

STORMWATER REPORT

for:

Blue Wave Car Wash

8610 State Route 43 (Waynesburg Drive SE)
Waynesburg, Ohio 44688

Estimated Start Date: 10/01/2026

Estimated Completion Date: 05/01/2027

Stormwater Design Contact:

Tekton Engineering

Project Engineer: Jared Yoder

4805 E. Main St

Berlin, OH 44610 P.O. Box 347

330-893-0230

jyoder@tekton-eng.com

Preparation Date:

Rev 0 – 8/13/2026



Stormwater Calculation Narrative:

Existing Site Conditions

The existing site is the blighted pavement & lawn left behind after a gas station was removed from the site. The site borders a business park to the east and south, a church to the north, and State Route 43 to the west.

A site topography survey shows that the site is flat. There is a low spot on the site where water collects; when there is enough rain the low spot will overflow and split drainage to the west and to the southeast. The drainage that runs to the west is collected by the State Route 43 storm sewer. The stormwater that runs to the east is collected by an existing catch basin and conveyed to an unknown location downstream. There is a small portion of the existing site that drains to the north.

Proposed Site Conditions

The proposed development of the site is the construction of a car wash. The parking lot of the car wash will have a storm sewer that detains water before it discharges to the existing catch basin to the southeast. A portion of the site will run to the State Route 43 storm sewer.

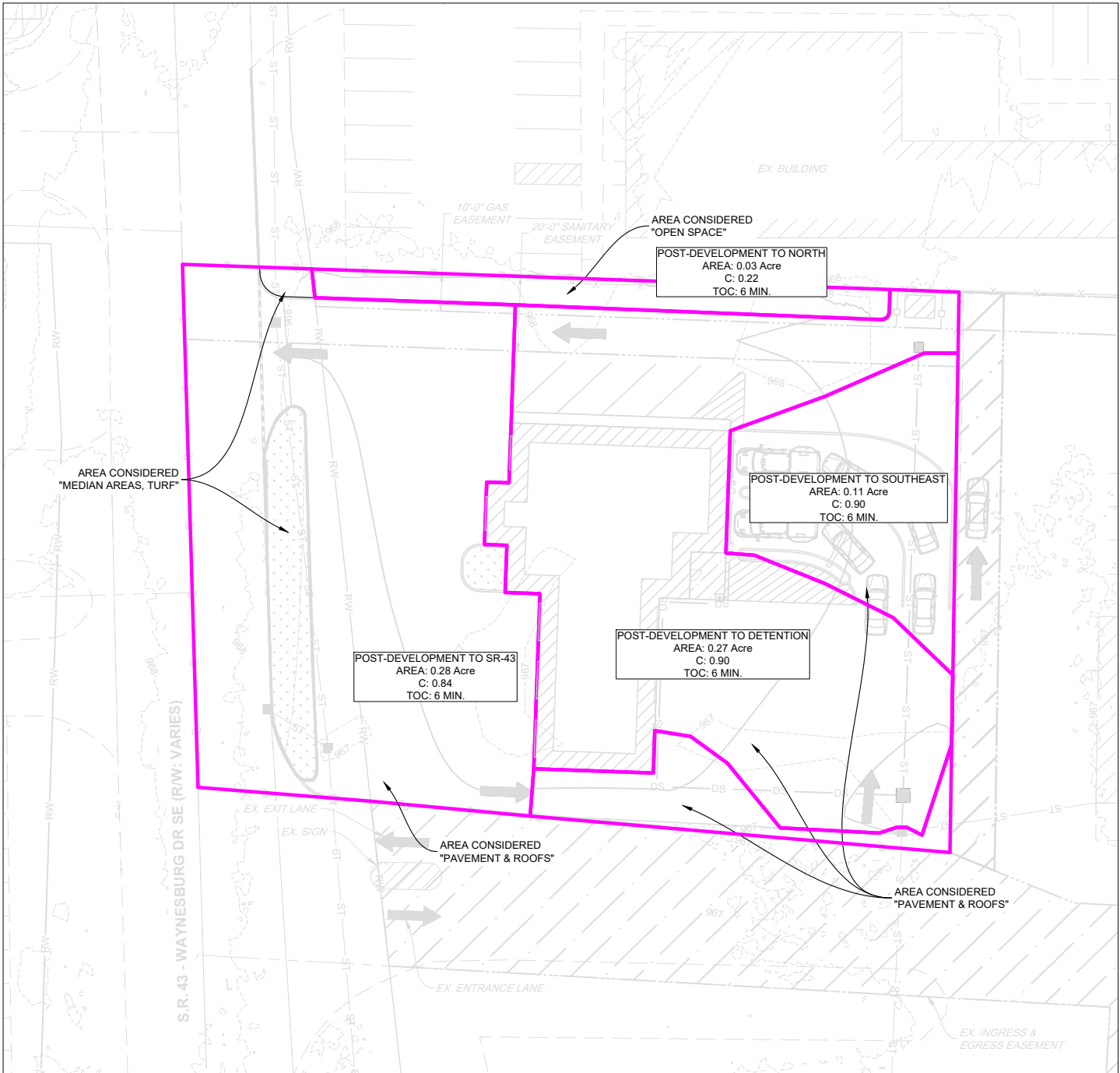
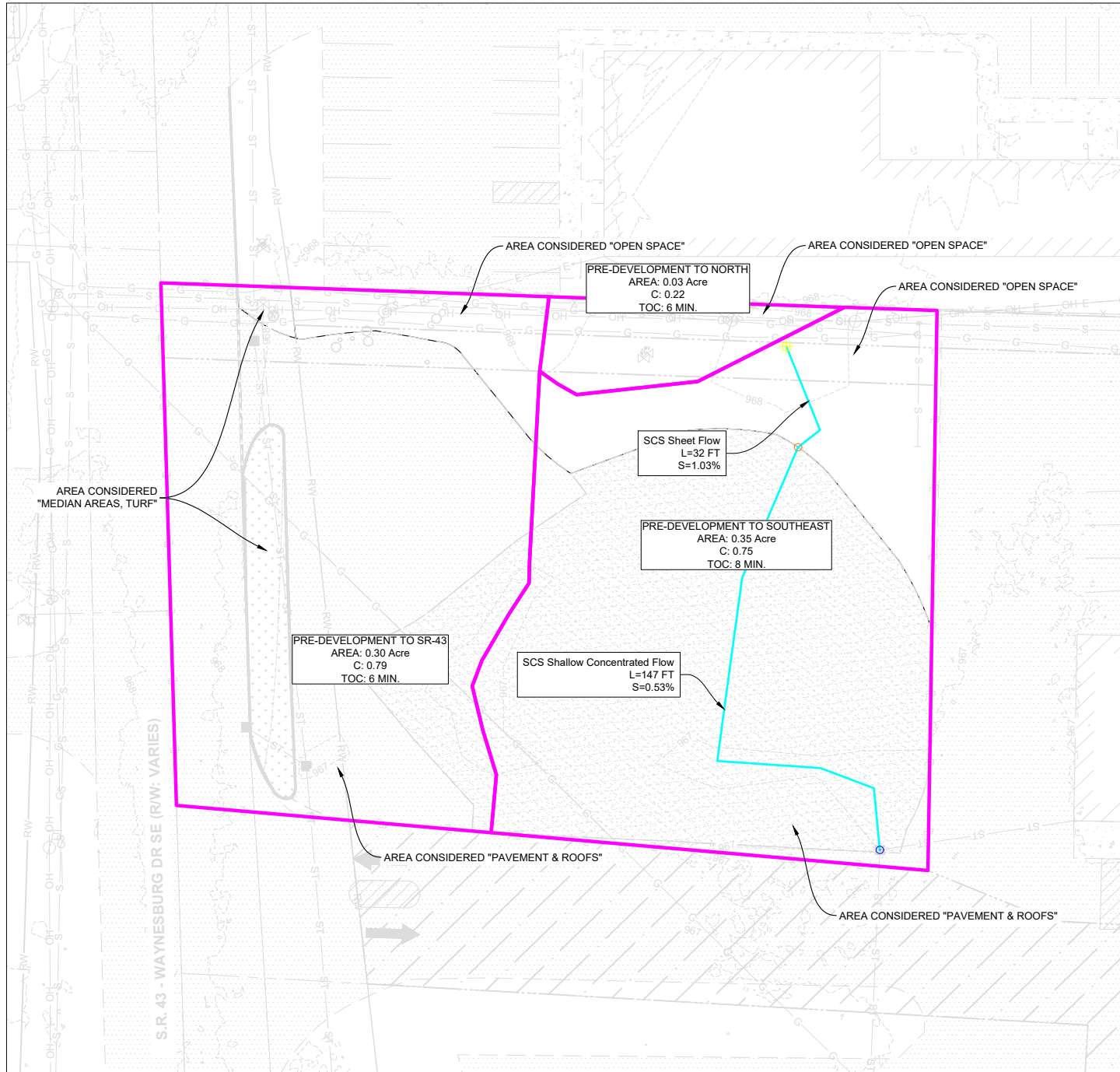
The amount of water running into the State Route 43 storm sewer is lower than pre-development conditions. For the Southeast, the discharge rate of the proposed storm system & weir is combined with the overland site runoff. The combined rate flowing to the southeast is lower post-development than the pre-development conditions. Runoff to the north is unchanged from pre-development conditions.

Please see the attached hydrograph report and excel sheets for results.

I am available to contact at 330-893-0230 or by email at jyoder@tekton-eng.com should you have any questions.

Sincerely,
Jared Yoder

C:\Users\jroder\Documents\Tekt\Tekt\Working Drawings\CAD FILES\26-096 Blue Wave Car Wash Waynesburg 7-29-26.dwg



A. PRE-DEVELOPMENT								
HYD 1: Pre-Development to SR-43								
Pervious Area (Ac)	Value	C*						
Open Space	0.03	0.22						
Median Areas, Turf	0.03	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.25	0.90						
Total Area (ac)	0.30							
Weighted C Value	0.79							
Time of Concentration (min)	6.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.00	2.40	2.99	3.48	4.13	4.76	5.38	
Runoff Volume (cf)	313	373	453	513	589	647	702	
Discharge (cfs)	0.87	1.04	1.26	1.43	1.64	1.80	1.95	

*C Number based on Rolling Conditions

HYD 2: Pre-Development to North								
Pervious Area (Ac)	Value	C*						
Open Space	0.03	0.22						
Median Areas, Turf	0.00	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.00	0.90						
Total Area (ac)	0.03							
Weighted C Value	0.22							
Time of Concentration (min)	6.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.00	2.40	2.99	3.48	4.13	4.76	5.38	
Runoff Volume (cf)	9	10	13	14	16	18	20	
Discharge (cfs)	0.02	0.03	0.04	0.04	0.05	0.05	0.05	

*C Number based on Rolling Conditions

HYD 3: Pre-Development to Southeast								
Pervious Area (Ac)	Value	C*						
Open Space	0.08	0.22						
Median Areas, Turf	0.00	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.27	0.90						
Total Area (ac)	0.35							
Weighted C Value	0.75							
Time of Concentration (min)	8.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12	
Runoff Volume (cf)	416	498	605	685	785	862	935	
Discharge (cfs)	0.87	1.04	1.26	1.43	1.64	1.80	1.95	

*C Number based on Rolling Conditions

B. POST-DEVELOPMENT								
HYD 4: Post-Development to SR-43								
Pervious Area (Ac)	Value	C*						
Open Space, Lawns	0.00	0.22						
Median Areas, Turf	0.02	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.25	0.90						
Total Area (ac)	0.28							
Weighted C Value	0.84							
Time of Concentration (min)	6.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12	
Runoff Volume (cf)	310	371	450	509	584	642	697	
Discharge (cfs)	0.86	1.03	1.25	1.41	1.62	1.78	1.94	

*C Number based on Rolling Conditions

HYD 5: Post-Development to North								
Pervious Area (Ac)	Value	C*						
Open Space, Lawns	0.01	0.22						
Median Areas, Turf	0.02	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.25	0.90						
Total Area (ac)	0.29							
Weighted C Value	0.82							
Time of Concentration (min)	6.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12	
Runoff Volume (cf)	9	10	13	14	16	18	20	
Discharge (cfs)	0.02	0.03	0.04	0.04	0.05	0.05	0.05	

*C Number based on Rolling Conditions

HYD 6: Post-Development to Southeast								
Pervious Area (Ac)	Value	C*						
Open Space, Lawns	0.00	0.22						
Median Areas, Turf	0.00	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.11	0.90						
Total Area (ac)	0.11							
Weighted C Value	0.90							
Time of Concentration (min)	6.00							
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12	
Runoff Volume (cf)	111	156	189	214	246	270	293	
Discharge (cfs)	0.36	0.43	0.53	0.60	0.68	0.75	0.82	

*C Number based on Rolling Conditions

HYD 7: Post-Development to Detention								
Pervious Area (Ac)	Value	C*						
Open Space, Lawns	0.00	0.22						
Median Areas, Turf	0.00	0.30						
Impervious Area (Ac)								
Pavement & Roofs	0.27	0.90						
Total Area (ac)	0.27							
Weighted C Value	0.90							
Time of Concentration (min)	6.00							
Storm Event	2.04	2.44	3.08	3.52	4.12	4.62	5.12	
Rainfall (inches)	8.71	10.40	12.60	14.30	16.40	18.00	19.60	
Runoff Volume (cf)	521	583	663	729	804	863	920	
Discharge (cfs)	0.89	1.06	1.29	1.46	1.68	1.84	2.00	

*C Number based on Rolling Conditions

HYD 8: Detention Routing							
Storm Event	1 yr	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
Peak Basin Inflow (cfs) (HYD 7)	0.89	1.06	1.29	1.46	1.68	1.84	2.00
Peak Water Surface Elev. (ft)	964.94	965.13	965.40	965.62	966.01	966.39	966.43
Ponding Storage Volume (cf)	149	193	254	300	358	375	376
Basin Discharge (cfs)	0.38	0.42	0.46	0.50	0.56	1.11	1.35

HYD 9: Total Post-Development to Southeast							
Storm Event	1 yr	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
Runoff Volume (cf)	451	538	654	740	849	933	1,013
Discharge (cfs)	0.69	0.79	0.91	1.00	1.12	1.49	1.90

DISCHARGE RATES - PRE & POST DEVELOPMENT COMPARISON								
HYD 1: Pre-Development to SR-43	0.87	1.04	1.26	1.43	1.64	1.80	1.95	
HYD 4: Post-Development to SR-43	0.86	1.03	1.25	1.41	1.62	1.78	1.94	
% Reduction in Discharge Rate	1%	1%	1%	1%	1%	1%	1%	
HYD 2: Pre-Development to North	0.02	0.03	0.04	0.04	0.05	0.05	0.05	
HYD 5: Post-Development to North	0.02	0.03	0.04	0.04	0.05	0.05	0.05	
% Reduction in Discharge Rate	0%	0%	0%	0%	0%	0%	0%	
HYD 3: Pre-Development to Southeast	0.87	1.04	1.26	1.43	1.64	1.80	1.95	
HYD 6: Post-Development to Southeast	0.69	0.79	0.91	1.00	1.12	1.49	1.90	
% Reduction in Discharge Rate	21%	24%	28%	30%	32%	17%	3%	

Discharge rates to State Route 43, the North and the Southeast are all lower post-development than pre-development. The design is acceptable.

BLUE WAVE CAR WASH WAYNESBURG

8610 WAYNESBURG DRIVE SE
WAYNESBURG, OHIO 44688
STARK COUNTY

CONTRACTOR :

DRAFT ONLY
NOT FOR
CONSTRUCTION

SEAL

← 1" ACTUAL →

IF THE ABOVE DIMENSION DOES NOT
MEASURE ONE INCH (1") EXACTLY, THIS
DRAWING WILL HAVE BEEN ENLARGED
OR REDUCED, AFFECTING ALL
LABELLED SCALES.

Date: 8/12/2026
Scale: AS NOTED
Job: 26-096
Sheet

D-100

CATCHMENT MAPS



4805 E. MAIN ST. P.O. BOX 347 BERLIN, OH 44610
PHONE # 330-893-0230 WWW.TEKTEN-ENG.COM

FACILITY: Blue Wave Car Wash
 PROJECT NO: 26-096
 SUBJECT: STORM CALCULATIONS
 BY: JY
 See stormwater narrative for site description

8/12/2026

1. Refer to the attachments to this calculation which provide information regarding surface areas and time of travel concentration determinations.

A. PRE-DEVELOPMENT							
HYD 1: Pre-Development to SR-43	Value	C*					
Pervious Area (Ac)							
Open Space	0.03	0.22					
Median Areas, Turf	0.03	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.25	0.90					
Total Area (ac)	0.30						
Weighted C Value	0.79						
Time of Concentration (min)	6.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.00	2.40	2.99	3.48	4.18	4.76	5.38
Runoff Volume (cf)	313	373	453	513	589	647	702
Discharge (cfs)	0.87	1.04	1.26	1.43	1.64	1.80	1.95

*C Number based on Rolling Conditions

HYD 2: Pre-Development to North	Value	C*					
Pervious Area (Ac)							
Open Space	0.03	0.22					
Median Areas, Turf	0.00	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.00	0.90					
Total Area (ac)	0.03						
Weighted C Value	0.22						
Time of Concentration (min)	6.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.00	2.40	2.99	3.48	4.18	4.76	5.38
Runoff Volume (cf)	9	10	13	14	16	18	20
Discharge (cfs)	0.02	0.03	0.04	0.04	0.05	0.05	0.05

*C Number based on Rolling Conditions

HYD 3: Pre-Development to Southeast	Value	C*					
Pervious Area (Ac)							
Open Space	0.08	0.22					
Median Areas, Turf	0.00	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.27	0.90					
Total Area (ac)	0.35						
Weighted C Value	0.75						
Time of Concentration (min)	8.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12
Runoff Volume (cf)	416	498	605	685	785	862	935
Discharge (cfs)	0.87	1.04	1.26	1.43	1.64	1.80	1.95

*C Number based on Rolling Conditions

FACILITY: Blue Wave Car Wash
PROJECT NO: 26-096
SUBJECT: STORM CALCULATIONS
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B. POST-DEVELOPMENT							
HYD 4: Post-Development to SR-43	Value	C*					
Pervious Area (Ac)							
Open Space, Lawns	0.00	0.22					
Median Areas, Turf	0.02	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.25	0.90					
Total Area (ac)	0.28						
Weighted C Value	0.84						
Time of Concentration (min)	6.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12
Runoff Volume (cf)	310	371	450	509	584	642	697
Discharge (cfs)	0.86	1.03	1.25	1.41	1.62	1.78	1.94

*C Number based on Rolling Conditions

HYD 5: Post-Development to North	Value	C*					
Pervious Area (Ac)							
Open Space, Lawns	0.01	0.22					
Median Areas, Turf	0.02	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.25	0.90					
Total Area (ac)	0.29						
Weighted C Value	0.82						
Time of Concentration (min)	6.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12
Runoff Volume (cf)	9	10	13	14	16	18	20
Discharge (cfs)	0.02	0.03	0.04	0.04	0.05	0.05	0.05

*C Number based on Rolling Conditions

HYD 6: Post-Development to Southeast	Value	C*					
Pervious Area (Ac)							
Open Space, Lawns	0.00	0.22					
Median Areas, Turf	0.00	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.11	0.90					
Total Area (ac)	0.11						
Weighted C Value	0.90						
Time of Concentration (min)	6.00						
Storm Event	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
Rainfall (inches)	2.04	2.44	3.08	3.52	4.12	4.62	5.12
Runoff Volume (cf)	131	156	189	214	246	270	293
Discharge (cfs)	0.36	0.43	0.53	0.60	0.68	0.75	0.82

*C Number based on Rolling Conditions

HYD 7: Post-Development to Detention	Value	C*					
Pervious Area (Ac)							
Open Space, Lawns	0.00	0.22					
Median Areas, Turf	0.00	0.30					
Impervious Area (Ac)							
Pavement & Roofs	0.27	0.90					
Total Area (ac)	0.27						
Weighted C Value	0.90						
Time of Concentration (min)	6.00						
Storm Event	2.04	2.44	3.08	3.52	4.12	4.62	5.12
Rainfall (inches)	8.71	10.40	12.60	14.30	16.40	18.00	19.60
Runoff Volume (cf)	321	383	465	526	604	663	720
Discharge (cfs)	0.89	1.06	1.29	1.46	1.68	1.84	2.00

*C Number based on Rolling Conditions

FACILITY: Blue Wave Car Wash
PROJECT NO: 26-096
SUBJECT: STORM CALCULATIONS
BY: JY

8/12/2026

HYD 8: Detention Routing							
Storm Event	1 yr	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
Peak Basin Inflow (cfs) (HYD 7)	0.89	1.06	1.29	1.46	1.68	1.84	2.00
Peak Water Surface Elev. (ft)	964.94	965.13	965.40	965.62	966.01	966.39	966.43
Ponding Storage Volume (cf)	149	193	254	300	358	375	376
Basin Discharge (cfs)	0.38	0.42	0.46	0.50	0.56	1.11	1.35

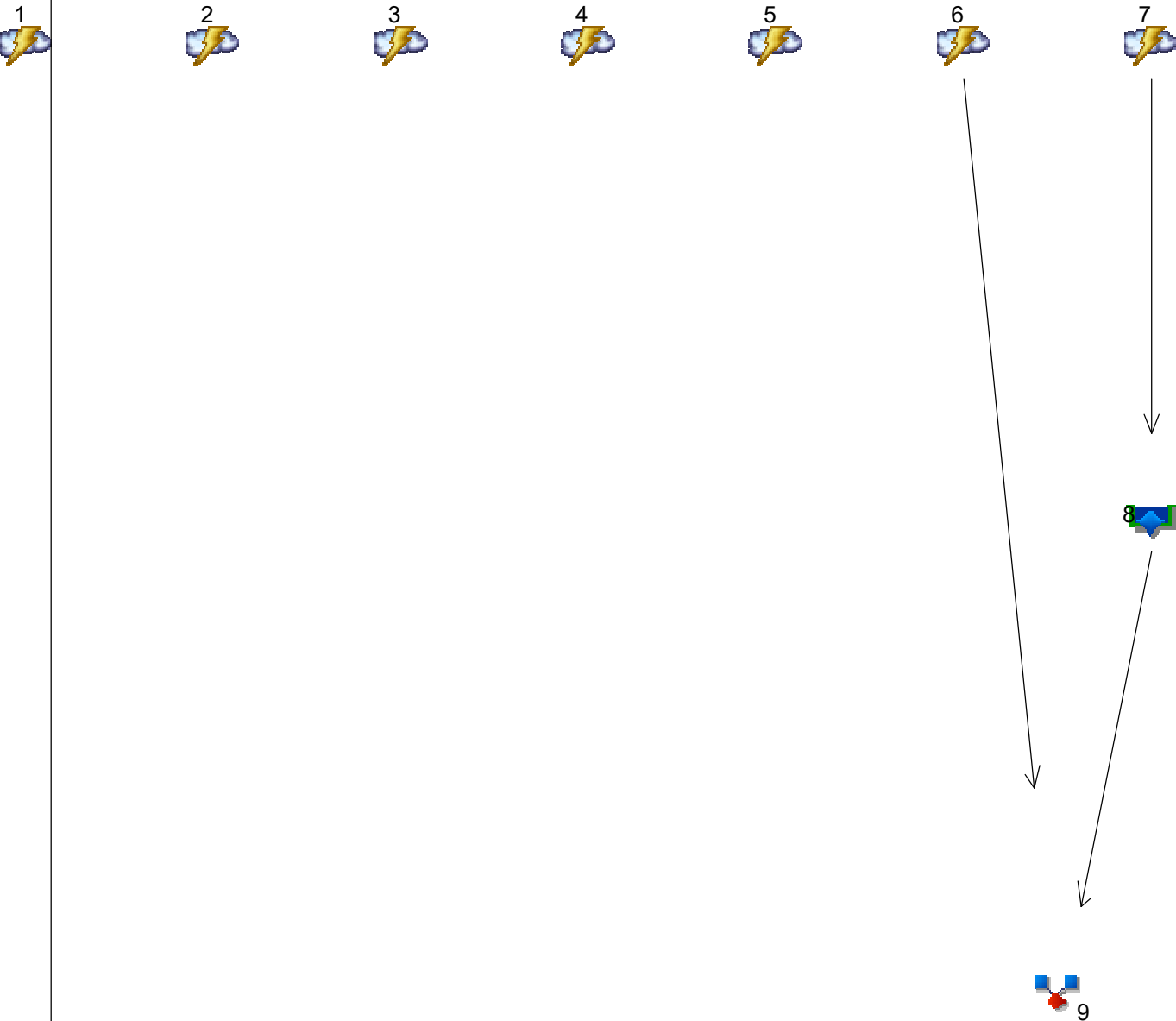
HYD 9: Total Post-Development to Southeast							
Storm Event	1 yr	2 yr	5 yr	10 yr	25 yr	50 yr	100 yr
Runoff Volume (cf)	451	538	654	740	849	933	1,013
Discharge (cfs)	0.69	0.79	0.91	1.00	1.12	1.49	1.90

DISCHARGE RATES - PRE & POST DEVELOPMENT COMPARISON							
HYD 1: Pre-Development to SR-43	0.87	1.04	1.26	1.43	1.64	1.80	1.95
HYD 4: Post-Development to SR-43	0.86	1.03	1.25	1.41	1.62	1.78	1.94
% Reduction in Discharge Rate	1%	1%	1%	1%	1%	1%	1%
HYD 2: Pre-Development to North	0.02	0.03	0.04	0.04	0.05	0.05	0.05
HYD 5: Post-Development to North	0.02	0.03	0.04	0.04	0.05	0.05	0.05
% Reduction in Discharge Rate	0%	0%	0%	0%	0%	0%	0%
HYD 3: Pre-Development to Southeast	0.87	1.04	1.26	1.43	1.64	1.80	1.95
HYD 9: Total Post-Development to Southeast	0.69	0.79	0.91	1.00	1.12	1.49	1.90
% Reduction in Discharge Rate	21%	24%	28%	30%	32%	17%	3%

Discharge rates to State Route 43, the North and the Southeast are all lower post-development than pre-development. The design is acceptable.

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026



Legend

Hyd.	Origin	Description
1	Rational	PRE-DEVELOPMENT TO SR-43
2	Rational	PRE-DEVELOPMENT TO NORTH
3	Rational	PRE-DEVELOPMENT TO SOUTHEAST
4	Rational	POST-DEVELOPMENT TO SR-43
5	Rational	POST-DEVELOPMENT TO NORTH
6	Rational	POST-DEVELOPMENT RUNOFF TO SOUTHEAST
7	Rational	POST-DEVELOPMENT TO DETENTION
8	Reservoir	DETENTION ROUTE
9	Combine	TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Rational	-----	0.868	1.037	-----	1.259	1.425	1.635	1.797	1.951	PRE-DEVELOPMENT TO SR-43
2	Rational	-----	0.024	0.029	-----	0.035	0.040	0.046	0.050	0.054	PRE-DEVELOPMENT TO NORTH
3	Rational	-----	0.867	1.037	-----	1.261	1.427	1.635	1.795	1.948	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	-----	0.862	1.029	-----	1.250	1.414	1.623	1.783	1.936	POST-DEVELOPMENT TO SR-43
5	Rational	-----	0.024	0.029	-----	0.035	0.040	0.046	0.050	0.054	POST-DEVELOPMENT TO NORTH
6	Rational	-----	0.363	0.433	-----	0.526	0.595	0.683	0.750	0.815	POST-DEVELOPMENT RUNOFF TO
7	Rational	-----	0.890	1.063	-----	1.291	1.461	1.677	1.842	2.001	POST-DEVELOPMENT TO DETENTI
8	Reservoir	7	0.380	0.418	-----	0.464	0.499	0.559	1.114	1.354	DETENTION ROUTE
9	Combine	6, 8	0.689	0.787	-----	0.910	1.001	1.115	1.489	1.898	TOTAL POST-DEVELOPMENT TO S
Proj. file: 26-096 Hydrogrphas.gpw										Thursday, 08 / 13 / 2026	

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

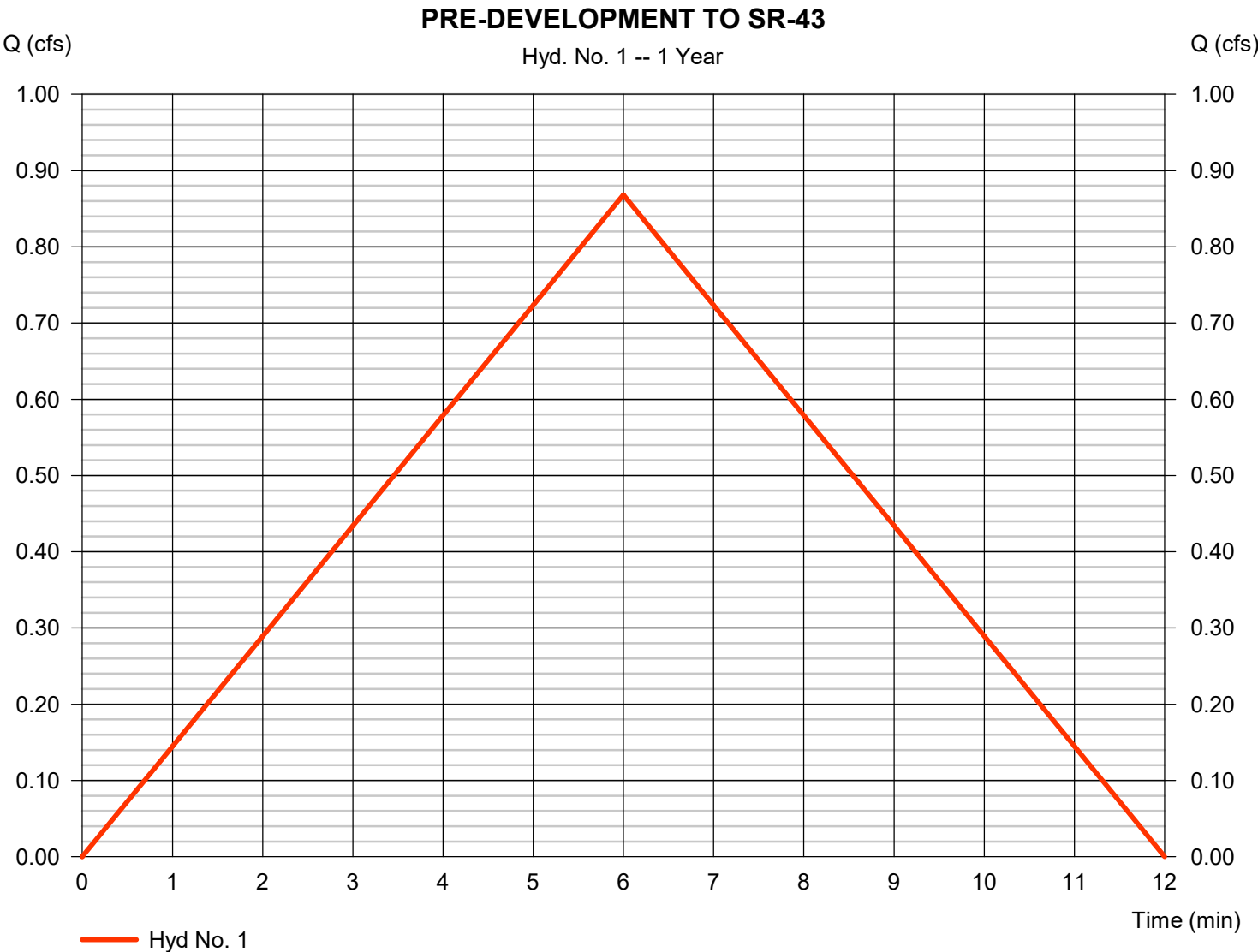
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	0.868	1	6	313	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.024	1	6	9	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	0.867	1	8	416	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	0.862	1	6	310	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.024	1	6	9	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.363	1	6	131	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	0.890	1	6	321	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	0.380	1	9	320	7	964.94	149	DETENTION ROUTE
9	Combine	0.689	1	6	451	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 1 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 0.868 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 313 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

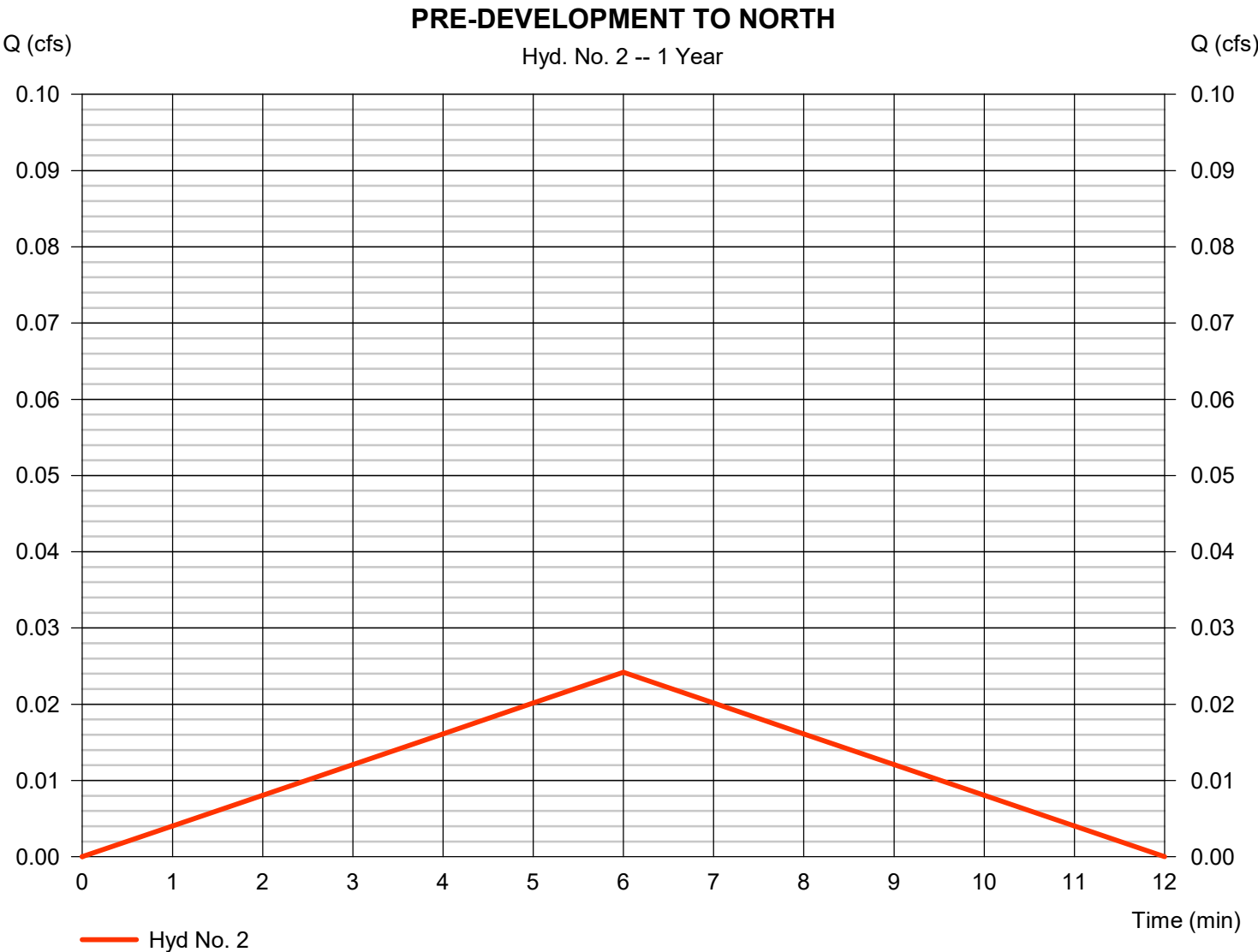


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.024 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 9 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

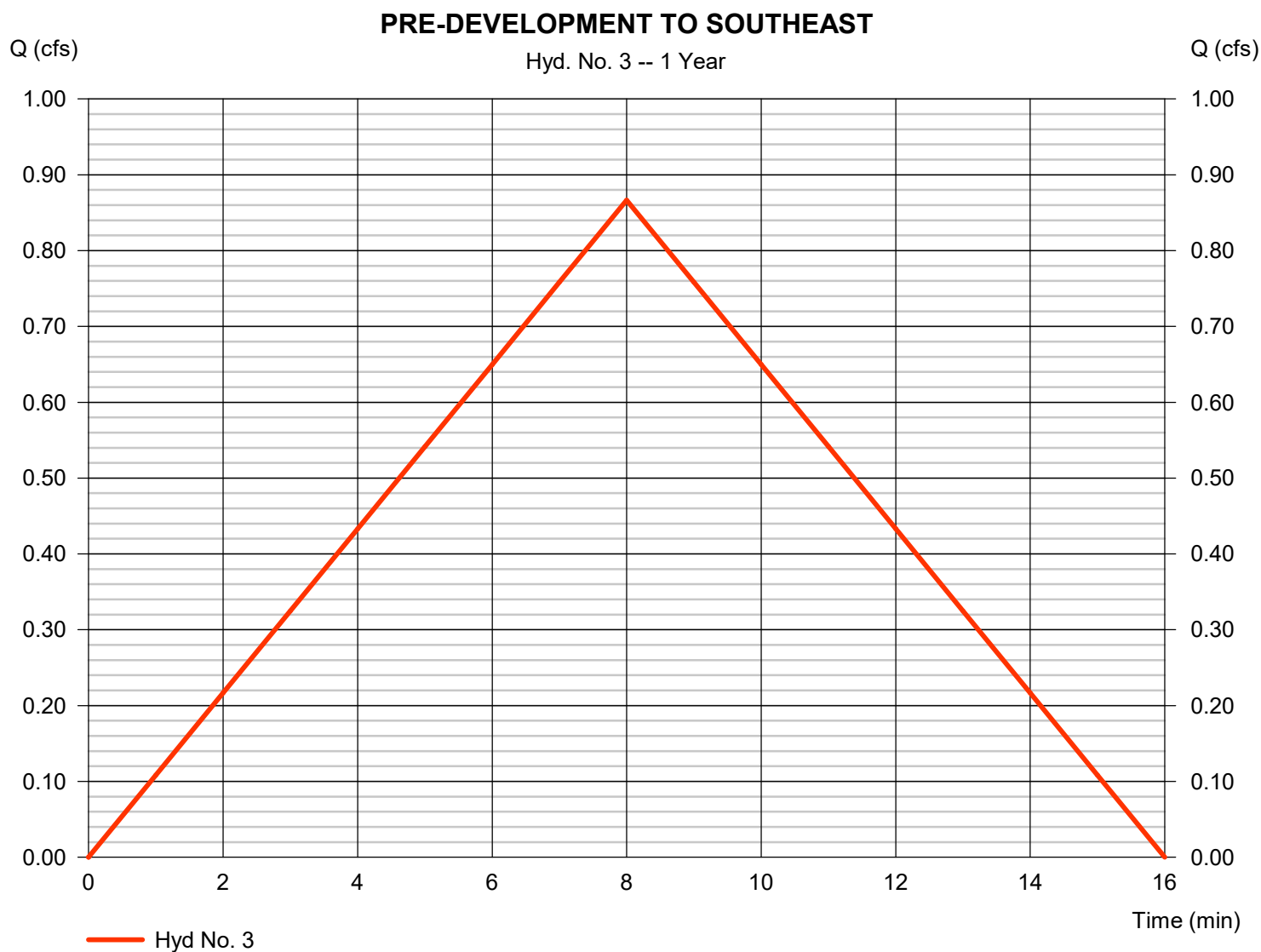
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Thursday, 08 / 13 / 2026

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.867 cfs
Storm frequency	= 1 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 416 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 3.301 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

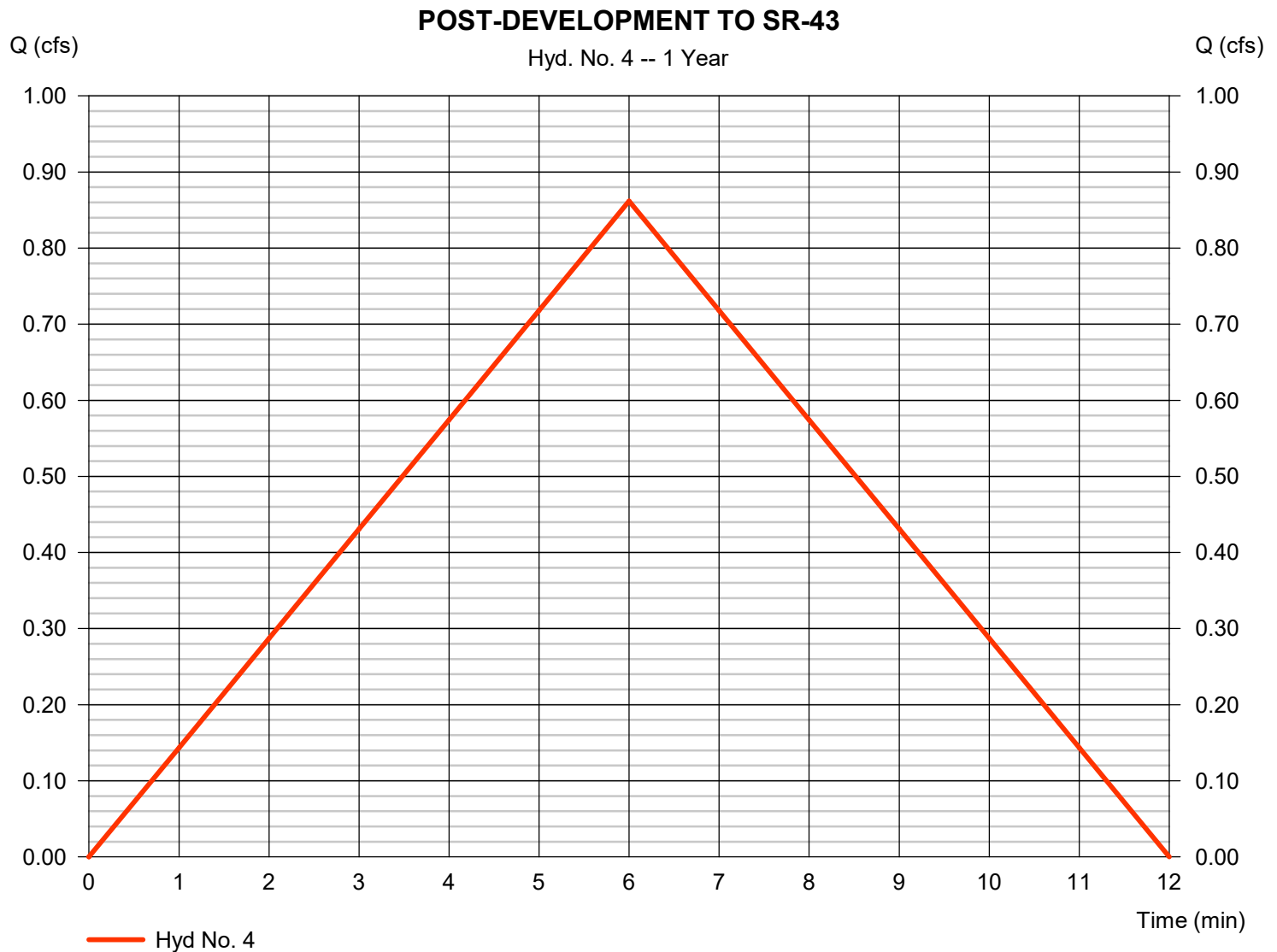
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Thursday, 08 / 13 / 2026

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 0.862 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 310 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

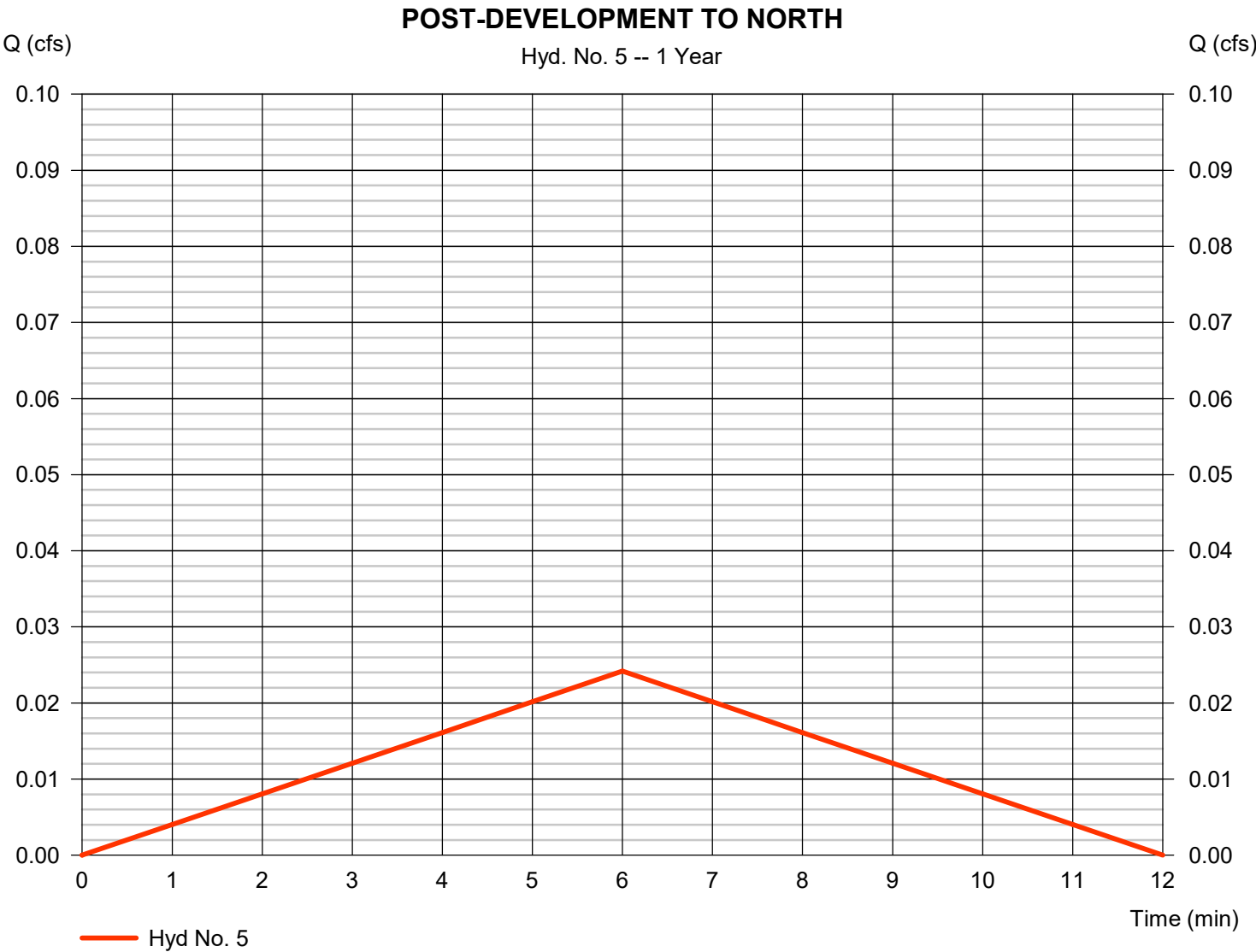


Hydrograph Report

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.024 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 9 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

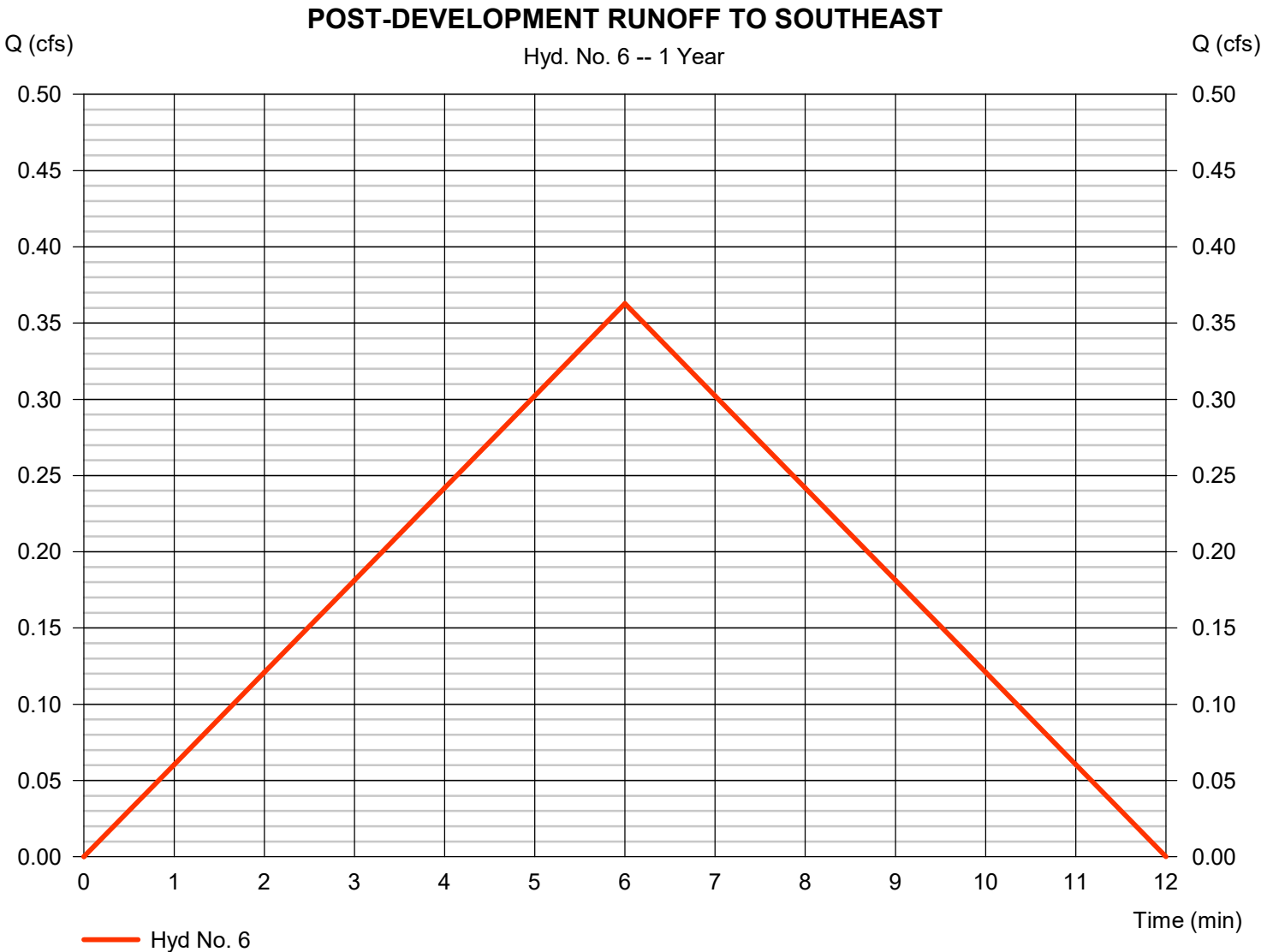


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.363 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 131 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

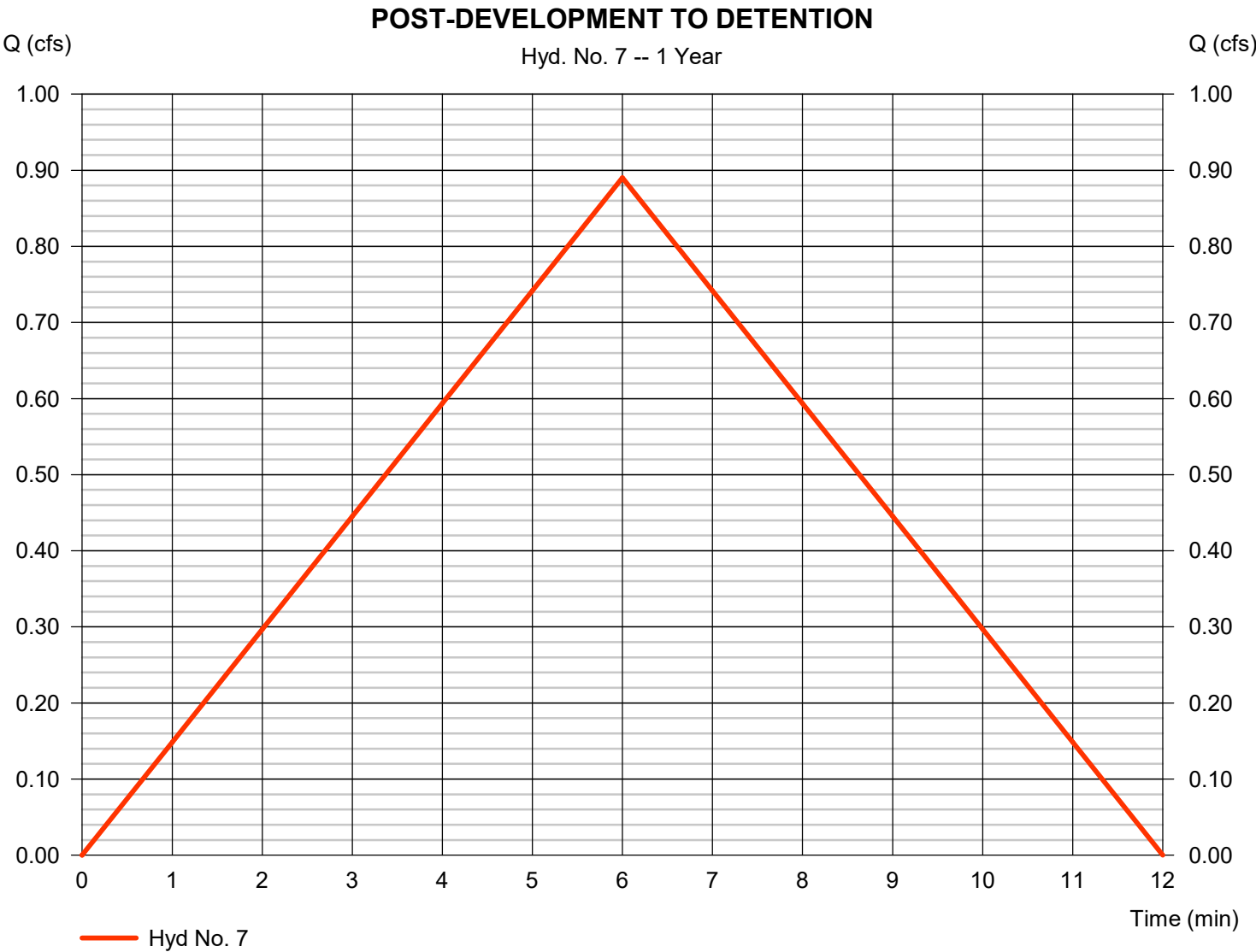


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 0.890 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 321 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 3.664 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

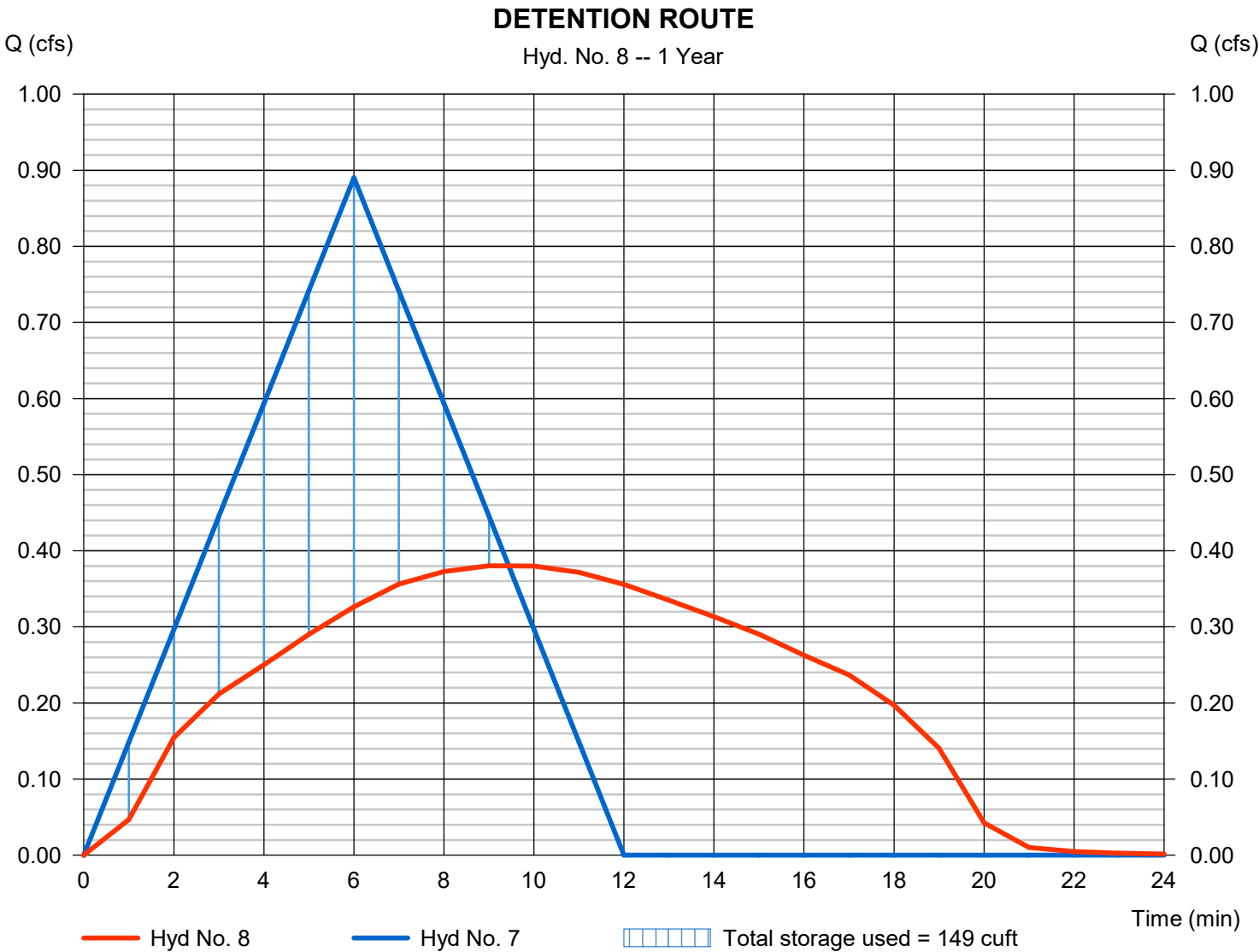
Thursday, 08 / 13 / 2026

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.380 cfs
Storm frequency	= 1 yrs	Time to peak	= 9 min
Time interval	= 1 min	Hyd. volume	= 320 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOWNSHIP DETENTION	Max. Elevation	= 964.94 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 149 cuft

Storage Indication method used.



Pond Report

12

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Thursday, 08 / 13 / 2026

Pond No. 1 - OVERSIZED PIPE AND WEIR

Pond Data

UG Chambers -Invert elev. = 963.72 ft, Rise x Span = 2.00 x 2.00 ft, Barrel Len = 120.00 ft, No. Barrels = 1, Slope = 0.65%, Headers = No

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	963.72	n/a	0	0
0.28	964.00	n/a	5	5
0.56	964.28	n/a	19	24
0.83	964.55	n/a	43	67
1.11	964.83	n/a	58	125
1.39	965.11	n/a	64	189
1.67	965.39	n/a	64	253
1.95	965.67	n/a	58	310
2.22	965.94	n/a	43	353
2.50	966.22	n/a	19	372
2.78	966.50	n/a	5	377

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	4.00	0.00	0.00
Span (in)	= 12.00	4.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 963.72	963.72	0.00	0.00
Length (ft)	= 9.77	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 3.00	0.00	0.00	0.00
Crest El. (ft)	= 966.25	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	963.72	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.03	1	963.75	0.00 oc	0.00 ic	---	---	0.00	---	---	---	---	---	0.002
0.06	1	963.78	0.01 oc	0.01 ic	---	---	0.00	---	---	---	---	---	0.006
0.08	2	963.80	0.01 oc	0.01 ic	---	---	0.00	---	---	---	---	---	0.014
0.11	2	963.83	0.02 oc	0.02 ic	---	---	0.00	---	---	---	---	---	0.024
0.14	3	963.86	0.04 oc	0.04 ic	---	---	0.00	---	---	---	---	---	0.036
0.17	3	963.89	0.05 oc	0.05 ic	---	---	0.00	---	---	---	---	---	0.050
0.19	4	963.91	0.07 oc	0.06 ic	---	---	0.00	---	---	---	---	---	0.065
0.22	4	963.94	0.08 oc	0.08 ic	---	---	0.00	---	---	---	---	---	0.082
0.25	5	963.97	0.10 oc	0.10 ic	---	---	0.00	---	---	---	---	---	0.099
0.28	5	964.00	0.12 oc	0.12 ic	---	---	0.00	---	---	---	---	---	0.117
0.31	7	964.03	0.14 oc	0.13 ic	---	---	0.00	---	---	---	---	---	0.131
0.33	9	964.05	0.15 oc	0.15 ic	---	---	0.00	---	---	---	---	---	0.146
0.36	11	964.08	0.16 oc	0.16 ic	---	---	0.00	---	---	---	---	---	0.158
0.39	13	964.11	0.17 oc	0.17 ic	---	---	0.00	---	---	---	---	---	0.166
0.42	15	964.14	0.18 oc	0.18 ic	---	---	0.00	---	---	---	---	---	0.177
0.44	17	964.16	0.19 oc	0.19 ic	---	---	0.00	---	---	---	---	---	0.187
0.47	19	964.19	0.20 oc	0.20 ic	---	---	0.00	---	---	---	---	---	0.197
0.50	20	964.22	0.21 oc	0.21 ic	---	---	0.00	---	---	---	---	---	0.206
0.53	22	964.25	0.21 oc	0.21 ic	---	---	0.00	---	---	---	---	---	0.215
0.56	24	964.28	0.22 oc	0.22 ic	---	---	0.00	---	---	---	---	---	0.224
0.58	29	964.30	0.23 oc	0.23 ic	---	---	0.00	---	---	---	---	---	0.232
0.61	33	964.33	0.24 oc	0.24 ic	---	---	0.00	---	---	---	---	---	0.239
0.64	37	964.36	0.25 oc	0.25 ic	---	---	0.00	---	---	---	---	---	0.247
0.67	41	964.39	0.26 oc	0.25 ic	---	---	0.00	---	---	---	---	---	0.254
0.70	46	964.41	0.27 oc	0.26 ic	---	---	0.00	---	---	---	---	---	0.261
0.72	50	964.44	0.27 oc	0.27 ic	---	---	0.00	---	---	---	---	---	0.269
0.75	54	964.47	0.28 oc	0.28 ic	---	---	0.00	---	---	---	---	---	0.277
0.78	58	964.50	0.29 oc	0.28 ic	---	---	0.00	---	---	---	---	---	0.283
0.81	63	964.53	0.30 oc	0.29 ic	---	---	0.00	---	---	---	---	---	0.290
0.83	67	964.55	0.30 oc	0.30 ic	---	---	0.00	---	---	---	---	---	0.297
0.86	73	964.58	0.31 oc	0.30 ic	---	---	0.00	---	---	---	---	---	0.304

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OVERSIZED PIPE AND WEIR

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.89	78	964.61	0.32 oc	0.31 ic	---	---	0.00	---	---	---	---	---	0.310
0.92	84	964.64	0.32 oc	0.32 ic	---	---	0.00	---	---	---	---	---	0.317
0.95	90	964.66	0.33 oc	0.32 ic	---	---	0.00	---	---	---	---	---	0.323
0.97	96	964.69	0.34 oc	0.33 ic	---	---	0.00	---	---	---	---	---	0.329
1.00	102	964.72	0.34 oc	0.34 ic	---	---	0.00	---	---	---	---	---	0.336
1.03	107	964.75	0.35 oc	0.34 ic	---	---	0.00	---	---	---	---	---	0.341
1.06	113	964.78	0.35 oc	0.35 ic	---	---	0.00	---	---	---	---	---	0.347
1.08	119	964.80	0.36 oc	0.35 ic	---	---	0.00	---	---	---	---	---	0.354
1.11	125	964.83	0.37 oc	0.36 ic	---	---	0.00	---	---	---	---	---	0.359
1.14	131	964.86	0.37 oc	0.37 ic	---	---	0.00	---	---	---	---	---	0.365
1.17	137	964.89	0.38 oc	0.37 ic	---	---	0.00	---	---	---	---	---	0.370
1.20	144	964.92	0.38 oc	0.38 ic	---	---	0.00	---	---	---	---	---	0.377
1.22	150	964.94	0.39 oc	0.38 ic	---	---	0.00	---	---	---	---	---	0.381
1.25	157	964.97	0.39 oc	0.39 ic	---	---	0.00	---	---	---	---	---	0.388
1.28	163	965.00	0.40 oc	0.39 ic	---	---	0.00	---	---	---	---	---	0.392
1.31	169	965.03	0.40 oc	0.40 ic	---	---	0.00	---	---	---	---	---	0.399
1.33	176	965.05	0.41 oc	0.40 ic	---	---	0.00	---	---	---	---	---	0.403
1.36	182	965.08	0.41 oc	0.41 ic	---	---	0.00	---	---	---	---	---	0.409
1.39	189	965.11	0.42 oc	0.41 ic	---	---	0.00	---	---	---	---	---	0.413
1.42	195	965.14	0.42 oc	0.42 ic	---	---	0.00	---	---	---	---	---	0.419
1.45	201	965.17	0.43 oc	0.42 ic	---	---	0.00	---	---	---	---	---	0.423
1.47	208	965.19	0.43 oc	0.43 ic	---	---	0.00	---	---	---	---	---	0.429
1.50	214	965.22	0.44 oc	0.43 ic	---	---	0.00	---	---	---	---	---	0.433
1.53	221	965.25	0.44 oc	0.44 ic	---	---	0.00	---	---	---	---	---	0.439
1.56	227	965.28	0.45 oc	0.44 ic	---	---	0.00	---	---	---	---	---	0.443
1.58	233	965.30	0.45 oc	0.45 ic	---	---	0.00	---	---	---	---	---	0.448
1.61	240	965.33	0.45 oc	0.45 ic	---	---	0.00	---	---	---	---	---	0.453
1.64	246	965.36	0.46 oc	0.46 ic	---	---	0.00	---	---	---	---	---	0.458
1.67	253	965.39	0.46 oc	0.46 ic	---	---	0.00	---	---	---	---	---	0.463
1.70	258	965.42	0.48 oc	0.47 ic	---	---	0.00	---	---	---	---	---	0.467
1.72	264	965.44	0.48 oc	0.47 ic	---	---	0.00	---	---	---	---	---	0.472
1.75	270	965.47	0.49 oc	0.48 ic	---	---	0.00	---	---	---	---	---	0.476
1.78	276	965.50	0.49 oc	0.48 ic	---	---	0.00	---	---	---	---	---	0.481
1.81	281	965.53	0.49 oc	0.49 ic	---	---	0.00	---	---	---	---	---	0.486
1.83	287	965.55	0.50 oc	0.49 ic	---	---	0.00	---	---	---	---	---	0.490
1.86	293	965.58	0.50 oc	0.49 ic	---	---	0.00	---	---	---	---	---	0.495
1.89	299	965.61	0.51 oc	0.50 ic	---	---	0.00	---	---	---	---	---	0.498
1.92	305	965.64	0.51 oc	0.50 ic	---	---	0.00	---	---	---	---	---	0.503
1.95	310	965.67	0.51 oc	0.51 ic	---	---	0.00	---	---	---	---	---	0.508
1.97	315	965.69	0.52 oc	0.51 ic	---	---	0.00	---	---	---	---	---	0.511
2.00	319	965.72	0.52 oc	0.52 ic	---	---	0.00	---	---	---	---	---	0.516
2.03	323	965.75	0.53 oc	0.52 ic	---	---	0.00	---	---	---	---	---	0.520
2.06	327	965.78	0.53 oc	0.52 ic	---	---	0.00	---	---	---	---	---	0.524
2.09	332	965.80	0.53 oc	0.53 ic	---	---	0.00	---	---	---	---	---	0.529
2.11	336	965.83	0.54 oc	0.53 ic	---	---	0.00	---	---	---	---	---	0.532
2.14	340	965.86	0.54 oc	0.54 ic	---	---	0.00	---	---	---	---	---	0.537
2.17	344	965.89	0.54 oc	0.54 ic	---	---	0.00	---	---	---	---	---	0.541
2.20	349	965.92	0.55 oc	0.54 ic	---	---	0.00	---	---	---	---	---	0.545
2.22	353	965.94	0.55 oc	0.55 ic	---	---	0.00	---	---	---	---	---	0.549
2.25	355	965.97	0.56 oc	0.55 ic	---	---	0.00	---	---	---	---	---	0.552
2.28	357	966.00	0.56 oc	0.56 ic	---	---	0.00	---	---	---	---	---	0.557
2.31	359	966.03	0.56 oc	0.56 ic	---	---	0.00	---	---	---	---	---	0.561
2.34	360	966.06	0.57 oc	0.56 ic	---	---	0.00	---	---	---	---	---	0.564
2.36	362	966.08	0.57 oc	0.57 ic	---	---	0.00	---	---	---	---	---	0.569
2.39	364	966.11	0.57 oc	0.57 ic	---	---	0.00	---	---	---	---	---	0.573
2.42	366	966.14	0.58 oc	0.58 ic	---	---	0.00	---	---	---	---	---	0.576
2.45	368	966.17	0.58 oc	0.58 ic	---	---	0.00	---	---	---	---	---	0.580
2.47	370	966.19	0.58 oc	0.58 ic	---	---	0.00	---	---	---	---	---	0.584
2.50	372	966.22	0.60 oc	0.59 ic	---	---	0.00	---	---	---	---	---	0.587
2.53	372	966.25	0.60 oc	0.59 ic	---	---	0.00	---	---	---	---	---	0.592
2.56	373	966.28	0.60 oc	0.60 ic	---	---	0.05	---	---	---	---	---	0.641
2.59	373	966.31	0.61 oc	0.60 ic	---	---	0.13	---	---	---	---	---	0.729
2.61	374	966.33	0.61 oc	0.60 ic	---	---	0.24	---	---	---	---	---	0.842
2.64	374	966.36	0.61 oc	0.61 ic	---	---	0.37	---	---	---	---	---	0.975
2.67	375	966.39	0.62 oc	0.61 ic	---	---	0.52	---	---	---	---	---	1.125
2.70	375	966.42	0.62 oc	0.61 ic	---	---	0.68	---	---	---	---	---	1.292
2.72	376	966.44	0.62 oc	0.62 ic	---	---	0.85	---	---	---	---	---	1.471
2.75	377	966.47	0.63 oc	0.62 ic	---	---	1.04	---	---	---	---	---	1.665
2.78	377	966.50	0.63 oc	0.62 ic	---	---	1.25	---	---	---	---	---	1.873

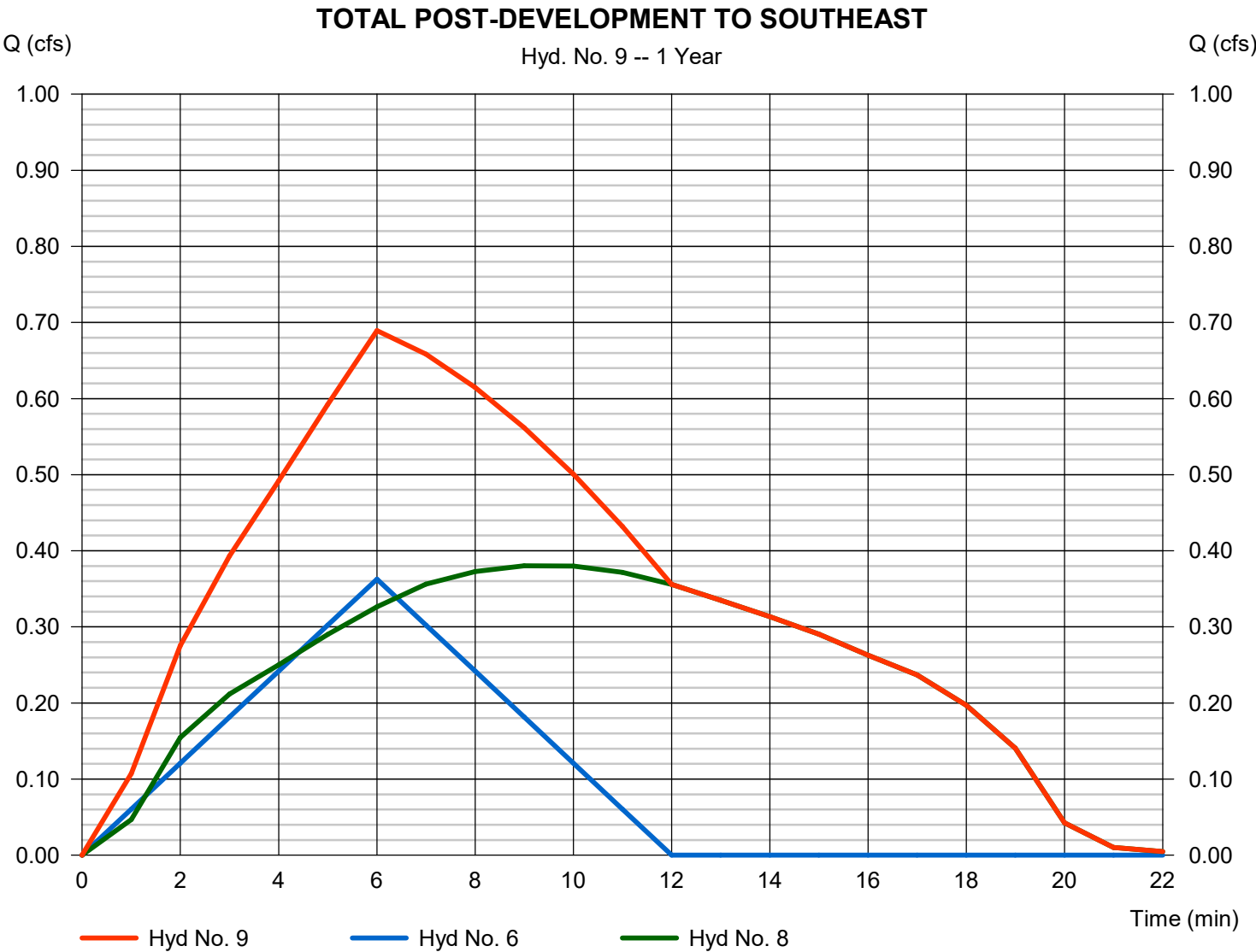
...End

Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 0.689 cfs
Storm frequency	= 1 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 451 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

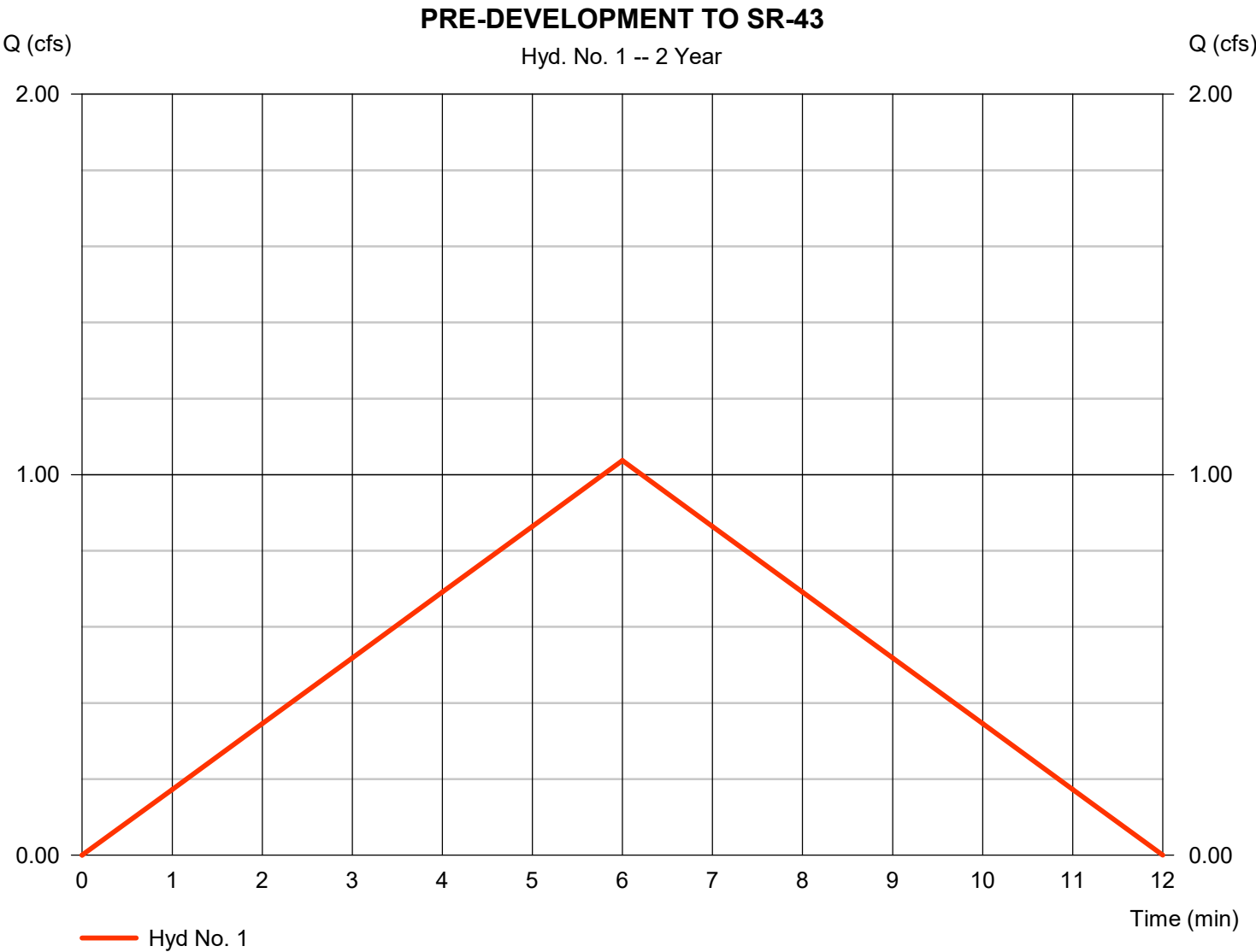
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.037	1	6	373	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.029	1	6	10	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.037	1	8	498	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.029	1	6	371	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.029	1	6	10	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.433	1	6	156	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	1.063	1	6	383	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	0.418	1	10	382	7	965.13	193	DETENTION ROUTE
9	Combine	0.787	1	6	538	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 2 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.037 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 373 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

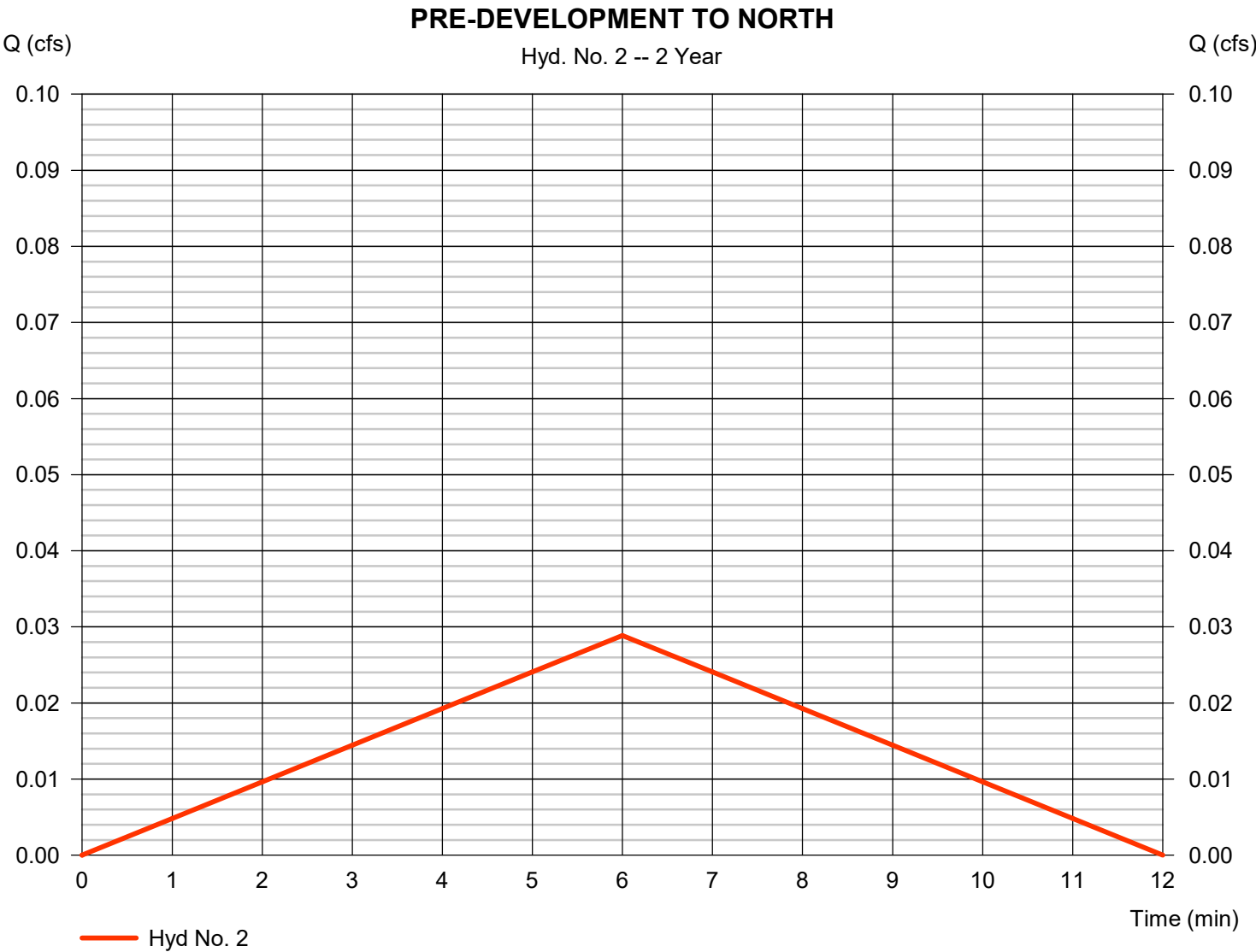


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.029 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 10 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

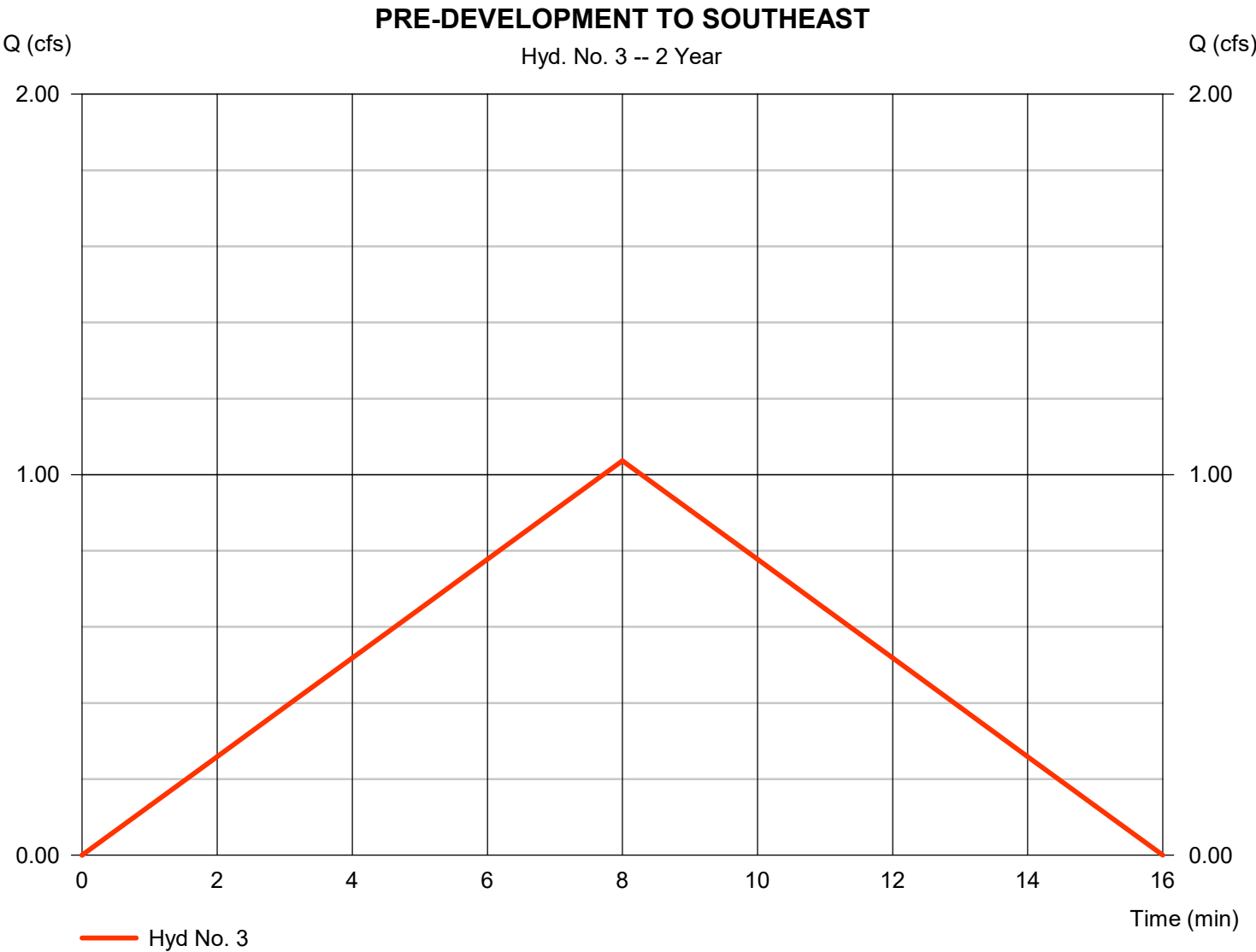


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.037 cfs
Storm frequency	= 2 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 498 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 3.949 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

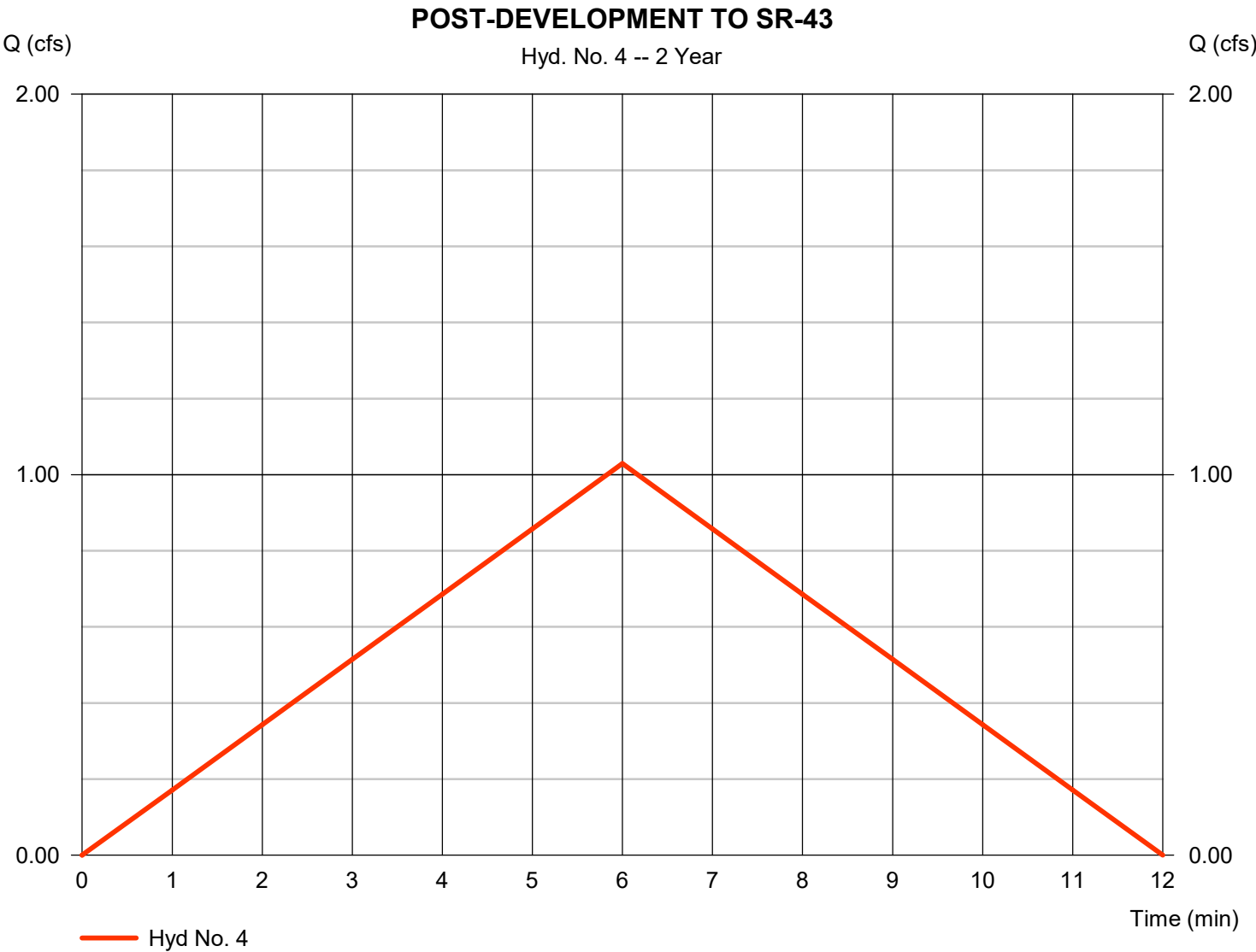


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.029 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 371 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

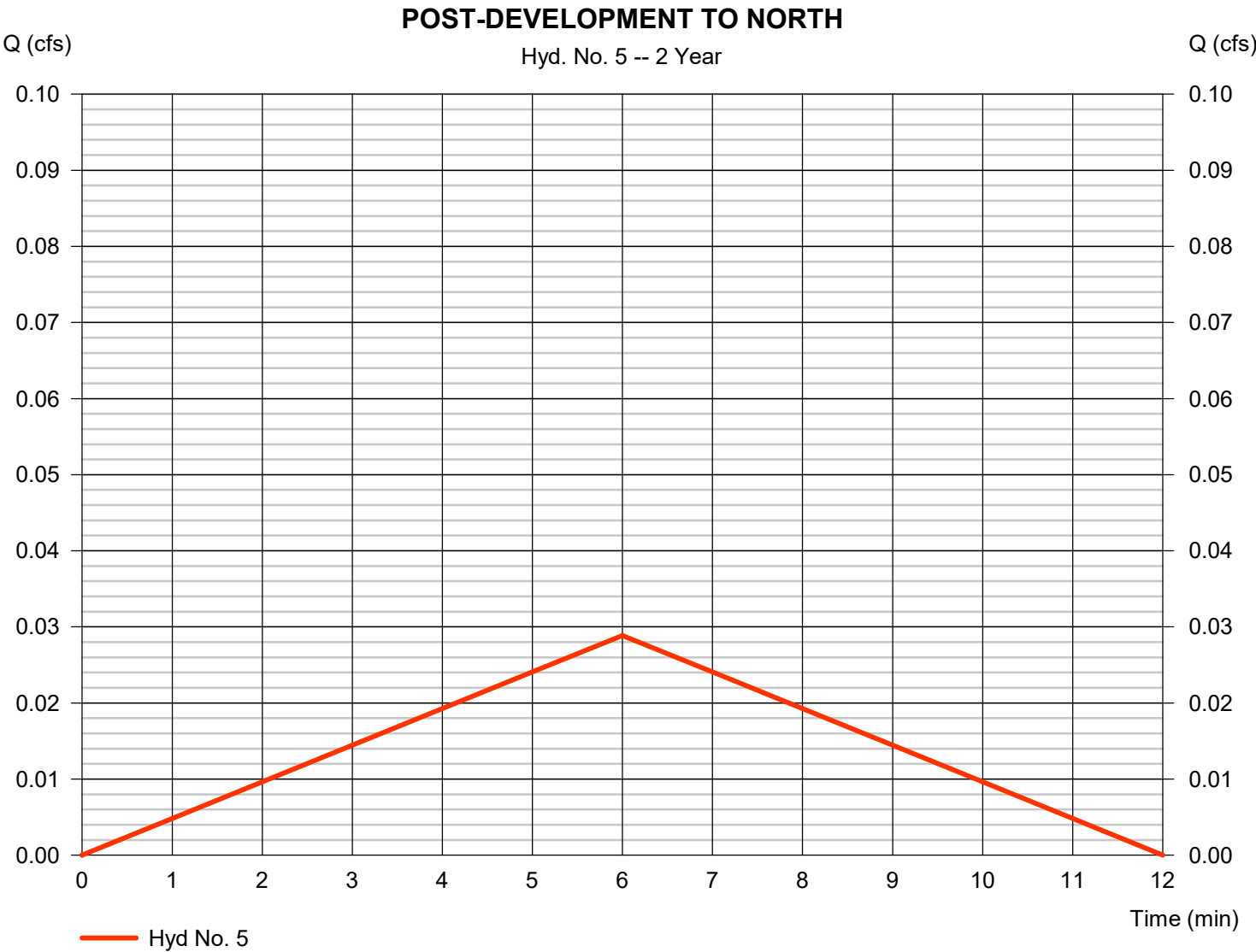


Hydrograph Report

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.029 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 10 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

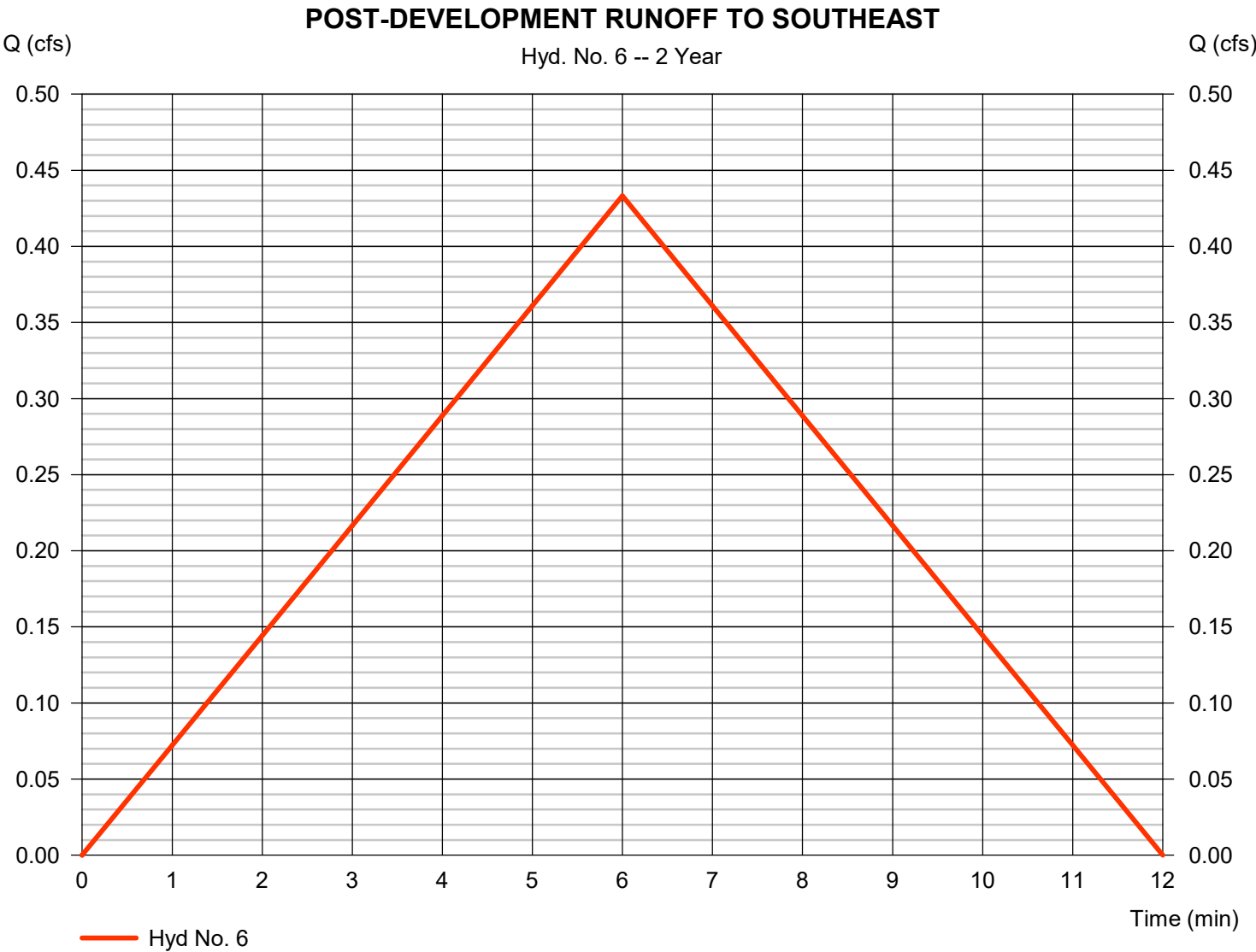


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.433 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 156 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

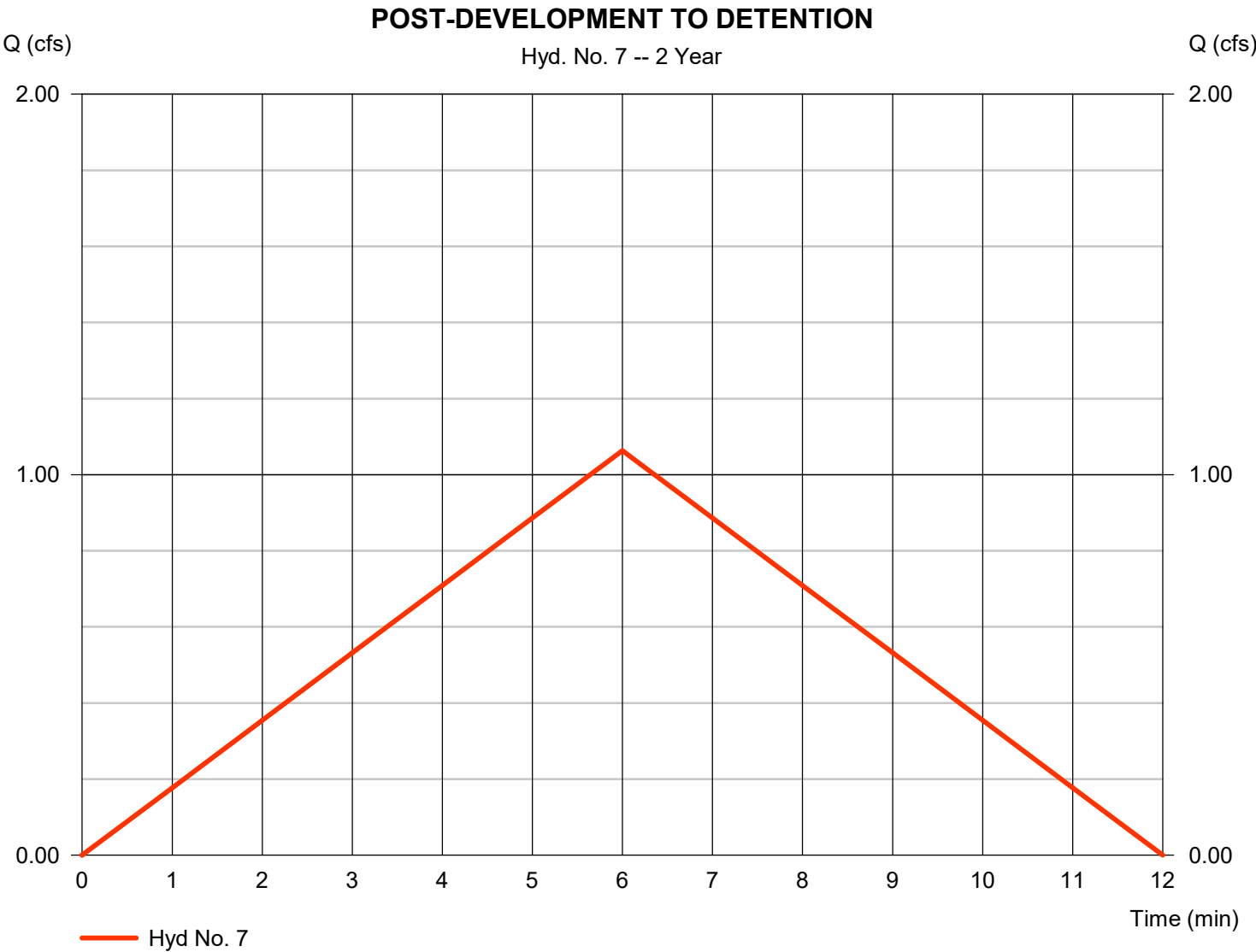


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 1.063 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 383 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 4.376 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



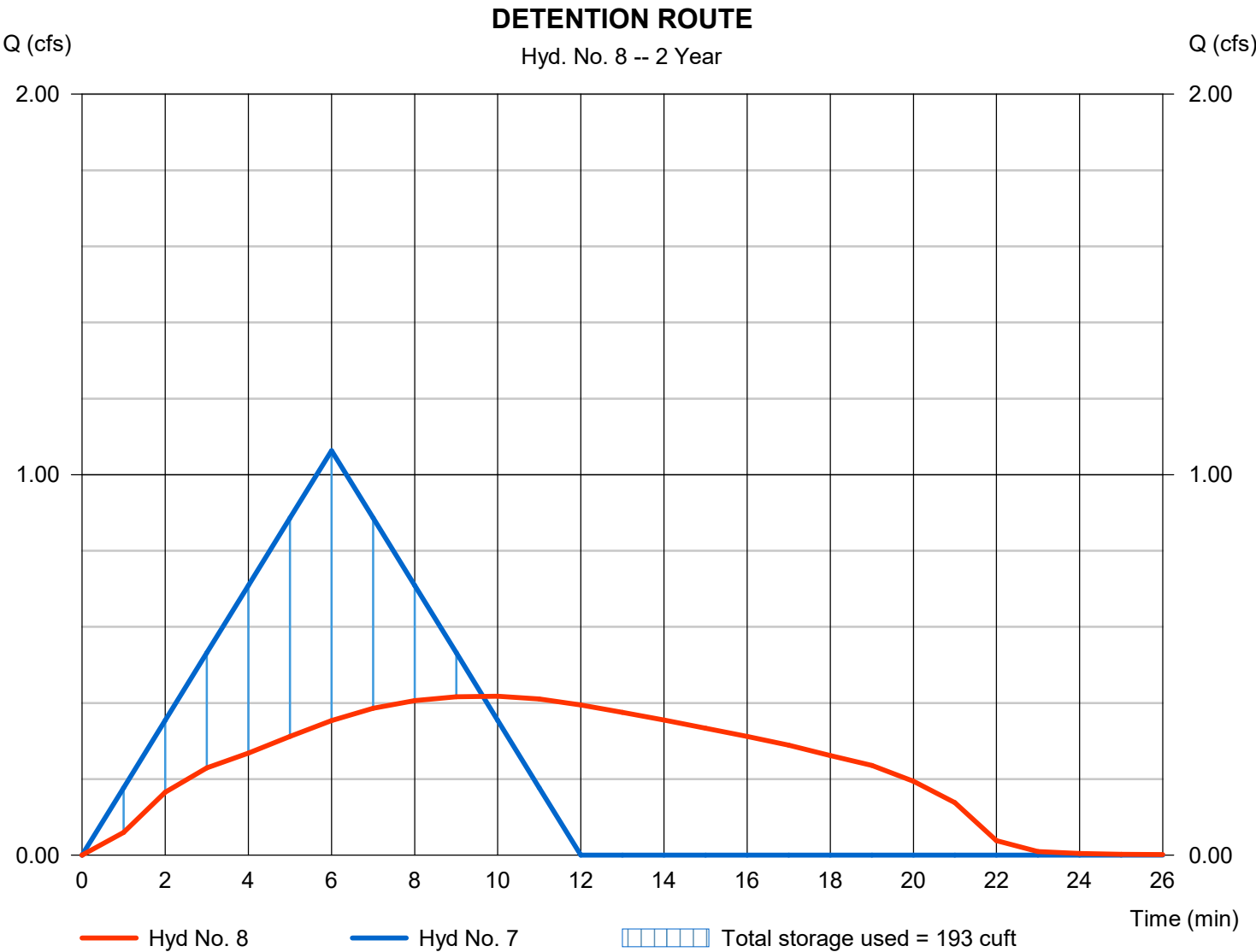
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.418 cfs
Storm frequency	= 2 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 382 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOWNSHIP DETENTION	Max. Elevation	= 965.13 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 193 cuft

Storage Indication method used.

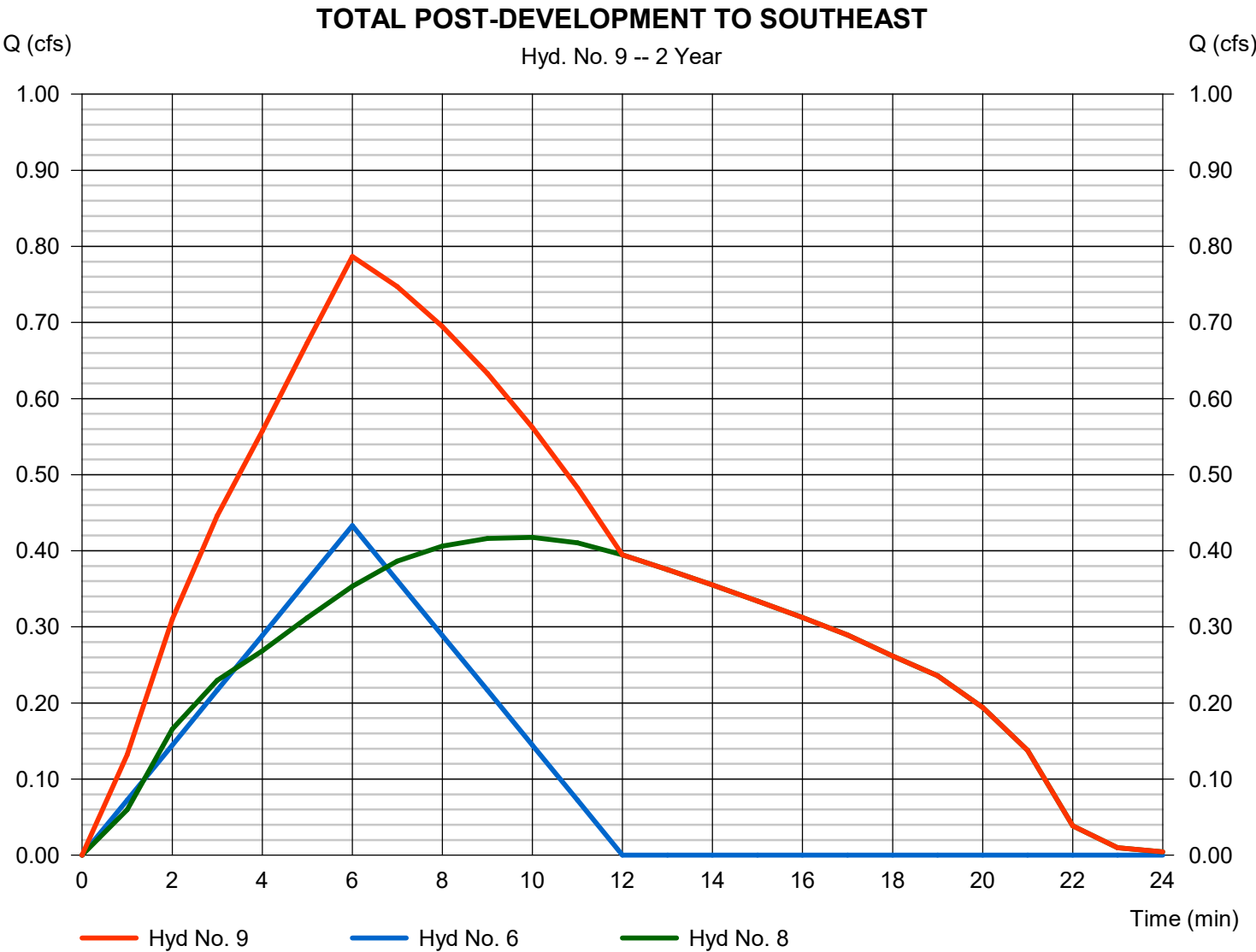


Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 0.787 cfs
Storm frequency	= 2 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 538 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

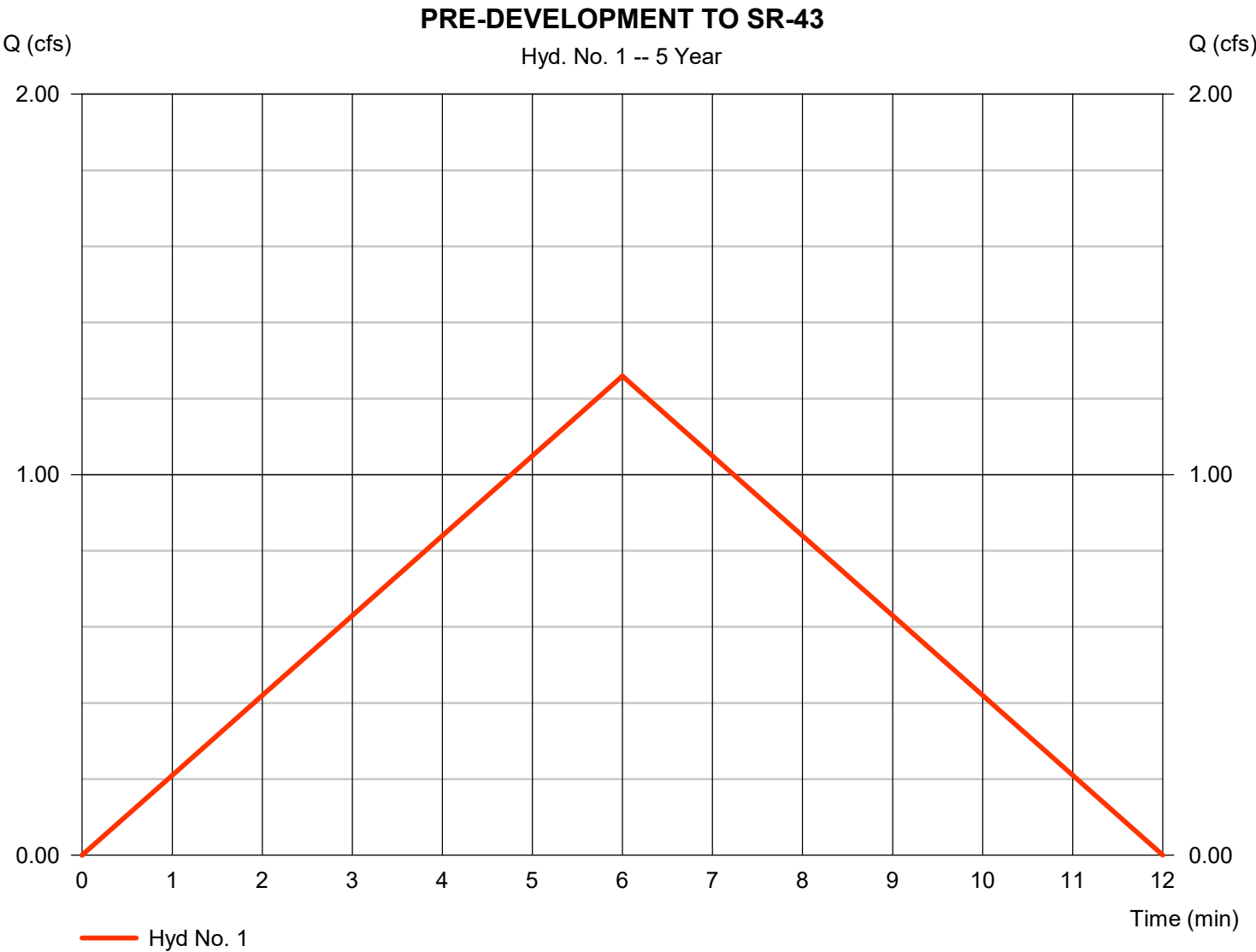
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.259	1	6	453	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.035	1	6	13	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.261	1	8	605	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.250	1	6	450	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.035	1	6	13	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.526	1	6	189	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	1.291	1	6	465	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	0.464	1	10	464	7	965.40	254	DETENTION ROUTE
9	Combine	0.910	1	6	654	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 5 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.259 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 453 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

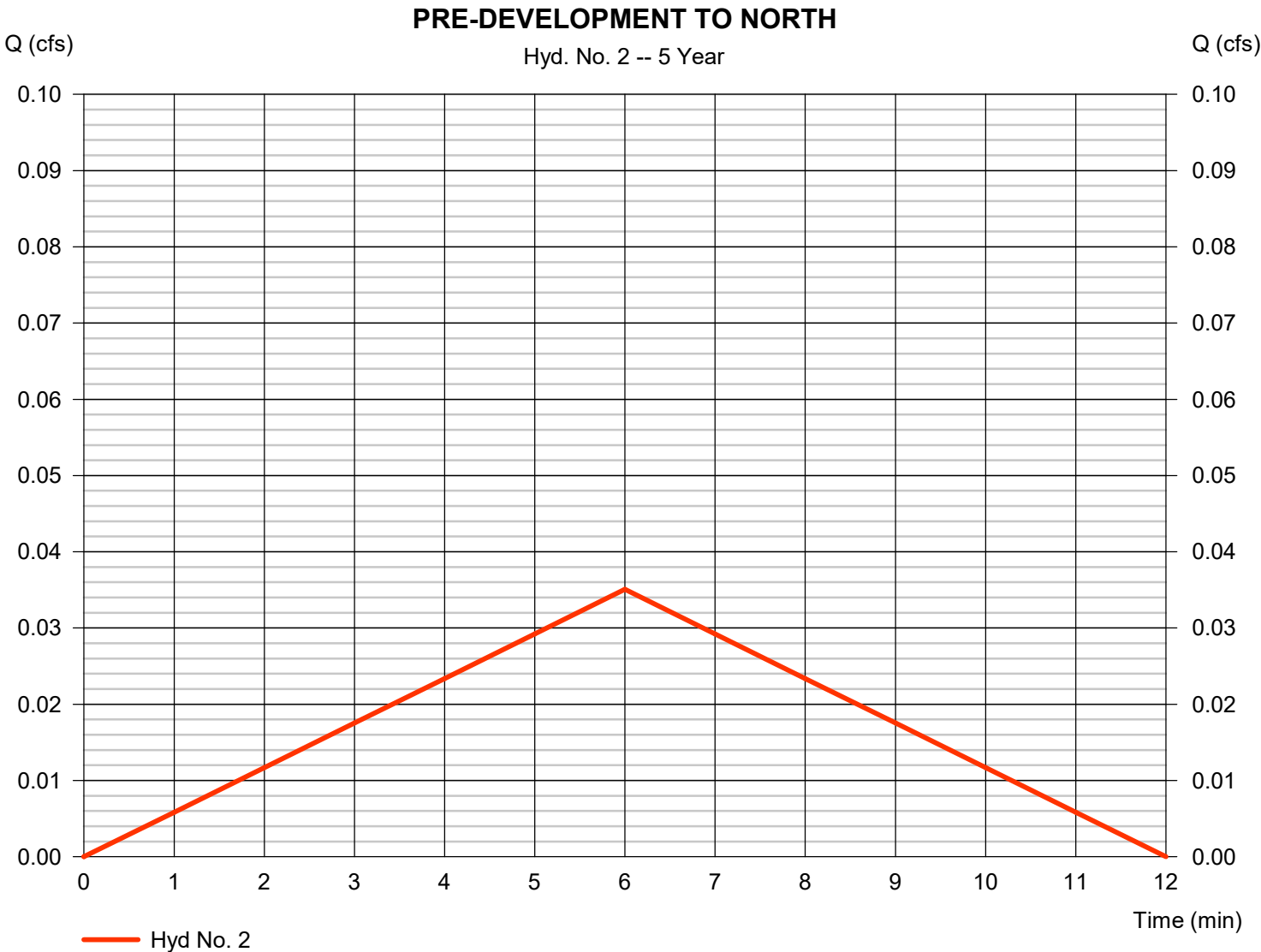


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.035 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 13 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

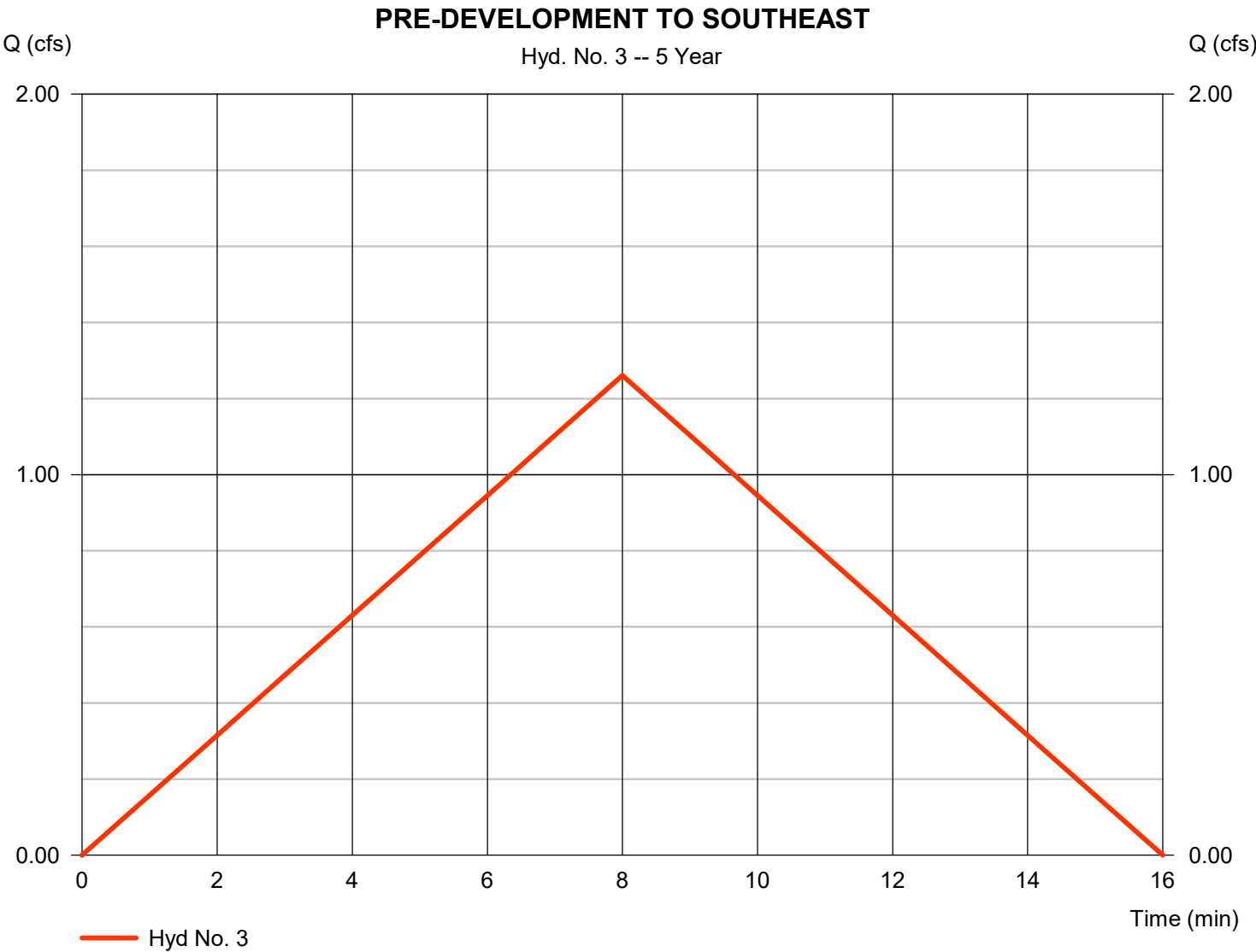


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.261 cfs
Storm frequency	= 5 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 605 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 4.802 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

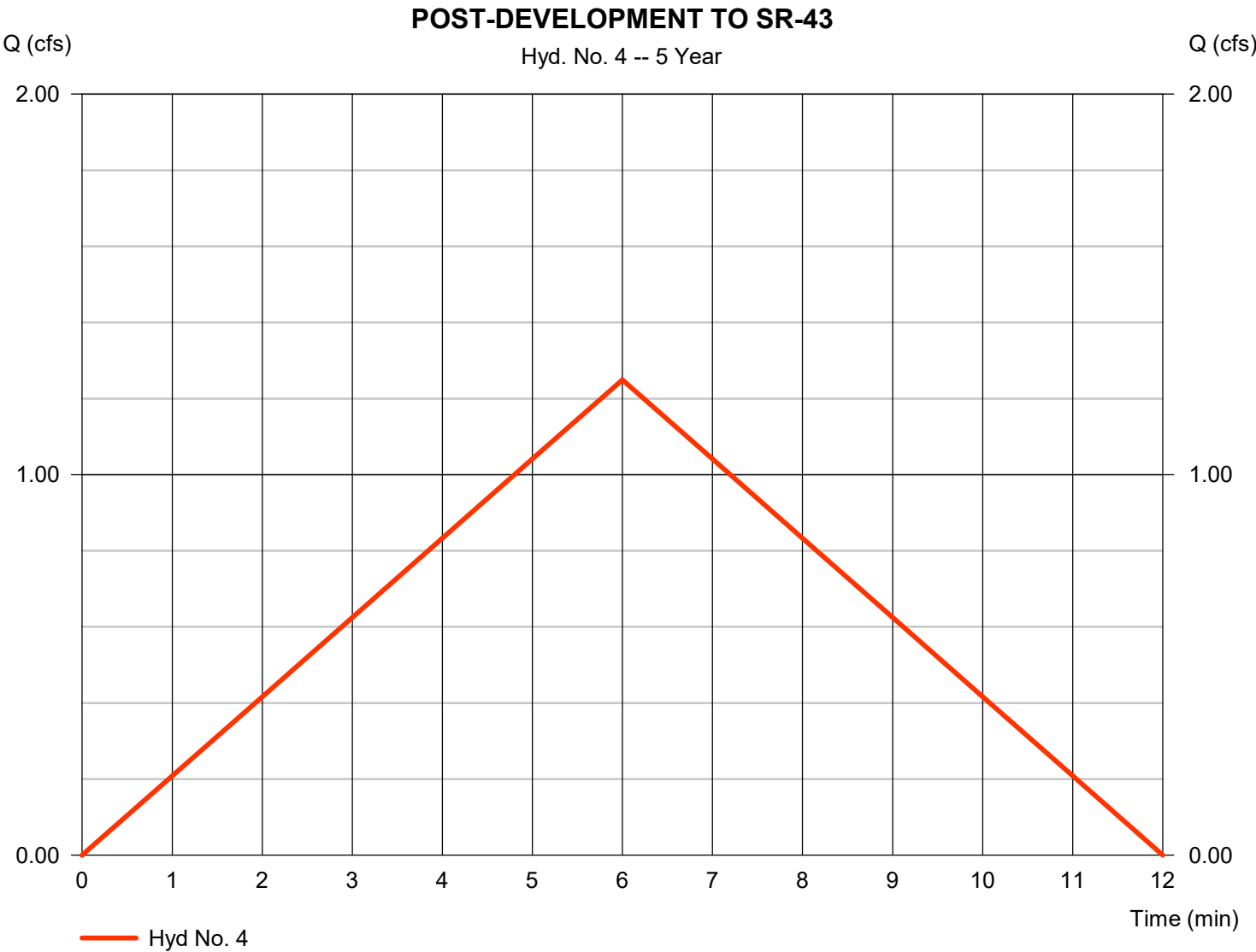


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.250 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 450 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

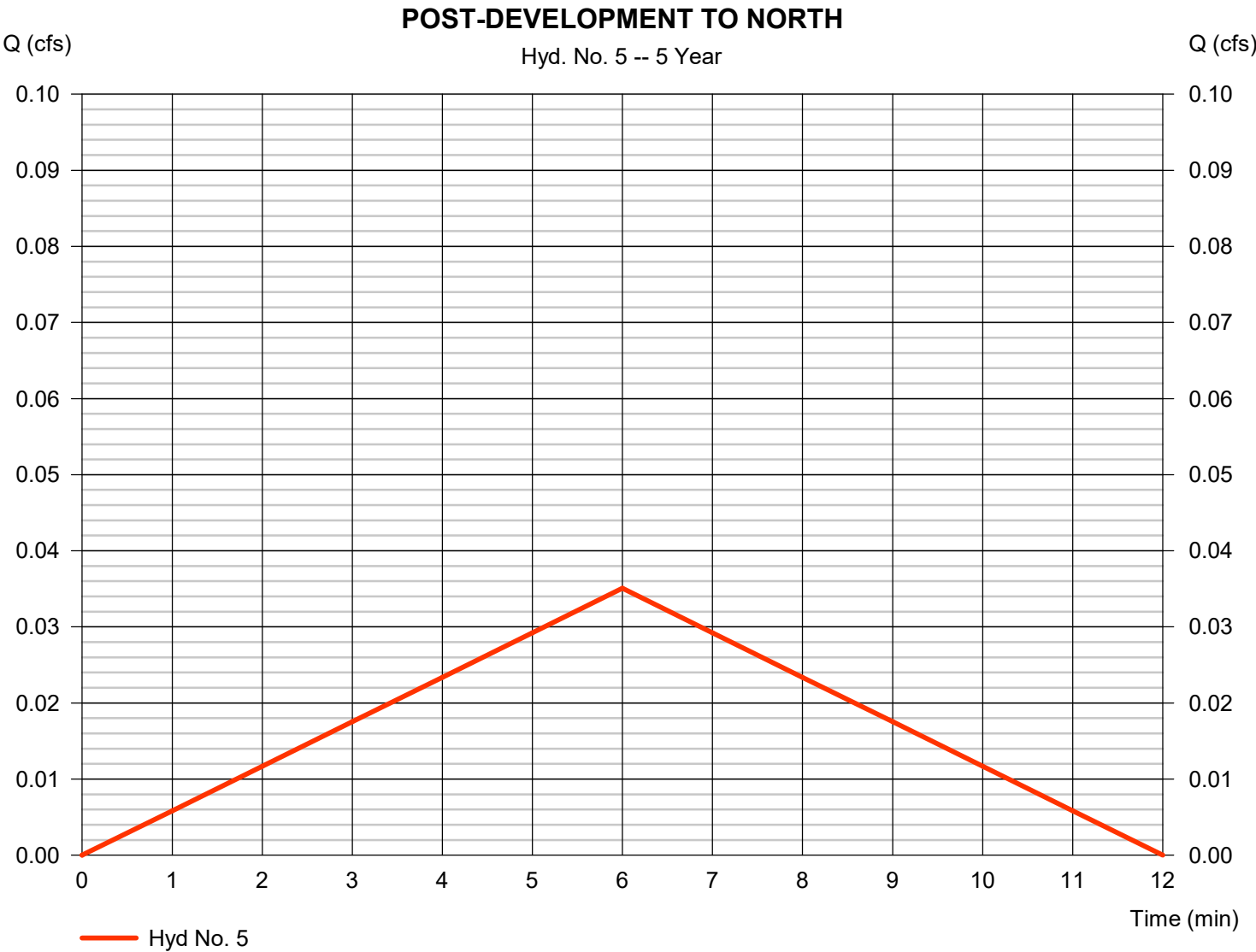


Hydrograph Report

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.035 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 13 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

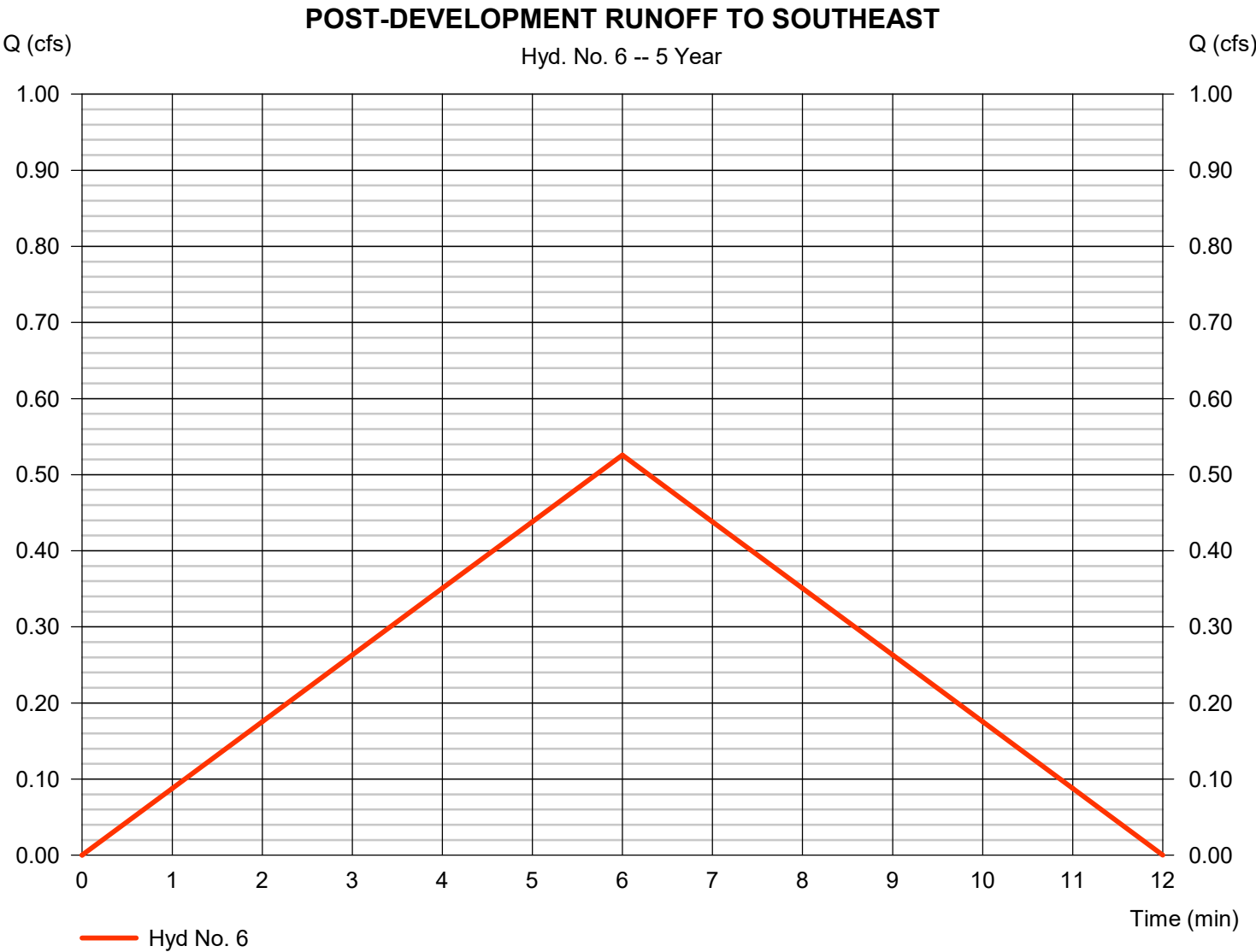


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.526 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 189 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

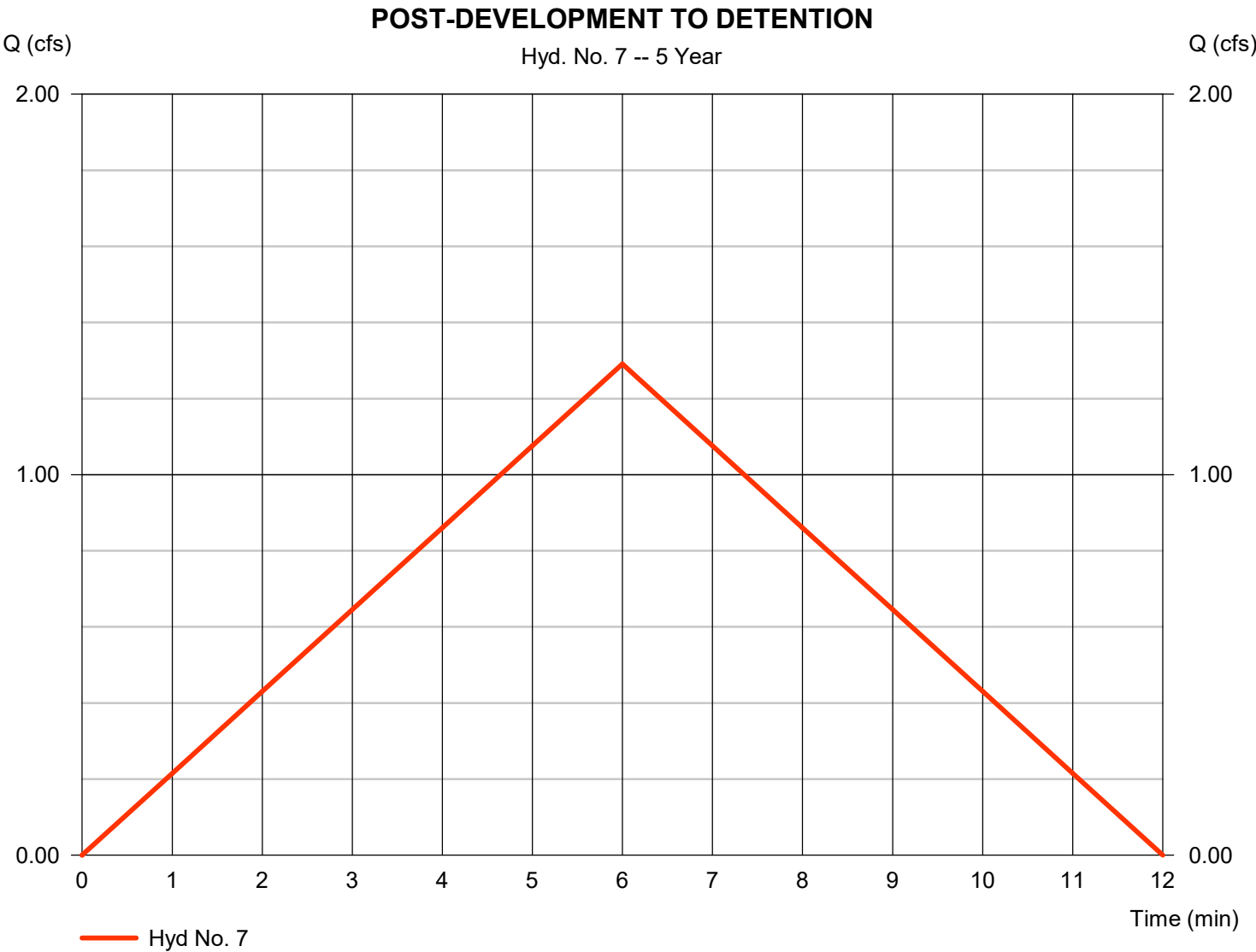


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 1.291 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 465 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 5.313 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



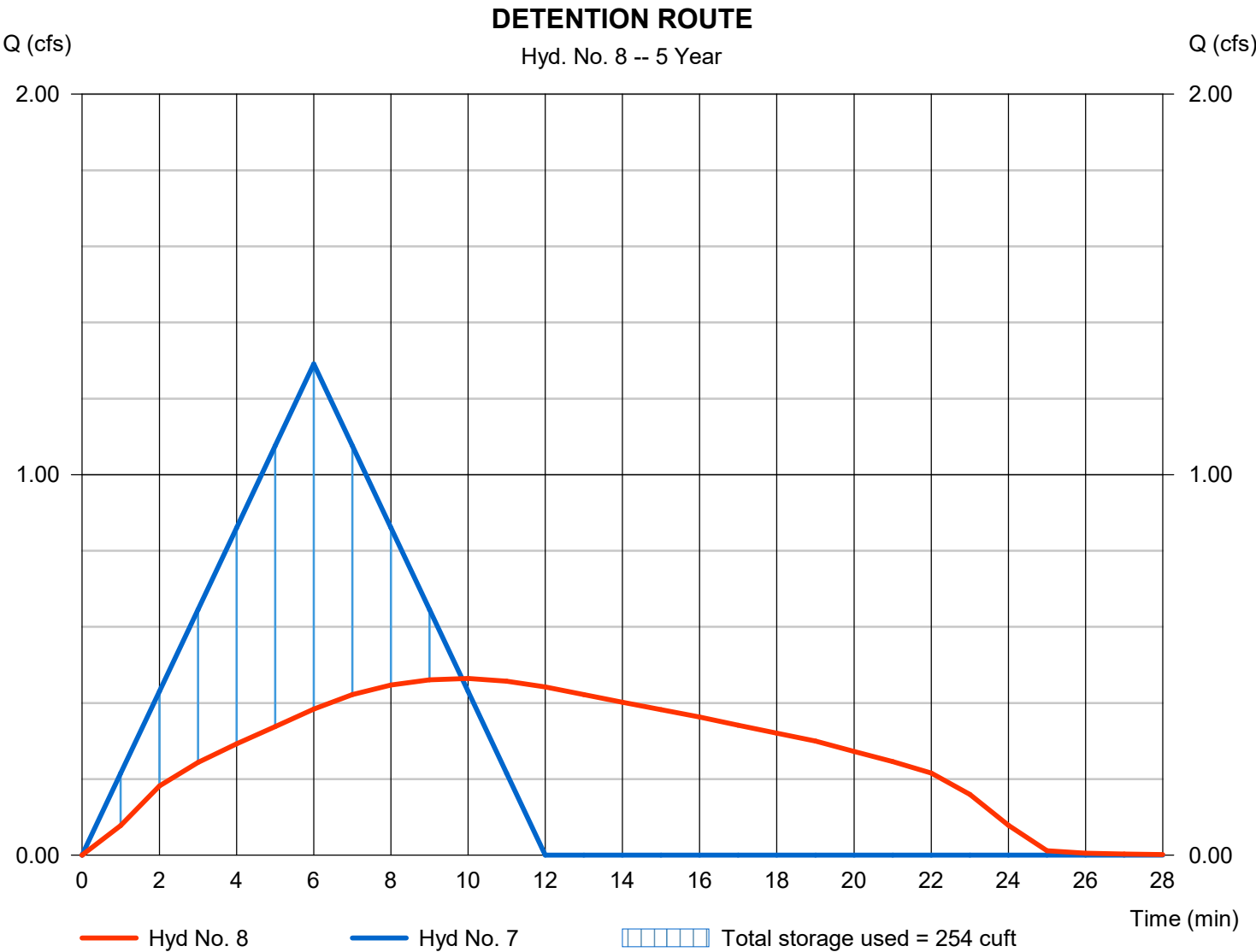
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.464 cfs
Storm frequency	= 5 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 464 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOWNSHIP DETENTION	Max. Elevation	= 965.40 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 254 cuft

Storage Indication method used.

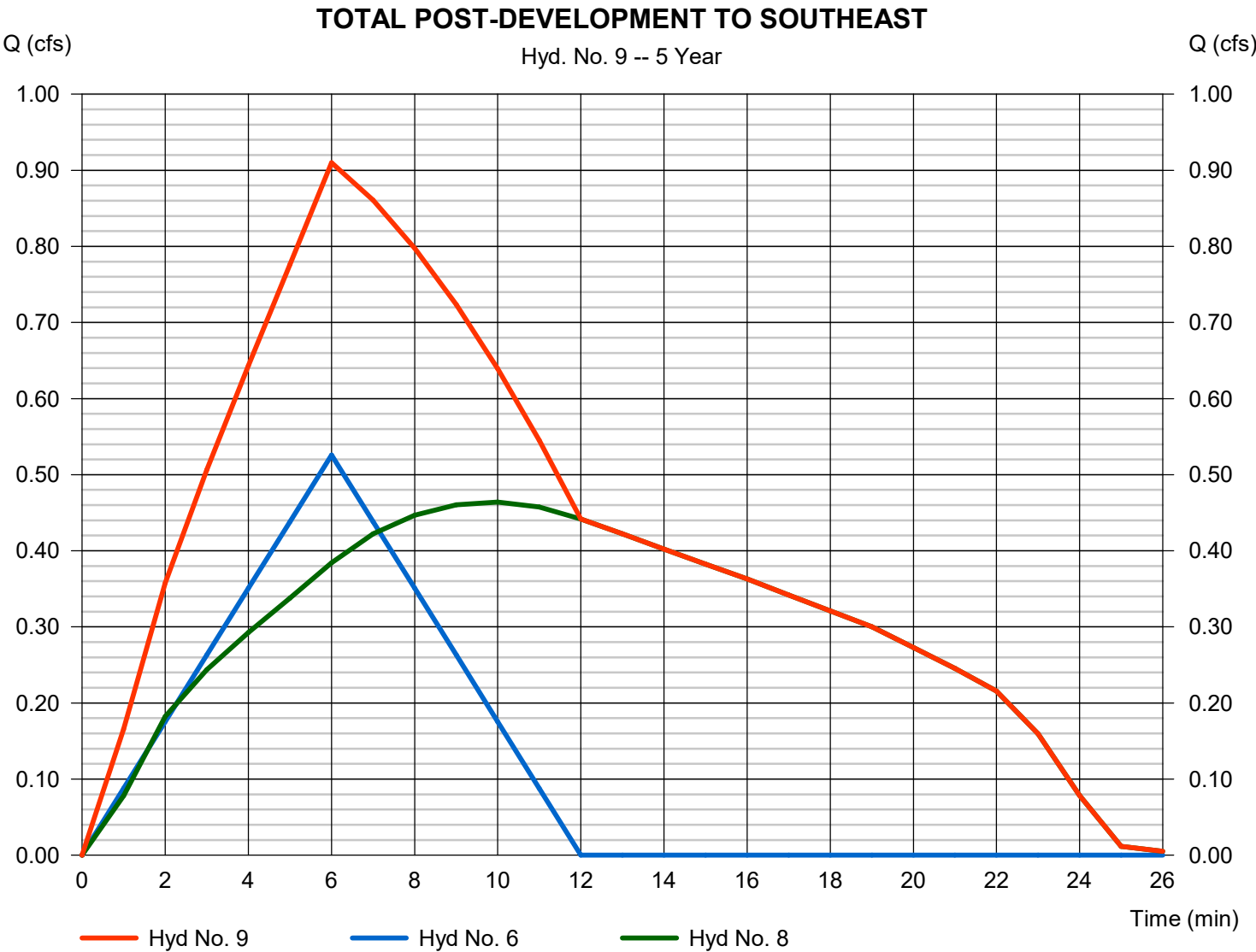


Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 0.910 cfs
Storm frequency	= 5 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 654 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.425	1	6	513	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.040	1	6	14	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.427	1	8	685	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.414	1	6	509	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.040	1	6	14	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.595	1	6	214	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	1.461	1	6	526	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	0.499	1	10	526	7	965.62	300	DETENTION ROUTE
9	Combine	1.001	1	6	740	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 10 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.425 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 513 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

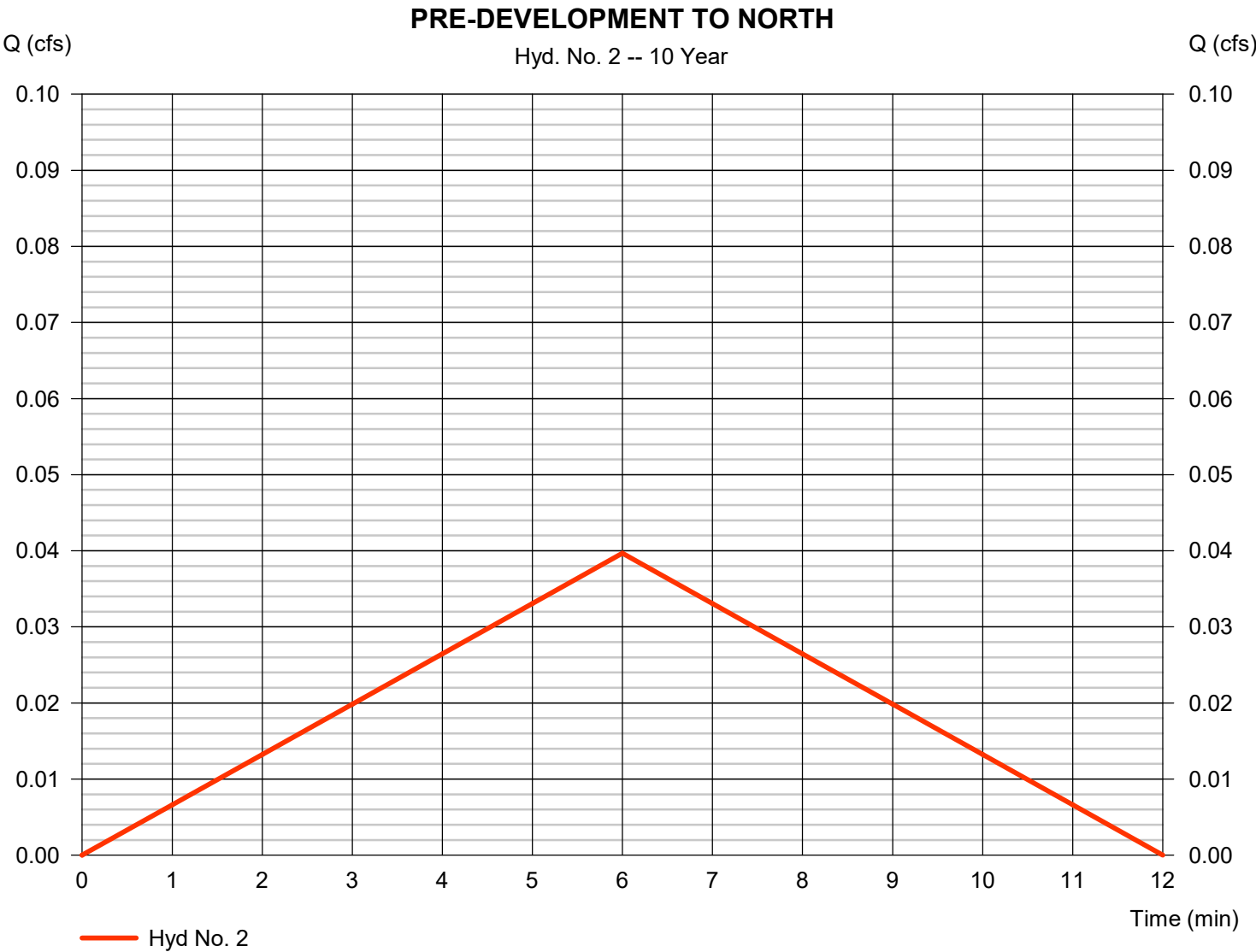


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.040 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 14 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

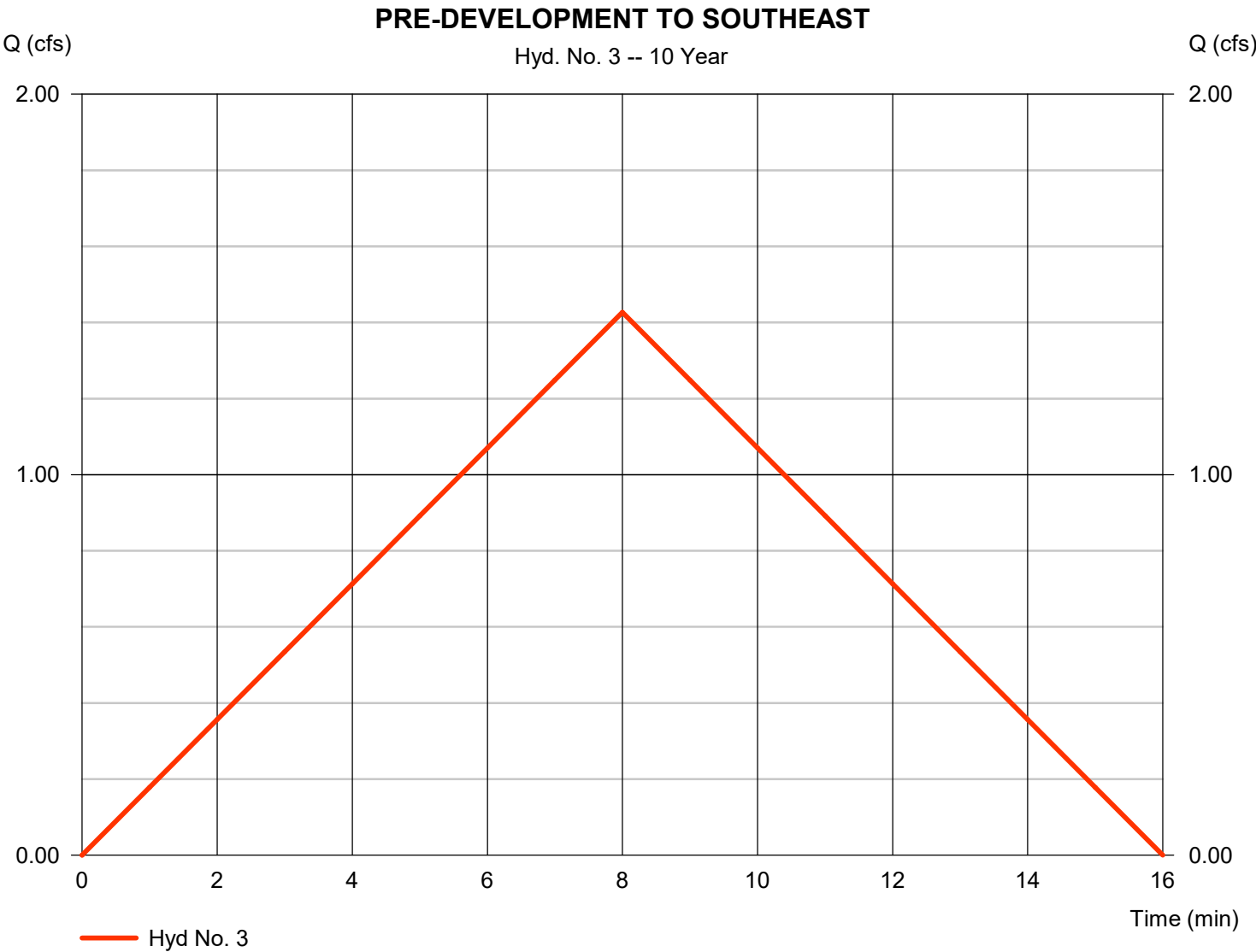


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.427 cfs
Storm frequency	= 10 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 685 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 5.436 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

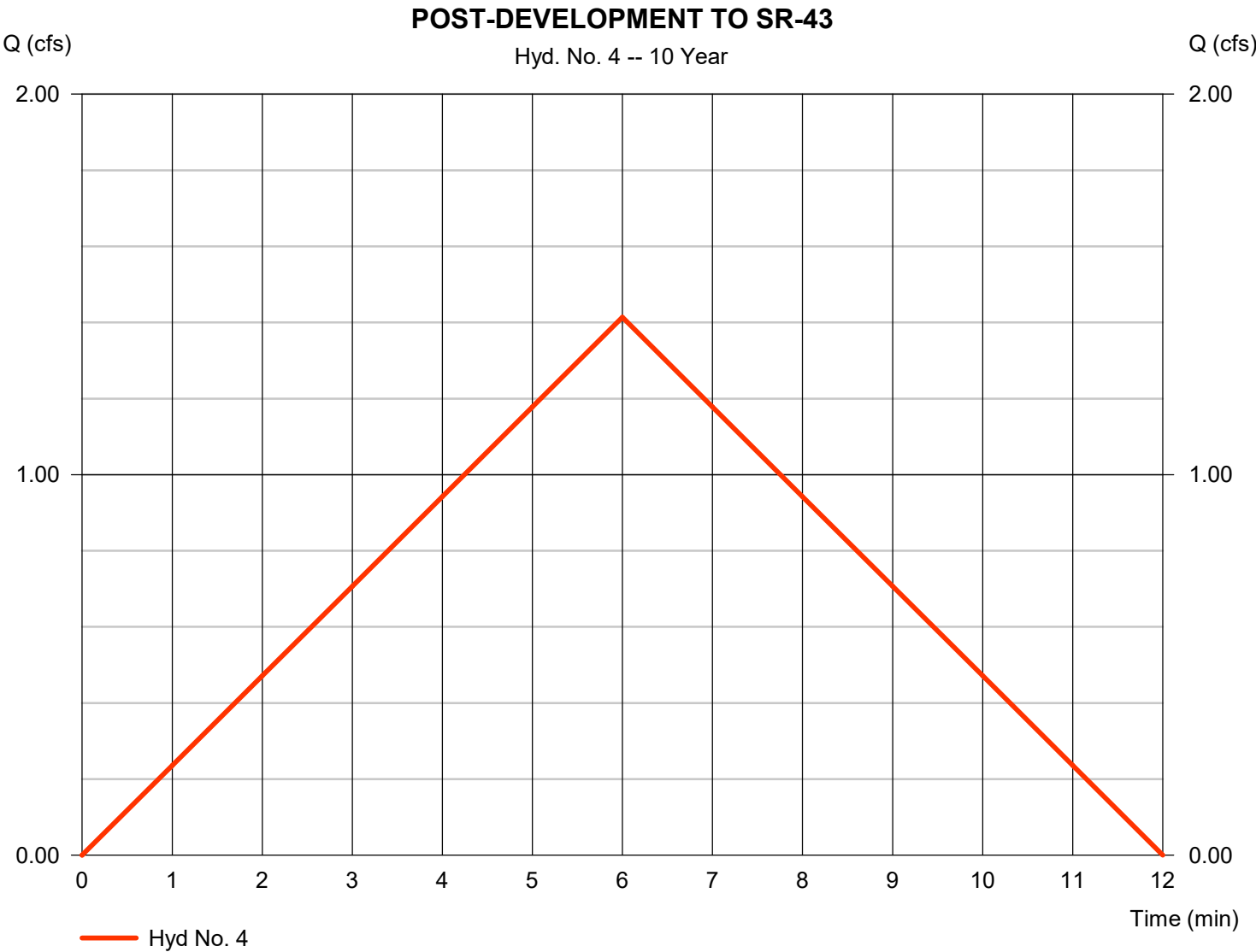


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.414 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 509 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

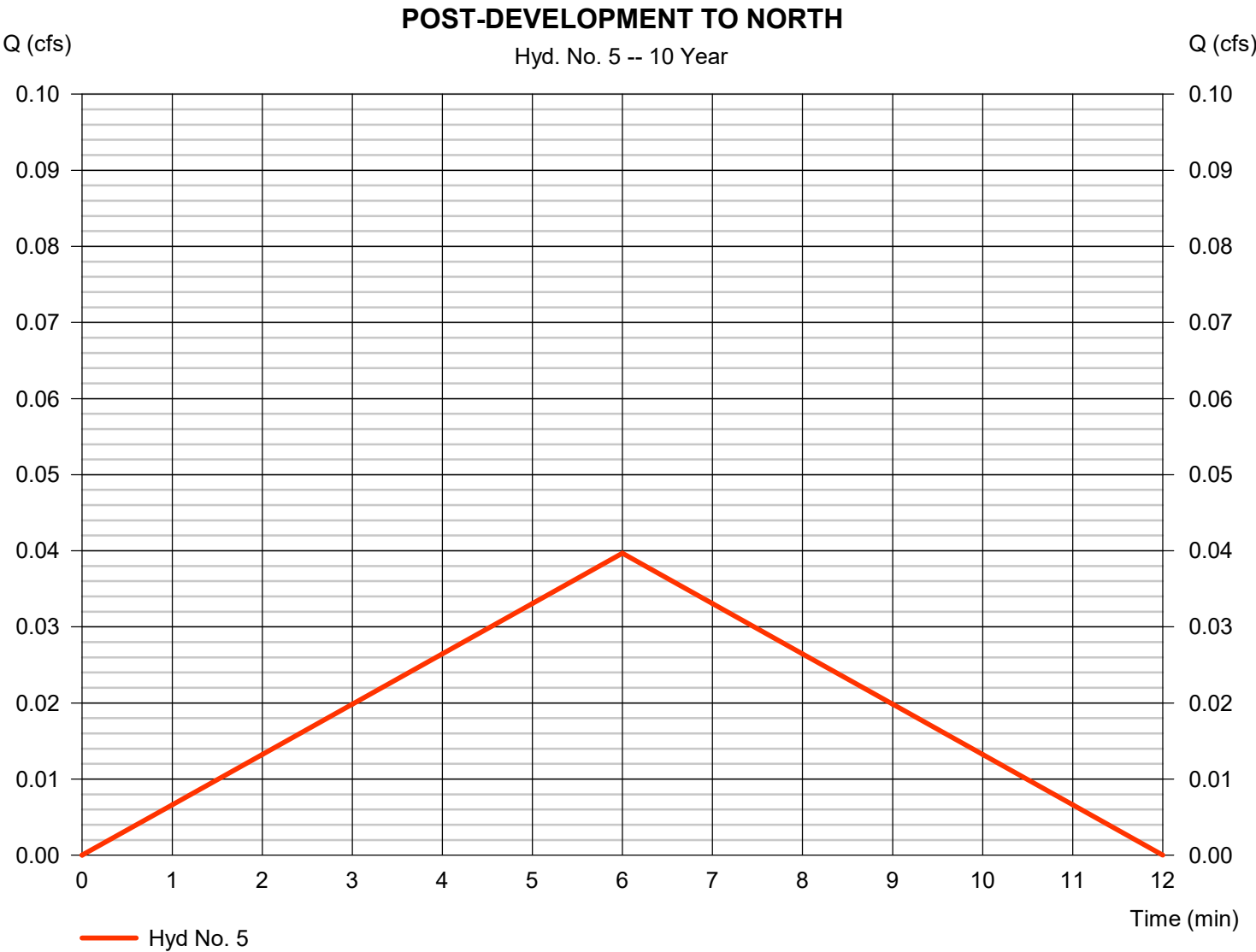


Hydrograph Report

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.040 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 14 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

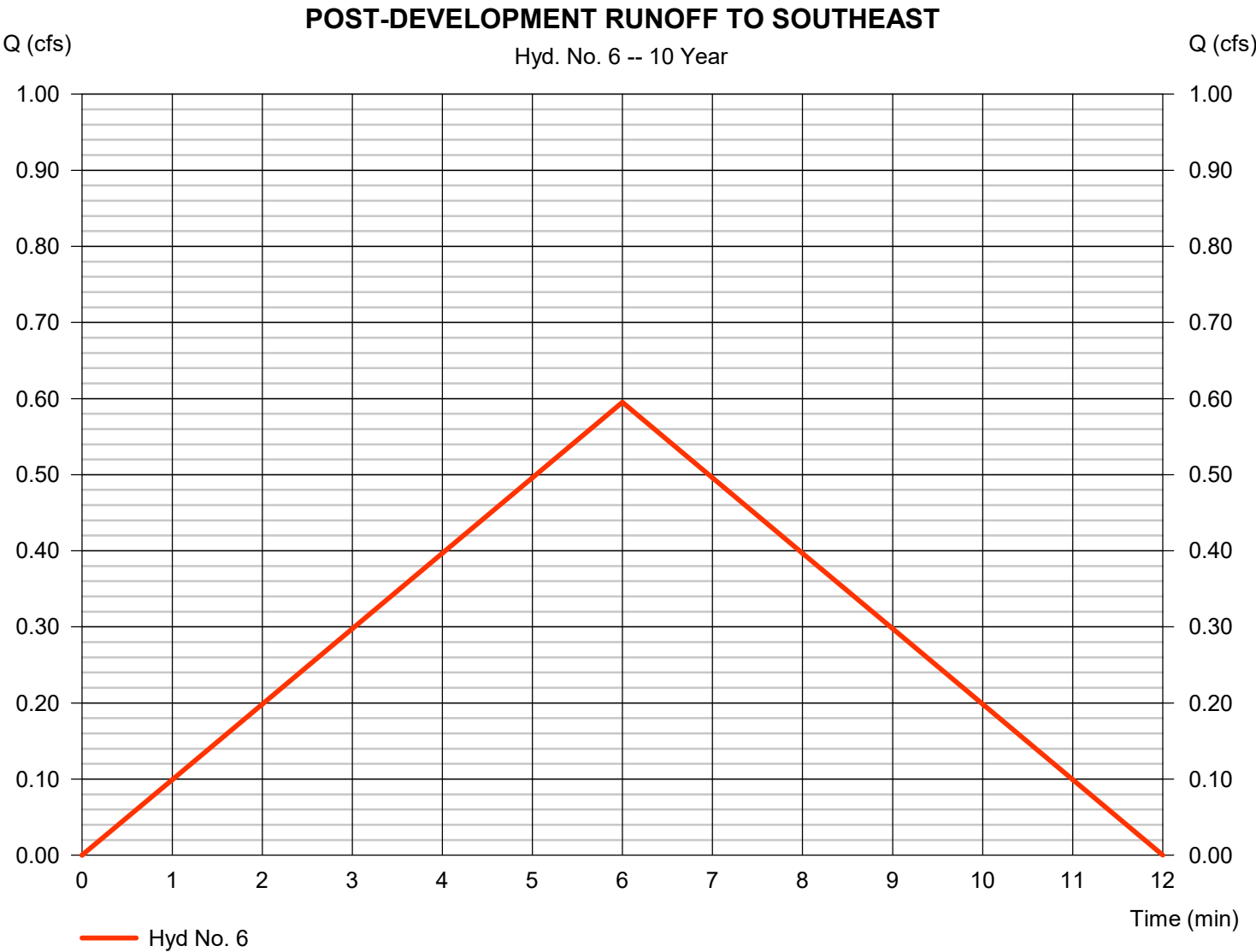


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.595 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 214 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

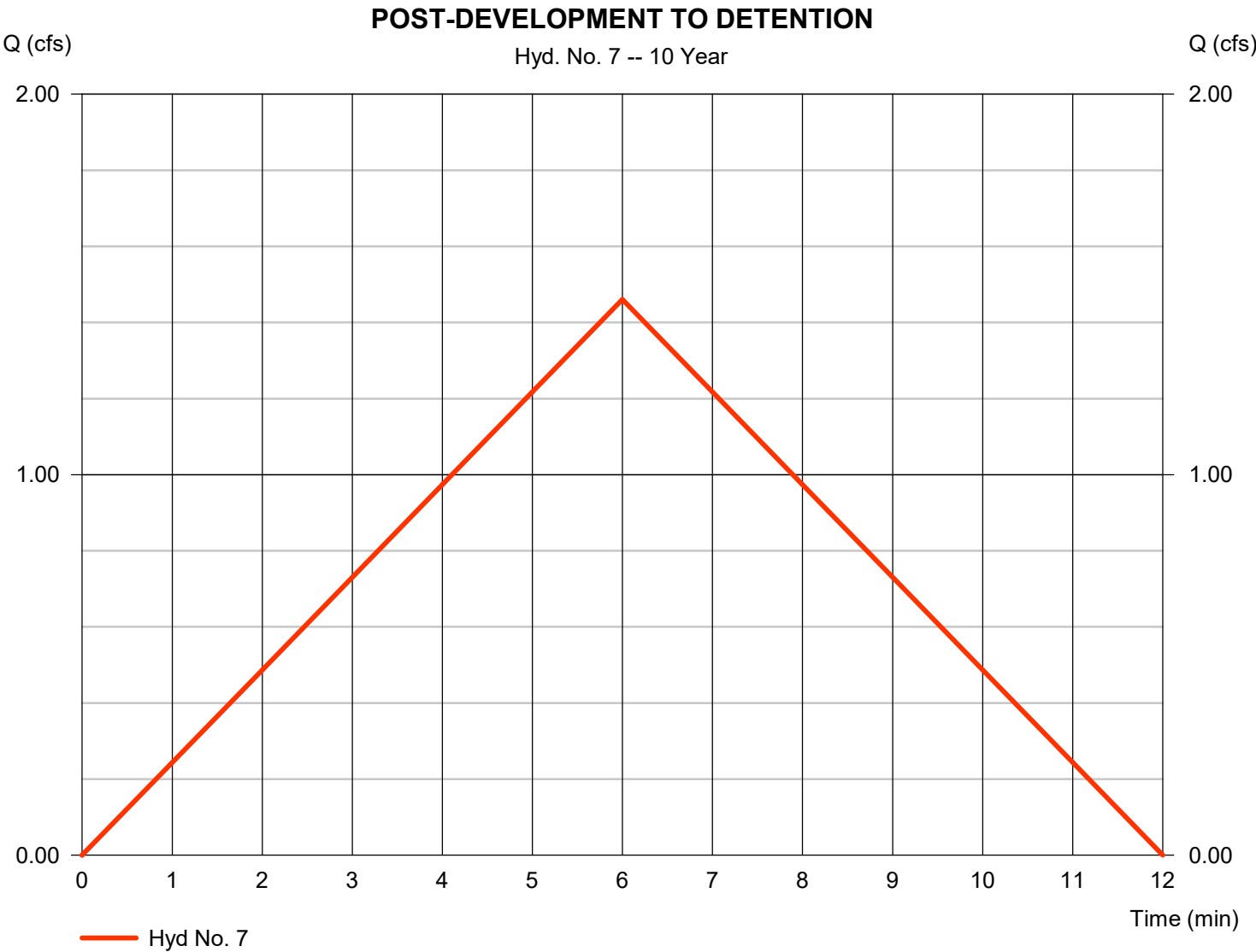


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 1.461 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 526 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 6.012 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



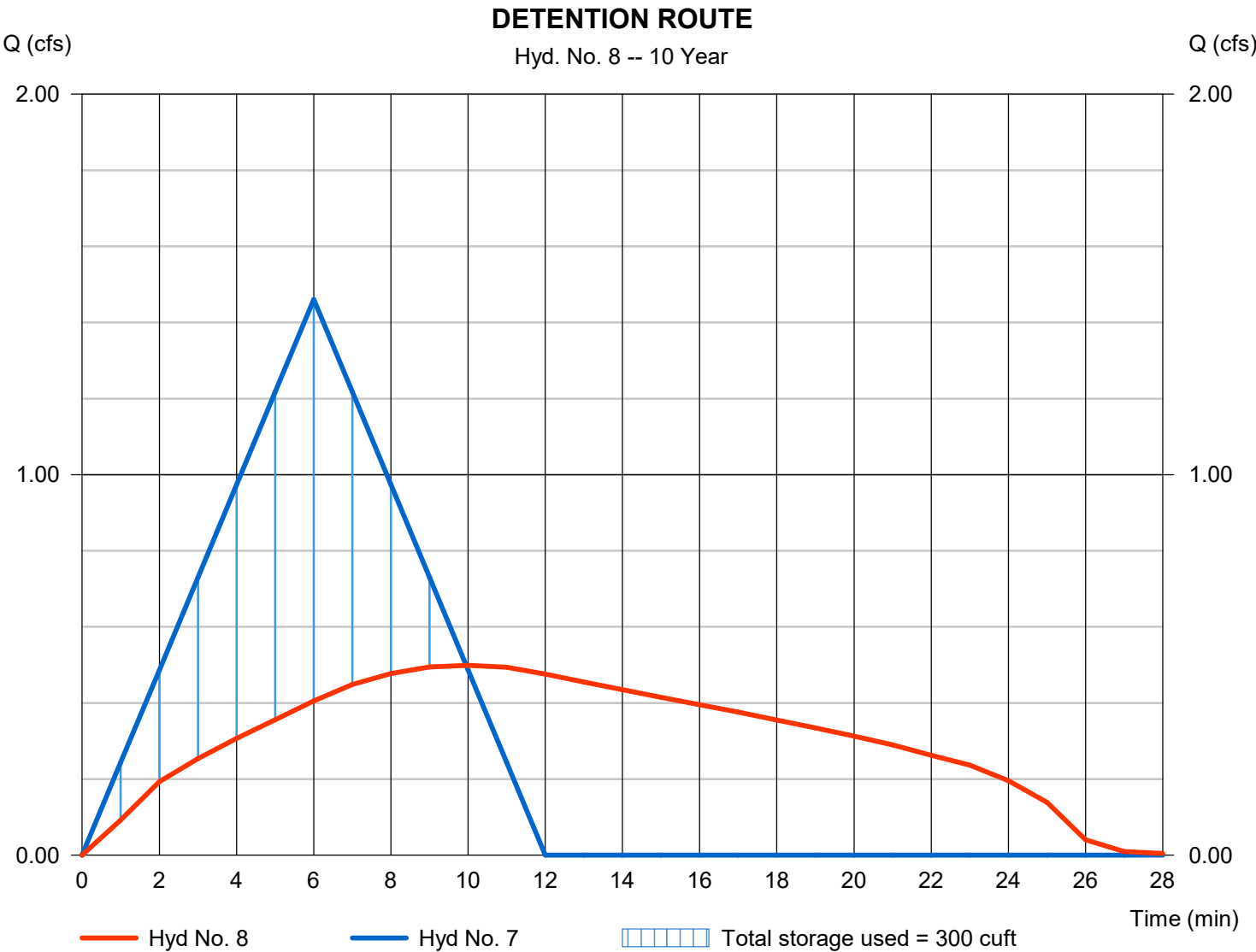
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.499 cfs
Storm frequency	= 10 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 526 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOWNSHIP DETENTION	Max. Elevation	= 965.62 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 300 cuft

Storage Indication method used.

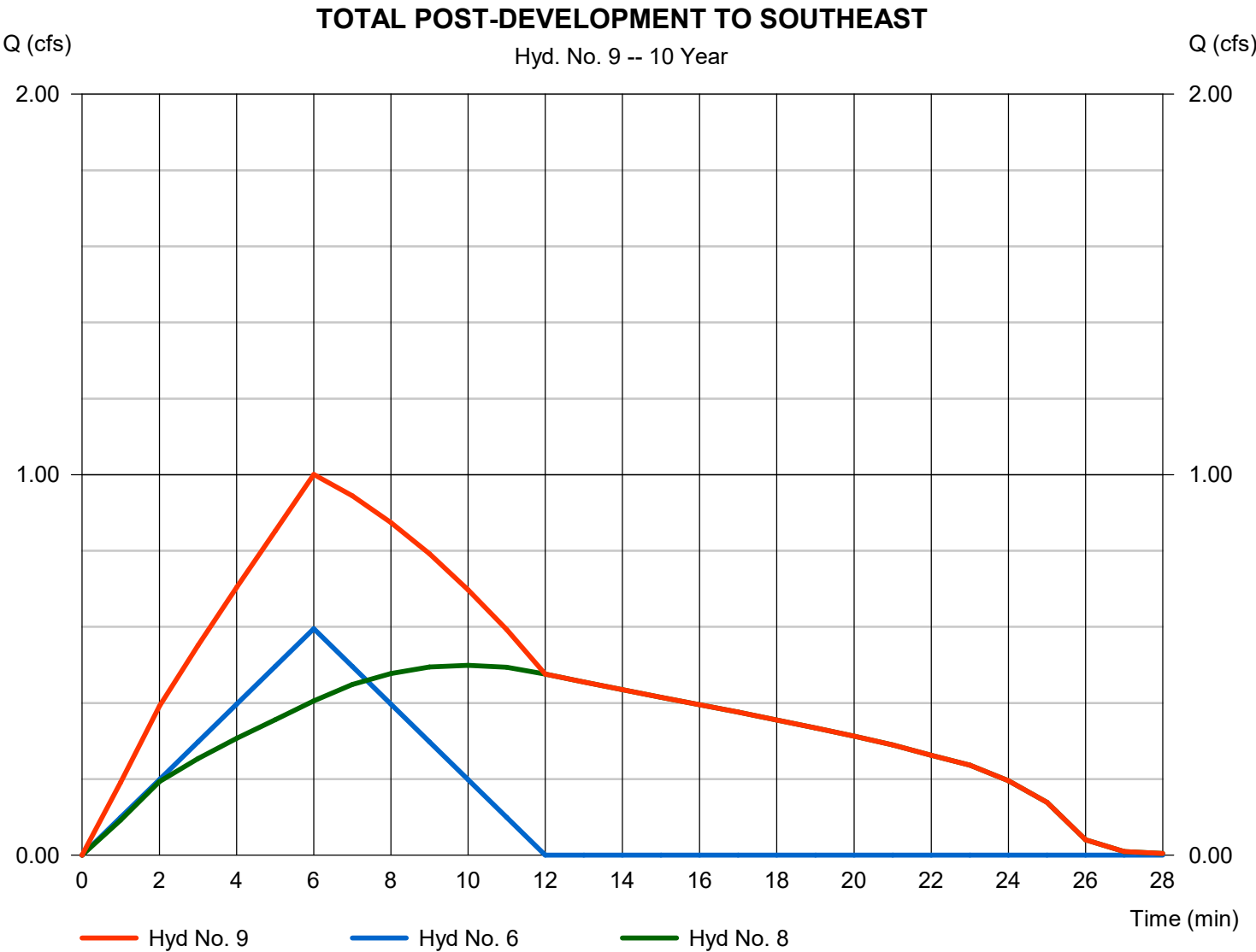


Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 1.001 cfs
Storm frequency	= 10 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 740 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.635	1	6	589	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.046	1	6	16	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.635	1	8	785	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.623	1	6	584	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.046	1	6	16	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.683	1	6	246	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	1.677	1	6	604	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	0.559	1	10	603	7	966.01	358	DETENTION ROUTE
9	Combine	1.115	1	6	849	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 25 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.635 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 589 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

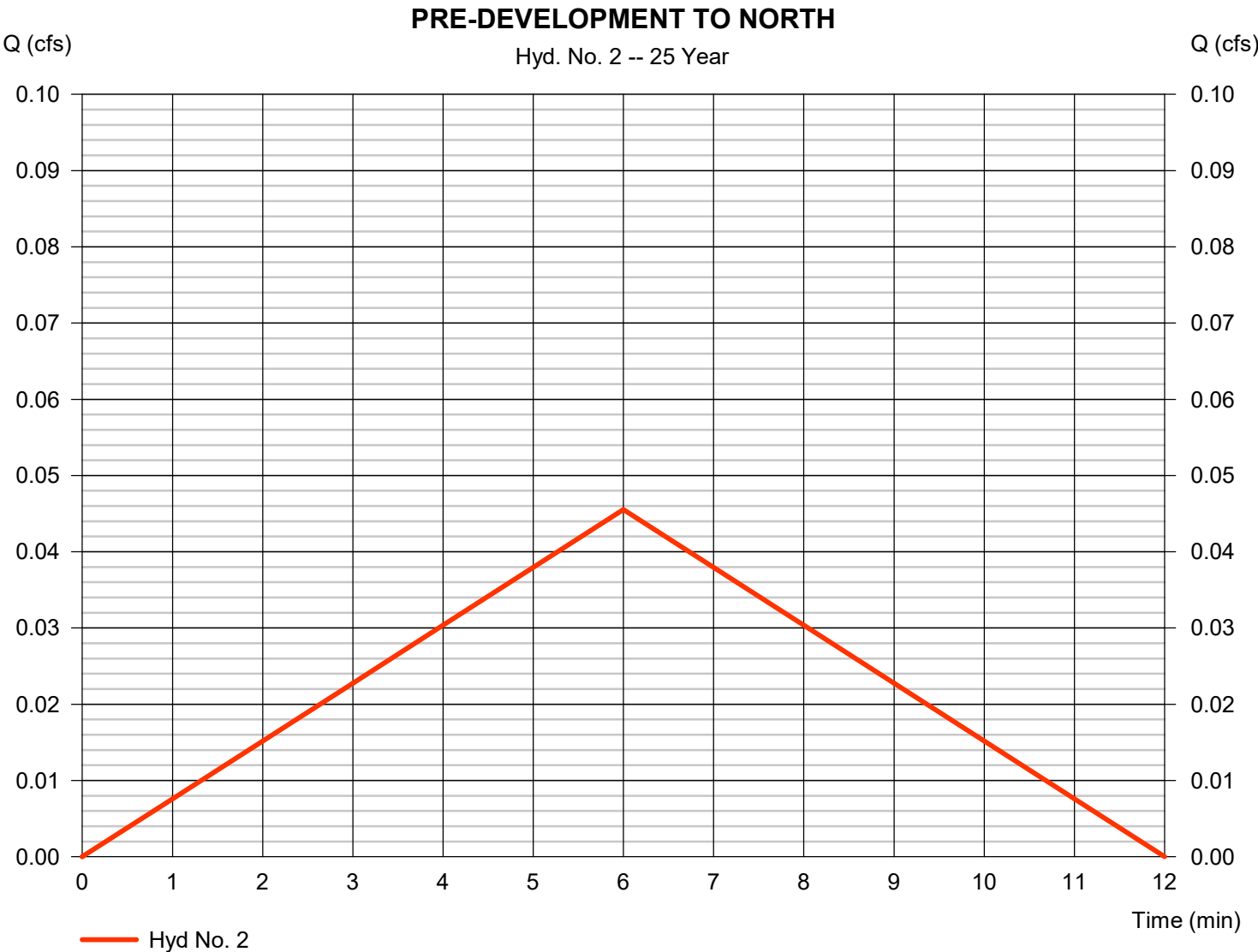


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.046 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 16 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

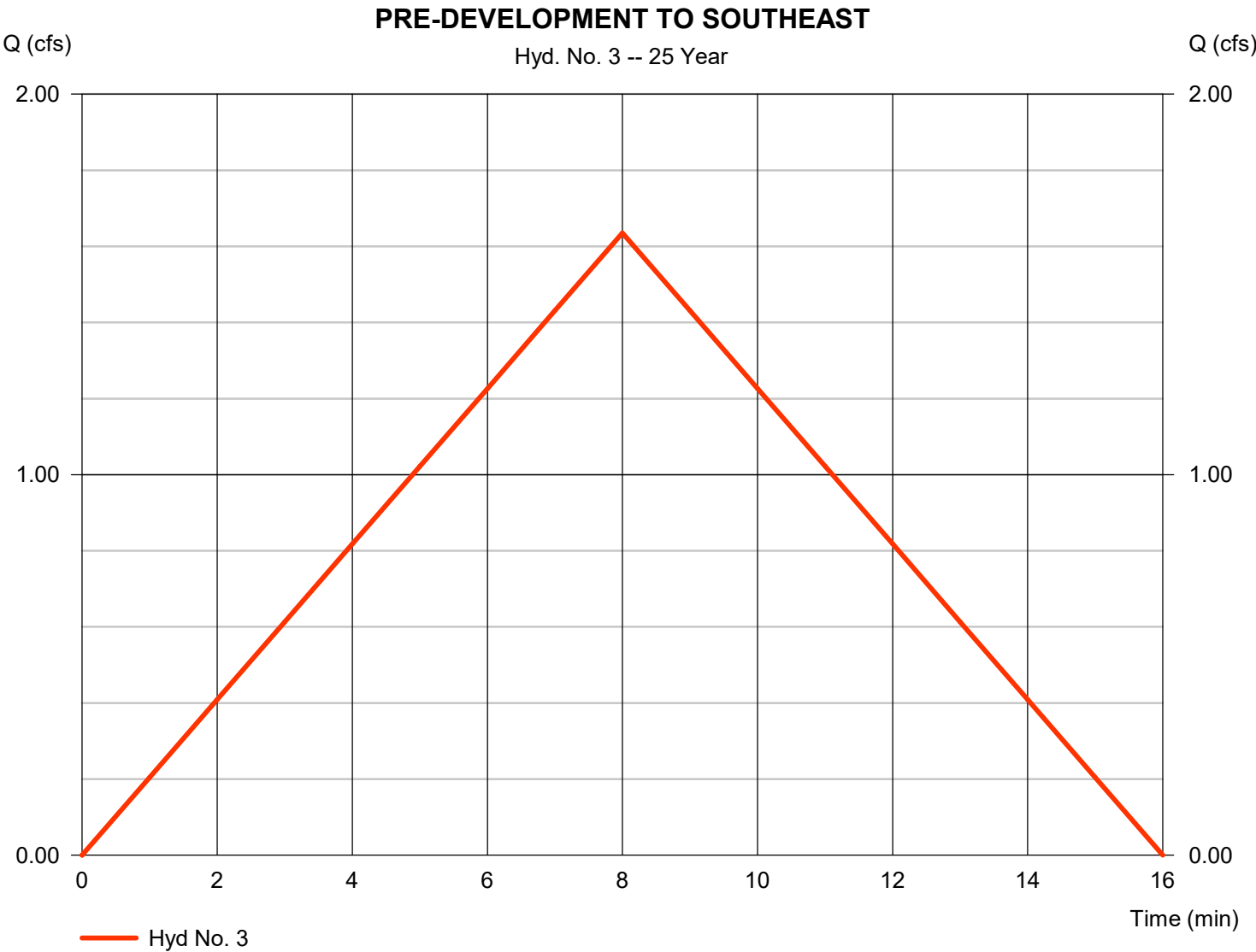


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.635 cfs
Storm frequency	= 25 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 785 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 6.230 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

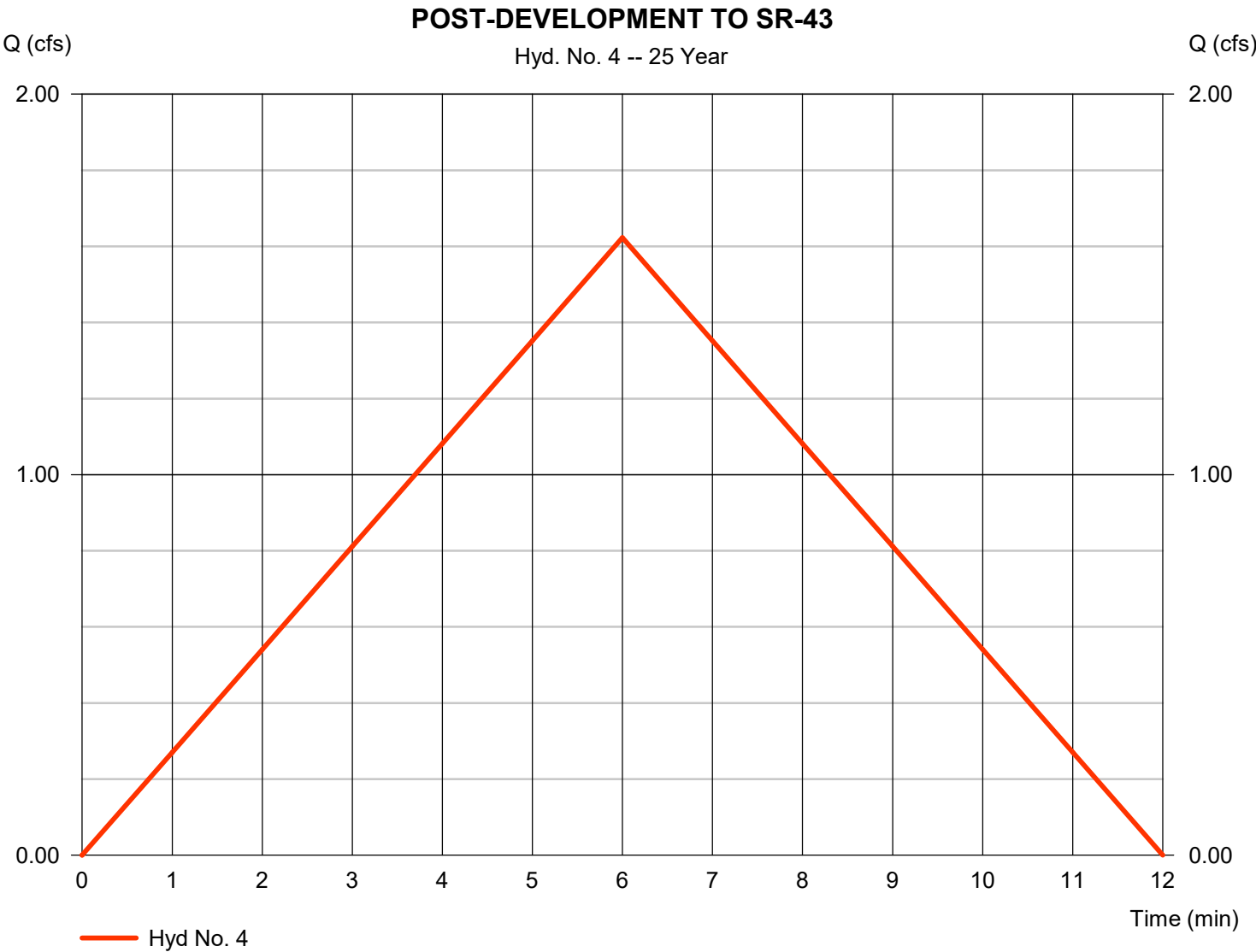


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.623 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 584 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

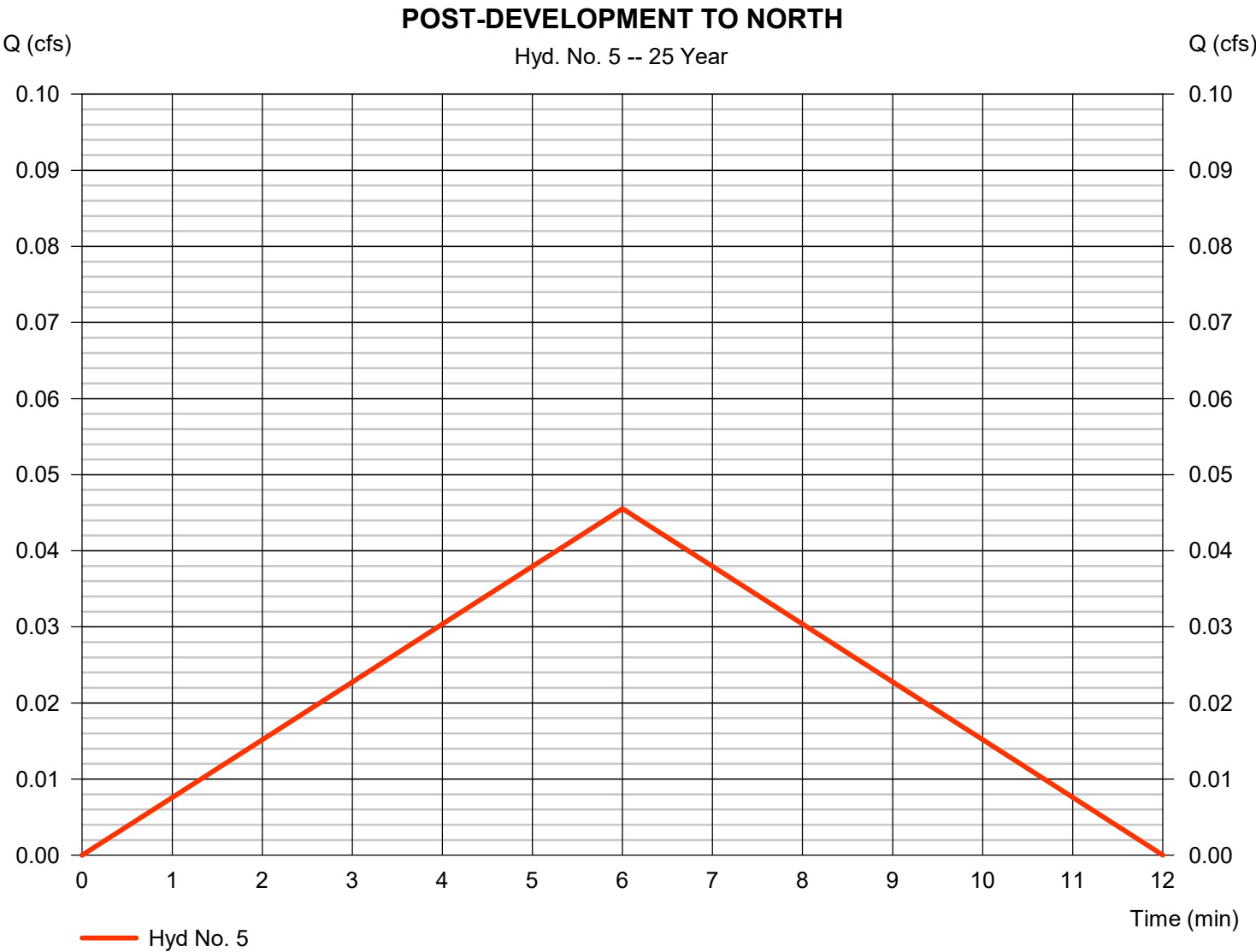
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Thursday, 08 / 13 / 2026

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.046 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 16 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

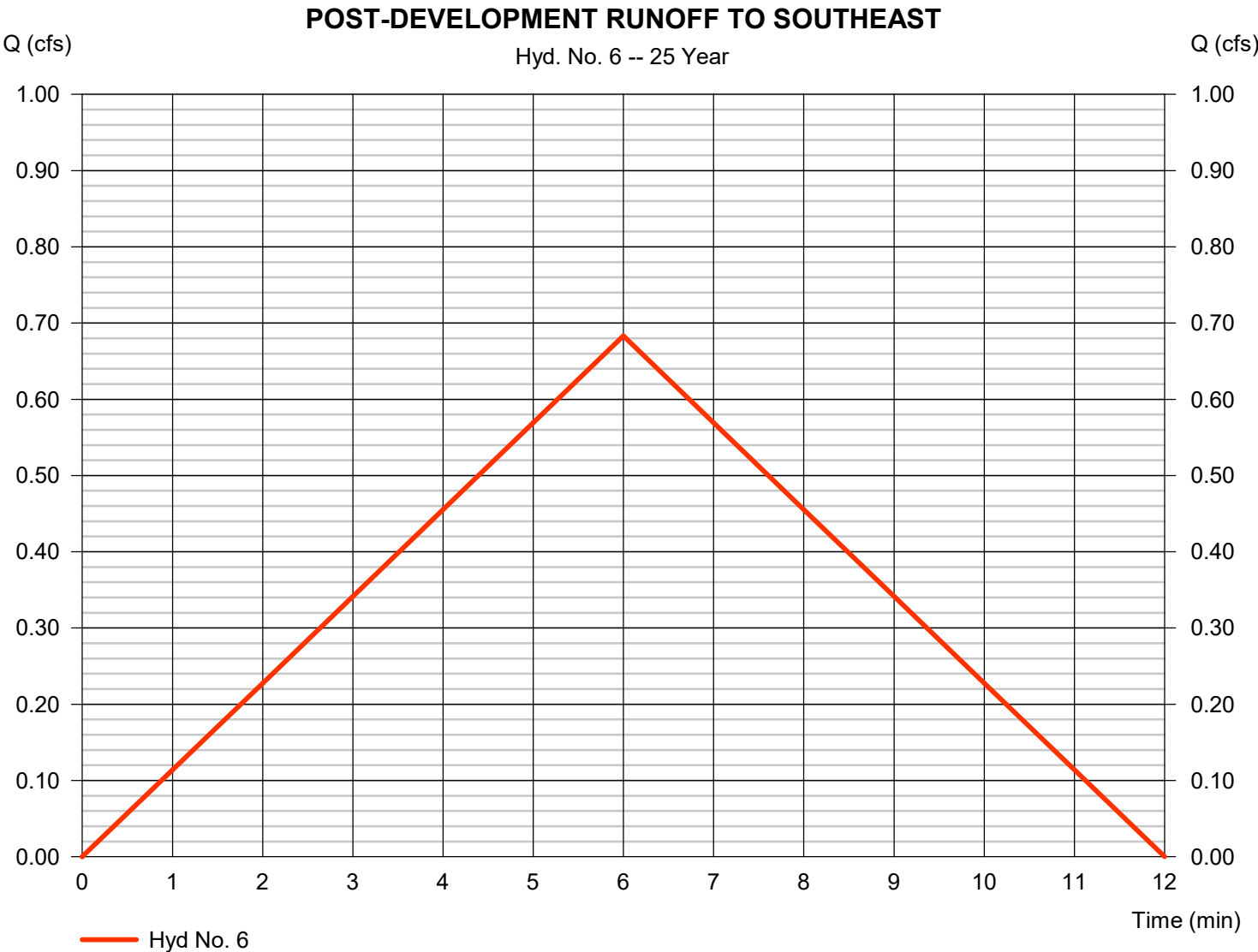


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.683 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 246 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

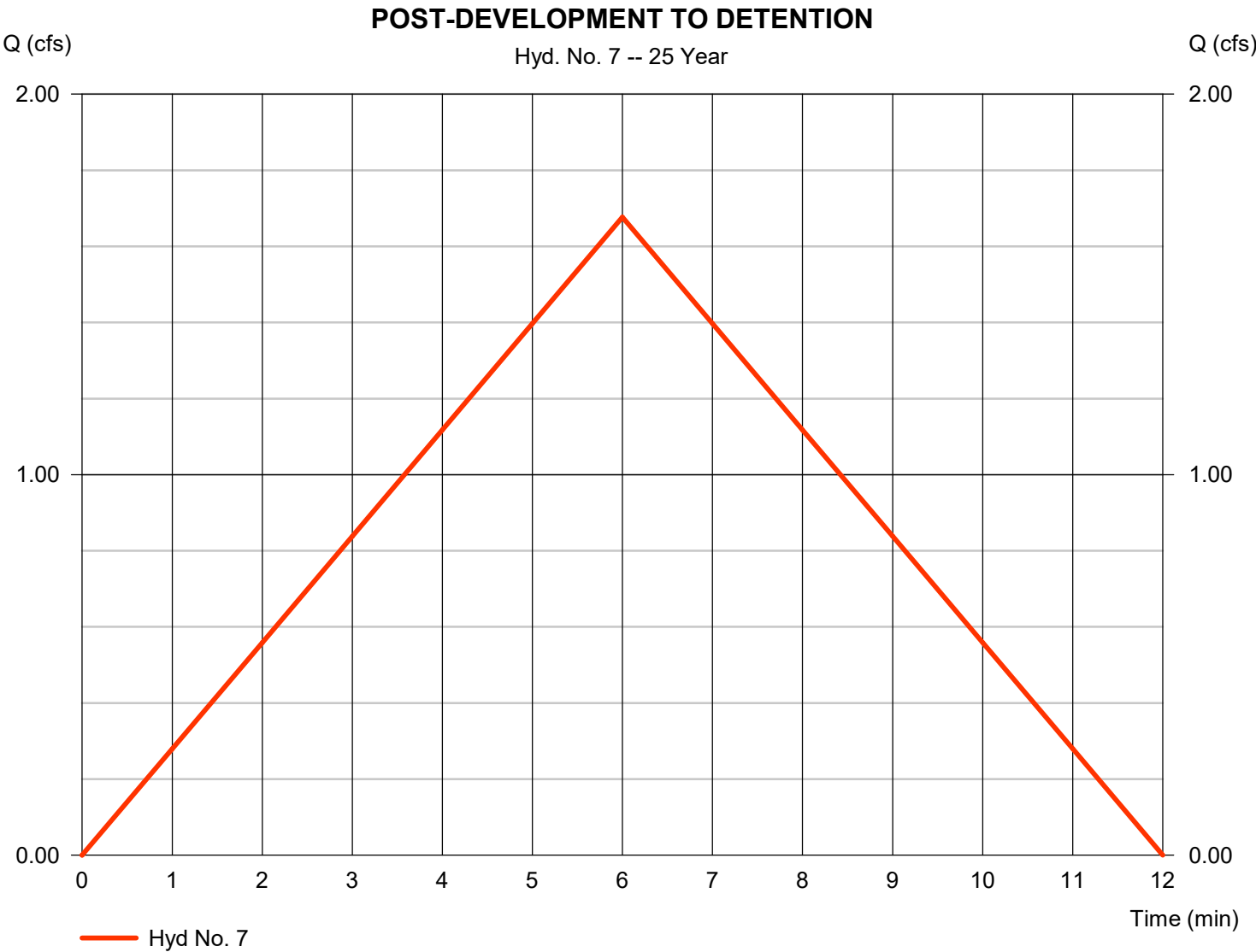


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 1.677 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 604 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 6.900 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



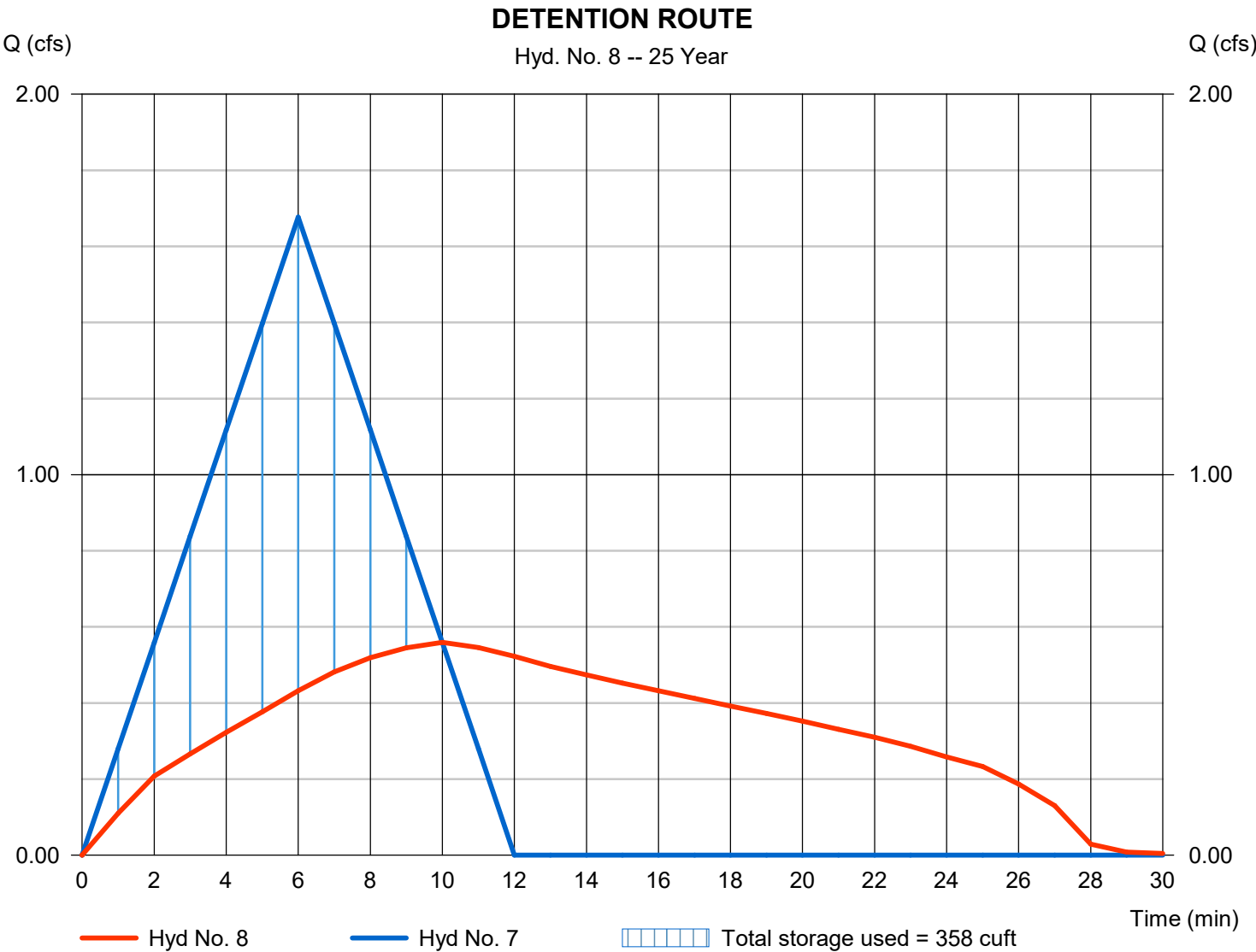
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.559 cfs
Storm frequency	= 25 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 603 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOTAL DETENTION	Max. elevation	= 966.01 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 358 cuft

Storage Indication method used.

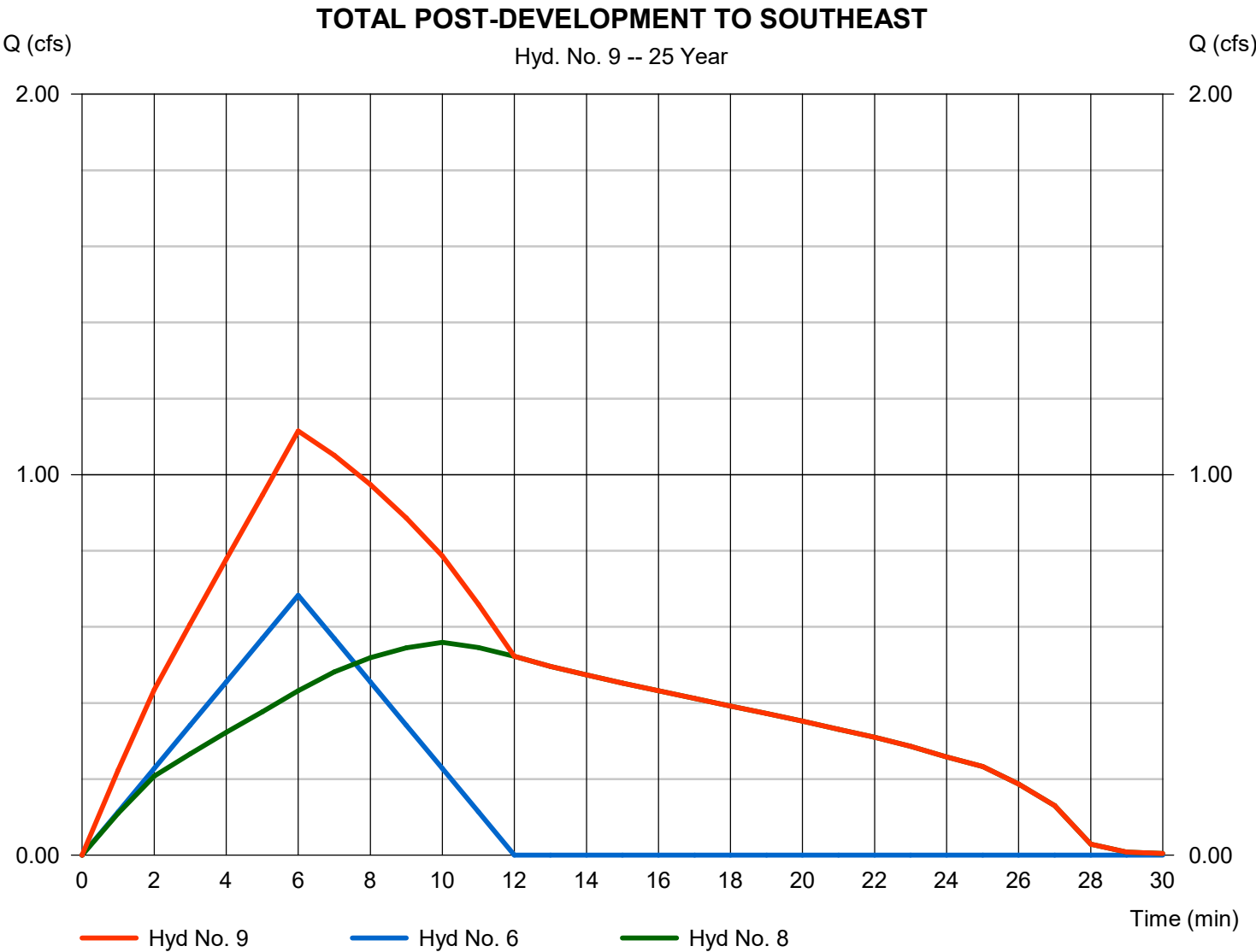


Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 1.115 cfs
Storm frequency	= 25 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 849 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.797	1	6	647	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.050	1	6	18	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.795	1	8	862	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.783	1	6	642	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.050	1	6	18	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.750	1	6	270	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	1.842	1	6	663	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	1.114	1	9	663	7	966.39	375	DETENTION ROUTE
9	Combine	1.489	1	9	933	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 50 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.797 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 647 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

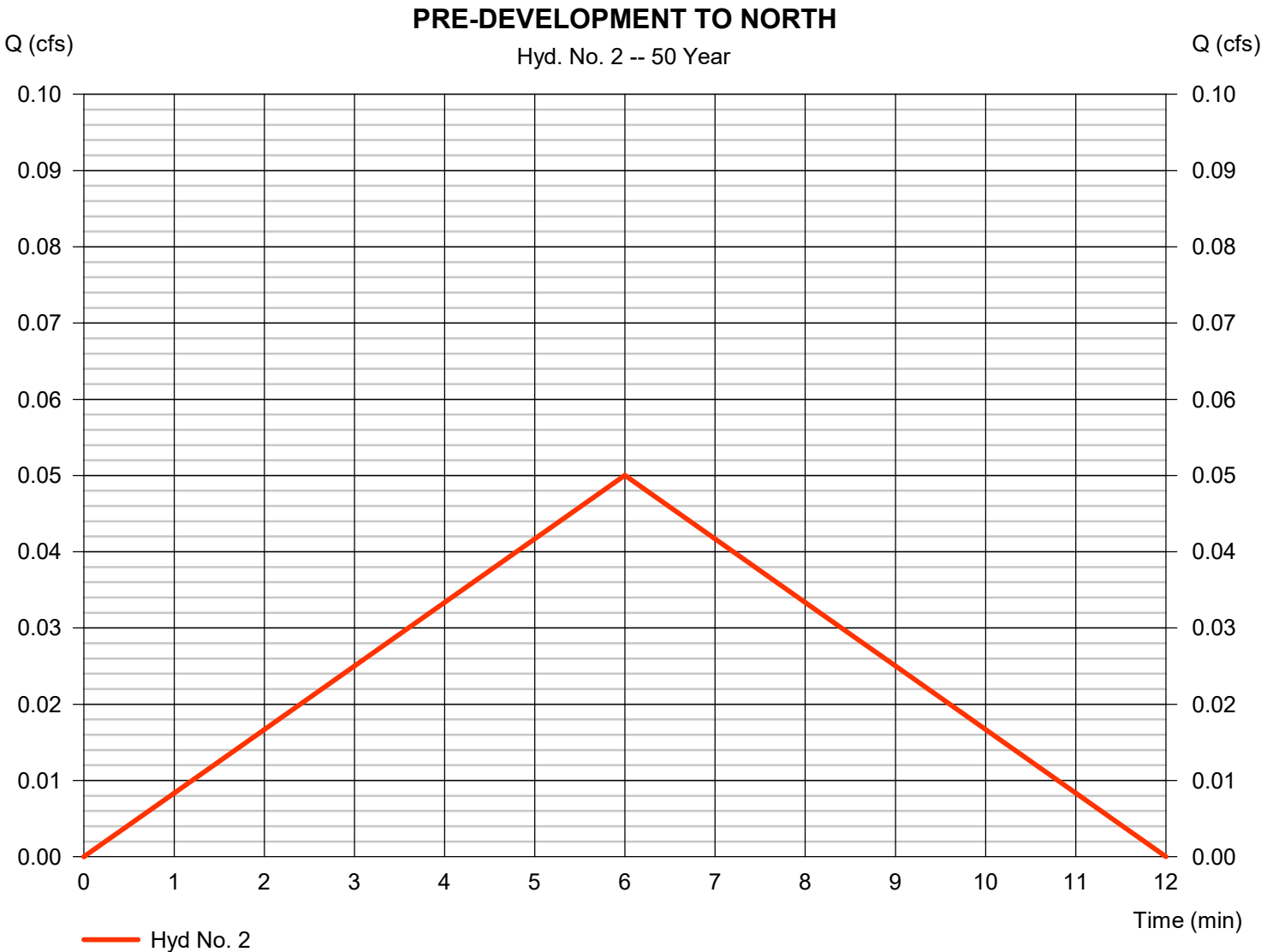


Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.050 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 18 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

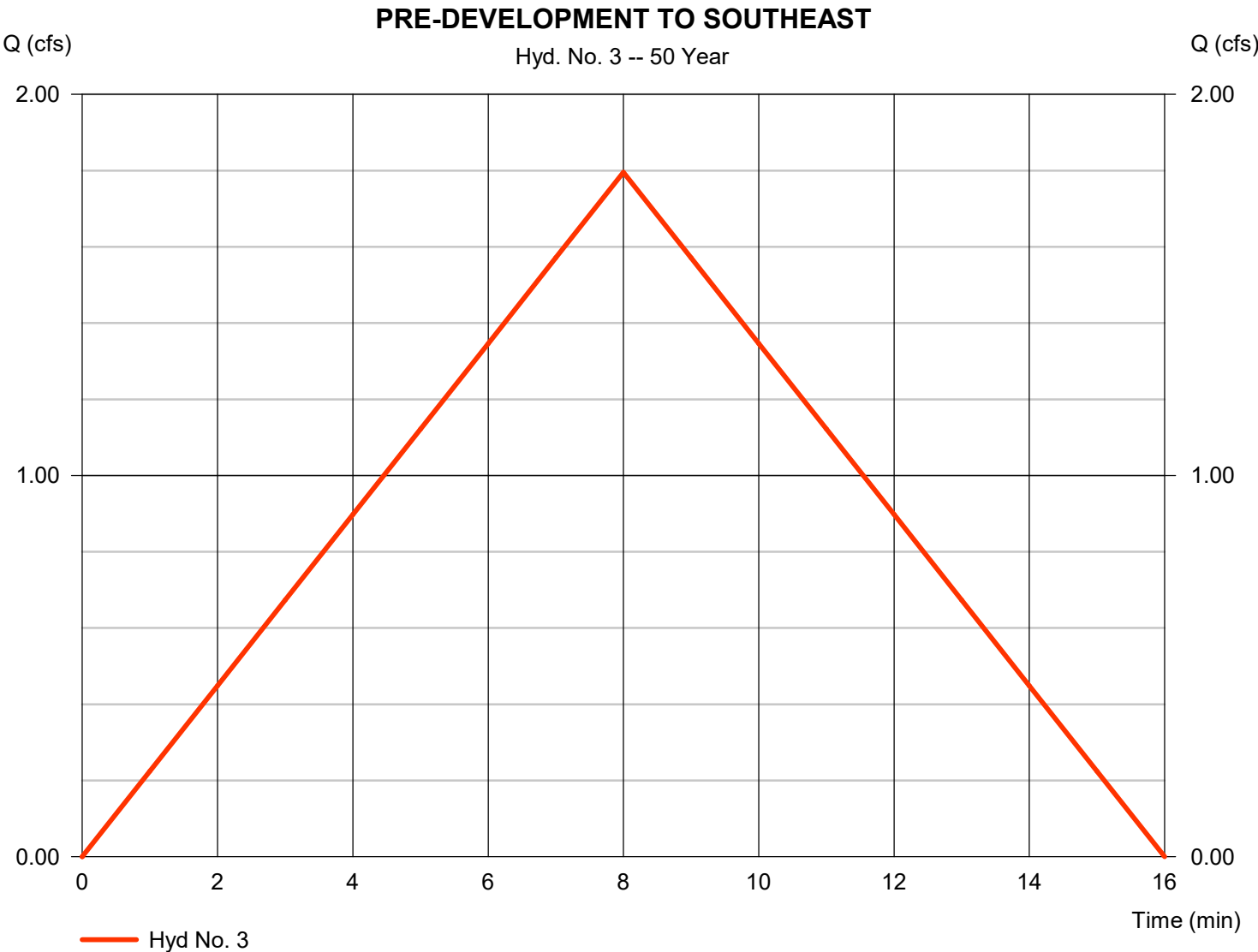


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.795 cfs
Storm frequency	= 50 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 862 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 6.839 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

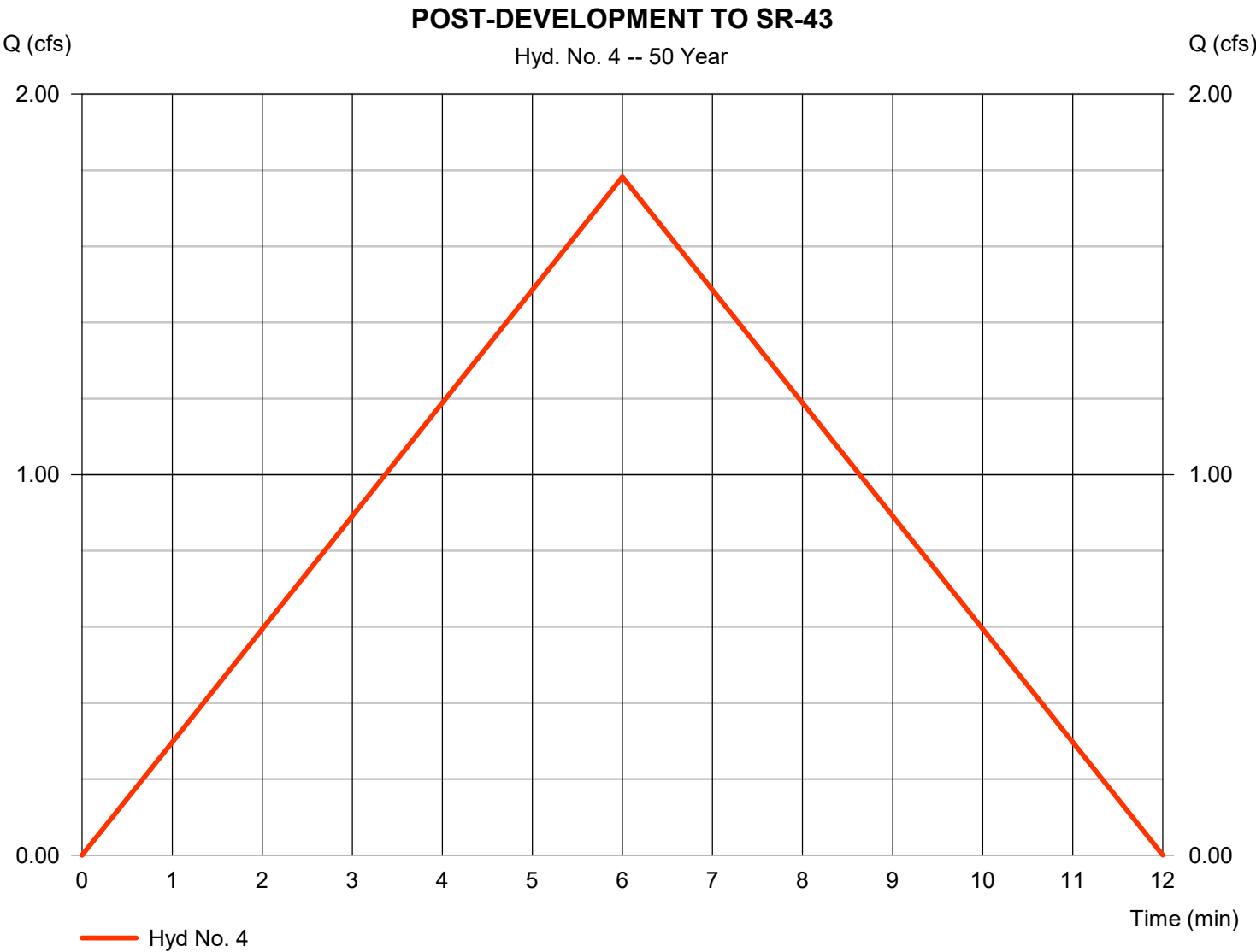


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.783 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 642 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

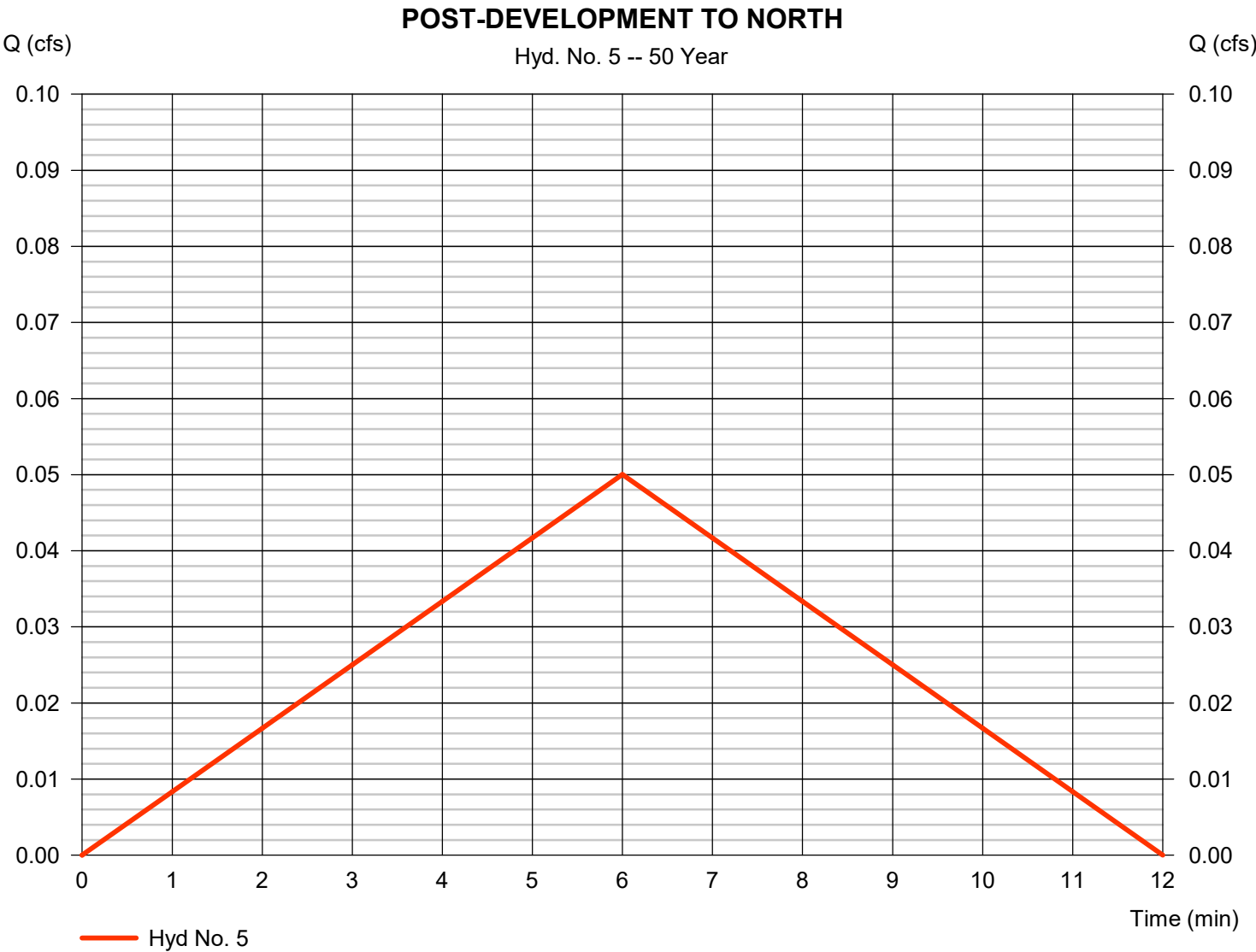


Hydrograph Report

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.050 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 18 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

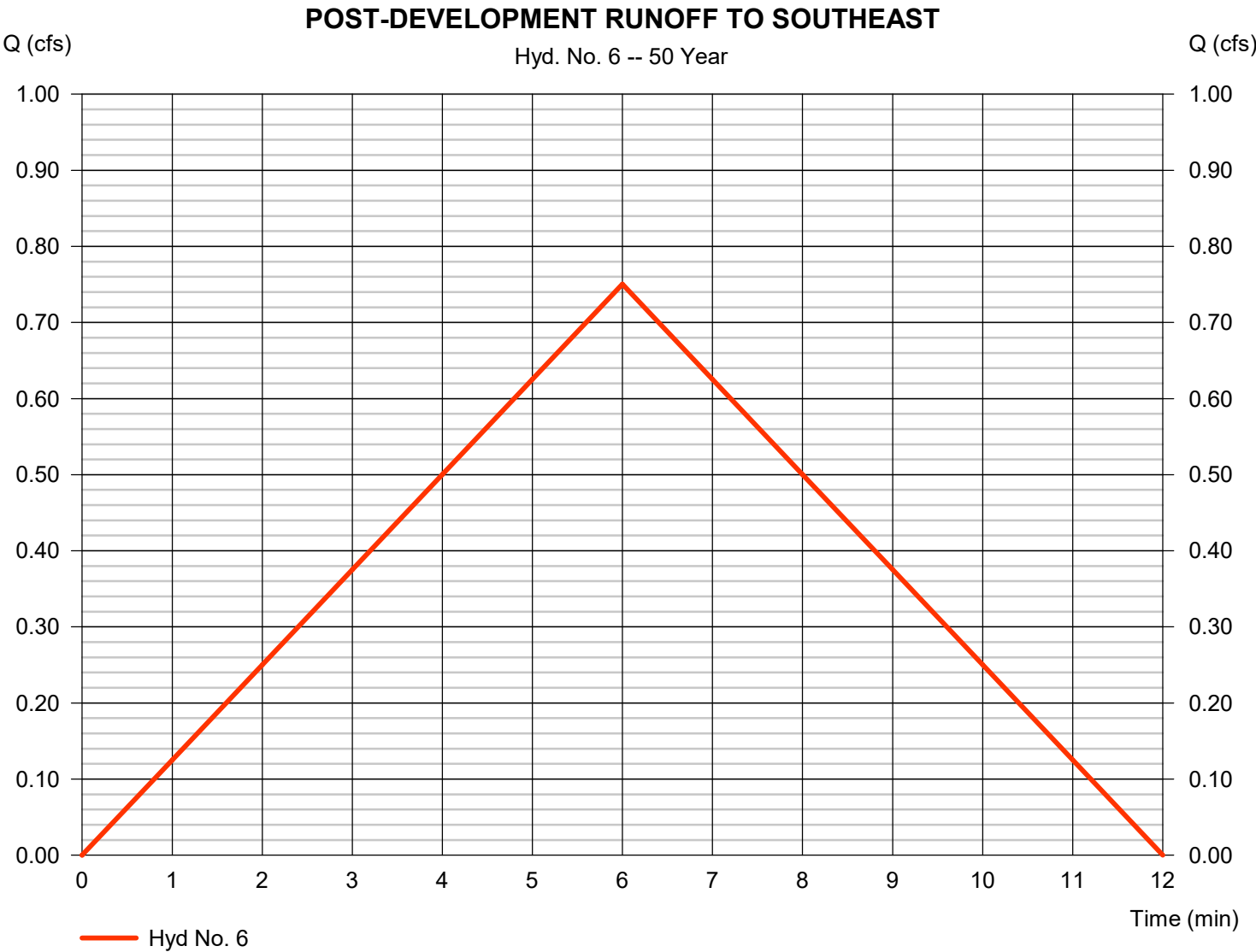


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.750 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 270 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

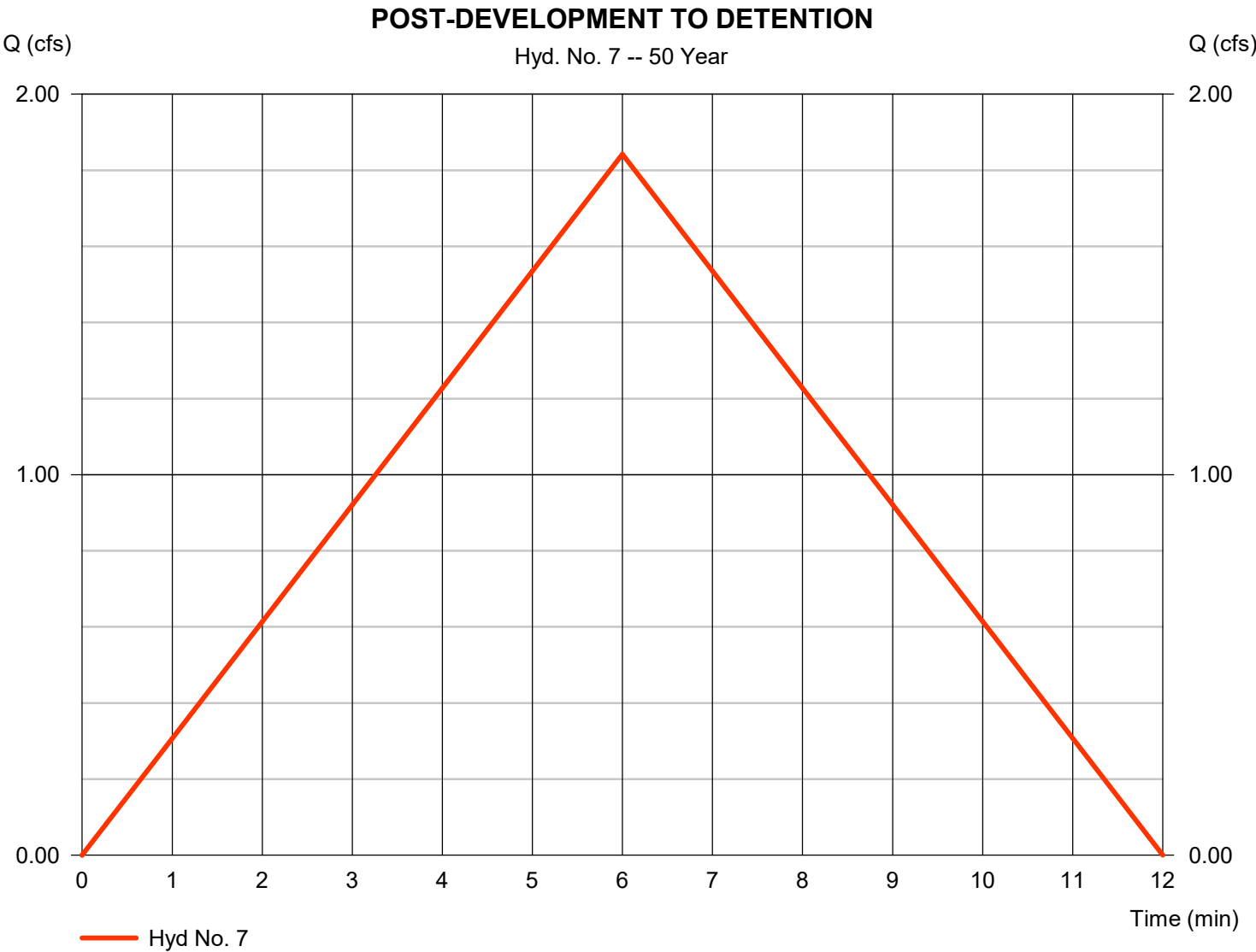


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 1.842 cfs
Storm frequency	= 50 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 663 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 7.580 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



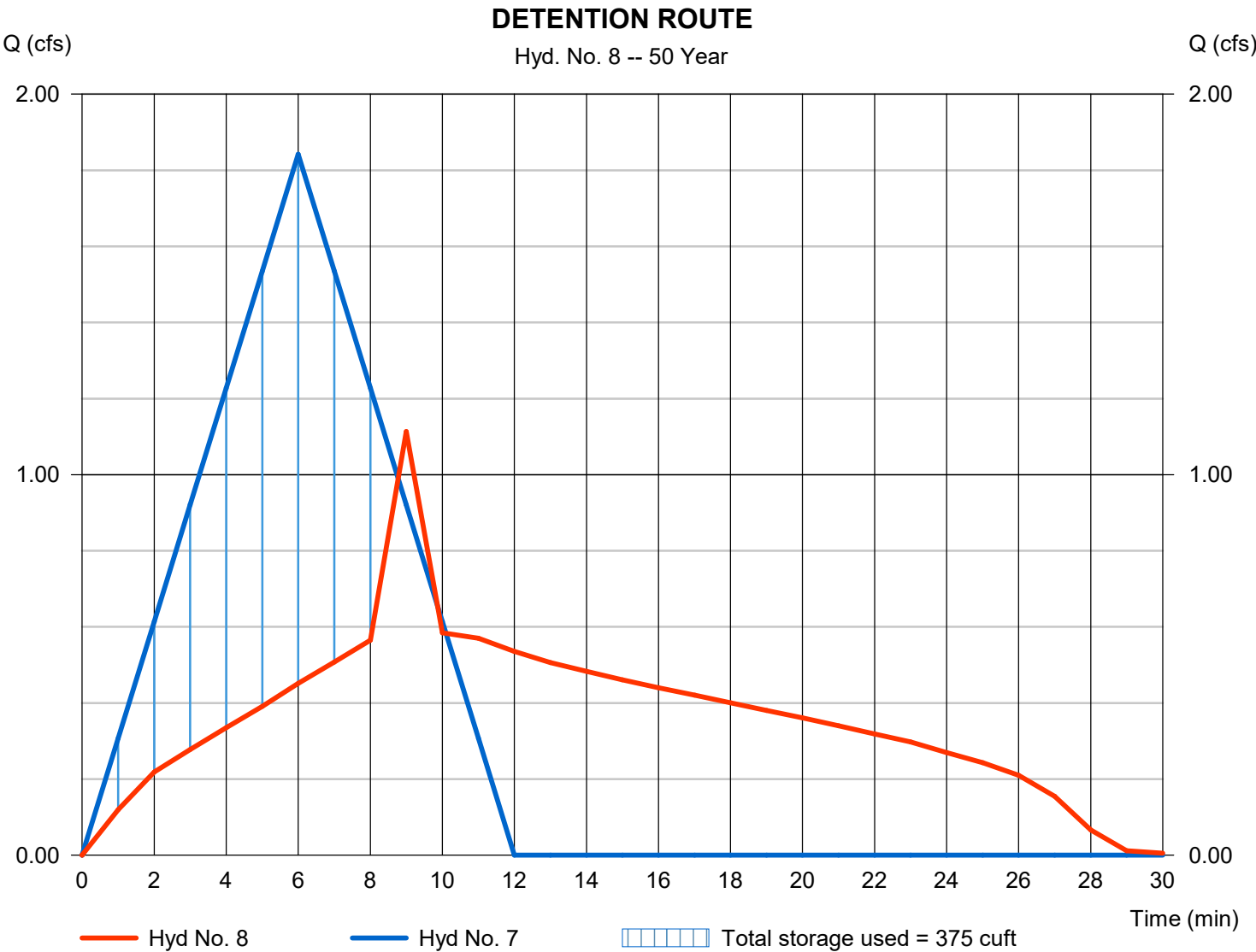
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 1.114 cfs
Storm frequency	= 50 yrs	Time to peak	= 9 min
Time interval	= 1 min	Hyd. volume	= 663 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TO DETENTION	Max. elevation	= 966.39 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 375 cuft

Storage Indication method used.

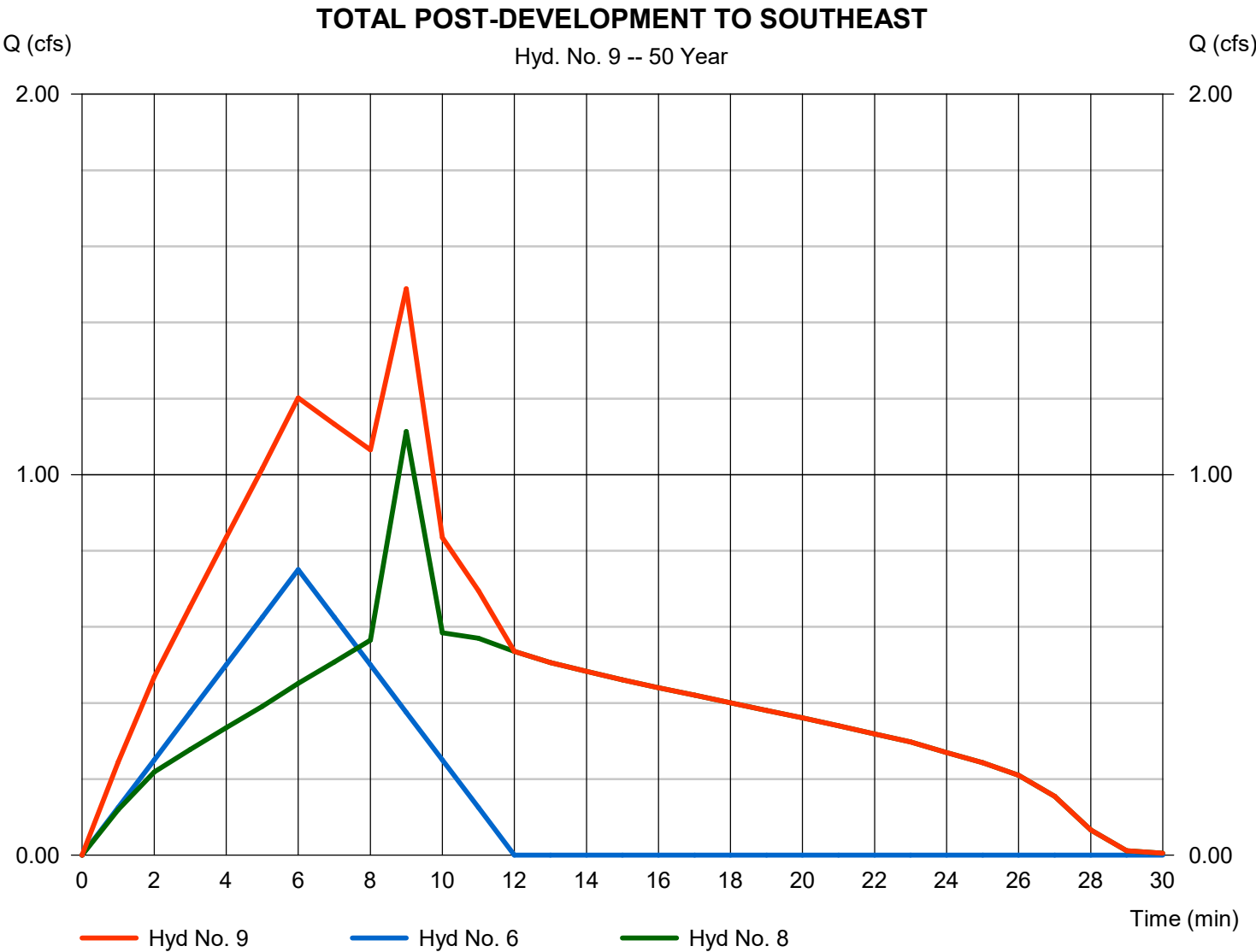


Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 1.489 cfs
Storm frequency	= 50 yrs	Time to peak	= 9 min
Time interval	= 1 min	Hyd. volume	= 933 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

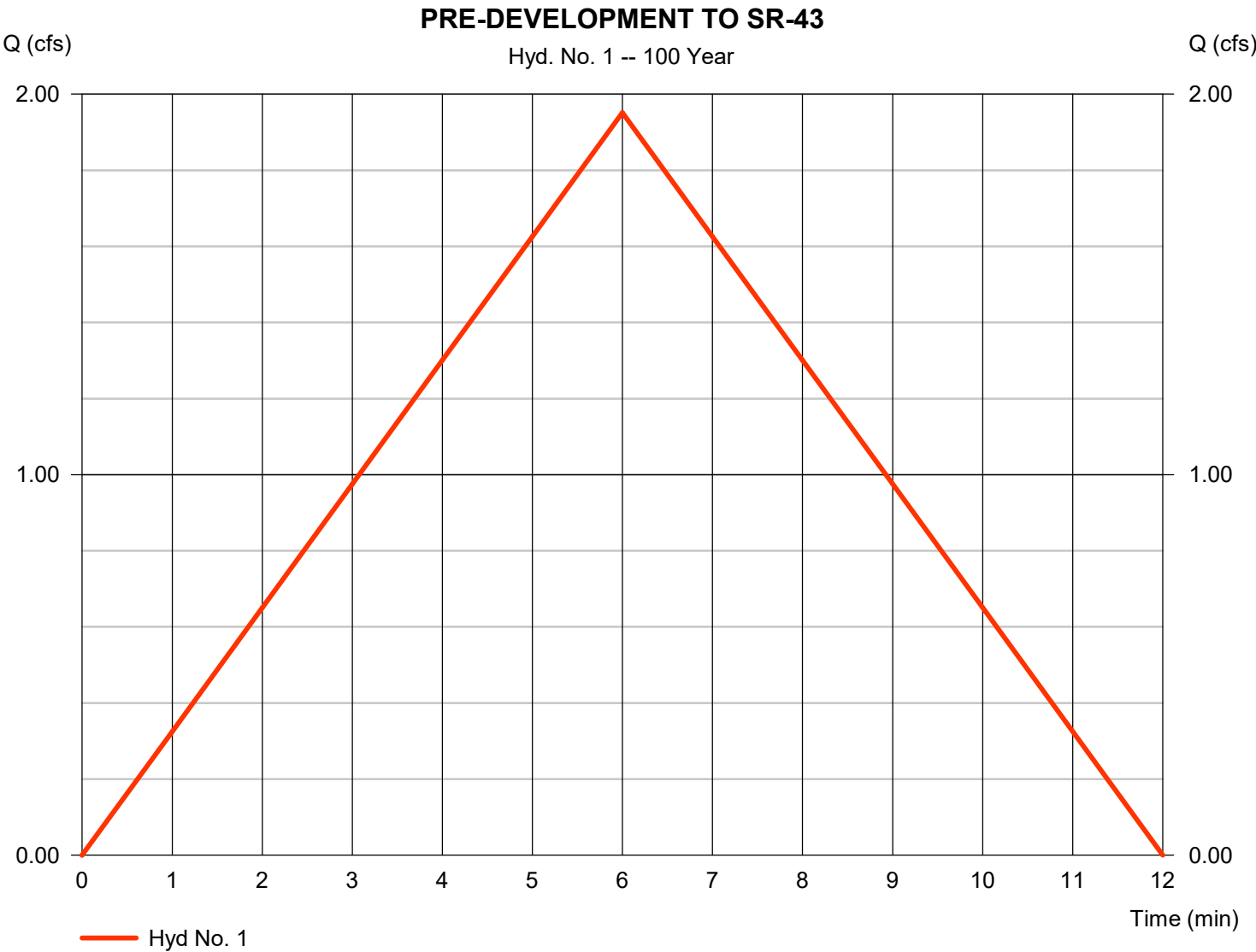
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	1.951	1	6	702	-----	-----	-----	PRE-DEVELOPMENT TO SR-43
2	Rational	0.054	1	6	20	-----	-----	-----	PRE-DEVELOPMENT TO NORTH
3	Rational	1.948	1	8	935	-----	-----	-----	PRE-DEVELOPMENT TO SOUTHEA
4	Rational	1.936	1	6	697	-----	-----	-----	POST-DEVELOPMENT TO SR-43
5	Rational	0.054	1	6	20	-----	-----	-----	POST-DEVELOPMENT TO NORTH
6	Rational	0.815	1	6	293	-----	-----	-----	POST-DEVELOPMENT RUNOFF TO
7	Rational	2.001	1	6	720	-----	-----	-----	POST-DEVELOPMENT TO DETENTI
8	Reservoir	1.354	1	8	720	7	966.43	376	DETENTION ROUTE
9	Combine	1.898	1	8	1,013	6, 8	-----	-----	TOTAL POST-DEVELOPMENT TO S
26-096 Hydrogrphas.gpw					Return Period: 100 Year			Thursday, 08 / 13 / 2026	

Hydrograph Report

Hyd. No. 1

PRE-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.951 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 702 cuft
Drainage area	= 0.300 ac	Runoff coeff.	= 0.79
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

Hyd. No. 2

PRE-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.054 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 20 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

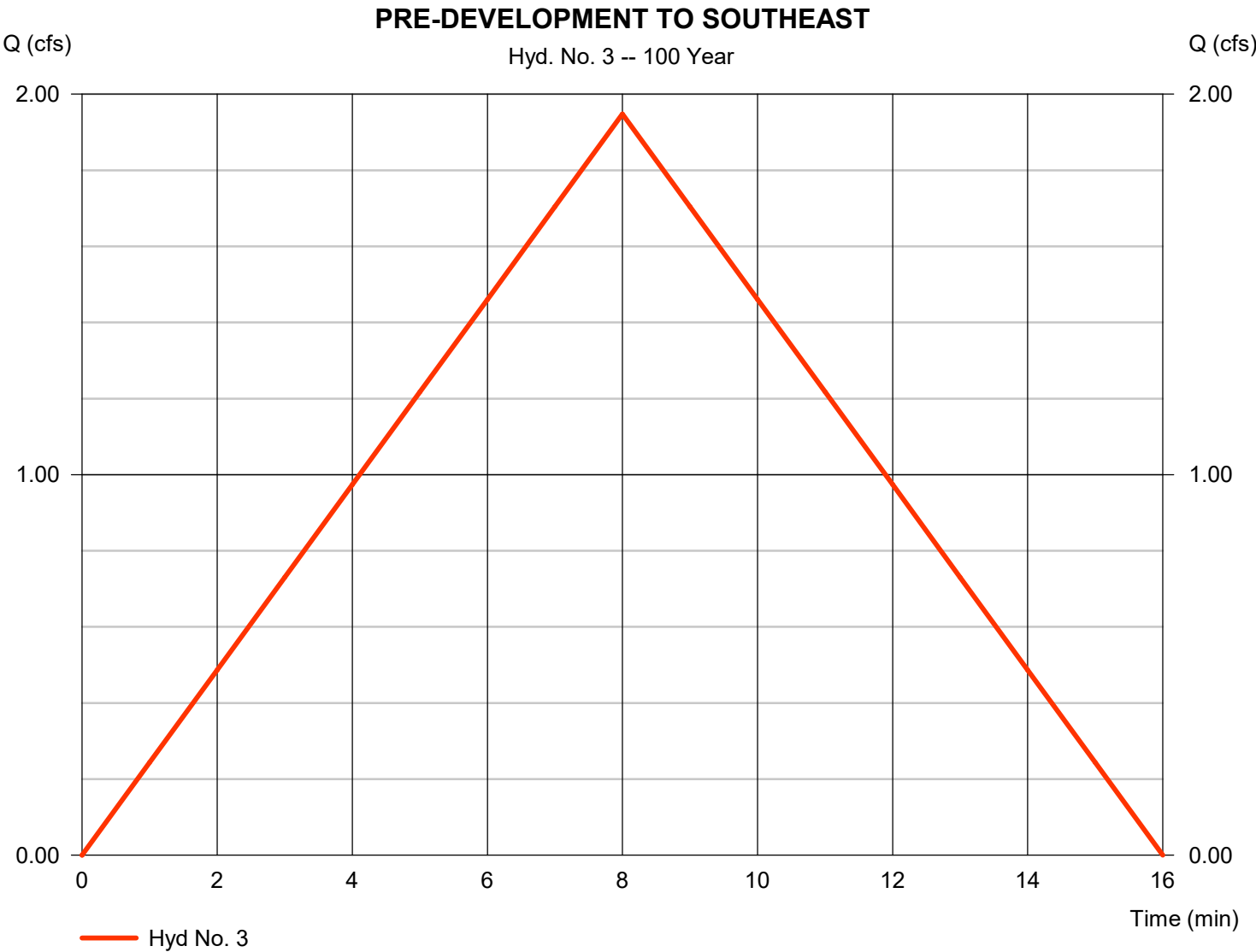


Hydrograph Report

Hyd. No. 3

PRE-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 1.948 cfs
Storm frequency	= 100 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 935 cuft
Drainage area	= 0.350 ac	Runoff coeff.	= 0.75
Intensity	= 7.420 in/hr	Tc by User	= 8.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

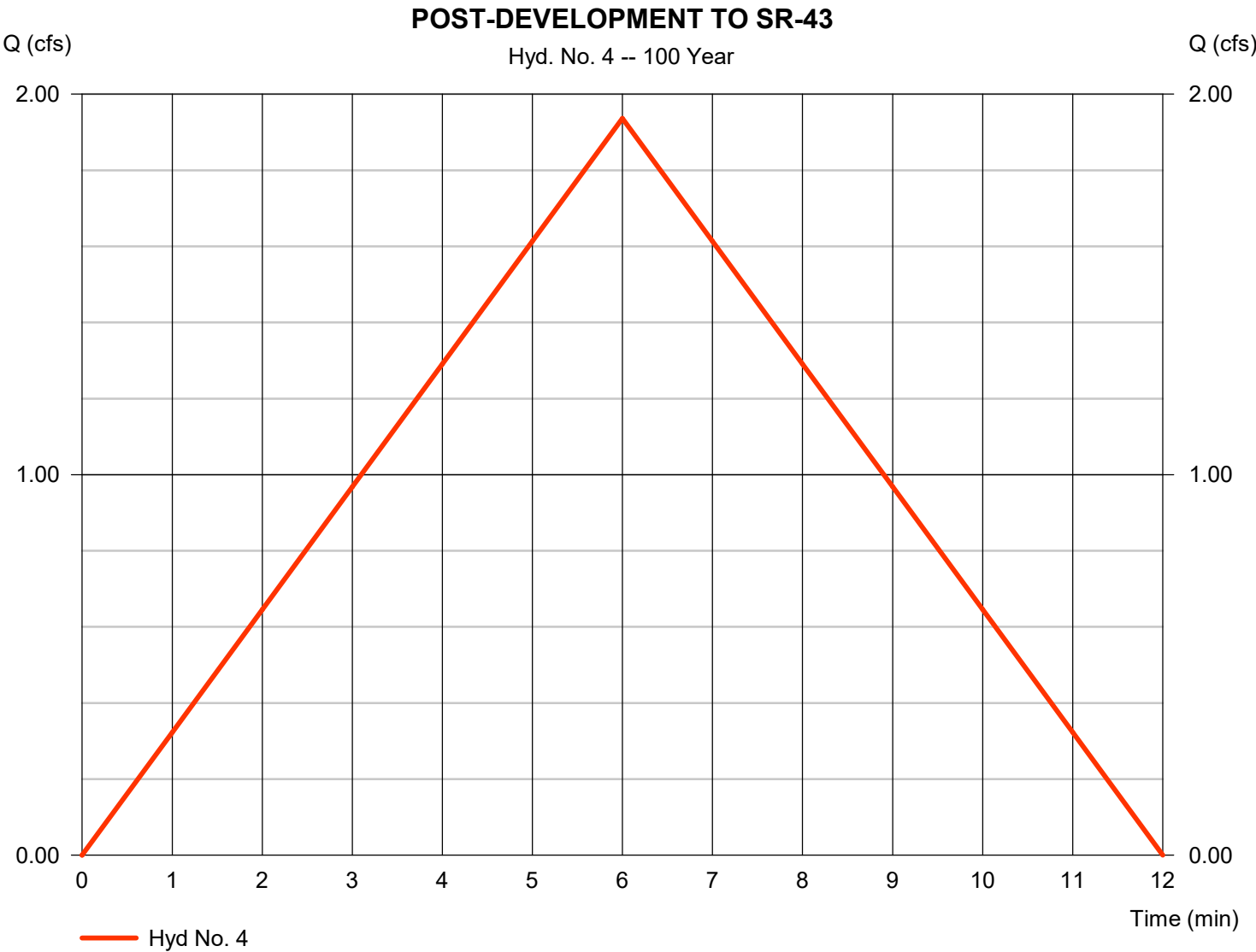


Hydrograph Report

Hyd. No. 4

POST-DEVELOPMENT TO SR-43

Hydrograph type	= Rational	Peak discharge	= 1.936 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 697 cuft
Drainage area	= 0.280 ac	Runoff coeff.	= 0.84
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



Hydrograph Report

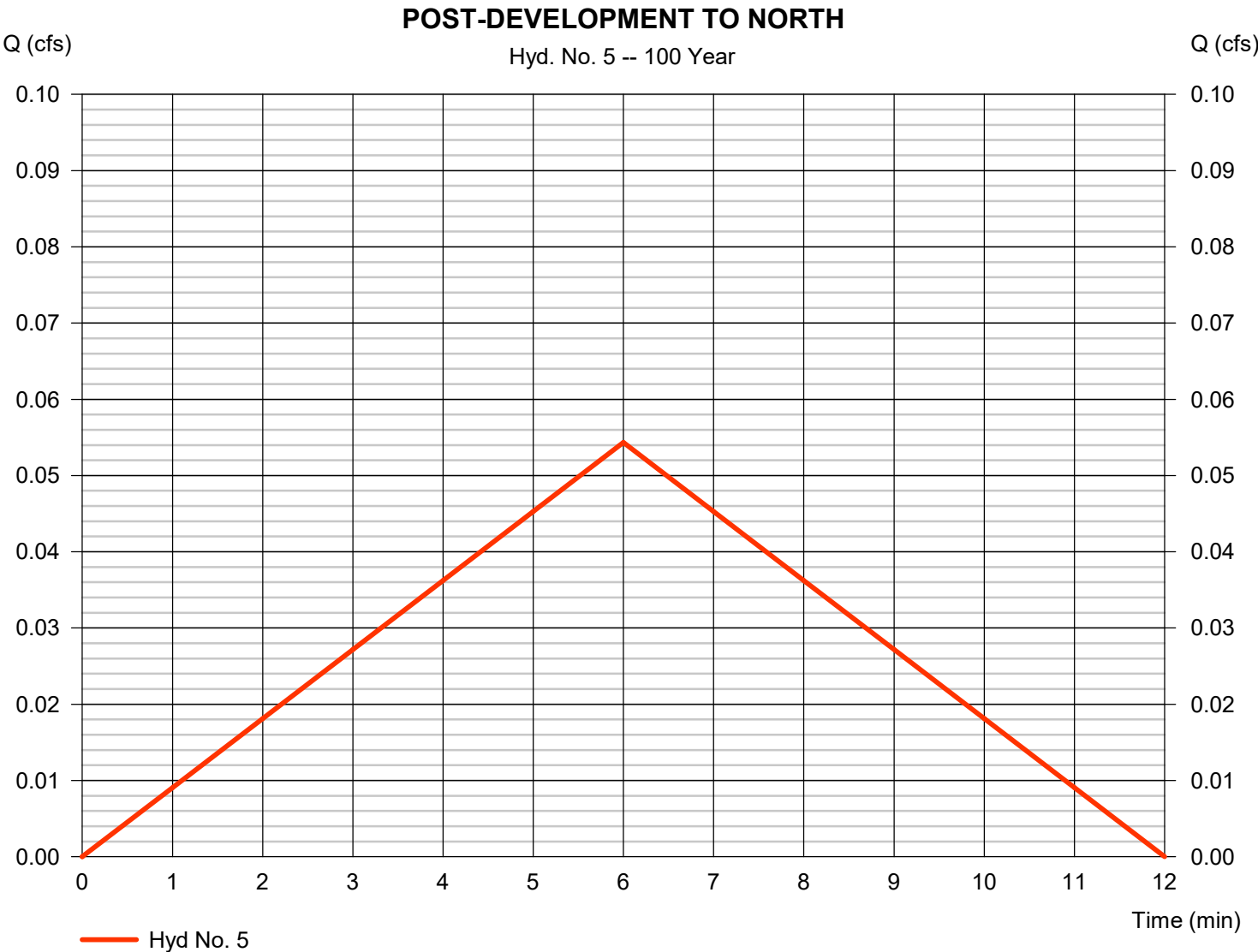
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

Thursday, 08 / 13 / 2026

Hyd. No. 5

POST-DEVELOPMENT TO NORTH

Hydrograph type	= Rational	Peak discharge	= 0.054 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 20 cuft
Drainage area	= 0.030 ac	Runoff coeff.	= 0.22
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

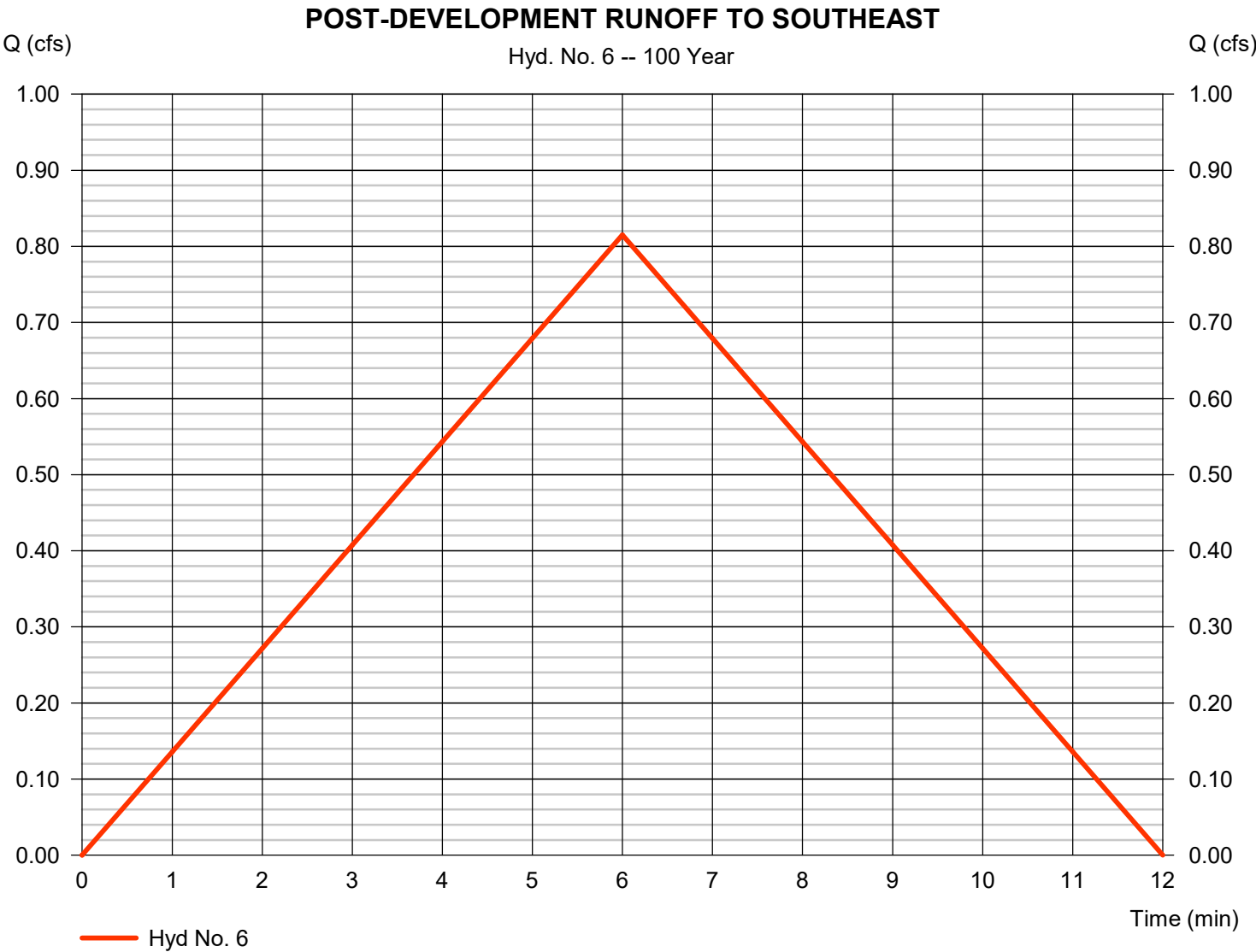


Hydrograph Report

Hyd. No. 6

POST-DEVELOPMENT RUNOFF TO SOUTHEAST

Hydrograph type	= Rational	Peak discharge	= 0.815 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 293 cuft
Drainage area	= 0.110 ac	Runoff coeff.	= 0.9
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1

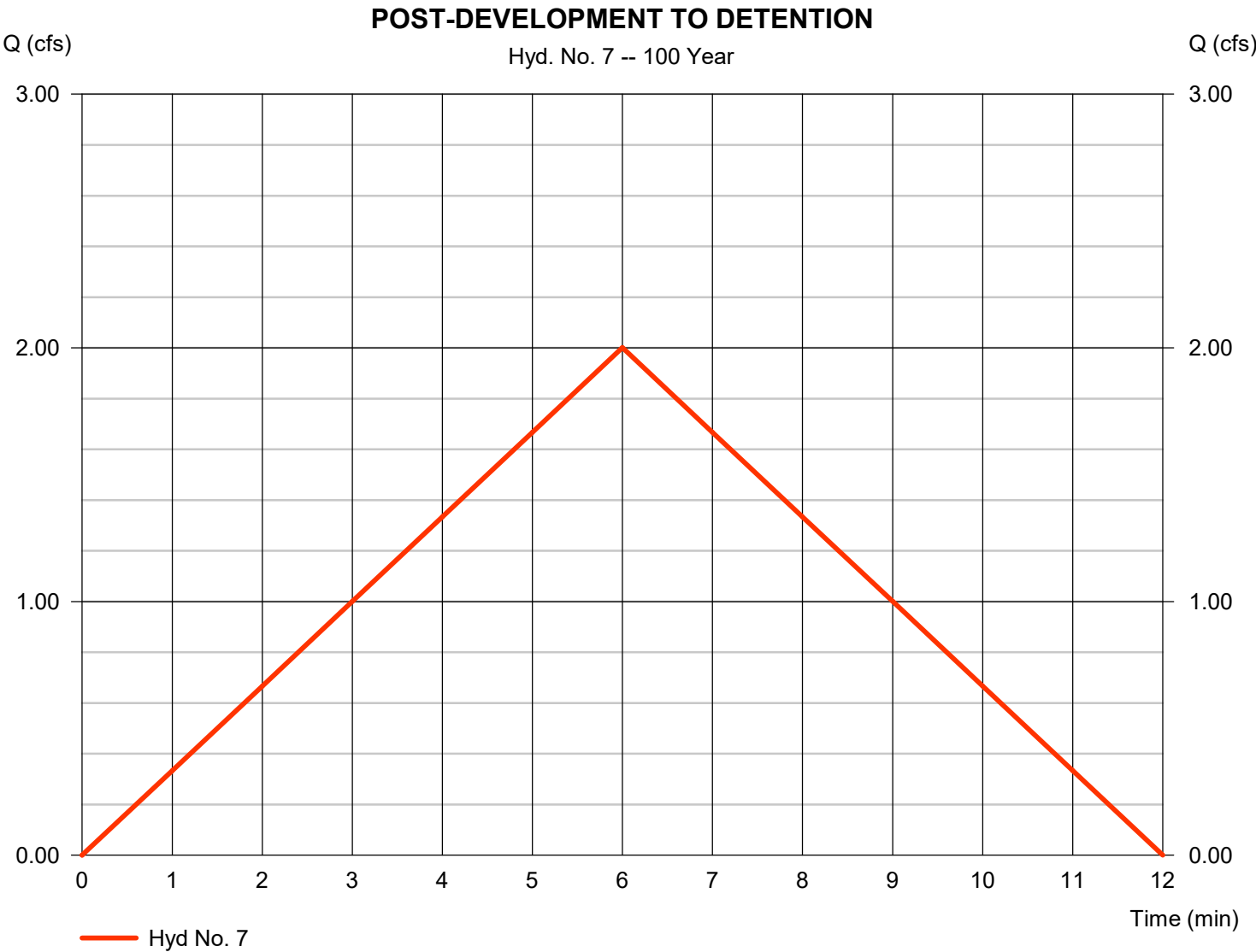


Hydrograph Report

Hyd. No. 7

POST-DEVELOPMENT TO DETENTION

Hydrograph type	= Rational	Peak discharge	= 2.001 cfs
Storm frequency	= 100 yrs	Time to peak	= 6 min
Time interval	= 1 min	Hyd. volume	= 720 cuft
Drainage area	= 0.270 ac	Runoff coeff.	= 0.9
Intensity	= 8.233 in/hr	Tc by User	= 6.00 min
IDF Curve	= Waynesburg, OH.idf	Asc/Rec limb fact	= 1/1



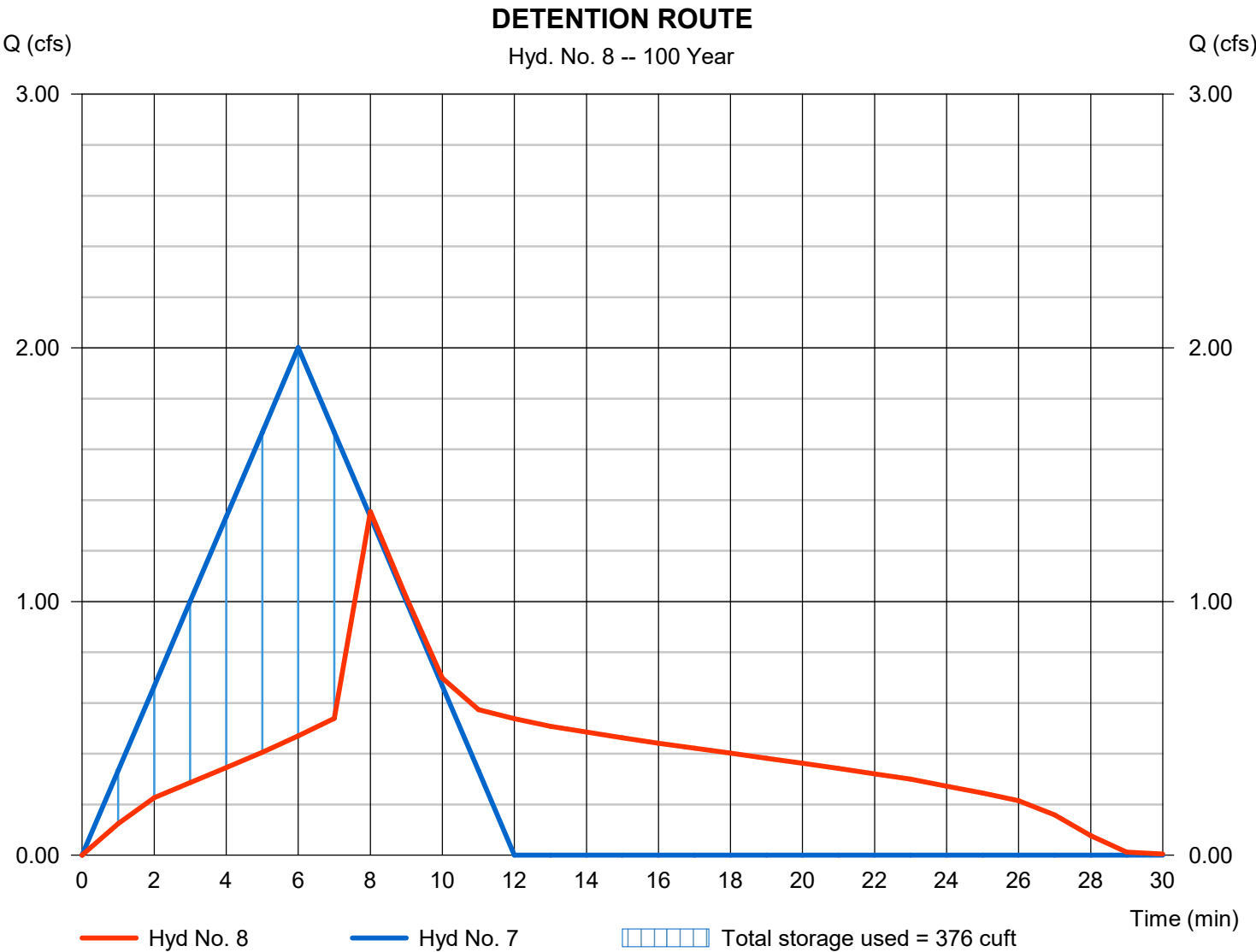
Hydrograph Report

Hyd. No. 8

DETENTION ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 1.354 cfs
Storm frequency	= 100 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 720 cuft
Inflow hyd. No.	= 7 - POST-DEVELOPMENT TOWNSHIP DETENTION	Max. Elevation	= 966.43 ft
Reservoir name	= OVERSIZED PIPE AND WEIR	Max. Storage	= 376 cuft

Storage Indication method used.



Hydrograph Report

Hyd. No. 9

TOTAL POST-DEVELOPMENT TO SOUTHEAST

Hydrograph type	= Combine	Peak discharge	= 1.898 cfs
Storm frequency	= 100 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 1,013 cuft
Inflow hyds.	= 6, 8	Contrib. drain. area	= 0.110 ac

