14.85 cfs 1.039 af

Subcatchment4S: - Runoff Area=669,129 sf 5.19% Impervious Runoff Depth=2.14"
Flow Length=1,350' Tc=38.1 min AMC Adjusted CN=61 Runoff=22.72 cfs 2.740 af

Subcatchment5S: - Runoff Area=75,948 sf 13.42% Impervious Runoff Depth=2.50"
Flow Length=125' Slope=0.0200 '/' Tc=11.3 min AMC Adjusted CN=65 Runoff=6.28 cfs 0.363 af

Subcatchment6S: - Runoff Area=227,163 sf 16.00% Impervious Runoff Depth=2.68"
Flow Length=325' Tc=15.6 min AMC Adjusted CN=67 Runoff=17.49 cfs 1.166 af

Pond 1P: Low Point on Site Peak Elev=329.42' Storage=6,103 cf Inflow=14.85 cfs 1.047 af
Discarded=6.63 cfs 0.967 af Primary=7.21 cfs 0.080 af Outflow=13.84 cfs 1.047 af

Pond 2P: Low Point on Site Peak Elev=329.31' Storage=8,510 cf Inflow=14.40 cfs 1.266 af
Discarded=8.00 cfs 1.258 af Primary=0.36 cfs 0.008 af Outflow=8.37 cfs 1.266 af

Pond 3P: Low Point on Site Peak Elev=339.40' Storage=6,561 cf Inflow=17.49 cfs 1.166 af
Discarded=11.46 cfs 1.137 af Primary=1.45 cfs 0.028 af Outflow=12.91 cfs 1.166 af

Pond 4P: Low Point on Site Peak Elev=338.71' Storage=965 cf Inflow=6.28 cfs 0.363 af
Discarded=2.10 cfs 0.278 af Primary=3.54 cfs 0.084 af Outflow=5.64 cfs 0.363 af

Link OFF1: Offsite Flows Inflow=3.81 cfs 0.275 af
Primary=3.81 cfs 0.275 af

Link OFF2: Offsite Flows Inflow=3.54 cfs 0.084 af
Primary=3.54 cfs 0.084 af

Link OFF3: Offsite Flows Inflow=24.71 cfs 2.849 af
Primary=24.71 cfs 2.849 af

Link T: TOTALOFFSITEFLOWS Inflow=29.50 cfs 3.208 af
Primary=29.50 cfs 3.208 af

Total Runoff Area = 37.128 ac Runoff Volume = 6.848 af Average Runoff Depth = 2.21"
92.94% Pervious = 34.505 ac 7.06% Impervious = 2.623 ac

Summary for Subcatchment 1S: -

Runoff = 3.81 cfs @ 12.11 hrs, Volume= 0.275 af, Depth= 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description		
6,503	98		Paved parking, HSG A		
2,934	30		Woods, Good, HSG A		
48,050	39		Pasture/grassland/range, Good, HSG A		
57,487	45	65	Weighted Average, AMC Adjusted		
50,984			88.69% Pervious Area		
6,503			11.31% Impervious Area		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
4.5	165	0.0075	0.61		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
17.9	265	Total			

Summary for Subcatchment 2S: -

Runoff = 14.40 cfs @ 12.19 hrs, Volume= 1.266 af, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description		
21,956	98		Paved parking, HSG A		
6,462	30		Woods, Good, HSG A		
257,121	39		Pasture/grassland/range, Good, HSG A		
285,539	43	63	Weighted Average, AMC Adjusted		
263,583			92.31% Pervious Area		
21,956			7.69% Impervious Area		
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.4	100	0.0120	0.12		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
11.1	512	0.0120	0.77		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
24.5	612	Total			

Summary for Subcatchment 3S: -

Runoff = 14.85 cfs @ 12.09 hrs, Volume= 1.039 af, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description
4,556	98		Paved parking, HSG A
207,455	39		>75% Grass cover, Good, HSG A
90,015	30		Woods, Good, HSG A
302,026	37	57	Weighted Average, AMC Adjusted
297,470			98.49% Pervious Area
4,556			1.51% Impervious Area
Tc	Length	Slope	Velocity
(min)	(feet)	(ft/ft)	(ft/sec)
10.9	100	0.0200	0.15
4.5	420	0.0500	1.57
15.4	520		Total
Capacity	(cfs)		Description
			Sheet Flow, Sheet
			Grass: Short n= 0.150 P2= 2.58"
			Shallow Concentrated Flow, Shallow
			Short Grass Pasture Kv= 7.0 fps

Summary for Subcatchment 4S: -

Runoff = 22.72 cfs @ 12.37 hrs, Volume= 2.740 af, Depth= 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description
34,710	98		Paved parking, HSG A
72,297	30		Woods, Good, HSG A
562,122	39		>75% Grass cover, Good, HSG A
669,129	41	61	Weighted Average, AMC Adjusted
634,419			94.81% Pervious Area
34,710			5.19% Impervious Area
Tc	Length	Slope	Velocity
(min)	(feet)	(ft/ft)	(ft/sec)
10.9	100	0.0200	0.15
27.2	1,250	0.0120	0.77
38.1	1,350		Total
Capacity	(cfs)		Description
			Sheet Flow, Sheet
			Grass: Short n= 0.150 P2= 2.58"
			Shallow Concentrated Flow, Shallow
			Short Grass Pasture Kv= 7.0 fps

Summary for Subcatchment 5S: -

Runoff = 6.28 cfs @ 12.04 hrs, Volume= 0.363 af, Depth= 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description
10,191	98		Paved parking, HSG A
15,938	30		Woods, Good, HSG A
49,819	39		>75% Grass cover, Good, HSG A
75,948	45	65	Weighted Average, AMC Adjusted
65,757			86.58% Pervious Area
10,191			13.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0200	0.15		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
0.4	25	0.0200	0.99		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
11.3	125	Total			

Summary for Subcatchment 6S: -

Runoff = 17.49 cfs @ 12.08 hrs, Volume= 1.166 af, Depth= 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Type II 24-hr Custom Rainfall=6.20", AMC=3

Area (sf)	CN	Adj	Description
36,337	98		Paved parking, HSG A
48,668	30		Woods, Good, HSG A
142,158	39		>75% Grass cover, Good, HSG A
227,163	47	67	Weighted Average, AMC Adjusted
190,826			84.00% Pervious Area
36,337			16.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	100	0.0150	0.14		Sheet Flow, Sheet Grass: Short n= 0.150 P2= 2.58"
3.4	225	0.0250	1.11		Shallow Concentrated Flow, Shallow Short Grass Pasture Kv= 7.0 fps
15.6	325	Total			

Summary for Pond 1P: Low Point on Site

Inflow Area = 13.489 ac, 4.51% Impervious, Inflow Depth = 0.93" for Custom event
 Inflow = 14.85 cfs @ 12.09 hrs, Volume= 1.047 af
 Outflow = 13.84 cfs @ 12.17 hrs, Volume= 1.047 af, Atten= 7%, Lag= 4.4 min
 Discarded = 6.63 cfs @ 12.17 hrs, Volume= 0.967 af
 Primary = 7.21 cfs @ 12.16 hrs, Volume= 0.080 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 329.42' @ 12.17 hrs Surf.Area= 21,361 sf Storage= 6,103 cf

Plug-Flow detention time= 6.7 min calculated for 1.047 af (100% of inflow)
 Center-of-Mass det. time= 6.7 min (880.0 - 873.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	329.00'	33,561 cf	Low Point (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983
330.00	79,950	1,624.0	28,832	33,561	162,042
Device	Routing	Invert	Outlet Devices		
#1	Primary	329.37'	251.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32		
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'		

Discarded OutFlow Max=6.48 cfs @ 12.17 hrs HW=329.42' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 6.48 cfs)

Primary OutFlow Max=6.44 cfs @ 12.16 hrs HW=329.42' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir (Weir Controls 6.44 cfs @ 0.53 fps)

Summary for Pond 2P: Low Point on Site

Inflow Area = 6.555 ac, 7.69% Impervious, Inflow Depth = 2.32" for Custom event
 Inflow = 14.40 cfs @ 12.19 hrs, Volume= 1.266 af
 Outflow = 8.37 cfs @ 12.41 hrs, Volume= 1.266 af, Atten= 42%, Lag= 13.4 min
 Discarded = 8.00 cfs @ 12.41 hrs, Volume= 1.258 af
 Primary = 0.36 cfs @ 12.41 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Peak Elev= 329.31' @ 12.41 hrs Surf.Area= 39,024 sf Storage= 8,510 cf

Plug-Flow detention time= 7.1 min calculated for 1.266 af (100% of inflow)
 Center-of-Mass det. time= 7.1 min (874.1 - 867.0)

Volume	Invert	Avail.Storage	Storage Description
#1	329.00'	24,570 cf	Low Point (Irregular) Listed below (Recalc)
#2	329.00'	4,729 cf	Low Point (Irregular) Listed below (Recalc)
29,299 cf			Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	6,922	531.0	0	0	6,922
329.35	25,860	694.0	5,385	5,385	22,813
330.00	33,326	1,175.0	19,184	24,570	94,355
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
329.00	10,606	857.0	0	0	10,606
329.35	16,643	950.0	4,729	4,729	23,983

Device	Routing	Invert	Outlet Devices
#1	Primary	329.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	329.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=7.99 cfs @ 12.41 hrs HW=329.31' (Free Discharge)
 ↗ 2=Exfiltration (Exfiltration Controls 7.99 cfs)

Primary OutFlow Max=0.36 cfs @ 12.41 hrs HW=329.31' (Free Discharge)
 ↗ 1=Broad-Crested Rectangular Weir (Weir Controls 0.36 cfs @ 0.60 fps)

Summary for Pond 3P: Low Point on Site

Inflow Area =	5.215 ac, 16.00% Impervious, Inflow Depth = 2.68"	for Custom event
Inflow =	17.49 cfs @ 12.08 hrs, Volume=	1.166 af
Outflow =	12.91 cfs @ 12.19 hrs, Volume=	1.166 af, Atten= 26%, Lag= 6.2 min
Discarded =	11.46 cfs @ 12.19 hrs, Volume=	1.137 af
Primary =	1.45 cfs @ 12.19 hrs, Volume=	0.028 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.40' @ 12.19 hrs Surf.Area= 25,300 sf Storage= 6,561 cf

Plug-Flow detention time= 4.4 min calculated for 1.165 af (100% of inflow)
 Center-of-Mass det. time= 4.4 min (853.6 - 849.2)

Volume	Invert	Avail.Storage	Storage Description
#1	339.00'	20,125 cf	Custom Stage Data (Irregular) listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)
339.00	8,759	426.0	0
339.50	30,624	1,042.0	9,293
339.75	57,421	1,430.0	10,832
Device	Routing	Invert	Outlet Devices
#1	Primary	339.25'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	339.00'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=11.39 cfs @ 12.19 hrs HW=339.40' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 11.39 cfs)

Primary OutFlow Max=1.42 cfs @ 12.19 hrs HW=339.40' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir (Weir Controls 1.42 cfs @ 0.95 fps)

Summary for Pond 4P: Low Point on Site

Inflow Area =	1.744 ac, 13.42% Impervious, Inflow Depth = 2.50"	for Custom event
Inflow =	6.28 cfs @ 12.04 hrs, Volume=	0.363 af
Outflow =	5.64 cfs @ 12.08 hrs, Volume=	0.363 af, Atten= 10%, Lag= 2.8 min
Discarded =	2.10 cfs @ 12.08 hrs, Volume=	0.278 af
Primary =	3.54 cfs @ 12.08 hrs, Volume=	0.084 af

Routing by Stor-Ind method, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.71' @ 12.08 hrs Surf.Area= 10,845 sf Storage= 965 cf

Plug-Flow detention time= 1.5 min calculated for 0.363 af (100% of inflow)
 Center-of-Mass det. time= 1.5 min (851.5 - 849.9)

Volume	Invert	Avail.Storage	Storage Description
#1	338.60'	6,100 cf	Custom Stage Data (Irregular) listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)
338.60	6,900	365.0	0
339.00	25,565	619.0	6,100
Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	10.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Device	Routing	Invert	Outlet Devices
#1	Primary	338.60'	40.0' long x 3.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 Coef. (English) 2.44 2.58 2.68 2.67 2.65 2.64 2.64 2.68 2.68 2.72 2.81 2.92 2.97 3.07 3.32
#2	Discarded	338.60'	8.000 in/hr Exfiltration over Wetted area Phase-In= 0.01'

Discarded OutFlow Max=2.08 cfs @ 12.08 hrs HW=338.71' (Free Discharge)
 ↑ 2=Exfiltration (Exfiltration Controls 2.08 cfs)

Primary OutFlow Max=3.45 cfs @ 12.08 hrs HW=338.71' (Free Discharge)
 ↑ 1=Broad-Crested Rectangular Weir (Weir Controls 3.45 cfs @ 0.80 fps)

Summary for Link OFF1: Offsite Flows

Inflow Area = 1.320 ac, 11.31% Impervious, Inflow Depth = 2.50" for Custom event
 Inflow = 3.81 cfs @ 12.11 hrs, Volume= 0.275 af
 Primary = 3.81 cfs @ 12.11 hrs, Volume= 0.275 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF2: Offsite Flows

Inflow Area = 1.744 ac, 13.42% Impervious, Inflow Depth = 0.58" for Custom event
 Inflow = 3.54 cfs @ 12.08 hrs, Volume= 0.084 af
 Primary = 3.54 cfs @ 12.08 hrs, Volume= 0.084 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link OFF3: Offsite Flows

Inflow Area = 34.065 ac, 6.57% Impervious, Inflow Depth = 1.00" for Custom event
 Inflow = 24.71 cfs @ 12.25 hrs, Volume= 2.849 af
 Primary = 24.71 cfs @ 12.25 hrs, Volume= 2.849 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

Summary for Link T: TOTAL OFFSITE FLOWS

Inflow Area = 37.128 ac, 7.06% Impervious, Inflow Depth = 1.04" for Custom event
 Inflow = 29.50 cfs @ 12.19 hrs, Volume= 3.208 af
 Primary = 29.50 cfs @ 12.19 hrs, Volume= 3.208 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-200.00 hrs, dt= 0.05 hrs

PLANNED UNIT DEVELOPMENT DISTRICT JACOBIES PARK SIDE FARMS

CERRONE BUILDERS
TOWN OF MOREAU
SARATOGA COUNTY, NEW YORK

11-28 MOREAU REC ROAD

11-28 MOREAU REC ROAD

JOSEPH C.
DANNIBLE
RLA 2288

1"=60'

NOT FOR
CONSTRUCTION

SHEET TITLE:

COMMUNITY
MASTER PLAN

SHEET:

EXHIBIT
8.11

