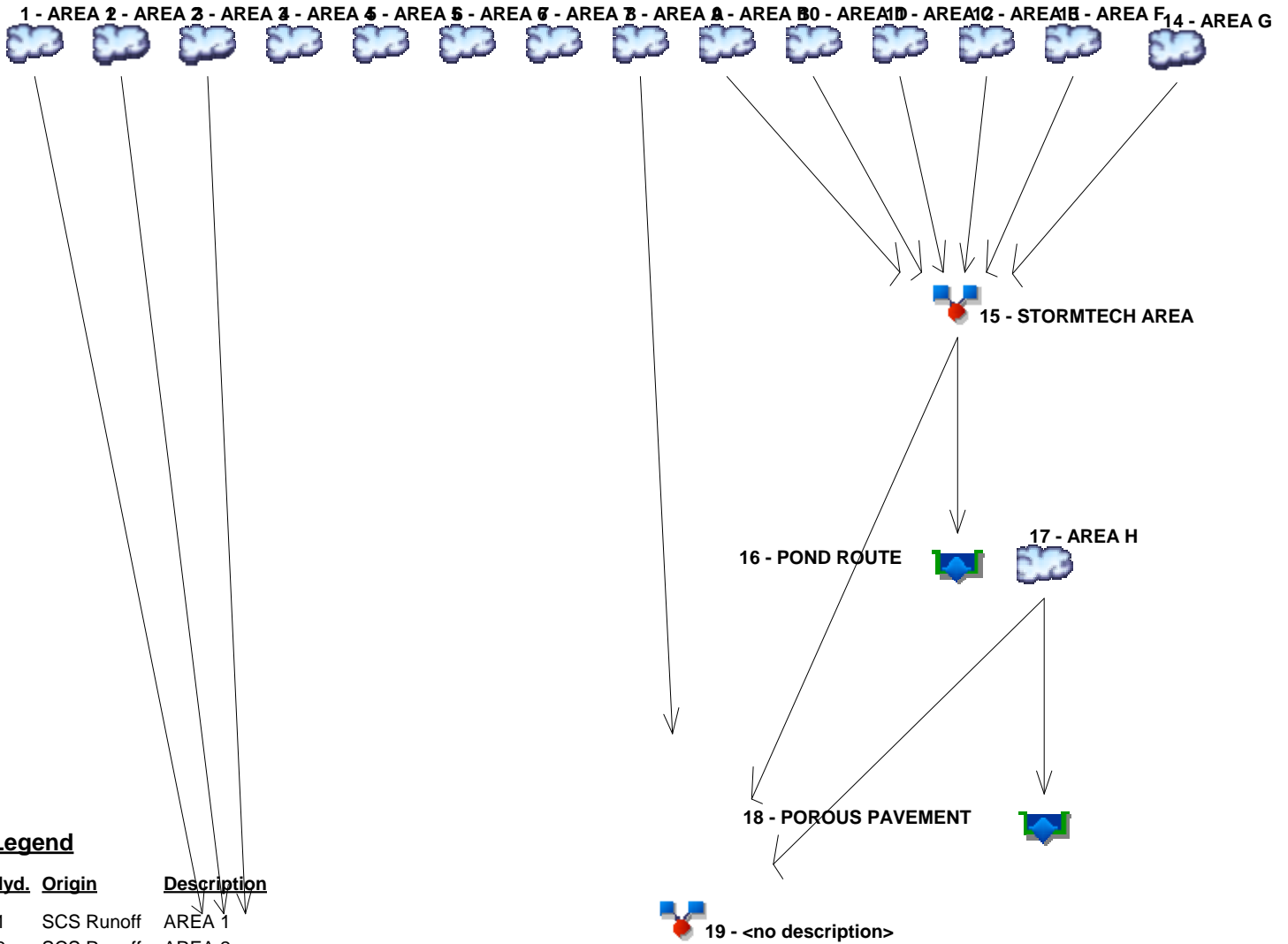


# Watershed Model Schematic

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9



**Legend**

Hyd.	Origin	Description
1	SCS Runoff	AREA 1
2	SCS Runoff	AREA 2
3	SCS Runoff	AREA 3
4	SCS Runoff	AREA 4
5	SCS Runoff	AREA 5
6	SCS Runoff	AREA 6
7	SCS Runoff	AREA 7
8	SCS Runoff	AREA A
9	SCS Runoff	AREA B
10	SCS Runoff	AREA D
11	SCS Runoff	AREA C
12	SCS Runoff	AREA E
13	SCS Runoff	AREA F
14	SCS Runoff	AREA G
15	Combine	STORMTECH AREA
16	Reservoir	POND ROUTE
17	SCS Runoff	AREA H
18	Reservoir	POROUS PAVEMENT
19	Combine	<no description>
20	Combine	<no description>

# Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

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	SCS Runoff	-----	4.602	6.973	-----	10.59	13.23	16.69	19.79	23.31	AREA 1
2	SCS Runoff	-----	0.417	0.630	-----	0.958	1.195	1.506	1.784	2.099	AREA 2
3	SCS Runoff	-----	0.349	0.528	-----	0.800	0.997	1.254	1.485	1.746	AREA 3
4	SCS Runoff	-----	1.958	2.461	-----	3.176	3.676	4.318	4.888	5.529	AREA 4
5	SCS Runoff	-----	1.617	2.342	-----	3.436	4.217	5.229	6.130	7.143	AREA 5
6	SCS Runoff	-----	0.809	1.171	-----	1.718	2.109	2.614	3.065	3.572	AREA 6
7	SCS Runoff	-----	0.507	0.768	-----	1.167	1.459	1.840	2.182	2.570	AREA 7
8	SCS Runoff	-----	3.251	4.928	-----	7.491	9.359	11.80	14.00	16.49	AREA A
9	SCS Runoff	-----	0.301	0.379	-----	0.489	0.566	0.664	0.752	0.851	AREA B
10	SCS Runoff	-----	1.280	1.609	-----	2.077	2.404	2.823	3.196	3.615	AREA D
11	SCS Runoff	-----	0.527	0.663	-----	0.855	0.990	1.163	1.316	1.489	AREA C
12	SCS Runoff	-----	1.770	2.224	-----	2.871	3.323	3.903	4.418	4.998	AREA E
13	SCS Runoff	-----	1.205	1.514	-----	1.955	2.262	2.657	3.008	3.403	AREA F
14	SCS Runoff	-----	0.640	0.805	-----	1.038	1.202	1.412	1.598	1.808	AREA G
15	Combine	9, 10, 11, 12, 13, 14 15	5.724	7.193	-----	9.285	10.75	12.62	14.29	16.16	STORMTECH AREA
16	Reservoir		0.225	0.247	-----	0.271	0.288	0.309	0.328	0.350	POND ROUTE
17	SCS Runoff	-----	2.071	2.603	-----	3.360	3.888	4.567	5.170	5.848	AREA H
18	Reservoir	17	0.000	0.000	-----	0.069	0.197	0.275	0.292	0.322	POROUS PAVEMENT
19	Combine	8, 15, 17,	7.796	9.796	-----	12.64	14.63	17.19	19.47	22.08	<no description>
20	Combine	1, 2, 3,	5.239	7.956	-----	12.10	15.10	19.02	22.55	26.53	<no description>

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	4.602	2	734	0.471	-----	-----	-----	AREA 1
2	SCS Runoff	0.417	2	730	0.036	-----	-----	-----	AREA 2
3	SCS Runoff	0.349	2	726	0.026	-----	-----	-----	AREA 3
4	SCS Runoff	1.958	2	716	0.104	-----	-----	-----	AREA 4
5	SCS Runoff	1.617	2	718	0.075	-----	-----	-----	AREA 5
6	SCS Runoff	0.809	2	718	0.037	-----	-----	-----	AREA 6
7	SCS Runoff	0.507	2	736	0.054	-----	-----	-----	AREA 7
8	SCS Runoff	3.251	2	736	0.350	-----	-----	-----	AREA A
9	SCS Runoff	0.301	2	716	0.016	-----	-----	-----	AREA B
10	SCS Runoff	1.280	2	716	0.068	-----	-----	-----	AREA D
11	SCS Runoff	0.527	2	716	0.028	-----	-----	-----	AREA C
12	SCS Runoff	1.770	2	716	0.094	-----	-----	-----	AREA E
13	SCS Runoff	1.205	2	716	0.064	-----	-----	-----	AREA F
14	SCS Runoff	0.640	2	716	0.034	-----	-----	-----	AREA G
15	Combine	5.724	2	716	0.305	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.225	2	794	0.304	15	1341.99	0.179	POND ROUTE
17	SCS Runoff	2.071	2	716	0.110	-----	-----	-----	AREA H
18	Reservoir	0.000	2	n/a	0.000	17	1344.85	0.119	POROUS PAVEMENT
19	Combine	7.796	2	716	0.415	8, 15, 17,	-----	-----	<no description>
20	Combine	5.239	2	732	0.533	1, 2, 3,	-----	-----	<no description>

# Hydrograph Report

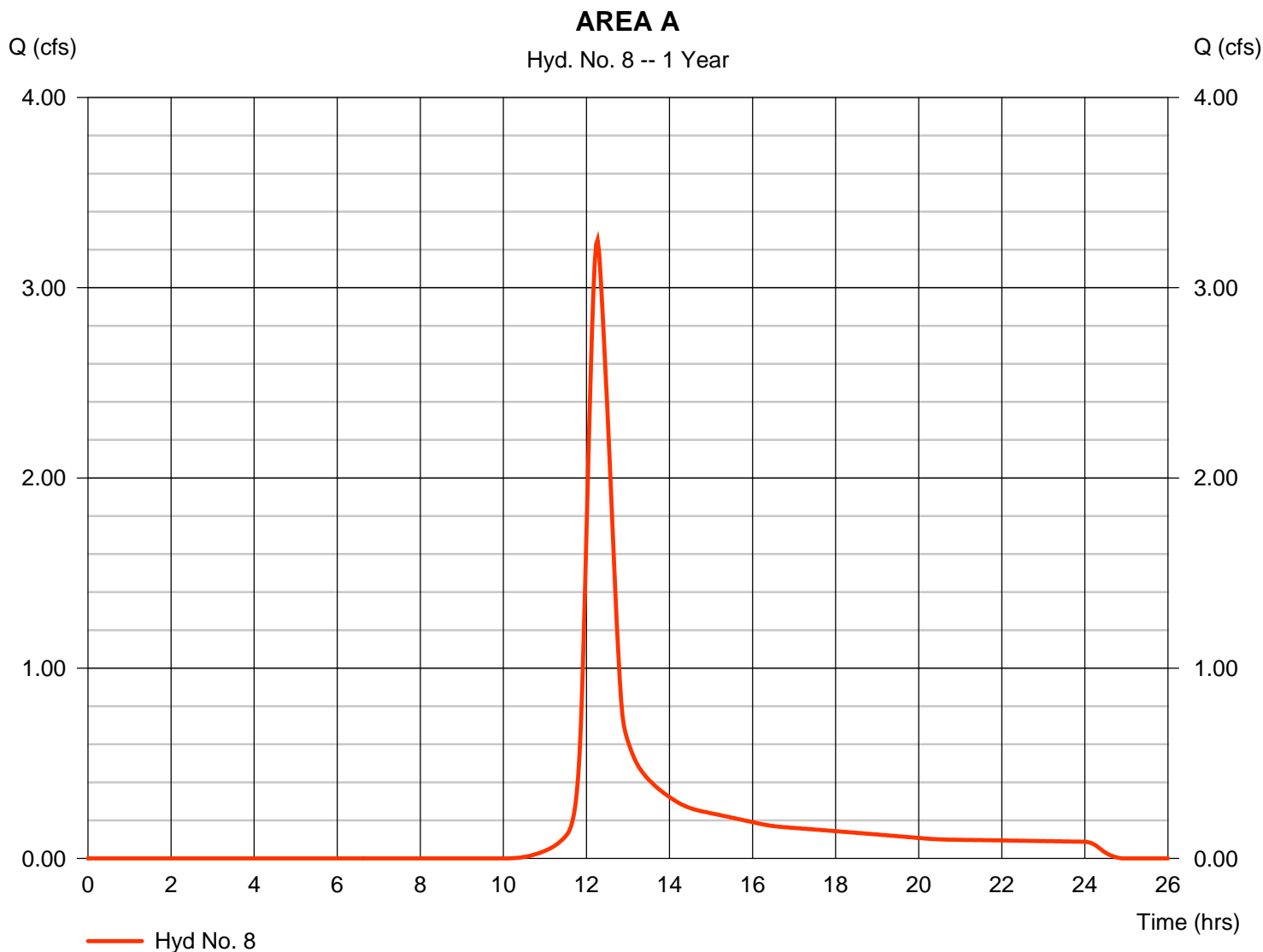
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Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 3.251 cfs
Storm frequency	= 1 yrs	Time to peak	= 12.27 hrs
Time interval	= 2 min	Hyd. volume	= 0.350 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# TR55 Tc Worksheet

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

## Hyd. No. 8

AREA A

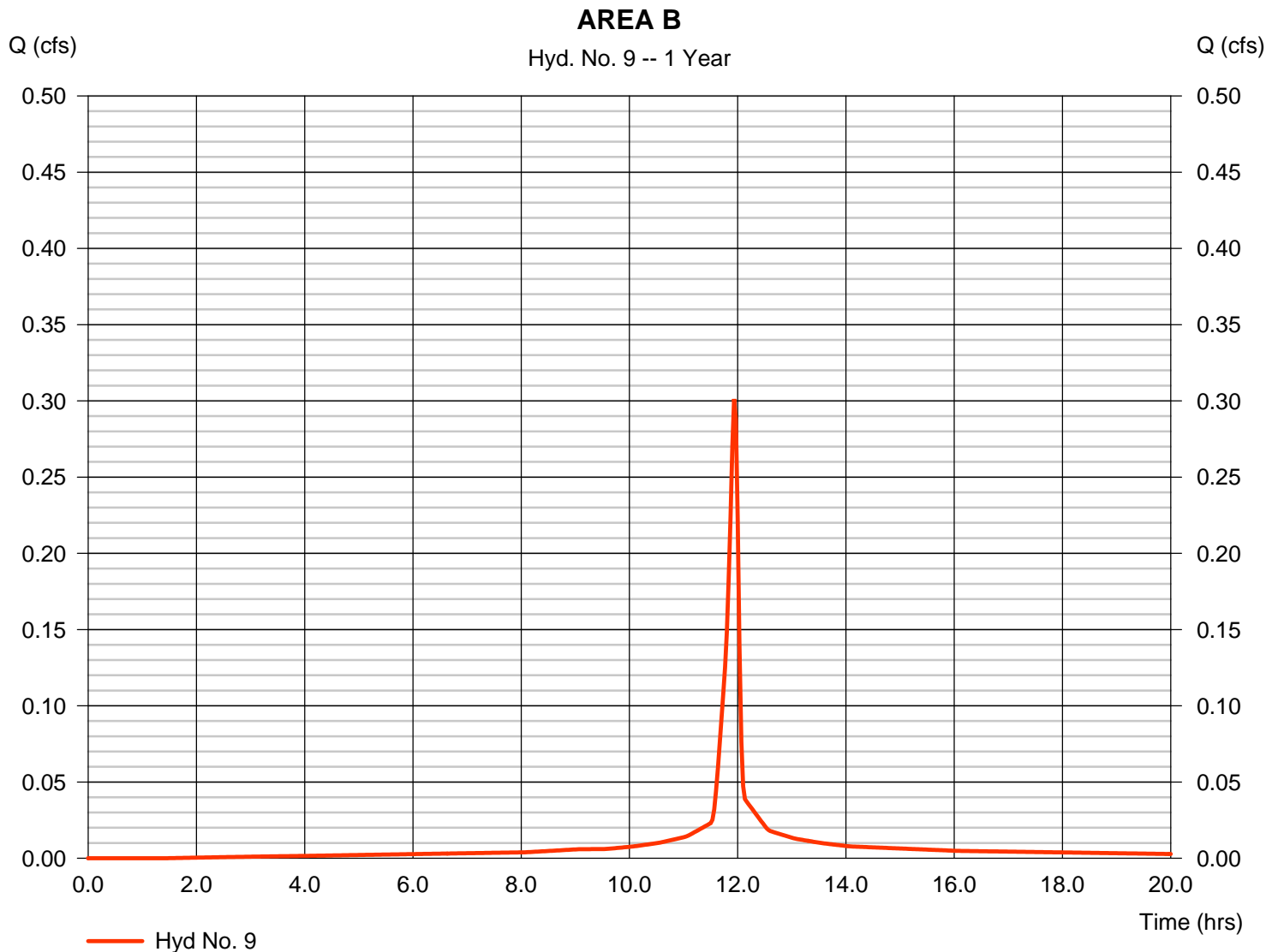
<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
<b>Sheet Flow</b>				
Manning's n-value	= 0.350	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.50	0.00	0.00	
Land slope (%)	= 0.60	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 29.87</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 29.87</b>
<b>Shallow Concentrated Flow</b>				
Flow length (ft)	= 427.00	0.00	0.00	
Watercourse slope (%)	= 0.80	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=1.44	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 4.93</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 4.93</b>
<b>Channel Flow</b>				
X sectional flow area (sqft)	= 0.00	0.00	0.00	
Wetted perimeter (ft)	= 0.00	0.00	0.00	
Channel slope (%)	= 0.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	=0.00	0.00	0.00	
Flow length (ft)	0.0	0.0	0.0	
<b>Travel Time (min)</b>	<b>= 0.00</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 0.00</b>
<b>Total Travel Time, Tc .....</b>				<b>34.80 min</b>

# Hydrograph Report

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.301 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.016 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

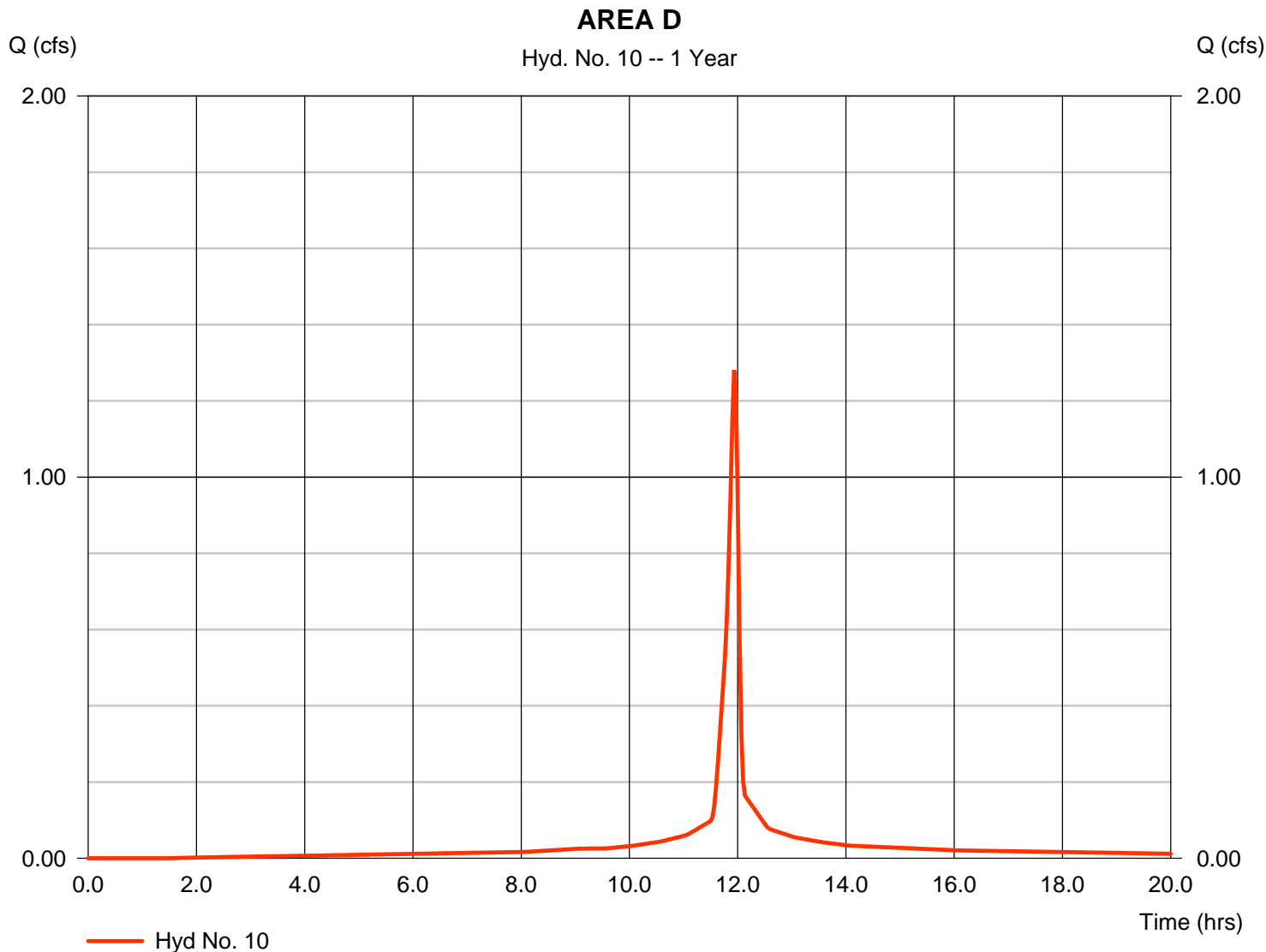
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## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 1.280 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.068 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

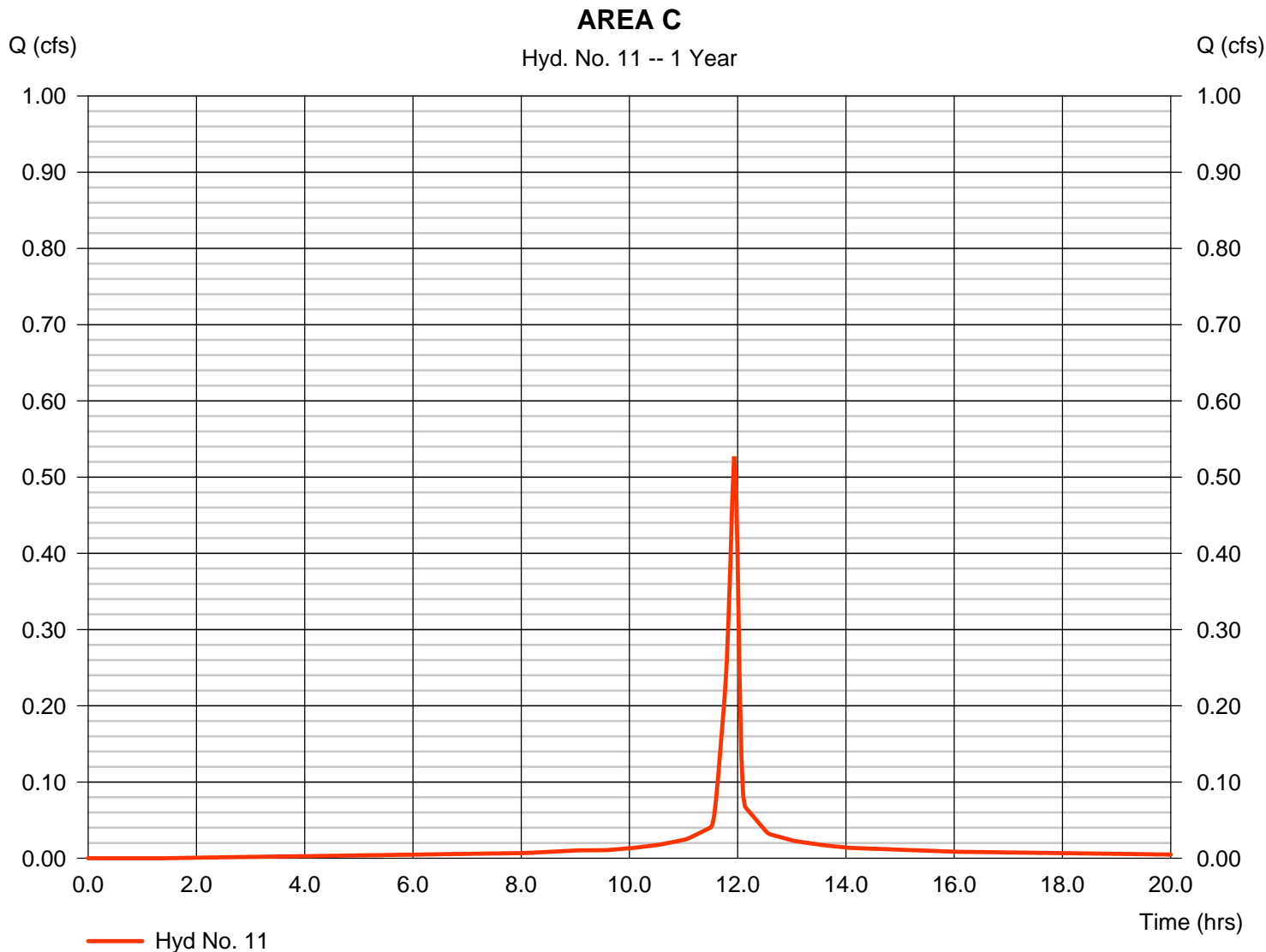


# Hydrograph Report

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.527 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.028 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

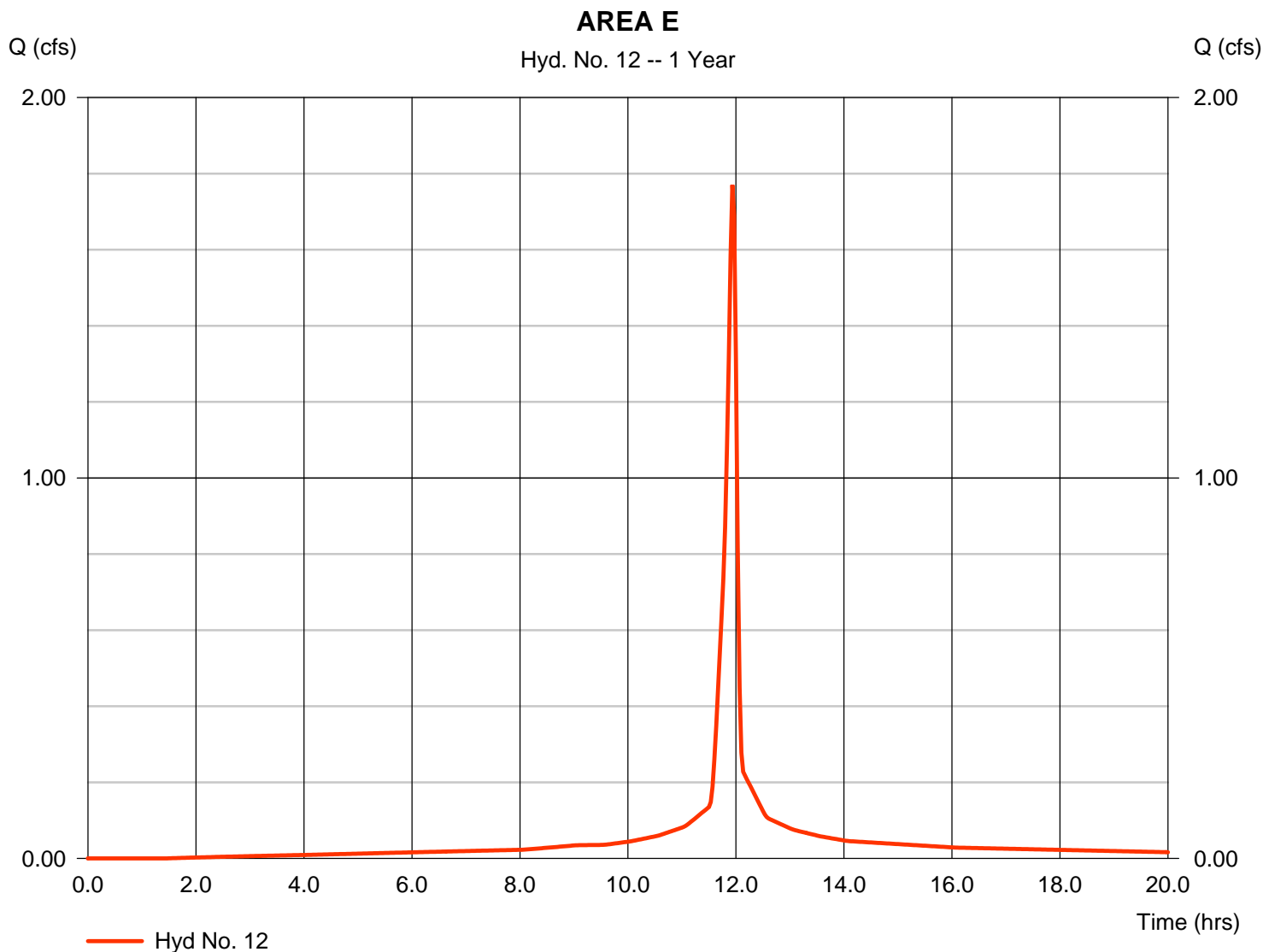


# Hydrograph Report

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 1.770 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.094 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

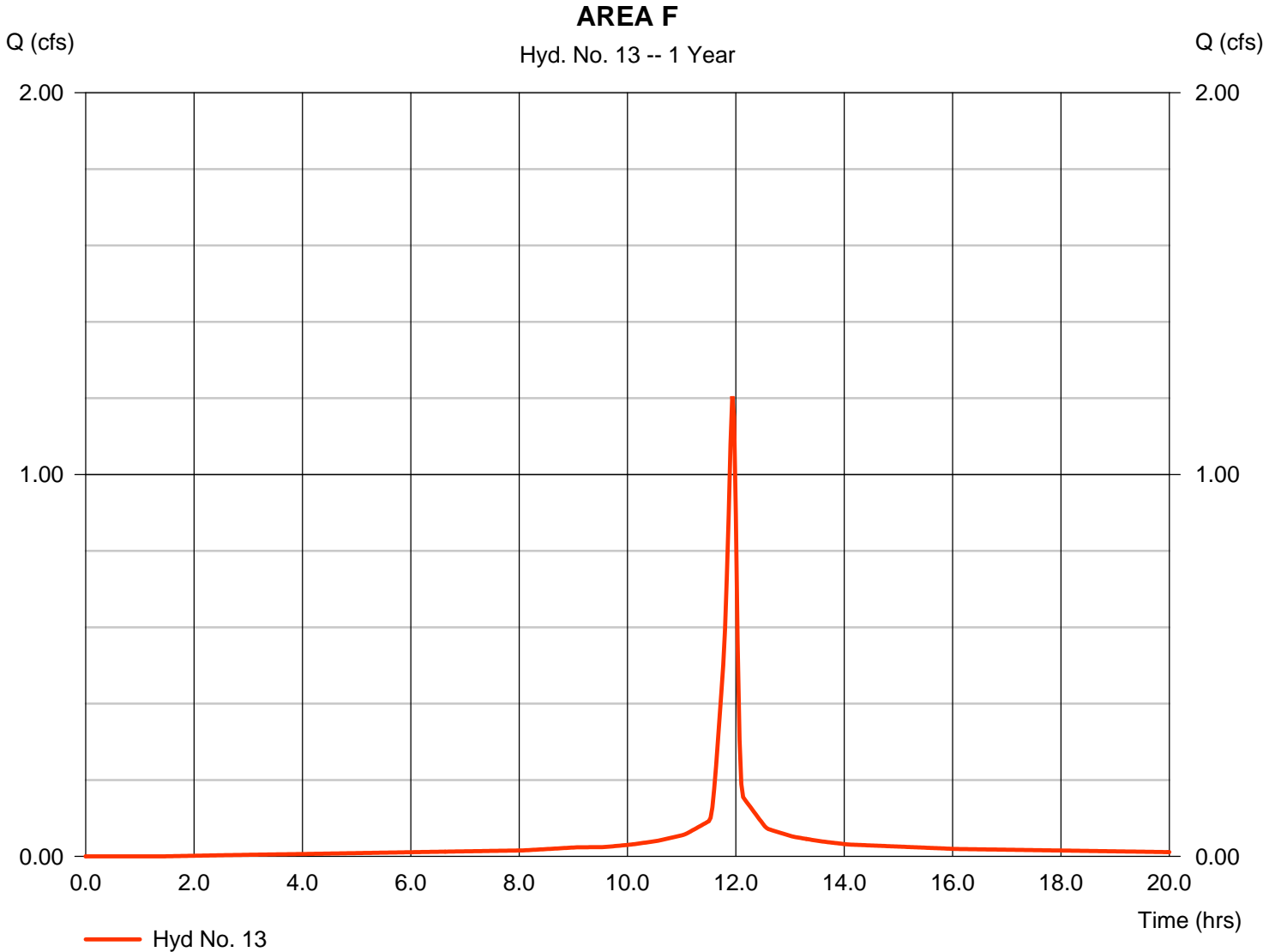
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Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 1.205 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.064 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

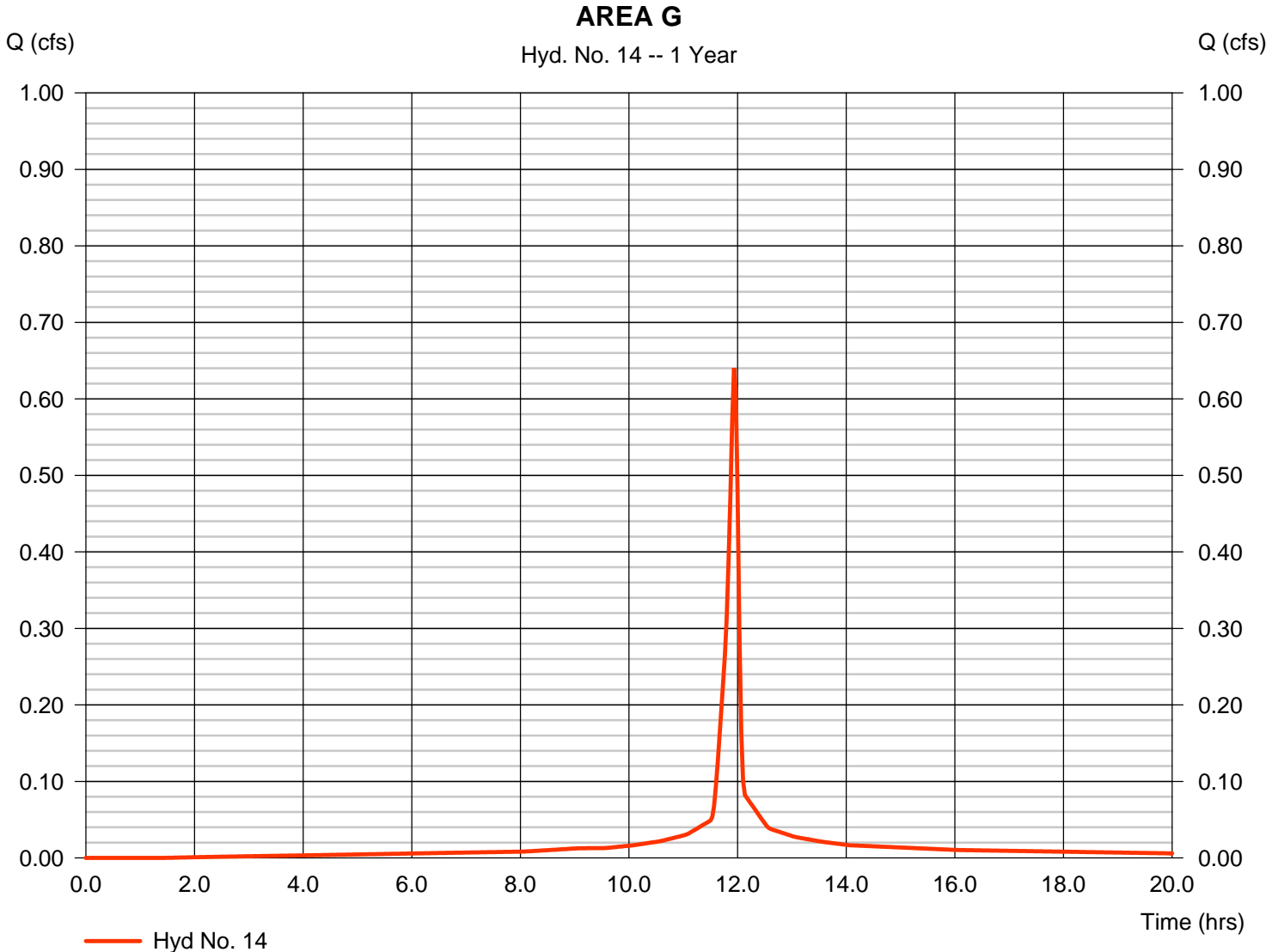


# Hydrograph Report

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 0.640 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.034 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

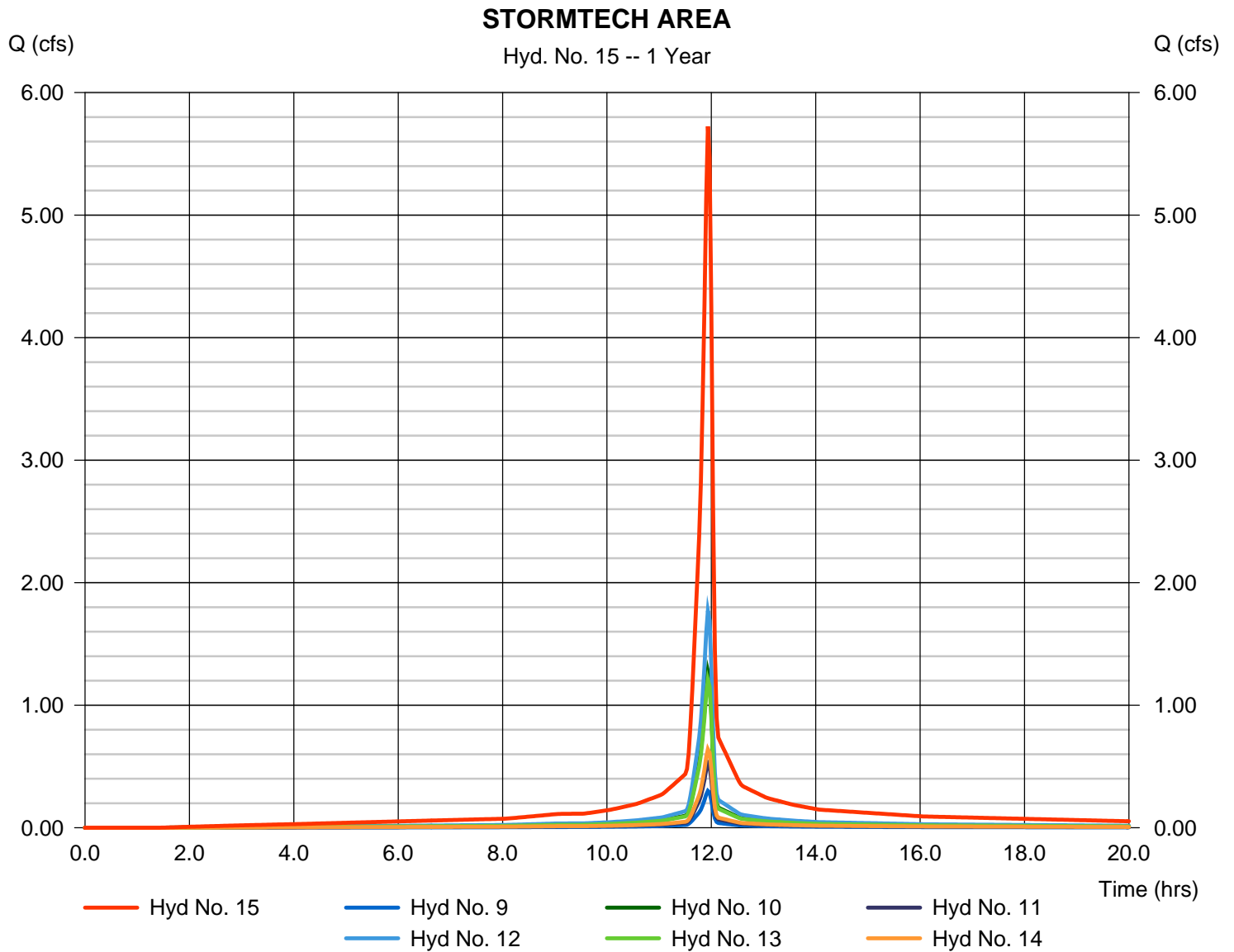
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## Hyd. No. 15

### STORMTECH AREA

Hydrograph type	= Combine	Peak discharge	= 5.724 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.305 acft
Inflow hyds.	= 9, 10, 11, 12, 13, 14	Contrib. drain. area	= 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

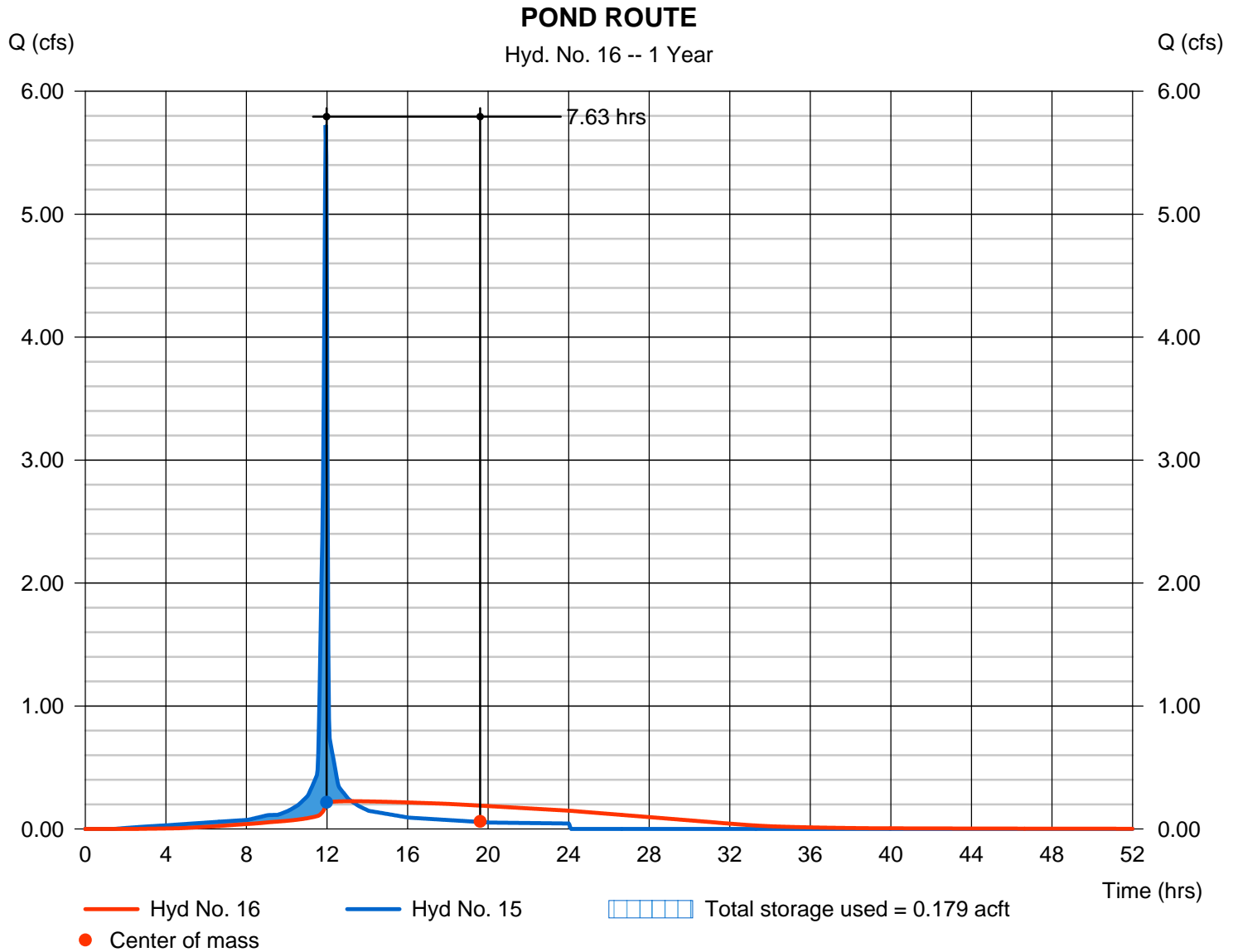
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.225 cfs
Storm frequency	= 1 yrs	Time to peak	= 13.23 hrs
Time interval	= 2 min	Hyd. volume	= 0.304 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1341.99 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.179 acft

Storage Indication method used.



## Pond No. 1 - STORMTECH 3500

### Pond Data

**UG Chambers** -Invert elev. = 1342.00 ft, Rise x Span = 3.00 x 4.25 ft, Barrel Len = 135.00 ft, No. Barrels = 10, Slope = 0.00%, Headers = Yes  
**Encasement** -Invert elev. = 1340.00 ft, Width = 6.25 ft, Height = 5.50 ft, Voids = 40.00%

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	1340.00	n/a	0.000	0.000
0.55	1340.55	n/a	0.047	0.047
1.10	1341.10	n/a	0.047	0.093
1.65	1341.65	n/a	0.047	0.140
2.20	1342.20	n/a	0.064	0.204
2.75	1342.75	n/a	0.093	0.297
3.30	1343.30	n/a	0.091	0.388
3.85	1343.85	n/a	0.087	0.475
4.40	1344.40	n/a	0.080	0.555
4.95	1344.95	n/a	0.067	0.622
5.50	1345.50	n/a	0.047	0.669

### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	2.50	0.00	0.00
Span (in)	= 12.00	2.50	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 1341.00	1340.00	0.00	0.00
Length (ft)	= 10.00	0.00	0.00	0.00
Slope (%)	= 1.00	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	No	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 1345.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
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 acft	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	0.000	1340.00	0.00	0.00	---	---	0.00	---	---	---	---	---	0.000
0.55	0.047	1340.55	0.00	0.11 ic	---	---	0.00	---	---	---	---	---	0.110
1.10	0.093	1341.10	0.00	0.16 ic	---	---	0.00	---	---	---	---	---	0.164
1.65	0.140	1341.65	0.00	0.20 ic	---	---	0.00	---	---	---	---	---	0.204
2.20	0.204	1342.20	0.00	0.24 ic	---	---	0.00	---	---	---	---	---	0.238
2.75	0.297	1342.75	0.00	0.27 ic	---	---	0.00	---	---	---	---	---	0.267
3.30	0.388	1343.30	0.00	0.29 ic	---	---	0.00	---	---	---	---	---	0.293
3.85	0.475	1343.85	0.00	0.32 ic	---	---	0.00	---	---	---	---	---	0.318
4.40	0.555	1344.40	0.00	0.34 ic	---	---	0.00	---	---	---	---	---	0.340
4.95	0.622	1344.95	0.00	0.36 ic	---	---	0.00	---	---	---	---	---	0.361
5.50	0.669	1345.50	3.68 oc	0.38 ic	---	---	3.68	---	---	---	---	---	4.058

# Hydrograph Report

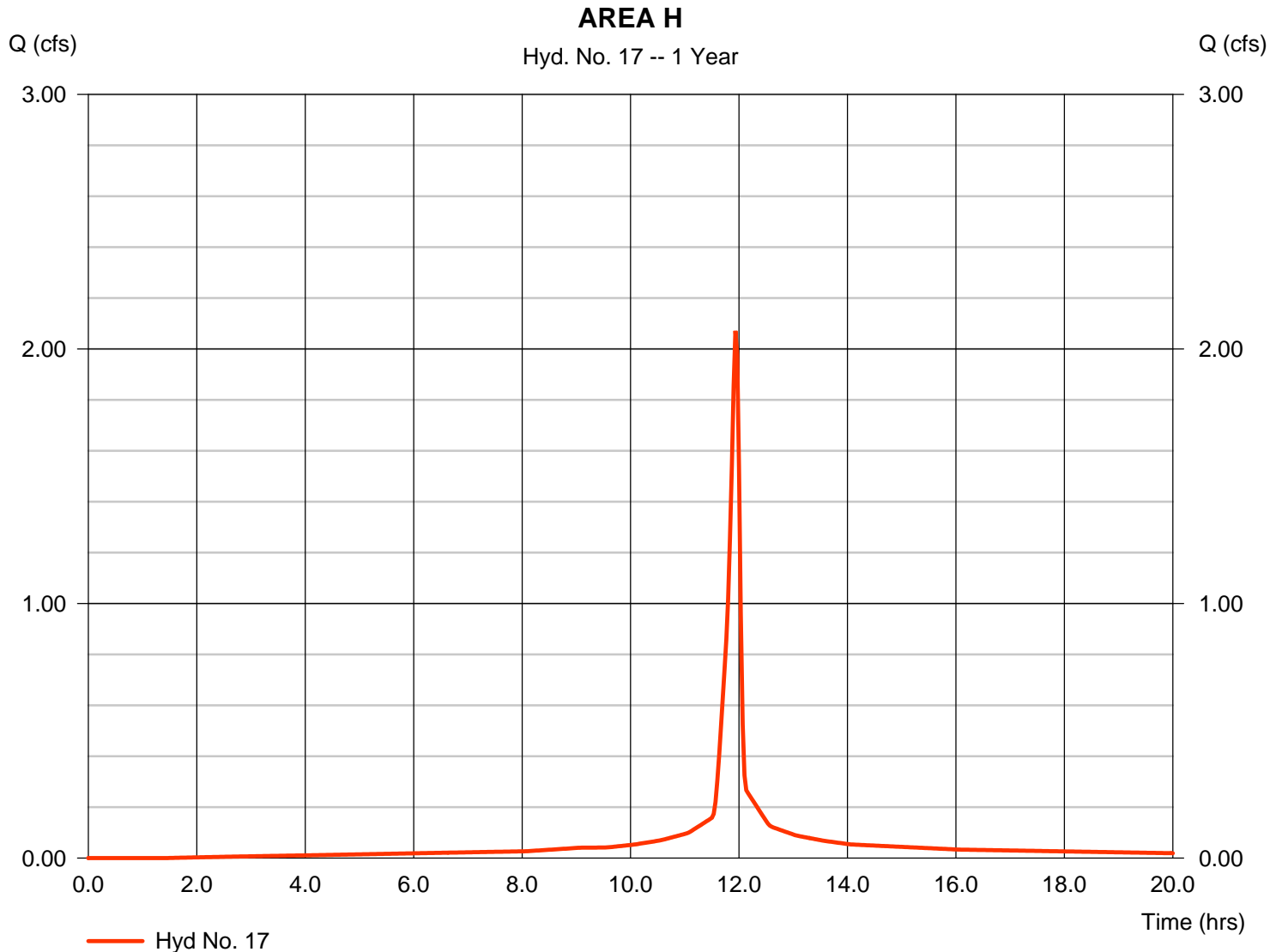
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 2.071 cfs
Storm frequency	= 1 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.110 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 2.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

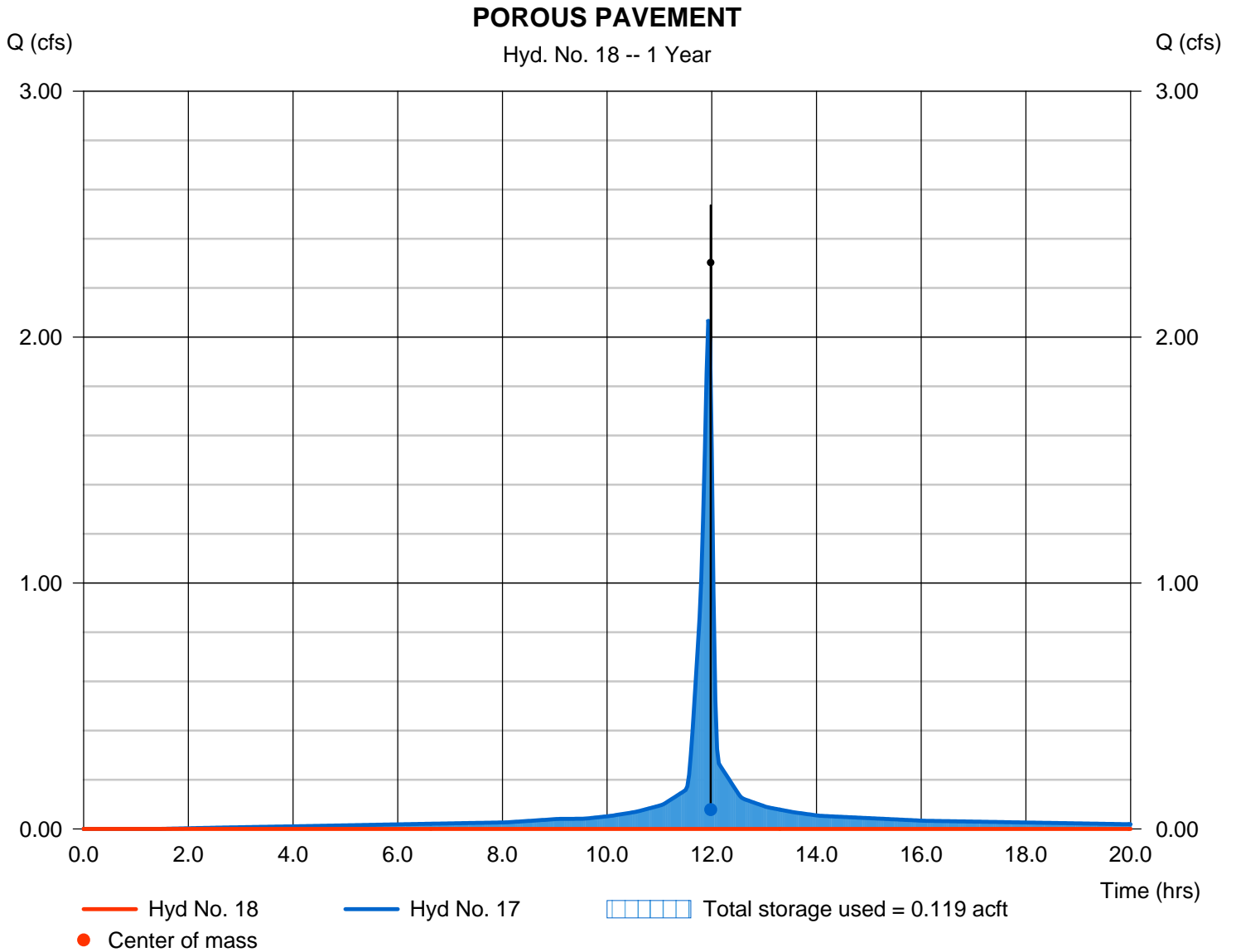
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.000 cfs
Storm frequency	= 1 yrs	Time to peak	= n/a
Time interval	= 2 min	Hyd. volume	= 0.000 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1344.85 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.119 acft

Storage Indication method used.



## Pond No. 3 - POROUS PAVEMENT

### Pond Data

Trapezoid -Bottom L x W = 100.0 x 67.0 ft, Side slope = 1.00:1, Bottom elev. = 1343.00 ft, Depth = 4.00 ft, Voids = 40.00%

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	1343.00	6,700	0.000	0.000
0.40	1343.40	6,834	0.025	0.025
0.80	1343.80	6,970	0.025	0.050
1.20	1344.20	7,107	0.026	0.076
1.60	1344.60	7,245	0.026	0.102
2.00	1345.00	7,384	0.027	0.129
2.40	1345.40	7,525	0.027	0.157
2.80	1345.80	7,667	0.028	0.185
3.20	1346.20	7,810	0.028	0.213
3.60	1346.60	7,954	0.029	0.242
4.00	1347.00	8,100	0.029	0.271

### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 3.00	0.00	0.00	0.00
Span (in)	= 3.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 1343.50	0.00	0.00	0.00
Length (ft)	= 15.00	0.00	0.00	0.00
Slope (%)	= 1.00	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	No	No	No

### Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 4.00	0.00	0.00	0.00
Crest El. (ft)	= 1345.50	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	---	---	---
Multi-Stage	= Yes	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 acft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0.000	1343.00	0.00	---	---	---	0.00	---	---	---	---	---	0.000
0.40	0.025	1343.40	0.00	---	---	---	0.00	---	---	---	---	---	0.000
0.80	0.050	1343.80	0.00	---	---	---	0.00	---	---	---	---	---	0.000
1.20	0.076	1344.20	0.00	---	---	---	0.00	---	---	---	---	---	0.000
1.60	0.102	1344.60	0.00	---	---	---	0.00	---	---	---	---	---	0.000
2.00	0.129	1345.00	0.00	---	---	---	0.00	---	---	---	---	---	0.000
2.40	0.157	1345.40	0.00	---	---	---	0.00	---	---	---	---	---	0.000
2.80	0.185	1345.80	0.28 oc	---	---	---	0.27 s	---	---	---	---	---	0.274
3.20	0.213	1346.20	0.30 oc	---	---	---	0.22 s	---	---	---	---	---	0.220
3.60	0.242	1346.60	0.32 oc	---	---	---	0.00	---	---	---	---	---	0.324
4.00	0.271	1347.00	0.34 oc	---	---	---	0.00	---	---	---	---	---	0.345

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	6.973	2	734	0.700	-----	-----	-----	AREA 1
2	SCS Runoff	0.630	2	728	0.054	-----	-----	-----	AREA 2
3	SCS Runoff	0.528	2	724	0.038	-----	-----	-----	AREA 3
4	SCS Runoff	2.461	2	716	0.133	-----	-----	-----	AREA 4
5	SCS Runoff	2.342	2	716	0.109	-----	-----	-----	AREA 5
6	SCS Runoff	1.171	2	716	0.054	-----	-----	-----	AREA 6
7	SCS Runoff	0.768	2	736	0.081	-----	-----	-----	AREA 7
8	SCS Runoff	4.928	2	736	0.519	-----	-----	-----	AREA A
9	SCS Runoff	0.379	2	716	0.020	-----	-----	-----	AREA B
10	SCS Runoff	1.609	2	716	0.087	-----	-----	-----	AREA D
11	SCS Runoff	0.663	2	716	0.036	-----	-----	-----	AREA C
12	SCS Runoff	2.224	2	716	0.120	-----	-----	-----	AREA E
13	SCS Runoff	1.514	2	716	0.082	-----	-----	-----	AREA F
14	SCS Runoff	0.805	2	716	0.043	-----	-----	-----	AREA G
15	Combine	7.193	2	716	0.388	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.247	2	808	0.387	15	1342.37	0.233	POND ROUTE
17	SCS Runoff	2.603	2	716	0.140	-----	-----	-----	AREA H
18	Reservoir	0.000	2	n/a	0.000	17	1345.32	0.151	POROUS PAVEMENT
19	Combine	9.796	2	716	0.528	8, 15, 17,	-----	-----	<no description>
20	Combine	7.956	2	732	0.792	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 2 Year			Monday, 00 19, 2012	

# Hydrograph Report

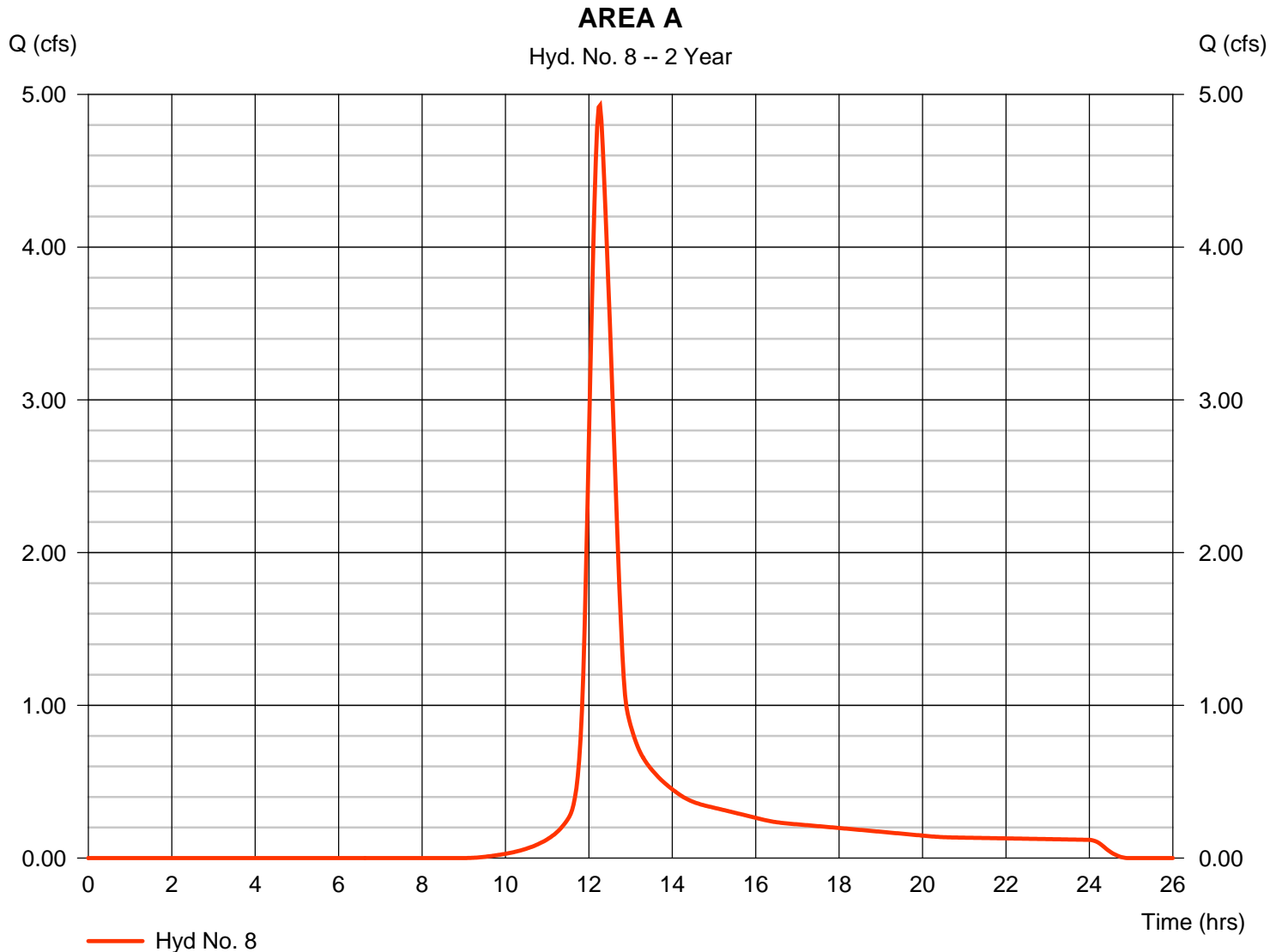
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 4.928 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.27 hrs
Time interval	= 2 min	Hyd. volume	= 0.519 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

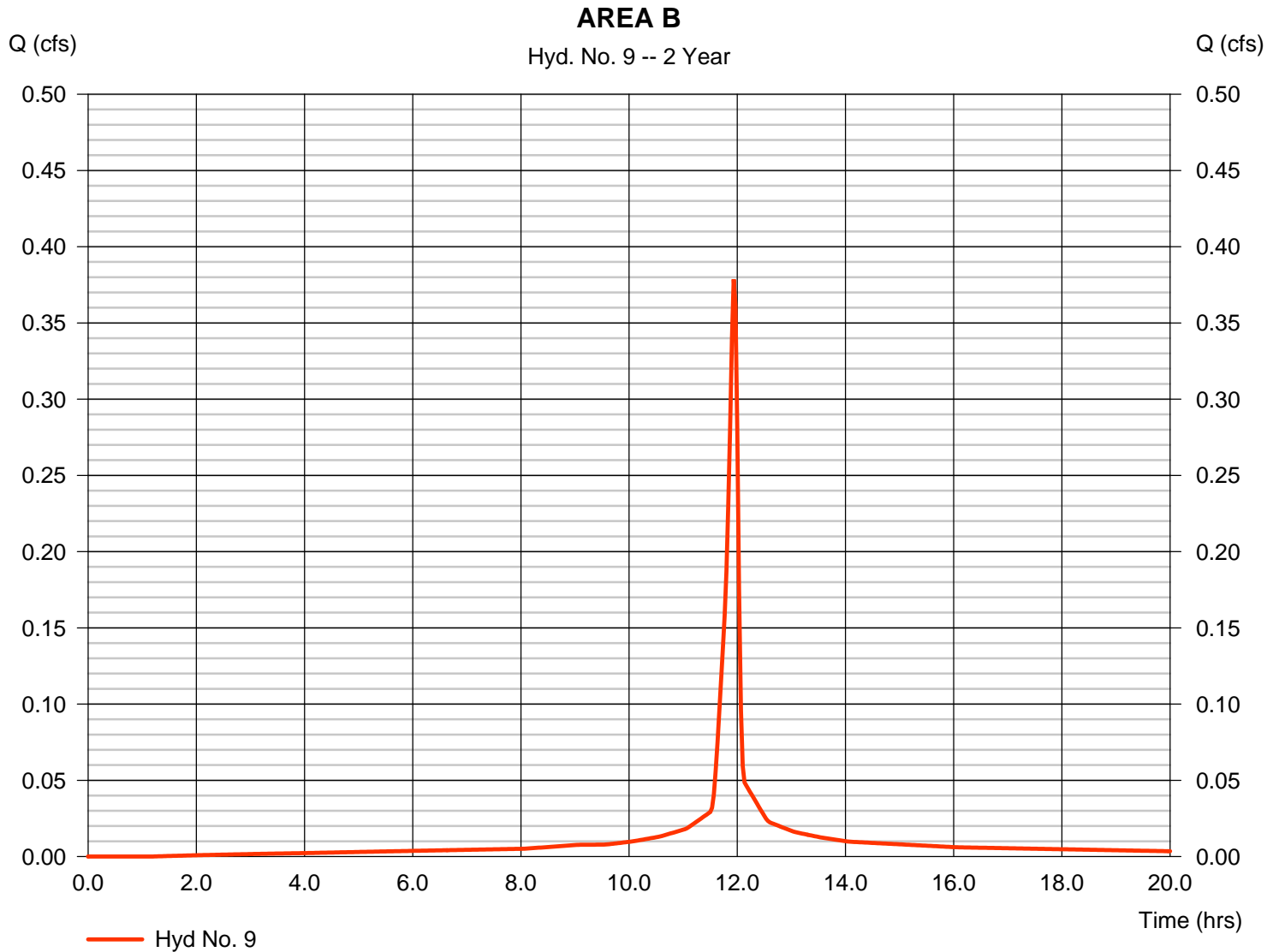
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.379 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.020 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

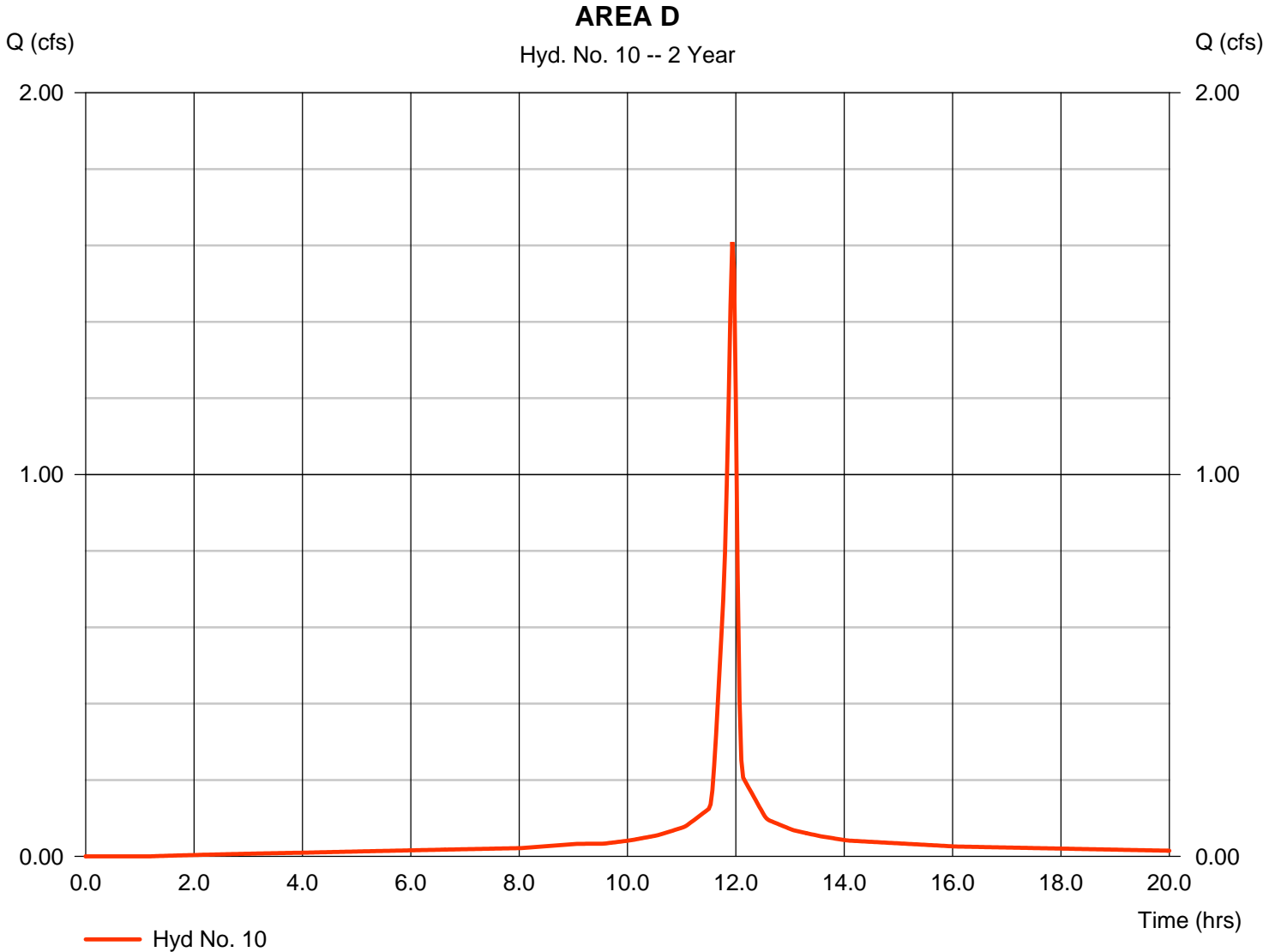


# Hydrograph Report

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 1.609 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.087 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

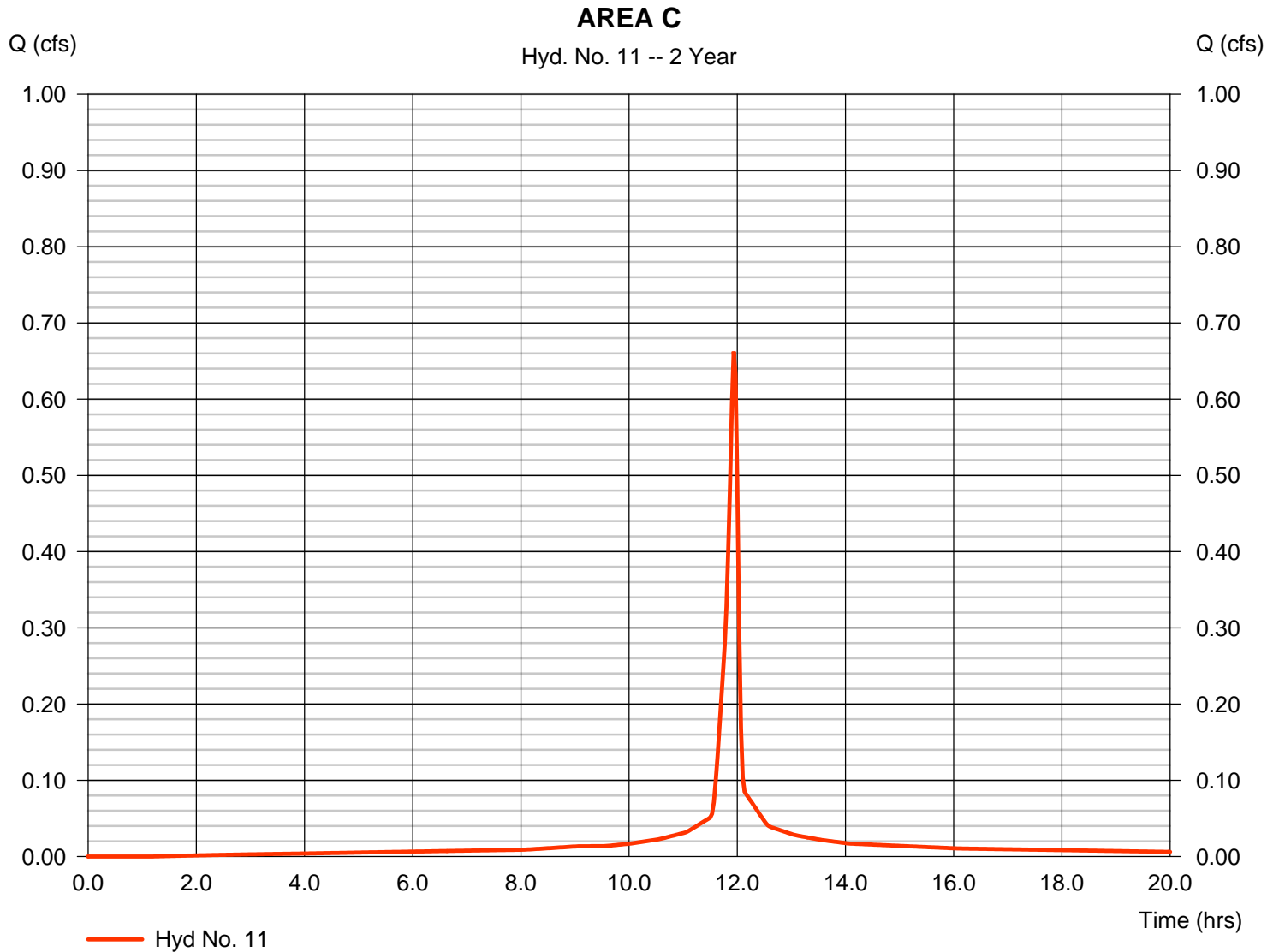
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.663 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.036 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

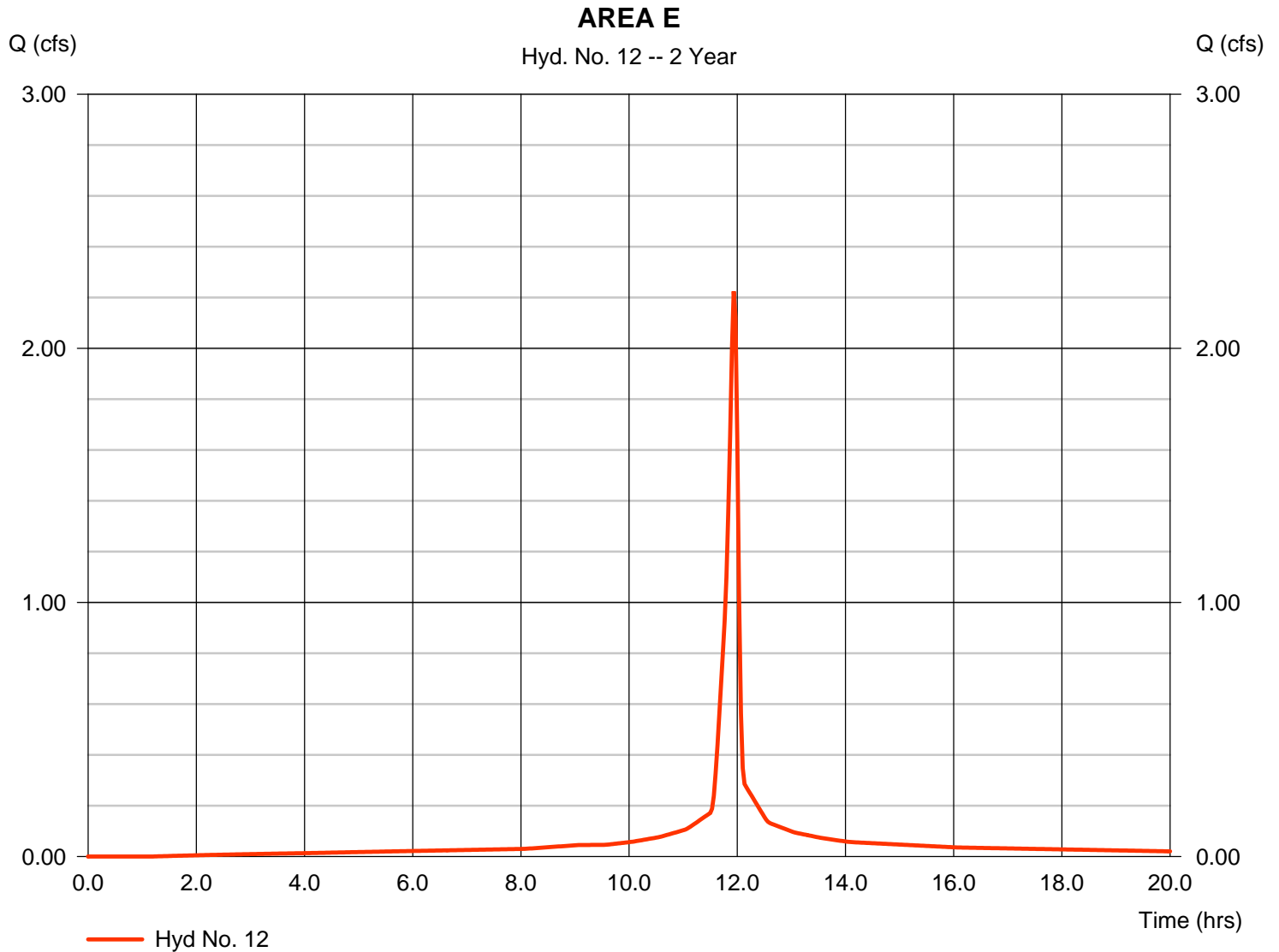
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 2.224 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.120 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

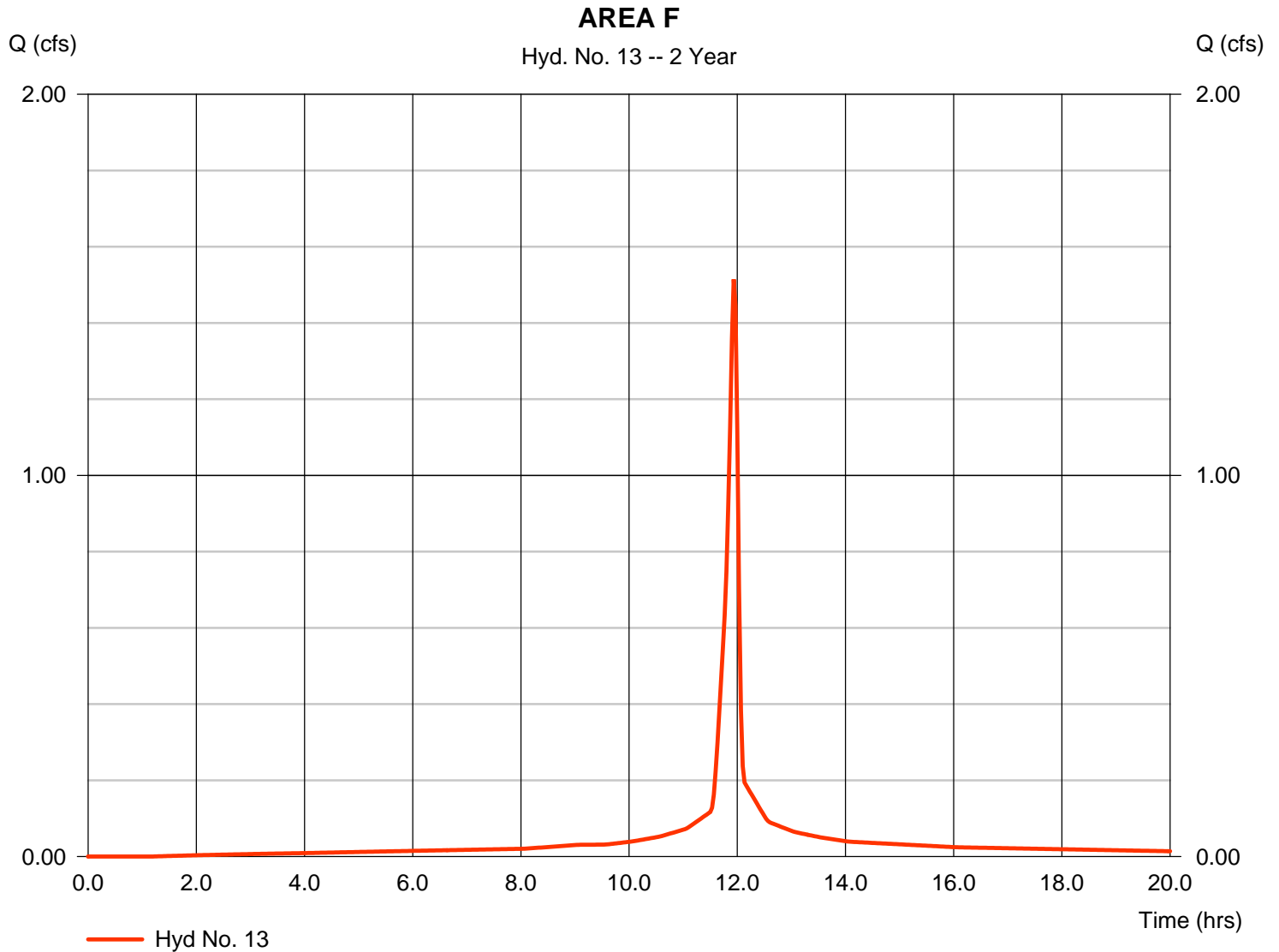
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 1.514 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.082 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

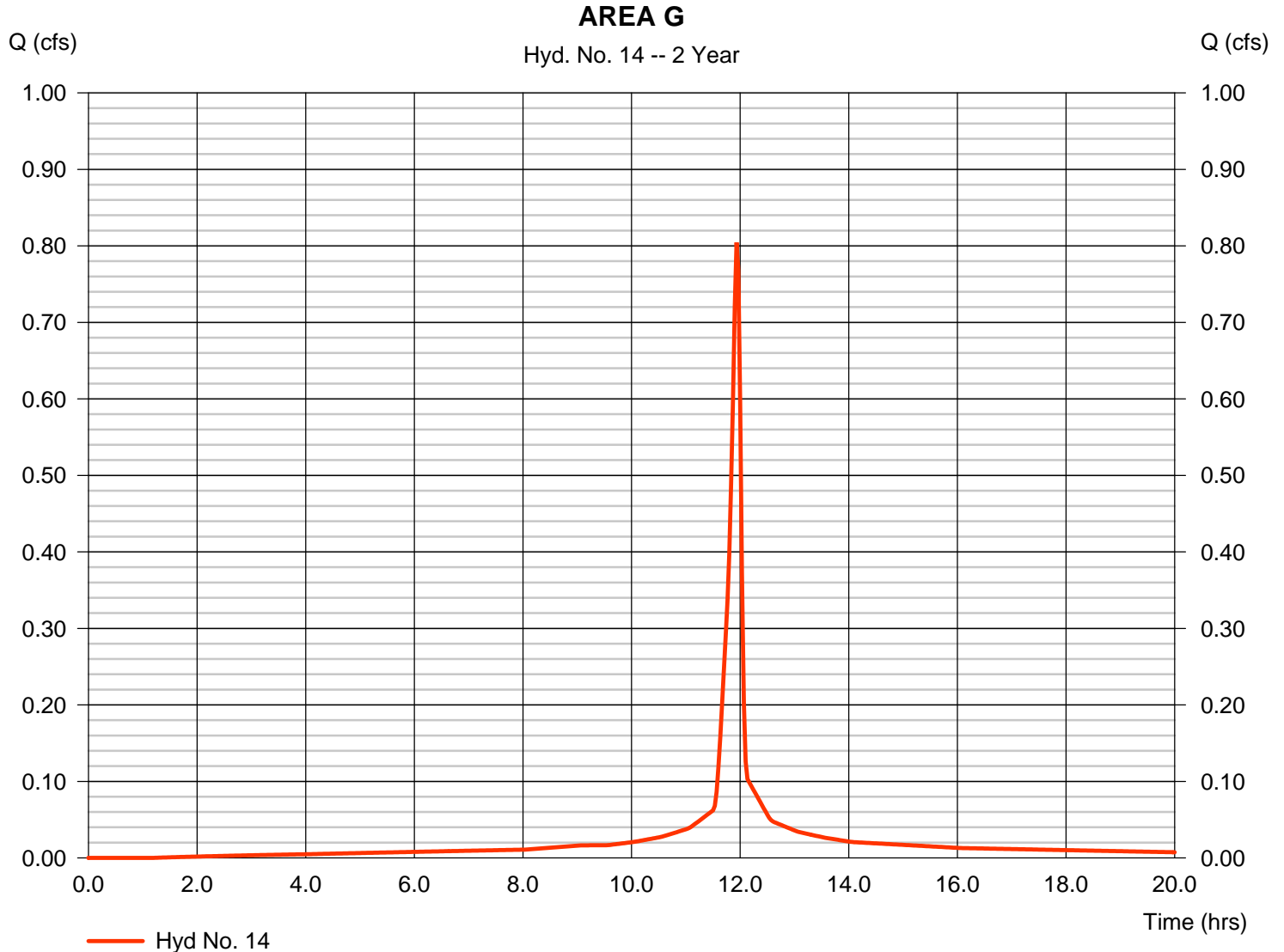
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 0.805 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.043 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

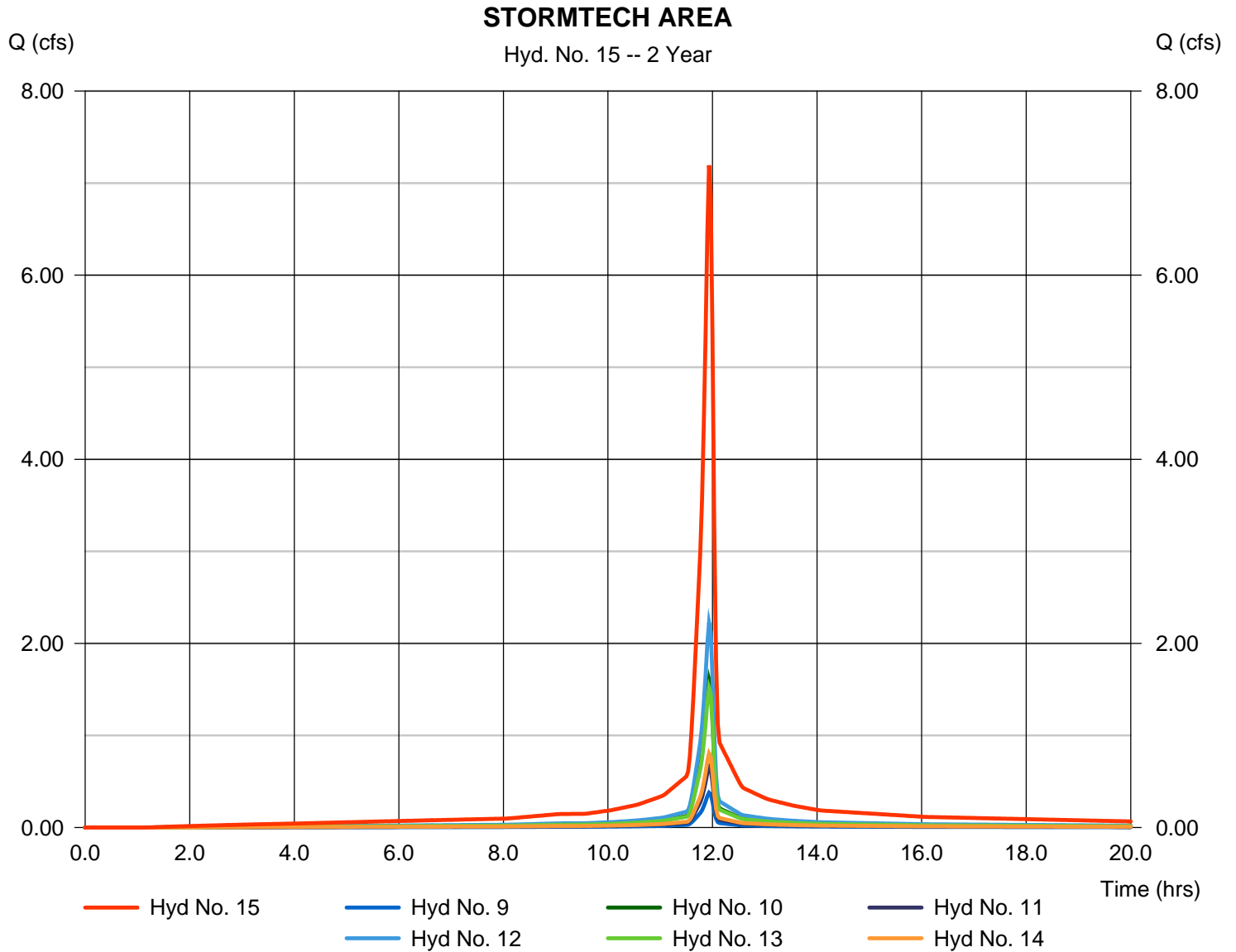
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 15

### STORMTECH AREA

Hydrograph type	= Combine	Peak discharge	= 7.193 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.388 acft
Inflow hyds.	= 9, 10, 11, 12, 13, 14	Contrib. drain. area	= 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

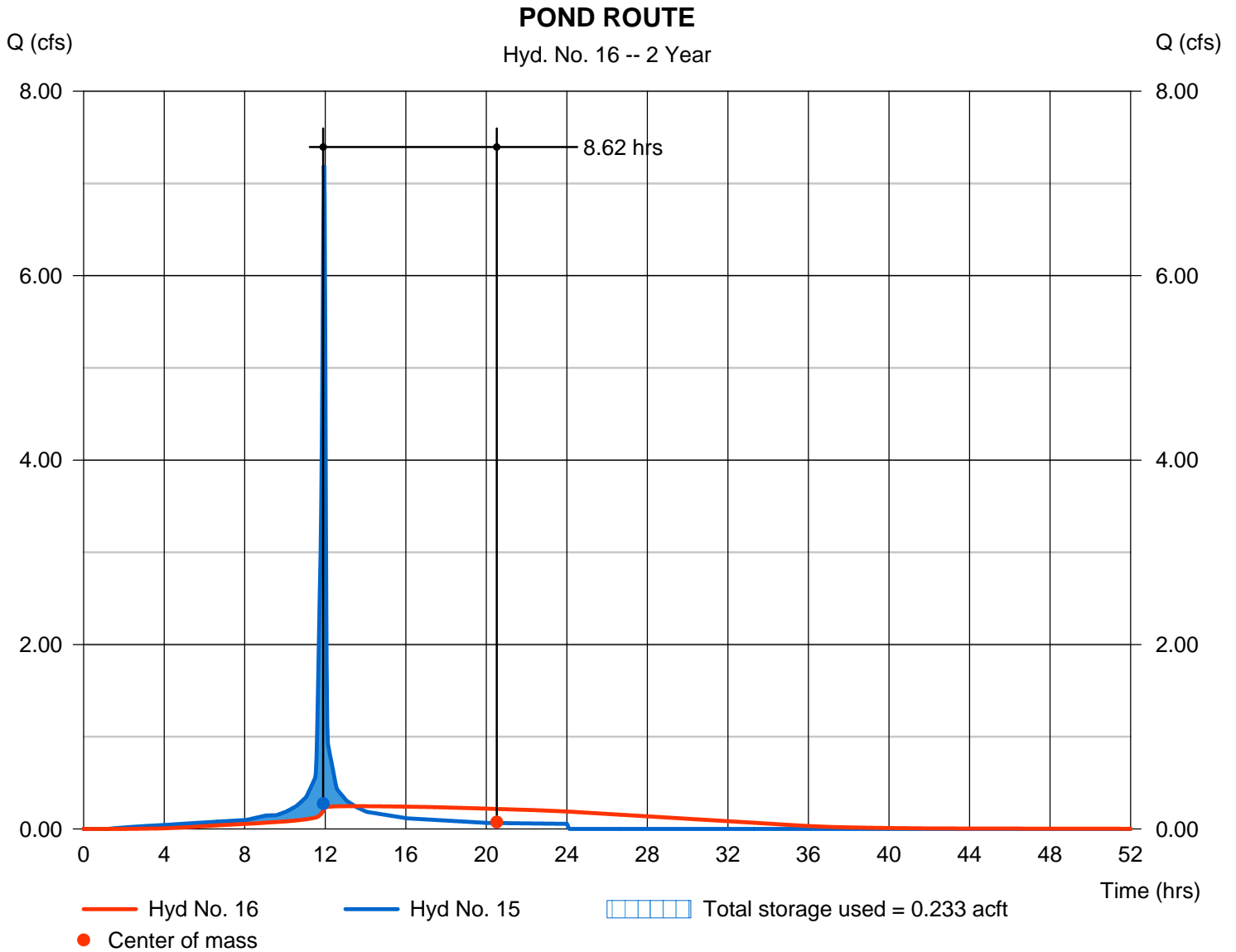
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.247 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.47 hrs
Time interval	= 2 min	Hyd. volume	= 0.387 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1342.37 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.233 acft

Storage Indication method used.



# Hydrograph Report

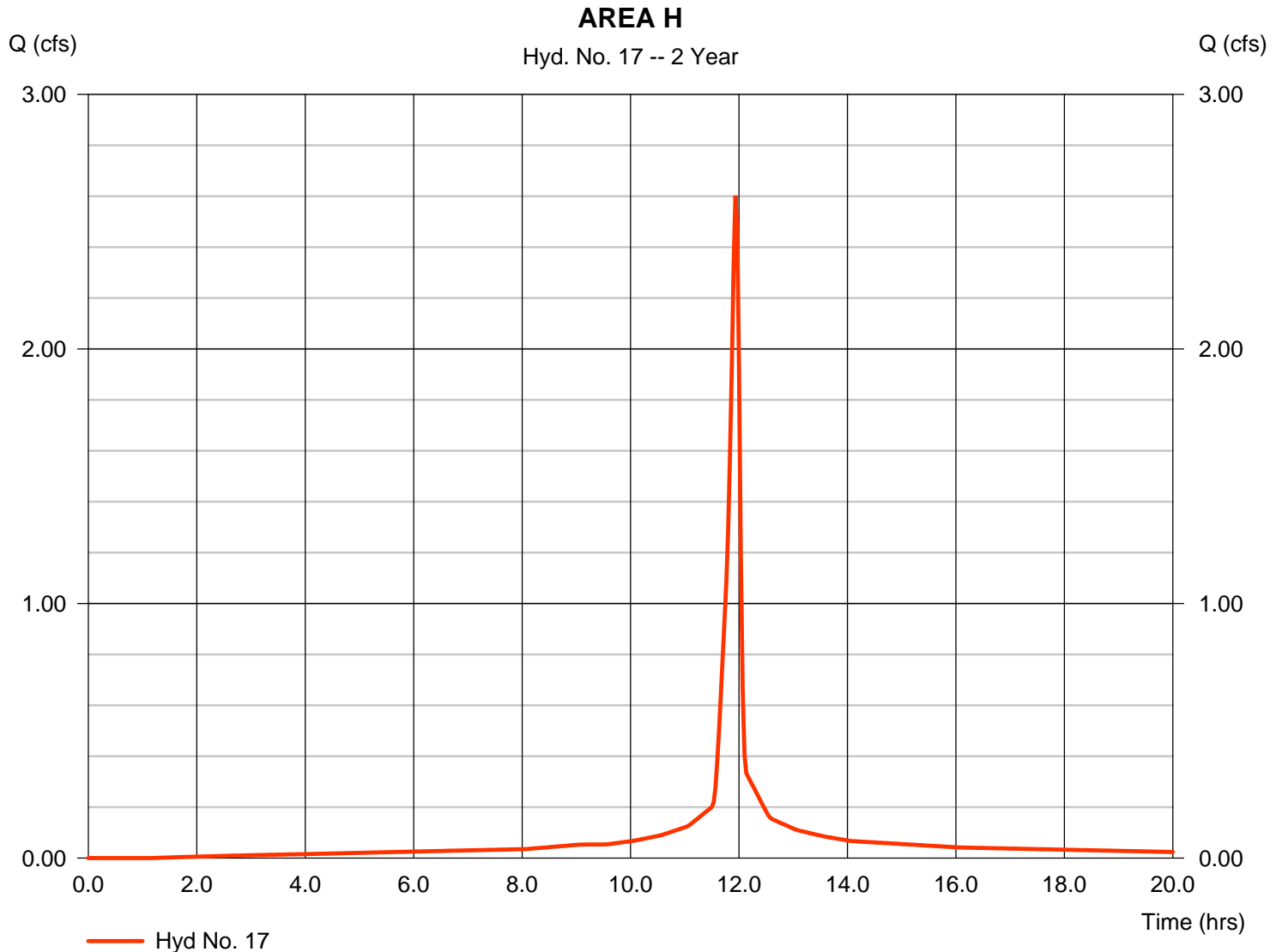
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 2.603 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.140 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 3.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

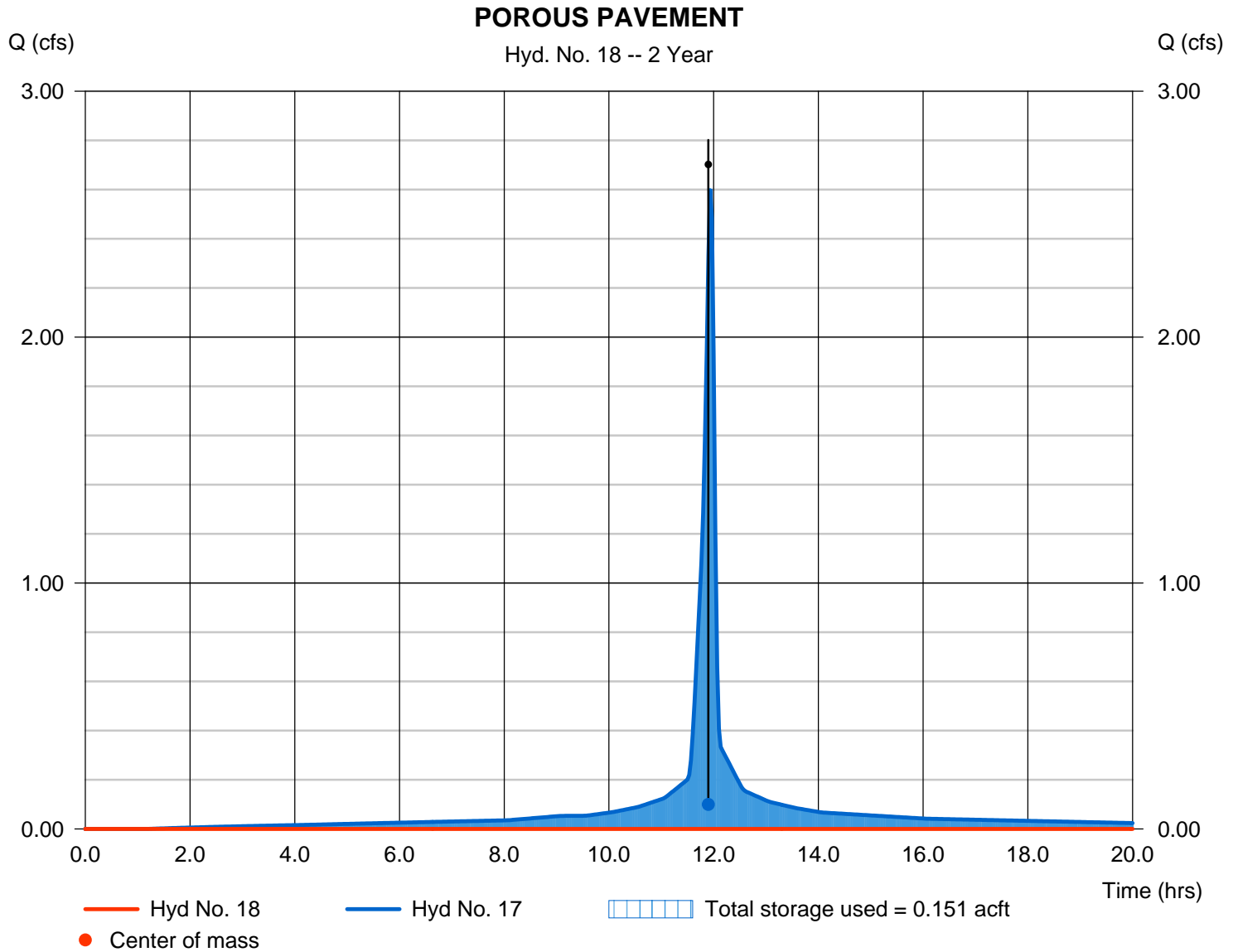
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.000 cfs
Storm frequency	= 2 yrs	Time to peak	= n/a
Time interval	= 2 min	Hyd. volume	= 0.000 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1345.32 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.151 acft

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

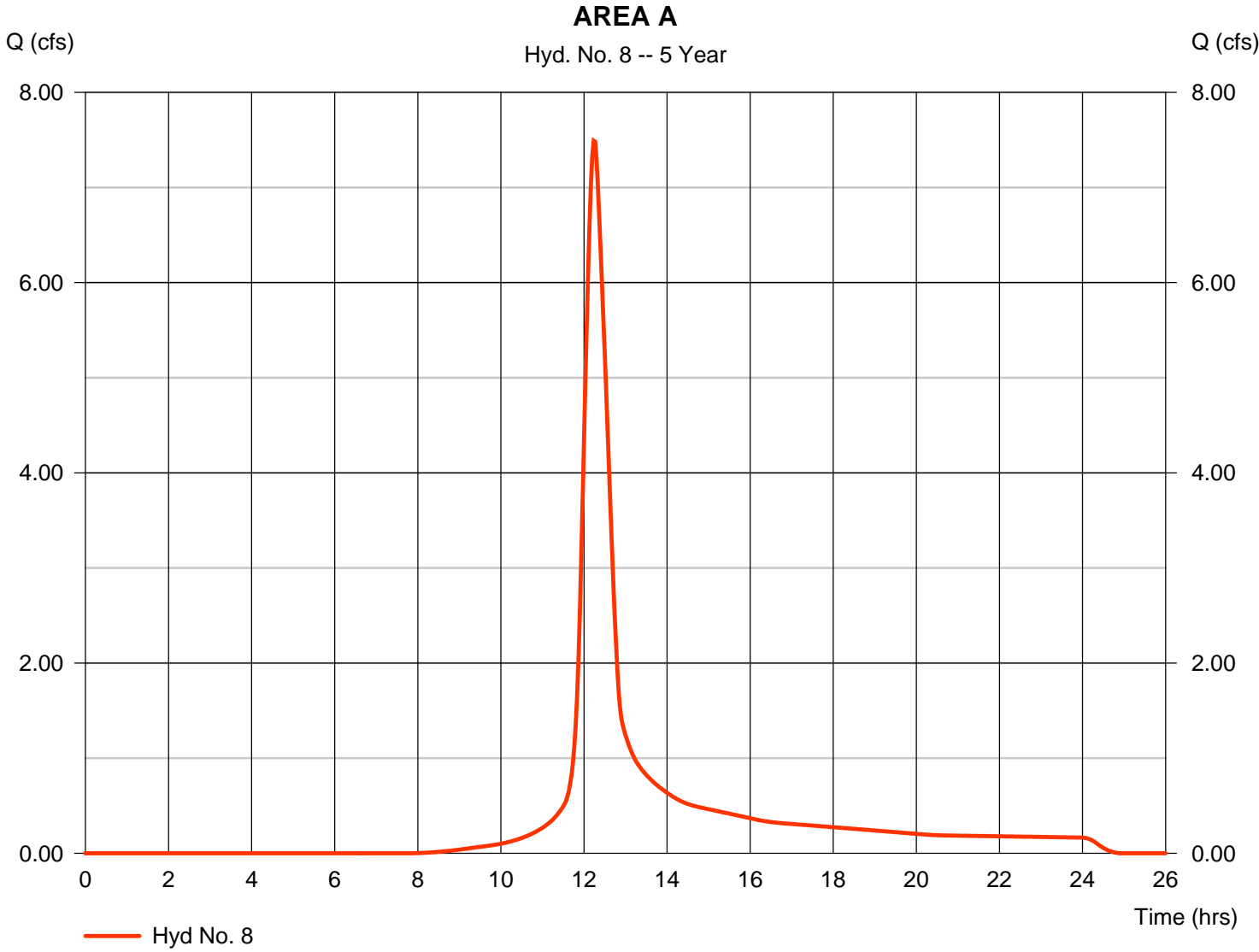
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	10.59	2	732	1.053	-----	-----	-----	AREA 1
2	SCS Runoff	0.958	2	728	0.081	-----	-----	-----	AREA 2
3	SCS Runoff	0.800	2	724	0.057	-----	-----	-----	AREA 3
4	SCS Runoff	3.176	2	716	0.173	-----	-----	-----	AREA 4
5	SCS Runoff	3.436	2	716	0.161	-----	-----	-----	AREA 5
6	SCS Runoff	1.718	2	716	0.080	-----	-----	-----	AREA 6
7	SCS Runoff	1.167	2	734	0.122	-----	-----	-----	AREA 7
8	SCS Runoff	7.491	2	734	0.781	-----	-----	-----	AREA A
9	SCS Runoff	0.489	2	716	0.027	-----	-----	-----	AREA B
10	SCS Runoff	2.077	2	716	0.113	-----	-----	-----	AREA D
11	SCS Runoff	0.855	2	716	0.047	-----	-----	-----	AREA C
12	SCS Runoff	2.871	2	716	0.157	-----	-----	-----	AREA E
13	SCS Runoff	1.955	2	716	0.107	-----	-----	-----	AREA F
14	SCS Runoff	1.038	2	716	0.057	-----	-----	-----	AREA G
15	Combine	9.285	2	716	0.506	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.271	2	828	0.506	15	1342.84	0.312	POND ROUTE
17	SCS Runoff	3.360	2	716	0.183	-----	-----	-----	AREA H
18	Reservoir	0.069	2	954	0.035	17	1345.53	0.166	POROUS PAVEMENT
19	Combine	12.64	2	716	0.700	8, 15, 17,	-----	-----	<no description>
20	Combine	12.10	2	732	1.191	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 5 Year			Monday, 00 19, 2012	

# Hydrograph Report

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 7.491 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 0.781 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

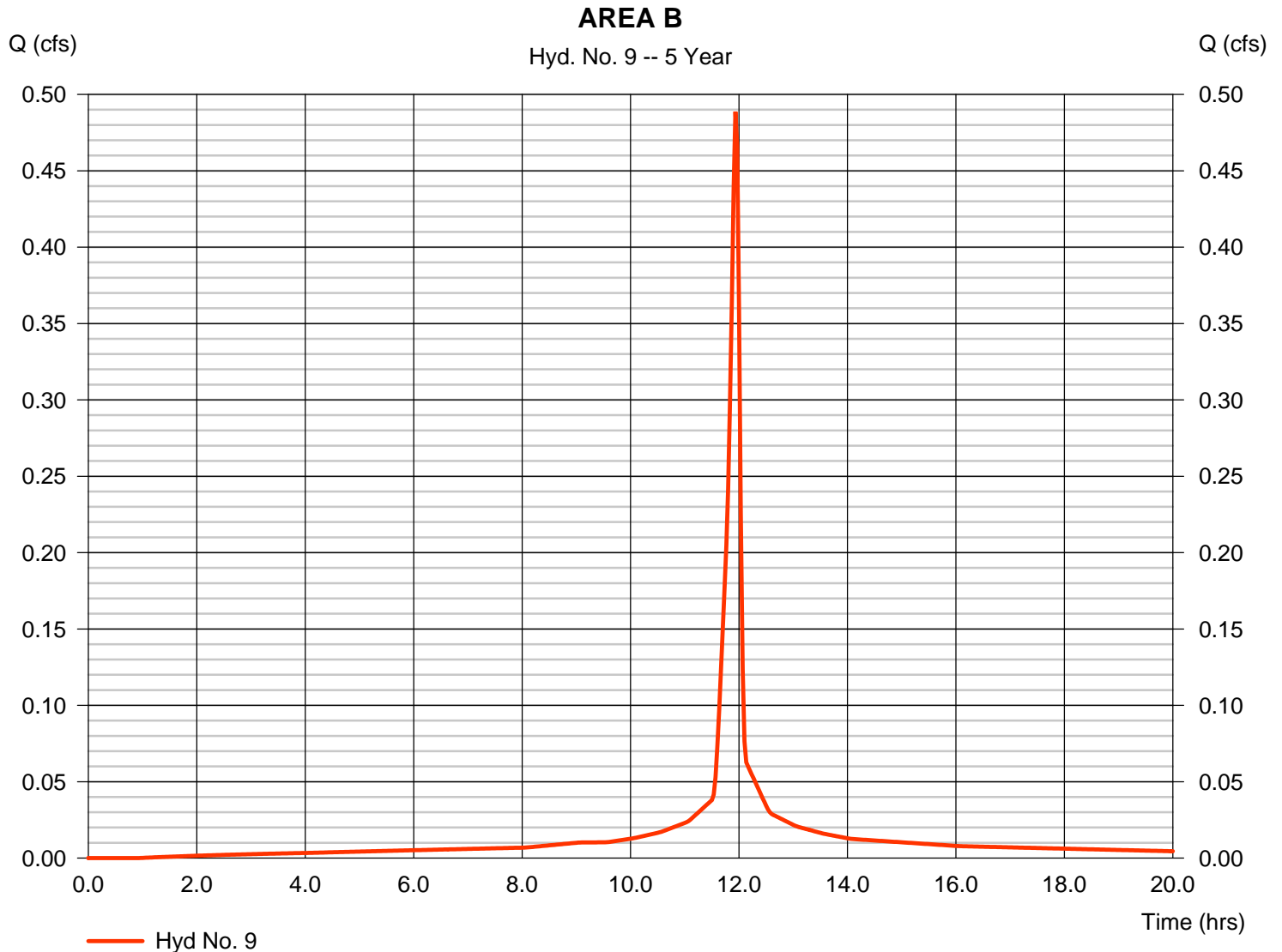
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.489 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.027 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

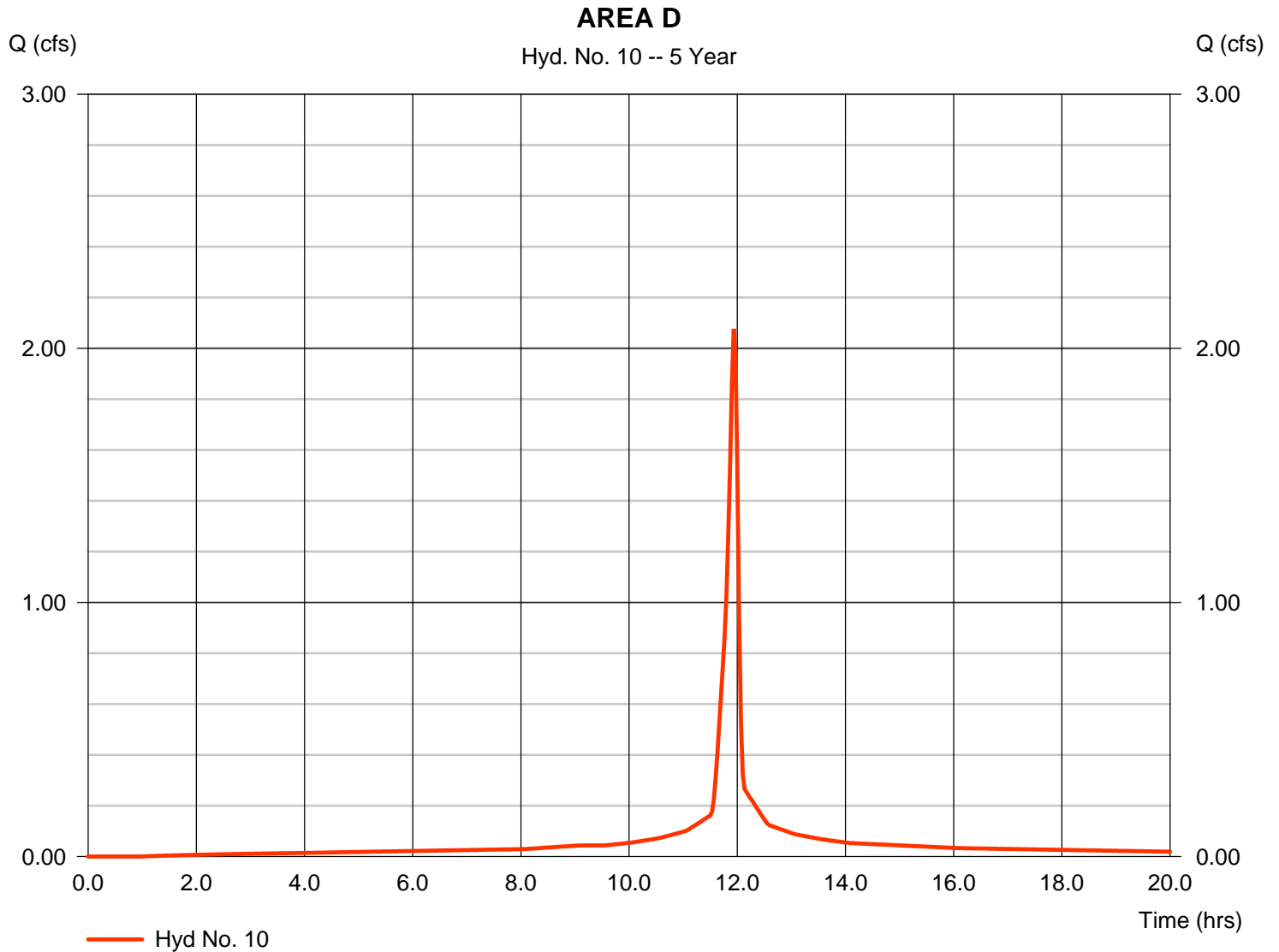
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 2.077 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.113 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

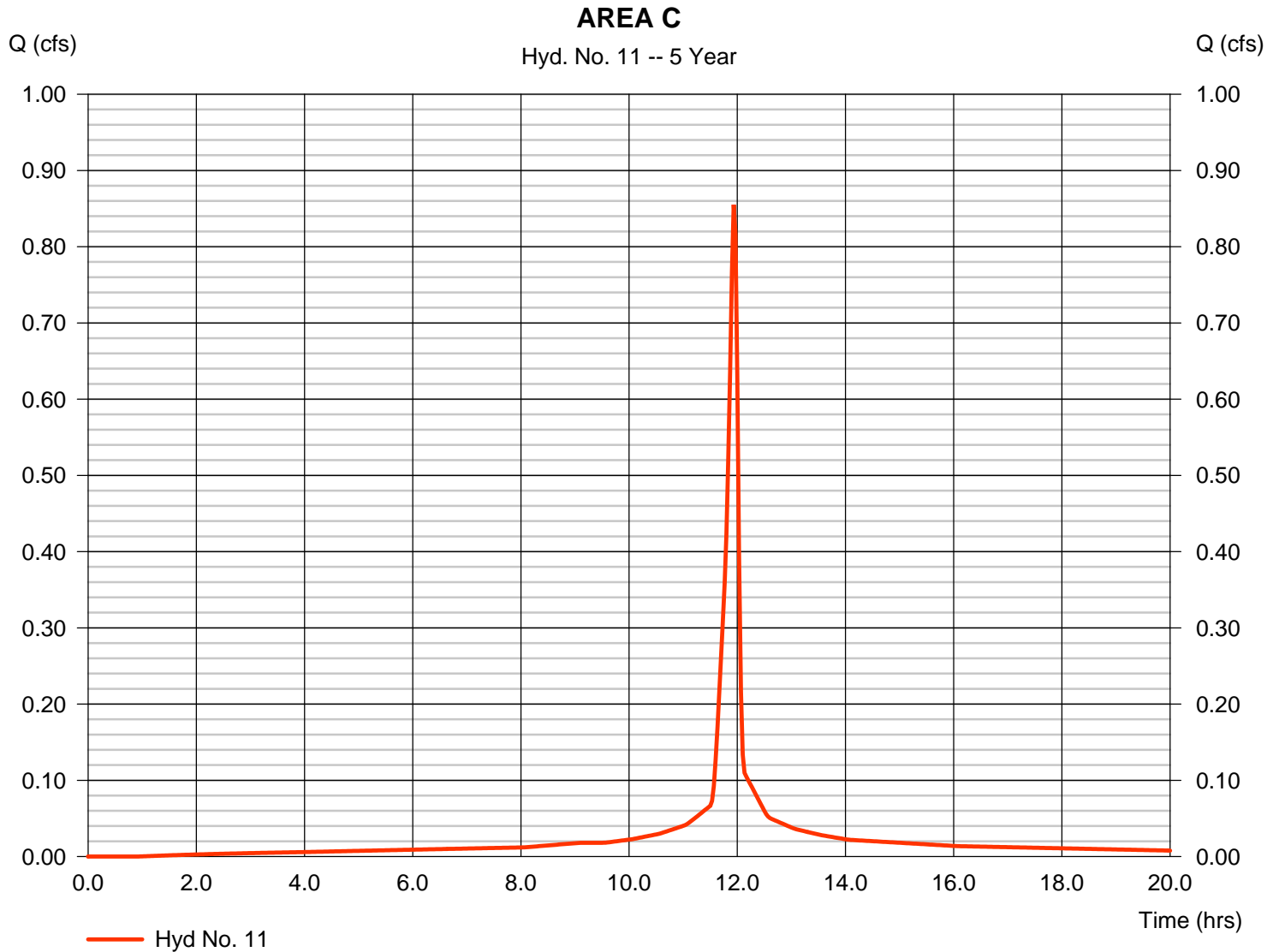
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.855 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.047 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

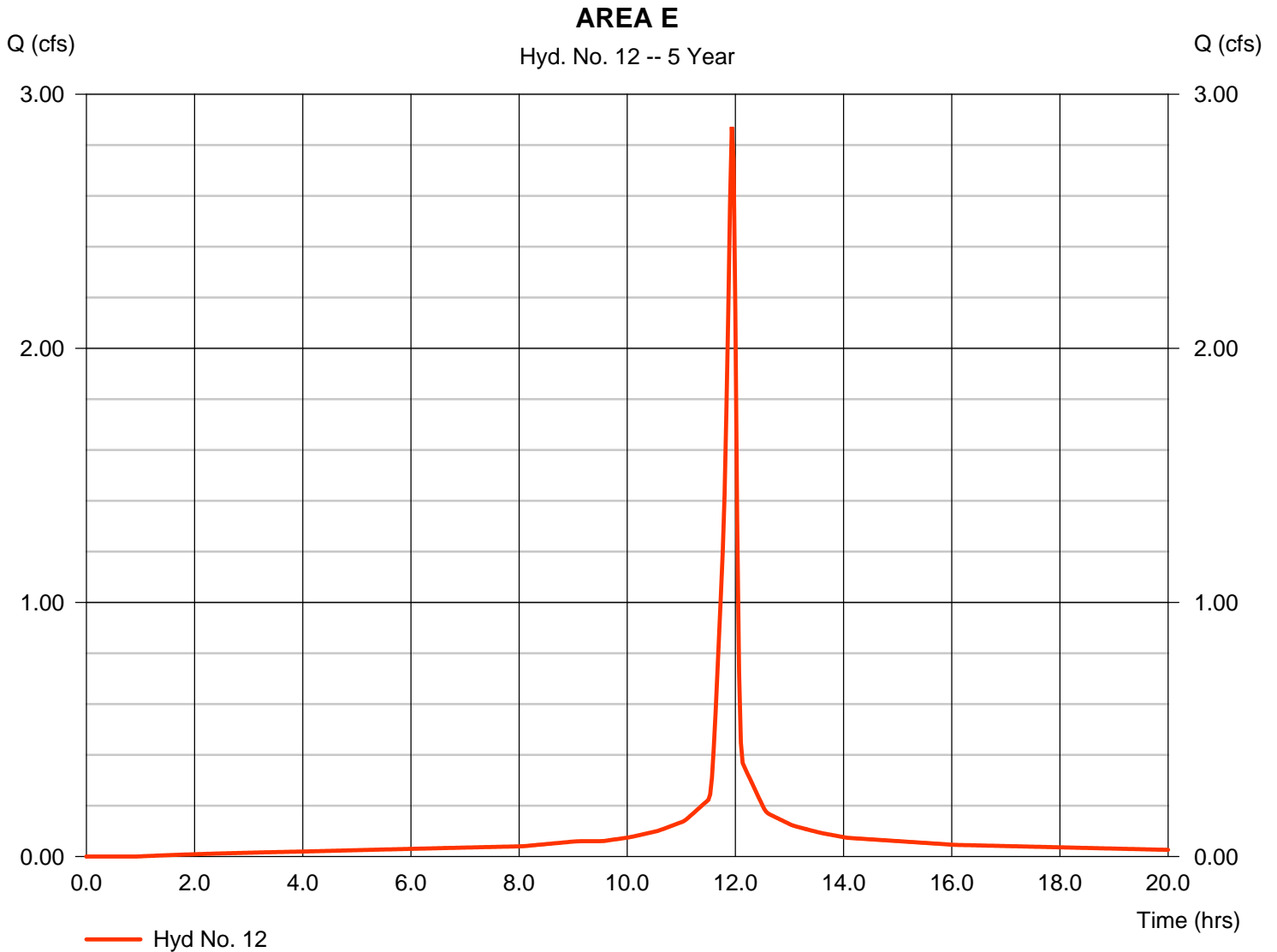
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 2.871 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.157 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

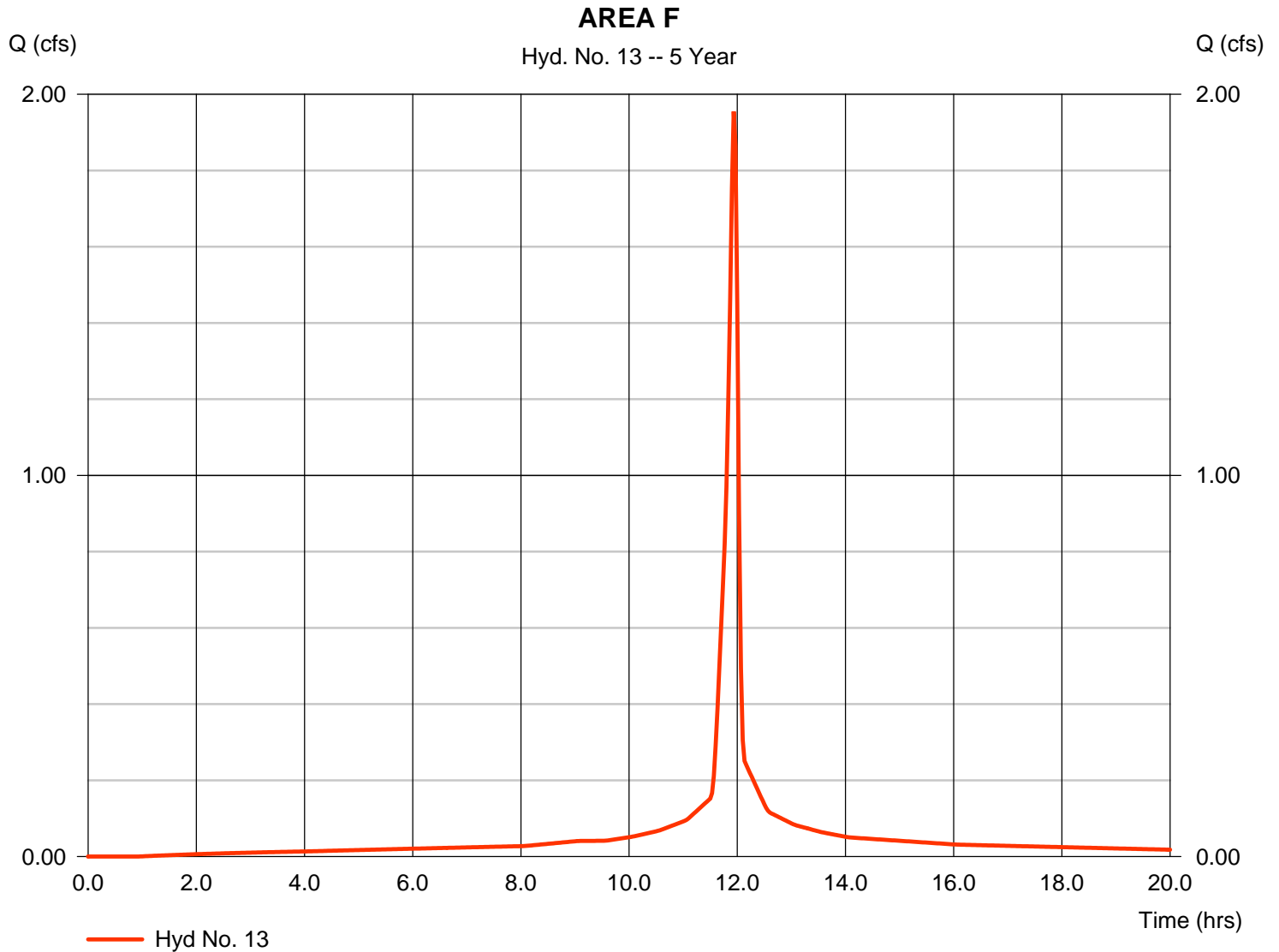
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 1.955 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.107 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

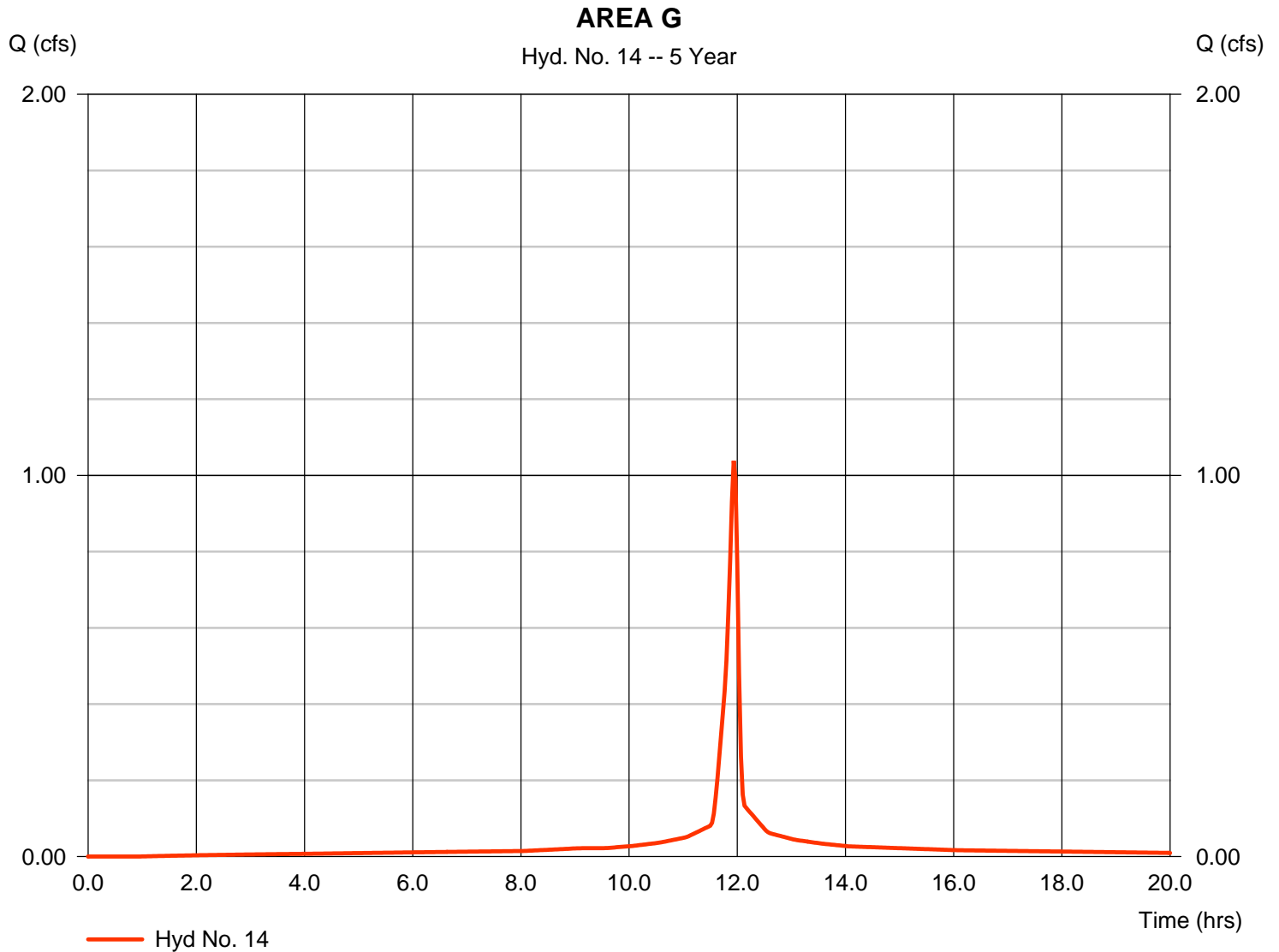
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 1.038 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.057 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

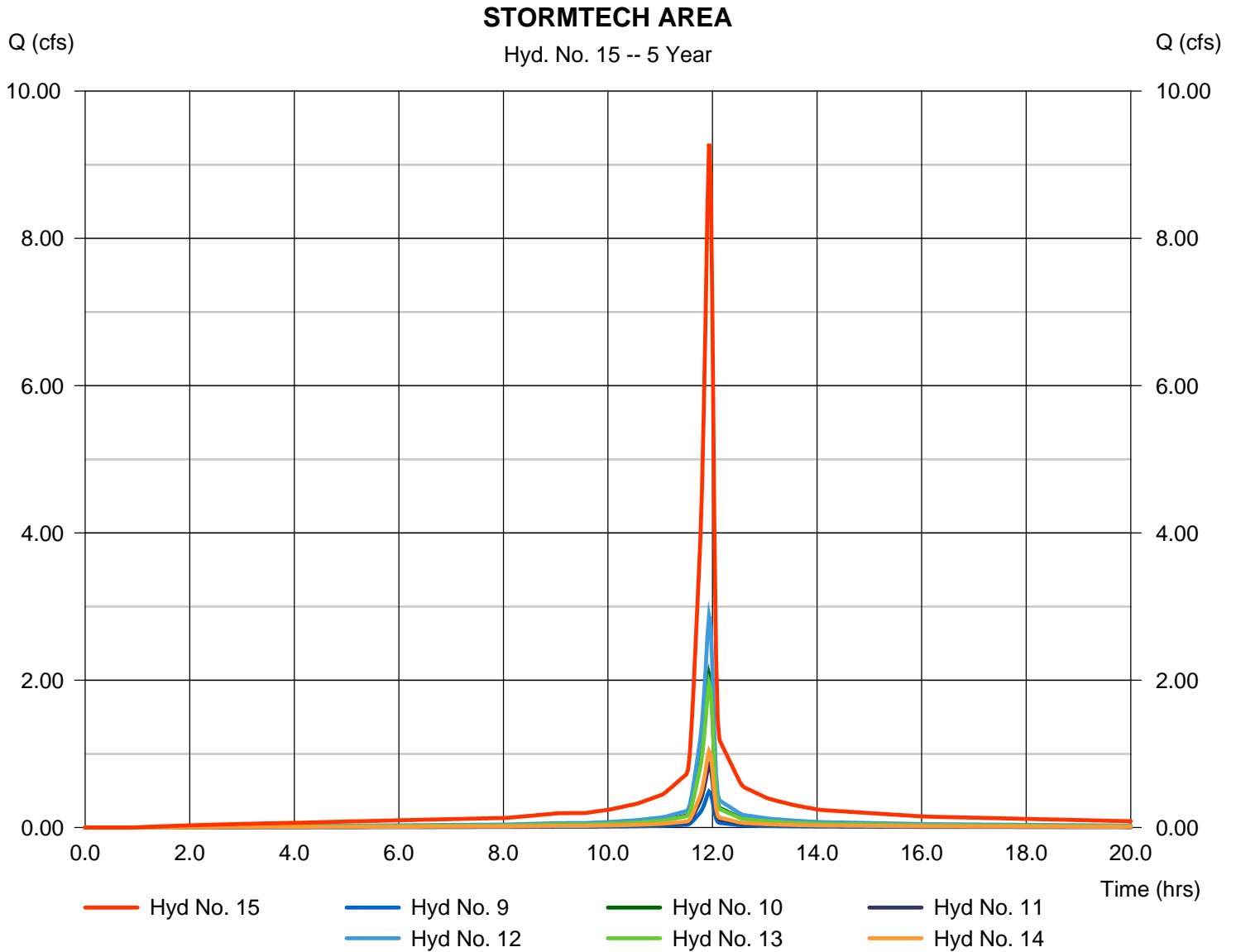
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 15

### STORMTECH AREA

Hydrograph type	= Combine	Peak discharge	= 9.285 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.506 acft
Inflow hyds.	= 9, 10, 11, 12, 13, 14	Contrib. drain. area	= 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

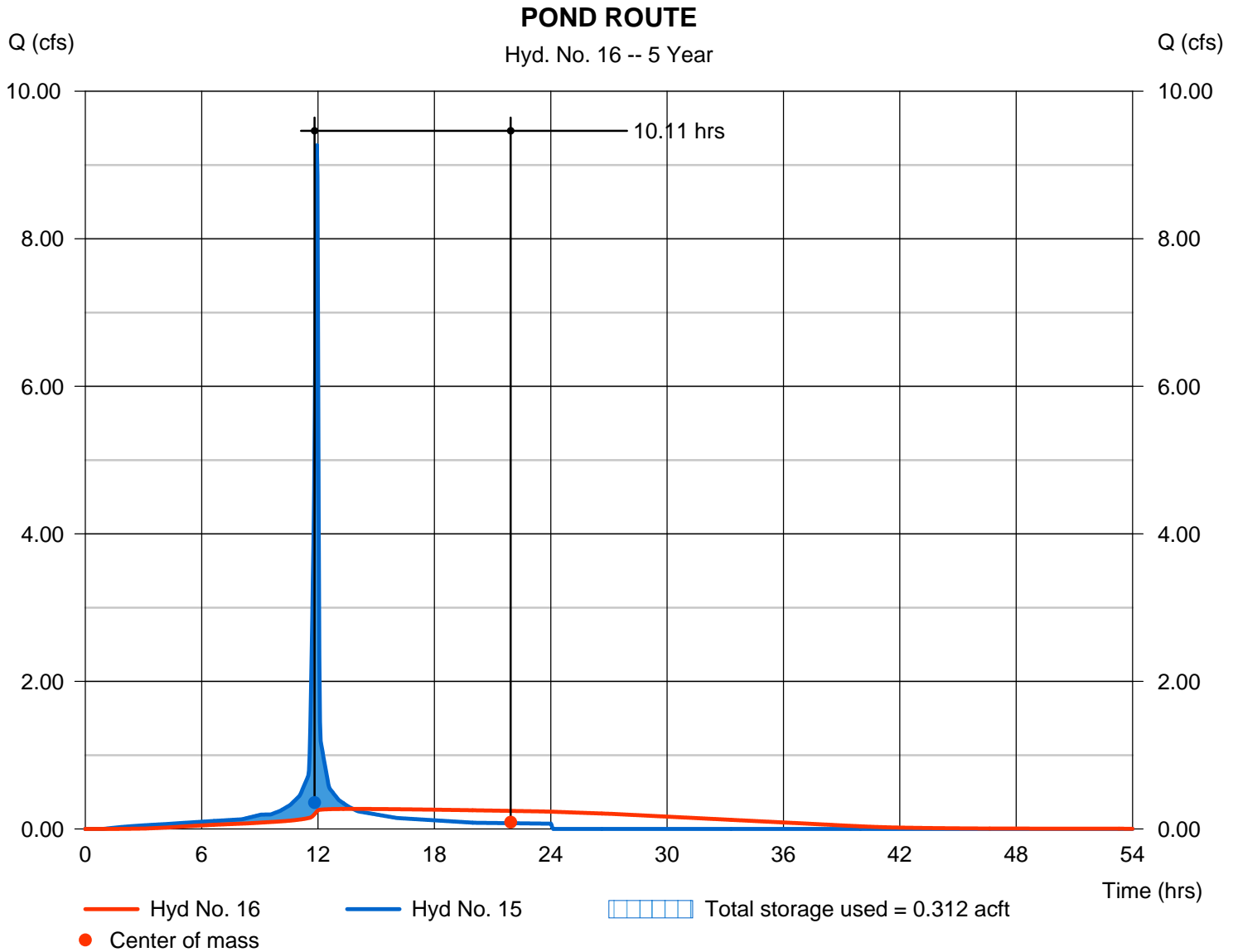
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.271 cfs
Storm frequency	= 5 yrs	Time to peak	= 13.80 hrs
Time interval	= 2 min	Hyd. volume	= 0.506 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1342.84 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.312 acft

Storage Indication method used.



# Hydrograph Report

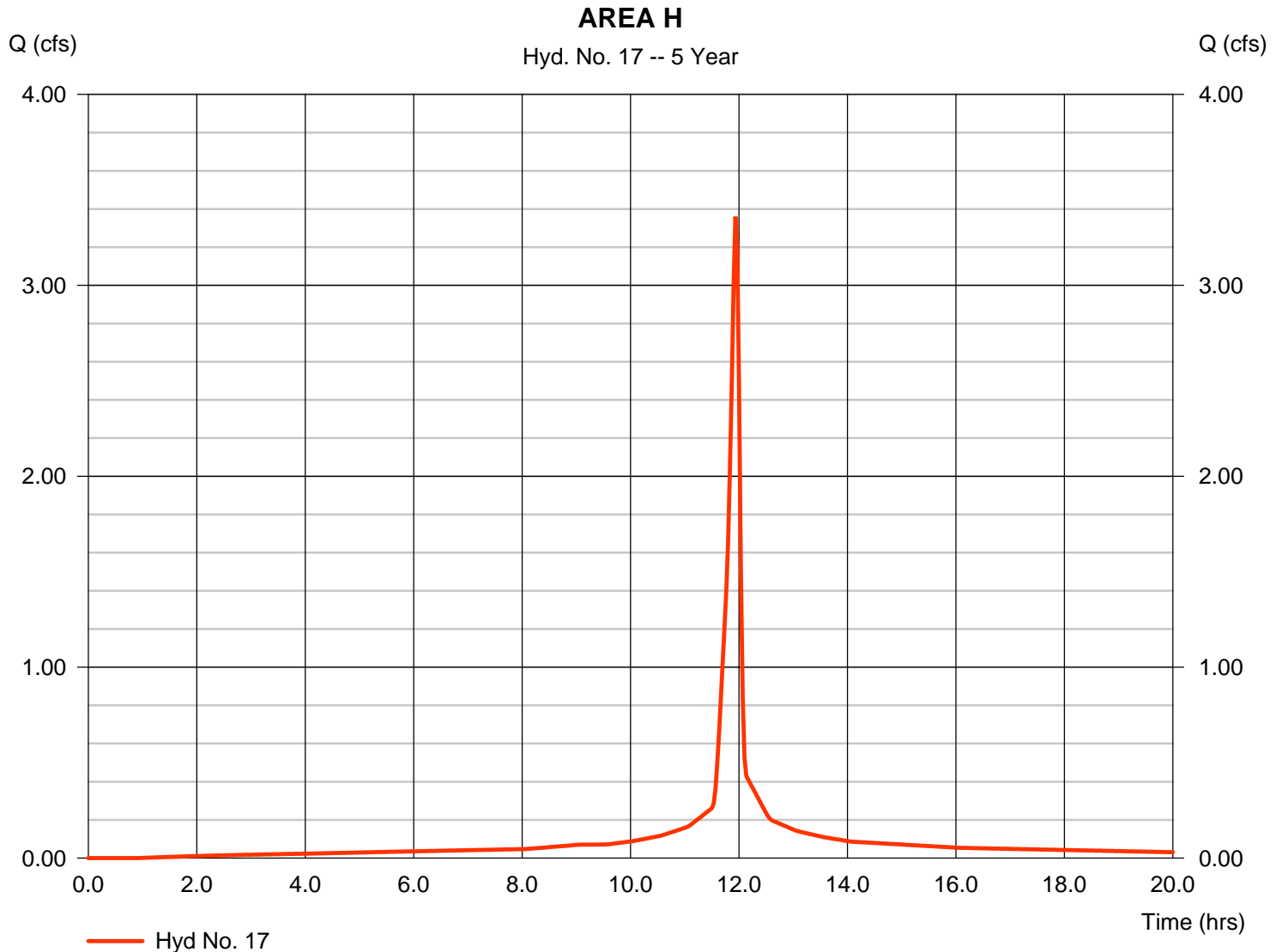
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 3.360 cfs
Storm frequency	= 5 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.183 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 4.50 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



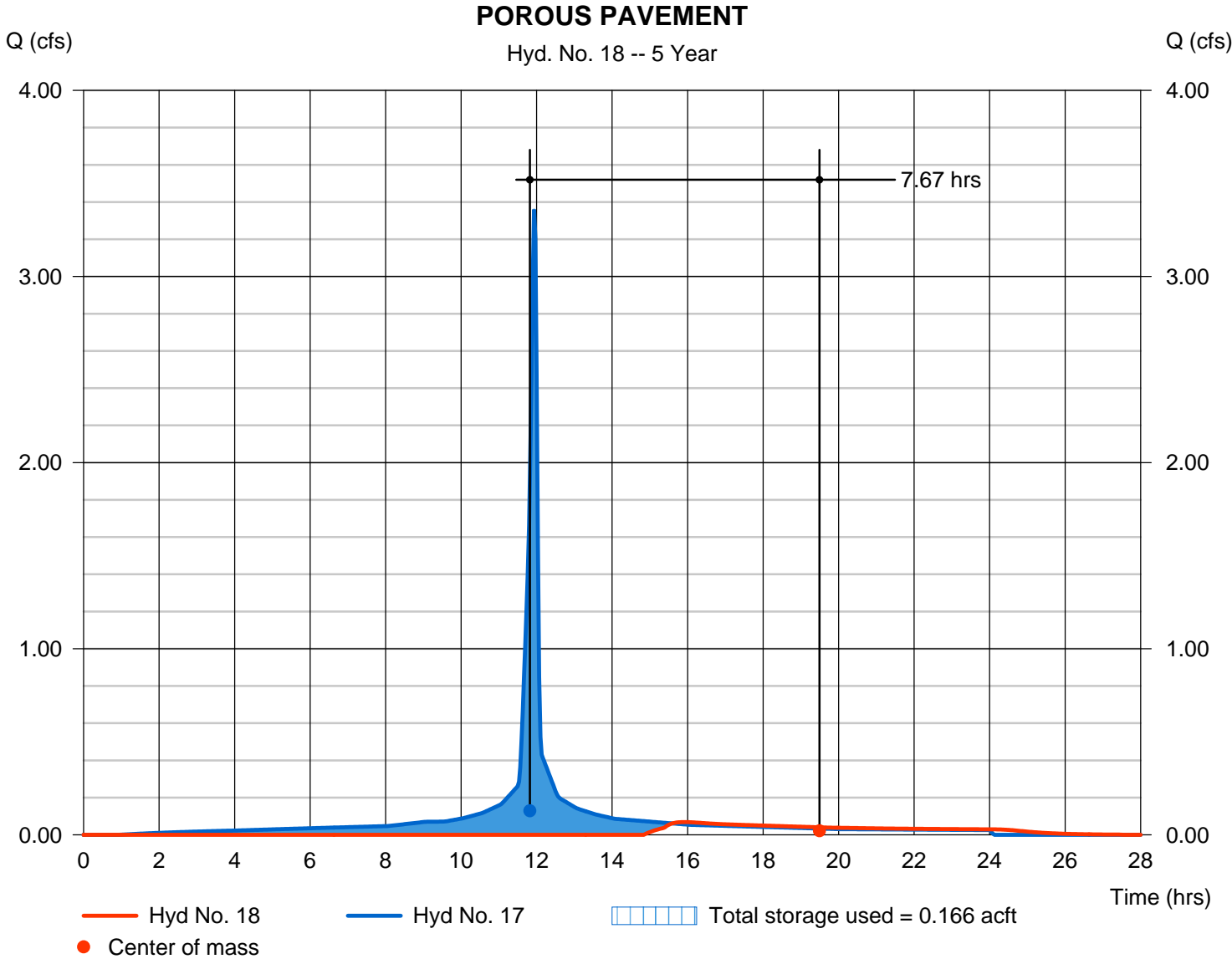
# Hydrograph Report

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.069 cfs
Storm frequency	= 5 yrs	Time to peak	= 15.90 hrs
Time interval	= 2 min	Hyd. volume	= 0.035 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1345.53 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.166 acft

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	13.23	2	732	1.312	-----	-----	-----	AREA 1
2	SCS Runoff	1.195	2	728	0.101	-----	-----	-----	AREA 2
3	SCS Runoff	0.997	2	724	0.072	-----	-----	-----	AREA 3
4	SCS Runoff	3.676	2	716	0.202	-----	-----	-----	AREA 4
5	SCS Runoff	4.217	2	716	0.199	-----	-----	-----	AREA 5
6	SCS Runoff	2.109	2	716	0.099	-----	-----	-----	AREA 6
7	SCS Runoff	1.459	2	734	0.152	-----	-----	-----	AREA 7
8	SCS Runoff	9.359	2	734	0.973	-----	-----	-----	AREA A
9	SCS Runoff	0.566	2	716	0.031	-----	-----	-----	AREA B
10	SCS Runoff	2.404	2	716	0.132	-----	-----	-----	AREA D
11	SCS Runoff	0.990	2	716	0.054	-----	-----	-----	AREA C
12	SCS Runoff	3.323	2	716	0.182	-----	-----	-----	AREA E
13	SCS Runoff	2.262	2	716	0.124	-----	-----	-----	AREA F
14	SCS Runoff	1.202	2	716	0.066	-----	-----	-----	AREA G
15	Combine	10.75	2	716	0.589	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.288	2	838	0.589	15	1343.18	0.369	POND ROUTE
17	SCS Runoff	3.888	2	716	0.213	-----	-----	-----	AREA H
18	Reservoir	0.197	2	806	0.067	17	1345.56	0.168	POROUS PAVEMENT
19	Combine	14.63	2	716	0.837	8, 15, 17,	-----	-----	<no description>
20	Combine	15.10	2	732	1.485	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 10 Year			Monday, 00 19, 2012	

# Hydrograph Report

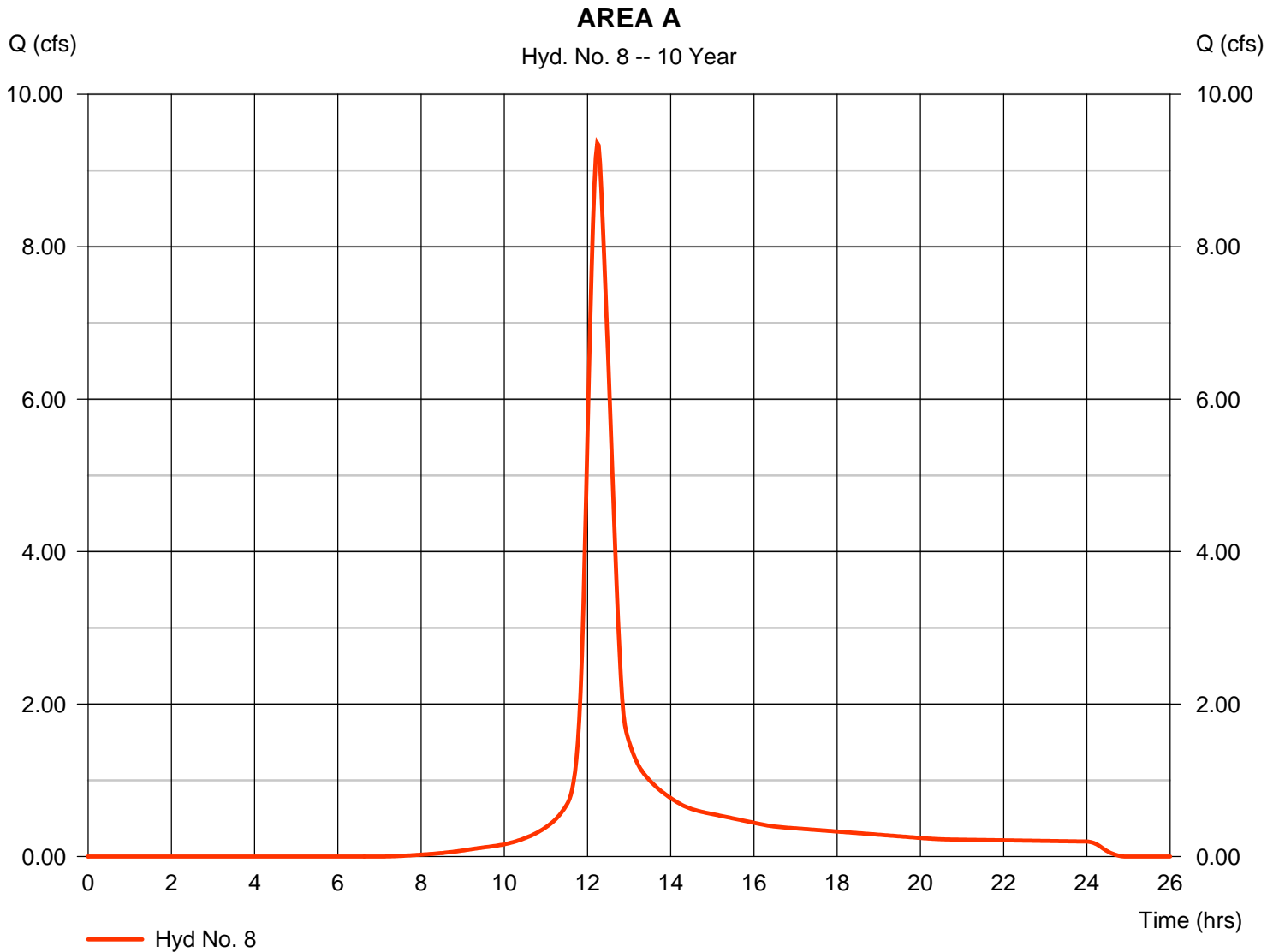
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 9.359 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 0.973 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

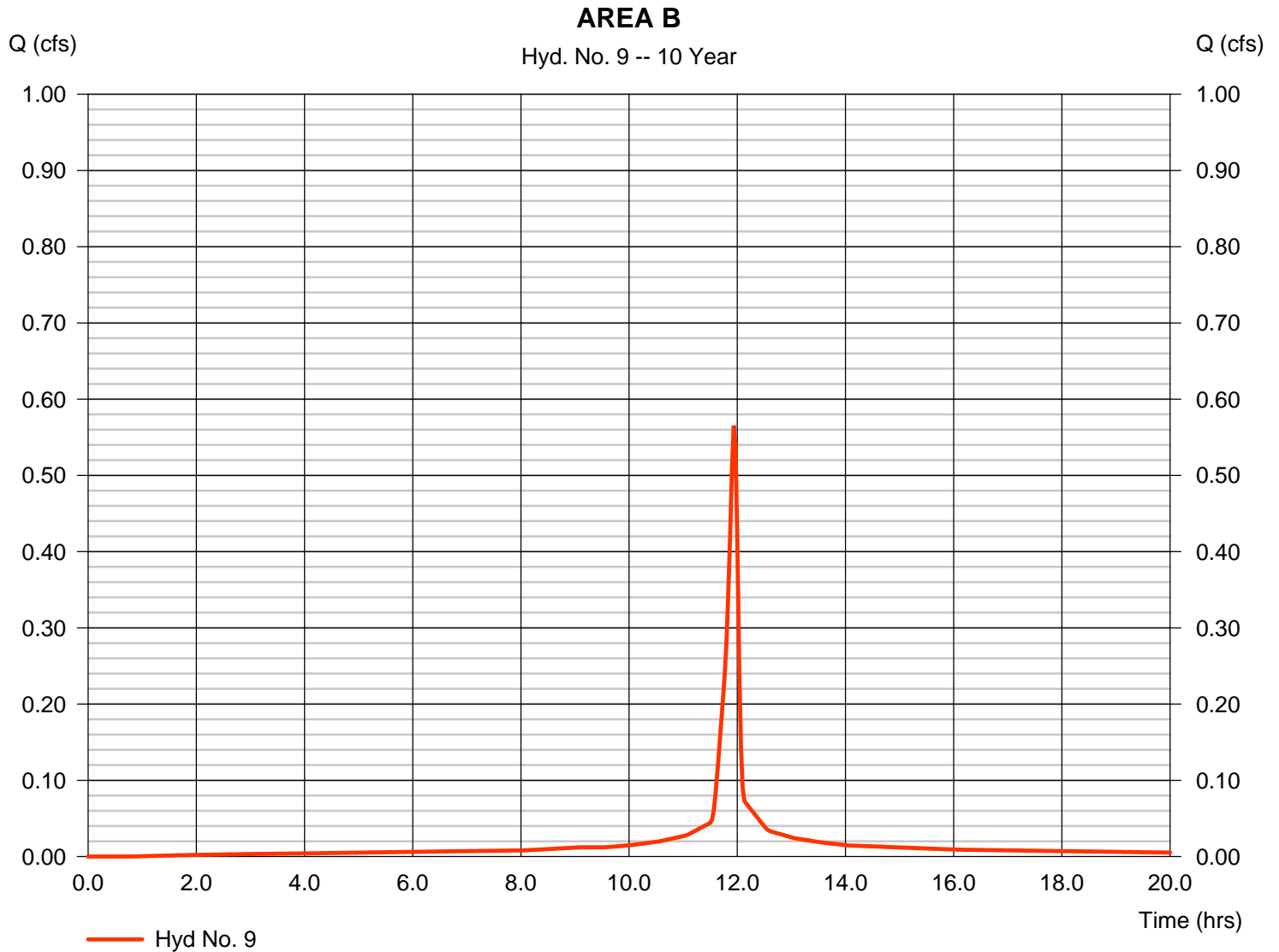
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.566 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.031 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

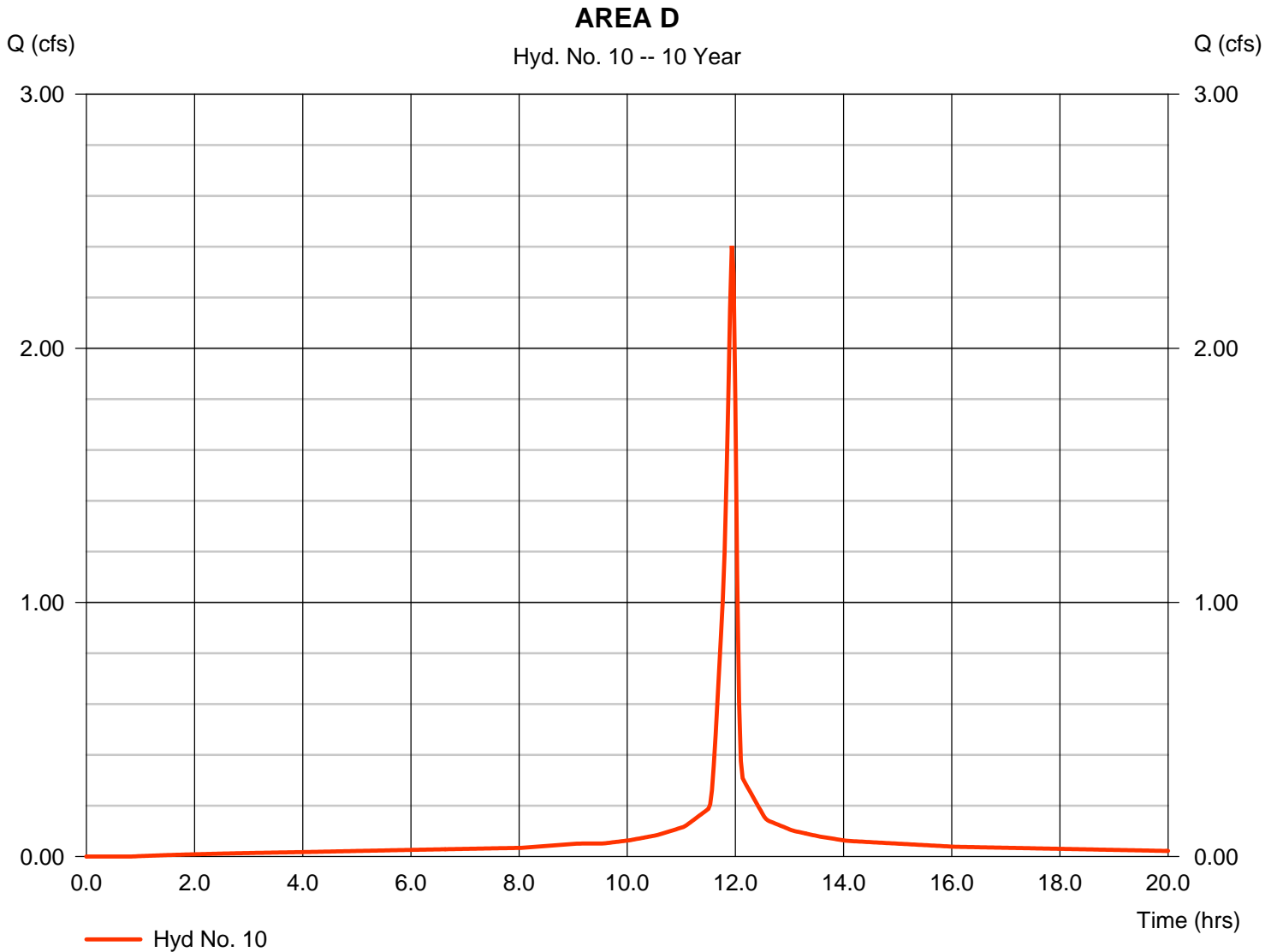
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 2.404 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.132 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

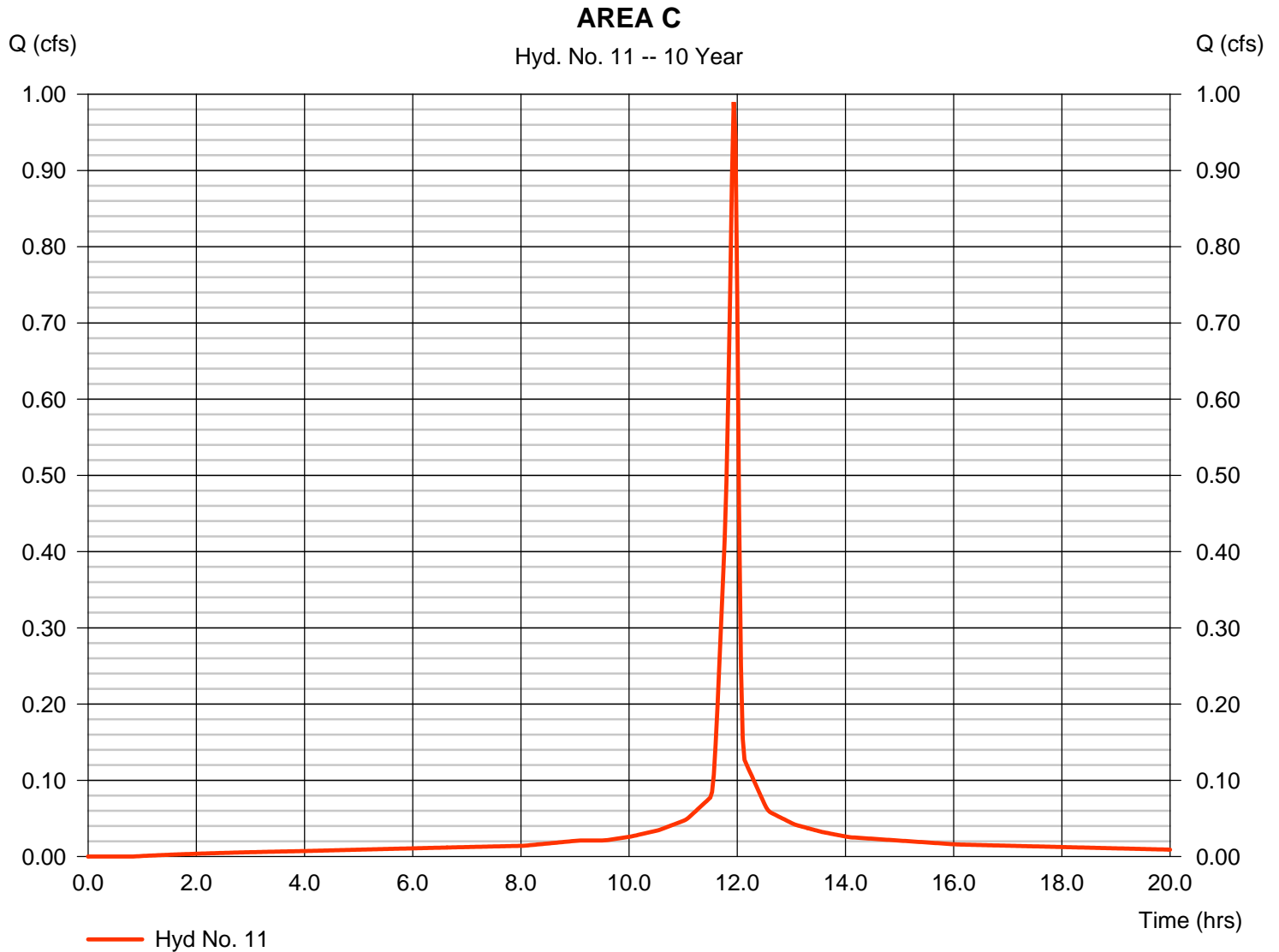
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 0.990 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.054 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

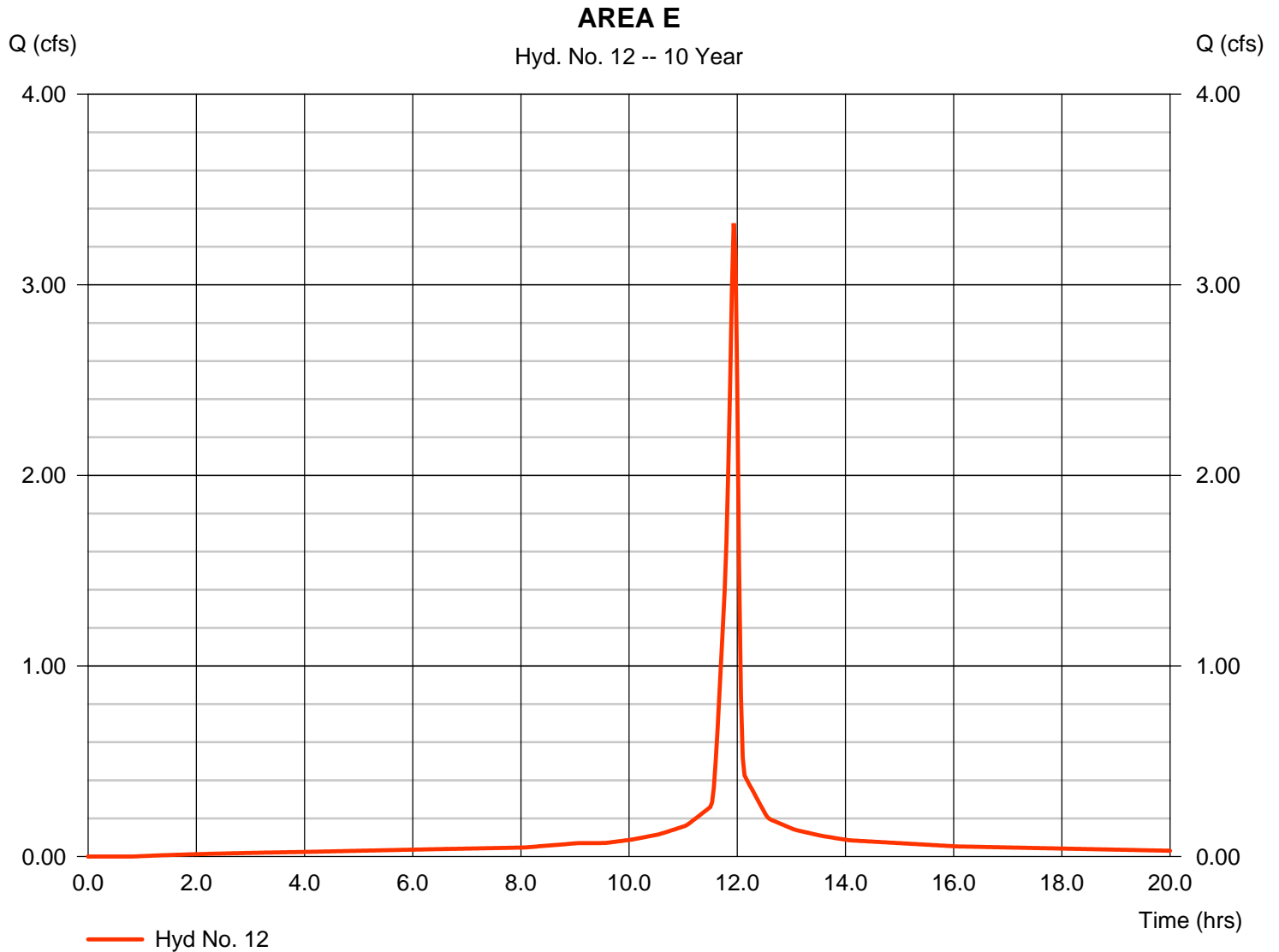
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 3.323 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.182 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

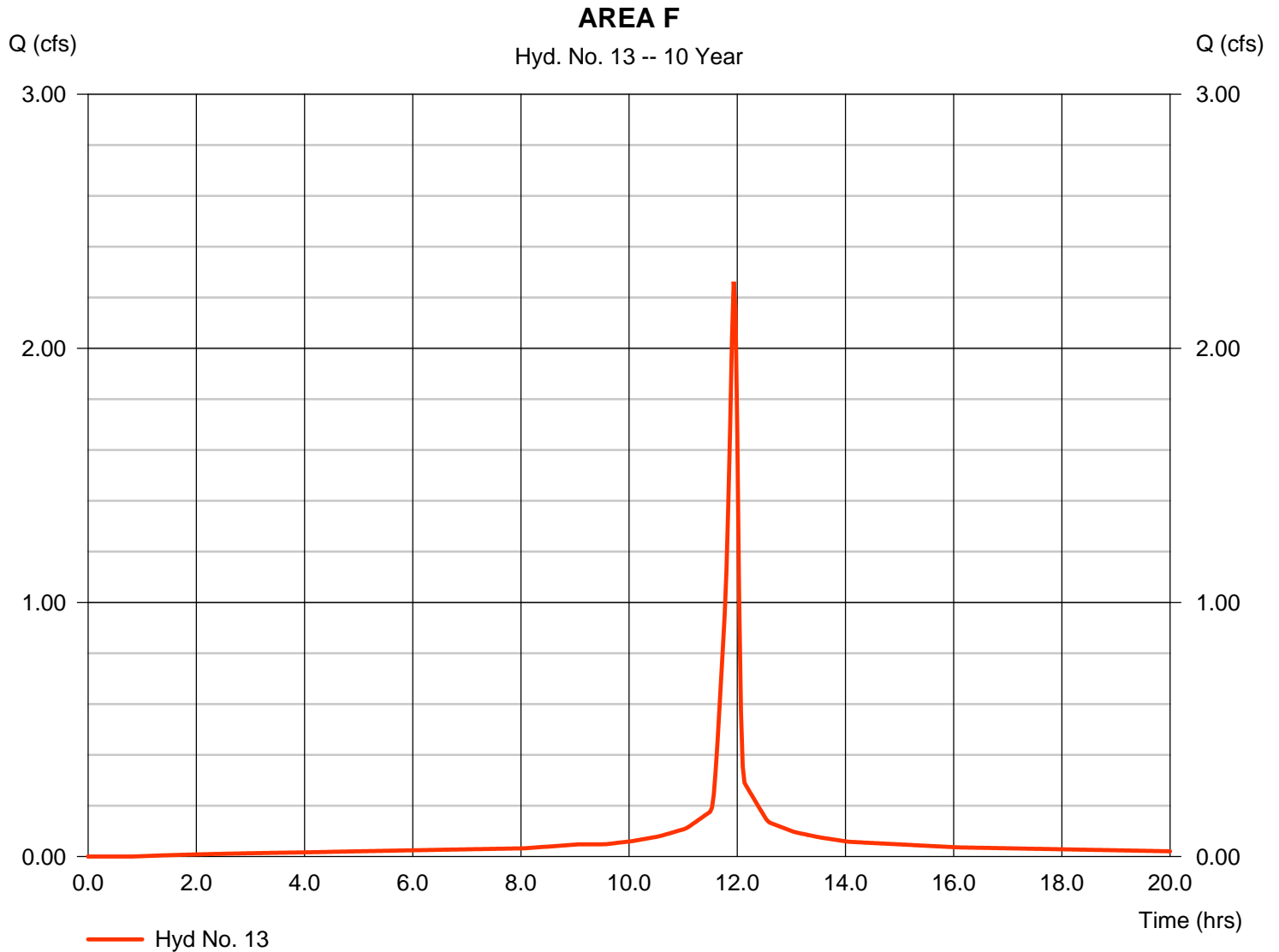
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 2.262 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.124 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

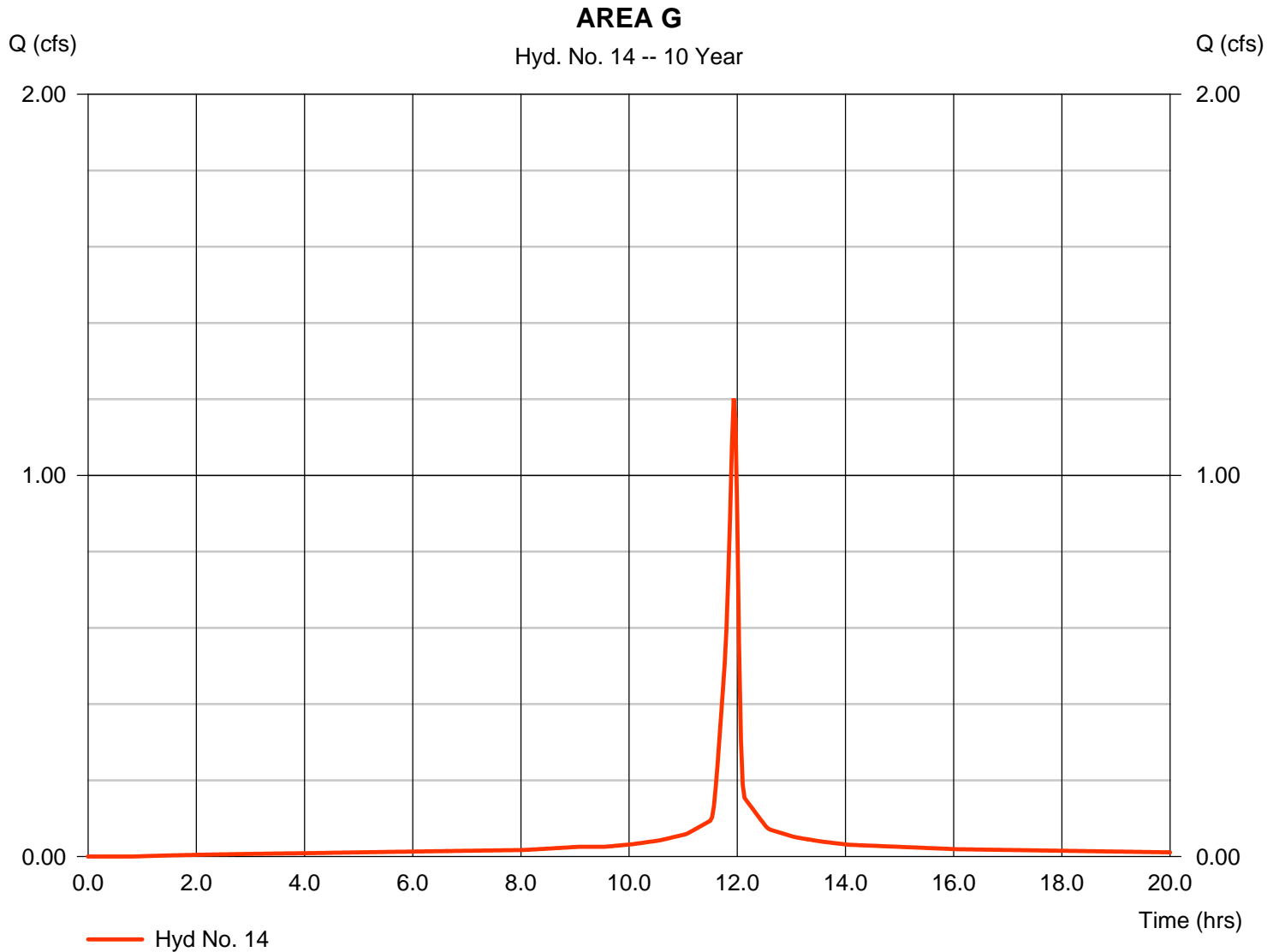
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 1.202 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.066 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484





# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

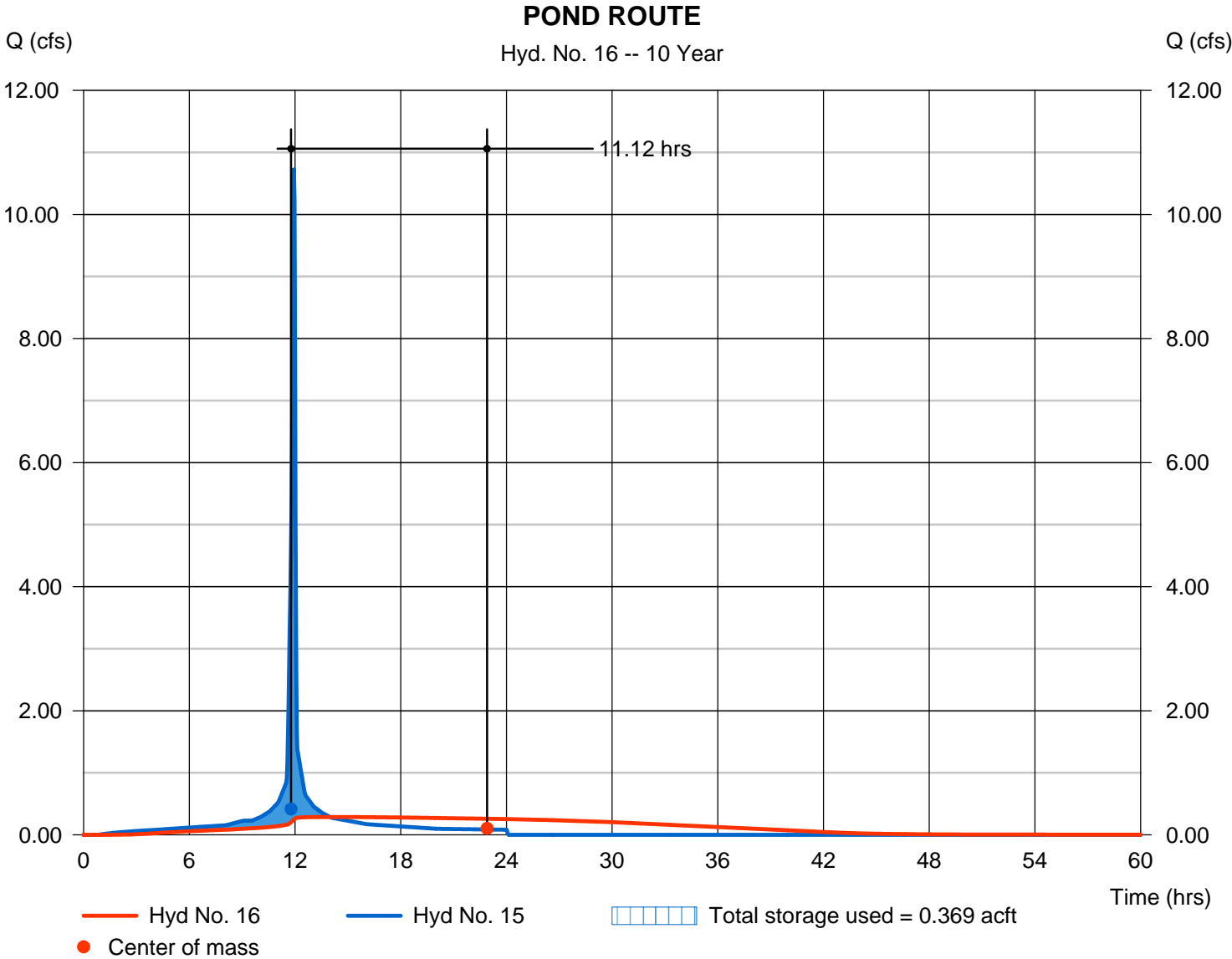
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.288 cfs
Storm frequency	= 10 yrs	Time to peak	= 13.97 hrs
Time interval	= 2 min	Hyd. volume	= 0.589 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1343.18 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.369 acft

Storage Indication method used.



# Hydrograph Report

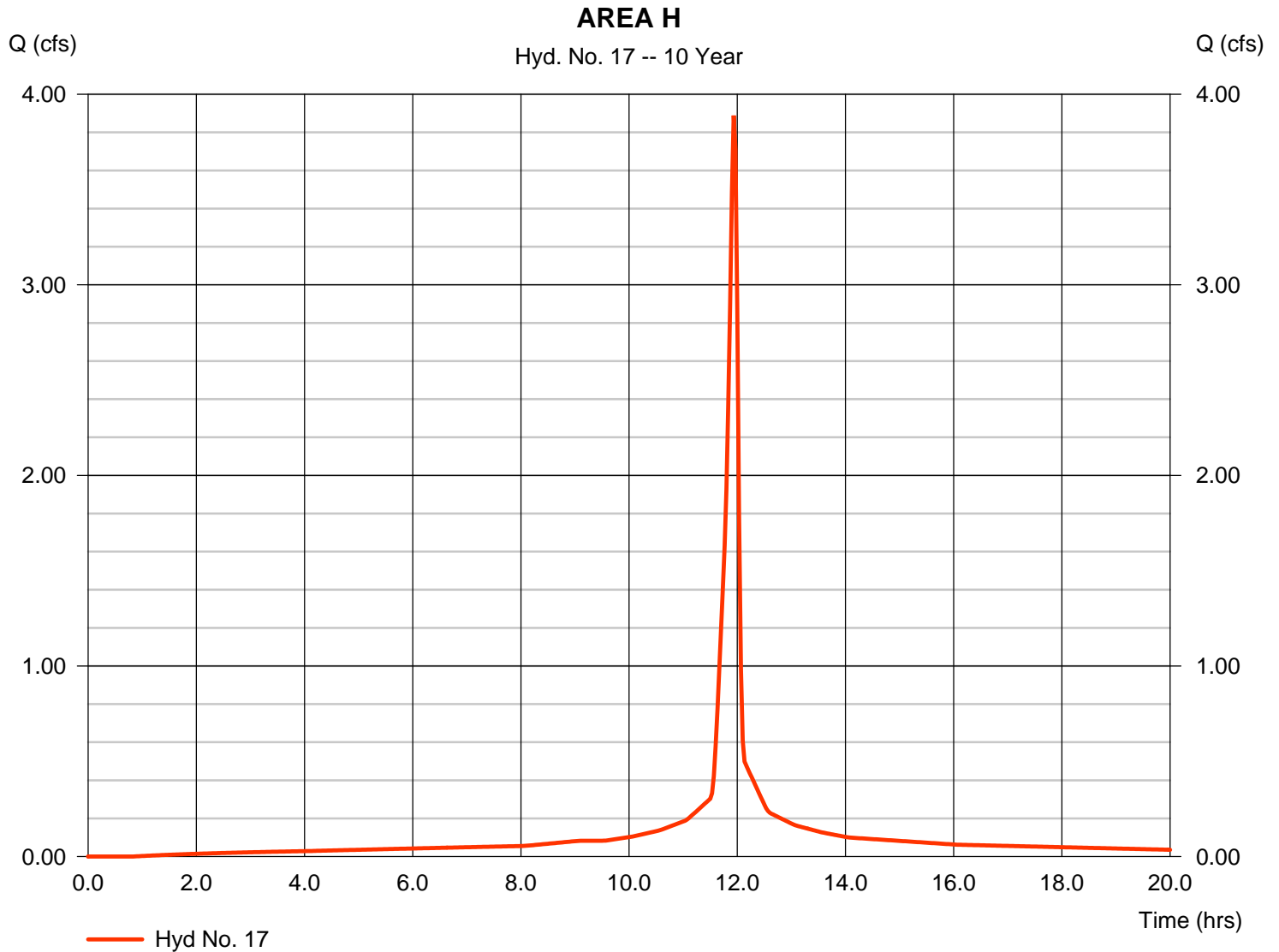
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 3.888 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.213 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 5.20 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

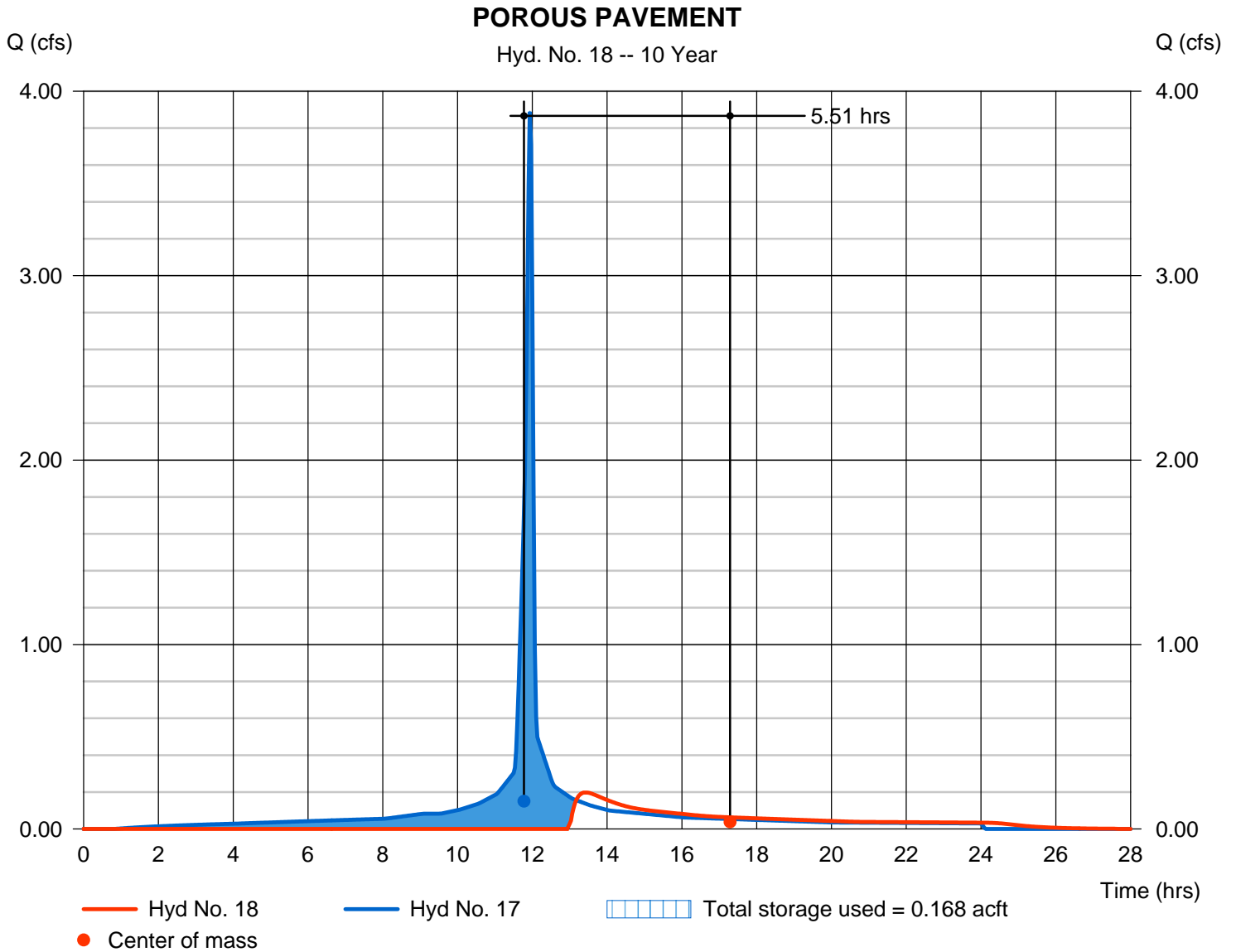
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.197 cfs
Storm frequency	= 10 yrs	Time to peak	= 13.43 hrs
Time interval	= 2 min	Hyd. volume	= 0.067 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1345.56 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.168 acft

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	16.69	2	732	1.656	-----	-----	-----	AREA 1
2	SCS Runoff	1.506	2	728	0.127	-----	-----	-----	AREA 2
3	SCS Runoff	1.254	2	724	0.090	-----	-----	-----	AREA 3
4	SCS Runoff	4.318	2	716	0.238	-----	-----	-----	AREA 4
5	SCS Runoff	5.229	2	716	0.249	-----	-----	-----	AREA 5
6	SCS Runoff	2.614	2	716	0.124	-----	-----	-----	AREA 6
7	SCS Runoff	1.840	2	734	0.191	-----	-----	-----	AREA 7
8	SCS Runoff	11.80	2	734	1.228	-----	-----	-----	AREA A
9	SCS Runoff	0.664	2	716	0.037	-----	-----	-----	AREA B
10	SCS Runoff	2.823	2	716	0.156	-----	-----	-----	AREA D
11	SCS Runoff	1.163	2	716	0.064	-----	-----	-----	AREA C
12	SCS Runoff	3.903	2	716	0.215	-----	-----	-----	AREA E
13	SCS Runoff	2.657	2	716	0.147	-----	-----	-----	AREA F
14	SCS Runoff	1.412	2	716	0.078	-----	-----	-----	AREA G
15	Combine	12.62	2	716	0.696	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.309	2	858	0.695	15	1343.65	0.443	POND ROUTE
17	SCS Runoff	4.567	2	716	0.252	-----	-----	-----	AREA H
18	Reservoir	0.275	2	846	0.109	17	1345.84	0.187	POROUS PAVEMENT
19	Combine	17.19	2	716	1.034	8, 15, 17,	-----	-----	<no description>
20	Combine	19.02	2	732	1.874	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 25 Year			Monday, 00 19, 2012	

# Hydrograph Report

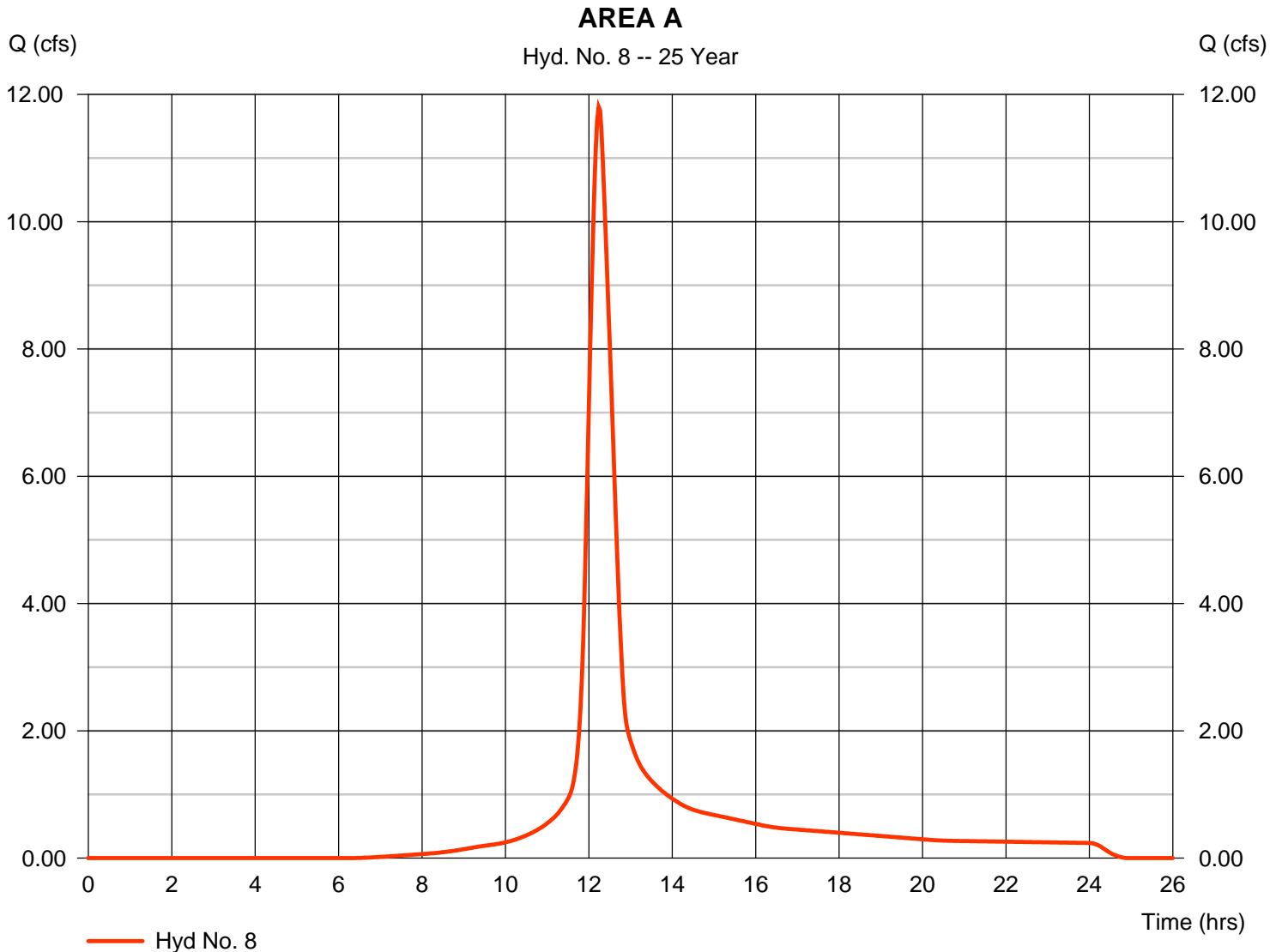
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 11.80 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 1.228 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

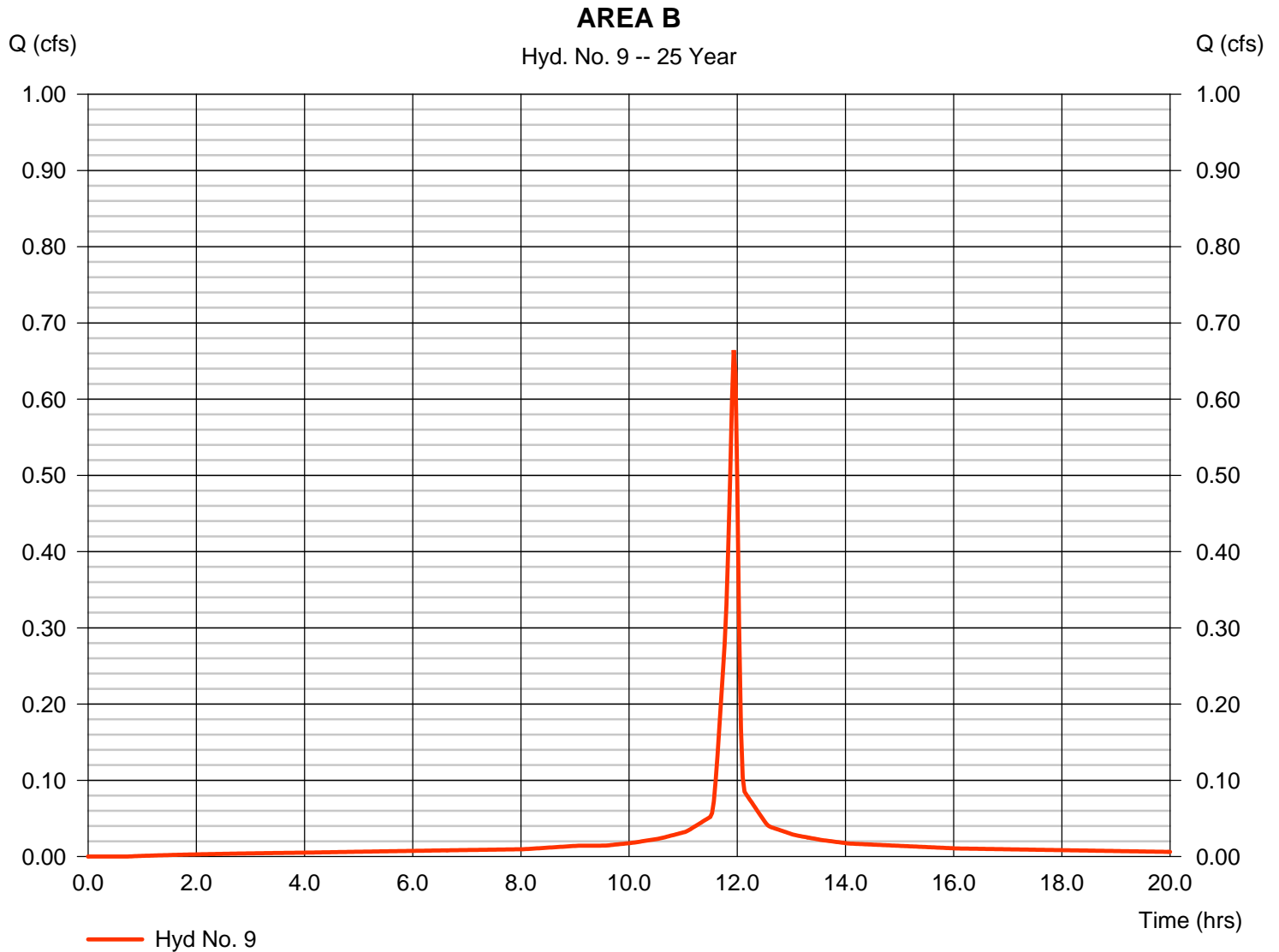
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.664 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.037 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

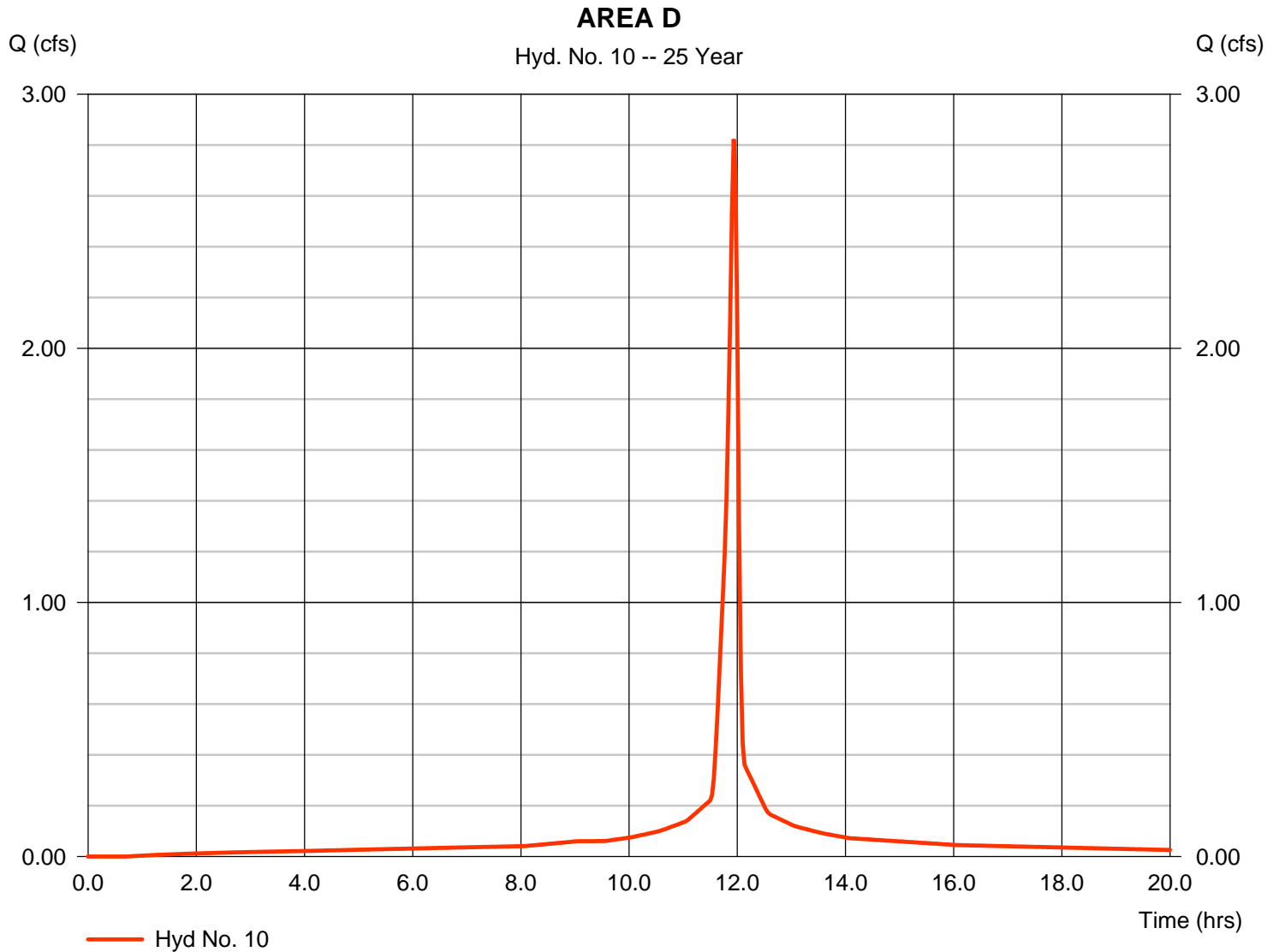
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 2.823 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.156 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

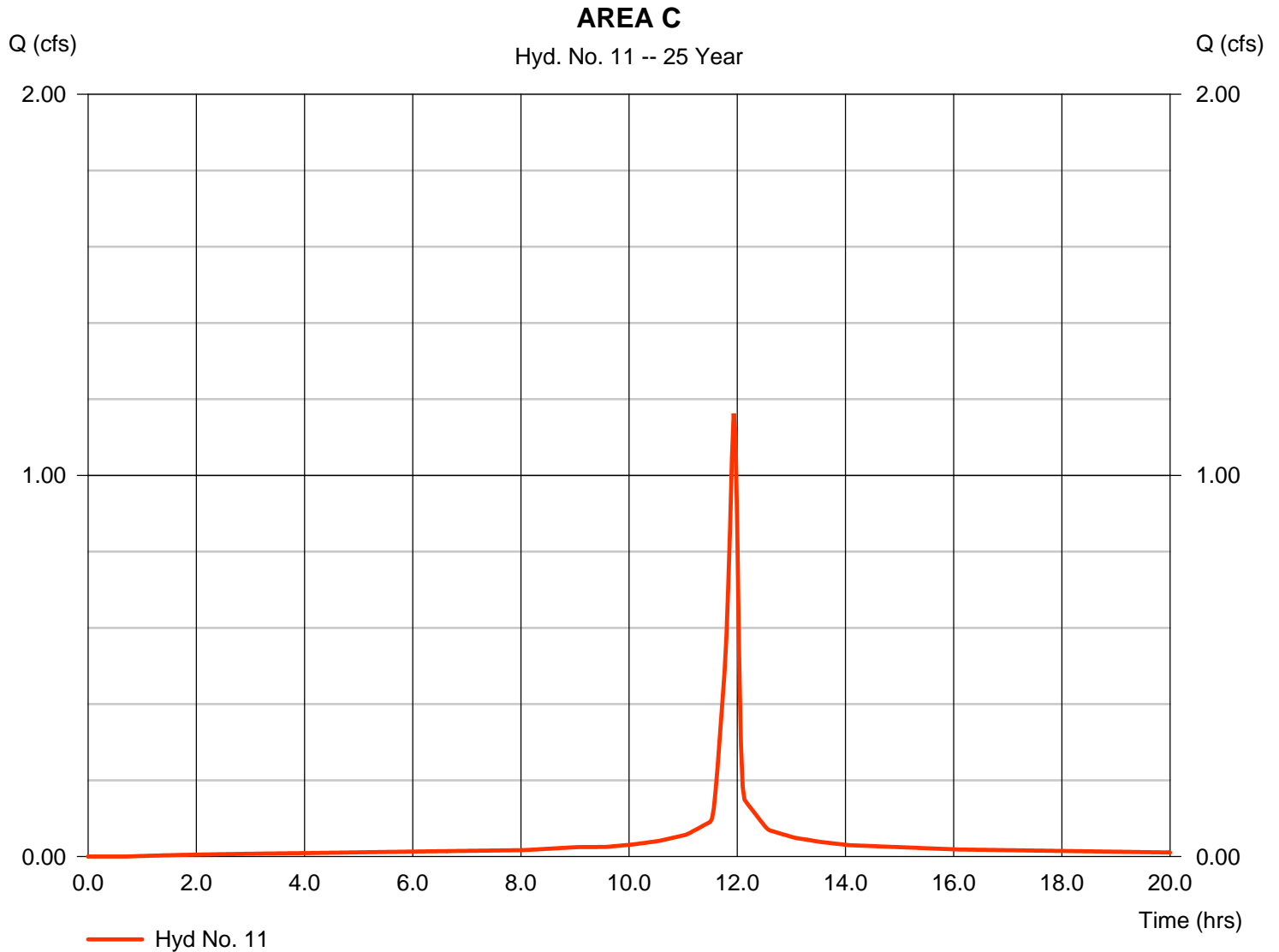
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 1.163 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.064 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

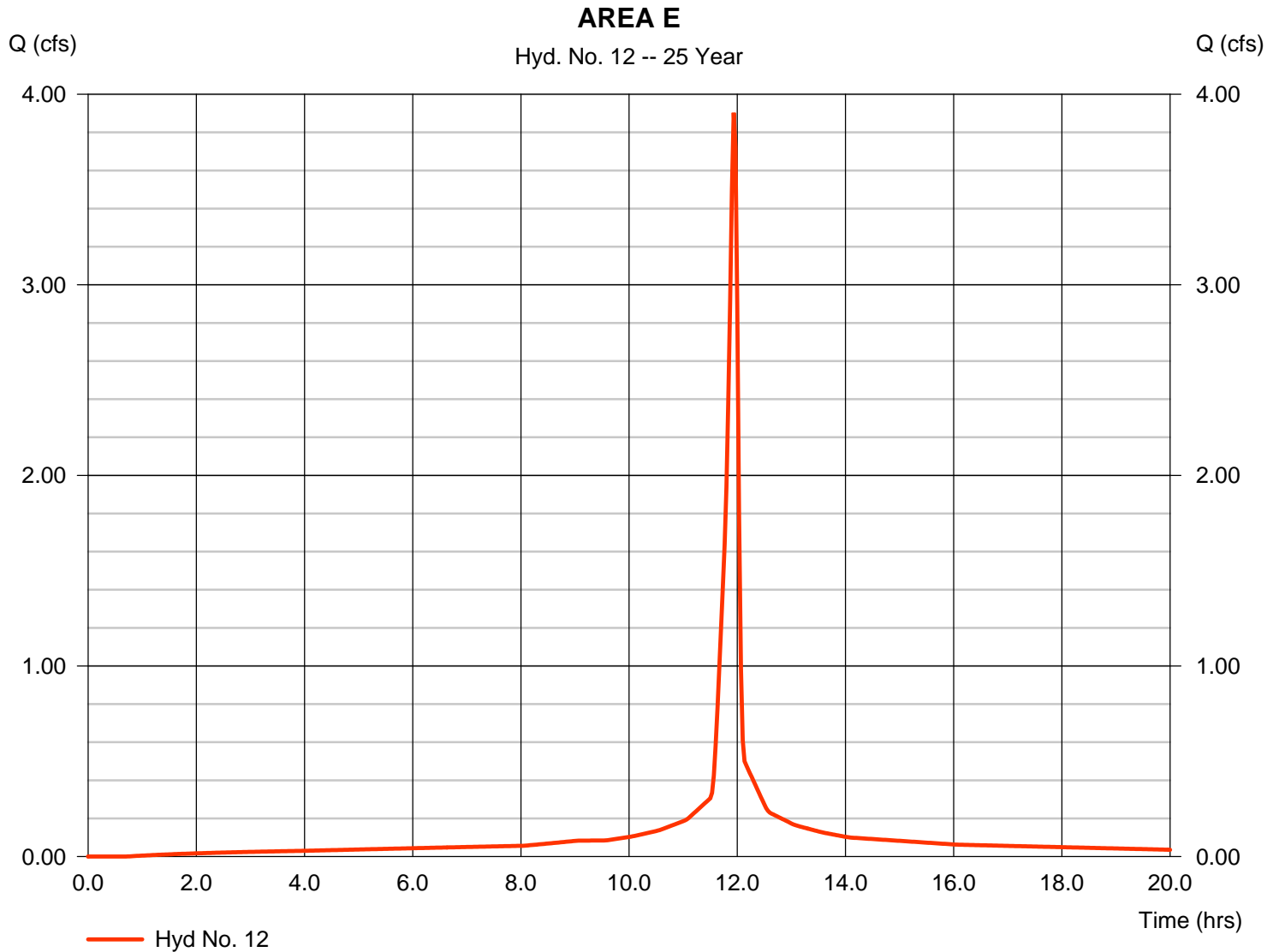
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 3.903 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.215 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

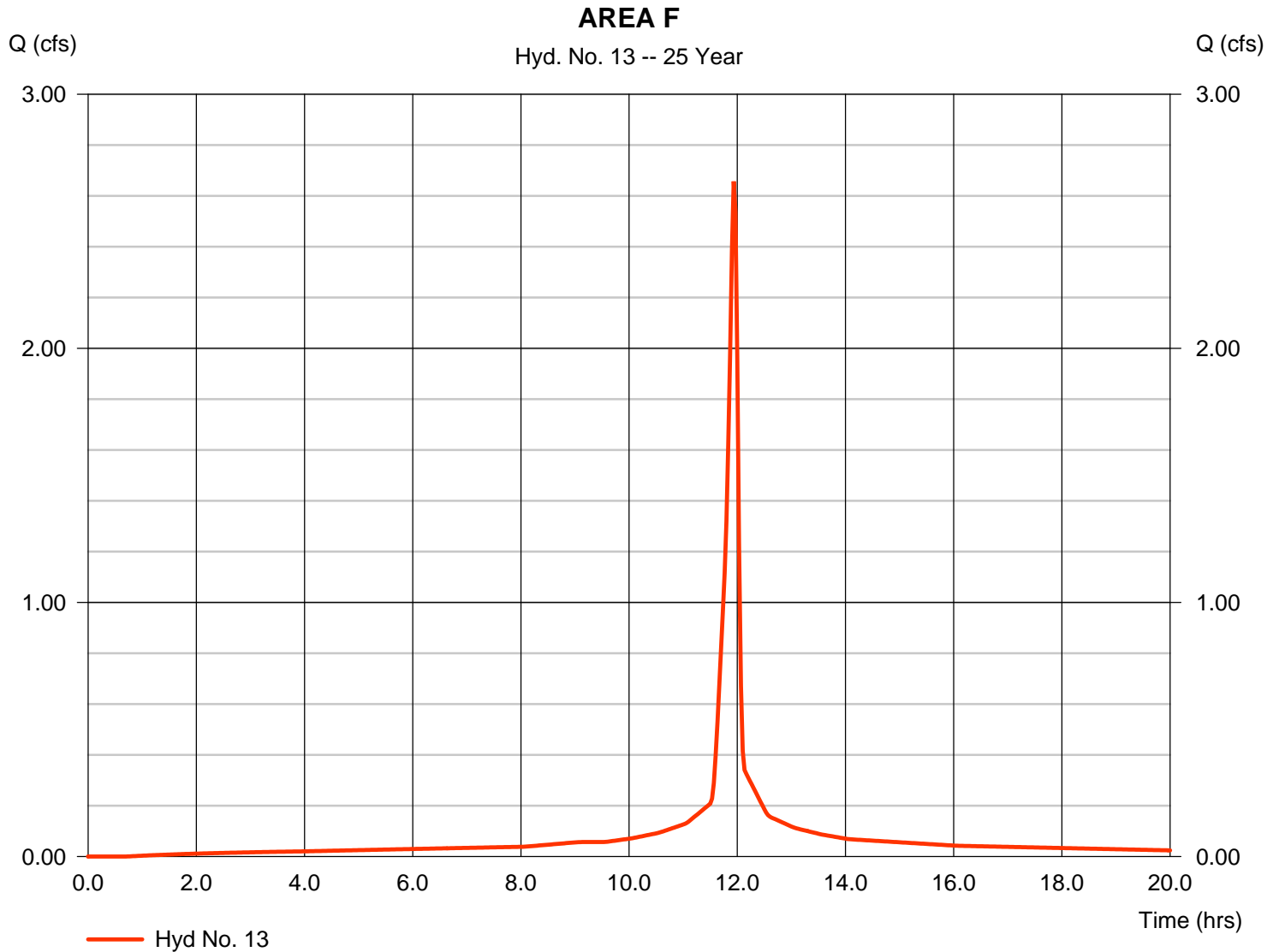
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 2.657 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.147 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

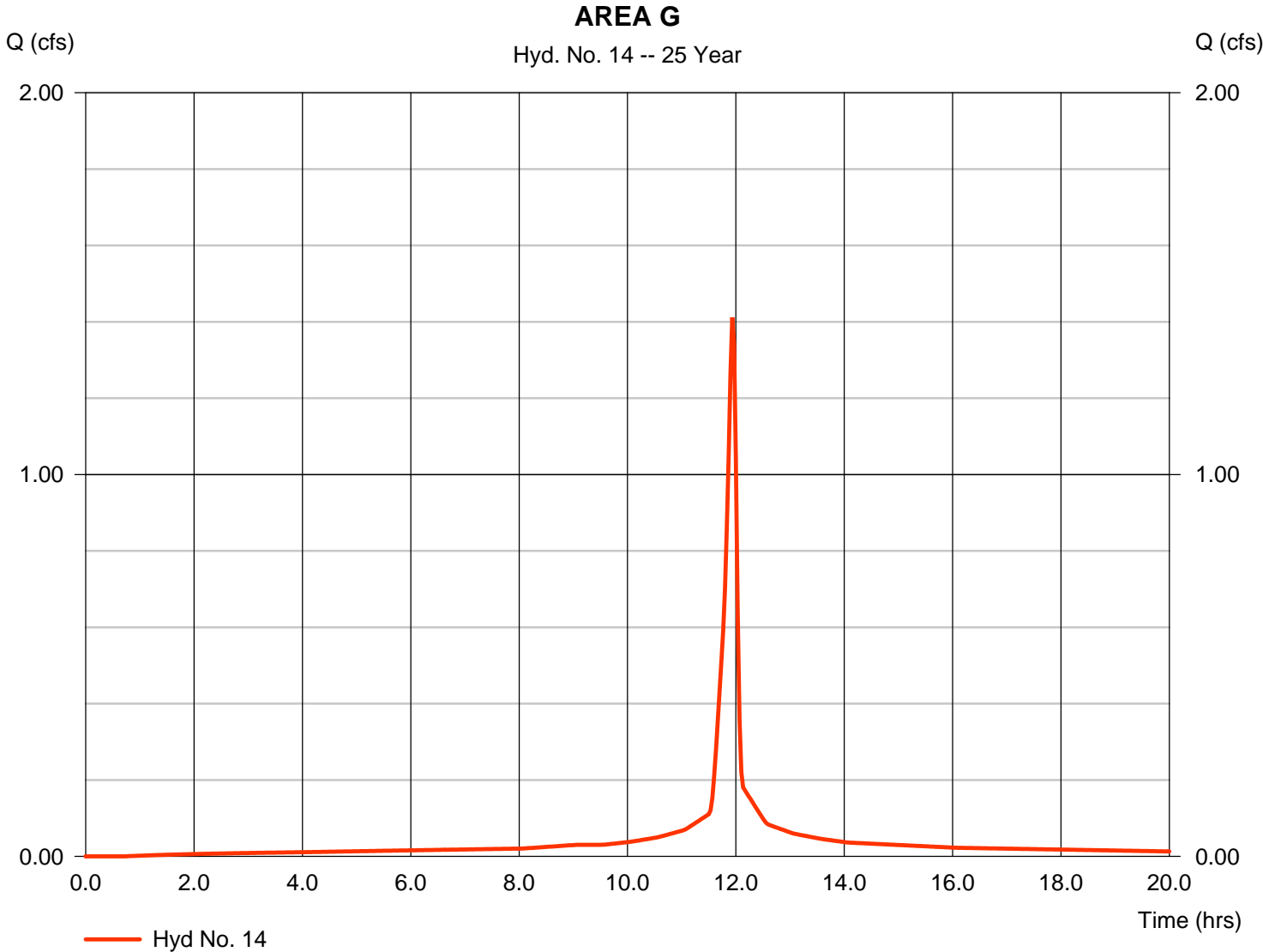


# Hydrograph Report

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 1.412 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.078 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

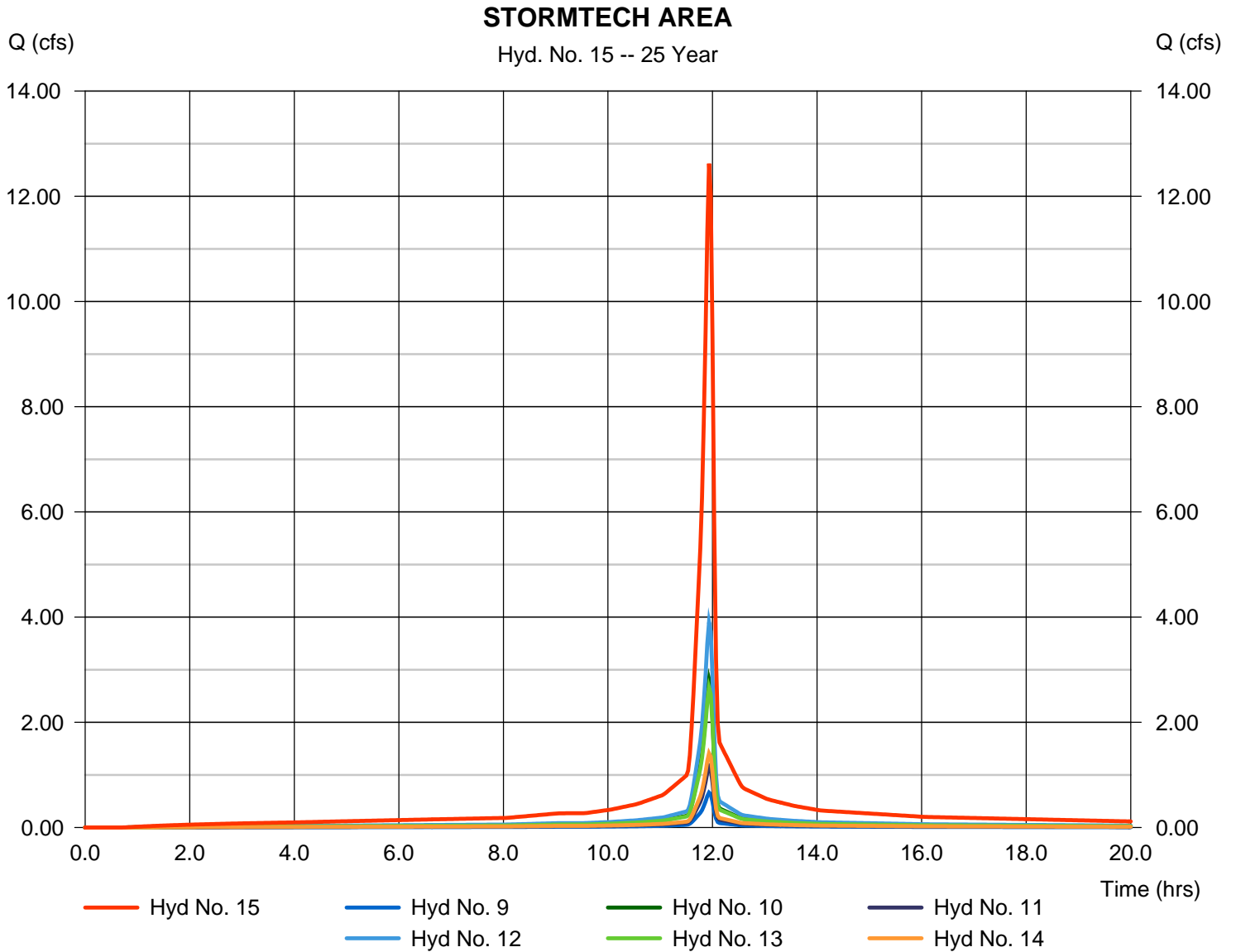
Monday, 00 19, 2012

## Hyd. No. 15

### STORMTECH AREA

Hydrograph type = Combine  
Storm frequency = 25 yrs  
Time interval = 2 min  
Inflow hyds. = 9, 10, 11, 12, 13, 14

Peak discharge = 12.62 cfs  
Time to peak = 11.93 hrs  
Hyd. volume = 0.696 acft  
Contrib. drain. area = 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

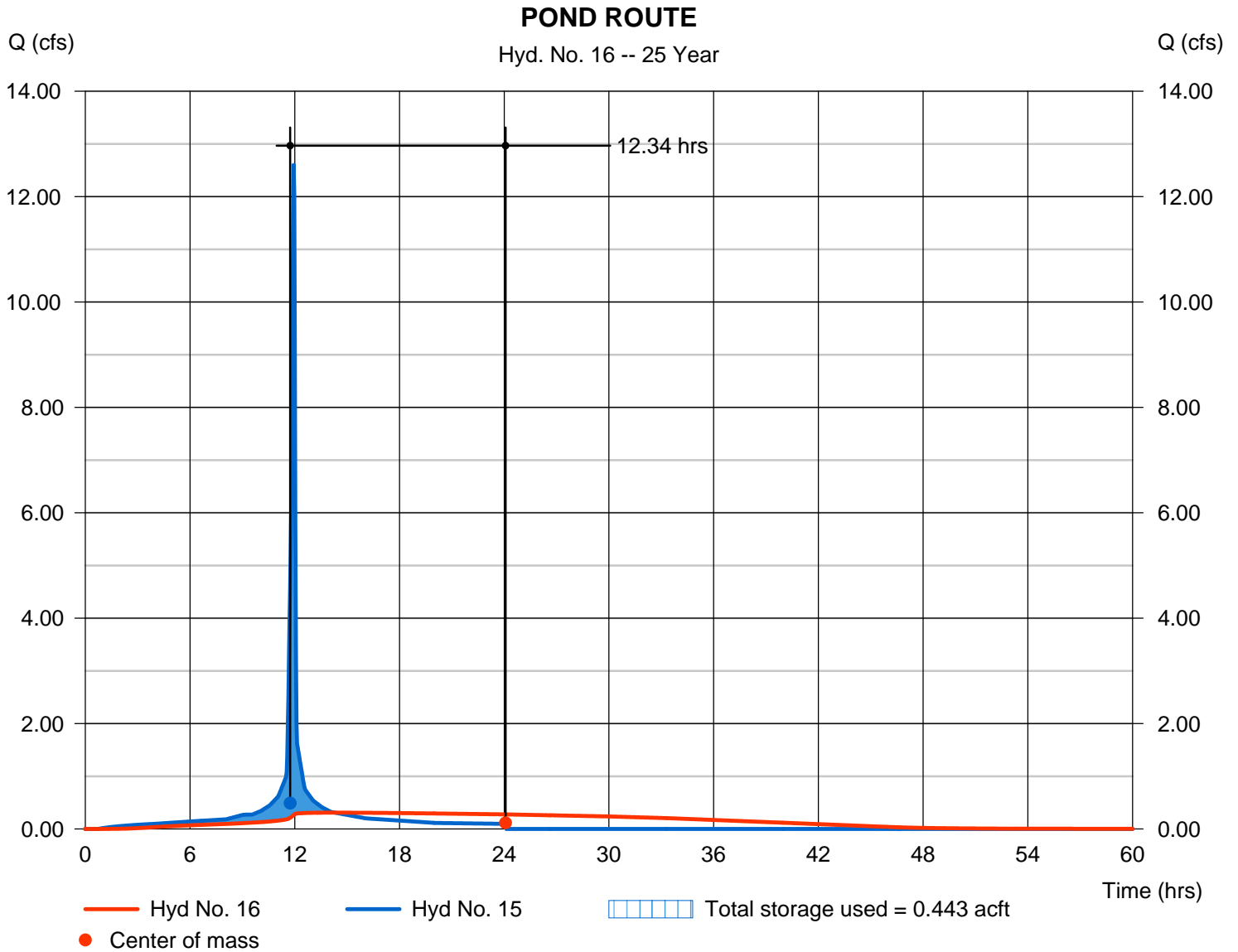
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.309 cfs
Storm frequency	= 25 yrs	Time to peak	= 14.30 hrs
Time interval	= 2 min	Hyd. volume	= 0.695 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1343.65 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.443 acft

Storage Indication method used.



# Hydrograph Report

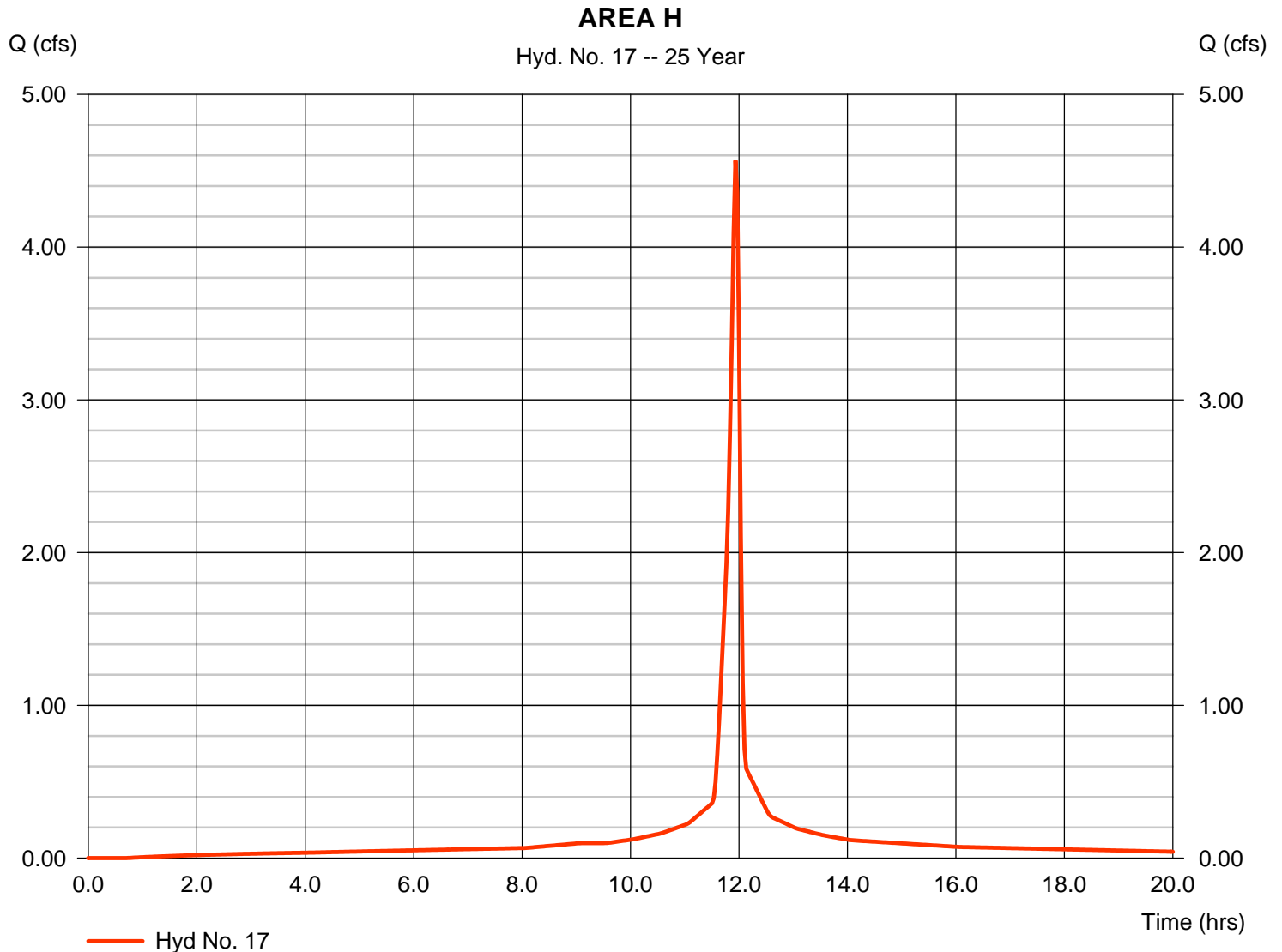
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 4.567 cfs
Storm frequency	= 25 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.252 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.10 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

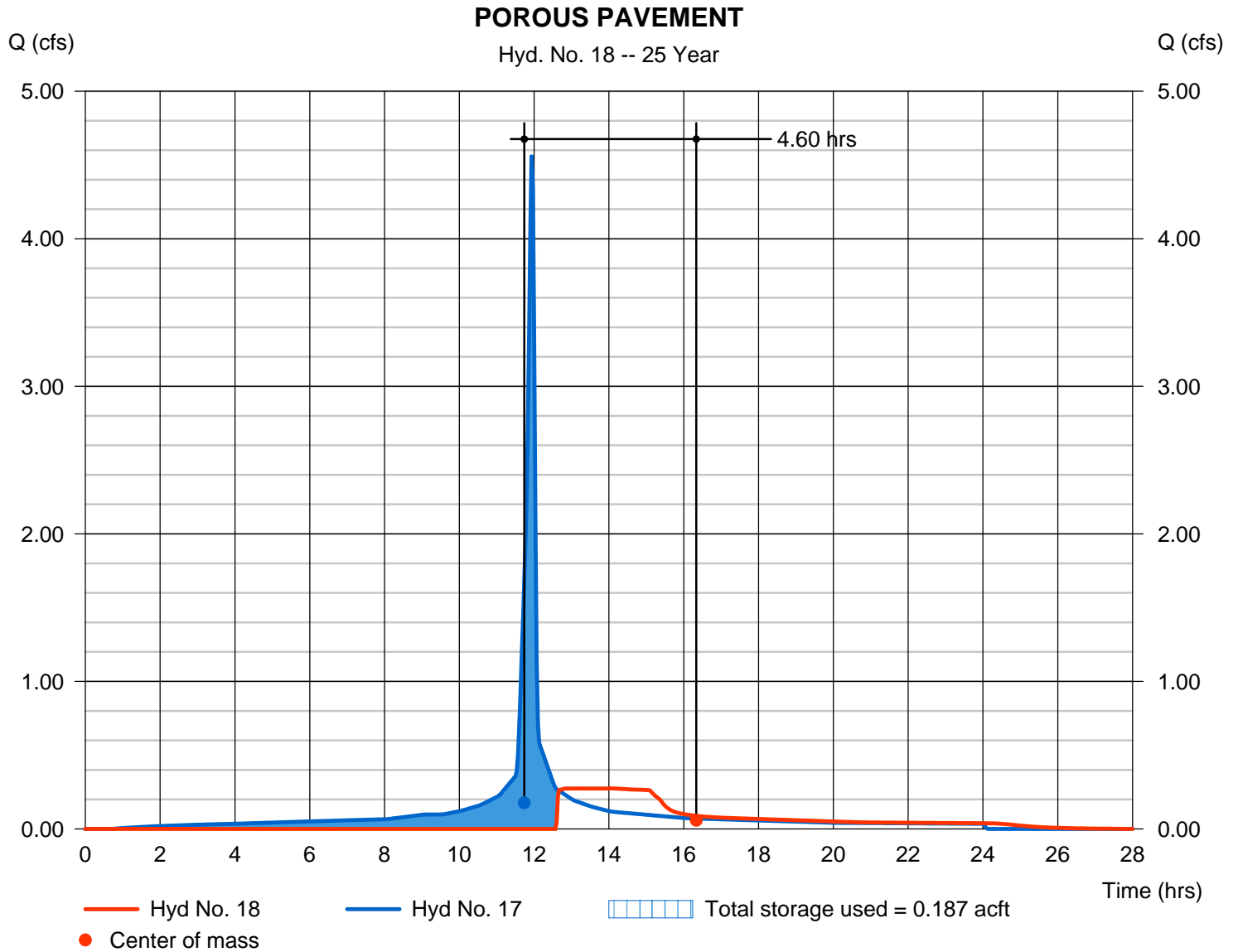
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.275 cfs
Storm frequency	= 25 yrs	Time to peak	= 14.10 hrs
Time interval	= 2 min	Hyd. volume	= 0.109 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1345.84 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.187 acft

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	19.79	2	732	1.969	-----	-----	-----	AREA 1
2	SCS Runoff	1.784	2	728	0.151	-----	-----	-----	AREA 2
3	SCS Runoff	1.485	2	724	0.107	-----	-----	-----	AREA 3
4	SCS Runoff	4.888	2	716	0.271	-----	-----	-----	AREA 4
5	SCS Runoff	6.130	2	716	0.294	-----	-----	-----	AREA 5
6	SCS Runoff	3.065	2	716	0.147	-----	-----	-----	AREA 6
7	SCS Runoff	2.182	2	734	0.227	-----	-----	-----	AREA 7
8	SCS Runoff	14.00	2	734	1.460	-----	-----	-----	AREA A
9	SCS Runoff	0.752	2	716	0.042	-----	-----	-----	AREA B
10	SCS Runoff	3.196	2	716	0.177	-----	-----	-----	AREA D
11	SCS Runoff	1.316	2	716	0.073	-----	-----	-----	AREA C
12	SCS Runoff	4.418	2	716	0.245	-----	-----	-----	AREA E
13	SCS Runoff	3.008	2	716	0.167	-----	-----	-----	AREA F
14	SCS Runoff	1.598	2	716	0.088	-----	-----	-----	AREA G
15	Combine	14.29	2	716	0.791	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.328	2	878	0.790	15	1344.09	0.510	POND ROUTE
17	SCS Runoff	5.170	2	716	0.286	-----	-----	-----	AREA H
18	Reservoir	0.292	2	912	0.146	17	1346.22	0.214	POROUS PAVEMENT
19	Combine	19.47	2	716	1.225	8, 15, 17,	-----	-----	<no description>
20	Combine	22.55	2	732	2.227	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 50 Year			Monday, 00 19, 2012	

# Hydrograph Report

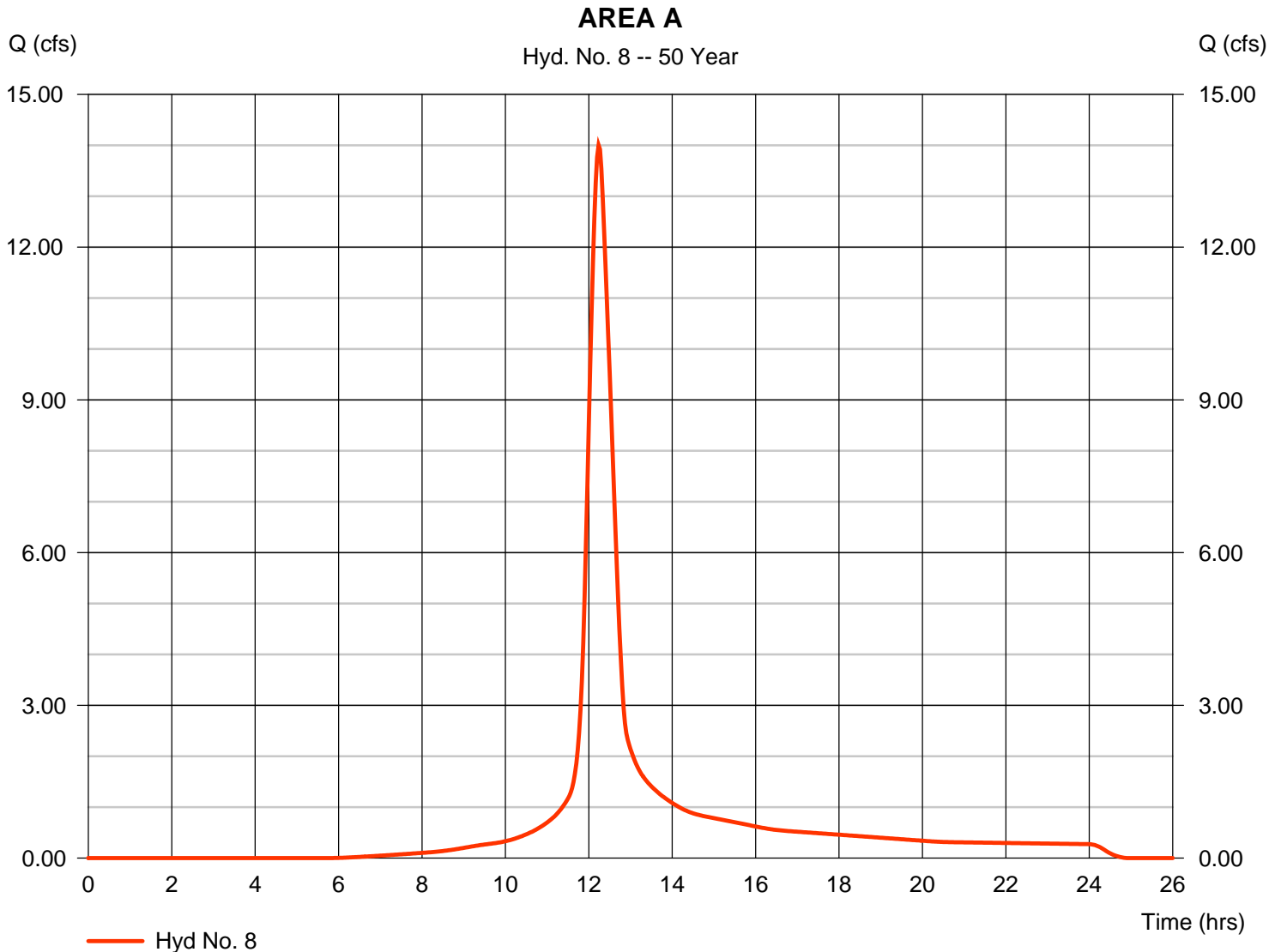
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 14.00 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 1.460 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

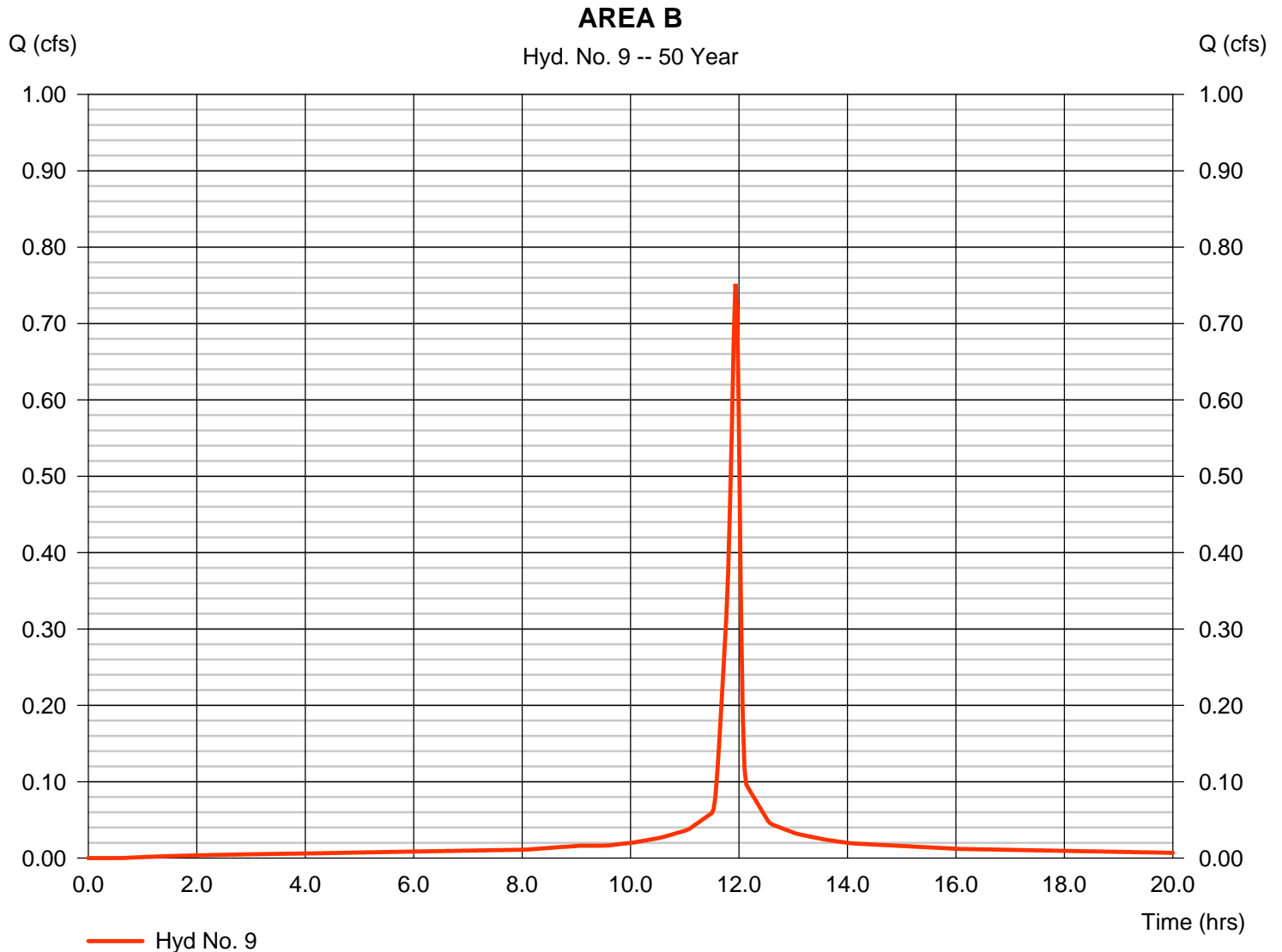
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.752 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.042 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

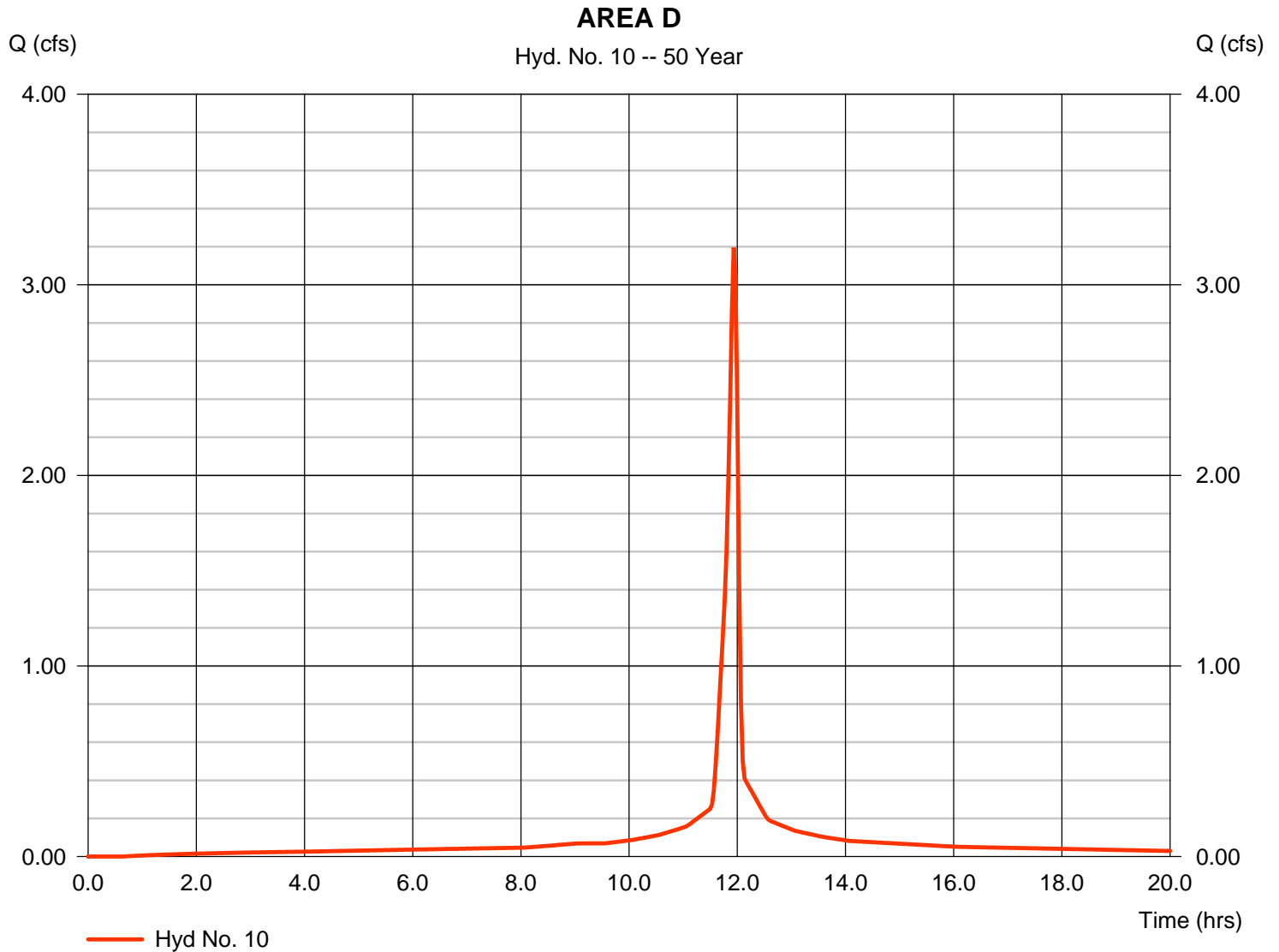
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 3.196 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.177 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

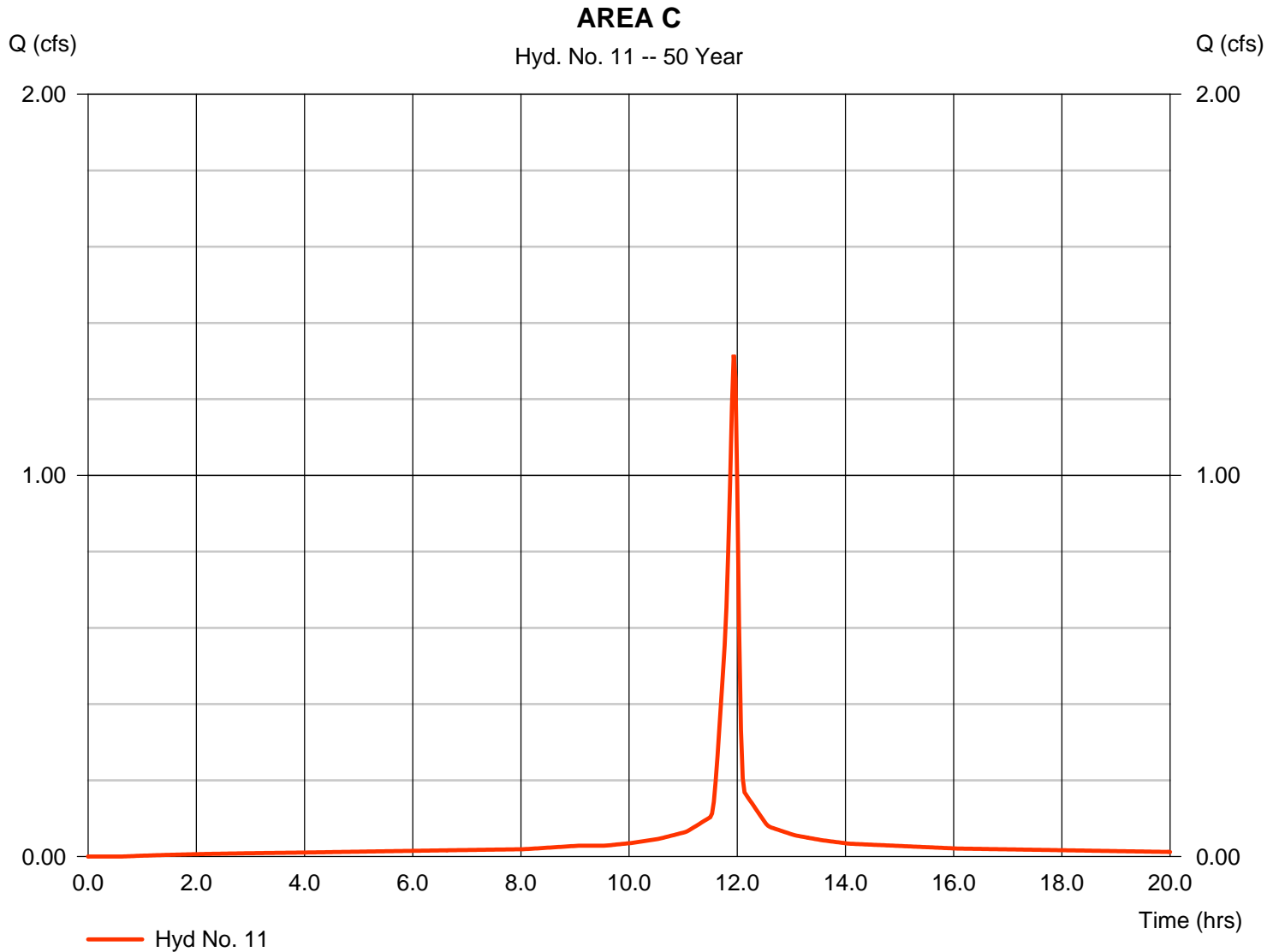
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 1.316 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.073 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

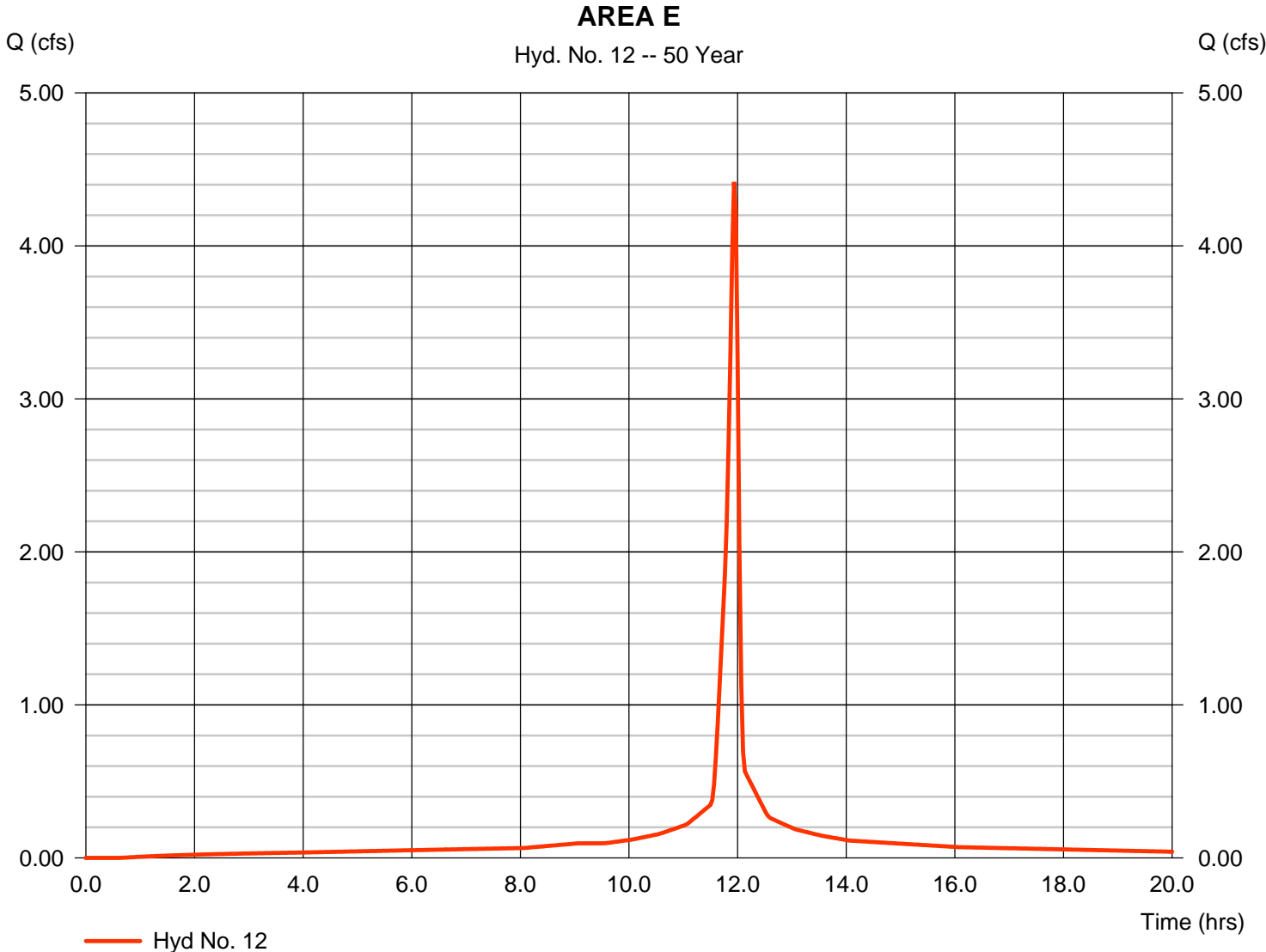


# Hydrograph Report

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 4.418 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.245 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

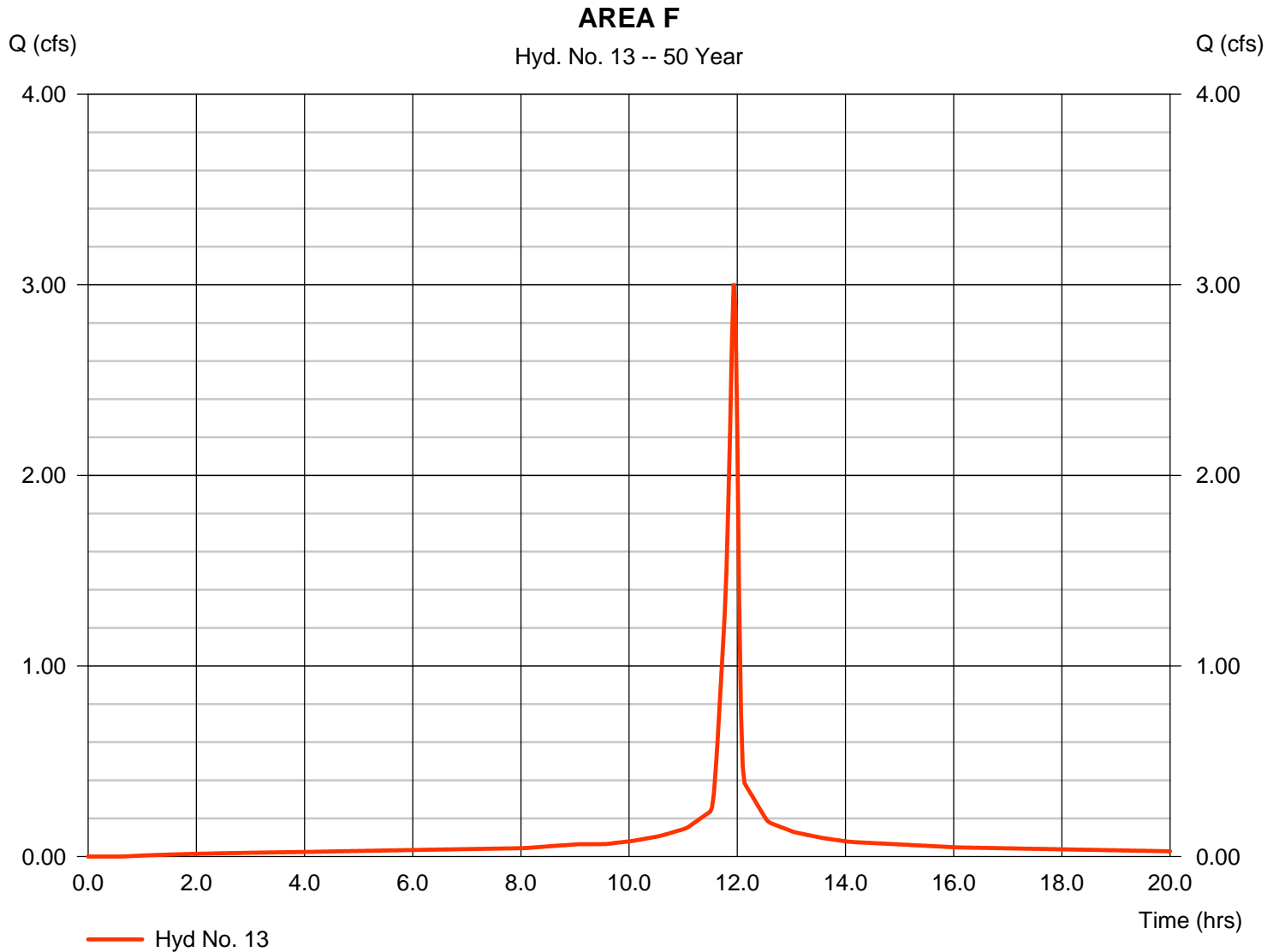
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 3.008 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.167 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

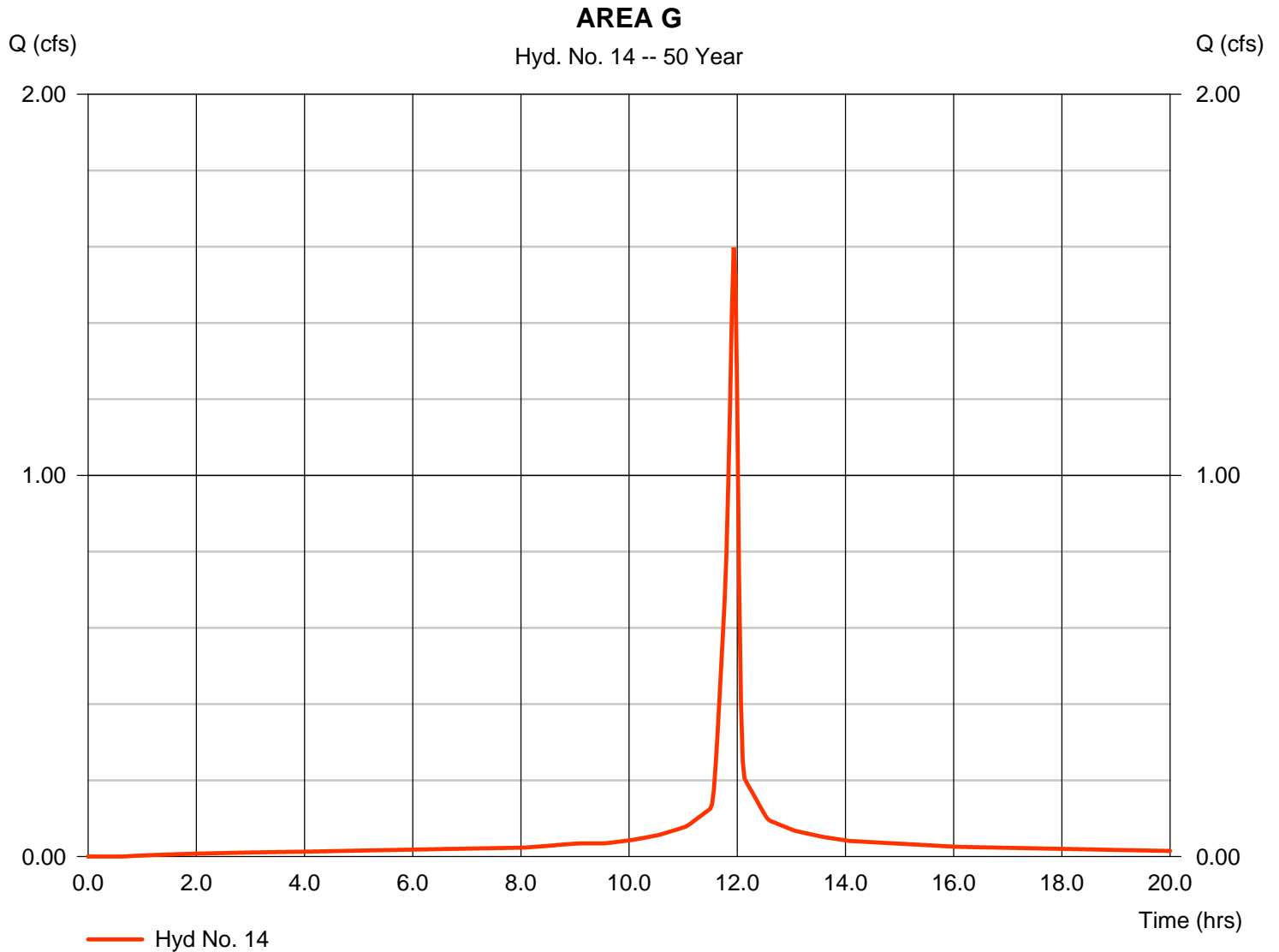
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 1.598 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.088 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

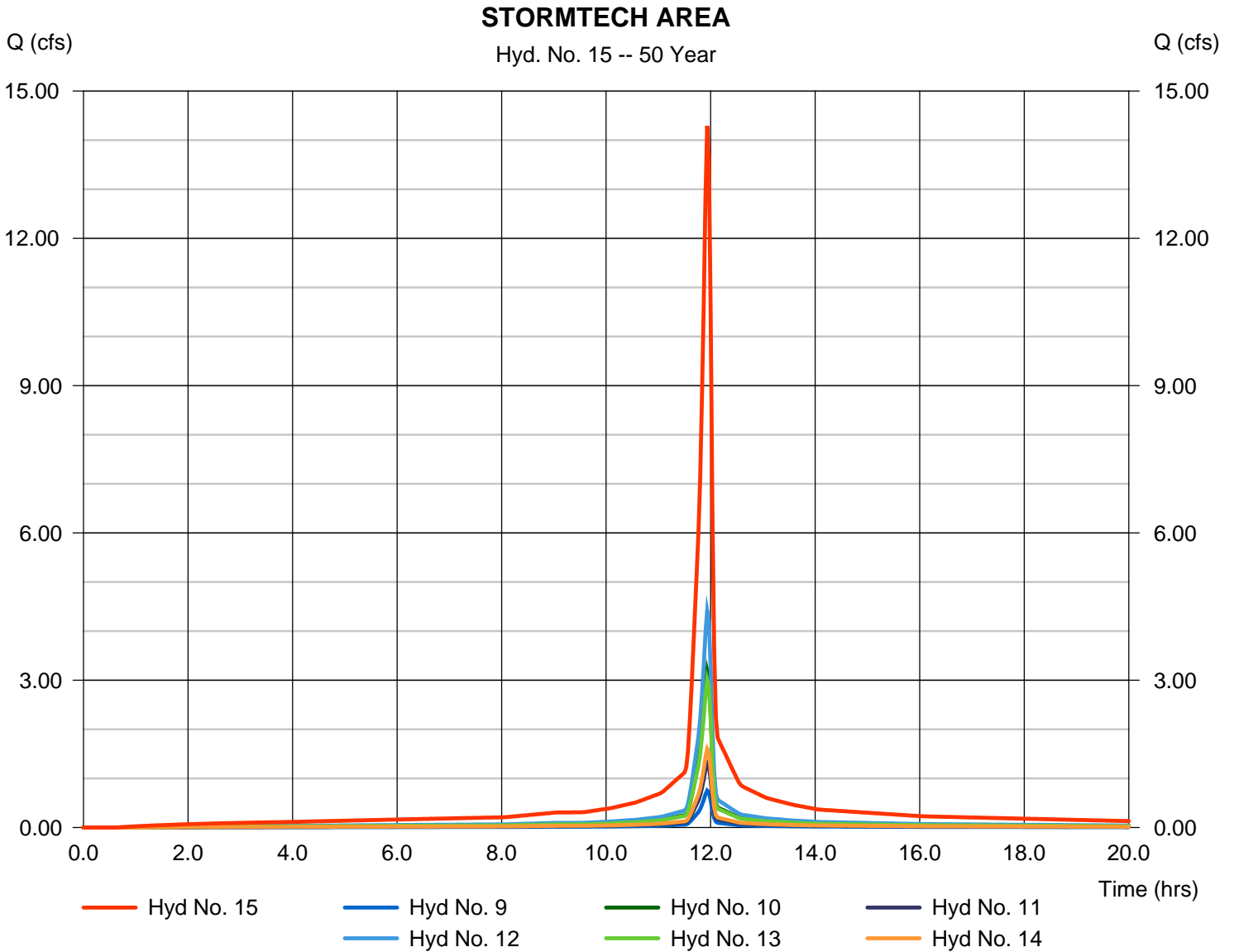
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 15

### STORMTECH AREA

Hydrograph type	= Combine	Peak discharge	= 14.29 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.791 acft
Inflow hyds.	= 9, 10, 11, 12, 13, 14	Contrib. drain. area	= 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

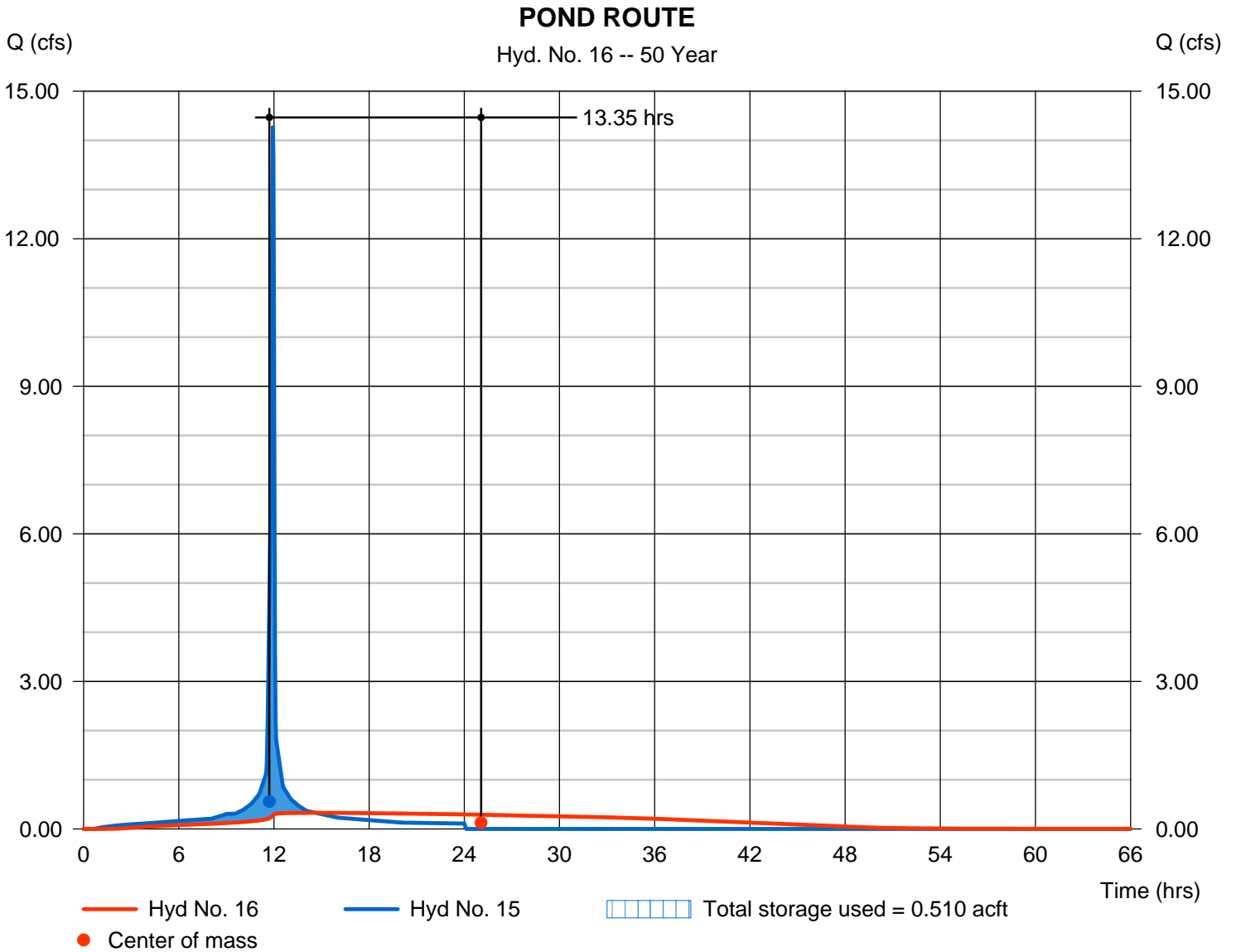
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.328 cfs
Storm frequency	= 50 yrs	Time to peak	= 14.63 hrs
Time interval	= 2 min	Hyd. volume	= 0.790 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1344.09 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.510 acft

Storage Indication method used.



# Hydrograph Report

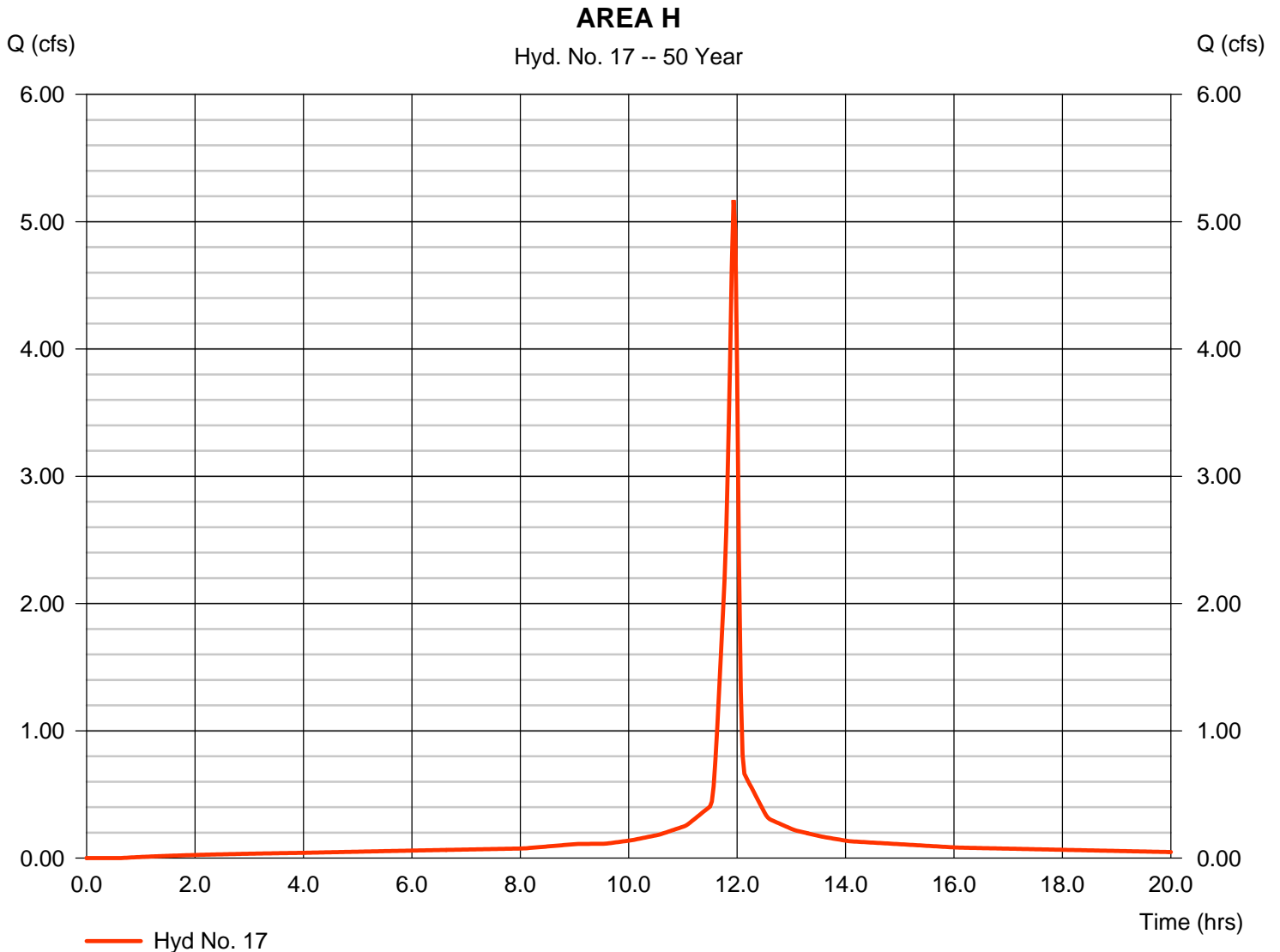
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 5.170 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.286 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 6.90 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

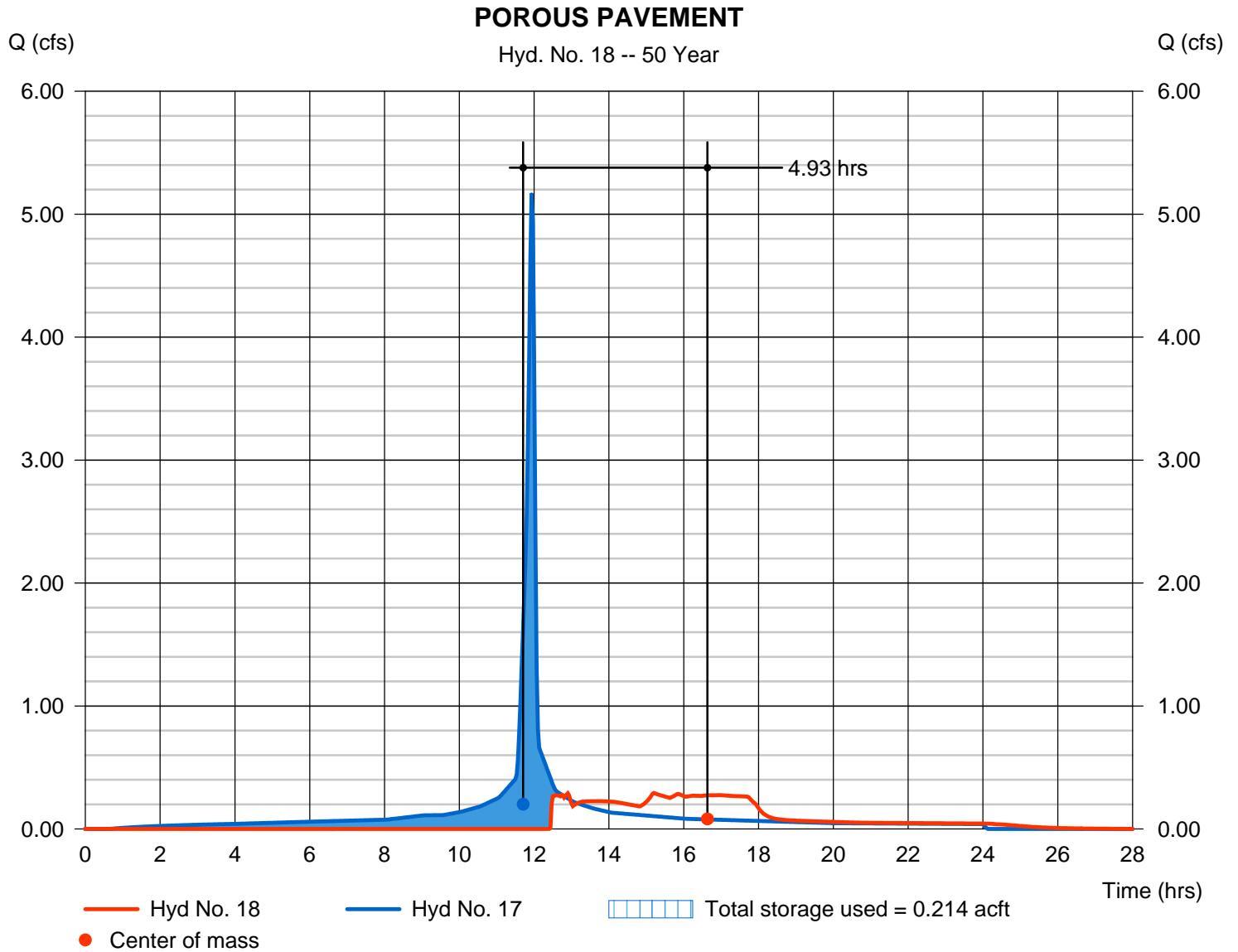
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.292 cfs
Storm frequency	= 50 yrs	Time to peak	= 15.20 hrs
Time interval	= 2 min	Hyd. volume	= 0.146 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1346.22 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.214 acft

Storage Indication method used.



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (acft)	Hydrograph Description
1	SCS Runoff	23.31	2	732	2.326	-----	-----	-----	AREA 1
2	SCS Runoff	2.099	2	728	0.178	-----	-----	-----	AREA 2
3	SCS Runoff	1.746	2	724	0.127	-----	-----	-----	AREA 3
4	SCS Runoff	5.529	2	716	0.307	-----	-----	-----	AREA 4
5	SCS Runoff	7.143	2	716	0.346	-----	-----	-----	AREA 5
6	SCS Runoff	3.572	2	716	0.173	-----	-----	-----	AREA 6
7	SCS Runoff	2.570	2	734	0.269	-----	-----	-----	AREA 7
8	SCS Runoff	16.49	2	734	1.725	-----	-----	-----	AREA A
9	SCS Runoff	0.851	2	716	0.047	-----	-----	-----	AREA B
10	SCS Runoff	3.615	2	716	0.201	-----	-----	-----	AREA D
11	SCS Runoff	1.489	2	716	0.083	-----	-----	-----	AREA C
12	SCS Runoff	4.998	2	716	0.278	-----	-----	-----	AREA E
13	SCS Runoff	3.403	2	716	0.189	-----	-----	-----	AREA F
14	SCS Runoff	1.808	2	716	0.100	-----	-----	-----	AREA G
15	Combine	16.16	2	716	0.898	9, 10, 11, 12, 13, 14	-----	-----	STORMTECH AREA
16	Reservoir	0.350	2	892	0.897	15	1344.66	0.587	POND ROUTE
17	SCS Runoff	5.848	2	716	0.325	-----	-----	-----	AREA H
18	Reservoir	0.322	2	800	0.188	17	1346.56	0.239	POROUS PAVEMENT
19	Combine	22.08	2	716	1.456	8, 15, 17,	-----	-----	<no description>
20	Combine	26.53	2	732	2.631	1, 2, 3,	-----	-----	<no description>
Wichita Existing Conditions 3.16.12.gpw					Return Period: 100 Year			Monday, 00 19, 2012	

# Hydrograph Report

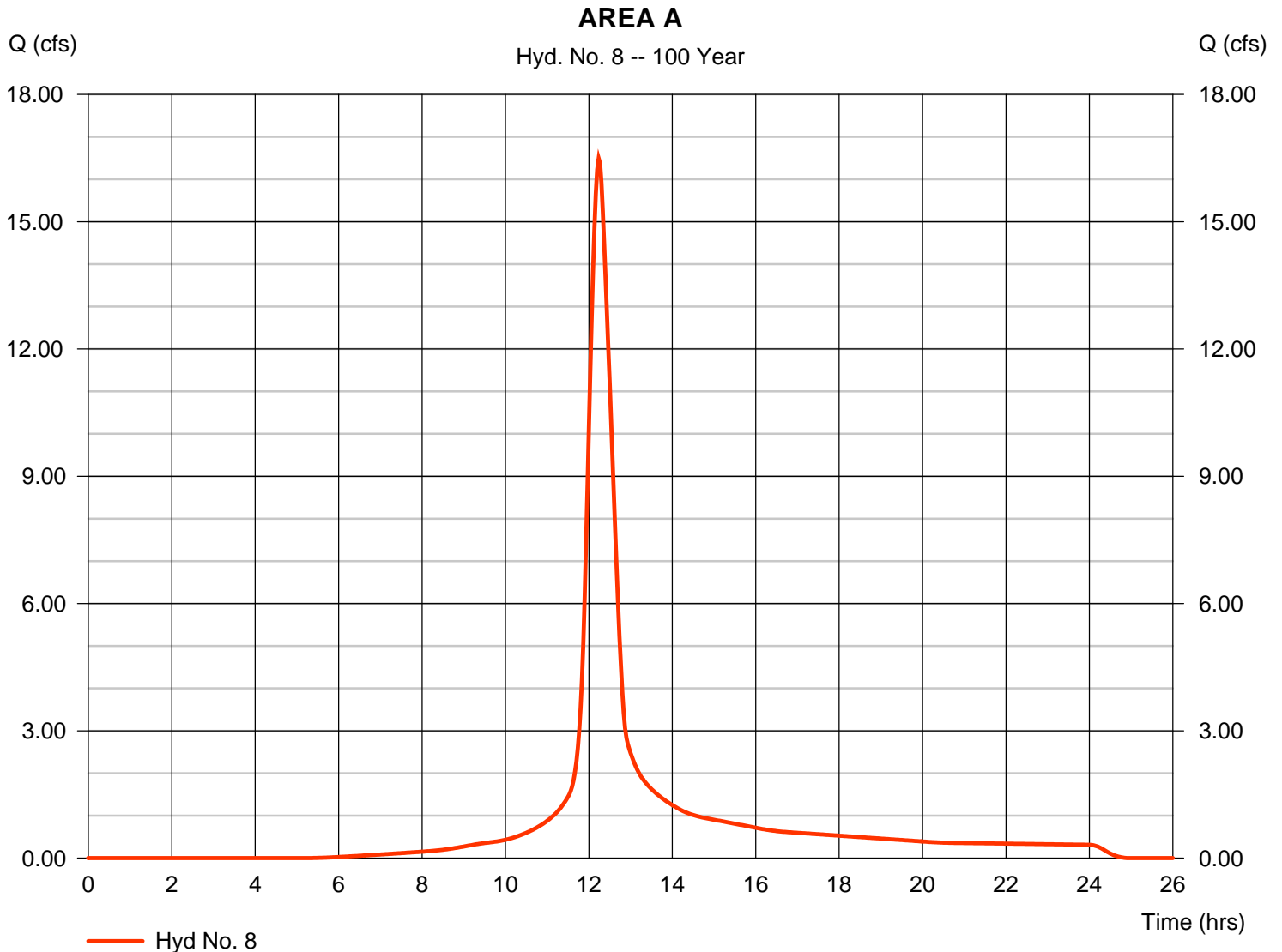
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 8

### AREA A

Hydrograph type	= SCS Runoff	Peak discharge	= 16.49 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 1.725 acft
Drainage area	= 3.850 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 34.80 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

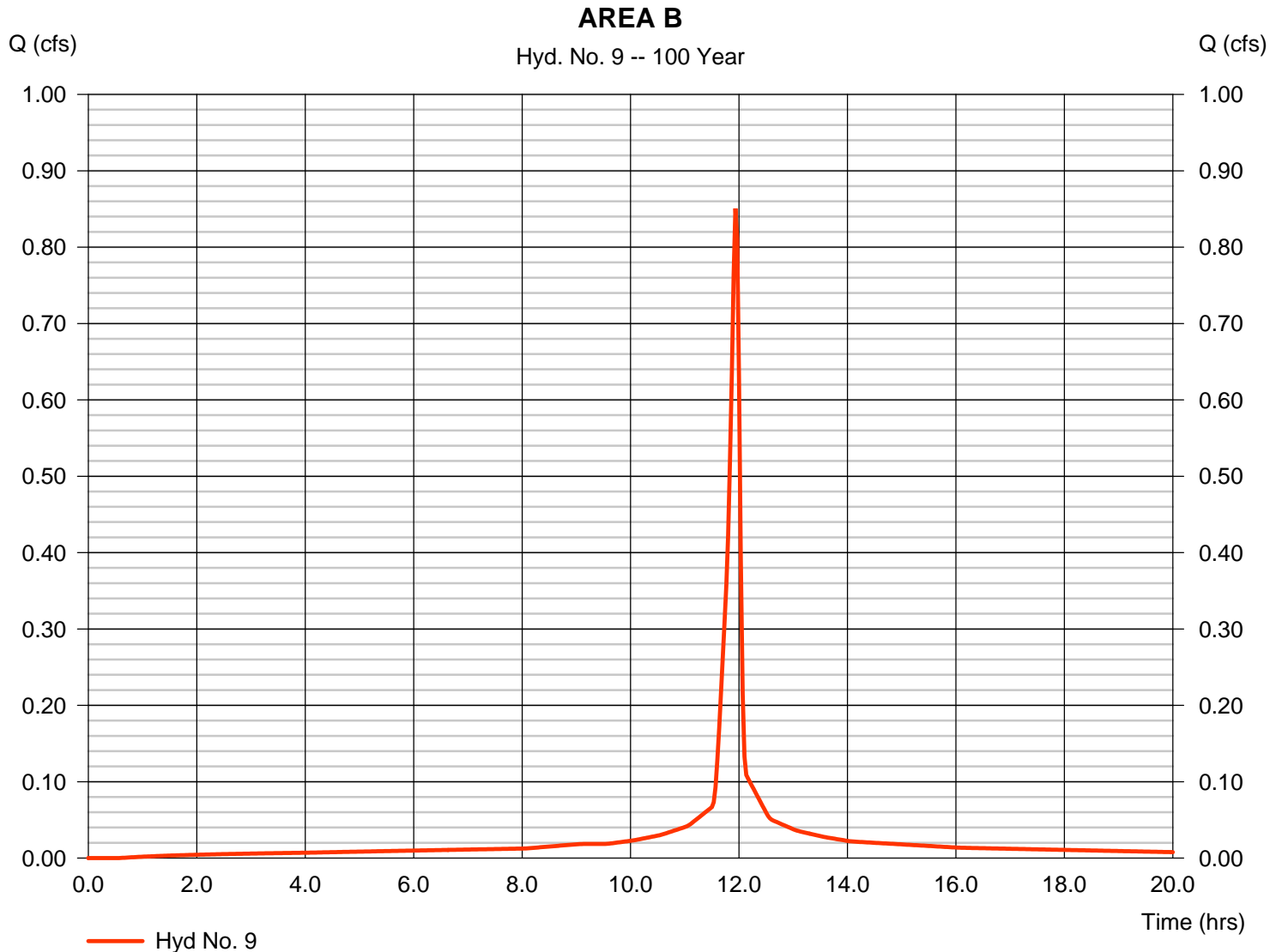
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 9

### AREA B

Hydrograph type	= SCS Runoff	Peak discharge	= 0.851 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.047 acft
Drainage area	= 0.080 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 4.00 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

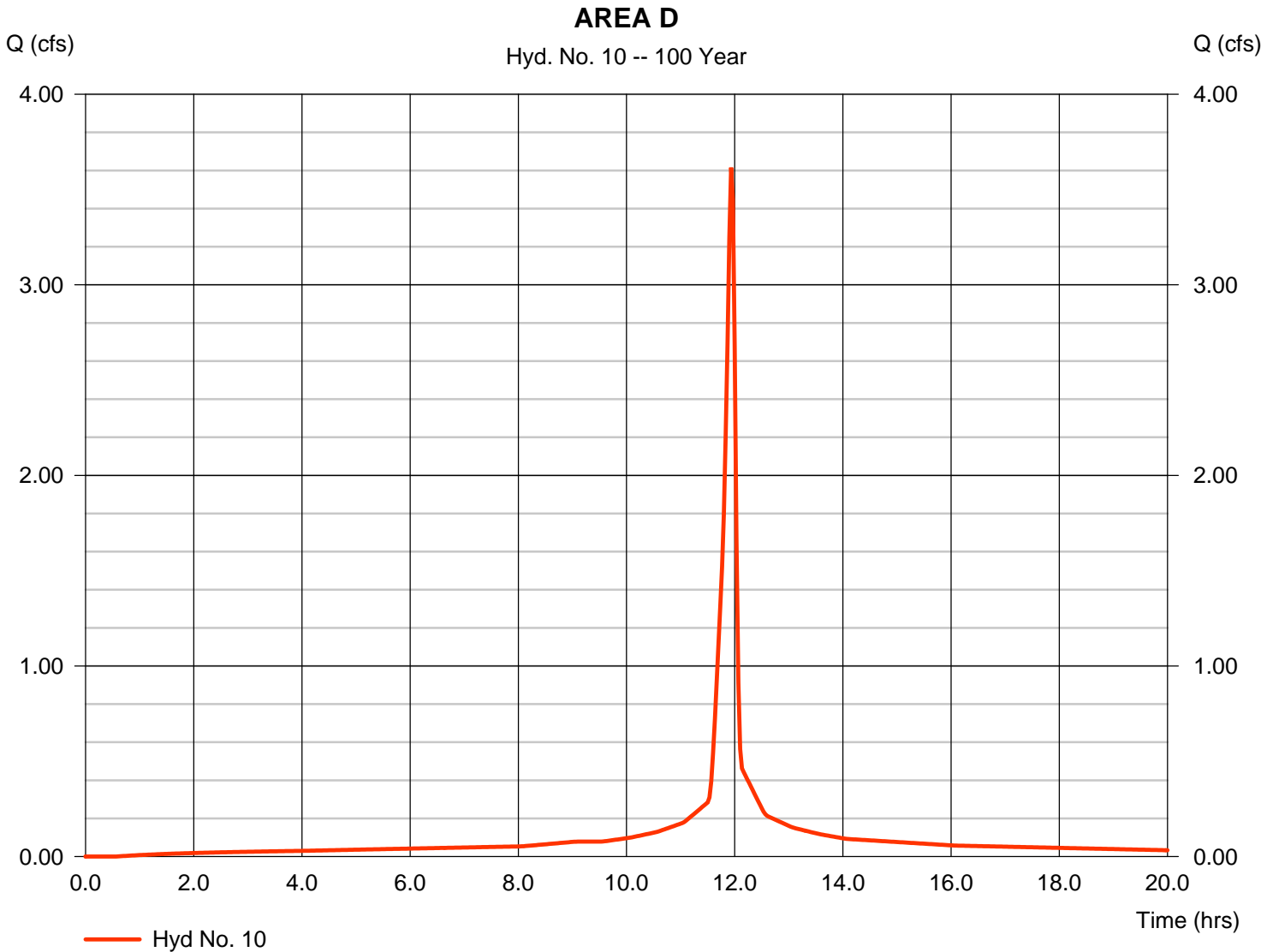


# Hydrograph Report

## Hyd. No. 10

### AREA D

Hydrograph type	= SCS Runoff	Peak discharge	= 3.615 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.201 acft
Drainage area	= 0.340 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.20 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

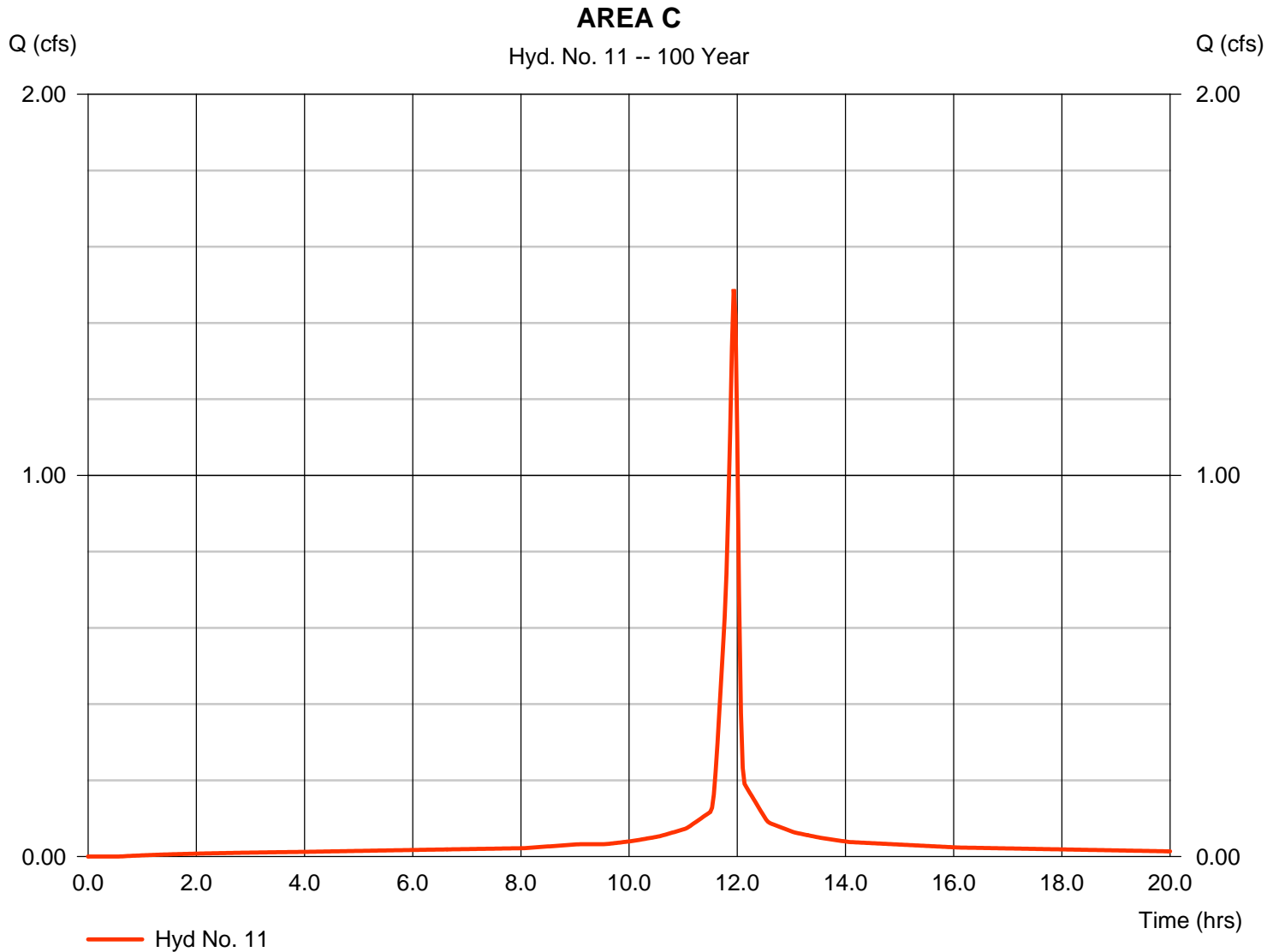
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 11

### AREA C

Hydrograph type	= SCS Runoff	Peak discharge	= 1.489 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.083 acft
Drainage area	= 0.140 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

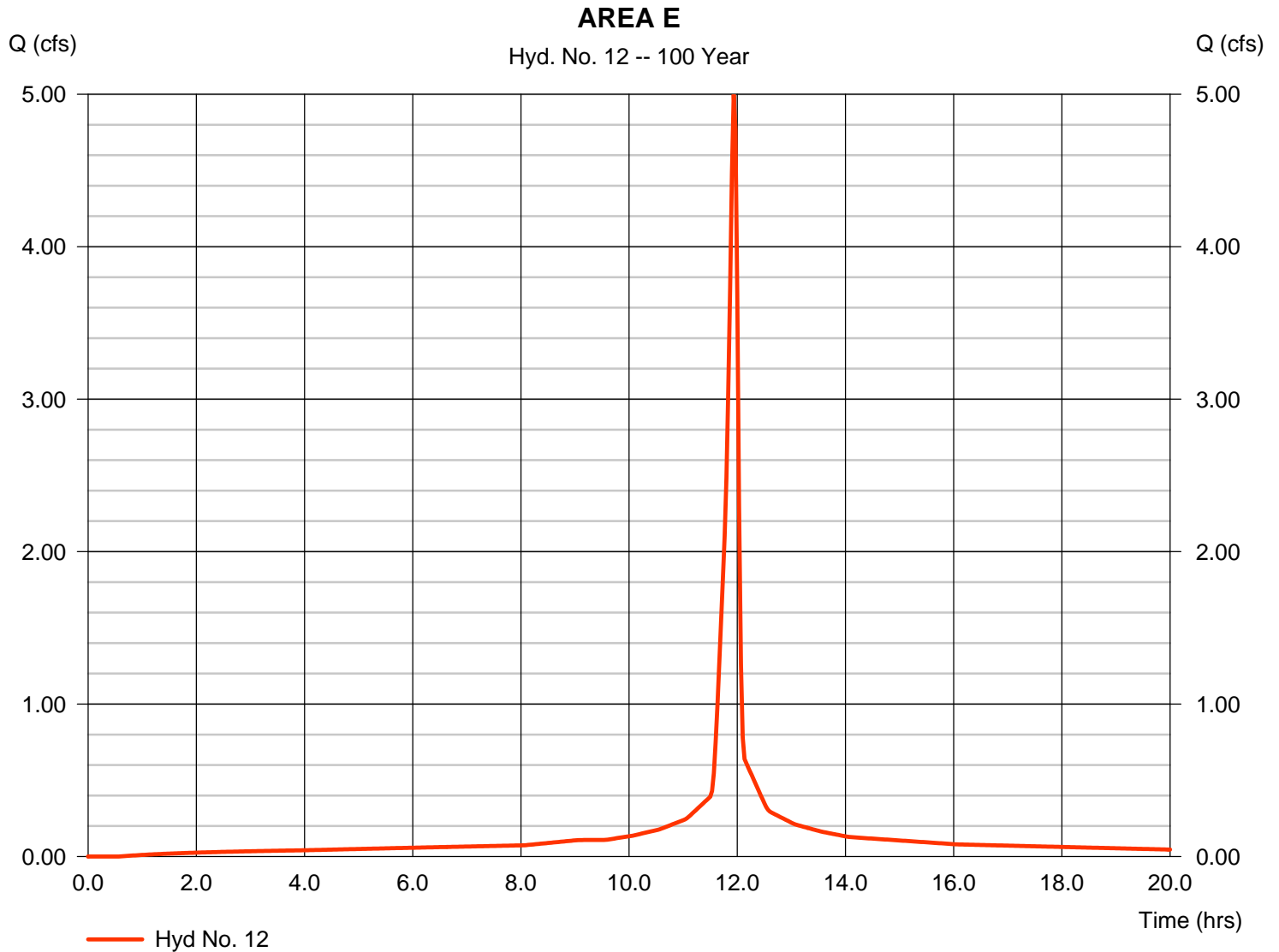
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 12

### AREA E

Hydrograph type	= SCS Runoff	Peak discharge	= 4.998 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.278 acft
Drainage area	= 0.470 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

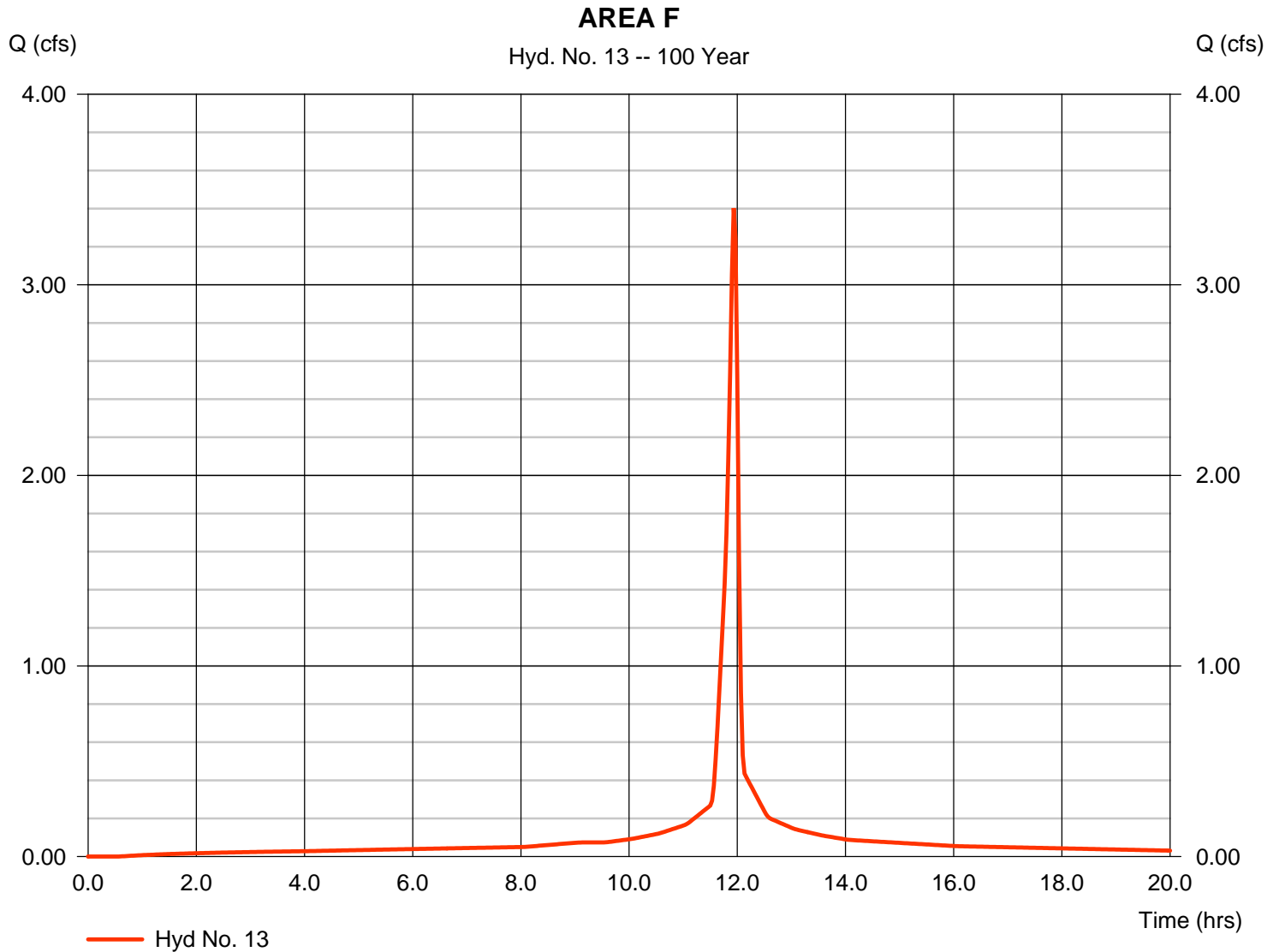
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 13

### AREA F

Hydrograph type	= SCS Runoff	Peak discharge	= 3.403 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.189 acft
Drainage area	= 0.320 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

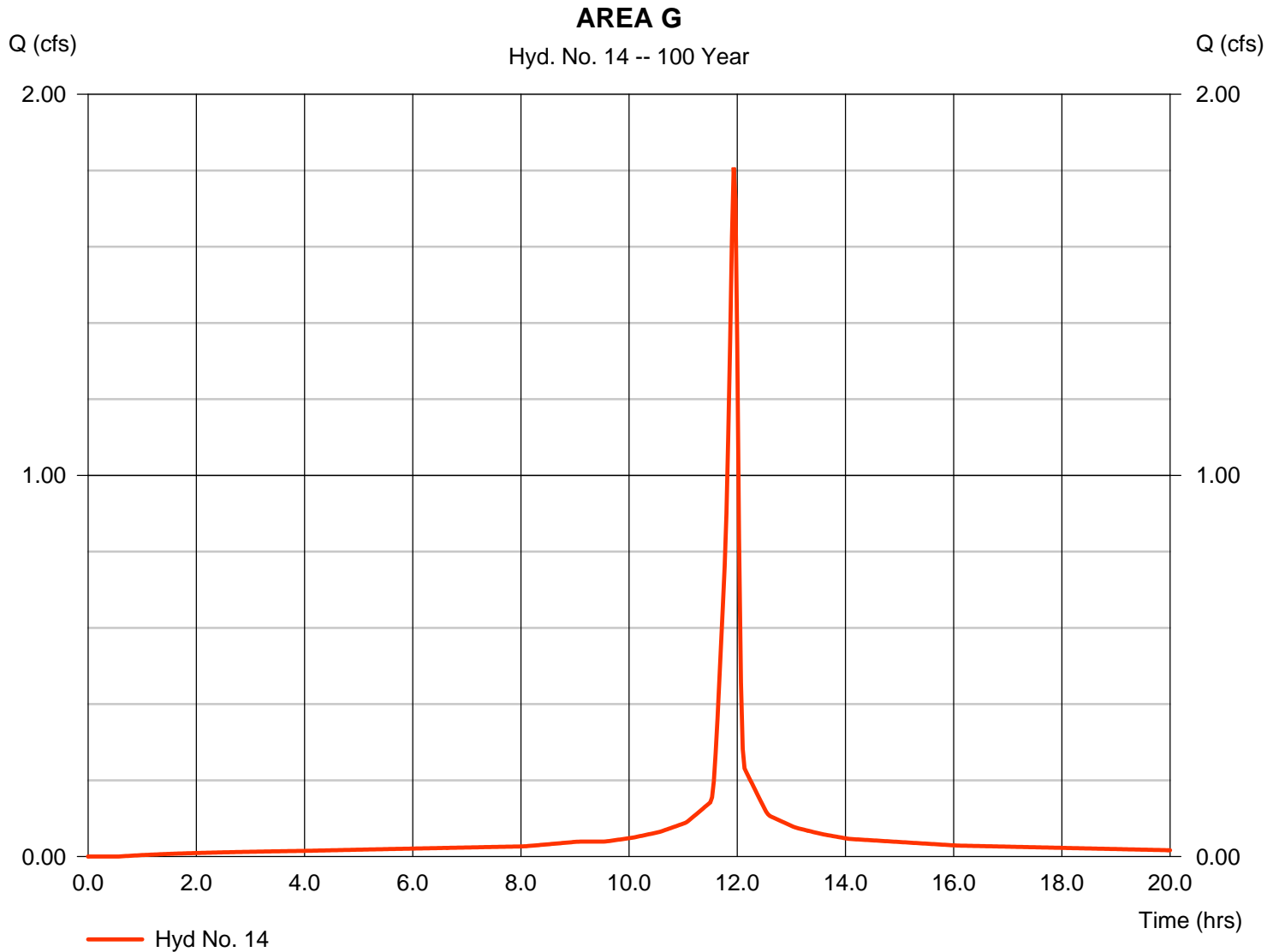
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 14

### AREA G

Hydrograph type	= SCS Runoff	Peak discharge	= 1.808 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.100 acft
Drainage area	= 0.170 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.50 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

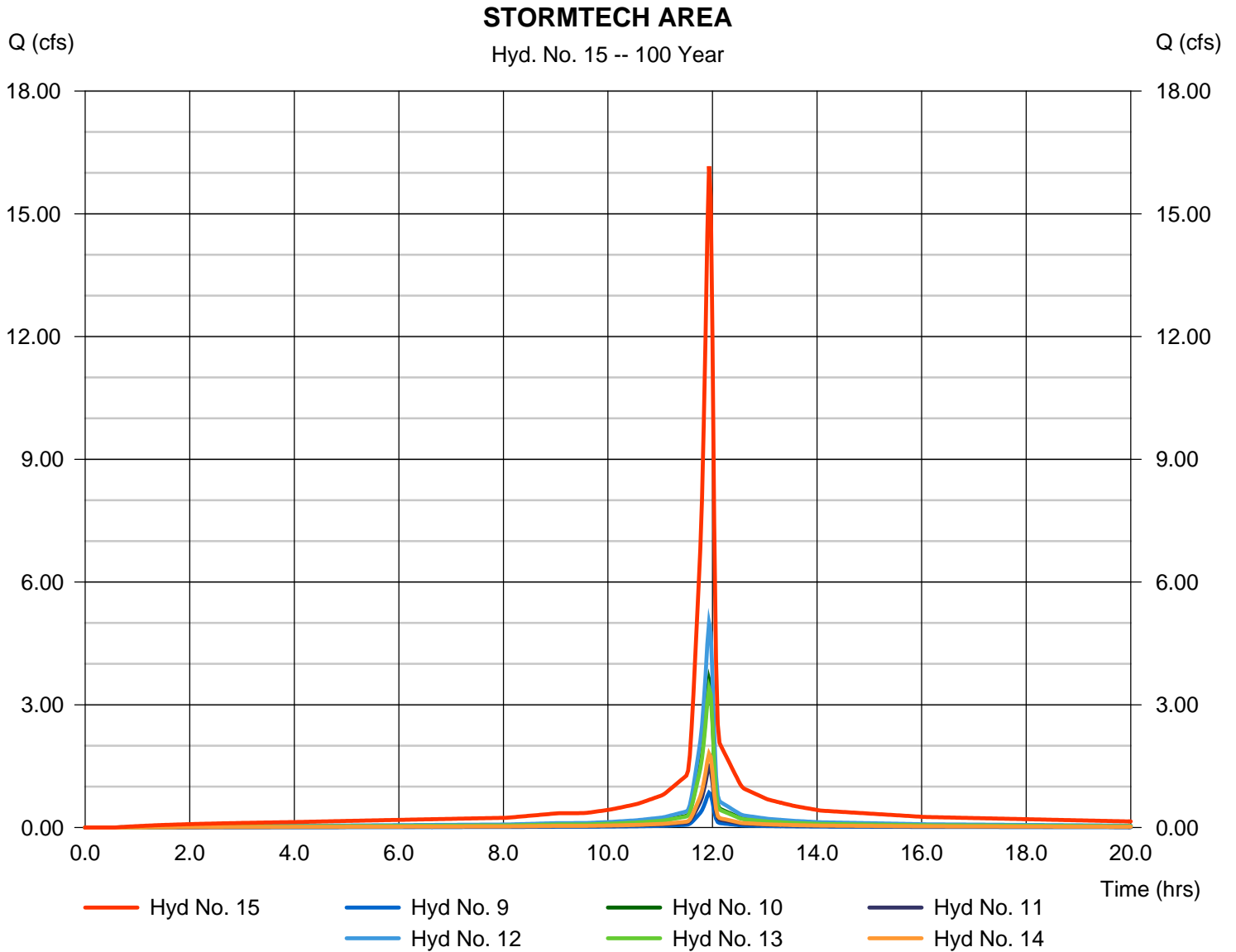
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 15

### STORMTECH AREA

Hydrograph type	= Combine	Peak discharge	= 16.16 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.898 acft
Inflow hyds.	= 9, 10, 11, 12, 13, 14	Contrib. drain. area	= 1.520 ac



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

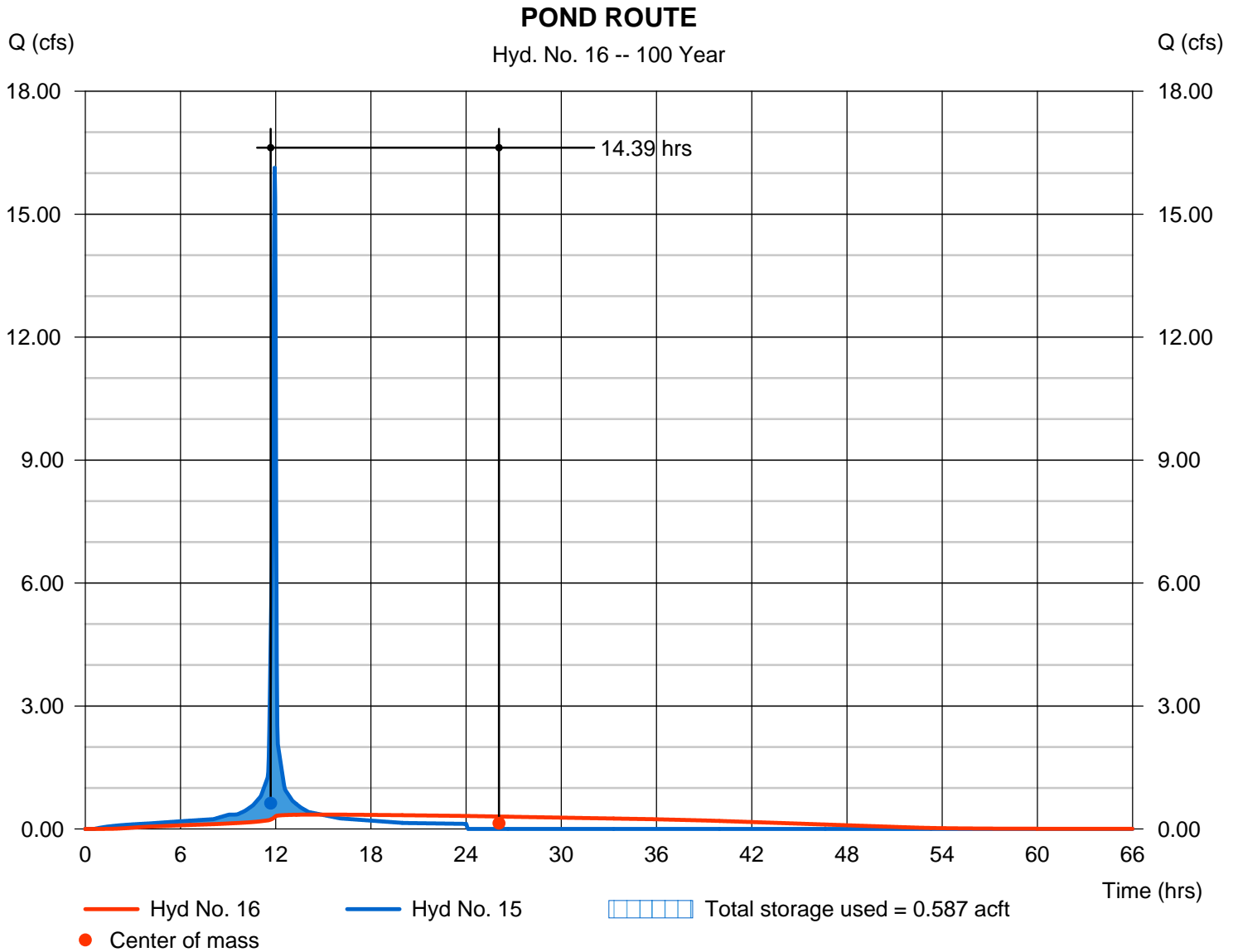
Monday, 00 19, 2012

## Hyd. No. 16

### POND ROUTE

Hydrograph type	= Reservoir	Peak discharge	= 0.350 cfs
Storm frequency	= 100 yrs	Time to peak	= 14.87 hrs
Time interval	= 2 min	Hyd. volume	= 0.897 acft
Inflow hyd. No.	= 15 - STORMTECH AREA	Max. Elevation	= 1344.66 ft
Reservoir name	= STORMTECH 3500	Max. Storage	= 0.587 acft

Storage Indication method used.



# Hydrograph Report

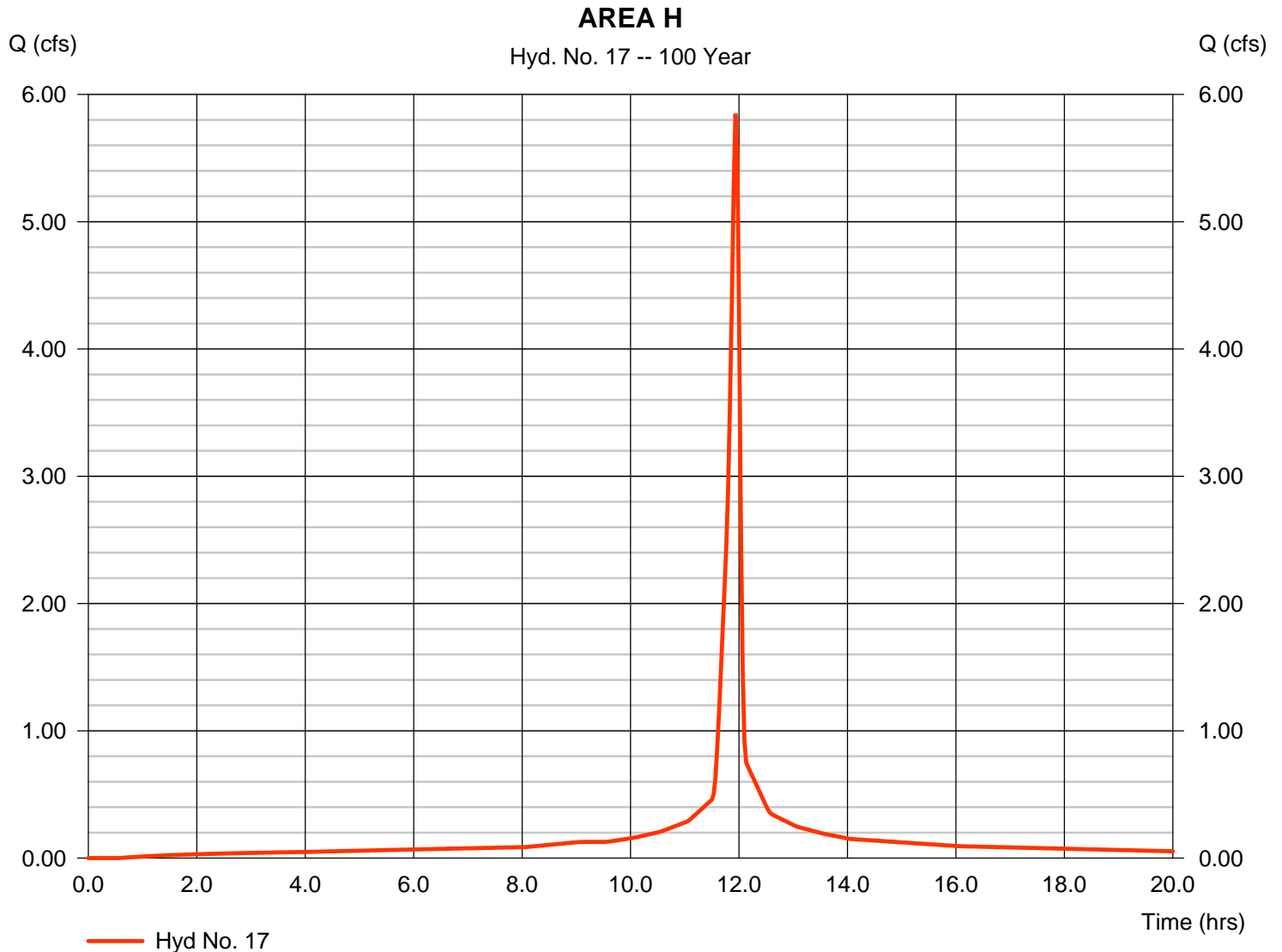
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

Monday, 00 19, 2012

## Hyd. No. 17

### AREA H

Hydrograph type	= SCS Runoff	Peak discharge	= 5.848 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 0.325 acft
Drainage area	= 0.550 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 3.10 min
Total precip.	= 7.80 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



# Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2012 by Autodesk, Inc. v9

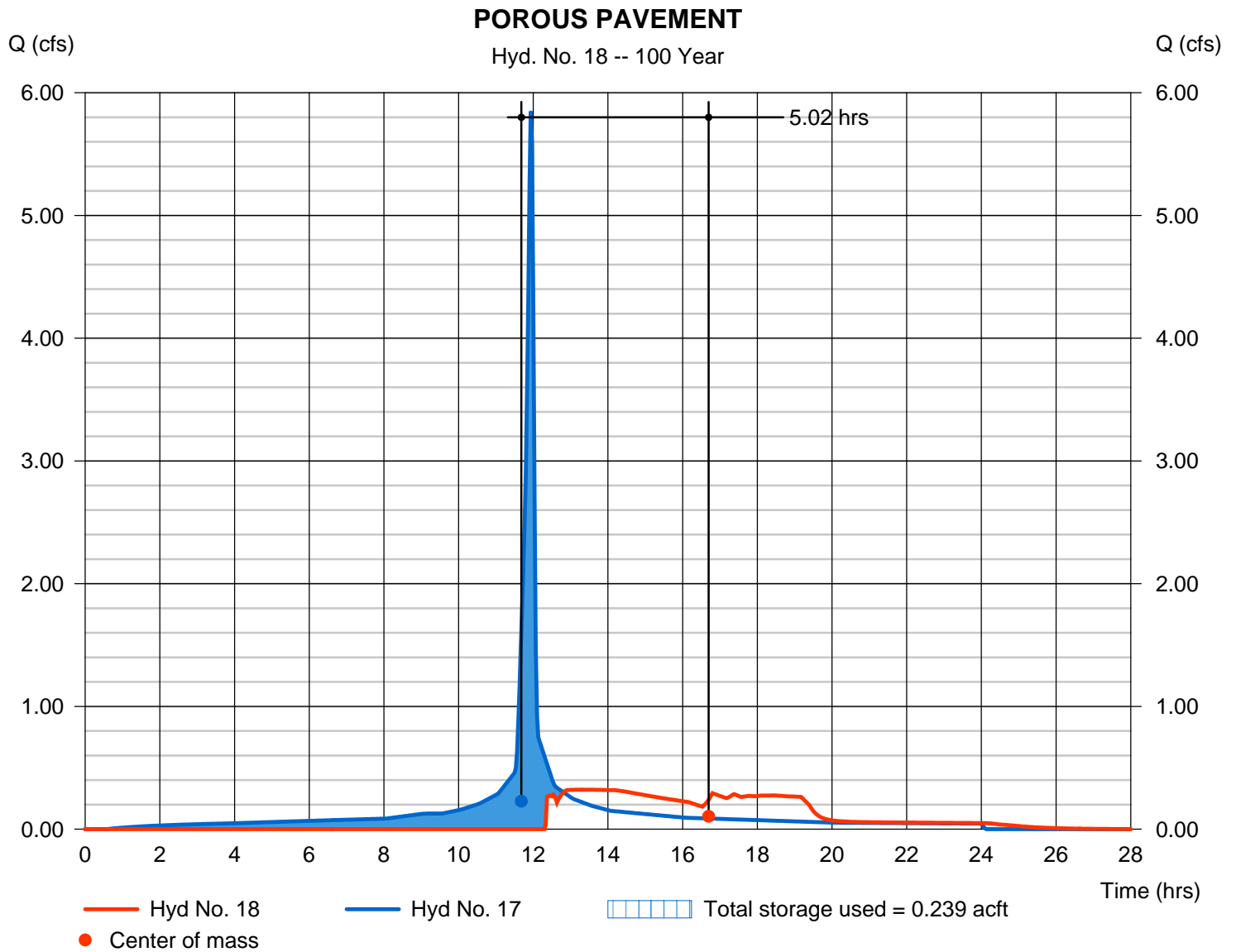
Monday, 00 19, 2012

## Hyd. No. 18

### POROUS PAVEMENT

Hydrograph type	= Reservoir	Peak discharge	= 0.322 cfs
Storm frequency	= 100 yrs	Time to peak	= 13.33 hrs
Time interval	= 2 min	Hyd. volume	= 0.188 acft
Inflow hyd. No.	= 17 - AREA H	Max. Elevation	= 1346.56 ft
Reservoir name	= POROUS PAVEMENT	Max. Storage	= 0.239 acft

Storage Indication method used.





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