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November 28, 2022

**Mayor Kelley and the Honorable Members of the
Borough of Caldwell Council
Municipal Building
1 Provost Square
Caldwell, New Jersey 07006**

**Re: Conceptual Storm Water Management
The Manor at Caldwell
26-30 Lane Avenue
Block 41, Lot 7
Borough of Caldwell, Essex County
MCBEA FILE NUMBER 4340**

Dear Mayor Kelley and Honorable Members,

On behalf of our Client, regarding the above referenced development project, this storm water management report is being submitted in conjunction with the site plan documents entitled, "Preliminary / Final Site Plan for The Manor at Caldwell, Block 41 – Lot 7, Borough of Caldwell, Essex County, New Jersey", dated November 28, 2022. The site currently contains one (1) residential structure. The Applicant proposes to remove this structure and construct one (1) new multi-story, residential apartment building. The proposal is for forty-four (44) residential units. Because the proposed development increases the area of impervious coverage, a storm water management design is required to mitigate the additional runoff due to the reduction of storm water infiltration. The purpose of this design is to assure feasibility in the ability to comply with the applicable storm water management rules and regulations.

Major vs. Non-Major Development

Per N.J.A.C. 7:8, a land development project is determined to be "major development" if it proposes to disturb more than one (1) acres of land or proposes more than 1/4 (one-quarter) acre of new impervious cover. This project proposes to disturb 0.934 acres of land. This project proposes to increase the impervious coverage by 0.47 acres. It is our opinion that the scope of development proposed for this project exceeds the threshold of major development because the project proposes to increase the impervious coverage by more than one-quarter acre.

This determination means that the storm water management system must be designed to address peak flow reduction, water quality enhancement and ground water recharge.

Peak Flow Reduction

METHODOLOGY AND DESIGN CRITERIA

Because of the relatively small size of the subject property (under twenty acres), the rational method is used to determine the increase / decrease of peak flow. Once determined that peak flow has increased, the modified rational method was utilized for routing computations to size the detention basin(s). This project proposes a residential use and is obliged to reduce the post development peak flow rate to be 50%, 75% and 80% of the existing conditions peak flow rate for the 2, 10 and 100 year storm events, respectively. This strategy is accomplished by proposing an underground chamber system.

EXISTING CONDITIONS

The total existing drainage study area is estimated to be 1.3 acres [size of subject properties plus area to ridge behind site]. The onsite soils are presumed to be hydrologic soil group C based on a web soil survey. The

runoff coefficient is conservatively estimated to be 0.51. The time of concentration for existing conditions is estimated to be twenty-eight (28) minutes.

The existing conditions peak flow rates based on this hydrology is estimated to be as follows. Hydrograph summaries are attached to this memorandum.

	2 year	10 year	100 year
Existing Conditions [Hydrograph 1]	1.52 cfs	2.10 cfs	2.85 cfs

PROPOSED CONDITIONS

The total proposed drainage study area is estimated to be 1.3 acres [size of subject properties]. The onsite soils are presumed to be hydrologic soil group C based on a web soil survey. The proposed drainage area is divided into two sub-areas. Area one drains to the detention basin. The drainage area for area one is 1.1 acres, the time of concentration is estimated to be 10 minutes and the weighted runoff coefficient is estimated to be 0.95.

Area two bypasses the basin. Area two has a drainage area of 0.2 acres, a time of concentration of 15 minutes and an estimated weighted runoff coefficient of 0.51.

ROUTED CONDITIONS

Because the proposed conditions peak flow rates exceed the existing conditions peak flow rates, peak flow reduction is required. Accordingly, the proposed detention basin must be designed to reduce the proposed conditions peak flow rates to be less than 50%, 75% and 80% of the existing conditions peak flow rate for the two (2), ten (10) and one-hundred (100) year storm event respectively. These reductions must consider the portion of the site that bypasses the detention basin as well. The summary table below outlines this criterion. The documents in the attached appendix supplement these findings.

	2 year	10 year	100 year
Existing Conditions Peak Flow Rate [Hyd. No. 1]	1.52 cfs	2.10 cfs	2.85 cfs
Target Flow Percentage [N.J.A.C. 7:8]	50%	75%	80%
Target Flow Rates [N.J.A.C. 7:8]	0.76 cfs	1.58 cfs	2.28 cfs
Routed Peak Flow [Hyd. No. 6]	0.71 cfs	1.54 cfs	2.21 cfs

As evidenced by the summary table above, peak flow reduction per the N.J.A.C. 7:8 criteria. Supporting hydrograph information is provided in the appendix.

WATER QUALITY ENHANCEMENT

Because this project proposes to increase impervious cover by more than one-quarter acre, water quality enhancement must be incorporated into the storm water management design. Because this site is a redevelopment site and does not involve the removal of 'woodland' areas, the water quality enhancement required is fifty (50) percent total suspended solid removal. This is accomplished by proposing a hydrodynamic separator on the downstream side of each of the detention basin. Further water quality enhancement is obtained by the construction strategy to build a building over a parking area, thus eliminating all parking areas from being exposed to precipitation.

GROUND WATER RECHARGE

This property is previously developed and is located with the Metropolitan Planning Area 1, which is considered an urban redevelopment area. Per section 7:8-5.4(a)2ii, ground water recharge requirements do not

apply to projects within the urban redevelopment area. Accordingly, ground water recharge analysis is not provided for this project.

STORM WATER MANAGEMENT MAINTENANCE MANUAL

All storm water management for major development scopes require a maintenance manual be prepared as emphasized in the Borough of Caldwell ordinance under section 206-04 and as outlined in section 206-10. Typically, a draft maintenance manual is prepared after the storm water design is complete but before the construction is completed. Once the storm water management system is fully installed, the draft report should undergo a revision to make it consistent with the 'as constructed' conditions. In addition to outlining the maintenance responsibilities of the system itself, the manual should also identify the person / entity responsible for the maintenance of the basin. This draft manual will be prepared under separate cover from this design report.

Thank you in advance for your kind consideration of this project.

Very truly yours,
MCB ENGINEERING ASSOCIATES, LLC



Patrick D. McClellan, P.E.
For the firm

APPENDIX A
STORM WATER MANAGEMENT
COMPUTATION SUMMARY

Table of Contents

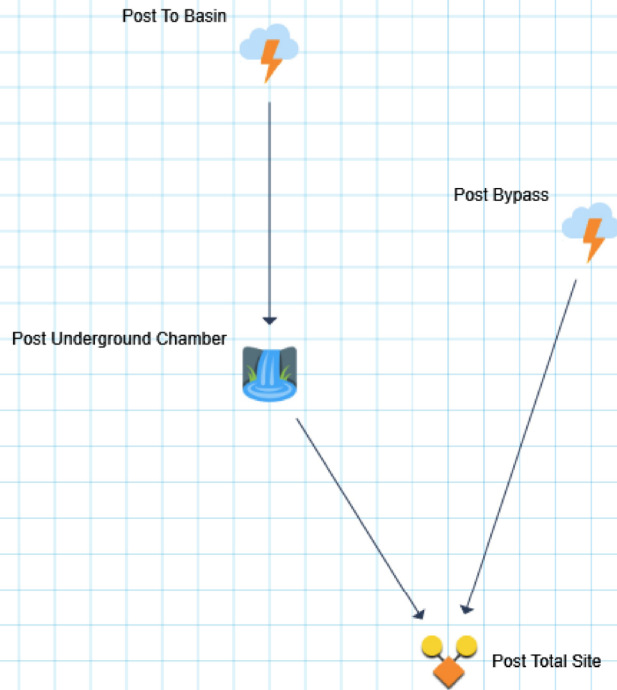
Basin Model Schematic	A-1
Hydrograph by Return Period	A-2
2 - Year	
Hydrograph Summary	A-3
Hydrograph Reports	
Hydrograph No. 1, Rational, Pre Site	A-4
Tc by TR55 Worksheet	A-5
Hydrograph No. 2, Mod Rational, Post To Basin	A-6
Hydrograph No. 3, Pond Route, Post Underground Chamber	A-7
Detention Pond Reports - Underground Chamber	A-8
Hydrograph No. 4, Mod Rational, Post Bypass	A-12
Hydrograph No. 5, Junction, Post Total Site	A-13
10 - Year	
Hydrograph Summary	A-14
Hydrograph Reports	
Hydrograph No. 1, Rational, Pre Site	A-15
Hydrograph No. 2, Mod Rational, Post To Basin	A-16
Hydrograph No. 3, Pond Route, Post Underground Chamber	A-17
Hydrograph No. 4, Mod Rational, Post Bypass	A-18
Hydrograph No. 5, Junction, Post Total Site	A-19
100 - Year	
Hydrograph Summary	A-20
Hydrograph Reports	
Hydrograph No. 1, Rational, Pre Site	A-21
Hydrograph No. 2, Mod Rational, Post To Basin	A-22
Hydrograph No. 3, Pond Route, Post Underground Chamber	A-23
Hydrograph No. 4, Mod Rational, Post Bypass	A-24
Hydrograph No. 5, Junction, Post Total Site	A-25

CONCEPTUAL DETENTION BASIN DESIGN FOR 26-30 LANE AVENUE, CALDWELL

EXISTING CONDITIONS



PROPOSED CONDITIONS



Hydrograph by Return Period

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Outflow (cfs)							
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
1	Rational	Pre Site		1.515			2.098			2.851
2	Mod Rational	Post To Basin		1.382			2.225			2.875
3	Pond Route	Post Underground Chamber		0.610			1.374			1.993
4	Mod Rational	Post Bypass		0.099			0.164			0.220
5	Junction	Post Total Site		0.710			1.538			2.213

Hydrograph 2-yr Summary

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre Site	1.515	0.47	2,546	---		
2	Mod Rational	Post To Basin	1.382	0.17	5,223	---		
3	Pond Route	Post Underground Chamber	0.610	1.13	5,134	2	280.28	3,401
4	Mod Rational	Post Bypass	0.099	0.25	565	---		
5	Junction	Post Total Site	0.710	1.13	5,699	3, 4		

Hydrograph Report

Project Name: 26-30 Lane Avenue

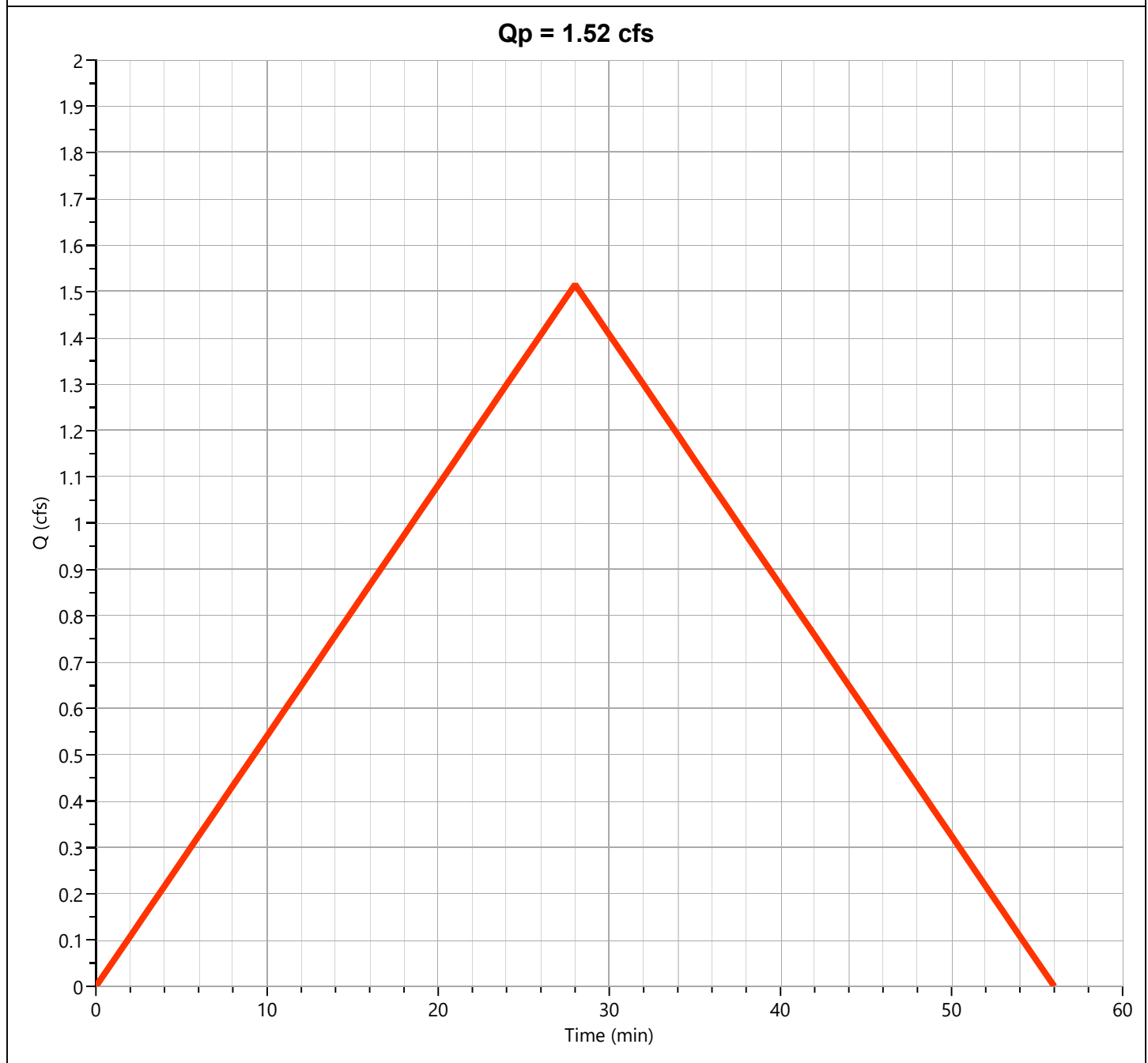
Hydrology Studio v 3.0.0.26

11-26-2022

Pre Site

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 1.515 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.47 hrs
Time Interval	= 1 min	Runoff Volume	= 2,546 cuft
Drainage Area	= 1.3 ac	Runoff Coeff.	= 0.51
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 28.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 2.29 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1



Tc by TR55 Worksheet

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Site Rational

Hyd. No. 1

Description	Segments			Tc (min)
	A	B	C	
Sheet Flow				
Description	Offseit	Offsiet		
Manning's n	0.040	0.040	0.013	
Flow Length (ft)	50	50		
2-yr, 24-hr Precip. (in)	3.39	3.39	3.39	
Land Slope (%)	.02	.2		
Travel Time (min)	11.98	4.77	0.00	16.75
Shallow Concentrated Flow				
Flow Length (ft)	157	200		
Watercourse Slope (%)	0.25	0.06	0.00	
Surface Description	Unpaved	Unpaved	Paved	
Average Velocity (ft/s)	.81	.4		
Travel Time (min)	3.24	8.43	0.00	11.68
Channel Flow				
X-sectional Flow Area (sqft)				
Wetted Perimeter (ft)				
Channel Slope (%)				
Manning's n	0.013	0.013	0.013	
Velocity (ft/s)				
Flow Length (ft)				
Travel Time (min)	0.00	0.00	0.00	0.00
Total Travel Time				28 min

Hydrograph Report

Project Name: 26-30 Lane Avenue

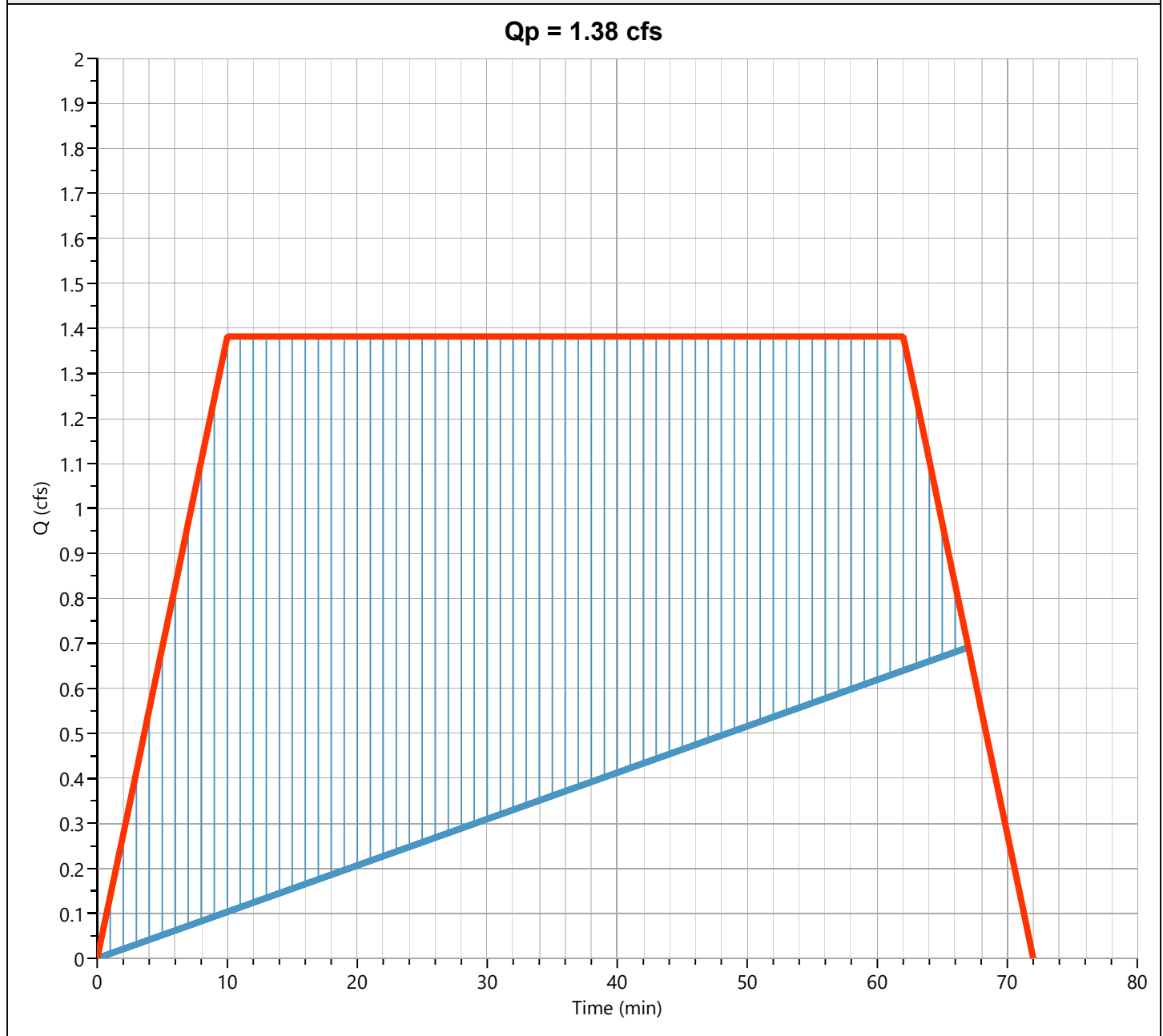
Hydrology Studio v 3.0.0.26

11-26-2022

Post To Basin

Hyd. No. 2

Hydrograph Type	= Mod Rational	Peak Flow	= 1.382 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Runoff Volume	= 5,223 cuft
Drainage Area	= 1.1 ac	Runoff Coeff.	= 0.95
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 1.32 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 6.3 x Tc
Target Q	= 0.750 cfs	Required Storage	= 3,603 cuft



Hydrograph Report

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Post Underground Chamber

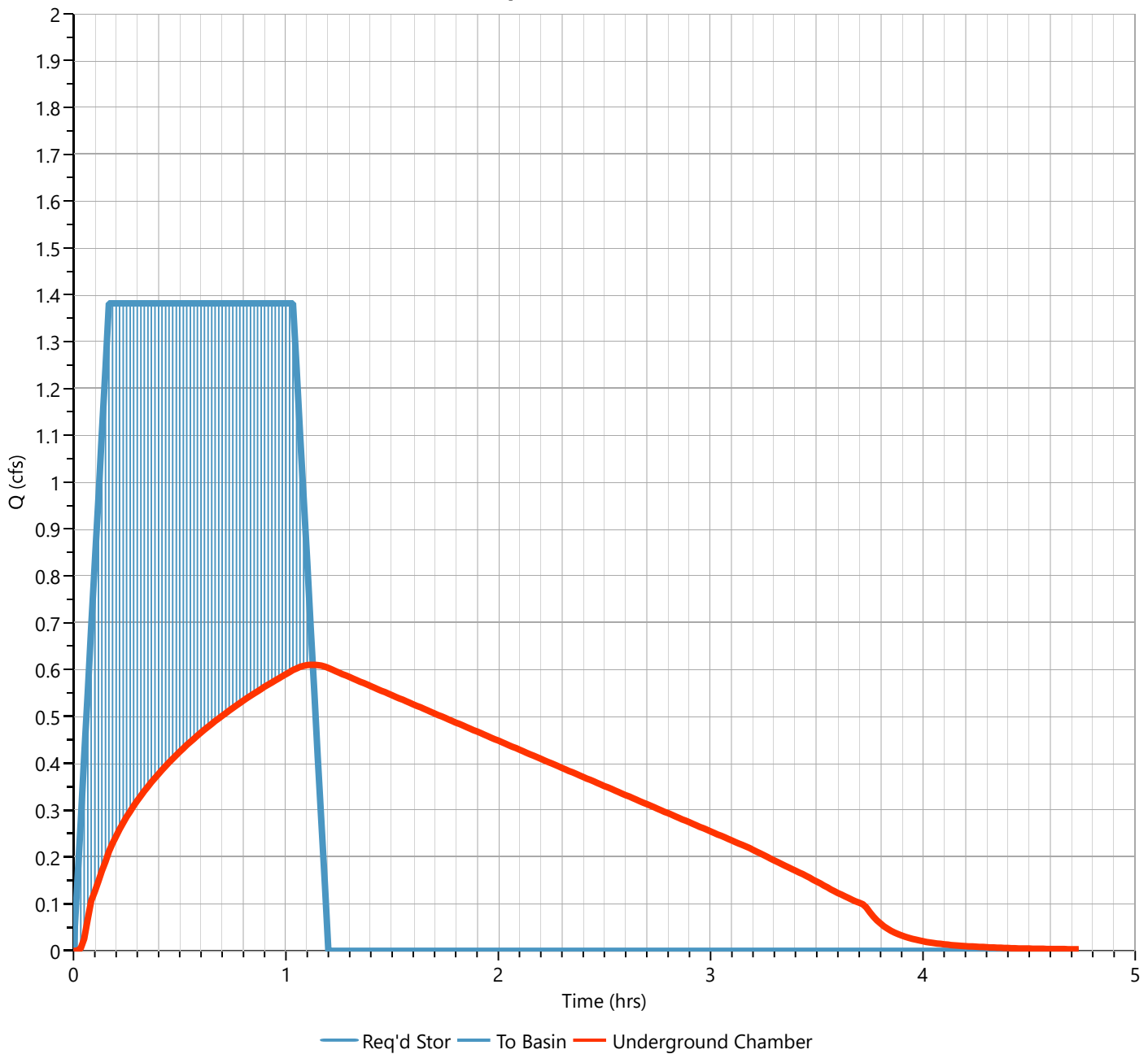
Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 0.610 cfs
Storm Frequency	= 2-yr	Time to Peak	= 1.13 hrs
Time Interval	= 1 min	Hydrograph Volume	= 5,134 cuft
Inflow Hydrograph	= 2 - To Basin	Max. Elevation	= 280.28 ft
Pond Name	= Underground Chamber	Max. Storage	= 3,401 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1.08 hrs

Qp = 0.61 cfs

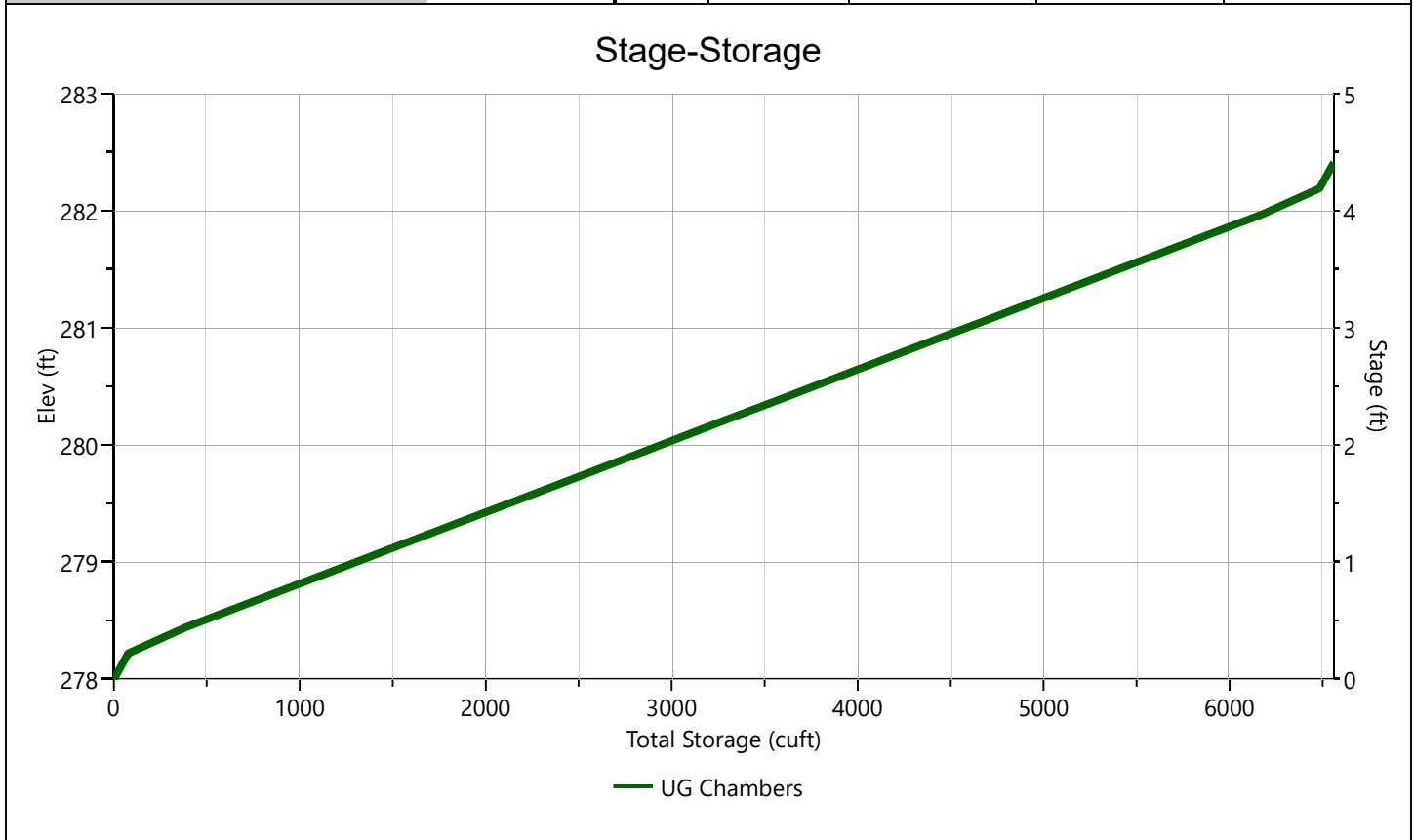


Pond Report

Underground Chamber

Stage-Storage

Underground Chambers		Stage / Storage Table				
Description	Input	Stage (ft)	Elevation (ft)	Contour Area (sqft)	Incr. Storage (cuft)	Total Storage (cuft)
Invert Elev Down, ft	278.00	0.00	278.00	n/a	0.000	0.000
Chamber Rise, ft	4.00	0.22	278.22	n/a	77.2	77.2
Chamber Shape	Box	0.44	278.44	n/a	310	387
Chamber Span, ft	4.00	0.66	278.66	n/a	362	749
Barrel Length, ft	410.00	0.88	278.88	n/a	362	1,111
No. Barrels	1	1.10	279.10	n/a	362	1,472
Barrel Slope, %	0.10	1.32	279.32	n/a	362	1,834
Headers, y/n	No	1.54	279.54	n/a	362	2,196
Stone Encasement, y/n	No	1.76	279.76	n/a	362	2,557
Encasement Bottom Elevation, ft	0.00	1.98	279.98	n/a	362	2,919
Encasement Width per Chamber, ft	0.00	2.21	280.21	n/a	362	3,281
Encasement Depth, ft	0.00	2.43	280.43	n/a	362	3,642
Encasement Voids, %	40.00	2.65	280.65	n/a	362	4,004
		2.87	280.87	n/a	362	4,366
		3.09	281.09	n/a	362	4,727
		3.31	281.31	n/a	362	5,089
		3.53	281.53	n/a	362	5,451
		3.75	281.75	n/a	362	5,813
		3.97	281.97	n/a	362	6,174
		4.19	282.19	n/a	310	6,484
		4.41	282.41	n/a	77.2	6,561



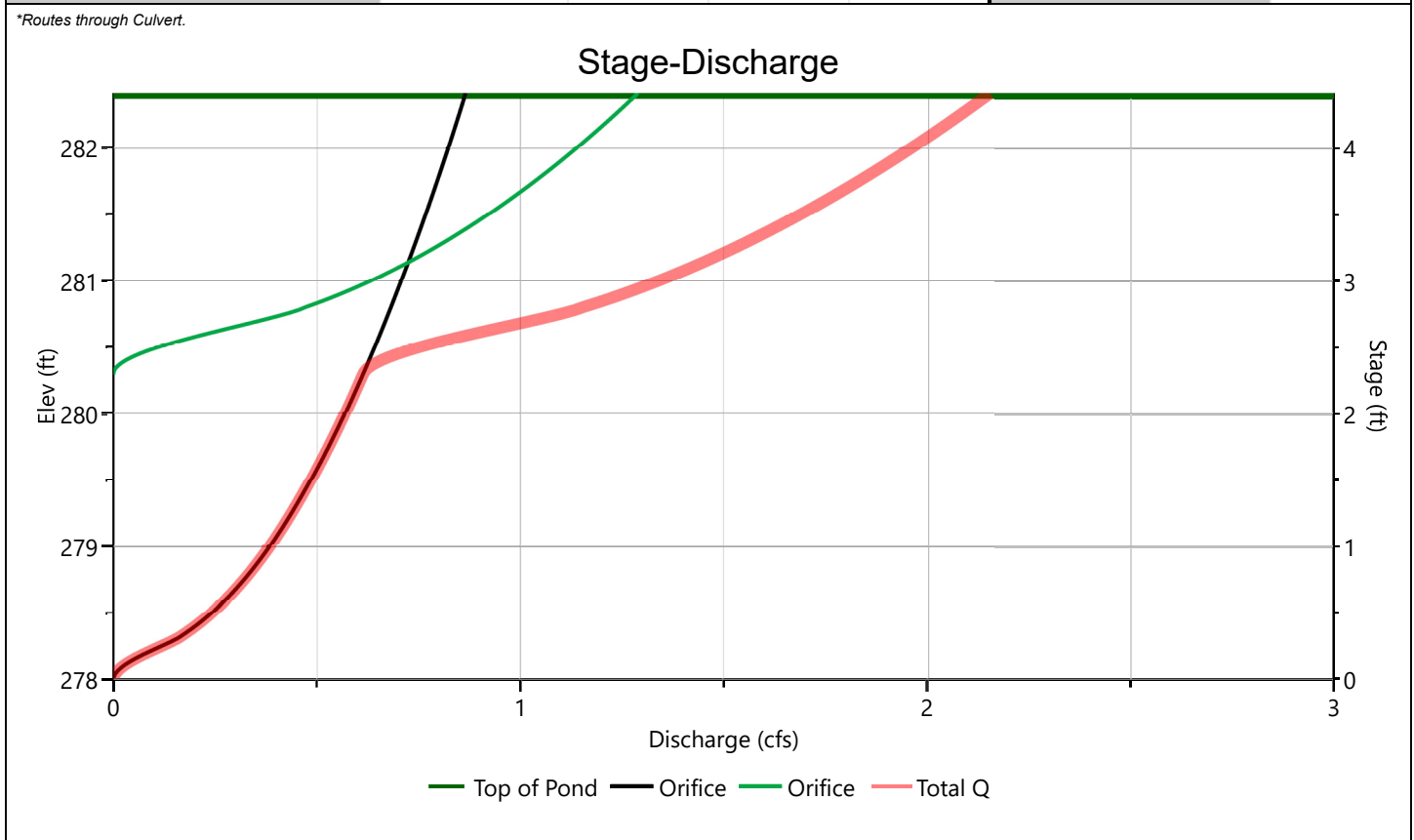
Pond Report

Underground Chamber

Stage-Discharge

Culvert / Orifices	Culvert	Orifices			Perforated Riser
		1	2	3	
Rise, in		4	6		Hole Diameter, in
Span, in		4	6		No. holes
No. Barrels		1	1		Invert Elevation, ft
Invert Elevation, ft		278.00	280.30		Height, ft
Orifice Coefficient, Co		0.60	0.60		Orifice Coefficient, Co
Length, ft					
Barrel Slope, %					
N-Value, n	0.000				
Weirs	Riser*	Weirs			Ancillary
Shape / Type		1	2	3	Exfiltration, in/hr
Crest Elevation, ft					
Crest Length, ft					
Angle, deg					
Weir Coefficient, Cw					

*Routes through Culvert.



Pond Report

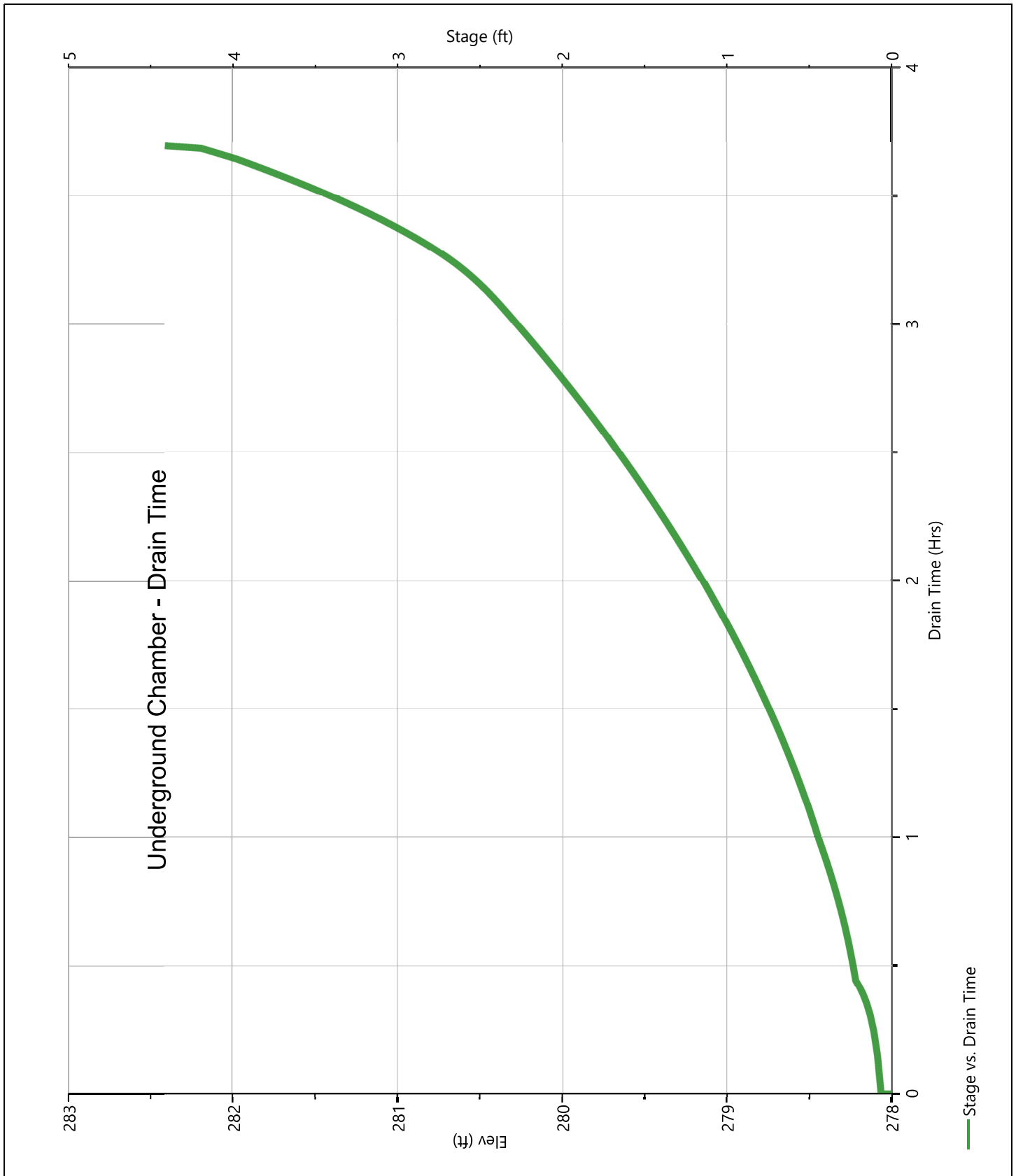
Underground Chamber

Stage-Storage-Discharge Summary

Stage (ft)	Elev. (ft)	Storage (cuft)	Culvert (cfs)	Orifices, cfs			Riser (cfs)	Weirs, cfs			Pf Riser (cfs)	Exfil (cfs)	User (cfs)	Total (cfs)
				1	2	3		1	2	3				
0.00	278.00	0.000		0.000	0.000									0.000
0.22	278.22	77.2		0.097	0.000									0.097
0.44	278.44	387		0.220	0.000									0.220
0.66	278.66	749		0.295	0.000									0.295
0.88	278.88	1,111		0.355	0.000									0.355
1.10	279.10	1,472		0.406	0.000									0.406
1.32	279.32	1,834		0.452	0.000									0.452
1.54	279.54	2,196		0.493	0.000									0.493
1.76	279.76	2,557		0.531	0.000									0.531
1.98	279.98	2,919		0.566	0.000									0.566
2.21	280.21	3,281		0.600	0.000									0.600
2.43	280.43	3,642		0.631	0.047									0.678
2.65	280.65	4,004		0.661	0.290									0.952
2.87	280.87	4,366		0.690	0.532									1.222
3.09	281.09	4,727		0.718	0.693									1.411
3.31	281.31	5,089		0.744	0.823									1.567
3.53	281.53	5,451		0.770	0.935									1.705
3.75	281.75	5,813		0.795	1.035									1.830
3.97	281.97	6,174		0.819	1.126									1.945
4.19	282.19	6,484		0.843	1.210									2.053
4.41	282.41	6,561		0.865	1.289									2.155

Underground Chamber

Pond Drawdown



Hydrograph Report

Project Name: 26-30 Lane Avenue

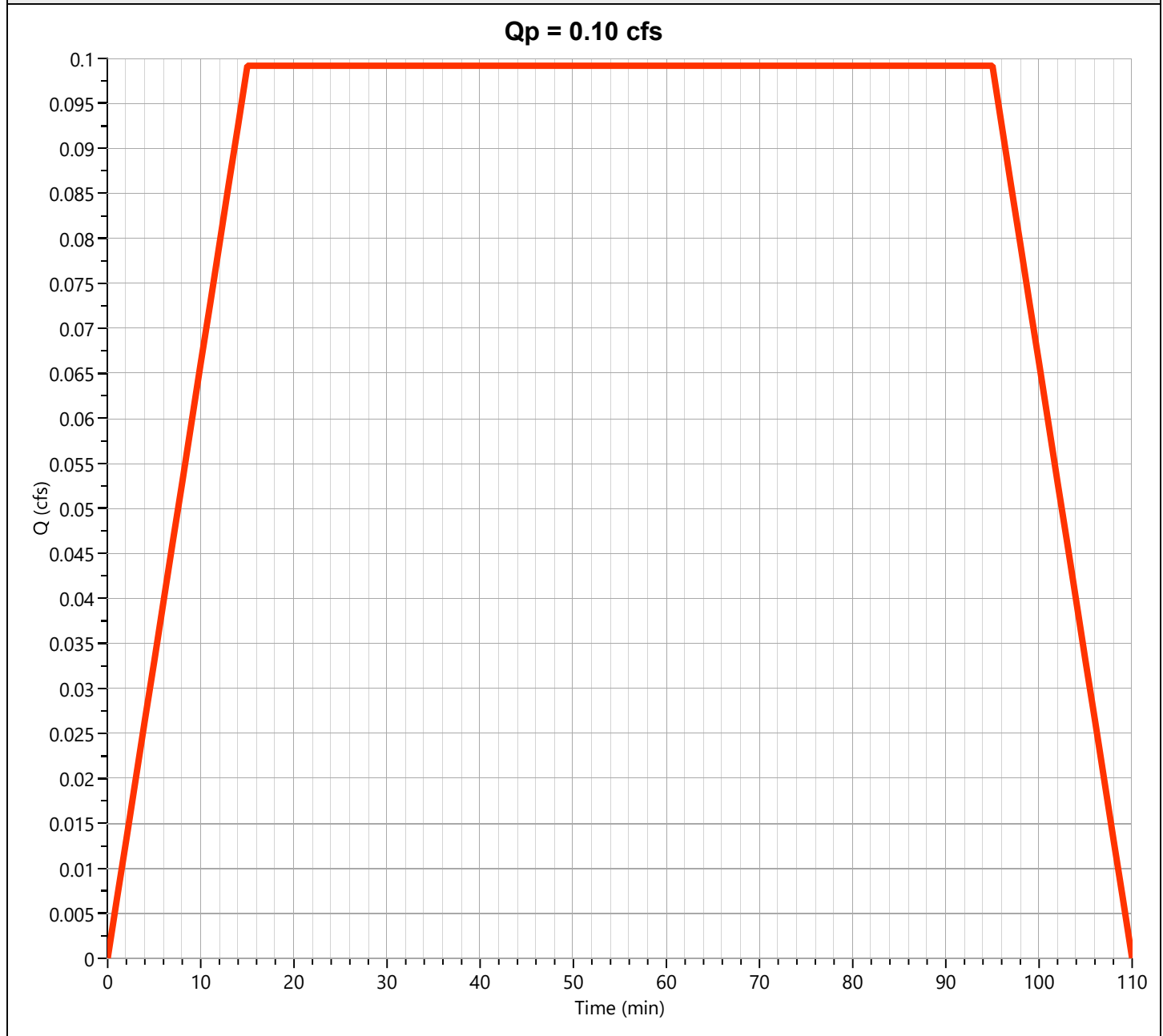
Hydrology Studio v 3.0.0.26

11-26-2022

Post Bypass

Hyd. No. 4

Hydrograph Type	= Mod Rational	Peak Flow	= 0.099 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.25 hrs
Time Interval	= 1 min	Runoff Volume	= 565 cuft
Drainage Area	= 0.2 ac	Runoff Coeff.	= 0.51
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 0.97 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 6.33 x Tc
Target Q	= 0.000 cfs	Required Storage	= 0.000 cuft



Hydrograph Report

Project Name: 26-30 Lane Avenue

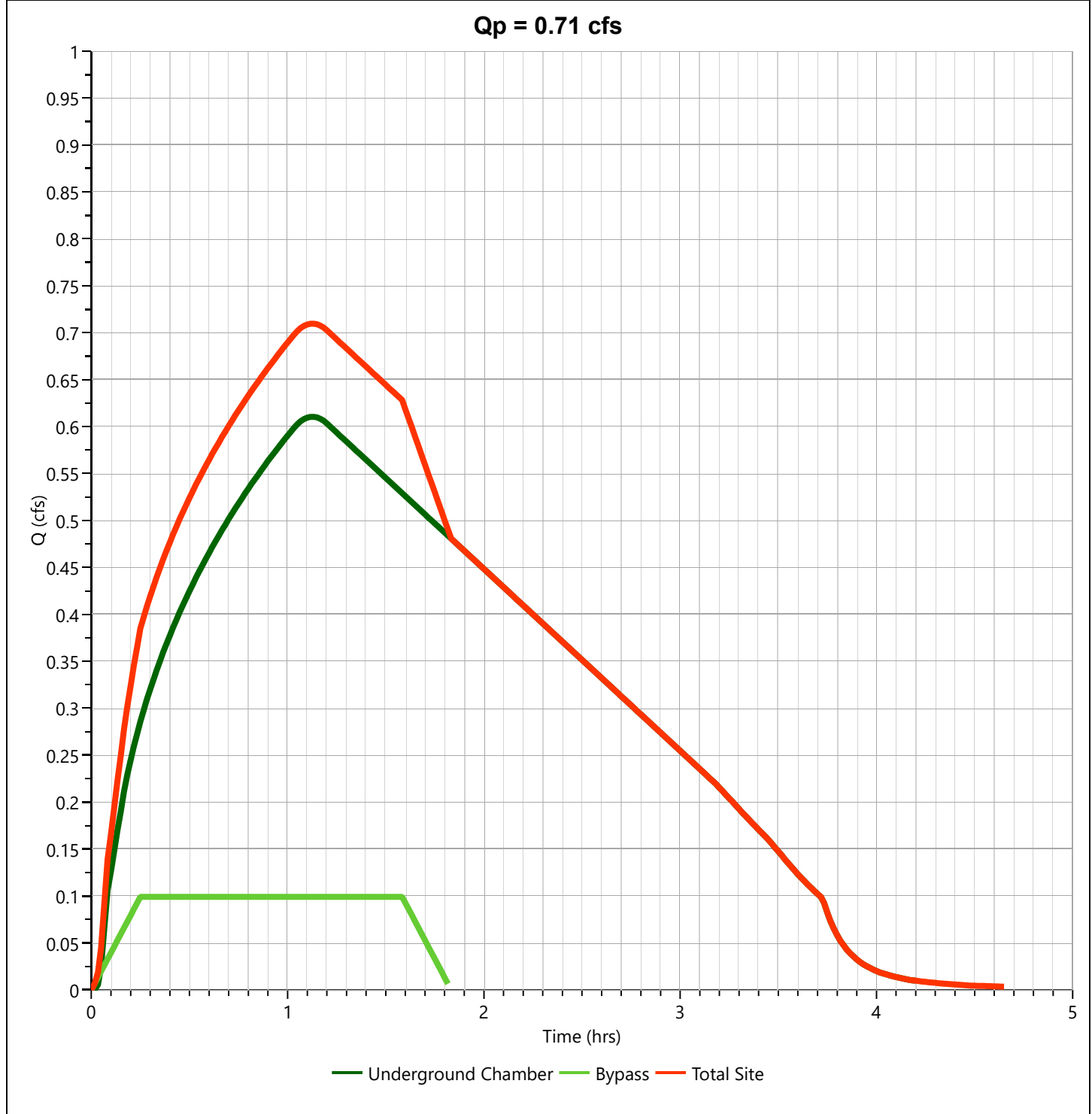
Hydrology Studio v 3.0.0.26

11-26-2022

Post Total Site

Hyd. No. 5

Hydrograph Type	= Junction	Peak Flow	= 0.710 cfs
Storm Frequency	= 2-yr	Time to Peak	= 1.13 hrs
Time Interval	= 1 min	Hydrograph Volume	= 5,699 cuft
Inflow Hydrographs	= 3, 4	Total Contrib. Area	= 0.2 ac



Hydrograph 10-yr Summary

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre Site	2.098	0.47	3,524	---		
2	Mod Rational	Post To Basin	2.225	0.17	7,077	---		
3	Pond Route	Post Underground Chamber	1.374	0.93	6,936	2	281.04	4,651
4	Mod Rational	Post Bypass	0.164	0.25	787	---		
5	Junction	Post Total Site	1.538	0.93	7,723	3, 4		

Hydrograph Report

Project Name: 26-30 Lane Avenue

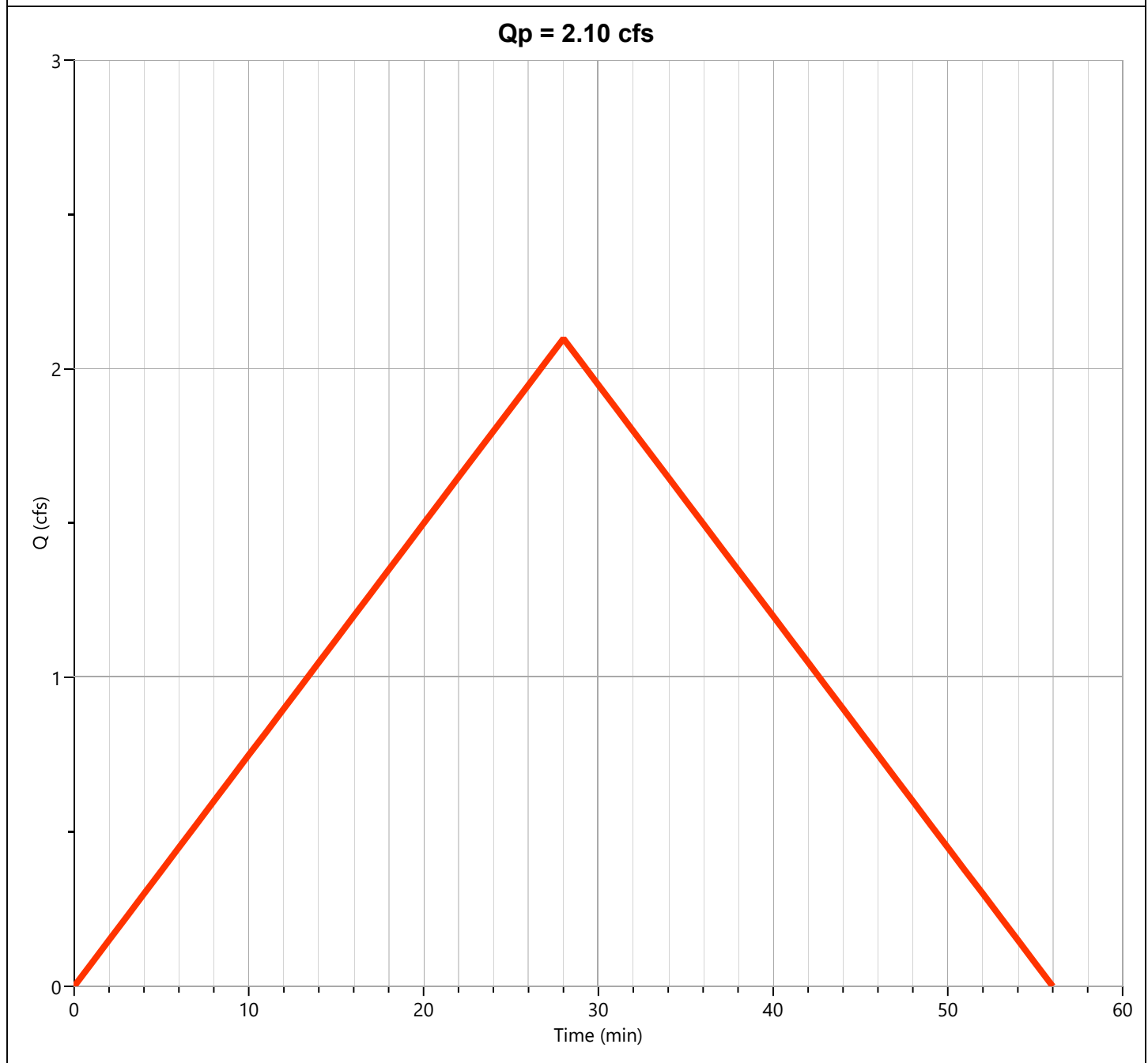
Hydrology Studio v 3.0.0.26

11-26-2022

Pre Site

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.098 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.47 hrs
Time Interval	= 1 min	Runoff Volume	= 3,524 cuft
Drainage Area	= 1.3 ac	Runoff Coeff.	= 0.51
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 28.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 3.16 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1



Hydrograph Report

Project Name: 26-30 Lane Avenue

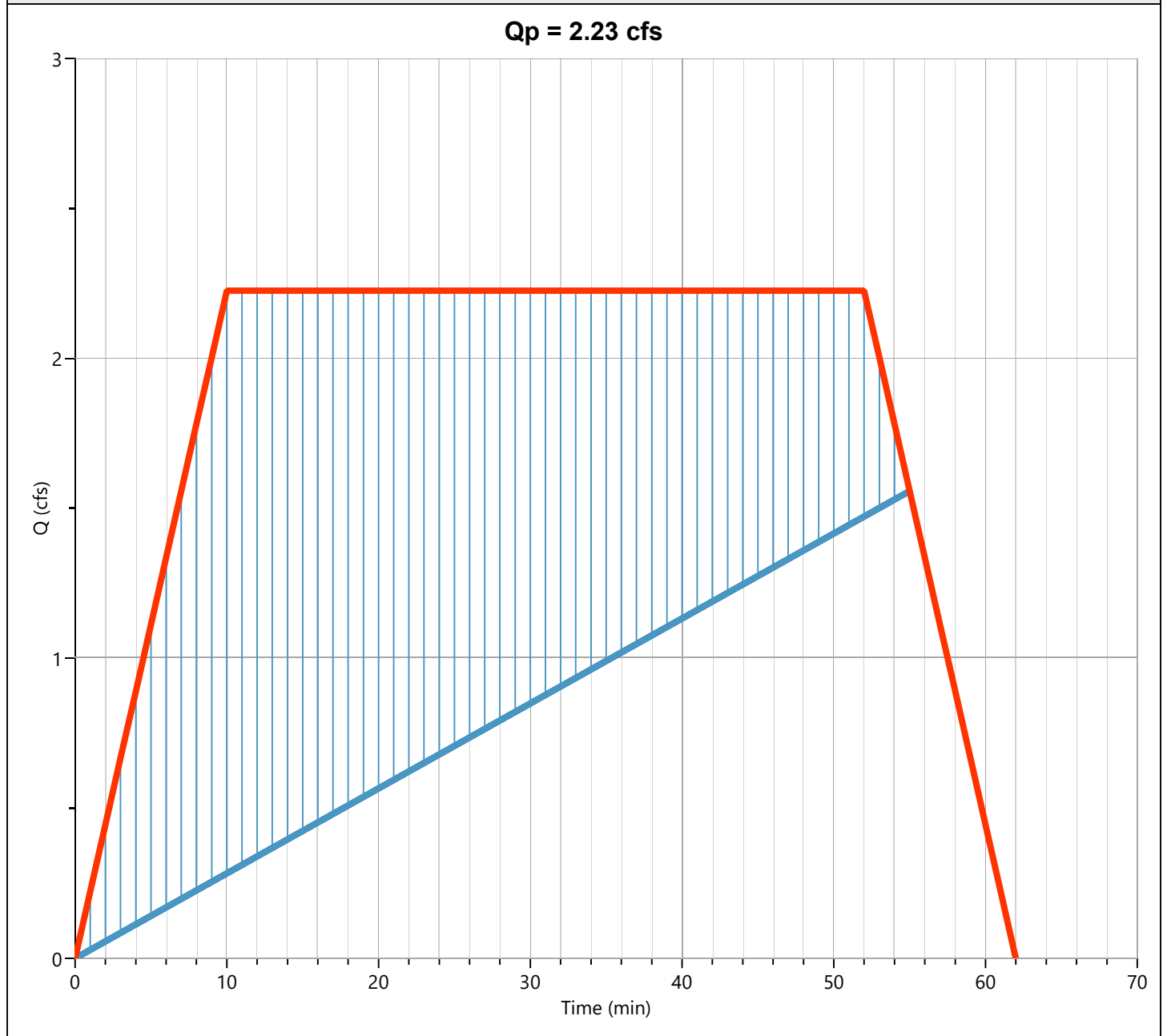
Hydrology Studio v 3.0.0.26

11-26-2022

Post To Basin

Hyd. No. 2

Hydrograph Type	= Mod Rational	Peak Flow	= 2.225 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Runoff Volume	= 7,077 cuft
Drainage Area	= 1.1 ac	Runoff Coeff.	= 0.95
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 2.13 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 5.3 x Tc
Target Q	= 1.500 cfs	Required Storage	= 4,287 cuft



Hydrograph Report

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Post Underground Chamber

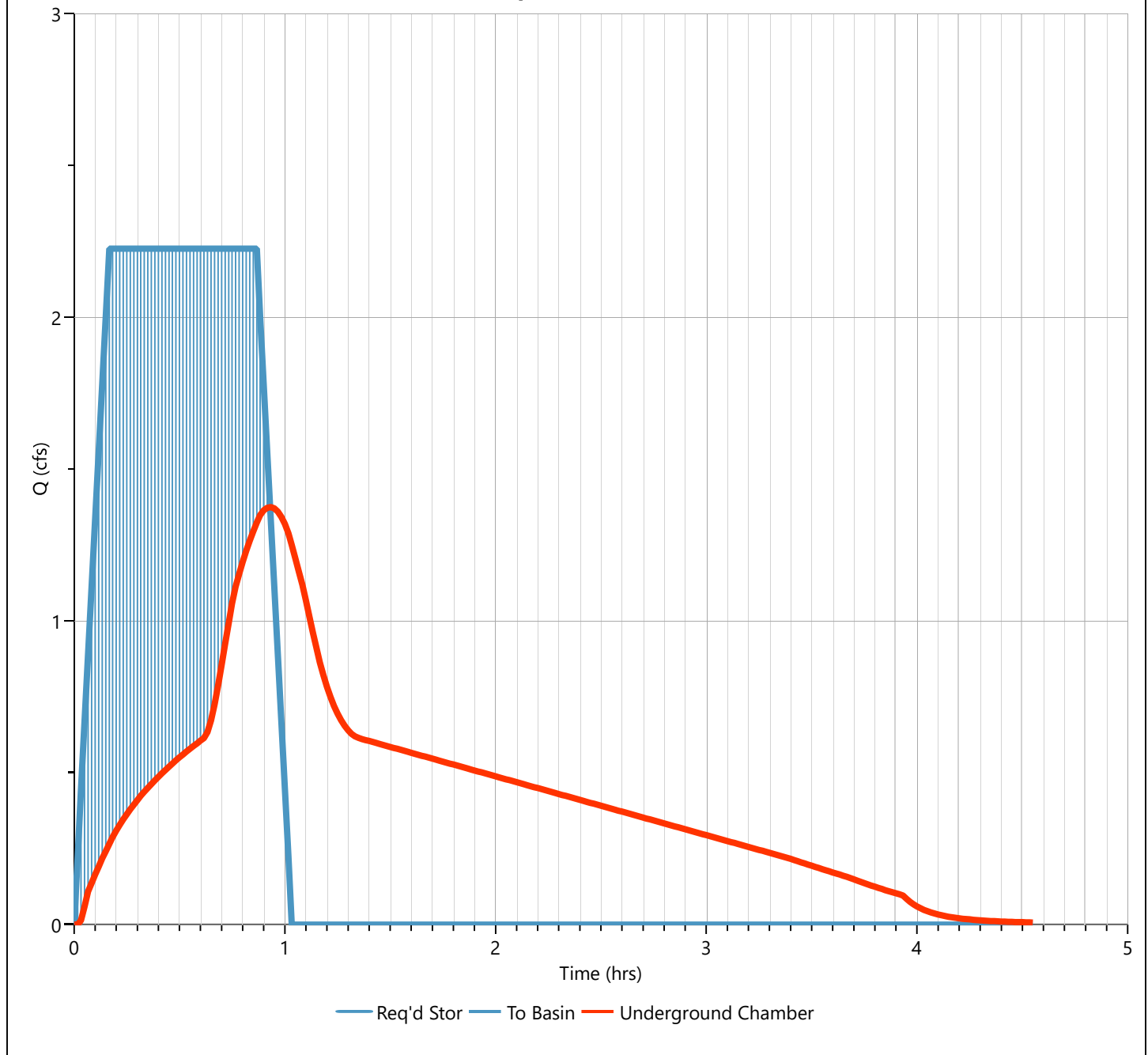
Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 1.374 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.93 hrs
Time Interval	= 1 min	Hydrograph Volume	= 6,936 cuft
Inflow Hydrograph	= 2 - To Basin	Max. Elevation	= 281.04 ft
Pond Name	= Underground Chamber	Max. Storage	= 4,651 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1.07 hrs

Qp = 1.37 cfs



Hydrograph Report

Project Name: 26-30 Lane Avenue

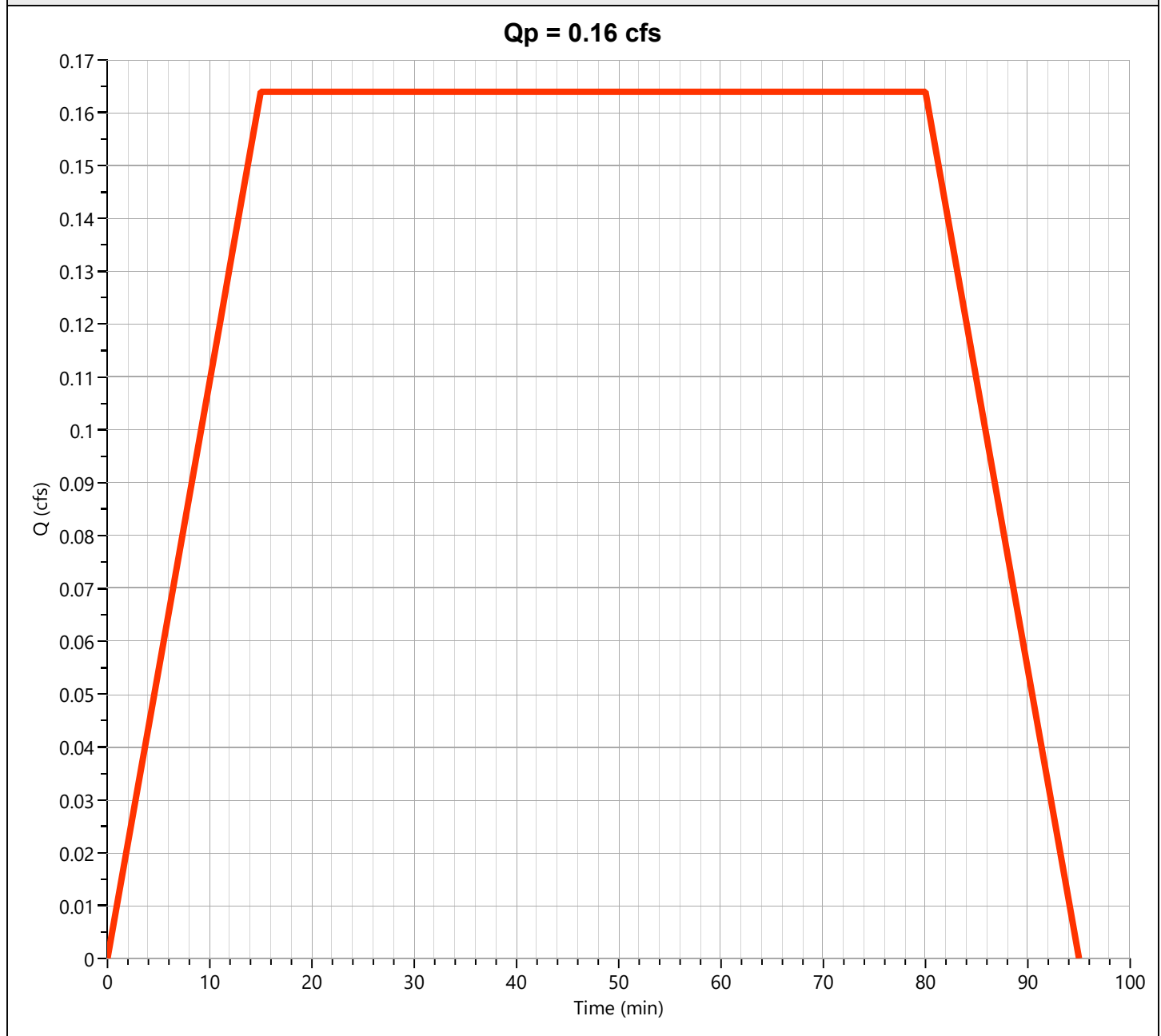
Hydrology Studio v 3.0.0.26

11-26-2022

Post Bypass

Hyd. No. 4

Hydrograph Type	= Mod Rational	Peak Flow	= 0.164 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.25 hrs
Time Interval	= 1 min	Runoff Volume	= 787 cuft
Drainage Area	= 0.2 ac	Runoff Coeff.	= 0.51
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 1.61 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 5.33 x Tc
Target Q	= 0.000 cfs	Required Storage	= 0.000 cuft

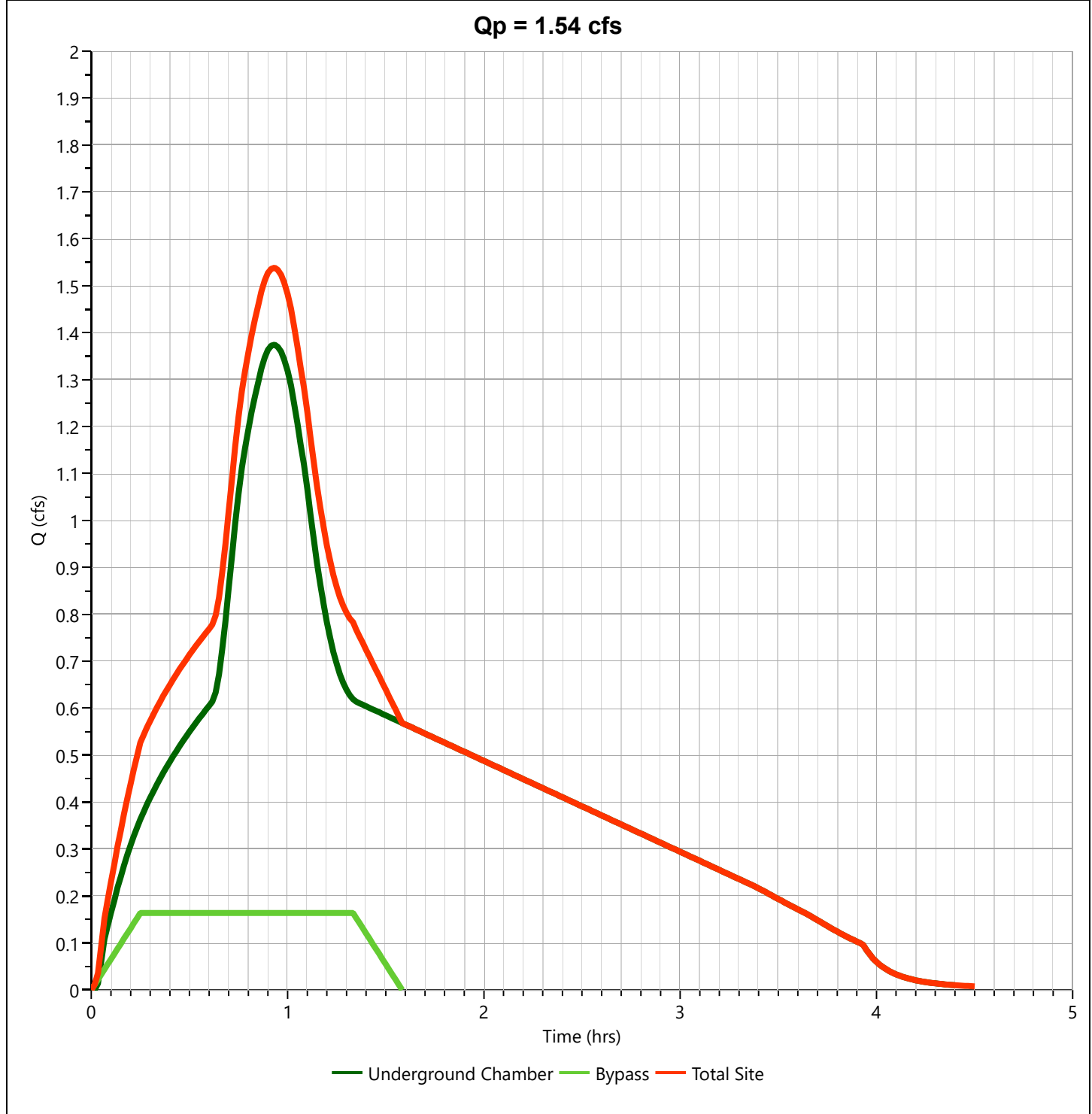


Hydrograph Report

Post Total Site

Hyd. No. 5

Hydrograph Type	= Junction	Peak Flow	= 1.538 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.93 hrs
Time Interval	= 1 min	Hydrograph Volume	= 7,723 cuft
Inflow Hydrographs	= 3, 4	Total Contrib. Area	= 0.2 ac



Hydrograph 100-yr Summary

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre Site	2.851	0.47	4,790	---		
2	Mod Rational	Post To Basin	2.875	0.17	10,866	---		
3	Pond Route	Post Underground Chamber	1.993	1.08	10,687	2	282.07	6,309
4	Mod Rational	Post Bypass	0.220	0.25	1,253	---		
5	Junction	Post Total Site	2.213	1.08	11,940	3, 4		

Hydrograph Report

Project Name: 26-30 Lane Avenue

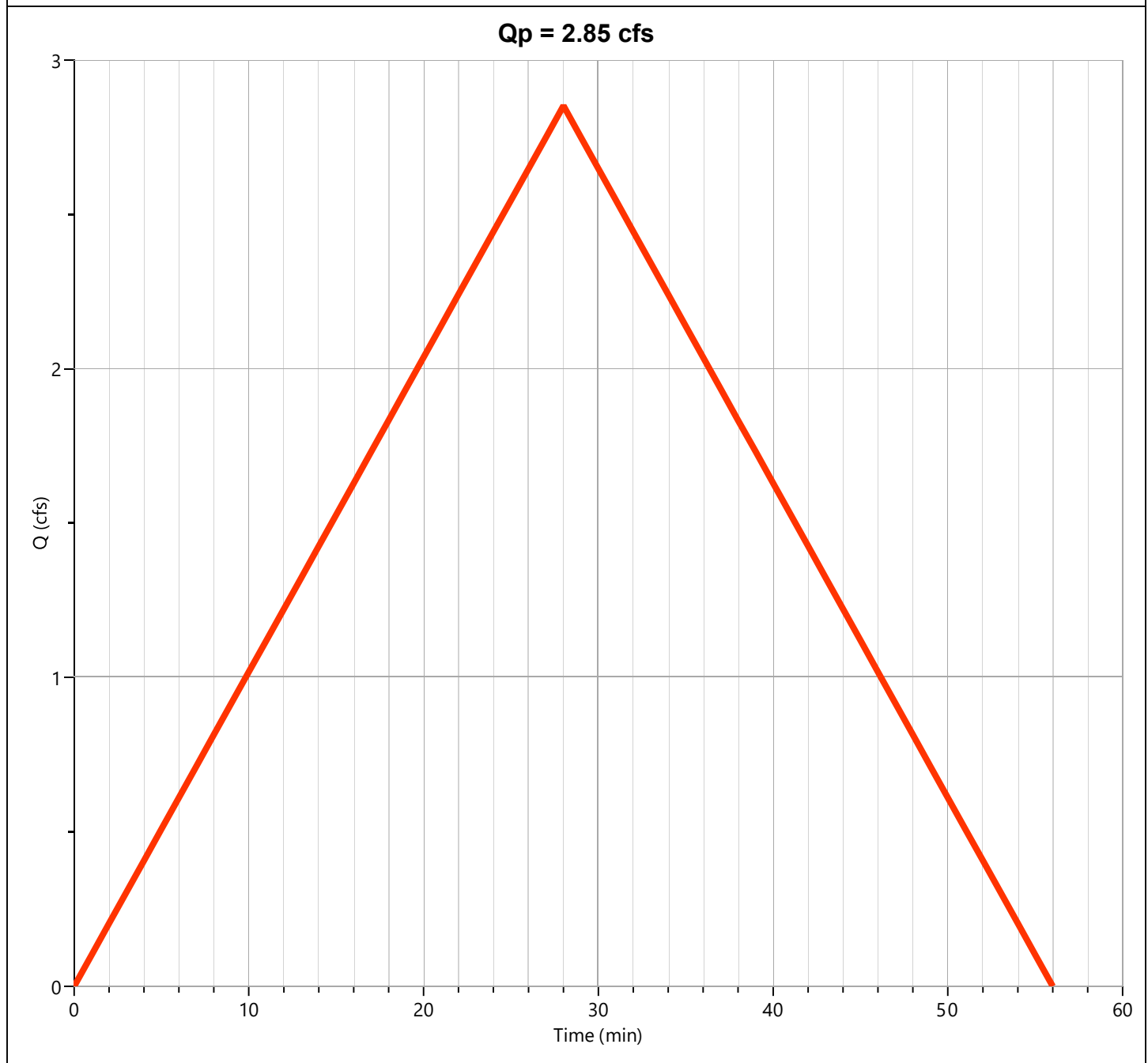
Hydrology Studio v 3.0.0.26

11-26-2022

Pre Site

Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.851 cfs
Storm Frequency	= 100-yr	Time to Peak	= 0.47 hrs
Time Interval	= 1 min	Runoff Volume	= 4,790 cuft
Drainage Area	= 1.3 ac	Runoff Coeff.	= 0.51
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 28.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 4.30 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	= 1/1



Hydrograph Report

Project Name: 26-30 Lane Avenue

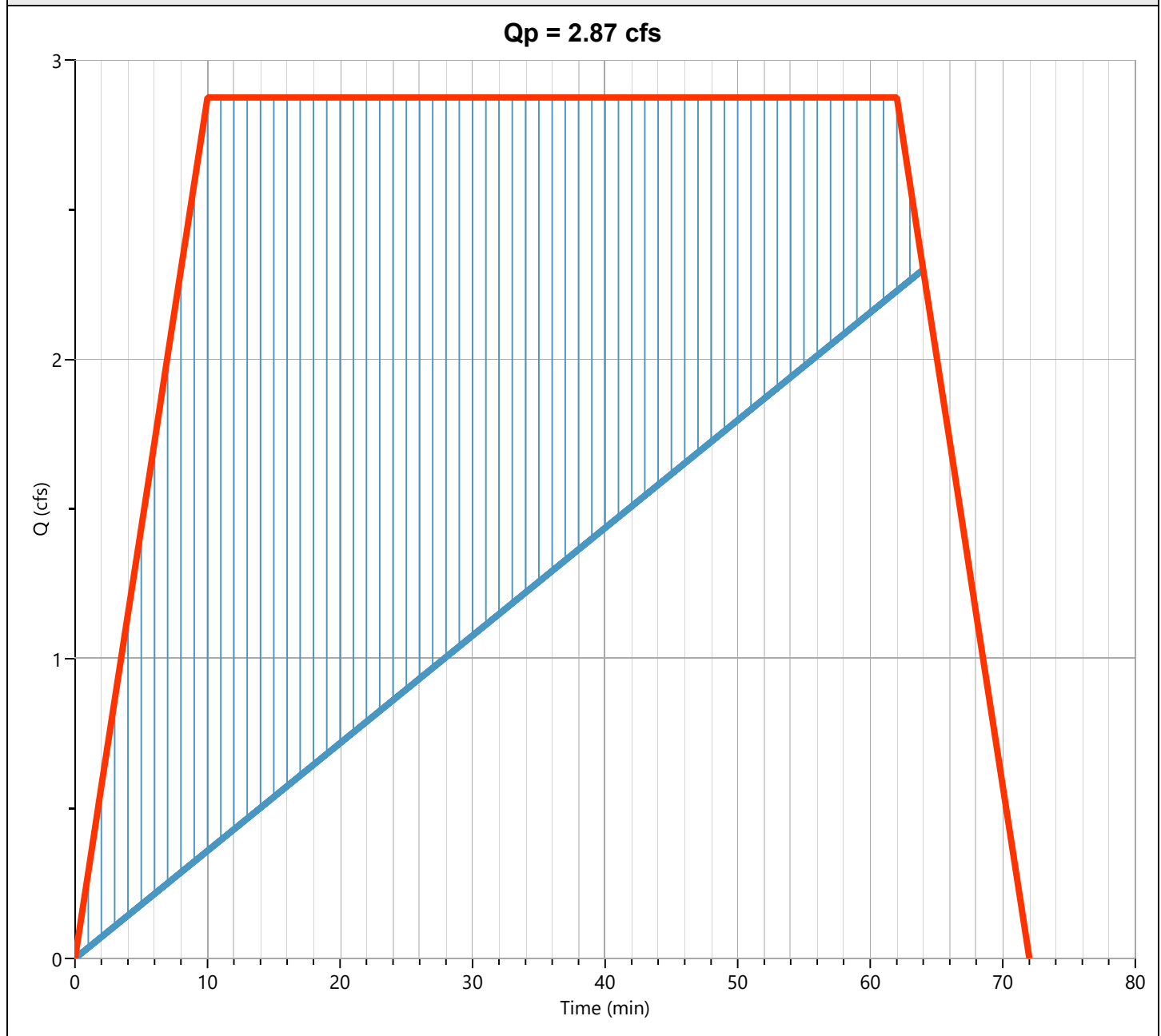
Hydrology Studio v 3.0.0.26

11-26-2022

Post To Basin

Hyd. No. 2

Hydrograph Type	= Mod Rational	Peak Flow	= 2.875 cfs
Storm Frequency	= 100-yr	Time to Peak	= 0.17 hrs
Time Interval	= 1 min	Runoff Volume	= 10,866 cuft
Drainage Area	= 1.1 ac	Runoff Coeff.	= 0.95
Tc Method	= User	Time of Conc. (Tc)	= 10.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 2.75 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 6.3 x Tc
Target Q	= 2.400 cfs	Required Storage	= 5,682 cuft



Hydrograph Report

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Post Underground Chamber

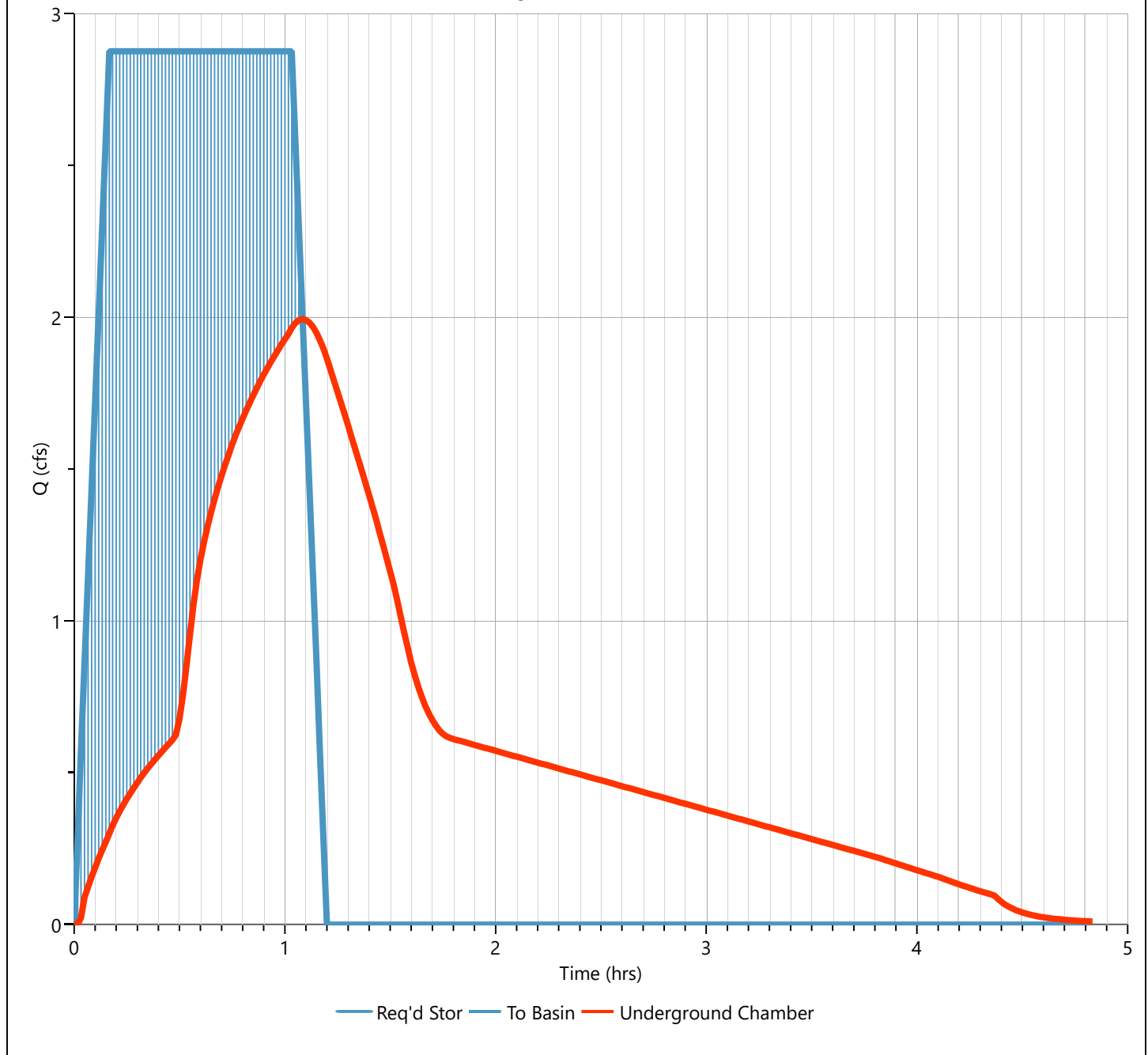
Hyd. No. 3

Hydrograph Type	= Pond Route	Peak Flow	= 1.993 cfs
Storm Frequency	= 100-yr	Time to Peak	= 1.08 hrs
Time Interval	= 1 min	Hydrograph Volume	= 10,687 cuft
Inflow Hydrograph	= 2 - To Basin	Max. Elevation	= 282.07 ft
Pond Name	= Underground Chamber	Max. Storage	= 6,309 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 59 min

Qp = 1.99 cfs



Hydrograph Report

Project Name: 26-30 Lane Avenue

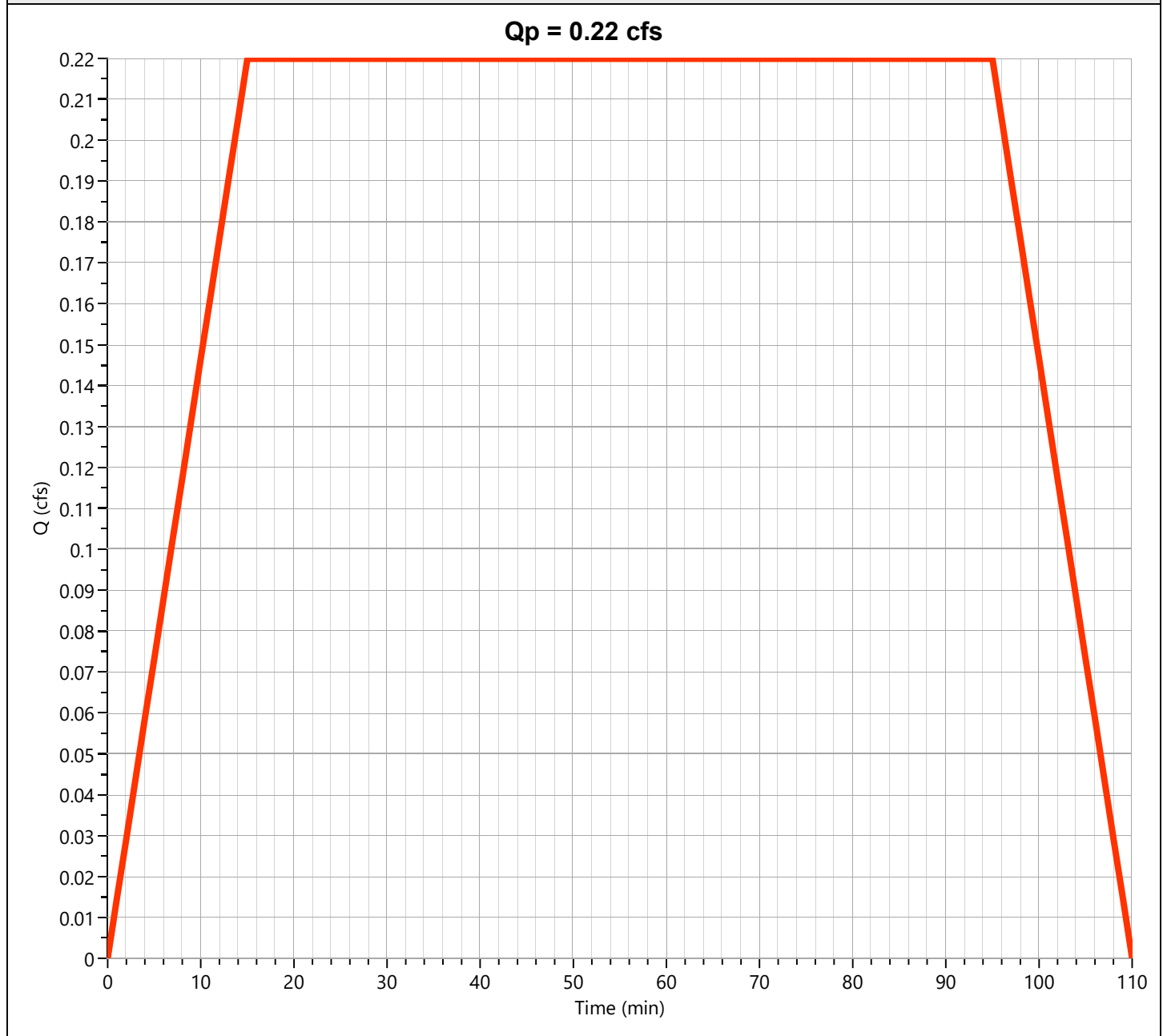
Hydrology Studio v 3.0.0.26

11-26-2022

Post Bypass

Hyd. No. 4

Hydrograph Type	= Mod Rational	Peak Flow	= 0.220 cfs
Storm Frequency	= 100-yr	Time to Peak	= 0.25 hrs
Time Interval	= 1 min	Runoff Volume	= 1,253 cuft
Drainage Area	= 0.2 ac	Runoff Coeff.	= 0.51
Tc Method	= User	Time of Conc. (Tc)	= 15.0 min
IDF Curve	= 4084 2022-03-16.idf	Intensity	= 2.16 in/hr
Freq. Corr. Factor	= 1.00	Storm Duration	= 6.33 x Tc
Target Q	= 0.000 cfs	Required Storage	= 0.000 cuft



Hydrograph Report

Project Name: 26-30 Lane Avenue

Hydrology Studio v 3.0.0.26

11-26-2022

Post Total Site

Hyd. No. 5

Hydrograph Type	= Junction	Peak Flow	= 2.213 cfs
Storm Frequency	= 100-yr	Time to Peak	= 1.08 hrs
Time Interval	= 1 min	Hydrograph Volume	= 11,940 cuft
Inflow Hydrographs	= 3, 4	Total Contrib. Area	= 0.2 ac

