The seal affixed above applies to this report,
Appendices A through D, and Stormwater Plans D1, D2 & D3.

Stormwater Management Plan

"WOODBRIDGE COMMON" MIXED-USE DEVELOPMENT
7 WOODBRIDGE ROAD, YORK, MAINE

Prepared for

JMP Realty, LLC
40 Godfrey Cove Road,
York, ME 03909

November 2025

CIVIL
CONSULTANTS

Engineers

Planners

Surveyors

Stormwater Management Narrative

STORMWATER MANAGEMENT PLAN

"WOODBRIDGE RD"
7 Woodbridge Rd
York Maine

Prepared for:

JMP REALTY, LLC
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INTRODUCTION:

The proposed site is located at 7 Woodbridge Rd in York and is shown as Tax Map 50, Lot 111-D in the Town of York tax maps. JMP Realty, LLC intends to develop the lot and construct four two-story buildings with associated infrastructure, parking, and access. The proposed is intended to be used for both office space and residential units.

The existing site contains woodland consisting of small trees, mixed shrubs and grass. The on-site wetlands have been delineated by a soil scientist , 19,000 square feet of wetland on the site, located beside Woodbridge Road and to the rear of the property abutting the library.

Access to the site will be provided to Woodbridge Road by a 22' wide driveway through the above mentioned wetland.

No High intensity soil mapping has been completed, all soils have been considered as hydrologic soil group 'D' as per SCS soils map attached to this plan.

Due to the project disturbance area of 32,960 square feet, no stormwater treatment or permitting is required under Maine DEP regulations or the Town of York Post Construction Stormwater Management Ordinance. However, the Town of York Site Plan and Subdivision Regulations require compliance with the following design requirements.

DESIGN REQUIREMENTS:

The following is a summary of relevant stormwater requirements within the Site Plan and Subdivision Regulations.

- No storm water shall be permitted to drain across a street or intersection. All aspects of the drainage plan must be signed and sealed by a Maine Certified Engineer.

- All components of the stormwater management system shall be designed to limit the post development peak discharge to pre-development levels for 2 year and 100 year , 24 hour duration storms, frequencies, based on rainfall data for Portland, Maine.

- The minimum pipe size for any storm drainage pipe shall be 15 inches unless 12" diameter pipe is demonstrated to be more appropriate to the site conditions. Decision to allow pipe diameter size reduction shall be determined by the Planning Board.

- The stormwater management system shall be designed to accommodate upstream drainage, taking into account existing conditions.

- Outlets shall be stabilized against soil erosion by stone riprap or other suitable materials to reduce storm water velocity.

- All parking areas greater than 20 cars shall be equipped with an oil/water separation device.

- Each applicant is required to submit a statement to the Planning Board

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documenting proposed Low Impact Design for the site, which will help to reduce storm water volumes and enhance storm water quality.

- Stormwater management structures shall be maintained in perpetuity to function as specified in the application. In the event the property is conveyed, the new owner shall be responsible for maintenance.

EXISTING DRAINAGE CONDITIONS:

As previously noted, the site is wooded with small trees, mixed shrubs, and grass. Wetlands are located along both the eastern and western boundaries, and the site slopes gently toward the south.

Drainage from the western wetland exits the site at the southern end and is conveyed through an 18" CPP to the abutting property. The eastern wetland drains through a 12" culvert beneath M&T bank entrance.

According to the NRCS Web Soil Survey, soils within the watershed are almost entirely Lyman loam with a small area of "Dumps" in the eastern corner. These soils are both classified as Hydrologic Soil Group D.

The project site is located within Flood Zone X, defined as an area of minimal flood hazard. A copy of the applicable FEMA map is provided in Appendix E.

PROPOSED DRAINAGE:
Proposed stormwater management features include pervious pavement draining to underground gravel storage areas and R tanks. Outlet structures are designed with orifices to control discharge rates, with storage systems filling to capacity during the 100 year storm event.

Refer to the attached calculations for further details.

LOW IMPACT DESIGN STATMENT:

The proposed development incorporates Low Impact Design measures intended to reduce stormwater peak flows and improve stormwater quality.

Pervious pavement is provided in several areas of the development, with an underlying gravel storage layer to promote temporary storage and controlled release of runoff.

All runoff from pavement, parking areas, walkways, and roof surfaces passes through catch basins equipped with sumps and SNOUT pretreatment devices to capture sediment and separate oils. All buildings are fully guttered to direct runoff to these pretreatment systems.

Additional stormwater detention is provided through underground R-Tank storage, further reducing peak discharge.

ANALYSIS:

The overall watershed boundary remains unchanged between pre development and post development conditions.

Two subcatchments were identified for the pre development analysis, while six subcatchments were used for the post development model. The four additional subcatchments were included to evaluate flows to and from each storage area and to determine associated peak water surface elevations.

Stormwater runoff is analyzed as leaving the site at two discharge locations.

OUT 1 conveys flow to the eastern wetland along Woodbridge Road. The only change between pre development and post development conditions is the proposed entrance. Discharge from this area occurs through a 12" culvert beneath the bank entrance. Flow to this outlet also accounts for a portion of the northern abutting property draining toward Long Sands Road.

OUT 2 includes runoff from all disturbed areas except the proposed entrance area that drains to OUT 1. This discharge exits the site at the southern end of the western wetland and is conveyed through an 18" CPP to the southern abutting property.

For further details regarding subcatchment determination, refer to the project drawings and D1 & D2 included in the appendix of this report.

METHODOLOGY:

All runoff calculations were performed using methods based on USDA–SCS Technical Release No. 20 (also known as TR-20). The 2-, 10-, 25- , 50- and 100-year events (Type III rainfall distribution) were used for the site-specific analysis to determine pre- and post-development peak discharge rates and required stormwater treatment & conveyance systems.

The storm intensities have been obtained from the values published on the Northeast Regional Climate Center by Cornell University.

Runoff curve numbers (CN) and times of concentration (Tc) were determined by the methods outlined in USDA-SCS Technical Release No. 55 (better known as TR-55). On site watershed areas were determined using two-foot contour data provided by field survey crews, previously compiled topography plans and LIDAR information.

The detailed analysis for this project was performed by computer utilizing "HYDROCAD" stormwater modeling software. The analysis printouts are attached.

The attached Pre- and Post-Development plans (D1 & D2) show subcatchment boundaries, hydraulic flow lines, existing and proposed pavement and structures, and drainage features and facilities. Wetland boundaries used in the model are also shown on the plan.

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FLOW RATES:

Discharge Point	Storm Event	Parameter	Pre-Development	Post-Development
OUT 1	2-Yr (3.19")	Peak Q (cfs)	1.16	1.08
CULVERT BETWEEN CLIENT AND BANK		Volume (af)	0.13	0.12
	10-Yr (4.82")	Peak Q (cfs)	1.56	1.48
		Volume (af)	0.25	0.22
	25-Yr (6.10")	Peak Q (cfs)	1.76	1.66
		Volume (af)	0.35	0.30
	50-Yr (7.29")	Peak Q (cfs)	1.91	1.80
		Volume (af)	0.45	0.38
	100-Yr (8.73")	Peak Q (cfs)	2.06	1.94
		Volume (af)	0.56	0.48
OUT 2	2-Yr (3.19")	Peak Q (cfs)	1.96	2.08
CULVERT UNDER BANK/LIBRARY ACCESS		Volume (af)	0.25	0.34
	10-Yr (4.82")	Peak Q (cfs)	3.31	3.34
		Volume (af)	0.46	0.58
	25-Yr (6.10")	Peak Q (cfs)	4.27	4.23
		Volume (af)	0.63	0.77
	50-Yr (7.29")	Peak Q (cfs)	5.06	4.96
		Volume (af)	0.79	0.95
	100-Yr (8.73")	Peak Q (cfs)	5.80	5.70
		Volume (af)	0.98	1.17

OUT 1 shows a slight decrease in both peak flow and volume across all storm events when compared to pre-development conditions.

OUT 2, shows a slight increase in peak flows for the 2- and 10- year storms before a slight reduction within the larger 25-, 50-, and 100- year storms.

Please see Appendix D for the stormwater maintenance and inspection plan.

CONCLUSIONS:

The proposed development will maintain similar flow rates exiting the site for all evaluated storm events and the storm drainage systems of surrounding lots will not be negatively affected.

It is our opinion that there will be no adverse downstream impacts as a result of this project and surrounding natural resources have been sufficiently protected by the proposed stormwater management plan.

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CIVIL
CONSULTANTS

Engineers

Planners

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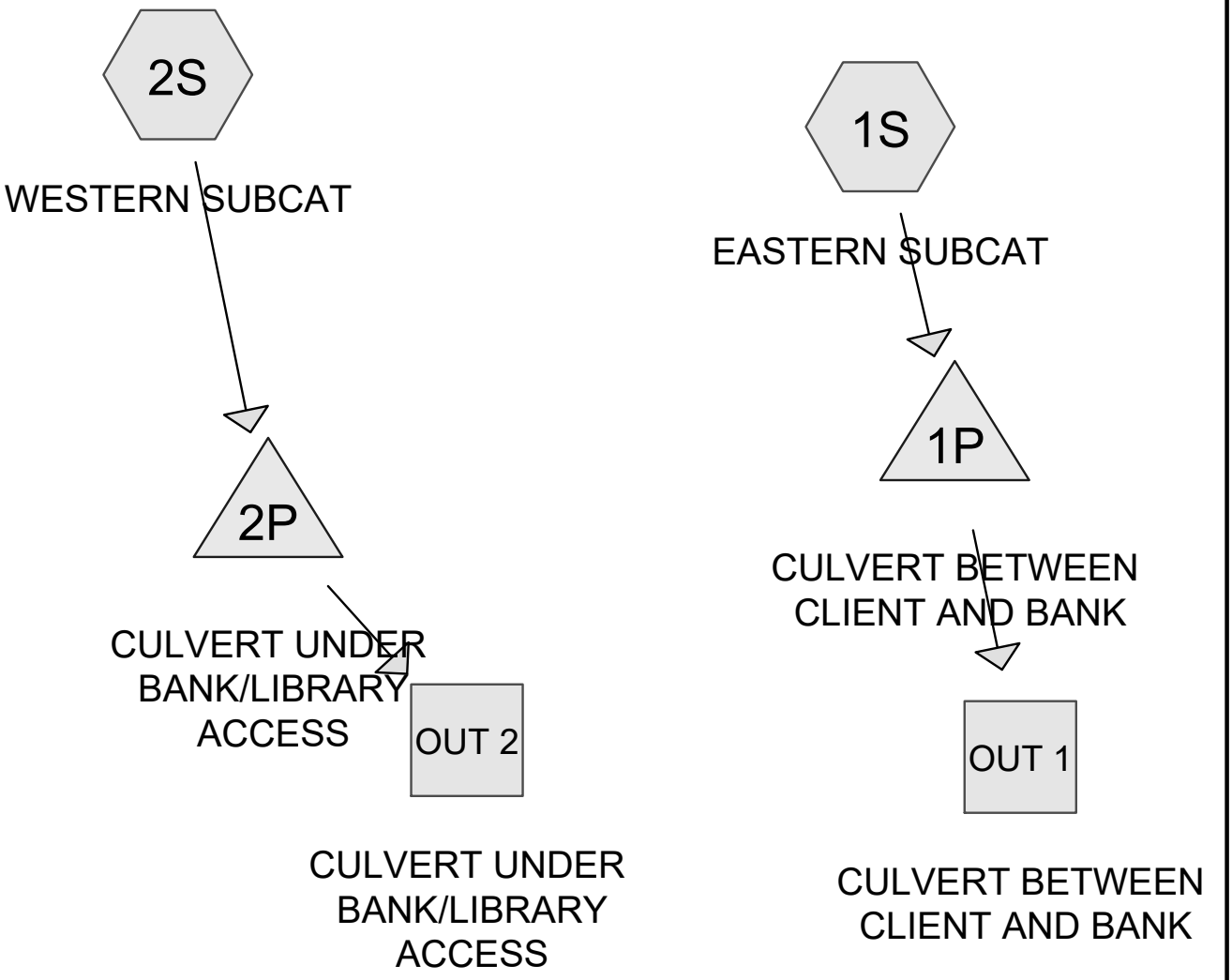
Pre-Development Calculations



Subcat Reach Pond Link

Routing Diagram for PRE-2512000
Prepared by CIVIL CONSULTANTS

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.505	84	50-75% Grass cover, Fair, HSG D (1S, 2S)
0.545	98	Paved parking, HSG D (1S, 2S)
0.037	98	Roofs, HSG D (2S)
0.786	79	Woods, Fair, HSG D (1S)
0.806	82	Woods/grass comb., Fair, HSG D (2S)
2.680	**85**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
2.680	HSG D	1S, 2S
0.000	Other	
2.680		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.505	0.000	0.505	50-75% Grass cover, Fair	1S, 2S
0.000	0.000	0.000	0.545	0.000	0.545	Paved parking	1S, 2S
0.000	0.000	0.000	0.037	0.000	0.037	Roofs	2S
0.000	0.000	0.000	0.786	0.000	0.786	Woods, Fair	1S
0.000	0.000	0.000	0.806	0.000	0.806	Woods/grass comb., Fair	2S
0.000	**0.000**	**0.000**	**2.680**	**0.000**	**2.680**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	60.60	60.20	39.0	0.0103	0.013	12.0	0.0	6.0
2	2P	59.80	59.40	47.0	0.0085	0.013	18.0	0.0	0.0

Notes Listing (all nodes)

Line#	Node Number	Notes
1	1S	ALL TC ROUTES START EITHER ON AN IMPERVIOUS SURFACE OR CLOSE TO AN AREA OF EXISTING CHANNEL FLOW. THIS REDUCES SHEET FLOW TO ONLY A COUPLE OF MINUTES.
2		TIME INCREMENT (0.05 HOURS) * 2 IS REQUIRED FOR ACCURATE CALCULATIONS.
3		0.1HRS = 6 MINUTES

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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: EASTERN SUBCAT Runoff Area=43,939 sf 20.16% Impervious Runoff Depth=1.60"
Tc=6.0 min CN=83 Runoff=1.85 cfs 0.135 af

Subcatchment 2S: WESTERN SUBCAT Runoff Area=72,815 sf 22.70% Impervious Runoff Depth=1.83"
Flow Length=299' Tc=10.3 min CN=86 Runoff=3.07 cfs 0.254 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.16 cfs 0.134 af
Outflow=1.16 cfs 0.134 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=1.96 cfs 0.254 af
Outflow=1.96 cfs 0.254 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=61.92' Storage=605 cf Inflow=1.85 cfs 0.135 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.16 cfs 0.134 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.53' Storage=1,450 cf Inflow=3.07 cfs 0.254 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=1.96 cfs 0.254 af

Total Runoff Area = 2.680 ac Runoff Volume = 0.389 af Average Runoff Depth = 1.74"
78.26% Pervious = 2.098 ac 21.74% Impervious = 0.583 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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: EASTERN SUBCAT Runoff Area=43,939 sf 20.16% Impervious Runoff Depth=3.01"
Tc=6.0 min CN=83 Runoff=3.48 cfs 0.253 af

Subcatchment 2S: WESTERN SUBCAT Runoff Area=72,815 sf 22.70% Impervious Runoff Depth=3.30"
Flow Length=299' Tc=10.3 min CN=86 Runoff=5.48 cfs 0.460 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.56 cfs 0.253 af
Outflow=1.56 cfs 0.253 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=3.31 cfs 0.460 af
Outflow=3.31 cfs 0.460 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.41' Storage=1,680 cf Inflow=3.48 cfs 0.253 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.56 cfs 0.253 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.79' Storage=2,962 cf Inflow=5.48 cfs 0.460 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=3.31 cfs 0.460 af

Total Runoff Area = 2.680 ac Runoff Volume = 0.713 af Average Runoff Depth = 3.19"
78.26% Pervious = 2.098 ac 21.74% Impervious = 0.583 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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: EASTERN SUBCAT Runoff Area=43,939 sf 20.16% Impervious Runoff Depth=4.18"
Tc=6.0 min CN=83 Runoff=4.78 cfs 0.352 af

Subcatchment 2S: WESTERN SUBCAT Runoff Area=72,815 sf 22.70% Impervious Runoff Depth=4.50"
Flow Length=299' Tc=10.3 min CN=86 Runoff=7.39 cfs 0.627 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.76 cfs 0.352 af
Outflow=1.76 cfs 0.352 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=4.27 cfs 0.627 af
Outflow=4.27 cfs 0.627 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.71' Storage=2,864 cf Inflow=4.78 cfs 0.352 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.76 cfs 0.352 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.97' Storage=4,287 cf Inflow=7.39 cfs 0.627 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=4.27 cfs 0.627 af

Total Runoff Area = 2.680 ac Runoff Volume = 0.979 af Average Runoff Depth = 4.38"
78.26% Pervious = 2.098 ac 21.74% Impervious = 0.583 ac

Summary for Subcatchment 1S: EASTERN SUBCAT

ALL TC ROUTES START EITHER ON AN IMPERVIOUS SURFACE OR CLOSE TO AN AREA OF EXISTING CHANNEL FLOW. THIS REDUCES SHEET FLOW TO ONLY A COUPLE OF MINUTES.

TIME INCREMENT (0.05 HOURS) * 2 IS REQUIRED FOR ACCURATE CALCULATIONS.

0.1HRS = 6 MINUTES

Runoff = 4.78 cfs @ 12.09 hrs, Volume= 0.352 af, Depth= 4.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
8,857	98	Paved parking, HSG D
827	84	50-75% Grass cover, Fair, HSG D
34,255	79	Woods, Fair, HSG D
43,939	83	Weighted Average
35,082		79.84% Pervious Area
8,857		20.16% Impervious Area

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

Summary for Subcatchment 2S: WESTERN SUBCAT

Runoff = 7.39 cfs @ 12.14 hrs, Volume= 0.627 af, Depth= 4.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
14,901	98	Paved parking, HSG D
1,627	98	Roofs, HSG D
35,108	82	Woods/grass comb., Fair, HSG D
21,179	84	50-75% Grass cover, Fair, HSG D
72,815	86	Weighted Average
56,287		77.30% Pervious Area
16,528		22.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	39	0.0333	0.08		**Sheet Flow, 2S.1** Woods: Light underbrush n= 0.400 P2= 3.19"
0.4	21	0.0333	0.91		**Shallow Concentrated Flow, 2S.2** Woodland Kv= 5.0 fps
0.2	25	0.0333	2.06	27.47	**Parabolic Channel, 2S.3** W=20.00' D=1.00' Area=13.3 sf Perim=20.1' n= 0.100 Earth, dense brush, high stage
1.4	214	0.0100	2.57	335.78	**Parabolic Channel, 2S.4** W=98.00' D=2.00' Area=130.7 sf Perim=98.1' n= 0.070 Sluggish weedy reaches w/pools
10.3	299	Total			

Summary for Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK

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

Inflow Area = 1.009 ac, 20.16% Impervious, Inflow Depth = 4.18" for 25-YR event
Inflow = 1.76 cfs @ 12.36 hrs, Volume= 0.352 af
Outflow = 1.76 cfs @ 12.36 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS

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

Inflow Area = 1.672 ac, 22.70% Impervious, Inflow Depth = 4.50" for 25-YR event
Inflow = 4.27 cfs @ 12.32 hrs, Volume= 0.627 af
Outflow = 4.27 cfs @ 12.32 hrs, Volume= 0.627 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: CULVERT BETWEEN CLIENT AND BANK

Inflow Area = 1.009 ac, 20.16% Impervious, Inflow Depth = 4.18" for 25-YR event
Inflow = 4.78 cfs @ 12.09 hrs, Volume= 0.352 af
Outflow = 1.76 cfs @ 12.36 hrs, Volume= 0.352 af, Atten= 63%, Lag= 16.0 min
Primary = 1.76 cfs @ 12.36 hrs, Volume= 0.352 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 62.71' @ 12.36 hrs Surf.Area= 4,627 sf Storage= 2,864 cf

Plug-Flow detention time= 12.0 min calculated for 0.351 af (100% of inflow)
Center-of-Mass det. time= 11.7 min (817.3 - 805.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	12,551 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.00	0	0	0
62.00	1,419	710	710
64.00	10,422	11,841	12,551

Device	Routing	Invert	Outlet Devices
#1	Primary	61.10'	**12.0" Round Culvert w/ 6.0" inside fill** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.60' / 60.20' S= 0.0103 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.39 sf

Primary OutFlow Max=1.76 cfs @ 12.36 hrs HW=62.71' (Free Discharge)
1=Culvert (Inlet Controls 1.76 cfs @ 4.49 fps)

Summary for Pond 2P: CULVERT UNDER BANK/LIBRARY ACCESS

Inflow Area = 1.672 ac, 22.70% Impervious, Inflow Depth = 4.50" for 25-YR event
Inflow = 7.39 cfs @ 12.14 hrs, Volume= 0.627 af
Outflow = 4.27 cfs @ 12.32 hrs, Volume= 0.627 af, Atten= 42%, Lag= 10.5 min
Primary = 4.27 cfs @ 12.32 hrs, Volume= 0.627 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 60.97' @ 12.32 hrs Surf.Area= 8,232 sf Storage= 4,287 cf

Plug-Flow detention time= 9.5 min calculated for 0.627 af (100% of inflow)
Center-of-Mass det. time= 9.5 min (810.6 - 801.1)

Volume	Invert	Avail.Storage	Storage Description
#1	60.00'	37,226 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.00	651	0	0
62.00	16,361	17,012	17,012
63.00	24,067	20,214	37,226

Device	Routing	Invert	Outlet Devices
#1	Primary	59.80'	**18.0" Round Culvert** L= 47.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.80' / 59.40' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.26 cfs @ 12.32 hrs HW=60.96' (Free Discharge)
1=Culvert (Inlet Controls 4.26 cfs @ 2.90 fps)

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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: EASTERN SUBCAT Runoff Area=43,939 sf 20.16% Impervious Runoff Depth=5.30"
Tc=6.0 min CN=83 Runoff=6.00 cfs 0.446 af

Subcatchment 2S: WESTERN SUBCAT Runoff Area=72,815 sf 22.70% Impervious Runoff Depth=5.64"
Flow Length=299' Tc=10.3 min CN=86 Runoff=9.16 cfs 0.786 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.91 cfs 0.446 af
Outflow=1.91 cfs 0.446 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=5.06 cfs 0.786 af
Outflow=5.06 cfs 0.786 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.96' Storage=4,137 cf Inflow=6.00 cfs 0.446 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.91 cfs 0.446 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=61.12' Storage=5,613 cf Inflow=9.16 cfs 0.786 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=5.06 cfs 0.786 af

Total Runoff Area = 2.680 ac Runoff Volume = 1.232 af Average Runoff Depth = 5.52"
78.26% Pervious = 2.098 ac 21.74% Impervious = 0.583 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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: EASTERN SUBCAT Runoff Area=43,939 sf 20.16% Impervious Runoff Depth=6.68"
Tc=6.0 min CN=83 Runoff=7.47 cfs 0.561 af

Subcatchment 2S: WESTERN SUBCAT Runoff Area=72,815 sf 22.70% Impervious Runoff Depth=7.04"
Flow Length=299' Tc=10.3 min CN=86 Runoff=11.29 cfs 0.981 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=2.06 cfs 0.561 af
Outflow=2.06 cfs 0.561 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=5.80 cfs 0.981 af
Outflow=5.80 cfs 0.981 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=63.23' Storage=5,828 cf Inflow=7.47 cfs 0.561 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=2.06 cfs 0.561 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=61.29' Storage=7,403 cf Inflow=11.29 cfs 0.981 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=5.80 cfs 0.981 af

Total Runoff Area = 2.680 ac Runoff Volume = 1.542 af Average Runoff Depth = 6.90"
78.26% Pervious = 2.098 ac 21.74% Impervious = 0.583 ac

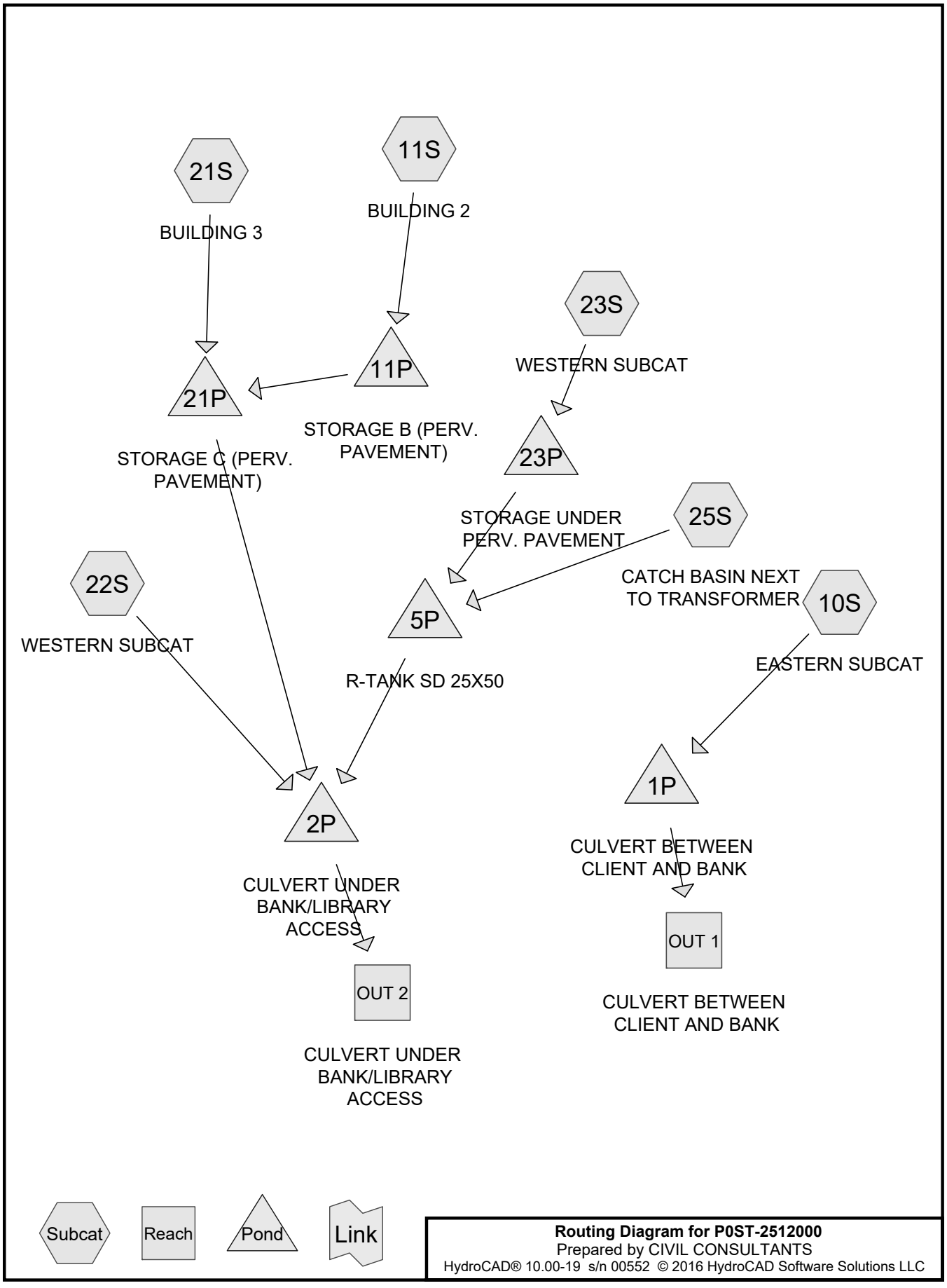
CIVIL
CONSULTANTS

Engineers

Planners

Surveyors

Post-Development Calculations



Routing Diagram for P0ST-2512000
Prepared by CIVIL CONSULTANTS

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.614	84	50-75% Grass cover, Fair, HSG D (10S, 22S)
0.919	98	Paved parking, HSG D (10S, 11S, 21S, 22S, 23S, 25S)
0.206	98	Roofs, HSG D (11S, 21S, 22S, 23S)
0.561	79	Woods, Fair, HSG D (10S)
0.380	82	Woods/grass comb., Fair, HSG D (22S)
2.680	**89**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
2.680	HSG D	10S, 11S, 21S, 22S, 23S, 25S
0.000	Other	
2.680		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.614	0.000	0.614	50-75% Grass cover, Fair	10S, 22S
0.000	0.000	0.000	0.919	0.000	0.919	Paved parking	10S, 11S, 21S, 22S, 23S, 25S
0.000	0.000	0.000	0.206	0.000	0.206	Roofs	11S, 21S, 22S, 23S
0.000	0.000	0.000	0.561	0.000	0.561	Woods, Fair	10S
0.000	0.000	0.000	0.380	0.000	0.380	Woods/grass comb., Fair	22S
0.000	**0.000**	**0.000**	**2.680**	**0.000**	**2.680**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	60.60	60.20	39.0	0.0103	0.013	12.0	0.0	6.0
2	2P	59.80	59.40	47.0	0.0085	0.013	18.0	0.0	0.0
3	5P	62.10	62.00	10.0	0.0100	0.013	8.0	0.0	0.0
4	11P	62.40	62.17	46.0	0.0050	0.010	12.0	0.0	0.0
5	21P	62.17	62.00	31.0	0.0055	0.010	12.0	0.0	0.0
6	23P	62.54	62.33	42.0	0.0050	0.010	8.0	0.0	0.0

Notes Listing (all nodes)

Line#	Node Number	Notes
1	10S	ALL TC ROUTES START EITHER ON AN IMPERVIOUS SURFACE OR CLOSE TO AN AREA OF EXISTING CHANNEL FLOW. THIS REDUCES SHEET FLOW TO ONLY A COUPLE OF MINUTES.
2		TIME INCREMENT (0.05 HOURS) * 2 IS REQUIRED FOR ACCURATE CALCULATIONS.
3		0.1HRS = 6 MINUTES

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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 10S: EASTERN SUBCAT Runoff Area=35,911 sf 29.63% Impervious Runoff Depth=1.75"
Tc=6.0 min CN=85 Runoff=1.66 cfs 0.120 af

Subcatchment 11S: BUILDING 2 Runoff Area=5,424 sf 100.00% Impervious Runoff Depth=2.96"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.031 af

Subcatchment 21S: BUILDING 3 Runoff Area=2,706 sf 100.00% Impervious Runoff Depth=2.96"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.015 af

Subcatchment 22S: WESTERN SUBCAT Runoff Area=62,203 sf 31.72% Impervious Runoff Depth=1.99"
Flow Length=299' Tc=10.3 min CN=88 Runoff=2.84 cfs 0.237 af

Subcatchment 23S: WESTERN SUBCAT Runoff Area=6,872 sf 100.00% Impervious Runoff Depth=2.96"
Tc=6.0 min CN=98 Runoff=0.48 cfs 0.039 af

Subcatchment 25S: CATCH BASIN NEXT Runoff Area=3,604 sf 100.00% Impervious Runoff Depth=2.96"
Tc=6.0 min CN=98 Runoff=0.25 cfs 0.020 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.08 cfs 0.120 af
Outflow=1.08 cfs 0.120 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=2.08 cfs 0.339 af
Outflow=2.08 cfs 0.339 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=61.85' Storage=511 cf Inflow=1.66 cfs 0.120 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.08 cfs 0.120 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.56' Storage=1,538 cf Inflow=3.16 cfs 0.339 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=2.08 cfs 0.339 af

Pond 5P: R-TANK SD 25X50 Peak Elev=62.65' Storage=0.008 af Inflow=0.32 cfs 0.059 af
Outflow=0.24 cfs 0.056 af

Pond 11P: STORAGE B (PERV. PAVEMENT) Peak Elev=63.39' Storage=552 cf Inflow=0.38 cfs 0.031 af
Outflow=0.05 cfs 0.031 af

Pond 21P: STORAGE C (PERV. PAVEMENT) Peak Elev=62.78' Storage=197 cf Inflow=0.23 cfs 0.046 af
Outflow=0.10 cfs 0.046 af

Pond 23P: STORAGE UNDER PERV. Peak Elev=63.30' Storage=581 cf Inflow=0.48 cfs 0.039 af
Outflow=0.09 cfs 0.039 af

Total Runoff Area = 2.680 ac Runoff Volume = 0.462 af Average Runoff Depth = 2.07"
58.04% Pervious = 1.555 ac 41.96% Impervious = 1.124 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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 10S: EASTERN SUBCAT Runoff Area=35,911 sf 29.63% Impervious Runoff Depth=3.20"
Tc=6.0 min CN=85 Runoff=3.00 cfs 0.220 af

Subcatchment 11S: BUILDING 2 Runoff Area=5,424 sf 100.00% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=98 Runoff=0.57 cfs 0.048 af

Subcatchment 21S: BUILDING 3 Runoff Area=2,706 sf 100.00% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=98 Runoff=0.29 cfs 0.024 af

Subcatchment 22S: WESTERN SUBCAT Runoff Area=62,203 sf 31.72% Impervious Runoff Depth=3.50"
Flow Length=299' Tc=10.3 min CN=88 Runoff=4.92 cfs 0.416 af

Subcatchment 23S: WESTERN SUBCAT Runoff Area=6,872 sf 100.00% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=98 Runoff=0.73 cfs 0.060 af

Subcatchment 25S: CATCH BASIN NEXT Runoff Area=3,604 sf 100.00% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.032 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.48 cfs 0.220 af
Outflow=1.48 cfs 0.220 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=3.34 cfs 0.576 af
Outflow=3.34 cfs 0.576 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.29' Storage=1,322 cf Inflow=3.00 cfs 0.220 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.48 cfs 0.220 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.79' Storage=2,931 cf Inflow=5.35 cfs 0.576 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=3.34 cfs 0.576 af

Pond 5P: R-TANK SD 25X50 Peak Elev=62.77' Storage=0.010 af Inflow=0.47 cfs 0.092 af
Outflow=0.33 cfs 0.089 af

Pond 11P: STORAGE B (PERV. PAVEMENT) Peak Elev=64.01' Storage=896 cf Inflow=0.57 cfs 0.048 af
Outflow=0.07 cfs 0.048 af

Pond 21P: STORAGE C (PERV. PAVEMENT) Peak Elev=63.18' Storage=325 cf Inflow=0.34 cfs 0.071 af
Outflow=0.13 cfs 0.071 af

Pond 23P: STORAGE UNDER PERV. Peak Elev=63.79' Storage=952 cf Inflow=0.73 cfs 0.060 af
Outflow=0.12 cfs 0.060 af

Total Runoff Area = 2.680 ac Runoff Volume = 0.799 af Average Runoff Depth = 3.58"
58.04% Pervious = 1.555 ac 41.96% Impervious = 1.124 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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 10S: EASTERN SUBCAT Runoff Area=35,911 sf 29.63% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=85 Runoff=4.07 cfs 0.302 af

Subcatchment 11S: BUILDING 2 Runoff Area=5,424 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.73 cfs 0.061 af

Subcatchment 21S: BUILDING 3 Runoff Area=2,706 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.36 cfs 0.030 af

Subcatchment 22S: WESTERN SUBCAT Runoff Area=62,203 sf 31.72% Impervious Runoff Depth=4.72"
Flow Length=299' Tc=10.3 min CN=88 Runoff=6.55 cfs 0.562 af

Subcatchment 23S: WESTERN SUBCAT Runoff Area=6,872 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.92 cfs 0.077 af

Subcatchment 25S: CATCH BASIN NEXT Runoff Area=3,604 sf 100.00% Impervious Runoff Depth=5.86"
Tc=6.0 min CN=98 Runoff=0.48 cfs 0.040 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.66 cfs 0.302 af
Outflow=1.66 cfs 0.302 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=4.23 cfs 0.767 af
Outflow=4.23 cfs 0.767 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.56' Storage=2,206 cf Inflow=4.07 cfs 0.302 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.66 cfs 0.302 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=60.96' Storage=4,122 cf Inflow=7.06 cfs 0.767 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=4.23 cfs 0.767 af

Pond 5P: R-TANK SD 25X50 Peak Elev=62.87' Storage=0.011 af Inflow=0.59 cfs 0.117 af
Outflow=0.39 cfs 0.114 af

Pond 11P: STORAGE B (PERV. PAVEMENT) Peak Elev=64.52' Storage=1,181 cf Inflow=0.73 cfs 0.061 af
Outflow=0.08 cfs 0.061 af

Pond 21P: STORAGE C (PERV. PAVEMENT) Peak Elev=63.51' Storage=432 cf Inflow=0.42 cfs 0.091 af
Outflow=0.15 cfs 0.091 af

Pond 23P: STORAGE UNDER PERV. Peak Elev=64.20' Storage=1,263 cf Inflow=0.92 cfs 0.077 af
Outflow=0.14 cfs 0.077 af

Total Runoff Area = 2.680 ac Runoff Volume = 1.073 af Average Runoff Depth = 4.80"
58.04% Pervious = 1.555 ac 41.96% Impervious = 1.124 ac

Summary for Subcatchment 10S: EASTERN SUBCAT

ALL TC ROUTES START EITHER ON AN IMPERVIOUS SURFACE OR CLOSE TO AN AREA OF EXISTING CHANNEL FLOW. THIS REDUCES SHEET FLOW TO ONLY A COUPLE OF MINUTES.

TIME INCREMENT (0.05 HOURS) * 2 IS REQUIRED FOR ACCURATE CALCULATIONS.

0.1HRS = 6 MINUTES

Runoff = 4.07 cfs @ 12.09 hrs, Volume= 0.302 af, Depth= 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
10,642	98	Paved parking, HSG D
827	84	50-75% Grass cover, Fair, HSG D
24,442	79	Woods, Fair, HSG D
35,911	85	Weighted Average
25,269		70.37% Pervious Area
10,642		29.63% Impervious Area

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

Summary for Subcatchment 11S: BUILDING 2

Runoff = 0.73 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
3,774	98	Paved parking, HSG D
1,650	98	Roofs, HSG D
5,424	98	Weighted Average
5,424		100.00% Impervious Area

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

Summary for Subcatchment 21S: BUILDING 3

Runoff = 0.36 cfs @ 12.09 hrs, Volume= 0.030 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
1,485	98	Paved parking, HSG D
1,221	98	Roofs, HSG D
2,706	98	Weighted Average
2,706		100.00% Impervious Area

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

Summary for Subcatchment 22S: WESTERN SUBCAT

Runoff = 6.55 cfs @ 12.14 hrs, Volume= 0.562 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
16,988	98	Paved parking, HSG D
2,744	98	Roofs, HSG D
16,553	82	Woods/grass comb., Fair, HSG D
25,918	84	50-75% Grass cover, Fair, HSG D
62,203	88	Weighted Average
42,471		68.28% Pervious Area
19,732		31.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	39	0.0333	0.08		**Sheet Flow, 2S.1** Woods: Light underbrush n= 0.400 P2= 3.19"
0.4	21	0.0333	0.91		**Shallow Concentrated Flow, 2S.2** Woodland Kv= 5.0 fps
0.2	25	0.0333	2.06	27.47	**Parabolic Channel, 2S.3** W=20.00' D=1.00' Area=13.3 sf Perim=20.1' n= 0.100 Earth, dense brush, high stage
1.4	214	0.0100	2.57	335.78	**Parabolic Channel, 2S.4** W=98.00' D=2.00' Area=130.7 sf Perim=98.1' n= 0.070 Sluggish weedy reaches w/pools
10.3	299	Total			

Summary for Subcatchment 23S: WESTERN SUBCAT

Runoff = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
3,519	98	Paved parking, HSG D
3,353	98	Roofs, HSG D
6,872	98	Weighted Average
6,872		100.00% Impervious Area

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

Summary for Subcatchment 25S: CATCH BASIN NEXT TO TRANSFORMER

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.10"

Area (sf)	CN	Description
3,604	98	Paved parking, HSG D
3,604		100.00% Impervious Area

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

Summary for Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK

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

Inflow Area = 0.824 ac, 29.63% Impervious, Inflow Depth = 4.39" for 25-YR event
Inflow = 1.66 cfs @ 12.31 hrs, Volume= 0.302 af
Outflow = 1.66 cfs @ 12.31 hrs, Volume= 0.302 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS

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

Inflow Area = 1.855 ac, 47.44% Impervious, Inflow Depth = 4.96" for 25-YR event
Inflow = 4.23 cfs @ 12.32 hrs, Volume= 0.767 af
Outflow = 4.23 cfs @ 12.32 hrs, Volume= 0.767 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: CULVERT BETWEEN CLIENT AND BANK

Inflow Area = 0.824 ac, 29.63% Impervious, Inflow Depth = 4.40" for 25-YR event
Inflow = 4.07 cfs @ 12.09 hrs, Volume= 0.302 af
Outflow = 1.66 cfs @ 12.31 hrs, Volume= 0.302 af, Atten= 59%, Lag= 13.5 min
Primary = 1.66 cfs @ 12.31 hrs, Volume= 0.302 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 62.56' @ 12.31 hrs Surf.Area= 3,935 sf Storage= 2,206 cf

Plug-Flow detention time= 10.3 min calculated for 0.302 af (100% of inflow)
Center-of-Mass det. time= 9.9 min (810.0 - 800.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	12,551 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
61.00	0	0	0
62.00	1,419	710	710
64.00	10,422	11,841	12,551

Device	Routing	Invert	Outlet Devices
#1	Primary	61.10'	**12.0" Round Culvert w/ 6.0" inside fill** L= 39.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.60' / 60.20' S= 0.0103 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.39 sf

Primary OutFlow Max=1.66 cfs @ 12.31 hrs HW=62.56' (Free Discharge)
1=Culvert (Inlet Controls 1.66 cfs @ 4.24 fps)

Summary for Pond 2P: CULVERT UNDER BANK/LIBRARY ACCESS

Inflow Area = 1.855 ac, 47.44% Impervious, Inflow Depth = 4.96" for 25-YR event
Inflow = 7.06 cfs @ 12.14 hrs, Volume= 0.767 af
Outflow = 4.23 cfs @ 12.32 hrs, Volume= 0.767 af, Atten= 40%, Lag= 10.7 min
Primary = 4.23 cfs @ 12.32 hrs, Volume= 0.767 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 60.96' @ 12.32 hrs Surf.Area= 7,962 sf Storage= 4,122 cf

Plug-Flow detention time= 9.0 min calculated for 0.767 af (100% of inflow)
Center-of-Mass det. time= 9.0 min (823.8 - 814.8)

Volume	Invert	Avail.Storage	Storage Description
#1	60.00'	34,572 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
60.00	651	0	0
62.00	15,928	16,579	16,579
63.00	20,057	17,993	34,572

Device	Routing	Invert	Outlet Devices
#1	Primary	59.80'	**18.0" Round Culvert** L= 47.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.80' / 59.40' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=4.22 cfs @ 12.32 hrs HW=60.96' (Free Discharge)
↑**1=Culvert** (Inlet Controls 4.22 cfs @ 2.89 fps)

Summary for Pond 5P: R-TANK SD 25X50

[79] Warning: Submerged Pond 23P Primary device # 1 INLET by 0.33'

Inflow Area = 0.240 ac,100.00% Impervious, Inflow Depth = 5.86" for 25-YR event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.117 af
Outflow = 0.39 cfs @ 12.22 hrs, Volume= 0.114 af, Atten= 34%, Lag= 7.6 min
Primary = 0.39 cfs @ 12.22 hrs, Volume= 0.114 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 62.87' @ 12.22 hrs Surf.Area= 0.017 ac Storage= 0.011 af
Flood Elev= 63.10' Surf.Area= 0.017 ac Storage= 0.013 af

Plug-Flow detention time= 58.7 min calculated for 0.114 af (97% of inflow)
Center-of-Mass det. time= 40.0 min (850.9 - 810.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.95'	0.003 af	**23.69'W x 32.15'L x 1.04'H Field A** 0.018 af Overall - 0.010 af Embedded = 0.008 af x 40.0% Voids
#2A	62.20'	0.010 af	**Ferguson R-Tank SD** x 180 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 15 Rows of 12 Chambers
		0.013 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	62.10'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.10' / 62.00' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	62.31'	**5.0" Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=0.39 cfs @ 12.22 hrs HW=62.87' (Free Discharge)
↑**1=Culvert** (Passes 0.39 cfs of 0.88 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.39 cfs @ 2.86 fps)

Summary for Pond 11P: STORAGE B (PERV. PAVEMENT)

Inflow Area = 0.125 ac,100.00% Impervious, Inflow Depth = 5.86" for 25-YR event
Inflow = 0.73 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.08 cfs @ 12.81 hrs, Volume= 0.061 af, Atten= 90%, Lag= 43.4 min
Primary = 0.08 cfs @ 12.81 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 64.52' @ 12.81 hrs Surf.Area= 2,786 sf Storage= 1,181 cf
Flood Elev= 66.00' Surf.Area= 3,618 sf Storage= 1,930 cf

Plug-Flow detention time= 175.9 min calculated for 0.061 af (100% of inflow)
Center-of-Mass det. time= 176.1 min (921.0 - 744.9)

Volume	Invert	Avail.Storage	Storage Description
#1	62.40'	724 cf	**Custom Stage Data - STONE STORAGE (Prismatic)** Listed below (Recalc) 1,811 cf Overall x 40.0% Voids
#2	63.70'	1,092 cf	**Custom Stage Data - CHOKER (Prismatic)** Listed below (Recalc) 2,730 cf Overall x 40.0% Voids
#3	65.66'	113 cf	**Custom Stage Data - PERVIOUS PAVEMENT (Prismatic)** Listed below (Re 283 cf Overall x 40.0% Voids
		1,930 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.40	1,393	0	0
63.70	1,393	1,811	1,811

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.70	1,393	0	0
65.66	1,393	2,730	2,730

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
65.66	832	0	0
66.00	832	283	283

Device	Routing	Invert	Outlet Devices
#1	Primary	62.40'	**12.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.40' / 62.17' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.40'	**1.0" Vert. Orifice/Grate - overflow grate X 2.00** C= 0.600

Primary OutFlow Max=0.08 cfs @ 12.81 hrs HW=64.52' (Free Discharge)
↑—**1=Culvert** (Passes 0.08 cfs of 3.80 cfs potential flow)
↑—**2=Orifice/Grate - overflow grate** (Orifice Controls 0.08 cfs @ 6.94 fps)

Summary for Pond 21P: STORAGE C (PERV. PAVEMENT)

[79] Warning: Submerged Pond 11P Primary device # 1 INLET by 1.11'

Inflow Area = 0.187 ac,100.00% Impervious, Inflow Depth = 5.86" for 25-YR event
Inflow = 0.42 cfs @ 12.09 hrs, Volume= 0.091 af
Outflow = 0.15 cfs @ 12.50 hrs, Volume= 0.091 af, Atten= 64%, Lag= 24.6 min
Primary = 0.15 cfs @ 12.50 hrs, Volume= 0.091 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 63.51' @ 12.50 hrs Surf.Area= 1,618 sf Storage= 432 cf
Flood Elev= 64.50' Surf.Area= 1,978 sf Storage= 693 cf

Plug-Flow detention time= 29.4 min calculated for 0.091 af (100% of inflow)
Center-of-Mass det. time= 29.4 min (891.8 - 862.4)

Volume	Invert	Avail.Storage	Storage Description
#1	62.17'	430 cf	**Custom Stage Data - STONE STORAGE (Prismatic)** Listed below (Recalc) 1,076 cf Overall x 40.0% Voids
#2	63.50'	214 cf	**Custom Stage Data - CHOKER (Prismatic)** Listed below (Recalc) 534 cf Overall x 40.0% Voids
#3	64.16'	49 cf	**Custom Stage Data - PERVIOUS PAVEMENT (Prismatic)** Listed below (Re 122 cf Overall x 40.0% Voids
		693 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.17	809	0	0
63.50	809	1,076	1,076

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
63.50	809	0	0
64.16	809	534	534

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.16	360	0	0
64.50	360	122	122

Device	Routing	Invert	Outlet Devices
#1	Primary	62.17'	**12.0" Round Culvert** L= 31.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.17' / 62.00' S= 0.0055 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.17'	**4.0" W x 1.0" H Vert. Orifice/Grate - overflow grate** C= 0.600

Primary OutFlow Max=0.15 cfs @ 12.50 hrs HW=63.51' (Free Discharge)
↑—**1=Culvert** (Passes 0.15 cfs of 2.73 cfs potential flow)
↑—**2=Orifice/Grate - overflow grate** (Orifice Controls 0.15 cfs @ 5.48 fps)

Summary for Pond 23P: STORAGE UNDER PERV. PAVEMENT

Inflow Area = 0.158 ac,100.00% Impervious, Inflow Depth = 5.86" for 25-YR event
Inflow = 0.92 cfs @ 12.09 hrs, Volume= 0.077 af
Outflow = 0.14 cfs @ 12.59 hrs, Volume= 0.077 af, Atten= 85%, Lag= 30.0 min
Primary = 0.14 cfs @ 12.59 hrs, Volume= 0.077 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 64.20' @ 12.59 hrs Surf.Area= 1,900 sf Storage= 1,263 cf
Flood Elev= 65.21' Surf.Area= 4,711 sf Storage= 1,934 cf

Plug-Flow detention time= 100.1 min calculated for 0.077 af (100% of inflow)
Center-of-Mass det. time= 100.6 min (845.5 - 744.9)

Volume	Invert	Avail.Storage	Storage Description
#1	62.54'	1,277 cf	**Custom Stage Data - STONE STORAGE (Prismatic)** Listed below (Recalc) 3,192 cf Overall x 40.0% Voids
#2	64.22'	570 cf	**Custom Stage Data - CHOKER (Prismatic)** Listed below (Recalc) 1,425 cf Overall x 40.0% Voids
#3	64.97'	91 cf	**Custom Stage Data - PERVIOUS PAVEMENT (Prismatic)** Listed below (Re 228 cf Overall x 40.0% Voids
		1,938 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
62.54	1,900	0	0
64.22	1,900	3,192	3,192

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.22	1,900	0	0
64.97	1,900	1,425	1,425

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
64.97	911	0	0
65.22	911	228	228

Device	Routing	Invert	Outlet Devices
#1	Primary	62.54'	**8.0" Round Culvert** L= 42.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.54' / 62.33' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Device 1	62.32'	**2.0" Vert. Orifice/Grate - overflow grate** C= 0.600

Primary OutFlow Max=0.14 cfs @ 12.59 hrs HW=64.20' (Free Discharge)
↑—**1=Culvert** (Passes 0.14 cfs of 1.53 cfs potential flow)
↑—**2=Orifice/Grate - overflow grate** (Orifice Controls 0.14 cfs @ 6.21 fps)

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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 10S: EASTERN SUBCAT Runoff Area=35,911 sf 29.63% Impervious Runoff Depth=5.53"
Tc=6.0 min CN=85 Runoff=5.07 cfs 0.380 af

Subcatchment 11S: BUILDING 2 Runoff Area=5,424 sf 100.00% Impervious Runoff Depth=7.05"
Tc=6.0 min CN=98 Runoff=0.87 cfs 0.073 af

Subcatchment 21S: BUILDING 3 Runoff Area=2,706 sf 100.00% Impervious Runoff Depth=7.05"
Tc=6.0 min CN=98 Runoff=0.43 cfs 0.036 af

Subcatchment 22S: WESTERN SUBCAT Runoff Area=62,203 sf 31.72% Impervious Runoff Depth=5.88"
Flow Length=299' Tc=10.3 min CN=88 Runoff=8.05 cfs 0.699 af

Subcatchment 23S: WESTERN SUBCAT Runoff Area=6,872 sf 100.00% Impervious Runoff Depth=7.05"
Tc=6.0 min CN=98 Runoff=1.10 cfs 0.093 af

Subcatchment 25S: CATCH BASIN NEXT Runoff Area=3,604 sf 100.00% Impervious Runoff Depth=7.05"
Tc=6.0 min CN=98 Runoff=0.58 cfs 0.049 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.80 cfs 0.380 af
Outflow=1.80 cfs 0.380 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=4.96 cfs 0.947 af
Outflow=4.96 cfs 0.947 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=62.78' Storage=3,165 cf Inflow=5.07 cfs 0.380 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.80 cfs 0.380 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=61.10' Storage=5,299 cf Inflow=8.63 cfs 0.947 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=4.96 cfs 0.947 af

Pond 5P: R-TANK SD 25X50 Peak Elev=62.98' Storage=0.013 af Inflow=0.70 cfs 0.141 af
Outflow=0.44 cfs 0.138 af

Pond 11P: STORAGE B (PERV. PAVEMENT) Peak Elev=65.01' Storage=1,455 cf Inflow=0.87 cfs 0.073 af
Outflow=0.08 cfs 0.073 af

Pond 21P: STORAGE C (PERV. PAVEMENT) Peak Elev=63.83' Storage=536 cf Inflow=0.50 cfs 0.110 af
Outflow=0.17 cfs 0.110 af

Pond 23P: STORAGE UNDER PERV. Peak Elev=64.60' Storage=1,563 cf Inflow=1.10 cfs 0.093 af
Outflow=0.15 cfs 0.093 af

Total Runoff Area = 2.680 ac Runoff Volume = 1.330 af Average Runoff Depth = 5.96"
58.04% Pervious = 1.555 ac 41.96% Impervious = 1.124 ac

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 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 10S: EASTERN SUBCAT Runoff Area=35,911 sf 29.63% Impervious Runoff Depth=6.92"
Tc=6.0 min CN=85 Runoff=6.27 cfs 0.475 af

Subcatchment 11S: BUILDING 2 Runoff Area=5,424 sf 100.00% Impervious Runoff Depth=8.49"
Tc=6.0 min CN=98 Runoff=1.04 cfs 0.088 af

Subcatchment 21S: BUILDING 3 Runoff Area=2,706 sf 100.00% Impervious Runoff Depth=8.49"
Tc=6.0 min CN=98 Runoff=0.52 cfs 0.044 af

Subcatchment 22S: WESTERN SUBCAT Runoff Area=62,203 sf 31.72% Impervious Runoff Depth=7.28"
Flow Length=299' Tc=10.3 min CN=88 Runoff=9.86 cfs 0.867 af

Subcatchment 23S: WESTERN SUBCAT Runoff Area=6,872 sf 100.00% Impervious Runoff Depth=8.49"
Tc=6.0 min CN=98 Runoff=1.32 cfs 0.112 af

Subcatchment 25S: CATCH BASIN NEXT Runoff Area=3,604 sf 100.00% Impervious Runoff Depth=8.49"
Tc=6.0 min CN=98 Runoff=0.69 cfs 0.059 af

Reach OUT 1: CULVERT BETWEEN CLIENT AND BANK Inflow=1.94 cfs 0.475 af
Outflow=1.94 cfs 0.475 af

Reach OUT 2: CULVERT UNDER BANK/LIBRARY ACCESS Inflow=5.70 cfs 1.166 af
Outflow=5.70 cfs 1.166 af

Pond 1P: CULVERT BETWEEN CLIENT AND Peak Elev=63.01' Storage=4,452 cf Inflow=6.27 cfs 0.475 af
12.0" Round Culvert w/ 6.0" inside fill n=0.013 L=39.0' S=0.0103 '/' Outflow=1.94 cfs 0.475 af

Pond 2P: CULVERT UNDER BANK/LIBRARY Peak Elev=61.26' Storage=6,900 cf Inflow=11.03 cfs 1.166 af
18.0" Round Culvert n=0.013 L=47.0' S=0.0085 '/' Outflow=5.70 cfs 1.166 af

Pond 5P: R-TANK SD 25X50 Peak Elev=64.88' Storage=0.013 af Inflow=0.83 cfs 0.170 af
Outflow=1.01 cfs 0.167 af

Pond 11P: STORAGE B (PERV. PAVEMENT) Peak Elev=65.62' Storage=1,796 cf Inflow=1.04 cfs 0.088 af
Outflow=0.09 cfs 0.088 af

Pond 21P: STORAGE C (PERV. PAVEMENT) Peak Elev=64.30' Storage=664 cf Inflow=0.59 cfs 0.132 af
Outflow=0.19 cfs 0.132 af

Pond 23P: STORAGE UNDER PERV. Peak Elev=65.21' Storage=1,935 cf Inflow=1.32 cfs 0.112 af
Outflow=0.17 cfs 0.112 af

Total Runoff Area = 2.680 ac Runoff Volume = 1.644 af Average Runoff Depth = 7.36"
58.04% Pervious = 1.555 ac 41.96% Impervious = 1.124 ac

CIVIL
CONSULTANTS

Engineers

Planners

Surveyors

APPENDICIES

A – Location & Topographic Plan

B – Soils Information

C – Supplemental Calculations

D – Stormwater Maintenance Plan and Inspection Log

E – FIRM Flood Mapping

F – Drainage Plans

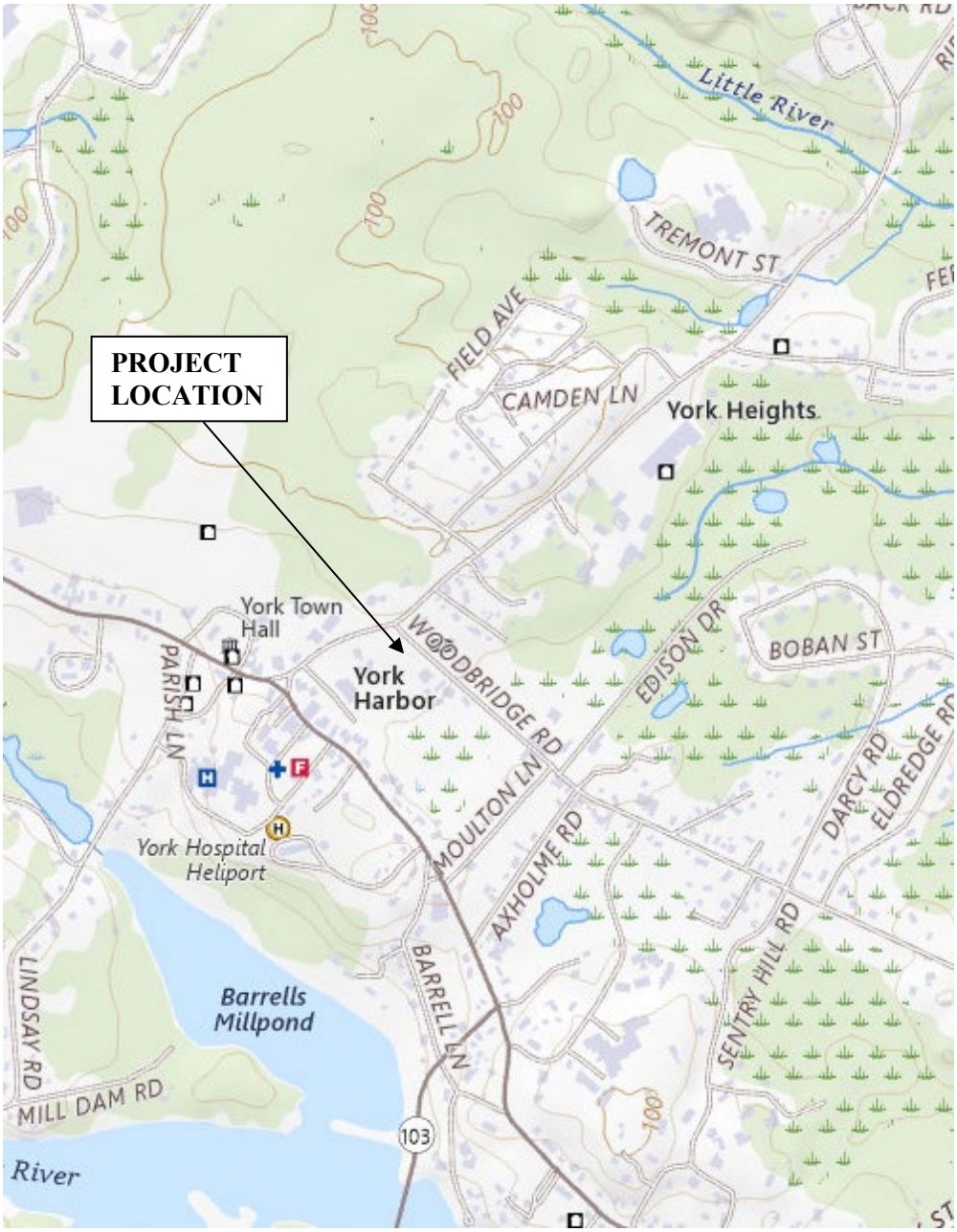
APPENDIX A

LOCATION AND TOPOGRAPHIC PLAN

Portion of

U.S.G.S. Map for Kittery Quadrangle
Maine – New Hampshire 7.5 Minute Series

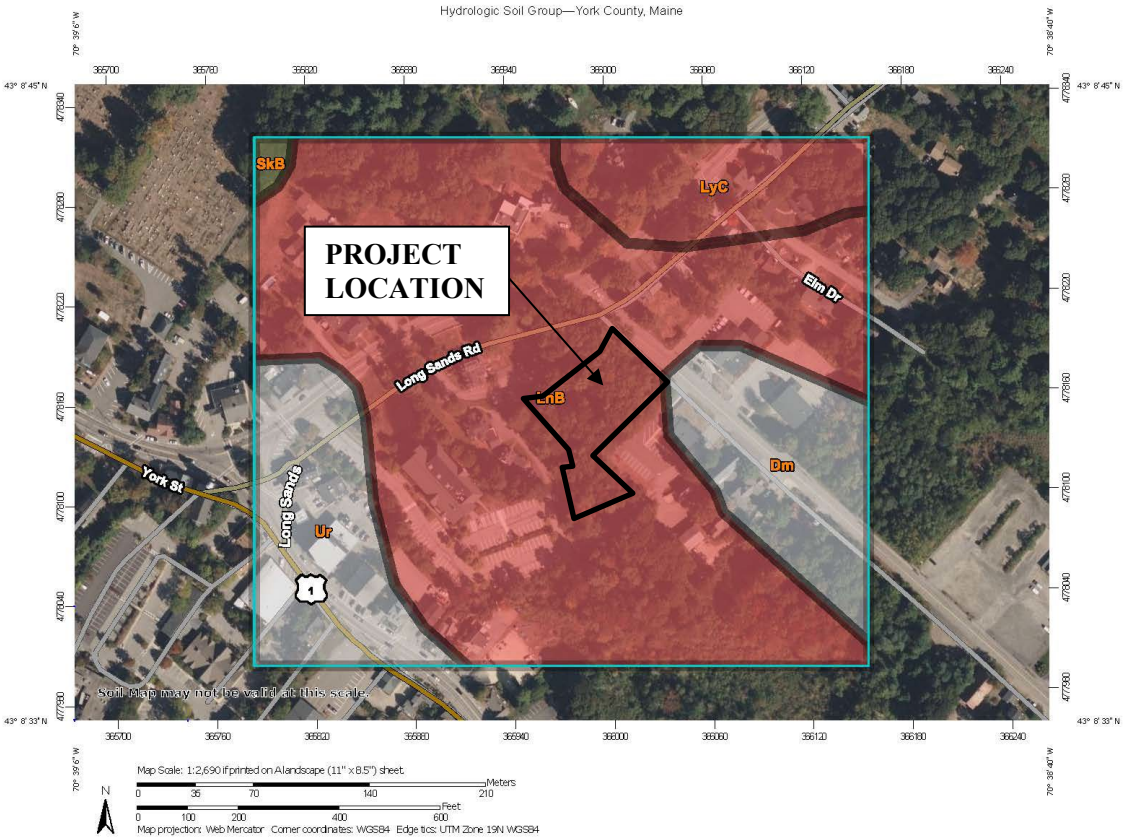
Not To Scale



APPENDIX B

Soil Exploration Results & Medium Intensity Soil Survey Plan

Portions of
USDA Soil Conservation Service – WEB SOIL SURVEY
YORK COUNTY, MAINE



Hydrologic Soil Group—York County, Maine

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 1:20,000.

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: York County, Maine
Survey Area Data: Version 23, Aug 26, 2024

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

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

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
Dm	Dumps		3.3	11.3%
LnB	Lyman loam, 3 to 8 percent slopes, rocky	D	19.6	66.9%
LyC	Lyman-Rock outcrop complex, 8 to 15 percent slopes	D	2.6	8.8%
SkB	Skerry fine sandy loam, 0 to 8 percent slopes	C/D	0.2	0.6%
Ur	Urban land		3.6	12.4%
Totals for Area of Interest			**29.2**	**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

APPENDIX C

Supplemental Stormwater Calculations

Conveyance Systems. Calculations for sizing on-site conveyance structures, including culverts are included in the HydroCad print outs included in this report. Stabilization calculations are included here. Ditch stabilization is per MDOT Highway design manual. Riprap sizing and erosion control measures are shown and noted on the Site Plans. These plans also show scaled drawings and cross sections of these conveyance systems and associated practices.

The reservoir stone layer has been sized to detain the channel protection volume for a fully paved area. The typical condition is ½ of a dwelling unit (27 ft) along with a minimum 35 ft run of porous pavement and 10 ft of paved roadway, resulting in the following required storage:

Stormwater Maintenance & Inspection Plan

Prepared by: Geoffrey R. Aleva, PE, CIVIL CONSULTANTS

During the construction of Woodbridge Common, maintenance of all erosion, sedimentation, and stormwater flow control structures and devices will be the responsibility of the contractor on site. Upon stabilization of the completed Development, the developer will assume all responsibilities. The developer will be responsible for the required maintenance of the stormwater treatment system.

The developer will be responsible for the maintenance of all erosion, sedimentation, and stormwater flow control structures and devices within the limits of the development and will retain that responsibility until such time as another individual and/or agency (acceptable to the Town) accepts the responsibility. All post-construction inspections shall be conducted by personnel with knowledge of erosion and stormwater control, including the standards and conditions in the permit.

During and after construction all erosion control devices and structures shall be checked monthly and after each "significant rainfall"**. Necessary repairs will be made to correct undermining or deterioration of the devices and/or structures. Sediment in the pretreatment structures will be removed annually or as needed to maintain functionality of the structure.

The Developer shall maintain inspection logs as shown below (or similar) of all stormwater and erosion control measures. The log shall reflect the dates of the inspections and describe actions taken (if any) and be kept on file for a minimum of 5 years. This logbook will be made available to the Town upon request.

Where a major storm event is noted in the plan, this is classified as a rainfall exceeding 1.0 inch storm event.

** significant rainfall is ½" in 24 hr

Sweeping

Paved surfaces shall be swept or vacuumed at least annually in the spring to remove all winter sand, and periodically during the year on an as-needed basis to minimize transportation of sediment during rainfall events.

Parking Surfaces				
	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
Clear accumulated winter sand in parking lots	**X**			
Sweep pavement to remove sediment	**X**			
Grade shoulders and remove excess sand either manually or by a front-end loader	**X**			
Grade gravel shoulders	**X**			
Ensure that stormwater is not impeded by accumulations of material.	**X**			

Catch Basins & Culverts

All catch basins, and any other field inlets throughout the collection system, need to be inspected on a monthly basis to assure that the inlet entry point is clear of debris and will allow the intended water entry. These will be cleared, if necessary on a yearly basis or when sediment reaches two thirds of total volume. Catch basins need to be vacuumed and cleaned of all accumulated sediment. This work must be done by a vacuum truck. The removed material must be disposed of in accordance with the Maine Solid Waste Disposal Rules.

Catch Basins Systems				
	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
Remove and legally dispose of accumulated sediments and debris from the bottom of the basin, inlet grates, inflow channels to the basin, and pipes between basins.	**X**	**X**		
Remove floating debris and floating oils (using oil absorptive pads) from any trap designed for such	**X**	**X**		

Culverts				
	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit	**X**	**X**	**X**	
Repair any erosion damage at the culvert's inlet and outlet	**X**	**X**	**X**	

Vegetated Areas

All areas of maintained lawn are to be inspected regularly for signs of erosions and channelization. Areas where erosion is occurring or areas of sparse growth shall be replanted and stabilized. Channelized flows from the eroded land shall be diverted to buffers or other areas able to withstand the high sediment load in the erosive runoff.

	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
Vegetated Areas				
Inspect all slopes and embankments	**X**		**X**	
Replant bare areas or areas with sparse growth	**X**		**X**	
Armor areas with fill erosions with an appropriate lining or divert the erosive flows to on-site areas able to withstand concentrated flows. Any materials used to armor/stabilize the affected areas shall be submitted to the Town and Engineer for review and approval prior to installation.	**X**		**X**	

Ditches, Swales and Culverts

Open swales and ditches need to be inspected on a monthly basis or after a major rainfall event to assure that debris or sediments do not reduce the effectiveness of the system. Debris needs to be removed at that time. Any sign of erosion or blockage shall be immediately repaired to assure a vigorous growth of vegetation for the stability of the structure and proper functioning.

Vegetated ditches should be mowed at least monthly during the growing season. Larger brush or trees must not be allowed to become established in the channel. Any areas where the vegetation fails will be subject to erosion and should be repaired and revegetated.

If sediment in culverts or piped drainage systems exceeds 20% of the diameter of the pipe, it should be removed. This may be accomplished by hydraulic flushing or any mechanical means; however, care should be taken to not flush the sediments into the retention/detention pond as it will reduce the pond's capacity and hasten the time when it must be cleaned. All pipes should be inspected on an annual basis.

Stormwater Channels				
	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
Inspect ditches and swales	**X**	**X**	**X**	
Remove any obstructions and accumulated sediments or debris	**X**	**X**		
Control vegetated growth and woody vegetation		**X**		
Repair any ditch erosion		**X**		
Mow vegetated ditches		**X**		
Repair any slumping side slopes	**X**	**X**		

Porous Pavement				
	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
In Porous asphalt shall be inspected annually for pavement deterioration or spalling.	**X**			
Areas of porous asphalt shall be cleaned using a vacuum sweeper 2-4 times annually. Power washing may be necessary to dislodge trapped particles.	**X**	**X**		

Road Salt and Deicing Minimization

The intent should be to minimize the amount of salt and other deicing agents utilized to the extent practical. Efforts shall be made to avoid the use of dry salt and winter sand and other abrasive materials.

A table for Deicing Application Rate Guidelines has been included for reference with regard to the type and rate of deicing agents to be used.

Use of deicers for each storm event shall be tracked using the log sheet provided.

Control of Invasive Plants

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

Deicing Application Rate Guidelines

24' of pavement (typcial two-lane road)

These rates are not fixed values, but rather the middle of a range to be selected and adjusted by an agency according to its local conditions and experience.

			Pounds per two-lane mile			
Pavement Temp. (°F) and Trend (↑↓)	Weather Condition	Maintenance Actions	Salt Prewetted / Pretreated with Salt Brine	Salt Prewetted / Pretreated with Other Blends	Dry Salt*	Winter Sand (abrasives)
> 30° ↑	Snow	Plow, treat intersections only	80	70	100*	Not recommended
	Freezing Rain	Apply Chemical	80 - 160	70 - 140	100 - 200*	Not recommended
30° ↓	Snow	Plow and apply chemical	80 - 160	70 - 140	100 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↑	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	150 - 200	130 - 180	180 - 240*	Not recommended
25° - 30° ↓	Snow	Plow and apply chemical	120 - 160	100 - 140	150 - 200*	Not recommended
	Freezing Rain	Apply Chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↑	Snow or Freezing Rain	Plow and apply chemical	160 - 240	140 - 210	200 - 300*	400
20° - 25° ↓	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↑	Snow	Plow and apply chemical	200 - 280	175 - 250	250 - 350*	Not recommended
	Freezing Rain	Apply Chemical	240 - 320	210 - 280	300 - 400*	400
15° - 20° ↓	Snow or Freezing Rain	Plow and apply chemical	240 - 320	210 - 280	300 - 400*	500 for freezing rain
0° - 15° ↑↓	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	300 - 400	Not recommended	500 - 750 spot treatment as needed
< 0°	Snow	Plow, treat with blends, sand hazardous areas	Not recommended	400 - 600**	Not recommended	500 - 750 spot treatment as needed

* Dry salt is not recommended. It is likely to blow off the road before it melts ice.

** A blend of 6 - 8 gal/ton $MgCl_2$ or $CaCl_2$ added to NaCl can melt ice as low as -10°.

Figure 4-1. Deicing Application Rate Guidelines

Anti-icing Route Data Form				
Truck Station:				
Date:				
Air Temperature	Pavement Temperature	Relative Humidity	Dew Point	Sky
Reason for applying:				
Route:				
Chemical:				
Application Time:				
Application Amount:				
Observation (first day):				
Observation (after event):				
Observation (before next application):				
Name:				

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Stormwater Maintenance
Woodbridge Commons Development
Maintenance Log

This log is intended to accompany the Stormwater Management Facilities Maintenance Plan. The following items shall be checked, cleaned and maintained on a regular basis as specified in the Maintenance Plan and as described in the table below. This log shall be kept on file for a minimum of five years and shall be available for review by MDEP. Qualified personnel familiar with drainage systems and soils shall perform all inspections.

<table>
<tr><th>Item</th><th>Maintenance Required & Frequency</th><th>Date Completed</th><th>Maintenance Personnel</th><th>Comments</th></tr>
<tr><td>Sweeping of Drives and Parking Lots</td><td>
<table>
<tr><th></th><th>Spring</th><th>Fall or Yearly</th><th>After a Major Storm</th><th>Every 2– 5 Years</th></tr>
<tr><td>Clear accumulated winter sand in parking lots.</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Sweep pavement to remove sediment</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Grade shoulders and remove excess sand either manually or by a front-end loader</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Grade gravel shoulders</td><td>X</td><td></td><td></td><td></td></tr>
<tr><td>Ensure that stormwater is not impeded by accumulations of material.</td><td>X</td><td></td><td></td><td></td></tr>
</table>
</td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><th>Item</th><th>Maintenance Required & Frequency</th><th>Date Completed</th><th>Maintenance Personnel</th><th>Comments</th></tr>
<tr><td>Catch Basins and Culverts</td><td>
<table>
<tr><th></th><th>Spring</th><th>Fall or Yearly</th><th>After a Major Storm</th><th>Every 2– 5 Years</th></tr>
<tr><td>Remove and legally dispose of accumulated sediments and debris from the bottom of the basin, inlet grates, inflow channels to the basin, and pipes between basins.</td><td>X</td><td>X</td><td></td><td></td></tr>
<tr><td>Remove floating debris and floating oils (using oil absorptive pads) from any trap designed for such</td><td>X</td><td>X</td><td></td><td></td></tr>
<tr><td>Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit</td><td>X</td><td>X</td><td>X</td><td></td></tr>
<tr><td>Repair any erosion damage at the culvert’s inlet and outlet</td><td>X</td><td>X</td><td>X</td><td></td></tr>
</table>
</td><td></td><td></td><td></td></tr>
<tr><td>Ditches and Swales</td><td>
<table>
<tr><td>Inspect ditches and swales</td><td>X</td><td>X</td><td>X</td><td></td></tr>
<tr><td>Remove any obstructions and accumulated sediments or debris</td><td>X</td><td>X</td><td></td><td></td></tr>
<tr><td>Control vegetated growth and woody vegetation</td><td></td><td>X</td><td></td><td></td></tr>
<tr><td>Repair any ditch erosion</td><td></td><td>X</td><td></td><td></td></tr>
<tr><td>Mow vegetated ditches</td><td></td><td>X</td><td></td><td></td></tr>
<tr><td>Repair any slumping side slopes</td><td>X</td><td>X</td><td></td><td></td></tr>
</table>
</td><td></td><td></td><td></td></tr>
</table>

Porous Asphalt

Filtration Facilities

	Spring	Fall or Yearly	After a Major Storm	Every 2– 5 Years
In Porous asphalt shall be inspected annually for pavement deterioration or spalling.	**X**			
Areas of porous asphalt shall be cleaned using a vacuum sweeper 2-4 times annually. Power washing may be necessary to dislodge trapped particles.	**X**	**X**		

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Stormwater Management System
Woodbridge Common
Mixed-Use Development

Inspection & Maintenance Checklist

BMP/System Component	Date Inspected	Inspector	Cleaning/Repair Needed *(List Items/Comments)*	Date of Cleaning/Repair	Performed By

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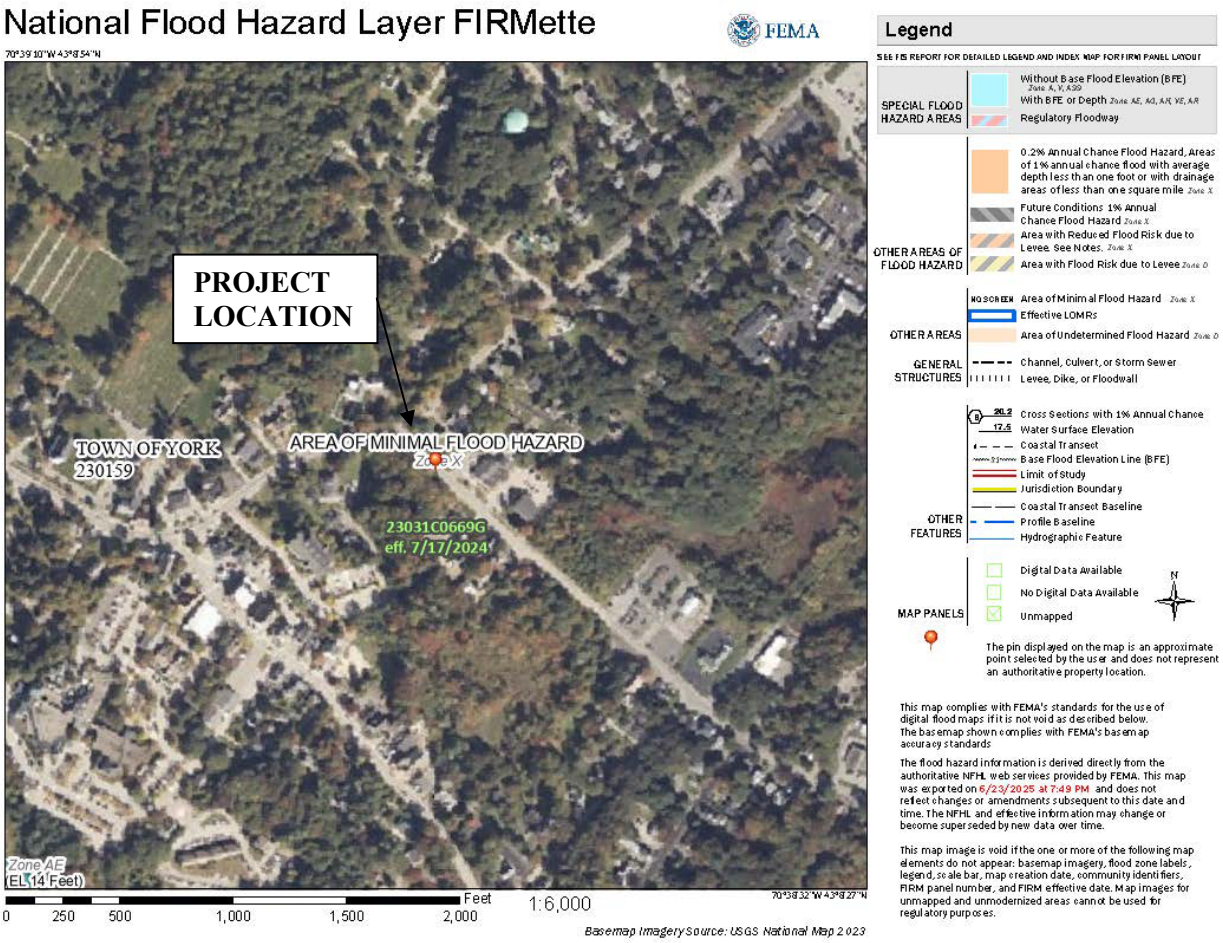
APPENDIX E

NATIONAL FLOOD INSURANCE RATE MAP- FIRM



Reduced Scale Sketch Reproduced from Portion of

Town of York, ME
Panel 230159
(Effective date: July 17, 2024)

FERGUSON WATERWORKS

R TANK

STORMWATER STORAGE SYSTEM

OPERATIONS AND MAINTENANCE MANUAL

Green Stormwater Infrastructure Solutions

TABLE OF CONTENTS

DISCLAIMER

Read the following information before inspecting, cleaning, or performing maintenance on this Stormwater Treatment Device. This manual is intended to explain the specifics of the maintenance on R-Tank Stormwater Storage Systems.

It is the responsibility of all personnel to familiarize themselves with, understand and comply with all applicable local, state, and federal laws. All information in this manual is current at the time of printing but are subject to change based on the development of new processes and procedures. Ferguson Enterprises assumes no responsibility and is not accountable for any injuries, fines, penalties, or losses that occur involving any procedure in this manual or other actions taken. The R-Tank Stormwater Storage System performance is based on the procedures being followed in this manual. Non-Compliance with the outlined measures will be the responsibility of the owner.

GENERAL INFORMATION

Your R-Tank System has been designed to function in conjunction with the engineered drainage system on your site, the existing municipal infrastructure, and/or the existing soils and geography of the receiving watershed. Unless your site included certain unique and rare features, the operation of your R-Tank System will be driven by naturally occurring systems and will function autonomously. However, upholding a proper schedule of Inspection & Maintenance is critical to ensuring continued functionality and optimum performance of the system.

INSPECTION INFORMATION

During construction, the system shall be protected from sediment laden runoff and only activated once the site has been fully stabilized.

Both the R-Tank and all stormwater pre-treatment features incorporated into your site must be inspected regularly. Inspections should be done every six months for the first year of operation, and at least yearly thereafter. Inspections may be required more frequently for pre-treatment systems. You should refer to the manufacturer requirements for the proper inspection schedule.

With the right equipment most inspections and measurements can be accomplished from the surface without physically entering any confined spaces. If your inspection does require confined space entry, you must follow all local, regional, and OSHA requirements.

All maintenance features of your system can be accessed through a covering at the surface. With the lid removed, you can visually inspect each component to identify sediment, trash, and other contaminants within the structure. Check your construction plans to identify the maintenance features engineered into your R-Tank system, which may include:

Upstream Pipes, Inlets, and Manholes: Working from the structures adjacent the R-Tank toward those farther away, check for debris and sediment in both the structures and the pipes. Be sure to include all structures that contain pre- treatment systems. Some structures may include a sump.

Maintenance Ports / Inspection Ports: Maintenance/inspection ports are located near the inlet and outlet connections, treatment rows, and throughout the system. These should be used to check for sediment and typically allow access for backflushing and cleaning.

Treatment Row: On installations in 2018 or later, inlet pipes may connect to a row of modules with 12” diameter access holes running horizontally through the module that can be jet vacuumed. Check these rows for accumulation of sediment and debris.

All observations and measurements should be recorded on an Inspection Log kept on file. We have included a form you can use at the end of this guide.

INSPECTION CHECKLIST

Site Name:		Company:	
Location:		Contact:	
City and State:		Phone:	
System Owner:		Email:	

Inspection Description	Frequency	Observations / Notes	Initials
Pretreatment Systems	Quarterly		
Connections	Bi-Annually		
Inspection Ports	Bi-Annually		
Accumulation of Sediment or Debris	Bi-Annually		
Upslope Erosion	Quarterly		
Accidental or Illicit Spillage	Quarterly		

Maintenance Items	Required Maintenance Activities	Initials
Pretreatment Systems		
Connections		
Inspection Ports		
Accumulation of Sediment or Debris		
Upslope Erosion		
Accidental or Illicit Spillage		

SYSTEM MAINTENANCE

For modules taller than 40” the R-Tank Stormwater Storage Systems should be back-flushed once sediment accumulation has reached 6”. For modules less than 40” tall, perform maintenance when sediment depths are greater than 15% of the total system height. If your system includes a Treatment Row with linear access through the modules from the inlet pipe, backflush this area when sediment depths reach 6”.

BEFORE ANY MAINTENANCE IS PERFORMED ON YOUR SYSTEM - PLUG THE OUTLET PIPE TO PREVENT CONTAMINATION OF THE DOWNSTREAM SYSTEMS.

Maintenance During Construction

Installed R-Tank Stormwater Storage Systems should be properly protected post installation, but before the System is accepted by owners in the following manner:

- **Vehicular Traffic:** Protect system from heavy construction equipment loads by using smaller vehicles, low ground pressure tracked equipment when possible, or protective measures such as steel plates to spread the load experienced by the system.
- **Sediment and Debris:** Use proper erosion control Best Management Practices to prevent sediment and debris from reaching the system.
- **Remove Sediment and Debris, as Needed:** If upslope practices fail to prevent sediment laden runoff from entering the upstream inlets, pipes, and system, sediment removal should be performed using jet-vac equipment.

Maintenance After Construction

Site specific conditions (land use, climate, tree cover, slopes, construction activities, etc.) along with data from regular inspections will determine how frequently the system must be cleaned. At a minimum, vacuum cleaning should occur every 1 to 2 years. Routine maintenance, such as pre-treatment inlet cleanout should occur every 3 to 6 months.

- Begin by cleaning all upstream structures, pipes, and pre-treatment systems containing sediment and/ or debris. If your system includes a Treatment Row, this portion of the system should be cleaned with traditional jet-vac equipment. Add a centralizer to the jet for easiest access through the modules.
- Complete initial debris removal by vacuuming debris up the inspection port locations, while using the jetting water to push debris to the hose. For finer debris, back-flush the R-Tank system. To perform this, water is pumped into the system through the inspection ports as rapidly as possible. The turbulent action of the water moving through the R-Tank will suspend sediments which may then be pumped out. If your system includes an outlet structure, this will be the ideal location to pump contaminated water out of the system. However, removal of back-flush water may be accomplished through the inspection ports, as well.
- For systems with large footprints that would require extensive volumes of water to properly flush the system, you should consider performing your maintenance within 24 hours of a rain event. Stormwater entering the system will aid in the suspension of sediments and reduce the volume of water required to properly flush the system.

INSPECTION AND MAINTENANCE COST ESTIMATE WORKSHEET

Project Name:		Engineer:	
Location:		City / State:	
Owner:		Contact:	
Phone:		Email:	

Life Expectancy (Yrs.) =	

Inspection Description	**Frequency / Year**	**Total Services***	**Cost per Service**	**Total Cost****
Pretreatment Systems	4		$	$
Connections	2		$	$
Inspection Ports	2		$	$
Accumulation of Sediment or Debris	2		$	$
Upslope Erosion	4		$	$
Accidental or Illicit Spillage	4		$	$

Maintenance Items	**Frequency / Year**	**Total Services***	**Cost per Service**	**Total Cost****
Pretreatment Systems			$	$
Connections			$	$
Inspection Ports			$	$
Accumulation of Sediment or Debris			$	$
Upslope Erosion			$	$
Accidental or Illicit Spillage			$	$
System Vacuuming			$	$
Total Costs = Inspection Costs + Maintenance Costs =				$
Estimated Annual Operating Expenses = Total Costs / Years of Service =				$

** Total Services = Frequency of Services / Yr. multiplied by Life Expectancy*
*** Total Cost = Total Services multiplied by Cost per Service*

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APPENDIX F

All site plans at ½ scale 11x17 prints, 22x34 included with application

D1 – Pre-Development Stormwater Management Plan

D2 – Post-Development Stormwater Management Plan

POND 4 — POND NUMBER

SUBCATCHMENT 11 / 0.56 — SUBCATCHMENT NUMBER / SUBCATCHMENT ACREAGE

REACH 50 — REACH NUMBER

Tc COMPONENTS S = Sheet, Sc = Shallow Concentrated, C = Channel

ROUTING DIRECTION

SOILS LEGEND

A Soils:
SCS Soils: Not Applicable

B Soils:
SCS Soils: Not Applicable

C Soils:
SCS Soils: Not Applicable

D Soils:
SCS Soils: LYMAN LOAM, LYMAN-ROCK OUTCROP COMPLEX

Not assigned (Due to variability, assumed D characteristics):
SCS Soils: DUMPS

NOTE: OFF-SITE AREAS CONTRIBUTING TO THE SUBJECT SITE AND AFFECTED ROUTE ONE CULVERT HAVE BEEN ASSUMED TO BE HSG 'D' TO CONSERVATIVELY PRODUCE THE MOST SIGNIFICANT FLOWS, WITH THE CROSSING DESIGNED AND EVALUATED ACCORDINGLY.

Subcatchment Boundaries Pre-Development
Subcatchment Boundaries Post-Development
SCS Soil Line
Tc Flow Path & Direction Pre-Development
Tc Flow Path & Direction Post-Development

LYMAN-ROCK OUTCROP COMPLEX D

LYMAN LOAM D

DUMPS (ASSUMED D)

EMERSON LANE

WOODBRIDGE RD

S=39'
SC=21'
C=25'
C=214'

1S 1.01
2S 1.67
1P
2P
OUT 1
OUT 2

8" PVC

APPROVAL OF THE PLANNING BOARD, YORK MAINE

CHAIR DATE

TAX MAP NO. 50 LOT NO. 0111D

PREPARED FOR: PRELIMINARY APPROVAL NOT FOR CONSTRUCTION

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NO.	REVISIONS	INT.	DATE
1			

RECORD OWNER:
RICHARD A. VIELE FAMILY TRUST
JOHN E. VIELE, TRUSTEE

OWNER ADDRESS:
25 MILLER ROAD
KITTERY POINT, ME 03905

SITE PLAN
MIXED-USE DEVELOPMENT
LAND OF VIELE FAMILY TRUST
7 WOODBRIDGE ROAD, YORK, YORK COUNTY, MAINE

PREPARED FOR:
JMP REALTY, LLC
CLIENT ADDRESS: 40 GODFREY COVE ROAD, YORK, ME 03909

1"=30'
0' 30'

DATE: 12/22/2025
DRAWN BY: NJR/LTE
CHECKED BY: GRA
APPROVED BY:

PRE DEVELOPMENT STORMWATER MANAGEMENT PLAN

PROJECT NO: 2512000

D1

SHEET: 1 OF 2

COORDINATE FILE: J:\AAA\(JOB NO)\CARLSON\SURVEYING\

CADD FILE: J:\aaa\2025\2512000\CARLSON\ENGR\DWG\2512000E.dwg

POND 4 — POND NUMBER

SUBCATCHMENT 11 / 0.56 — SUBCATCHMENT NUMBER / SUBCATCHMENT ACREAGE

REACH 50 — REACH NUMBER

Tc COMPONENTS: S = Sheet, SC = Shallow Concentrated, C = Channel

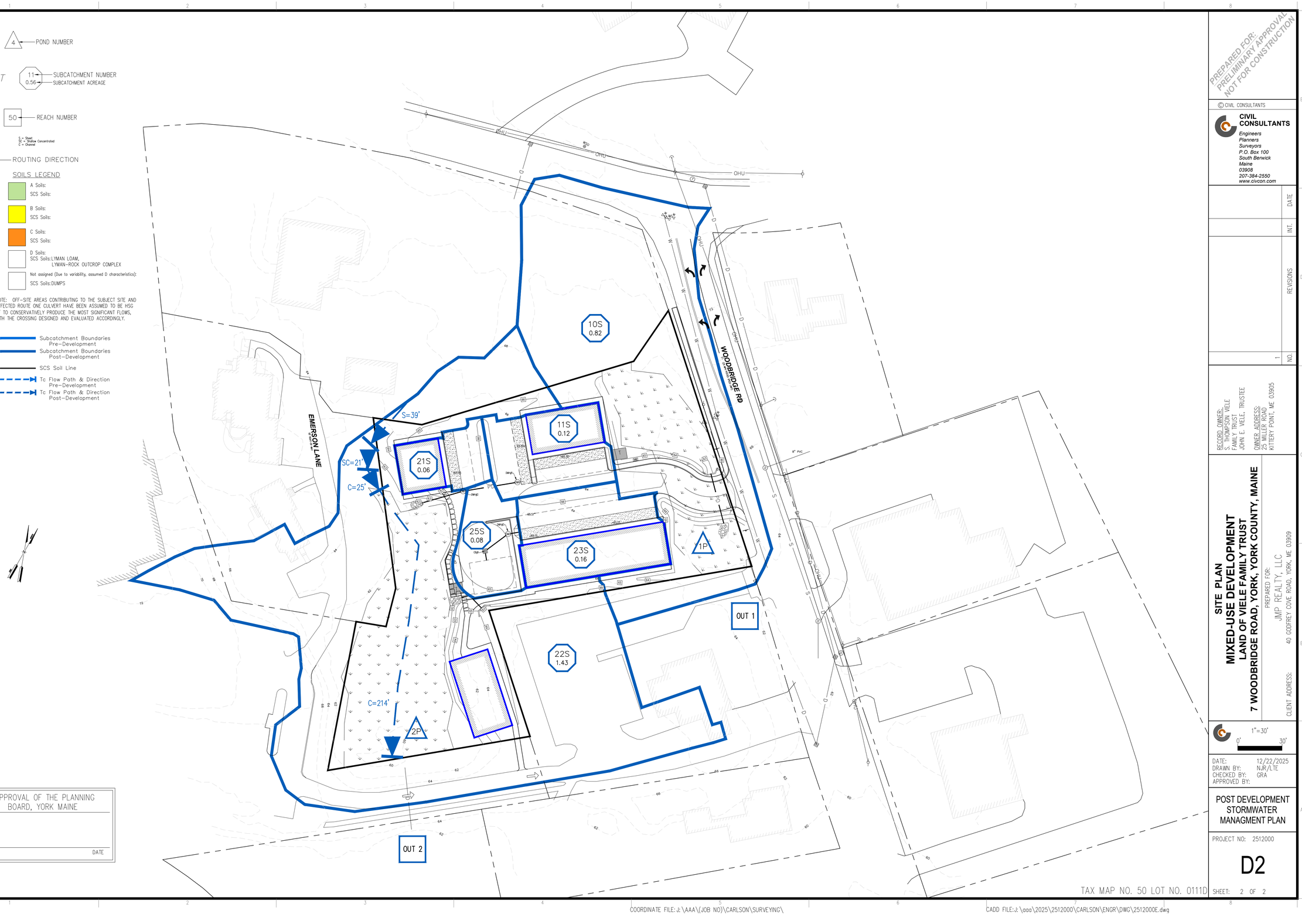
ROUTING DIRECTION

SOILS LEGEND

- A Soils: SCS Soils:
- B Soils: SCS Soils:
- C Soils: SCS Soils:
- D Soils: SCS Soils: LYMAN LOAM, LYMAN–ROCK OUTCROP COMPLEX
- Not assigned (Due to variability, assumed D characteristics): SCS Soils: DUMPS

NOTE: OFF-SITE AREAS CONTRIBUTING TO THE SUBJECT SITE AND AFFECTED ROUTE ONE CULVERT HAVE BEEN ASSUMED TO BE HSG 'D' TO CONSERVATIVELY PRODUCE THE MOST SIGNIFICANT FLOWS, WITH THE CROSSING DESIGNED AND EVALUATED ACCORDINGLY.

- Subcatchment Boundaries Pre–Development
- Subcatchment Boundaries Post–Development
- SCS Soil Line
- Tc Flow Path & Direction Pre–Development
- Tc Flow Path & Direction Post–Development



APPROVAL OF THE PLANNING BOARD, YORK MAINE

CHAIR DATE

TAX MAP NO. 50 LOT NO. 0111D

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NO.	REVISIONS	DATE	INT.
1			

RECORD OWNER: JOHN E. VIELE FAMILY TRUST
OWNER ADDRESS: 25 MILLER ROAD KITTERY POINT, ME 03905

SITE PLAN
MIXED-USE DEVELOPMENT
LAND OF VIELE FAMILY TRUST
7 WOODBRIDGE ROAD, YORK, YORK COUNTY, MAINE

PREPARED FOR: JMP REALTY, LLC
CLIENT ADDRESS: 40 GODFREY COVE ROAD, YORK, ME 03909

1" = 30'
0' 30'

DATE: 12/22/2025
DRAWN BY: NJR/LTE
CHECKED BY: GRA
APPROVED BY:

POST DEVELOPMENT STORMWATER MANAGMENT PLAN

PROJECT NO: 2512000

D2

SHEET: 2 OF 2

COORDINATE FILE: J:\AAA\(JOB NO)\CARLSON\SURVEYING\

CADD FILE: J:\aaa\2025\2512000\CARLSON\ENGR\DWG\2512000E.dwg