

Routing Diagram for 446 High Street
Prepared by {enter your company name here}, Printed 12/27/2020
HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

446 High Street

Type III 24-hr 1-Year Rainfall=2.80"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 2

Time span=0.00-36.00 hrs, dt=0.02 hrs, 1801 points x 3
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 01: PRE HIGH ST Runoff Area=21,804 sf 61.77% Impervious Runoff Depth=1.35"
 Flow Length=150' Slope=0.0200 '/' Tc=10.2 min CN=84 Runoff=0.69 cfs 0.056 af

Subcatchment 1A: POST BIO-RET Runoff Area=6,785 sf 81.21% Impervious Runoff Depth=1.80"
 Flow Length=127' Tc=1.3 min CN=90 Runoff=0.39 cfs 0.023 af

Subcatchment 1B: POST UNC Runoff Area=15,019 sf 57.86% Impervious Runoff Depth=1.16"
 Flow Length=172' Slope=0.0200 '/' Tc=5.3 min CN=81 Runoff=0.47 cfs 0.033 af

Reach POST DP-1: High St Inflow=0.47 cfs 0.033 af
 Outflow=0.47 cfs 0.033 af

Reach PRE DP-1: High St Inflow=0.69 cfs 0.056 af
 Outflow=0.69 cfs 0.056 af

Pond 1P: BIO RET Peak Elev=32.60' Storage=229 cf Inflow=0.39 cfs 0.023 af
 Outflow=0.10 cfs 0.023 af

Total Runoff Area = 1.001 ac Runoff Volume = 0.113 af Average Runoff Depth = 1.36"
36.55% Pervious = 0.366 ac 63.45% Impervious = 0.635 ac

446 High Street

Type III 24-hr 1-Year Rainfall=2.80"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 3

Summary for Subcatchment 01: PRE HIGH ST

Runoff = 0.69 cfs @ 12.15 hrs, Volume= 0.056 af, Depth= 1.35"

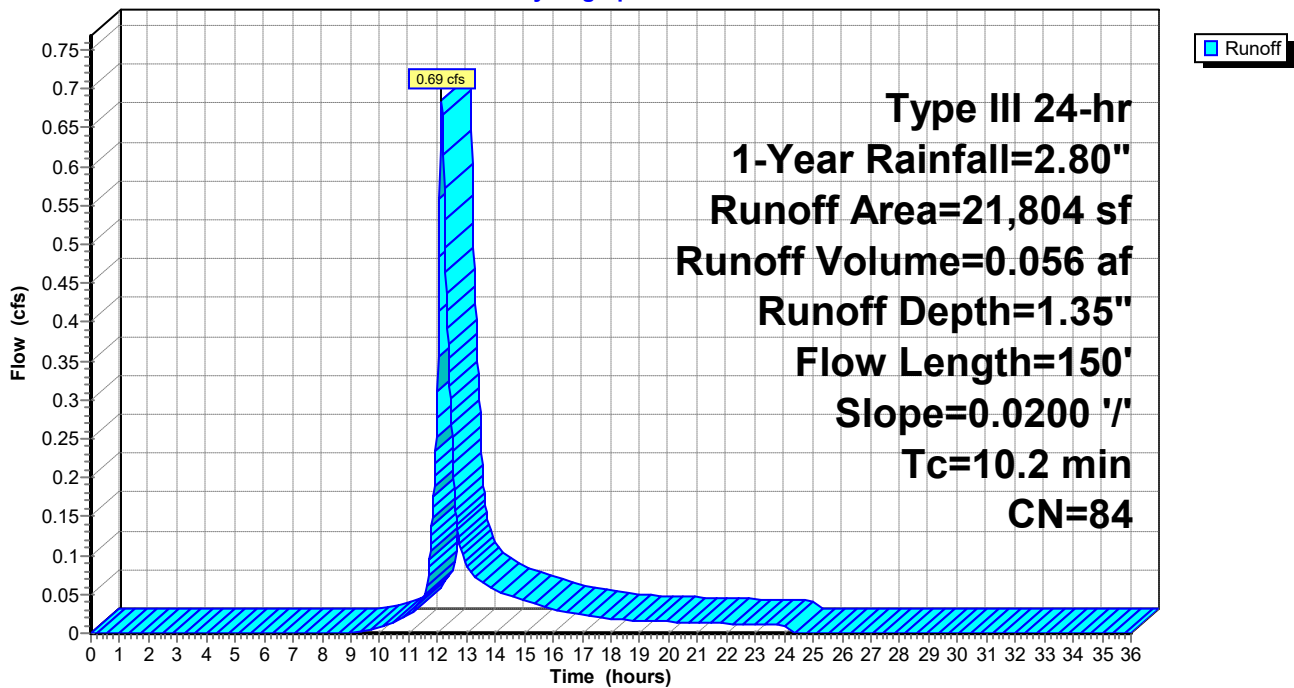
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
10,168	98	Paved parking, HSG B
3,301	98	Roofs, HSG B
8,335	61	>75% Grass cover, Good, HSG B
21,804	84	Weighted Average
8,335		38.23% Pervious Area
13,469		61.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	60	0.0200	0.11		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
0.6	40	0.0200	1.17		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.2	150	Total			

Subcatchment 01: PRE HIGH ST

Hydrograph



Summary for Subcatchment 1A: POST BIO-RET

Runoff = 0.39 cfs @ 12.02 hrs, Volume= 0.023 af, Depth= 1.80"

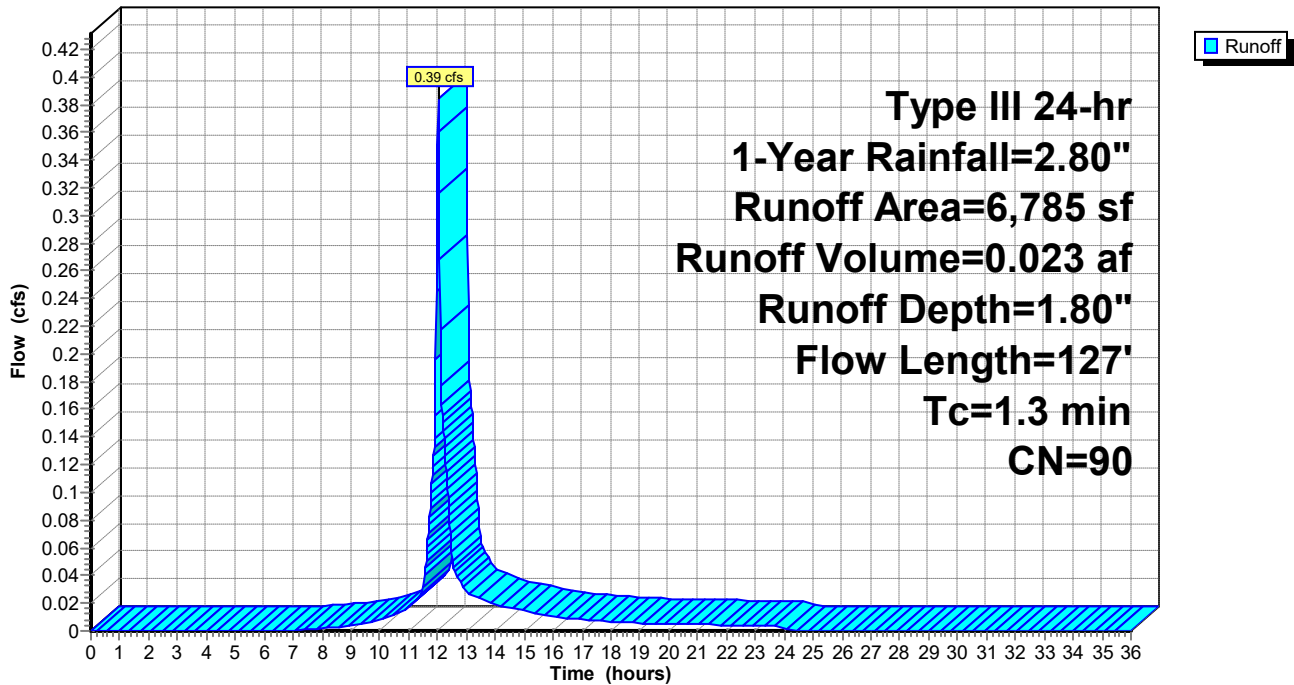
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Type III 24-hr 1-Year Rainfall=2.80"

	Area (sf)	CN	Description
*	5,510	98	Parking Surface
*	1,275	58	Landscape (B Soils)
	6,785	90	Weighted Average
	1,275		18.79% Pervious Area
	5,510		81.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.1	22	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.0	5	0.3300	9.25		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	127	Total			

Subcatchment 1A: POST BIO-RET

Hydrograph



446 High Street

Type III 24-hr 1-Year Rainfall=2.80"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 5

Summary for Subcatchment 1B: POST UNC

Runoff = 0.47 cfs @ 12.08 hrs, Volume= 0.033 af, Depth= 1.16"

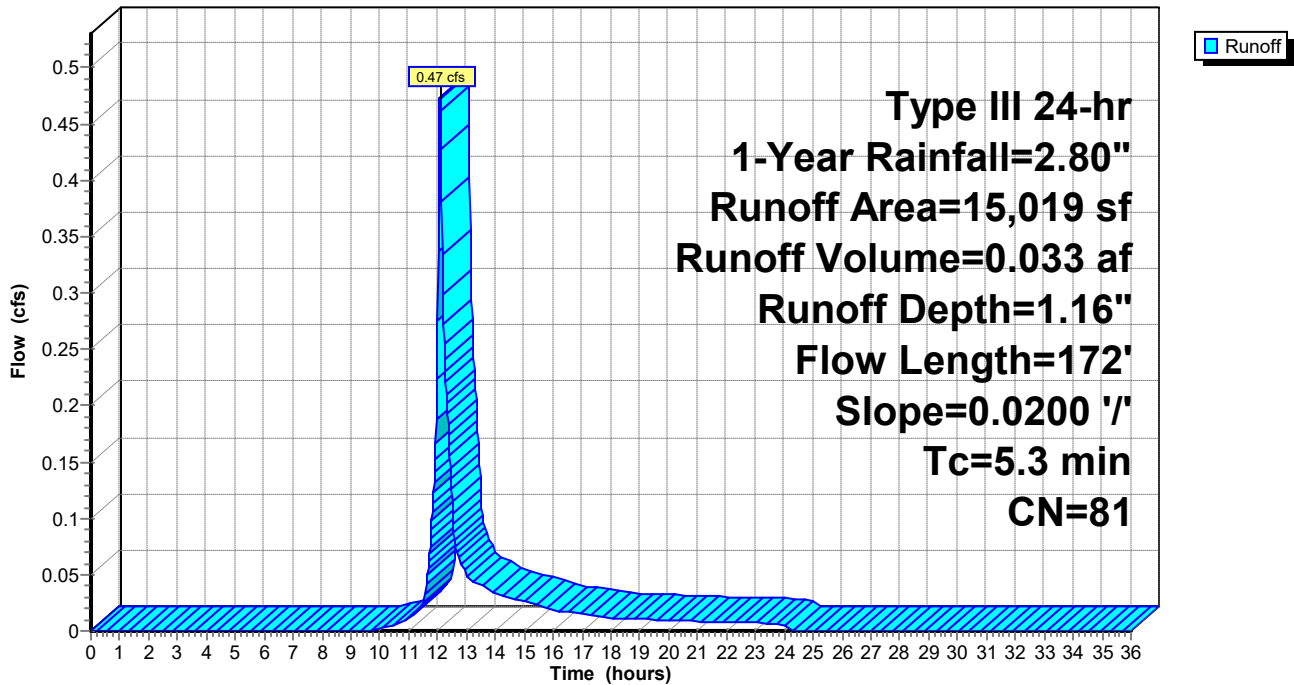
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 1-Year Rainfall=2.80"

Area (sf)	CN	Description
* 8,690	98	Parking Area
* 6,329	58	Landscape (B Soils)
15,019	81	Weighted Average
6,329		42.14% Pervious Area
8,690		57.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	20	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
1.0	80	0.0200	1.34		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.4	72	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
5.3	172	Total			

Subcatchment 1B: POST UNC

Hydrograph



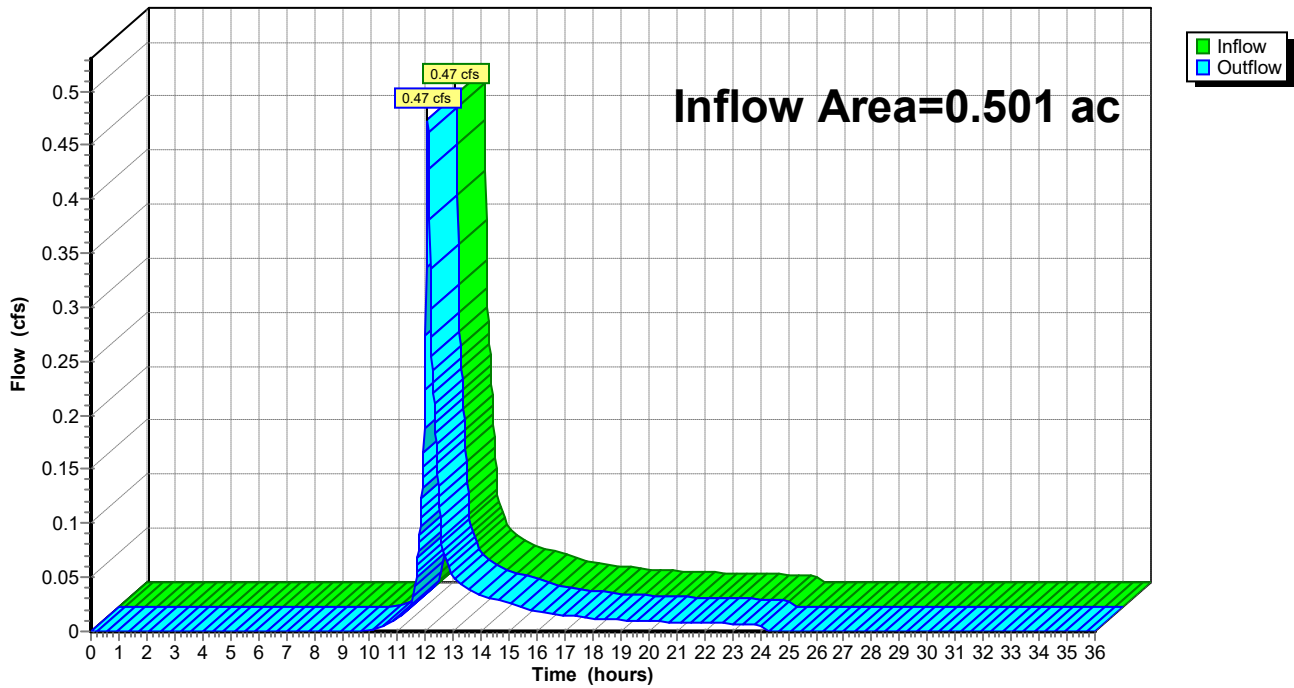
Summary for Reach POST DP-1: High St

Inflow Area = 0.501 ac, 65.13% Impervious, Inflow Depth = 0.80" for 1-Year event
Inflow = 0.47 cfs @ 12.08 hrs, Volume= 0.033 af
Outflow = 0.47 cfs @ 12.08 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach POST DP-1: High St

Hydrograph



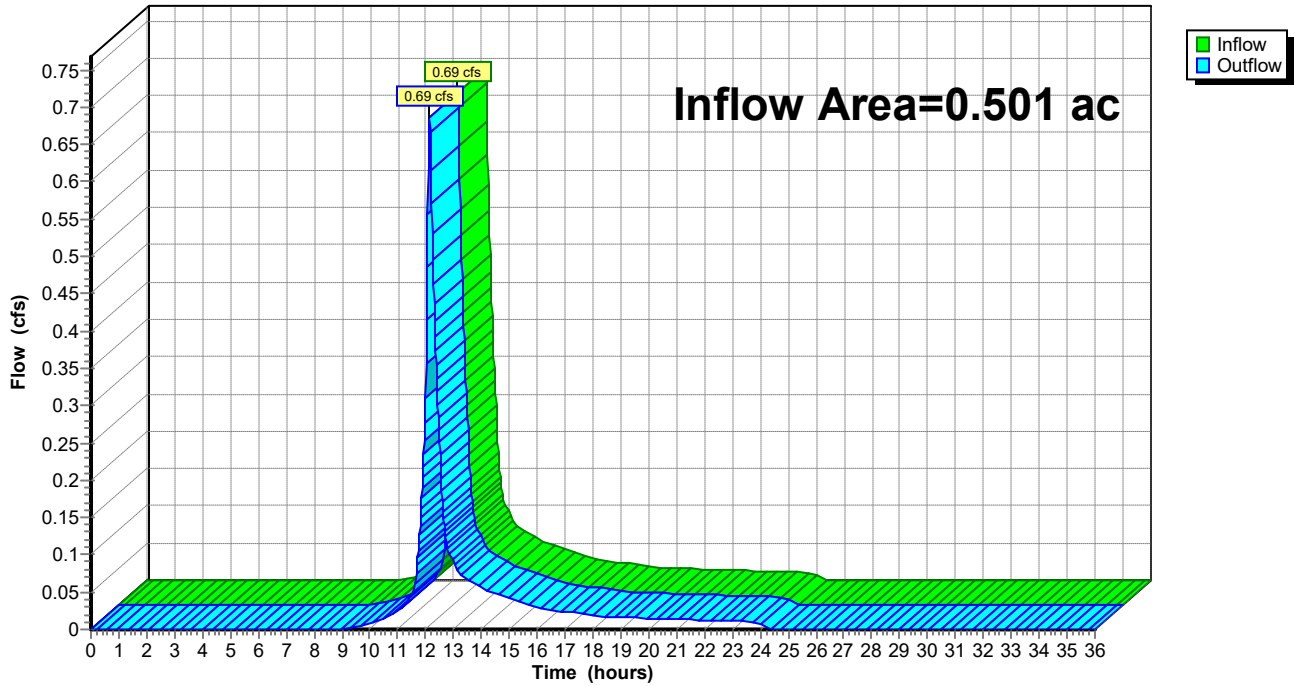
Summary for Reach PRE DP-1: High St

Inflow Area = 0.501 ac, 61.77% Impervious, Inflow Depth = 1.35" for 1-Year event
Inflow = 0.69 cfs @ 12.15 hrs, Volume= 0.056 af
Outflow = 0.69 cfs @ 12.15 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach PRE DP-1: High St

Hydrograph



446 High Street

Type III 24-hr 1-Year Rainfall=2.80"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 8

Summary for Pond 1P: BIO RET

Inflow Area = 0.156 ac, 81.21% Impervious, Inflow Depth = 1.80" for 1-Year event
 Inflow = 0.39 cfs @ 12.02 hrs, Volume= 0.023 af
 Outflow = 0.10 cfs @ 12.36 hrs, Volume= 0.023 af, Atten= 75%, Lag= 20.1 min
 Discarded = 0.10 cfs @ 12.36 hrs, Volume= 0.023 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3
 Peak Elev= 32.60' @ 12.36 hrs Surf.Area= 506 sf Storage= 229 cf

Plug-Flow detention time= 15.1 min calculated for 0.023 af (100% of inflow)
 Center-of-Mass det. time= 15.1 min (822.9 - 807.8)

Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	1,116 cf	Bio Retention (Prismatic) Listed below (Recalc)

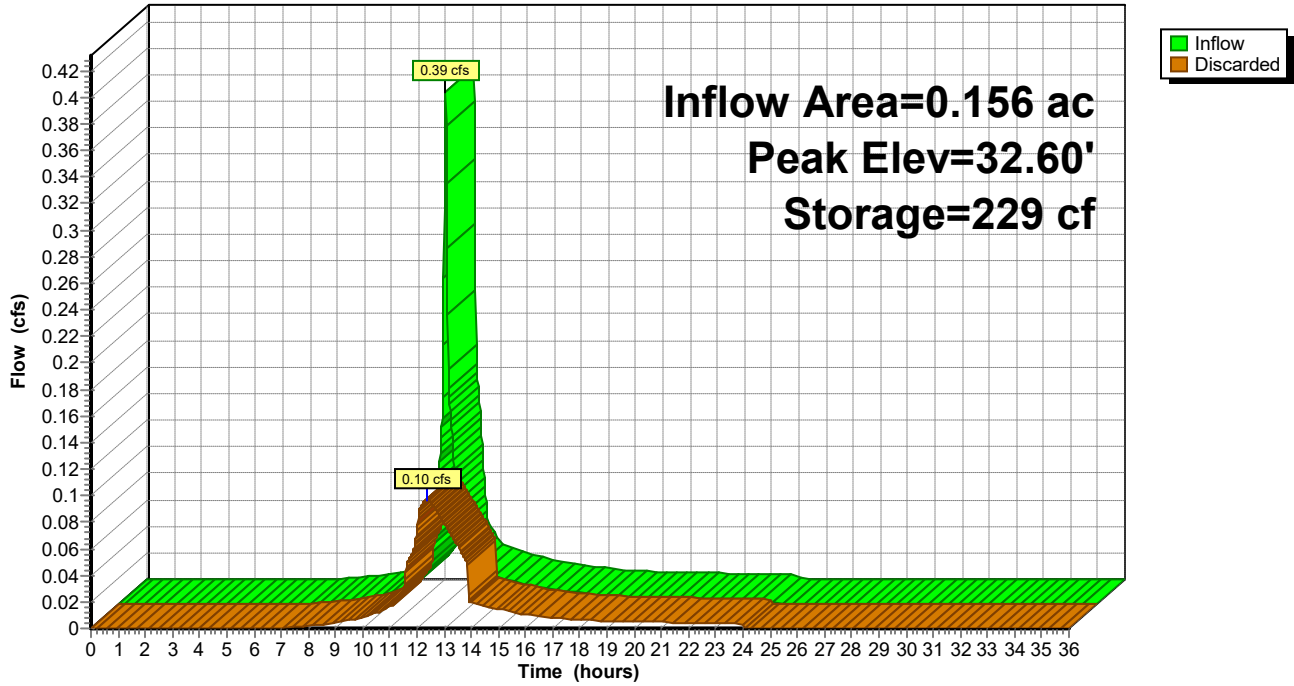
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
32.00	256	0	0
32.75	568	309	309
33.75	1,046	807	1,116

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	8.270 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.10 cfs @ 12.36 hrs HW=32.60' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.10 cfs)

Pond 1P: BIO RET

Hydrograph



446 High Street

Type III 24-hr 10-year Rainfall=4.90"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 10

Time span=0.00-36.00 hrs, dt=0.02 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 01: PRE HIGH ST Runoff Area=21,804 sf 61.77% Impervious Runoff Depth=3.18"
Flow Length=150' Slope=0.0200 '/' Tc=10.2 min CN=84 Runoff=1.61 cfs 0.133 af

Subcatchment 1A: POST BIO-RET Runoff Area=6,785 sf 81.21% Impervious Runoff Depth=3.78"
Flow Length=127' Tc=1.3 min CN=90 Runoff=0.78 cfs 0.049 af

Subcatchment 1B: POST UNC Runoff Area=15,019 sf 57.86% Impervious Runoff Depth=2.90"
Flow Length=172' Slope=0.0200 '/' Tc=5.3 min CN=81 Runoff=1.20 cfs 0.083 af

Reach POST DP-1: High St Inflow=1.20 cfs 0.083 af
Outflow=1.20 cfs 0.083 af

Reach PRE DP-1: High St Inflow=1.61 cfs 0.133 af
Outflow=1.61 cfs 0.133 af

Pond 1P: BIO RET Peak Elev=33.20' Storage=617 cf Inflow=0.78 cfs 0.049 af
Outflow=0.15 cfs 0.049 af

Total Runoff Area = 1.001 ac Runoff Volume = 0.265 af Average Runoff Depth = 3.18"
36.55% Pervious = 0.366 ac 63.45% Impervious = 0.635 ac

446 High Street

Type III 24-hr 10-year Rainfall=4.90"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 11

Summary for Subcatchment 01: PRE HIGH ST

Runoff = 1.61 cfs @ 12.14 hrs, Volume= 0.133 af, Depth= 3.18"

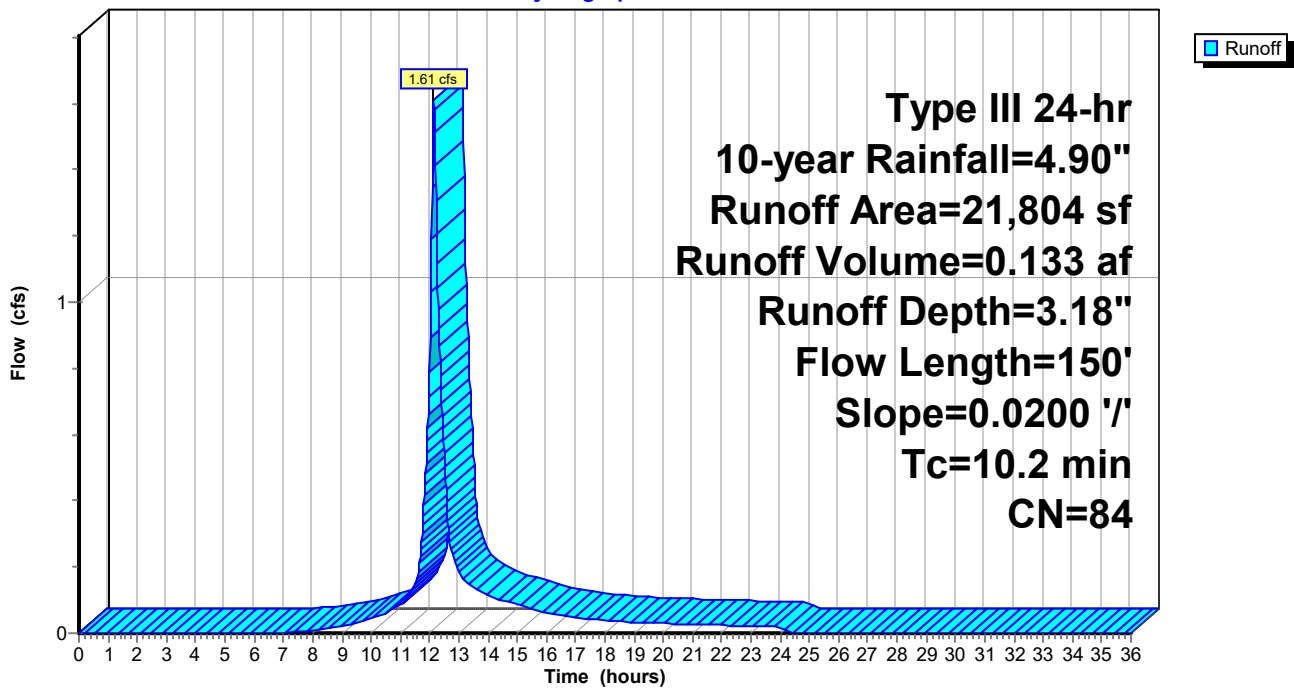
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
10,168	98	Paved parking, HSG B
3,301	98	Roofs, HSG B
8,335	61	>75% Grass cover, Good, HSG B
21,804	84	Weighted Average
8,335		38.23% Pervious Area
13,469		61.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	60	0.0200	0.11		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
0.6	40	0.0200	1.17		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.2	150	Total			

Subcatchment 01: PRE HIGH ST

Hydrograph



446 High Street

Type III 24-hr 10-year Rainfall=4.90"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 12

Summary for Subcatchment 1A: POST BIO-RET

Runoff = 0.78 cfs @ 12.02 hrs, Volume= 0.049 af, Depth= 3.78"

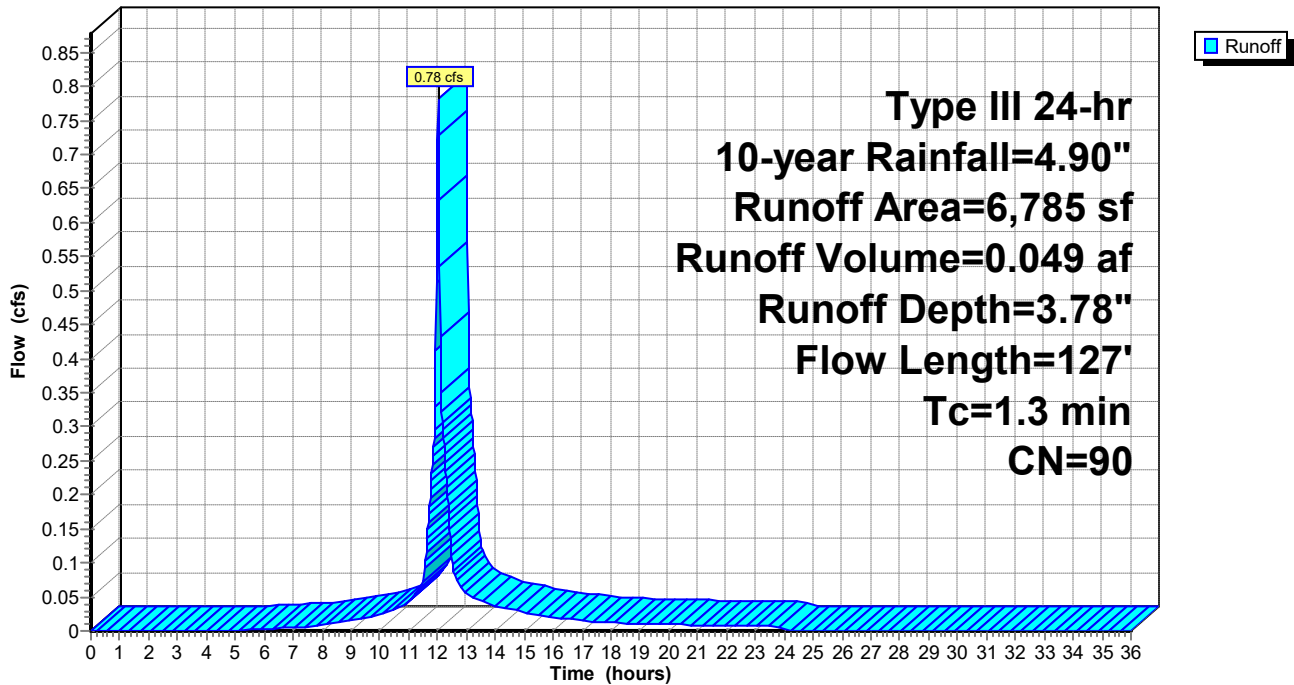
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-year Rainfall=4.90"

	Area (sf)	CN	Description
*	5,510	98	Parking Surface
*	1,275	58	Landscape (B Soils)
	6,785	90	Weighted Average
	1,275		18.79% Pervious Area
	5,510		81.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.1	22	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.0	5	0.3300	9.25		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	127	Total			

Subcatchment 1A: POST BIO-RET

Hydrograph



446 High Street

Type III 24-hr 10-year Rainfall=4.90"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 13

Summary for Subcatchment 1B: POST UNC

Runoff = 1.20 cfs @ 12.08 hrs, Volume= 0.083 af, Depth= 2.90"

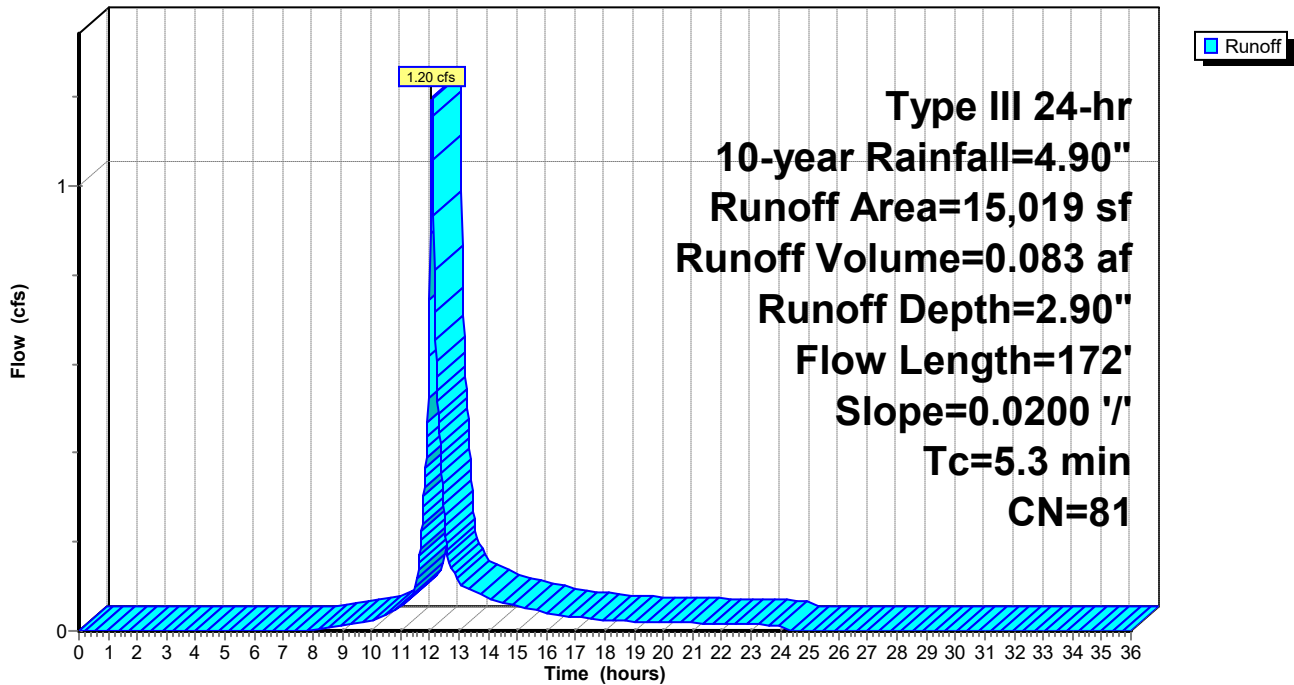
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 10-year Rainfall=4.90"

Area (sf)	CN	Description
* 8,690	98	Parking Area
* 6,329	58	Landscape (B Soils)
15,019	81	Weighted Average
6,329		42.14% Pervious Area
8,690		57.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	20	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
1.0	80	0.0200	1.34		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.4	72	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
5.3	172	Total			

Subcatchment 1B: POST UNC

Hydrograph



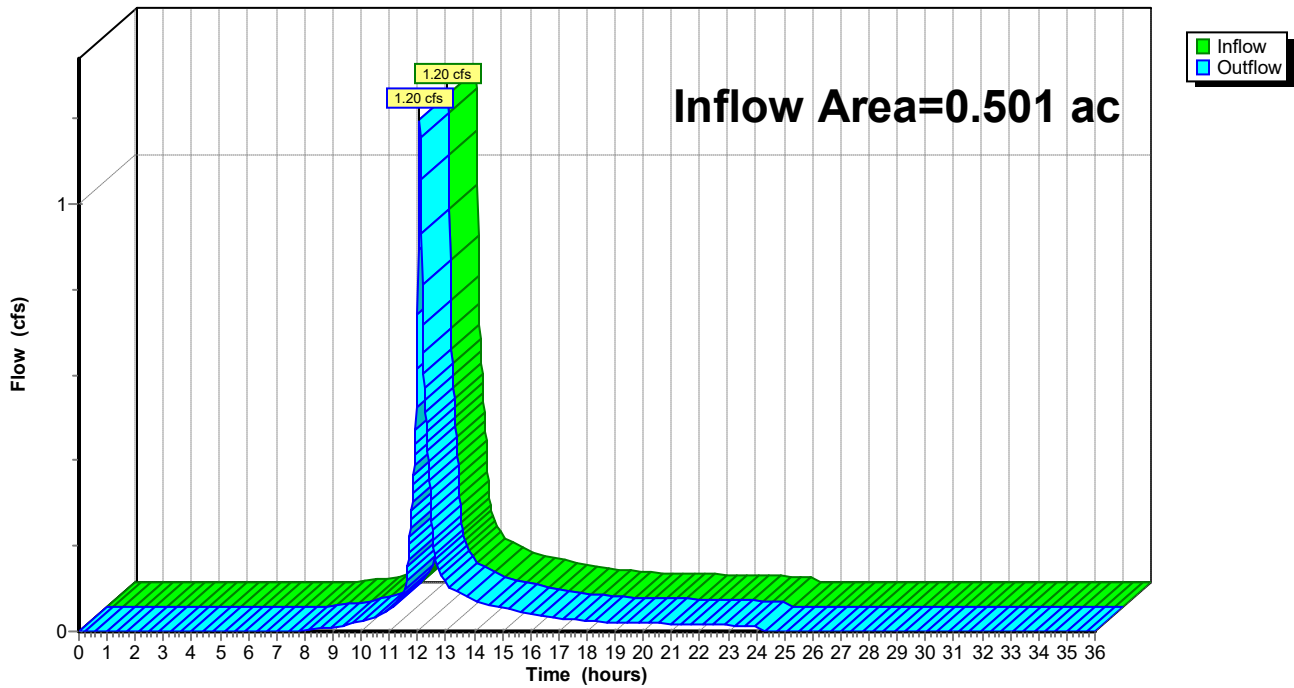
Summary for Reach POST DP-1: High St

Inflow Area = 0.501 ac, 65.13% Impervious, Inflow Depth = 2.00" for 10-year event
Inflow = 1.20 cfs @ 12.08 hrs, Volume= 0.083 af
Outflow = 1.20 cfs @ 12.08 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach POST DP-1: High St

Hydrograph



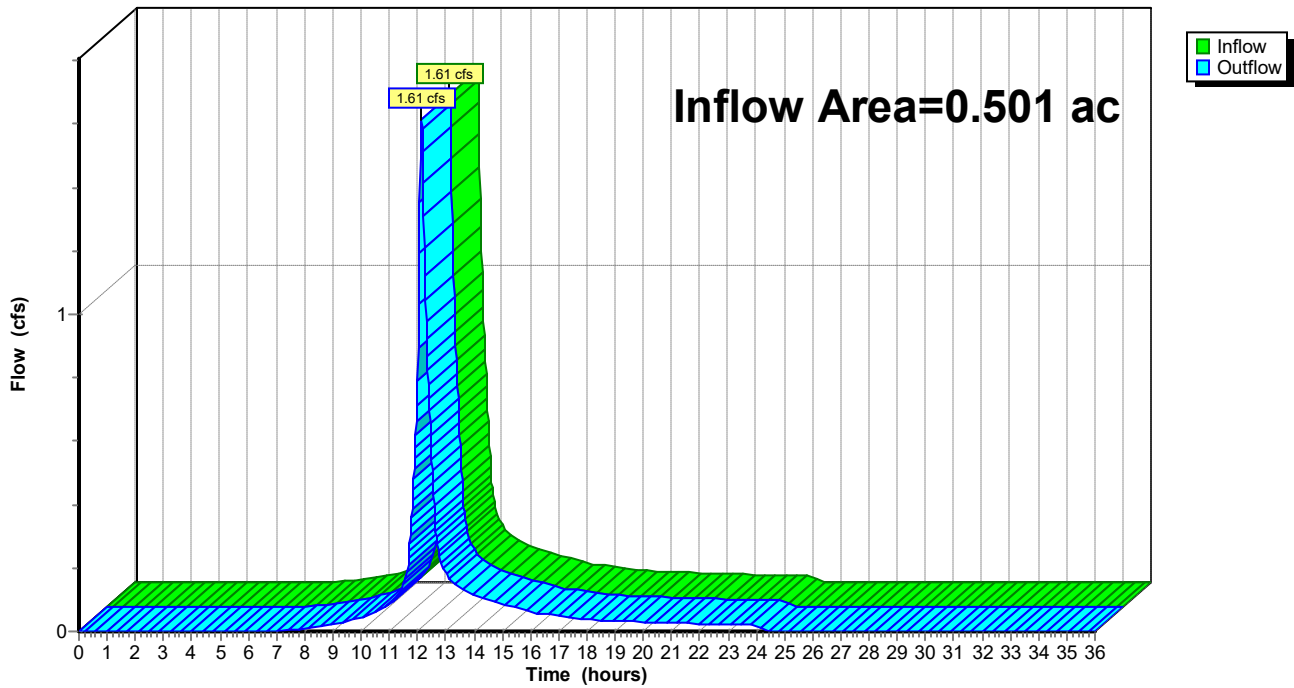
Summary for Reach PRE DP-1: High St

Inflow Area = 0.501 ac, 61.77% Impervious, Inflow Depth = 3.18" for 10-year event
Inflow = 1.61 cfs @ 12.14 hrs, Volume= 0.133 af
Outflow = 1.61 cfs @ 12.14 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach PRE DP-1: High St

Hydrograph



446 High Street

Type III 24-hr 10-year Rainfall=4.90"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 16

Summary for Pond 1P: BIO RET

Inflow Area = 0.156 ac, 81.21% Impervious, Inflow Depth = 3.78" for 10-year event
 Inflow = 0.78 cfs @ 12.02 hrs, Volume= 0.049 af
 Outflow = 0.15 cfs @ 12.42 hrs, Volume= 0.049 af, Atten= 81%, Lag= 23.8 min
 Discarded = 0.15 cfs @ 12.42 hrs, Volume= 0.049 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3
 Peak Elev= 33.20' @ 12.42 hrs Surf.Area= 785 sf Storage= 617 cf

Plug-Flow detention time= 31.1 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 31.1 min (818.1 - 787.1)

Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	1,116 cf	Bio Retention (Prismatic) Listed below (Recalc)

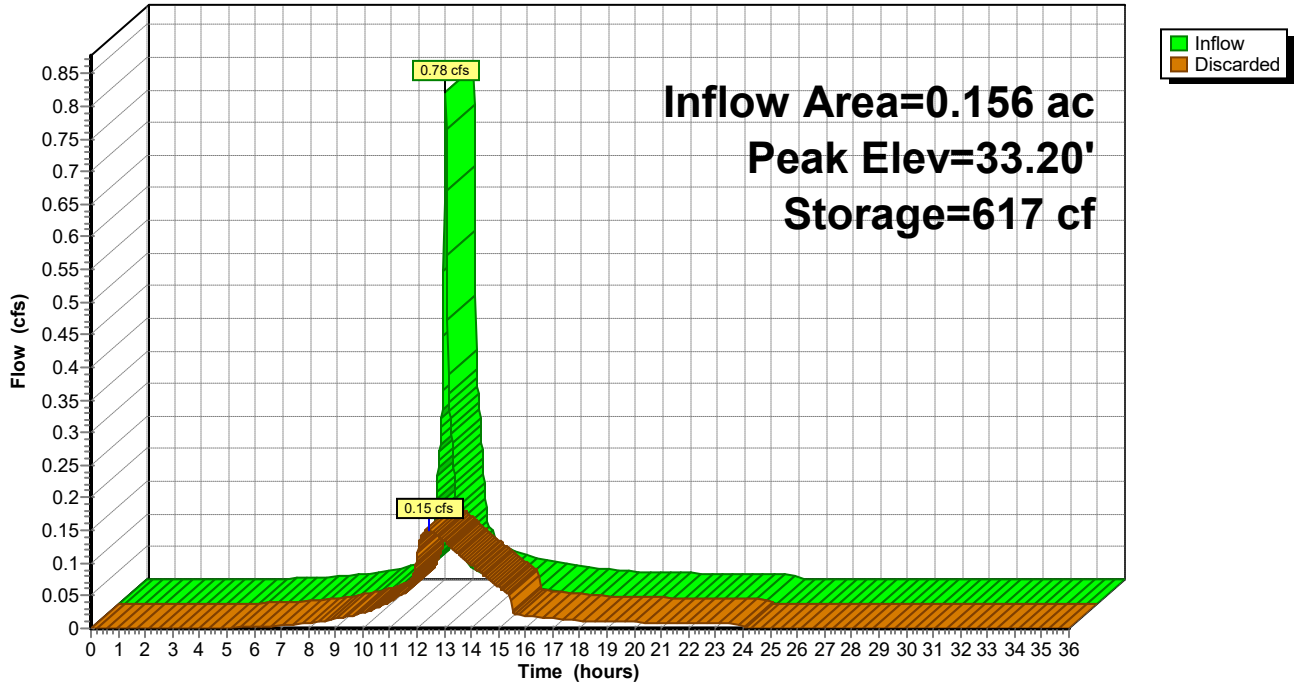
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
32.00	256	0	0
32.75	568	309	309
33.75	1,046	807	1,116

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	8.270 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.15 cfs @ 12.42 hrs HW=33.20' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.15 cfs)

Pond 1P: BIO RET

Hydrograph



446 High Street

Type III 24-hr 25-year Rainfall=6.10"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 18

Time span=0.00-36.00 hrs, dt=0.02 hrs, 1801 points x 3
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 01: PRE HIGH ST Runoff Area=21,804 sf 61.77% Impervious Runoff Depth=4.29"
Flow Length=150' Slope=0.0200 '/' Tc=10.2 min CN=84 Runoff=2.15 cfs 0.179 af

Subcatchment 1A: POST BIO-RET Runoff Area=6,785 sf 81.21% Impervious Runoff Depth=4.94"
Flow Length=127' Tc=1.3 min CN=90 Runoff=1.01 cfs 0.064 af

Subcatchment 1B: POST UNC Runoff Area=15,019 sf 57.86% Impervious Runoff Depth=3.97"
Flow Length=172' Slope=0.0200 '/' Tc=5.3 min CN=81 Runoff=1.63 cfs 0.114 af

Reach POST DP-1: High St Inflow=1.63 cfs 0.114 af
Outflow=1.63 cfs 0.114 af

Reach PRE DP-1: High St Inflow=2.15 cfs 0.179 af
Outflow=2.15 cfs 0.179 af

Pond 1P: BIO RET Peak Elev=33.49' Storage=863 cf Inflow=1.01 cfs 0.064 af
Outflow=0.18 cfs 0.064 af

Total Runoff Area = 1.001 ac Runoff Volume = 0.357 af Average Runoff Depth = 4.28"
36.55% Pervious = 0.366 ac 63.45% Impervious = 0.635 ac

446 High Street

Prepared by {enter your company name here}

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Type III 24-hr 25-year Rainfall=6.10"

Printed 12/27/2020

Page 19

Summary for Subcatchment 01: PRE HIGH ST

Runoff = 2.15 cfs @ 12.14 hrs, Volume= 0.179 af, Depth= 4.29"

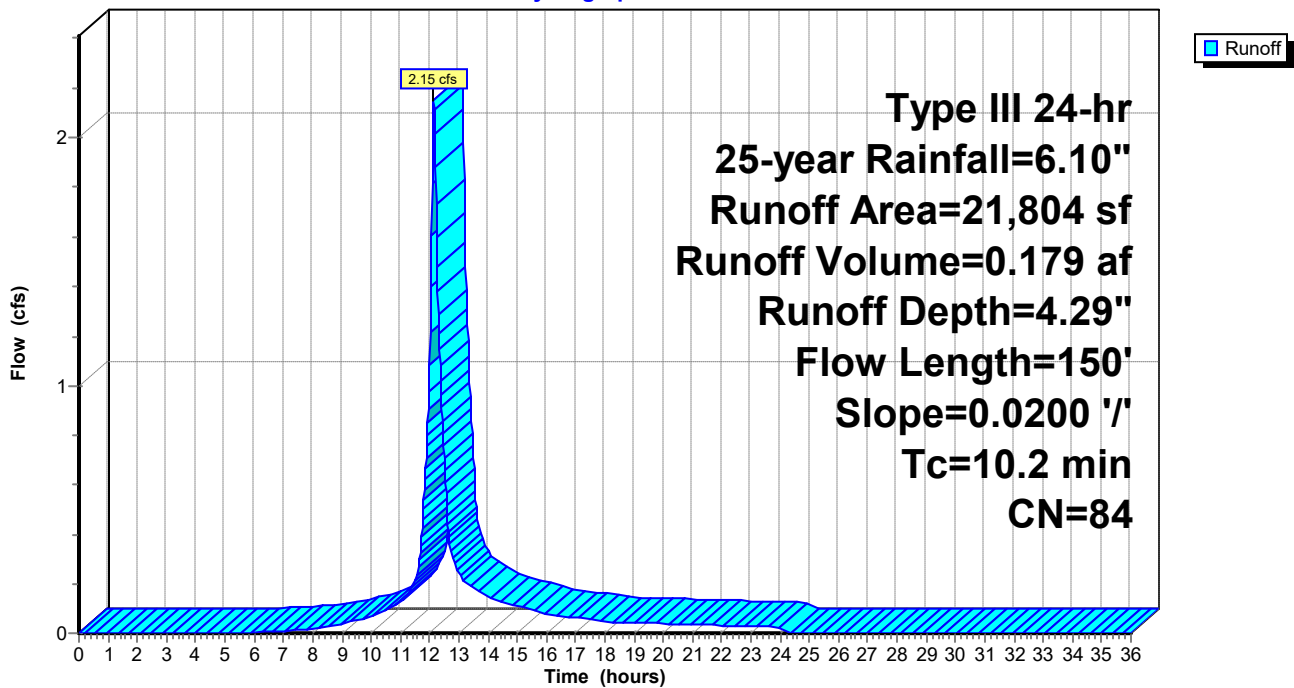
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-year Rainfall=6.10"

Area (sf)	CN	Description
10,168	98	Paved parking, HSG B
3,301	98	Roofs, HSG B
8,335	61	>75% Grass cover, Good, HSG B
21,804	84	Weighted Average
8,335		38.23% Pervious Area
13,469		61.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.3	60	0.0200	0.11		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
0.6	40	0.0200	1.17		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.3	50	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.2	150	Total			

Subcatchment 01: PRE HIGH ST

Hydrograph



Summary for Subcatchment 1A: POST BIO-RET

Runoff = 1.01 cfs @ 12.02 hrs, Volume= 0.064 af, Depth= 4.94"

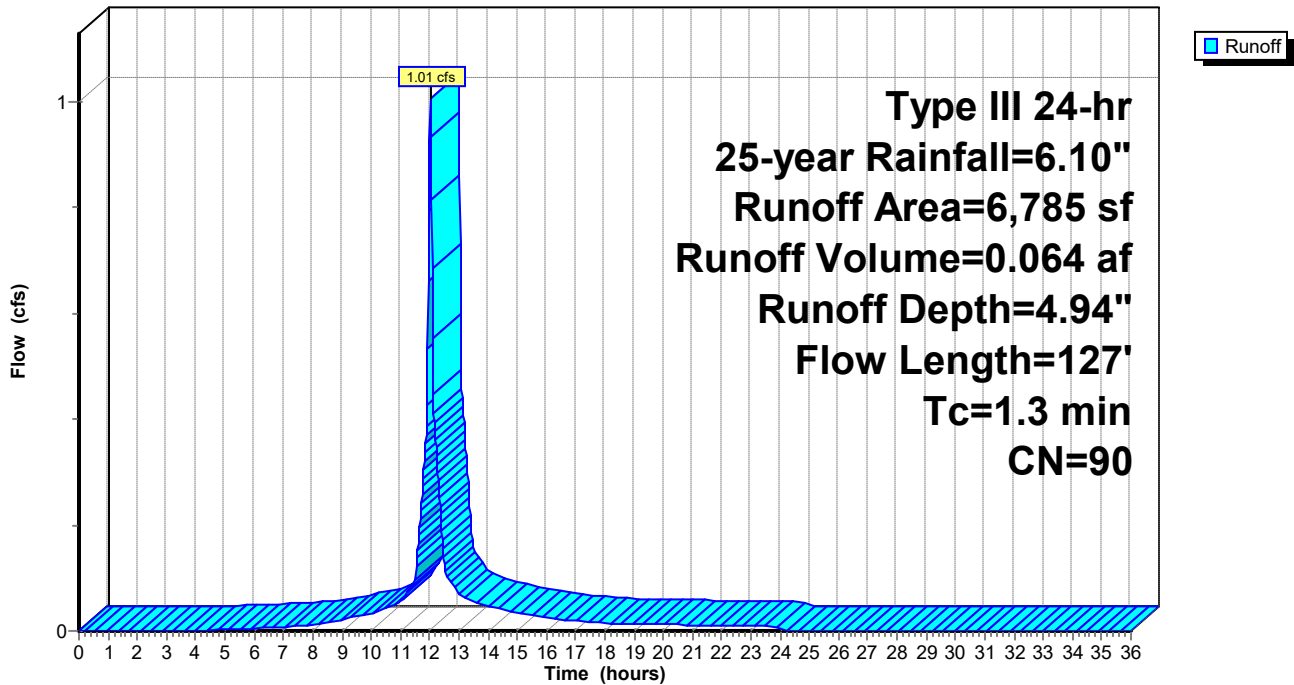
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Type III 24-hr 25-year Rainfall=6.10"

	Area (sf)	CN	Description
*	5,510	98	Parking Surface
*	1,275	58	Landscape (B Soils)
	6,785	90	Weighted Average
	1,275		18.79% Pervious Area
	5,510		81.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0200	1.40		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.1	22	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
0.0	5	0.3300	9.25		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
1.3	127	Total			

Subcatchment 1A: POST BIO-RET

Hydrograph



446 High Street

Type III 24-hr 25-year Rainfall=6.10"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 21

Summary for Subcatchment 1B: POST UNC

Runoff = 1.63 cfs @ 12.08 hrs, Volume= 0.114 af, Depth= 3.97"

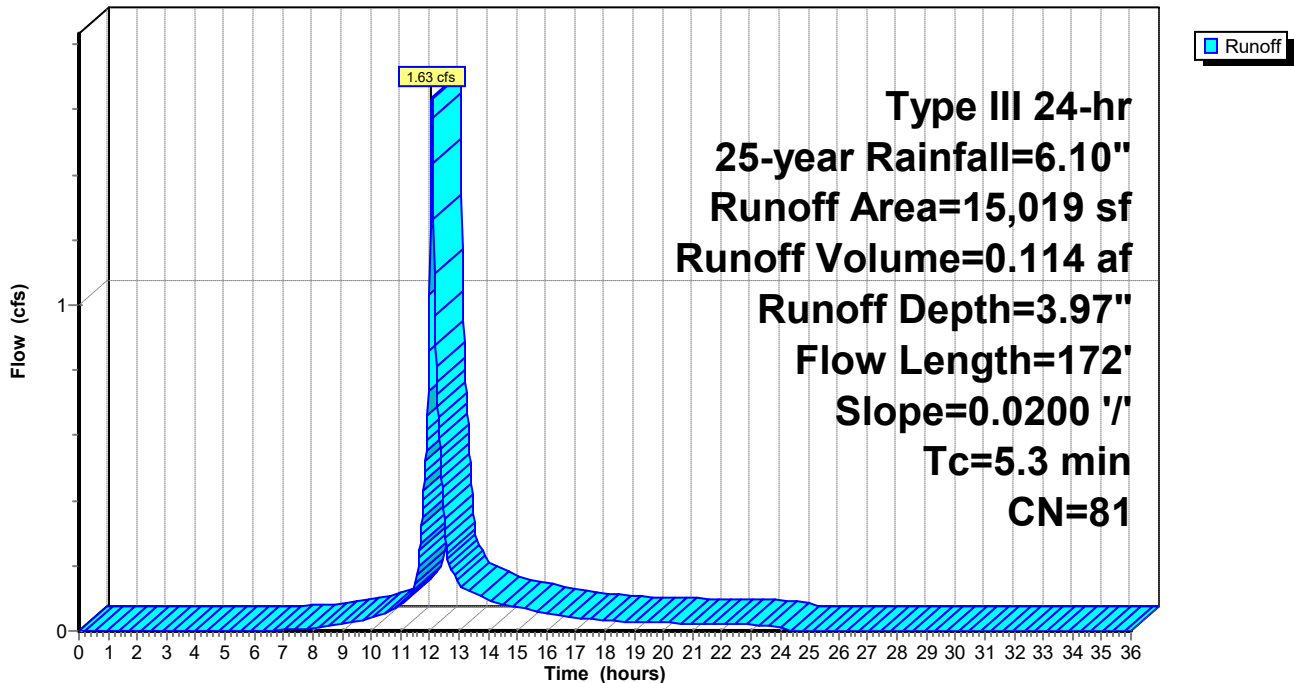
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
Type III 24-hr 25-year Rainfall=6.10"

Area (sf)	CN	Description
* 8,690	98	Parking Area
* 6,329	58	Landscape (B Soils)
15,019	81	Weighted Average
6,329		42.14% Pervious Area
8,690		57.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.9	20	0.0200	0.09		Sheet Flow, Grass: Dense n= 0.240 P2= 3.33"
1.0	80	0.0200	1.34		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.33"
0.4	72	0.0200	2.87		Shallow Concentrated Flow, Paved Kv= 20.3 fps
5.3	172	Total			

Subcatchment 1B: POST UNC

Hydrograph



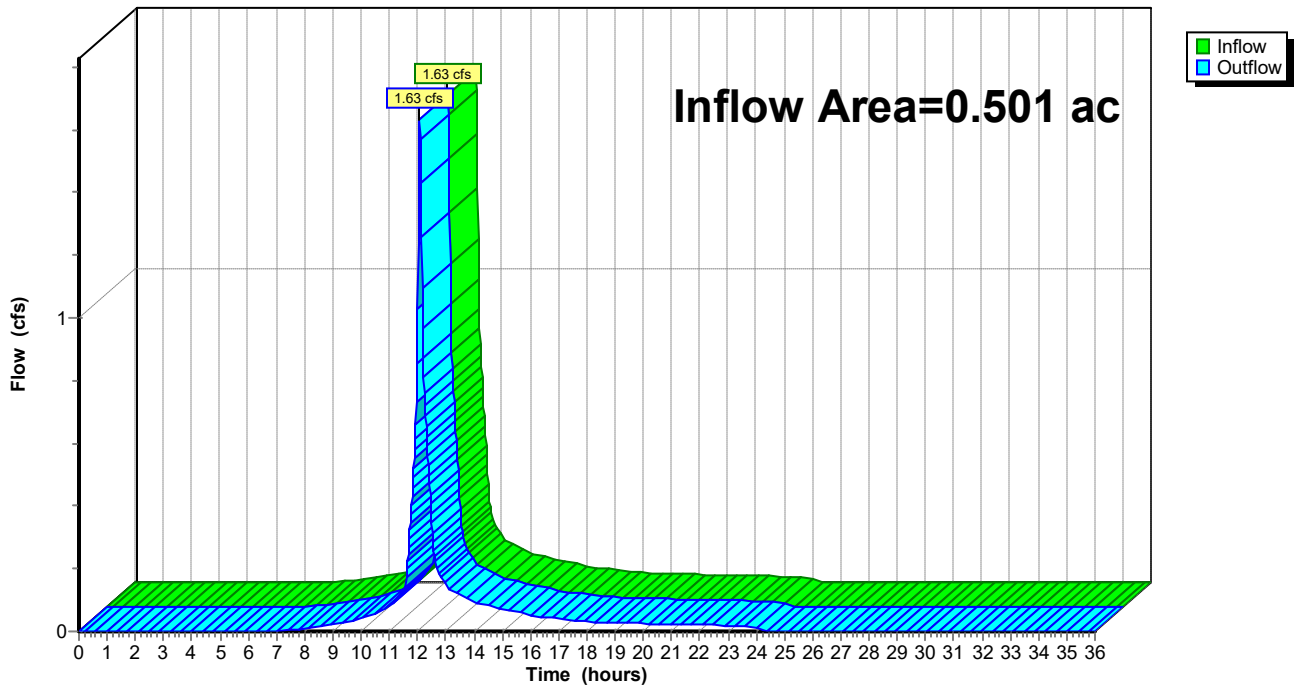
Summary for Reach POST DP-1: High St

Inflow Area = 0.501 ac, 65.13% Impervious, Inflow Depth = 2.74" for 25-year event
Inflow = 1.63 cfs @ 12.08 hrs, Volume= 0.114 af
Outflow = 1.63 cfs @ 12.08 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach POST DP-1: High St

Hydrograph



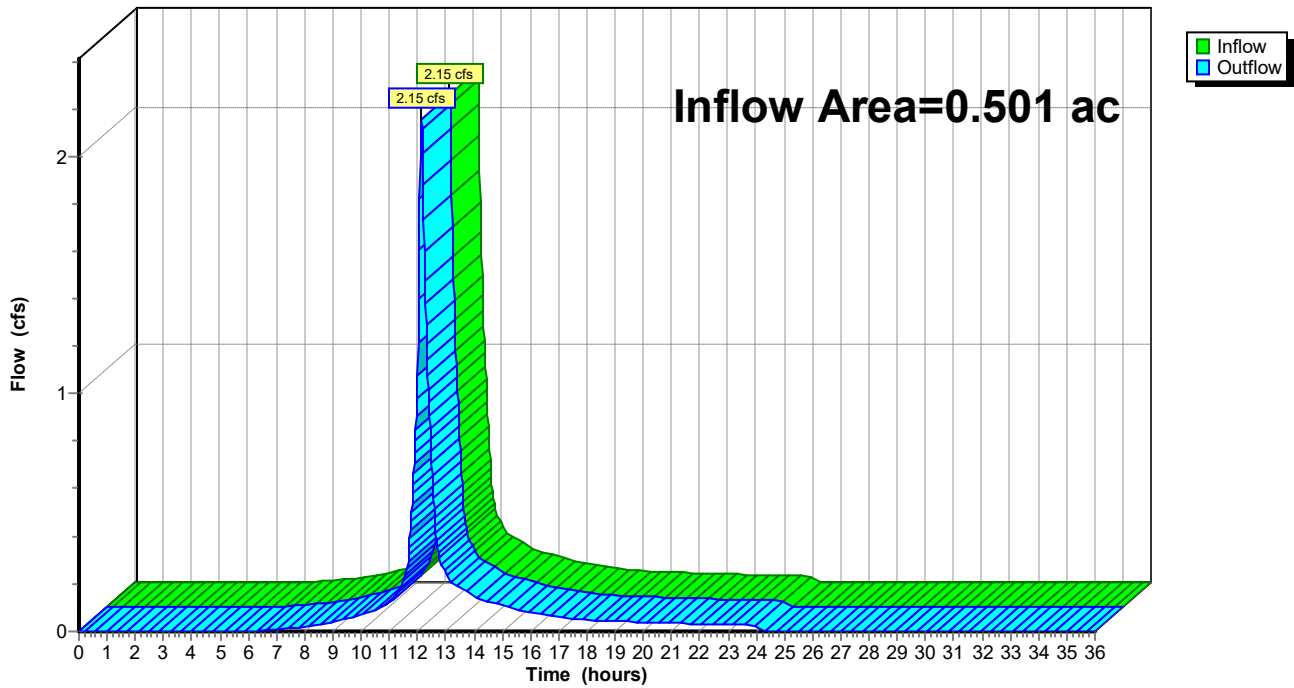
Summary for Reach PRE DP-1: High St

Inflow Area = 0.501 ac, 61.77% Impervious, Inflow Depth = 4.29" for 25-year event
Inflow = 2.15 cfs @ 12.14 hrs, Volume= 0.179 af
Outflow = 2.15 cfs @ 12.14 hrs, Volume= 0.179 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3

Reach PRE DP-1: High St

Hydrograph



446 High Street

Type III 24-hr 25-year Rainfall=6.10"

Prepared by {enter your company name here}

Printed 12/27/2020

HydroCAD® 10.00-25 s/n 08247 © 2019 HydroCAD Software Solutions LLC

Page 24

Summary for Pond 1P: BIO RET

Inflow Area = 0.156 ac, 81.21% Impervious, Inflow Depth = 4.94" for 25-year event
 Inflow = 1.01 cfs @ 12.02 hrs, Volume= 0.064 af
 Outflow = 0.18 cfs @ 12.44 hrs, Volume= 0.064 af, Atten= 83%, Lag= 24.9 min
 Discarded = 0.18 cfs @ 12.44 hrs, Volume= 0.064 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs / 3
 Peak Elev= 33.49' @ 12.44 hrs Surf.Area= 923 sf Storage= 863 cf

Plug-Flow detention time= 38.8 min calculated for 0.064 af (100% of inflow)
 Center-of-Mass det. time= 38.8 min (818.7 - 779.8)

Volume	Invert	Avail.Storage	Storage Description
#1	32.00'	1,116 cf	Bio Retention (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
32.00	256	0	0
32.75	568	309	309
33.75	1,046	807	1,116

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	8.270 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.18 cfs @ 12.44 hrs HW=33.49' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.18 cfs)

Pond 1P: BIO RET

Hydrograph

