

HANCOCK ASSOCIATES

Surveyors | Engineers | Scientists

April 16, 2025

Reading Conservation Commission
16 Lowell Street
Reading, MA 01876
Attn: Charles Tirone, Conservation Administrator

Subject: Drainage Memorandum
 Reading High School Modular Classroom Relocation

Hancock Associates has completed the design of a pad area and utility connections for the relocation of a modular classroom and associated minor site grading and pedestrian accommodation. The area for the classroom is located in a grass area adjacent to a small parking lot directly west of the main school building.

We have reviewed the stormwater associated with the roof drains of the modular building. The plan is to direct roof drain downspouts to a stone pad underneath the raised modular building. The Massachusetts Stormwater Handbook Standard 2 states that stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. The Town of Reading has indicated that proposed rates of runoff should not exceed existing rates for storm events up to and including the 10-year storm. The proposed condition discharge rates of runoff are at or below the existing rates to the same discharge point. Please see the attached HydroCAD output for more information. For the purpose of these calculations the following assumptions were made:

- The same total watershed area of the drainage areas is used to compare the existing and proposed.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey of Middlesex County defines soils in the project area as:
 - 305B, Paxton fine sandy loam, 3 to 8 percent slopes, Hydrologic Soil Group C
 - 626B, Merrimac-Urban land complex, 3 to 15 percent slopes, Hydrologic Soil Group A
- The site has been split into Hydrologic Soil Group A and Hydrologic Soil Group C based on NRCS mapping. For calculation purposes hydrologic soil group C was modeled for the project area.

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The following table compares the peak rates of runoff under the existing and proposed conditions using the latest Atlas-14 Precipitation Data:

Table 1: Peak Rates of Runoff

Discharge Point	Peak Rate (cfs)					
	2-Year Storm (3.16" Rainfall Depth)		10-Year Storm (4.77" Rainfall Depth)		100-Year Storm (8.62" Rainfall Depth)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
DP	0.07	0.02	0.16	0.03	0.39	0.06

cfs – Cubic Feet per Second

The Massachusetts Stormwater Handbook Standard 3 states that loss of annual recharge to groundwater shall be eliminated or minimized. The annual recharge from the post-development site shall approximate the annual recharge from the pre-development conditions based on soil type. Recharge volumes are provided for the proposed impervious areas. For the purpose of these calculations, all of the development areas are considered to be Hydrologic Soil Group C. The required recharge volume is 0.25" multiplied by the area of impervious surfaces. Please see the attached HydroCAD summaries for the recharge volumes. The volume is as follows:

$$\begin{aligned} \text{Required Recharge Volume, HSG A} &= \text{Target Depth} * \text{Impervious Area} \\ &= 0.25'' * 2,417 \text{ SF} = 51 \text{ CF} \end{aligned}$$

While stormwater from the majority of the development will drain to the storage volume, some paved areas will drain to the discharge point. Since not all of the impervious areas will be drained to the provided recharge volume a capture area adjustment is applied to the required volume. The calculation is as follows:

$$\begin{aligned} \text{Capture Area Adjustment Factor} &= \text{Total Impervious Area} / \text{Impervious Area Draining to Recharge Volume} \\ &= 2,417 \text{ SF} / 2,096 \text{ SF} = 1.2 \end{aligned}$$

$$\begin{aligned} \text{Adjusted Required Recharge Volume} &= \text{Required Recharge Volume} * \text{Impervious Area Draining to Recharge Volume} \\ &= 51 \text{ CF} * 1.2 = 61 \text{ CF} \end{aligned}$$

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The recharge volume is provided below the lowest outlet within the infiltration system. The total volume provided is 907 cubic feet. See attached HydroCAD output for more details on volume storage. Since the volume provided is greater than the required recharge volume, the standard is met.

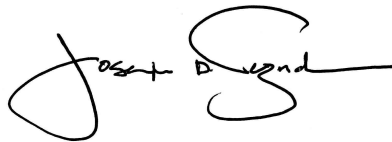
The Massachusetts Stormwater Handbook states that the recharge volume must drain within 72 hours. For calculation purposes the stormwater design was based on the more conservative hydrologic soil C at a Rawl's Rate of 0.17 inches per hour per the Massachusetts Stormwater Handbook.

$$\begin{aligned} \text{Drawdown Time} &= \text{Storage Volume} / (\text{Rawl's Rate} * \text{Bottom Area}) \\ &= 907 \text{ CF} / (0.17 \text{ in/hr} * 2, 267 \text{ SF}) = 28.2 \text{ Hours} \end{aligned}$$

Since the drawdown time is less than 72 hours, the requirement is met.

Given the temporary nature of the project and that we are only dealing with clean roof drainage, we feel the project fully complies with the Massachusetts DEP Stormwater Requirements.

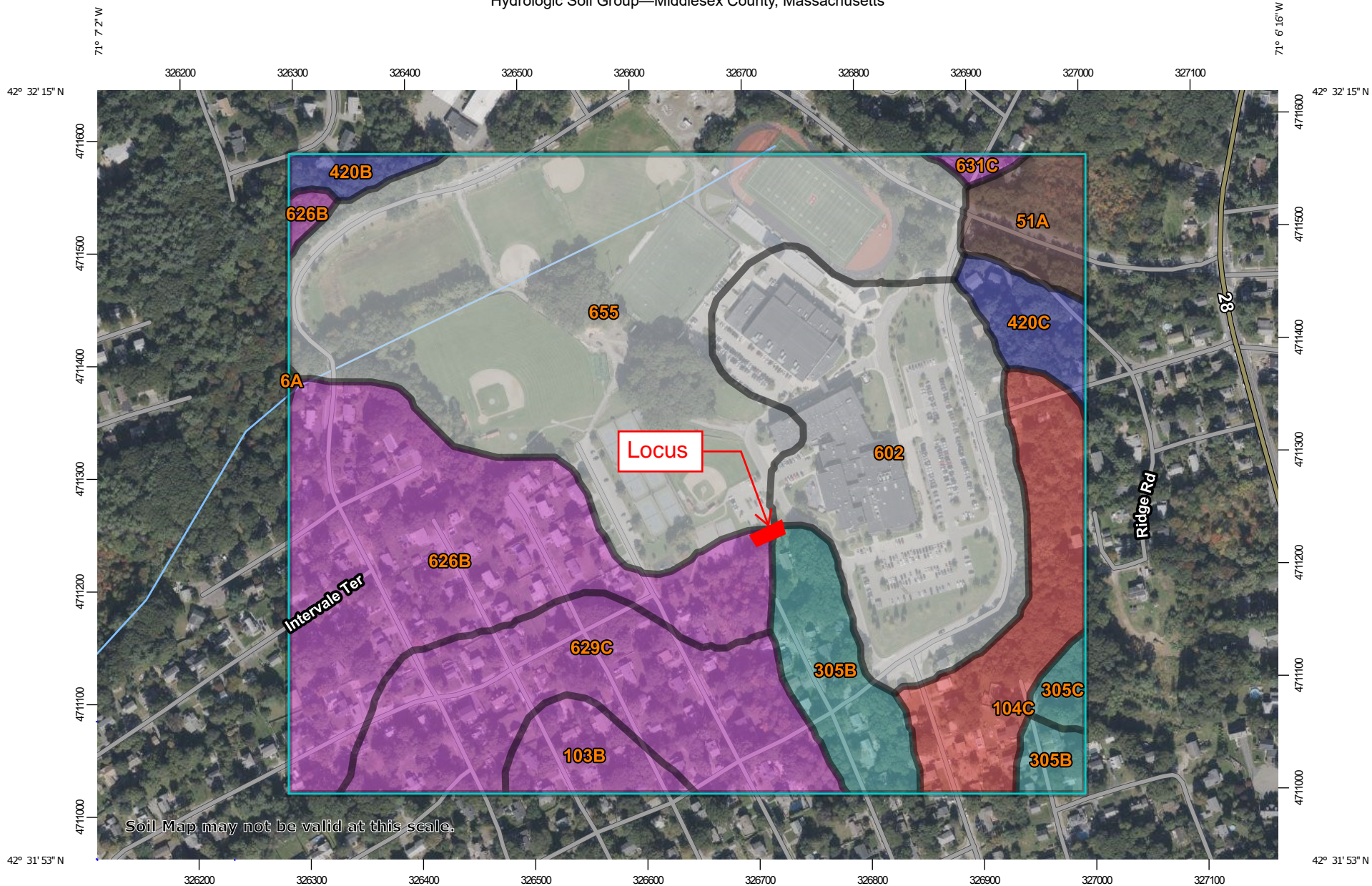
Sincerely,
Hancock Associates



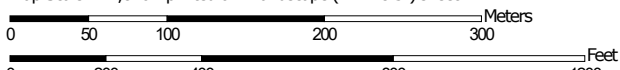
Joseph D. Peznola, P.E.

cc: Gienapp Architects

Hydrologic Soil Group—Middlesex County, Massachusetts



Map Scale: 1:4,810 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points

 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, Massachusetts
 Survey Area Data: Version 24, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
6A	Scarboro mucky fine sandy loam, 0 to 3 percent slopes	A/D	0.0	0.0%
51A	Swansea muck, 0 to 1 percent slopes	B/D	2.7	2.7%
103B	Charlton-Hollis-Rock outcrop complex, 3 to 8 percent slopes	A	2.4	2.4%
104C	Hollis-Rock outcrop-Charlton complex, 0 to 15 percent slopes	D	6.6	6.6%
305B	Paxton fine sandy loam, 3 to 8 percent slopes	C	5.2	5.2%
305C	Paxton fine sandy loam, 8 to 15 percent slopes	C	0.7	0.7%
420B	Canton fine sandy loam, 3 to 8 percent slopes	B	0.9	0.9%
420C	Canton fine sandy loam, 8 to 15 percent slopes	B	2.1	2.1%
602	Urban land		17.5	17.5%
626B	Merrimac-Urban land complex, 0 to 8 percent slopes	A	17.8	17.8%
629C	Canton-Charlton-Urban land complex, 3 to 15 percent slopes	A	11.8	11.8%
631C	Charlton-Urban land-Hollis complex, 3 to 15 percent slopes, rocky	A	0.3	0.3%
655	Udorthents, wet substratum		32.1	32.1%
Totals for Area of Interest			100.0	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

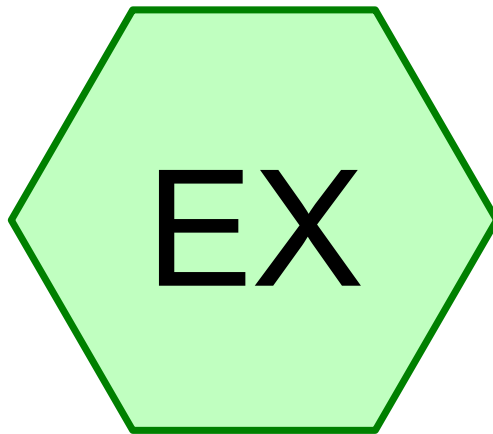
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

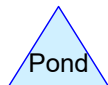
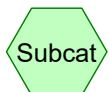
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher



Pre-Modular Relocation



Summary for Subcatchment EX: Pre-Modular Relocation

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth> 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
2,654	74	>75% Grass cover, Good, HSG C
2,654		100.00% Pervious Area

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

Summary for Subcatchment EX: Pre-Modular Relocation

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.16 cfs @ 12.08 hrs, Volume= 0.011 af, Depth> 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.77"

Area (sf)	CN	Description
2,654	74	>75% Grass cover, Good, HSG C
2,654		100.00% Pervious Area

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

Summary for Subcatchment EX: Pre-Modular Relocation

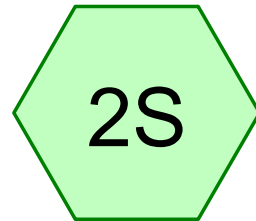
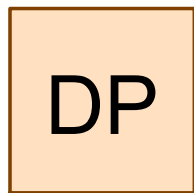
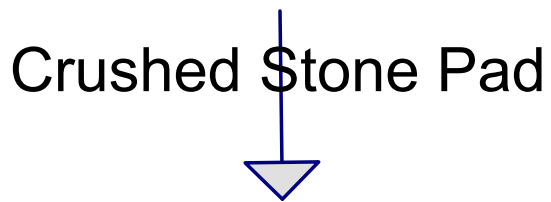
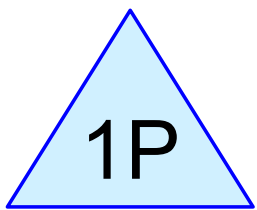
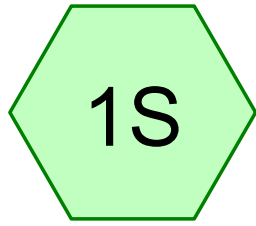
[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.39 cfs @ 12.08 hrs, Volume= 0.028 af, Depth> 5.48"

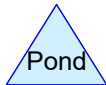
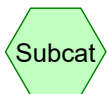
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.62"

Area (sf)	CN	Description
2,654	74	>75% Grass cover, Good, HSG C
2,654		100.00% Pervious Area

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



Post-Modular Relocation



Summary for Subcatchment 1S:

Runoff = 0.16 cfs @ 12.07 hrs, Volume= 0.012 af, Depth> 2.71"
 Routed to Pond 1P : Crushed Stone Pad

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
2,096	98	Roofs, HSG C
237	74	>75% Grass cover, Good, HSG C
2,333	96	Weighted Average
237		10.16% Pervious Area
2,096		89.84% Impervious Area

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

Summary for Subcatchment 2S:

Runoff = 0.02 cfs @ 12.07 hrs, Volume= 0.002 af, Depth> 2.93"
 Routed to Reach DP : Post-Modular Relocation

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
321	98	Unconnected pavement, HSG C
321		100.00% Impervious Area
321		100.00% Unconnected

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

Summary for Reach DP: Post-Modular Relocation

Inflow Area = 0.061 ac, 91.07% Impervious, Inflow Depth > 0.35" for 2-Year event
 Inflow = 0.02 cfs @ 12.07 hrs, Volume= 0.002 af
 Outflow = 0.02 cfs @ 12.07 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Crushed Stone Pad

Inflow Area = 0.054 ac, 89.84% Impervious, Inflow Depth > 2.71" for 2-Year event
 Inflow = 0.16 cfs @ 12.07 hrs, Volume= 0.012 af
 Outflow = 0.01 cfs @ 10.95 hrs, Volume= 0.011 af, Atten= 94%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 10.95 hrs, Volume= 0.011 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP : Post-Modular Relocation

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 100.26' @ 13.89 hrs Surf.Area= 2,267 sf Storage= 240 cf

Plug-Flow detention time= 235.8 min calculated for 0.011 af (93% of inflow)
 Center-of-Mass det. time= 200.7 min (973.9 - 773.1)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	907 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,267 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	2,267	0	0
101.00	2,267	2,267	2,267

Device	Routing	Invert	Outlet Devices
#1	Primary	100.99'	80.5' long x 2.0' 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 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Discarded	100.00'	0.170 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 10.95 hrs HW=100.01' (Free Discharge)
 ↳2=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
 ↳1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

28302

Type III 24-hr 10-Year Rainfall=4.77"

Prepared by Hancock Associates

Printed 4/15/2025

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Page 1

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=2,333 sf 89.84% Impervious Runoff Depth>4.30"
Tc=5.0 min CN=96 Runoff=0.25 cfs 0.019 af

Subcatchment 2S: Runoff Area=321 sf 100.00% Impervious Runoff Depth>4.53"
Tc=5.0 min CN=98 Runoff=0.03 cfs 0.003 af

Reach DP: Post-Modular Relocation Inflow=0.03 cfs 0.003 af
Outflow=0.03 cfs 0.003 af

Pond 1P: Crushed Stone Pad Peak Elev=100.49' Storage=448 cf Inflow=0.25 cfs 0.019 af
Discarded=0.01 cfs 0.012 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.012 af

Summary for Pond 1P: Crushed Stone Pad

Inflow Area = 0.054 ac, 89.84% Impervious, Inflow Depth > 4.30" for 10-Year event
 Inflow = 0.25 cfs @ 12.07 hrs, Volume= 0.019 af
 Outflow = 0.01 cfs @ 9.65 hrs, Volume= 0.012 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 9.65 hrs, Volume= 0.012 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP : Post-Modular Relocation

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 100.49' @ 15.30 hrs Surf.Area= 2,267 sf Storage= 448 cf

Plug-Flow detention time= 264.0 min calculated for 0.012 af (65% of inflow)
 Center-of-Mass det. time= 165.2 min (927.5 - 762.3)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	907 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,267 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	2,267	0	0
101.00	2,267	2,267	2,267

Device	Routing	Invert	Outlet Devices
#1	Primary	100.99'	80.5' long x 2.0' 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 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Discarded	100.00'	0.170 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 9.65 hrs HW=100.01' (Free Discharge)
 ↳ **2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=100.00' (Free Discharge)
 ↳ **1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Runoff Area=2,333 sf 89.84% Impervious Runoff Depth>8.14"
Tc=5.0 min CN=96 Runoff=0.45 cfs 0.036 af

Subcatchment 2S: Runoff Area=321 sf 100.00% Impervious Runoff Depth>8.38"
Tc=5.0 min CN=98 Runoff=0.06 cfs 0.005 af

Reach DP: Post-Modular Relocation Inflow=0.06 cfs 0.008 af
Outflow=0.06 cfs 0.008 af

Pond 1P: Crushed Stone Pad Peak Elev=100.99' Storage=899 cf Inflow=0.45 cfs 0.036 af
Discarded=0.01 cfs 0.014 af Primary=0.02 cfs 0.003 af Outflow=0.03 cfs 0.017 af

Summary for Pond 1P: Crushed Stone Pad

Inflow Area = 0.054 ac, 89.84% Impervious, Inflow Depth > 8.14" for 100-Year event
 Inflow = 0.45 cfs @ 12.07 hrs, Volume= 0.036 af
 Outflow = 0.03 cfs @ 13.15 hrs, Volume= 0.017 af, Atten= 93%, Lag= 64.8 min
 Discarded = 0.01 cfs @ 7.60 hrs, Volume= 0.014 af
 Primary = 0.02 cfs @ 13.15 hrs, Volume= 0.003 af
 Routed to Reach DP : Post-Modular Relocation

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 100.99' @ 13.15 hrs Surf.Area= 2,267 sf Storage= 899 cf

Plug-Flow detention time= 239.3 min calculated for 0.017 af (48% of inflow)
 Center-of-Mass det. time= 107.0 min (856.7 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1	100.00'	907 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 2,267 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
100.00	2,267	0	0
101.00	2,267	2,267	2,267

Device	Routing	Invert	Outlet Devices
#1	Primary	100.99'	80.5' long x 2.0' 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 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32
#2	Discarded	100.00'	0.170 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 7.60 hrs HW=100.01' (Free Discharge)
 ↳**2=Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.01 cfs @ 13.15 hrs HW=100.99' (Free Discharge)
 ↳**1=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.09 fps)

28302

Prepared by Hancock Associates

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Type III 24-hr 100-Year Rainfall=8.62"

Printed 4/15/2025

Stage-Area-Storage for Pond 1P: Crushed Stone Pad

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
100.00	2,267	0	100.53	2,267	481
100.01	2,267	9	100.54	2,267	490
100.02	2,267	18	100.55	2,267	499
100.03	2,267	27	100.56	2,267	508
100.04	2,267	36	100.57	2,267	517
100.05	2,267	45	100.58	2,267	526
100.06	2,267	54	100.59	2,267	535
100.07	2,267	63	100.60	2,267	544
100.08	2,267	73	100.61	2,267	553
100.09	2,267	82	100.62	2,267	562
100.10	2,267	91	100.63	2,267	571
100.11	2,267	100	100.64	2,267	580
100.12	2,267	109	100.65	2,267	589
100.13	2,267	118	100.66	2,267	598
100.14	2,267	127	100.67	2,267	608
100.15	2,267	136	100.68	2,267	617
100.16	2,267	145	100.69	2,267	626
100.17	2,267	154	100.70	2,267	635
100.18	2,267	163	100.71	2,267	644
100.19	2,267	172	100.72	2,267	653
100.20	2,267	181	100.73	2,267	662
100.21	2,267	190	100.74	2,267	671
100.22	2,267	199	100.75	2,267	680
100.23	2,267	209	100.76	2,267	689
100.24	2,267	218	100.77	2,267	698
100.25	2,267	227	100.78	2,267	707
100.26	2,267	236	100.79	2,267	716
100.27	2,267	245	100.80	2,267	725
100.28	2,267	254	100.81	2,267	735
100.29	2,267	263	100.82	2,267	744
100.30	2,267	272	100.83	2,267	753
100.31	2,267	281	100.84	2,267	762
100.32	2,267	290	100.85	2,267	771
100.33	2,267	299	100.86	2,267	780
100.34	2,267	308	100.87	2,267	789
100.35	2,267	317	100.88	2,267	798
100.36	2,267	326	100.89	2,267	807
100.37	2,267	336	100.90	2,267	816
100.38	2,267	345	100.91	2,267	825
100.39	2,267	354	100.92	2,267	834
100.40	2,267	363	100.93	2,267	843
100.41	2,267	372	100.94	2,267	852
100.42	2,267	381	100.95	2,267	861
100.43	2,267	390	100.96	2,267	871
100.44	2,267	399	100.97	2,267	880
100.45	2,267	408	100.98	2,267	889
100.46	2,267	417	100.99	2,267	898
100.47	2,267	426	101.00	2,267	907
100.48	2,267	435			
100.49	2,267	444			
100.50	2,267	453			
100.51	2,267	462			
100.52	2,267	472			

