

# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

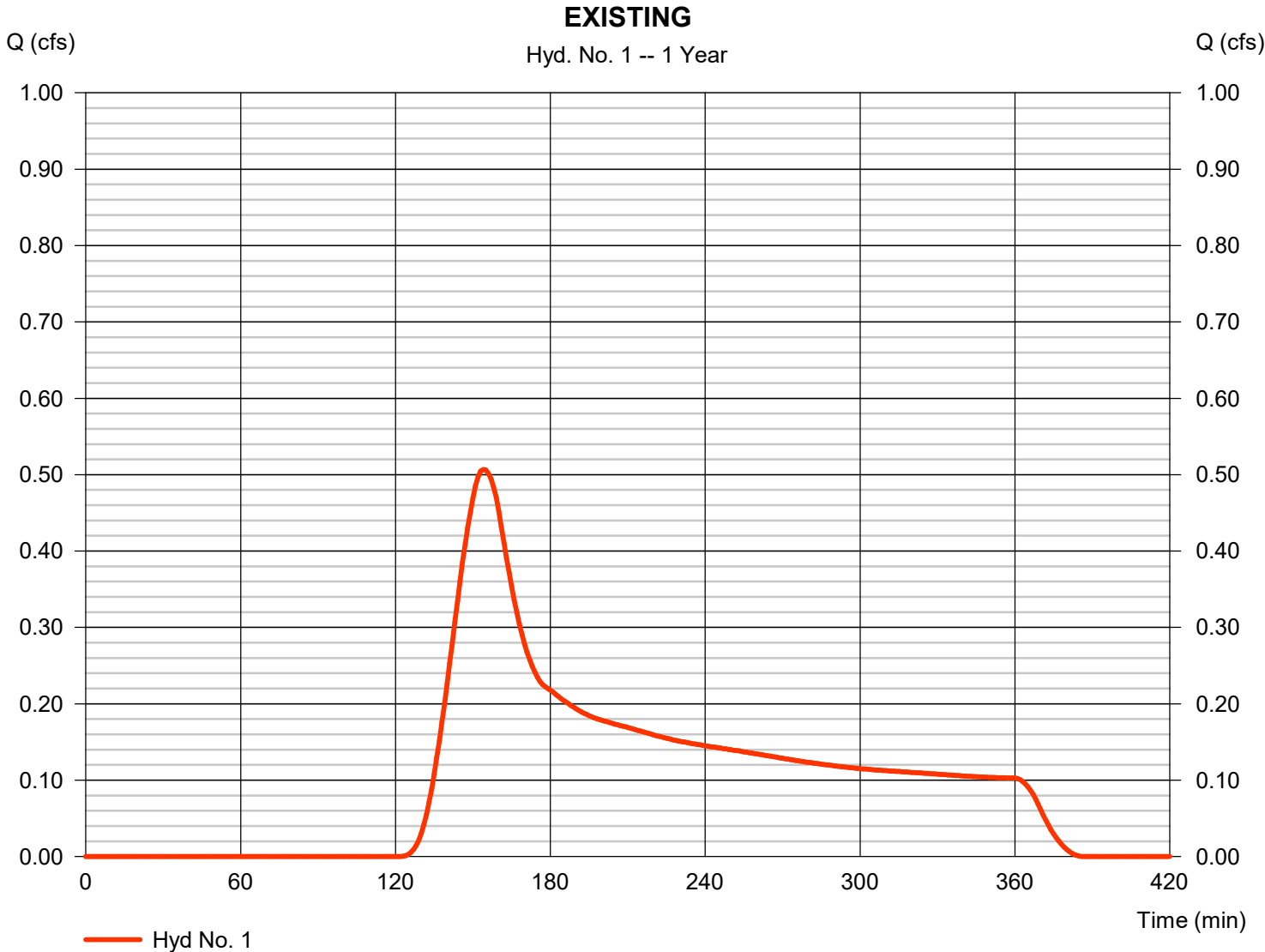
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	0.507	1	154	2,485	-----	-----	-----	EXISTING
2	SCS Runoff	1.193	1	146	4,886	-----	-----	-----	SCS Rolesville
3	Reservoir	0.340	1	179	4,886	2	377.14	1,615	Dry pond exit
4	SCS Runoff	0.091	1	146	372	-----	-----	-----	SCS Rolesville - UNCAPTURED

# Hydrograph Report

## Hyd. No. 1

### EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 0.507 cfs
Storm frequency	= 1 yrs	Time to peak	= 154 min
Time interval	= 1 min	Hyd. volume	= 2,485 cuft
Drainage area	= 1.140 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 16.50 min
Total precip.	= 2.05 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

## Hyd. No. 1

EXISTING

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
<b>Sheet Flow</b>				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.60	0.00	0.00	
Land slope (%)	= 4.00	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 15.34</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 15.34</b>
<b>Shallow Concentrated Flow</b>				
Flow length (ft)	= 215.00	0.00	0.00	
Watercourse slope (%)	= 4.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=3.23	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 1.11</b>	<b>+ 0.00</b>	<b>+ 0.00</b>	<b>= 1.11</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	0.0	
<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>16.50 min</b>

# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

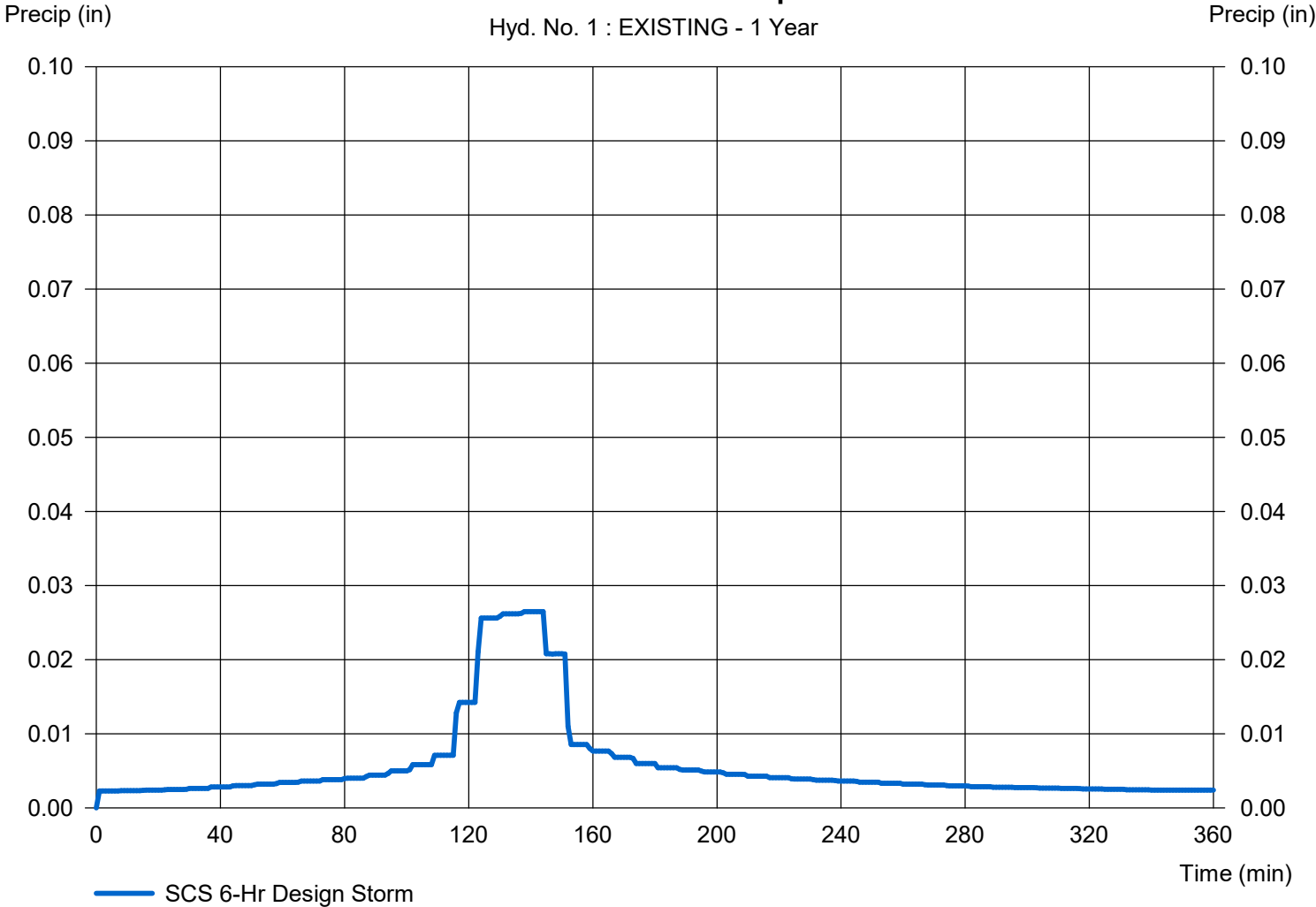
## Hyd. No. 1

EXISTING

Storm Frequency	= 1 yrs	Time interval	= 1 min
Total precip.	= 2.0500 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 1 : EXISTING - 1 Year



# Hydrograph Report

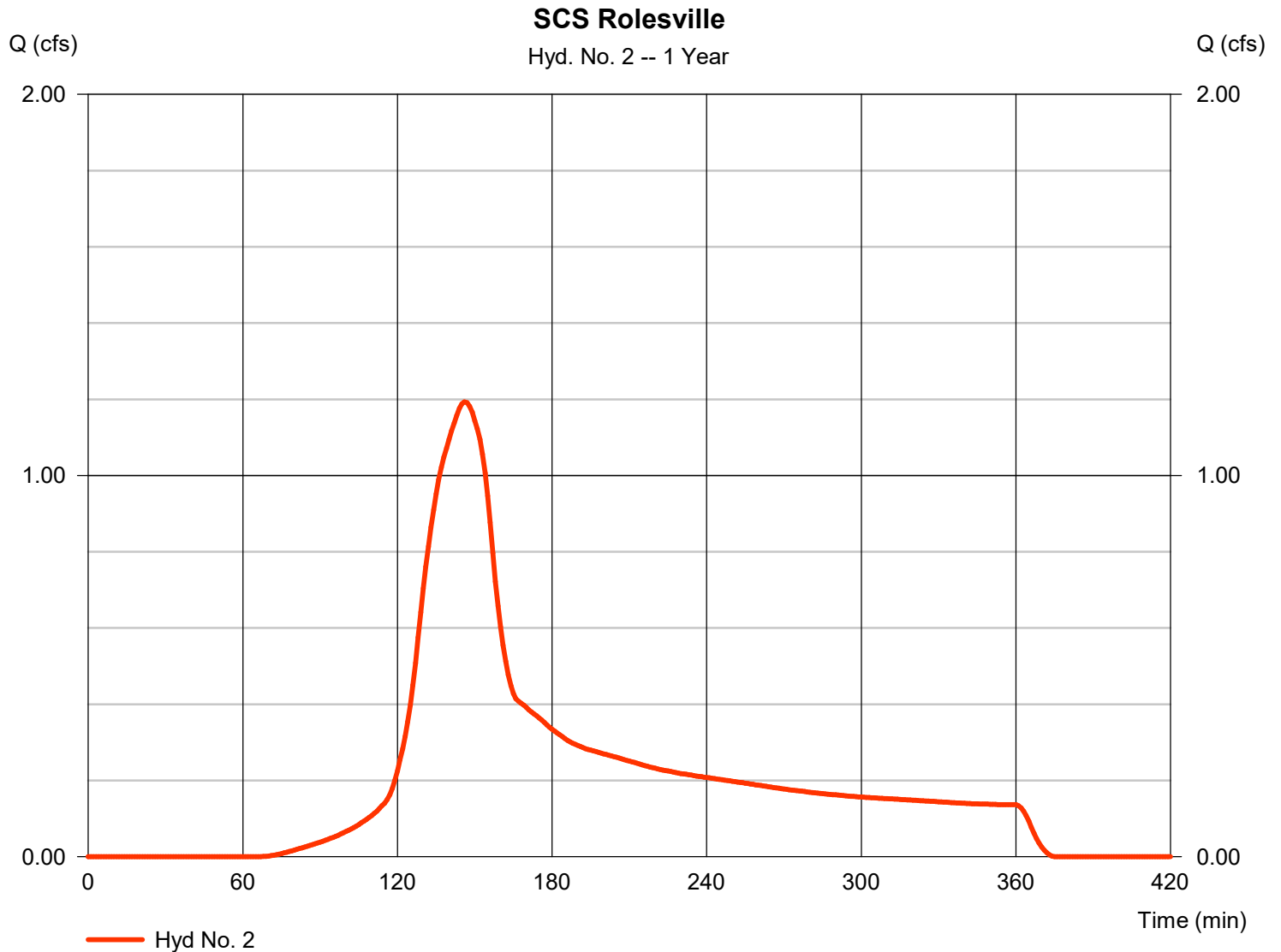
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 2

SCS Rolesville

Hydrograph type	= SCS Runoff	Peak discharge	= 1.193 cfs
Storm frequency	= 1 yrs	Time to peak	= 146 min
Time interval	= 1 min	Hyd. volume	= 4,886 cuft
Drainage area	= 1.050 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 2.05 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

## Hyd. No. 2

SCS Rolesville

<u>Description</u>	<u>A</u>		<u>B</u>		<u>C</u>	<u>Totals</u>
<b>Sheet Flow</b>						
Manning's n-value	= 0.400		0.011		0.011	
Flow length (ft)	= 50.0		0.0		0.0	
Two-year 24-hr precip. (in)	= 3.60		0.00		0.00	
Land slope (%)	= 4.00		0.00		0.00	
<b>Travel Time (min)</b>	<b>= 8.81</b>	<b>+</b>	<b>0.00</b>	<b>+</b>	<b>0.00</b>	<b>= 8.81</b>
<b>Shallow Concentrated Flow</b>						
Flow length (ft)	= 70.00		0.00		0.00	
Watercourse slope (%)	= 4.00		0.00		0.00	
Surface description	= Unpaved		Paved		Paved	
Average velocity (ft/s)	=3.23		0.00		0.00	
<b>Travel Time (min)</b>	<b>= 0.36</b>	<b>+</b>	<b>0.00</b>	<b>+</b>	<b>0.00</b>	<b>= 0.36</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		0.0	
<b>Travel Time (min)</b>	<b>= 0.00</b>	<b>+</b>	<b>0.00</b>	<b>+</b>	<b>0.00</b>	<b>= 0.00</b>
<b>Total Travel Time, Tc .....</b>						<b>9.20 min</b>

# Precipitation Report

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Thursday, 12 / 16 / 2021

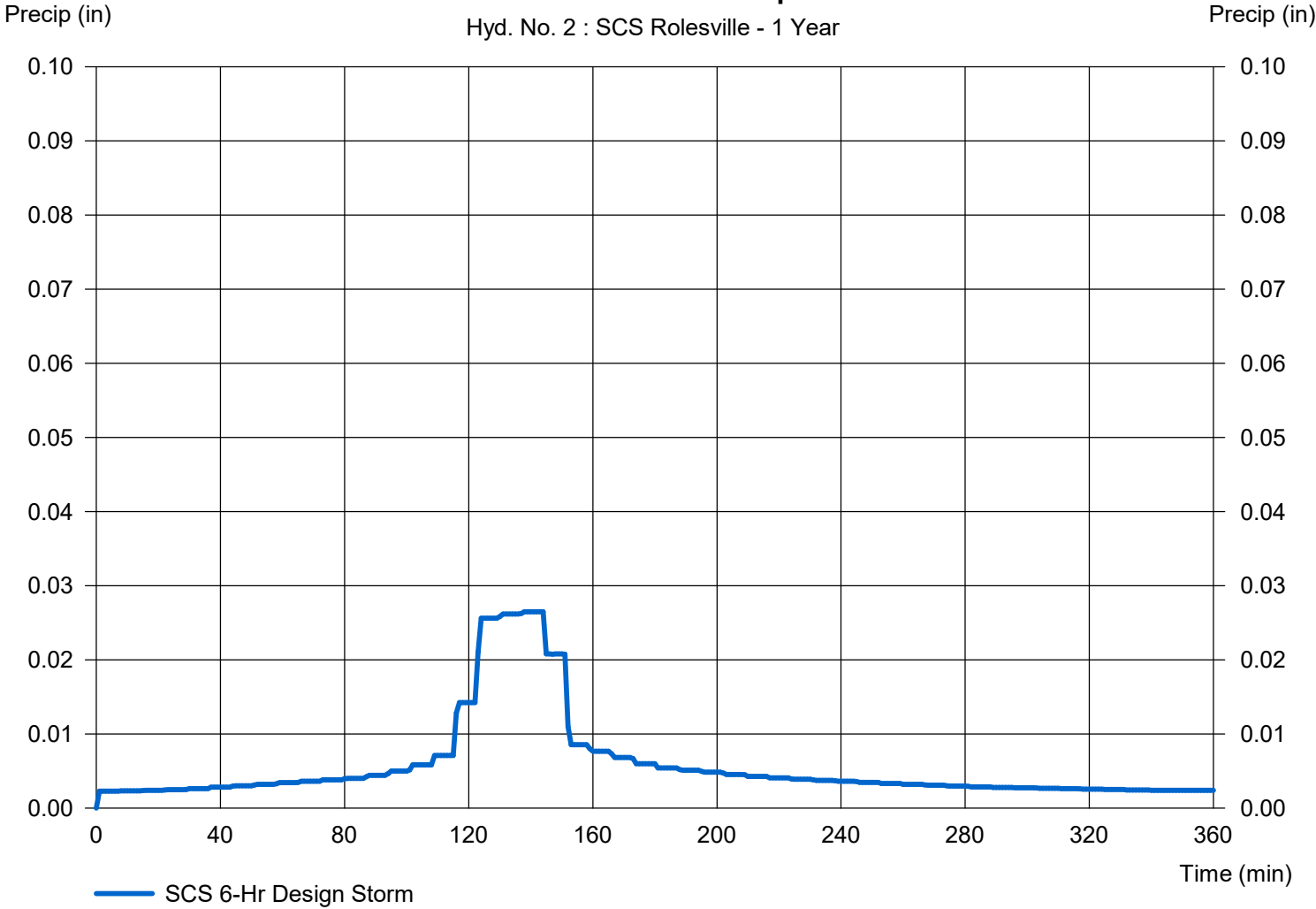
## Hyd. No. 2

SCS Rolesville

Storm Frequency	= 1 yrs	Time interval	= 1 min
Total precip.	= 2.0500 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 2 : SCS Rolesville - 1 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

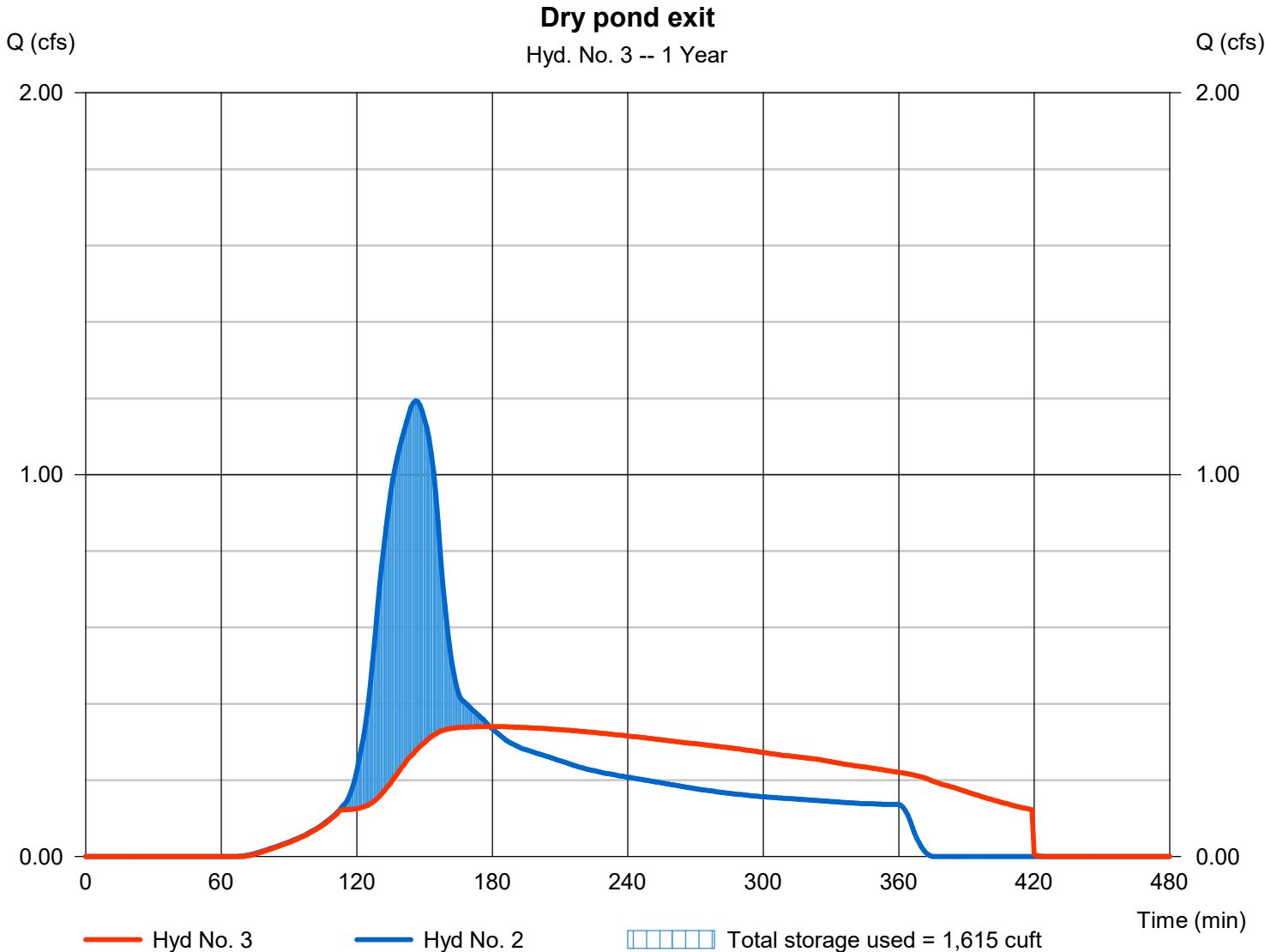
Thursday, 12 / 16 / 2021

## Hyd. No. 3

Dry pond exit

Hydrograph type	= Reservoir	Peak discharge	= 0.340 cfs
Storm frequency	= 1 yrs	Time to peak	= 179 min
Time interval	= 1 min	Hyd. volume	= 4,886 cuft
Inflow hyd. No.	= 2 - SCS Rolesville	Max. Elevation	= 377.14 ft
Reservoir name	= Dry Pond	Max. Storage	= 1,615 cuft

Storage Indication method used.





## Pond No. 1 - Dry Pond

### Pond Data

**UG Chambers** -Invert elev. = 376.50 ft, Rise x Span = 3.00 x 4.25 ft, Barrel Len = 597.00 ft, No. Barrels = 1, Slope = 0.00%, Headers = No  
**Encasement** -Invert elev. = 376.00 ft, Width = 4.75 ft, Height = 4.00 ft, Voids = 0.40%

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	376.00	n/a	0	0
0.40	376.40	n/a	5	5
0.80	376.80	n/a	762	766
1.20	377.20	n/a	1,001	1,767
1.60	377.60	n/a	968	2,735
2.00	378.00	n/a	915	3,650
2.40	378.40	n/a	836	4,486
2.80	378.80	n/a	724	5,210
3.20	379.20	n/a	559	5,769
3.60	379.60	n/a	227	5,996
4.00	380.00	n/a	5	6,001

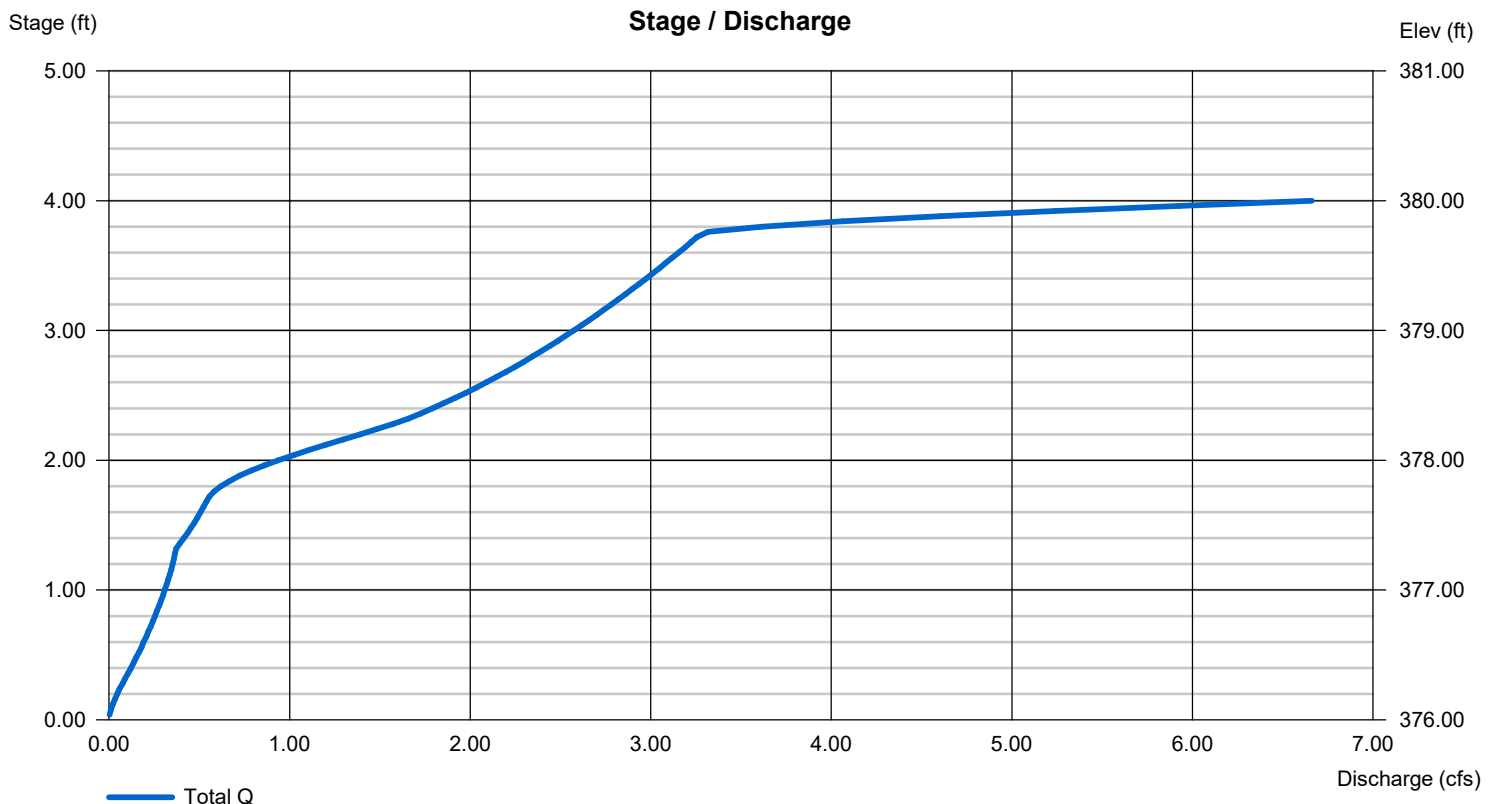
### Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	5.00	8.00	Inactive
Span (in)	= 12.00	5.00	8.00	24.00
No. Barrels	= 1	1	1	1
Invert El. (ft)	= 376.00	376.00	377.70	374.00
Length (ft)	= 1.00	0.00	0.00	5.50
Slope (%)	= 0.52	0.50	0.50	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)	= 8.00	Inactive	Inactive	Inactive
Crest El. (ft)	= 379.75	380.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	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).



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Thursday, 12 / 16 / 2021

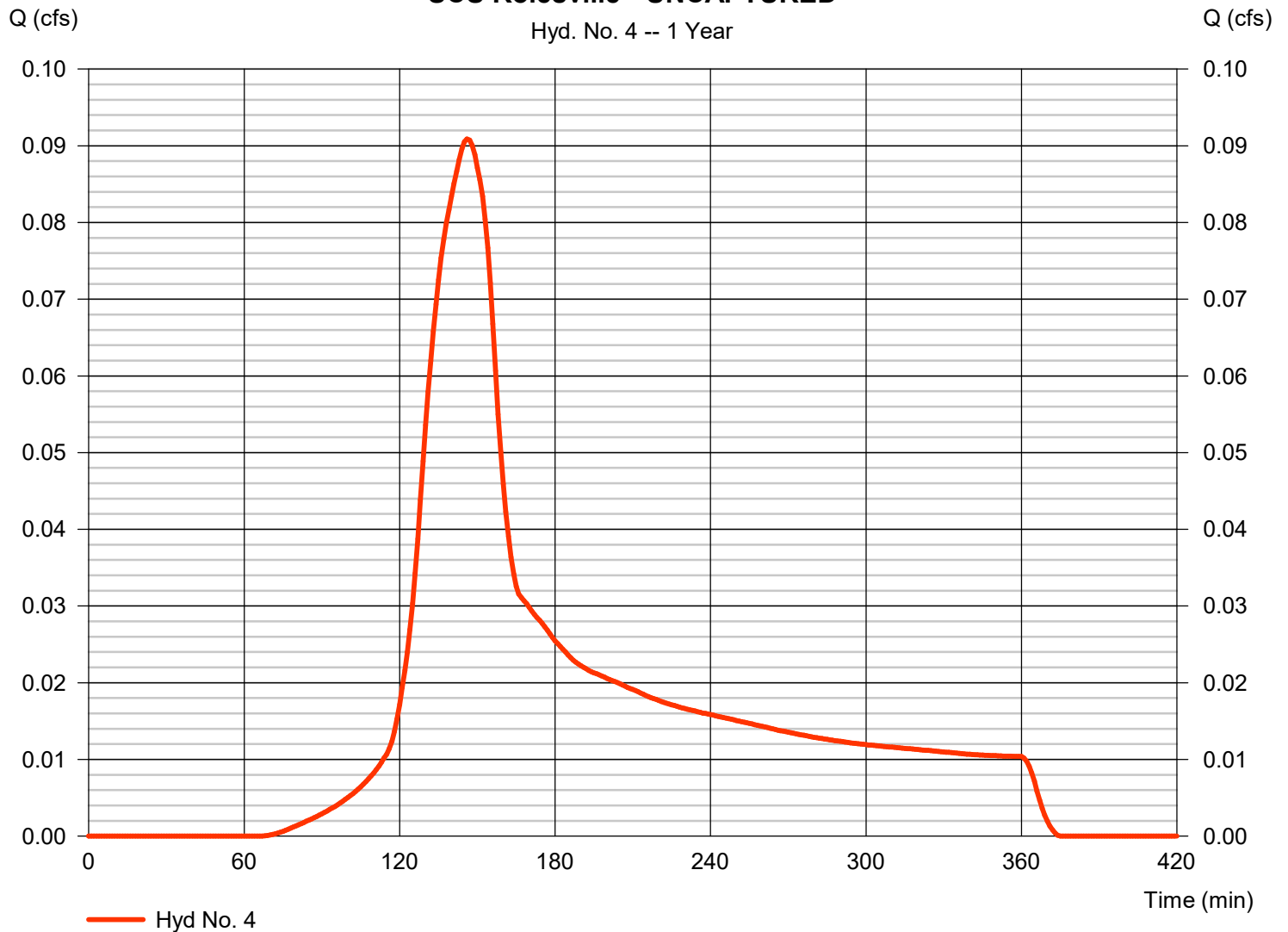
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Hydrograph type	= SCS Runoff	Peak discharge	= 0.091 cfs
Storm frequency	= 1 yrs	Time to peak	= 146 min
Time interval	= 1 min	Hyd. volume	= 372 cuft
Drainage area	= 0.080 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 2.05 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

### SCS Rolesville - UNCAPTURED

Hyd. No. 4 -- 1 Year



# TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

## Hyd. No. 4

SCS Rolesville - UNCAPTURED

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
<b>Sheet Flow</b>				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 50.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.60	0.00	0.00	
Land slope (%)	= 4.00	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 8.81</b>	<b>+</b> <b>0.00</b>	<b>+</b> <b>0.00</b>	<b>= 8.81</b>
<b>Shallow Concentrated Flow</b>				
Flow length (ft)	= 70.00	0.00	0.00	
Watercourse slope (%)	= 4.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=3.23	0.00	0.00	
<b>Travel Time (min)</b>	<b>= 0.36</b>	<b>+</b> <b>0.00</b>	<b>+</b> <b>0.00</b>	<b>= 0.36</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	0.0	
<b>Travel Time (min)</b>	<b>= 0.00</b>	<b>+</b> <b>0.00</b>	<b>+</b> <b>0.00</b>	<b>= 0.00</b>
<b>Total Travel Time, Tc</b> .....				<b>9.20 min</b>

# Precipitation Report

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Thursday, 12 / 16 / 2021

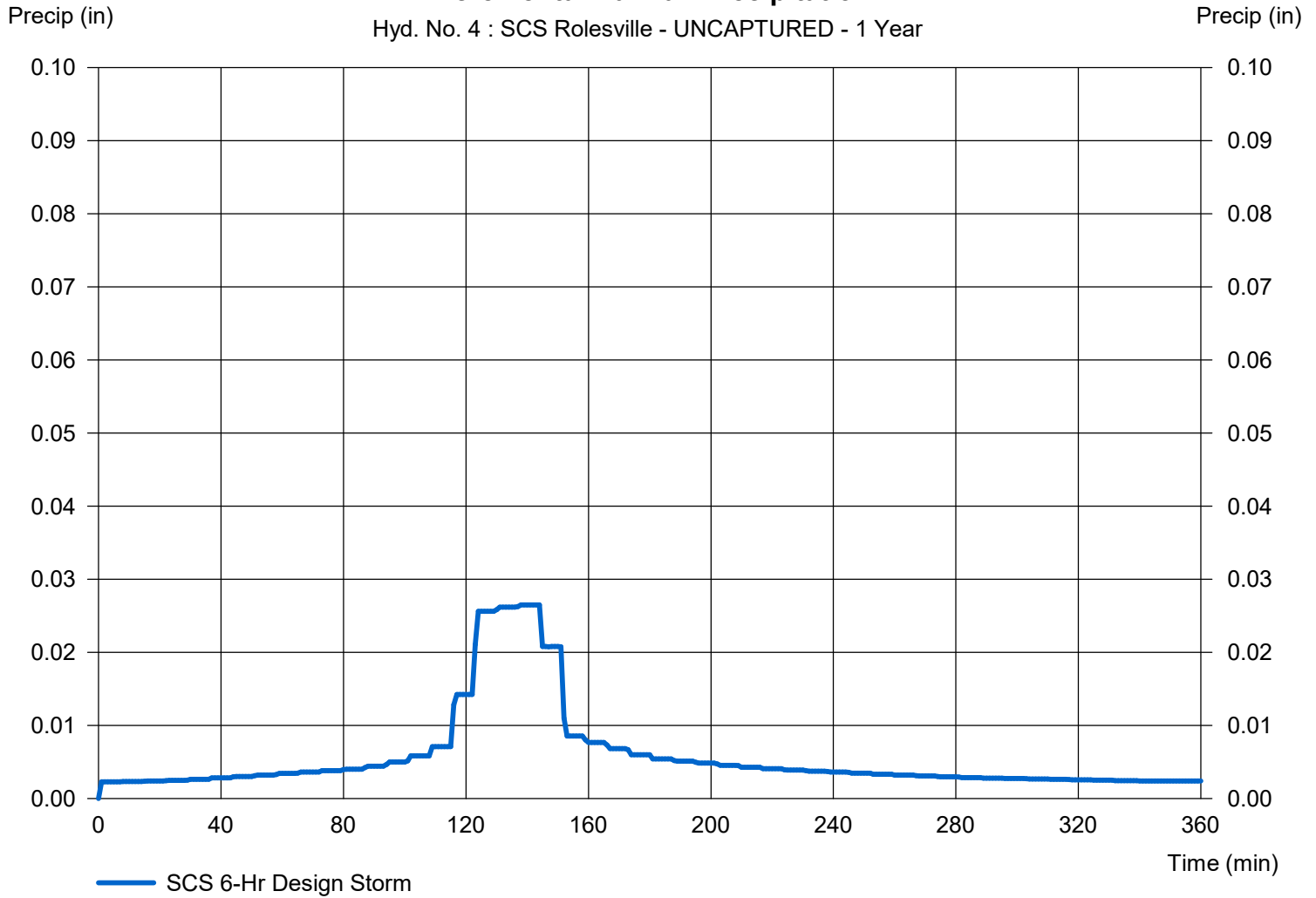
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Storm Frequency	= 1 yrs	Time interval	= 1 min
Total precip.	= 2.0500 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 4 : SCS Rolesville - UNCAPTURED - 1 Year



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

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	SCS Runoff	1.581	1	152	6,956	-----	-----	-----	EXISTING	
2	SCS Runoff	2.457	1	145	10,159	-----	-----	-----	SCS Rolesville	
3	Reservoir	0.984	1	162	10,159	2	378.02	3,697	Dry pond exit	
4	SCS Runoff	0.187	1	145	774	-----	-----	-----	SCS Rolesville - UNCAPTURED	
Rolesville.gpw					Return Period: 10 Year			Thursday, 12 / 16 / 2021		

# Hydrograph Report

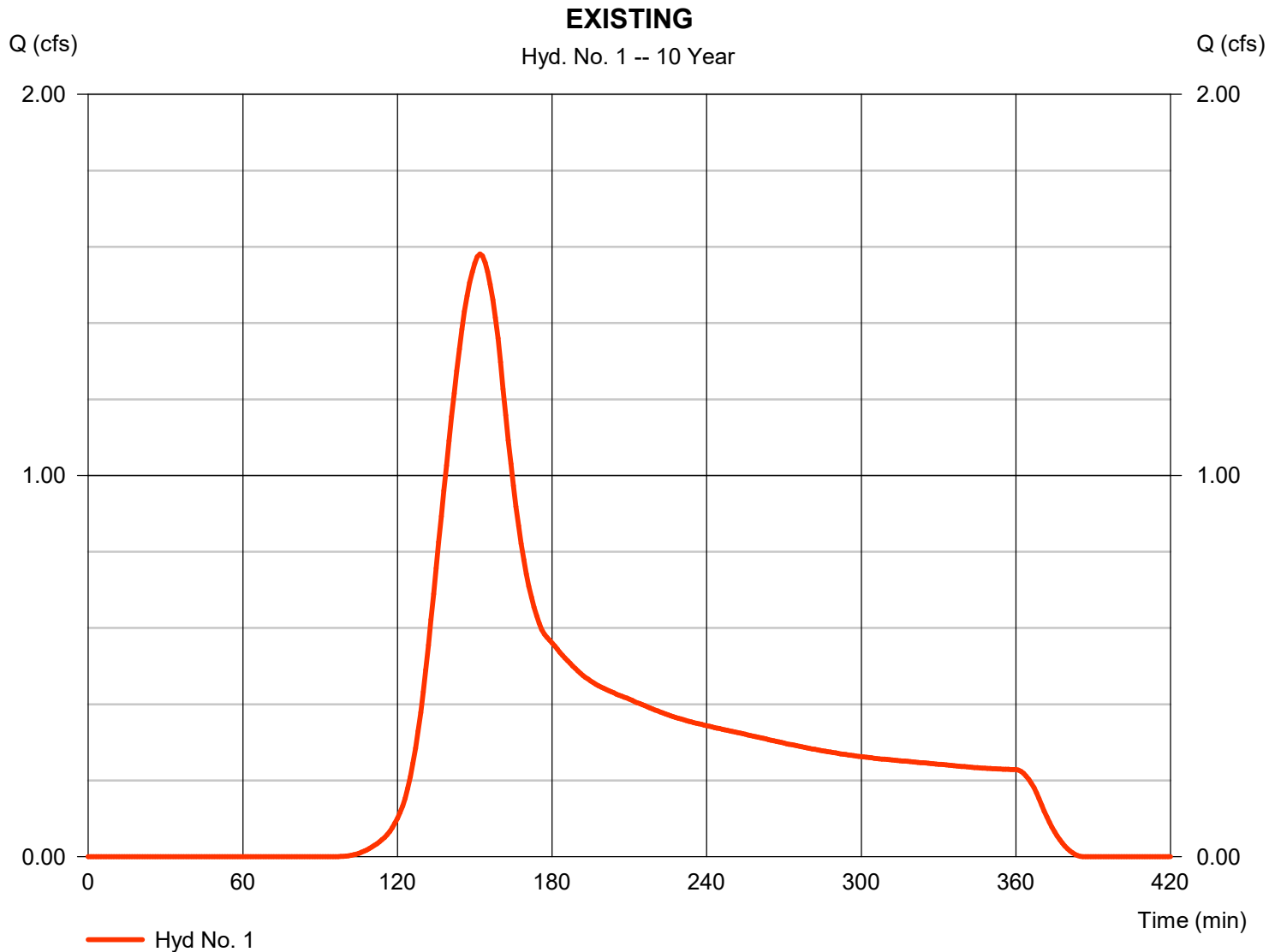
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 1

### EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 1.581 cfs
Storm frequency	= 10 yrs	Time to peak	= 152 min
Time interval	= 1 min	Hyd. volume	= 6,956 cuft
Drainage area	= 1.140 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 16.50 min
Total precip.	= 3.53 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

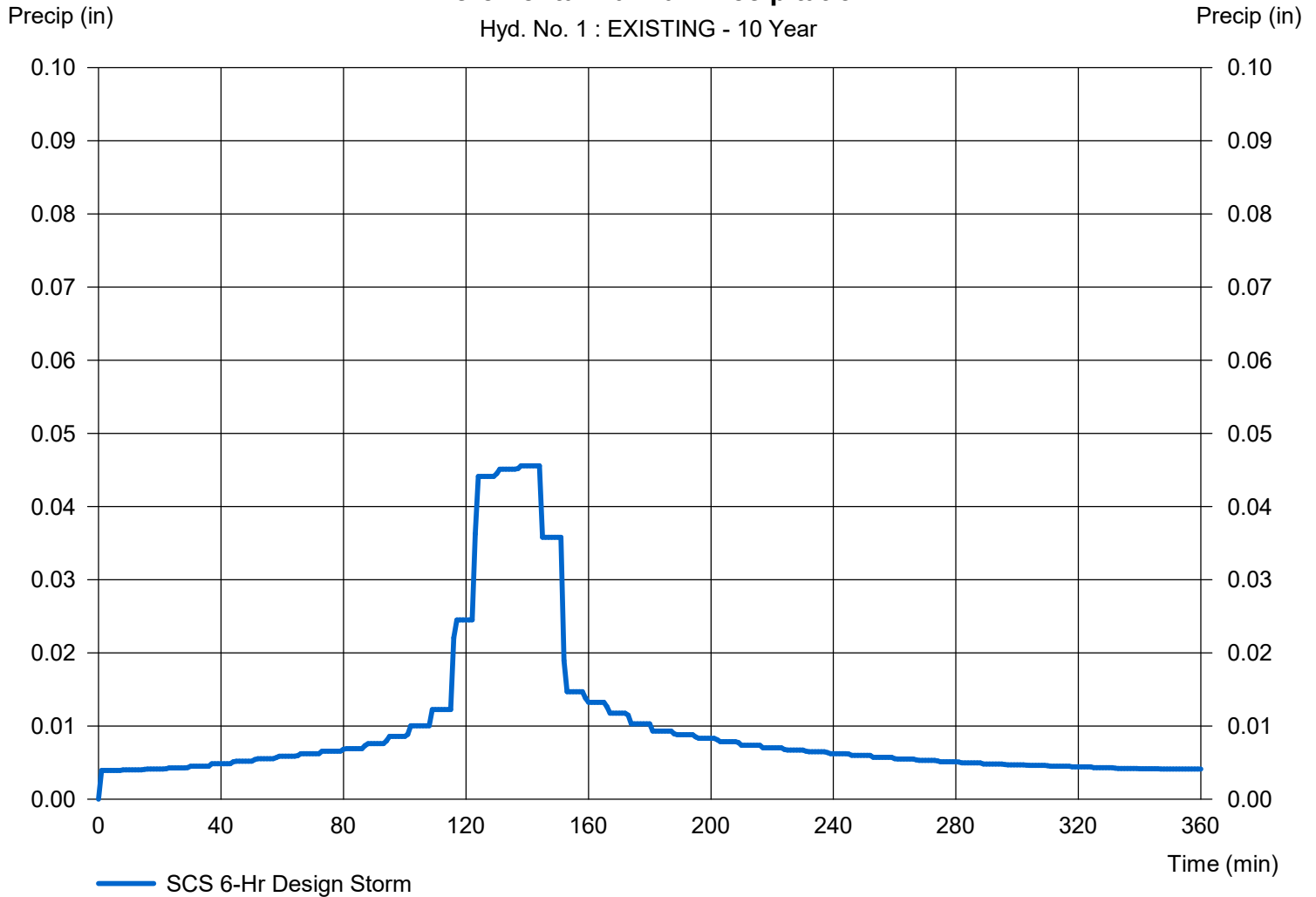
## Hyd. No. 1

EXISTING

Storm Frequency	= 10 yrs	Time interval	= 1 min
Total precip.	= 3.5300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 1 : EXISTING - 10 Year



# Hydrograph Report

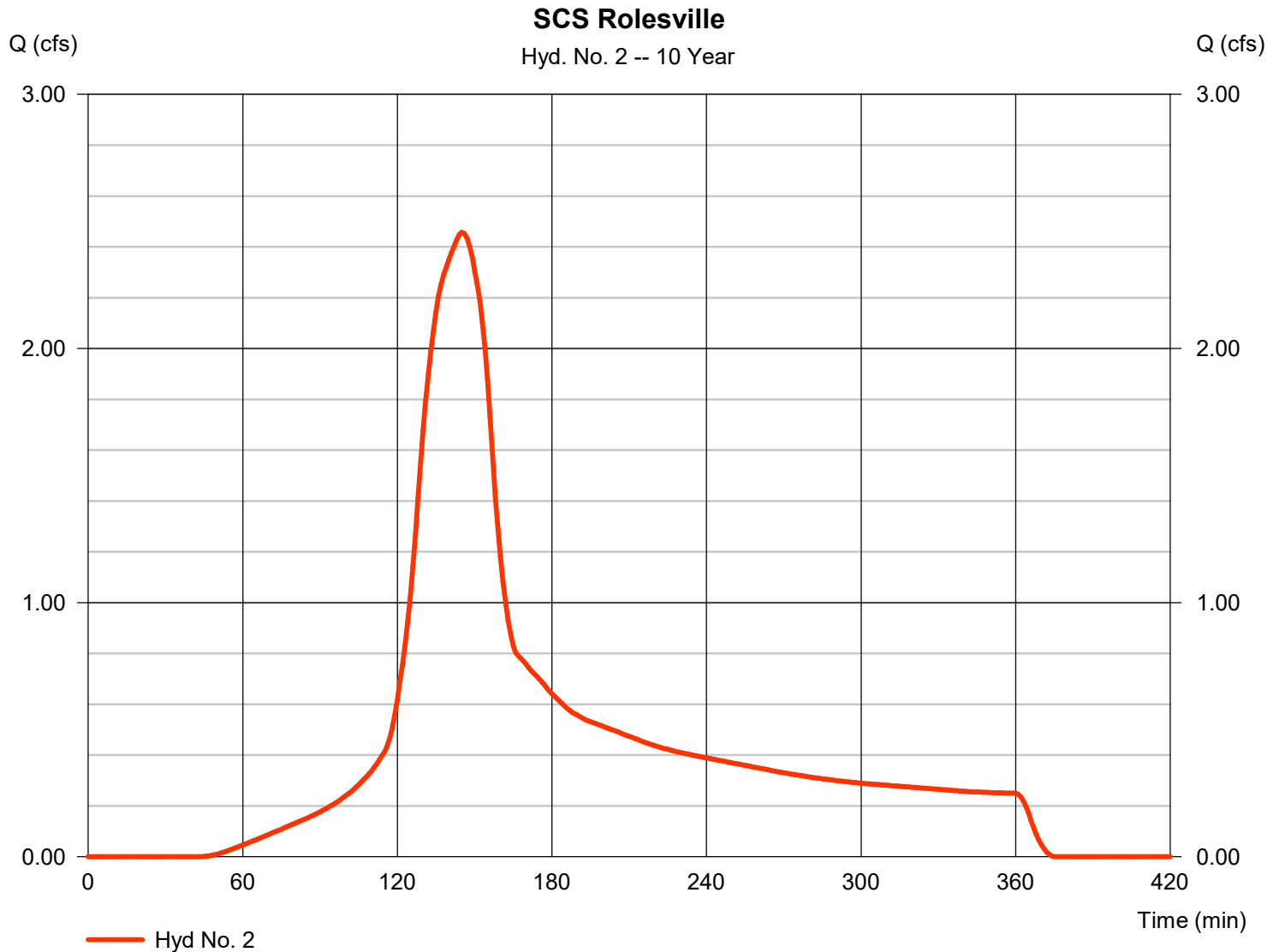
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 2

SCS Rolesville

Hydrograph type	= SCS Runoff	Peak discharge	= 2.457 cfs
Storm frequency	= 10 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 10,159 cuft
Drainage area	= 1.050 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 3.53 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484





# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

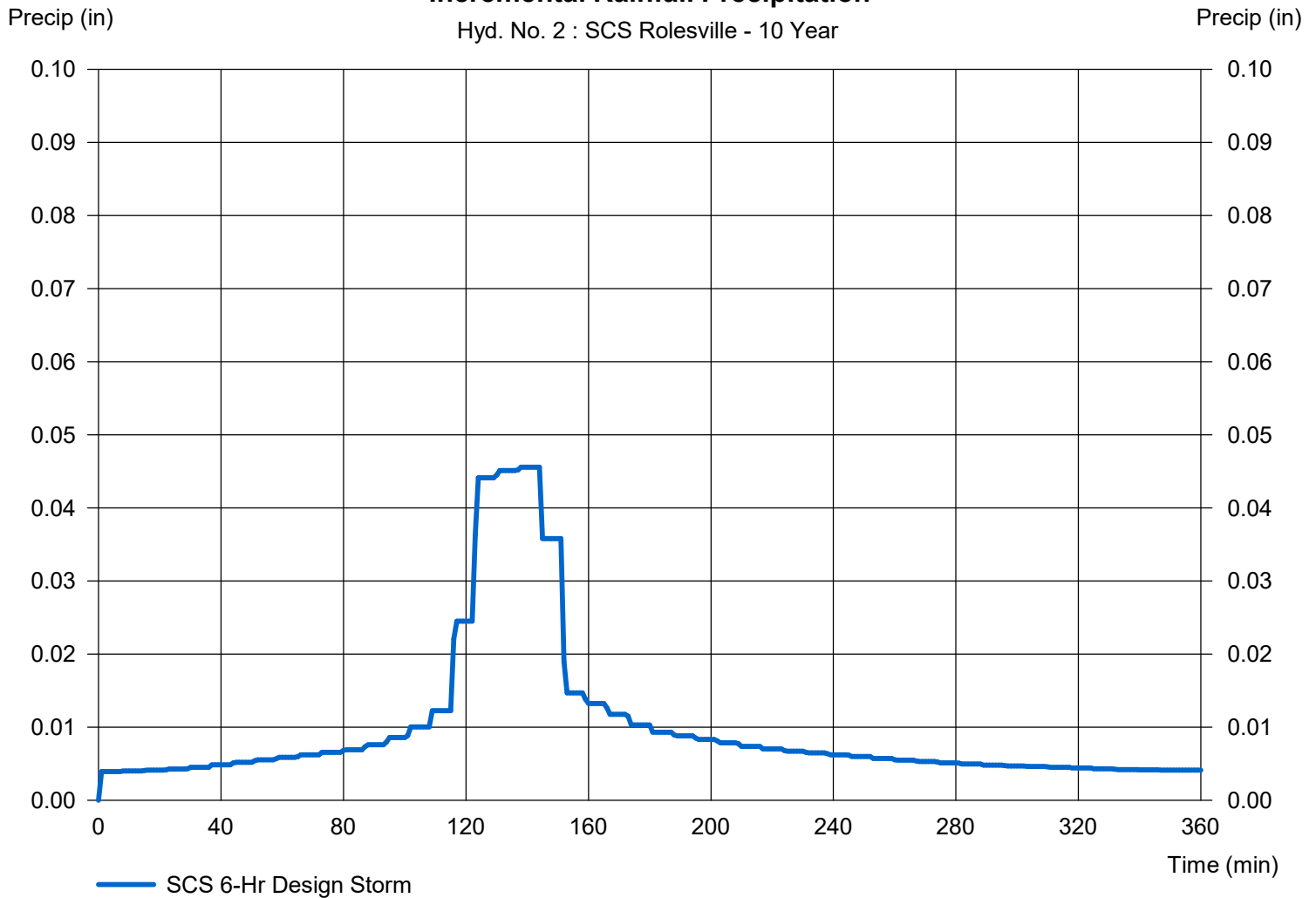
## Hyd. No. 2

SCS Rolesville

Storm Frequency	= 10 yrs	Time interval	= 1 min
Total precip.	= 3.5300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 2 : SCS Rolesville - 10 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

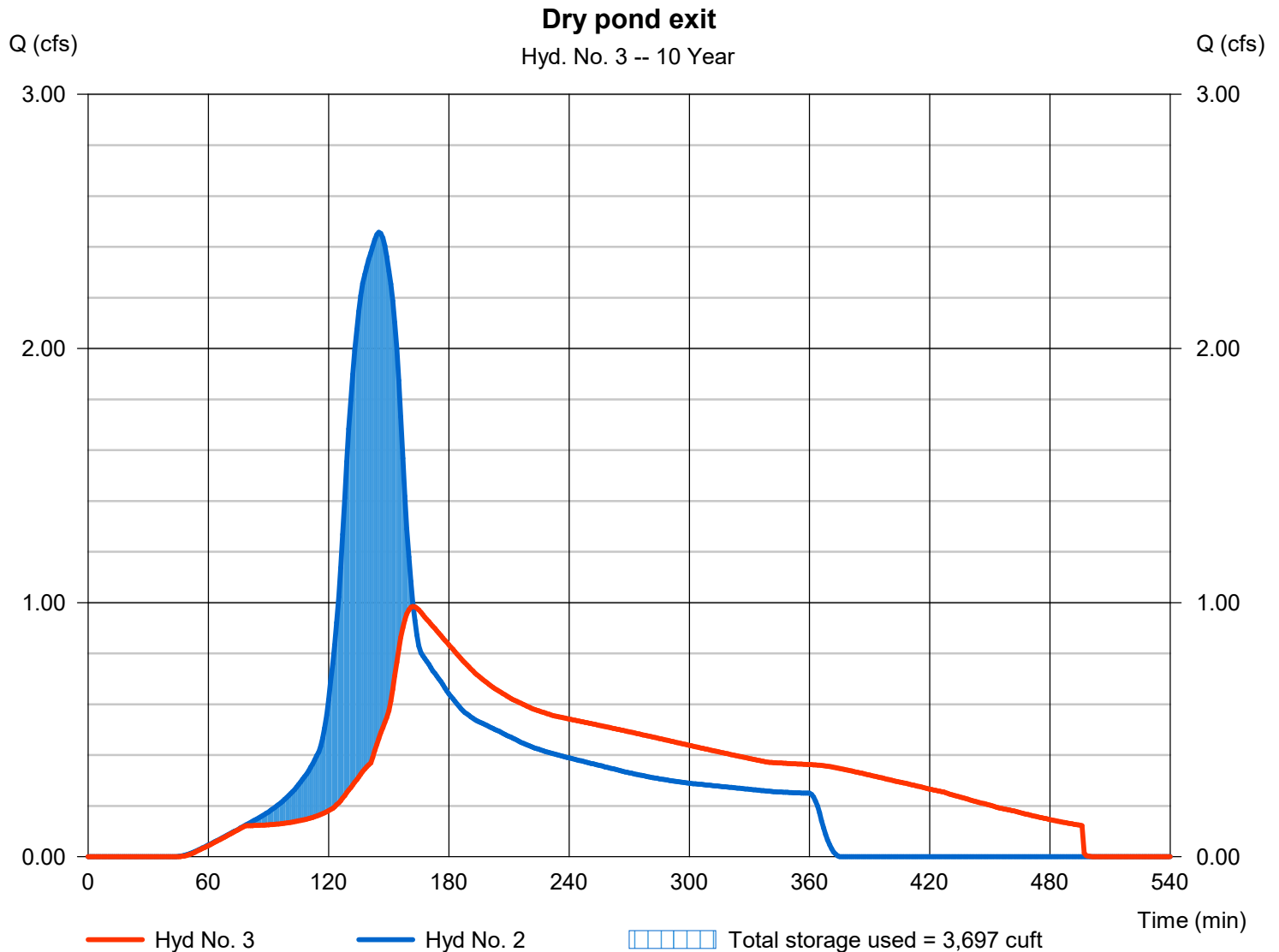
Thursday, 12 / 16 / 2021

## Hyd. No. 3

Dry pond exit

Hydrograph type	= Reservoir	Peak discharge	= 0.984 cfs
Storm frequency	= 10 yrs	Time to peak	= 162 min
Time interval	= 1 min	Hyd. volume	= 10,159 cuft
Inflow hyd. No.	= 2 - SCS Rolesville	Max. Elevation	= 378.02 ft
Reservoir name	= Dry Pond	Max. Storage	= 3,697 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

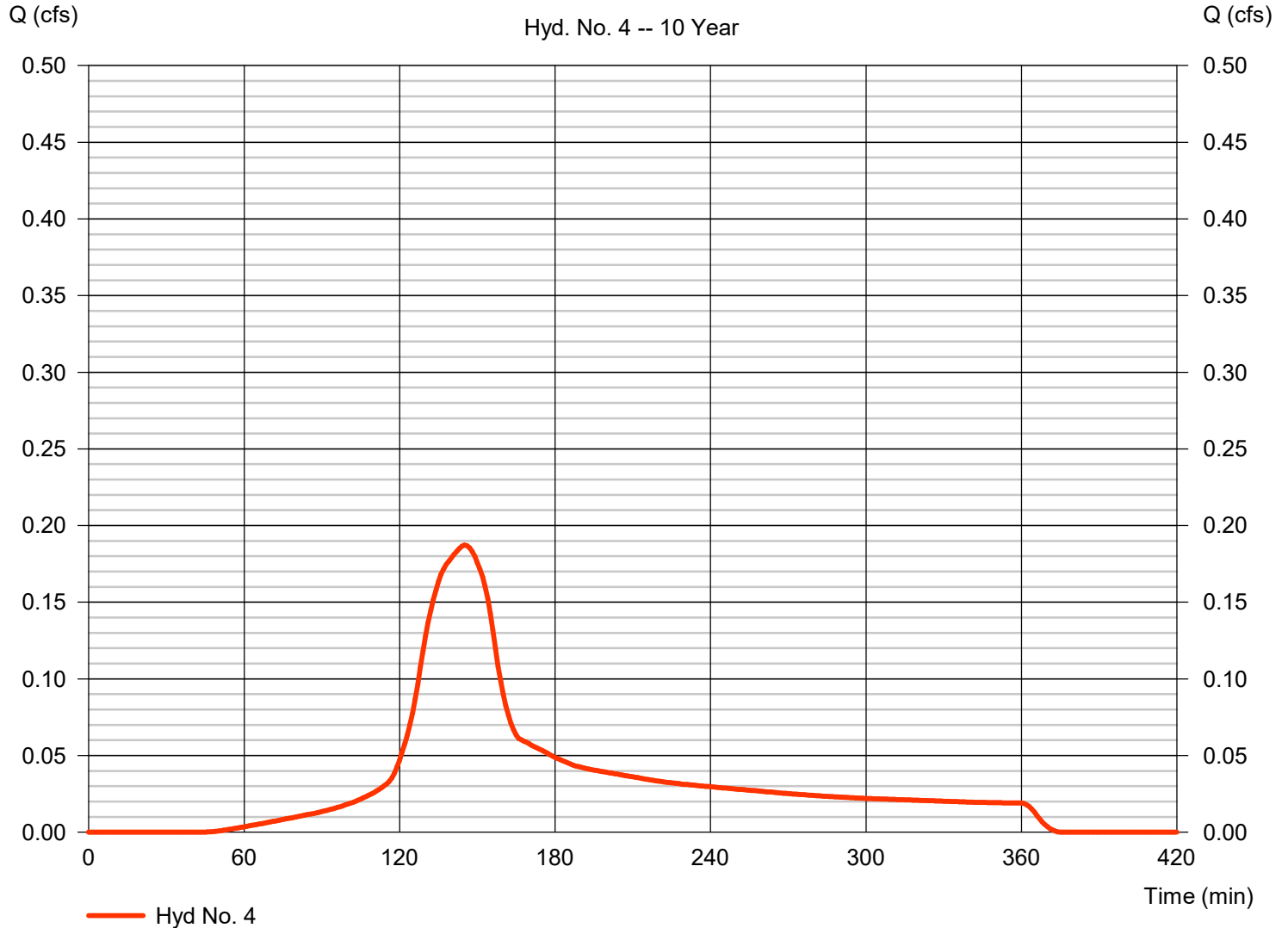
Thursday, 12 / 16 / 2021

## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Hydrograph type	= SCS Runoff	Peak discharge	= 0.187 cfs
Storm frequency	= 10 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 774 cuft
Drainage area	= 0.080 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 3.53 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

### SCS Rolesville - UNCAPTURED



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

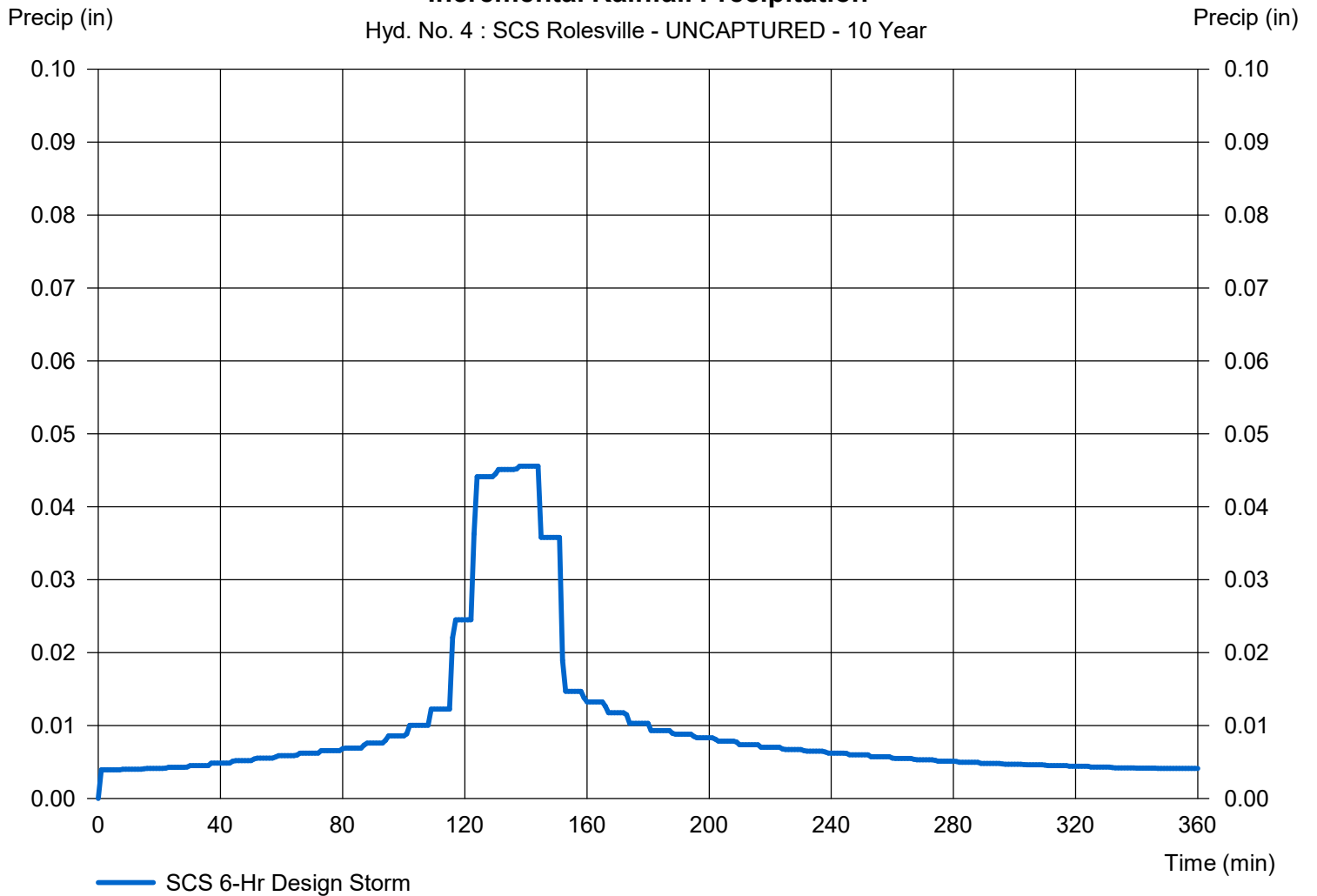
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Storm Frequency	= 10 yrs	Time interval	= 1 min
Total precip.	= 3.5300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 4 : SCS Rolesville - UNCAPTURED - 10 Year



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

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	SCS Runoff	2.140	1	152	9,287	-----	-----	-----	EXISTING	
2	SCS Runoff	3.041	1	145	12,657	-----	-----	-----	SCS Rolesville	
3	Reservoir	1.673	1	158	12,657	2	378.33	4,338	Dry pond exit	
4	SCS Runoff	0.232	1	145	964	-----	-----	-----	SCS Rolesville - UNCAPTURED	
Rolesville.gpw					Return Period: 25 Year			Thursday, 12 / 16 / 2021		

# Hydrograph Report

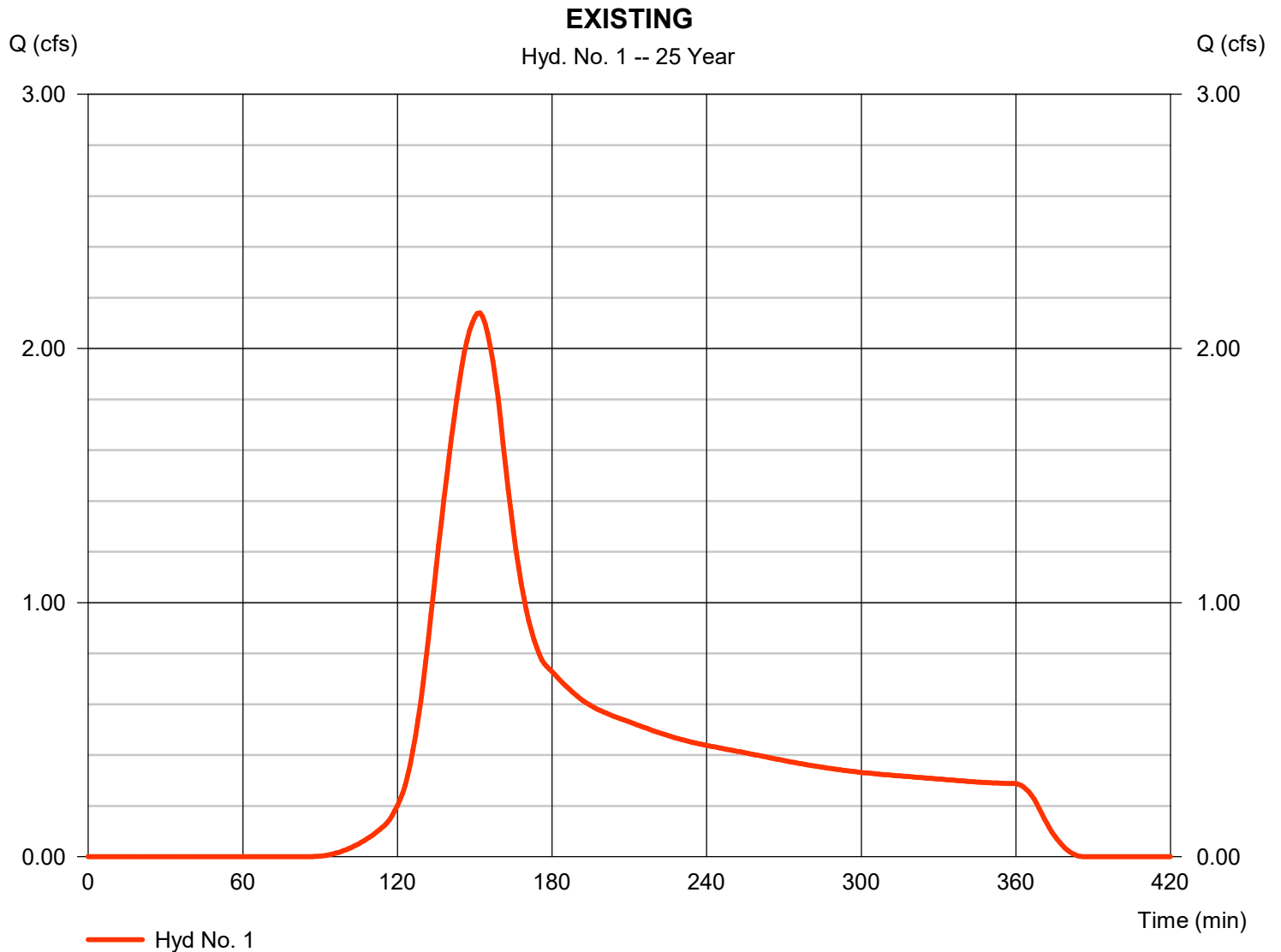
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 1

### EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 2.140 cfs
Storm frequency	= 25 yrs	Time to peak	= 152 min
Time interval	= 1 min	Hyd. volume	= 9,287 cuft
Drainage area	= 1.140 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 16.50 min
Total precip.	= 4.21 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# Precipitation Report

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Thursday, 12 / 16 / 2021

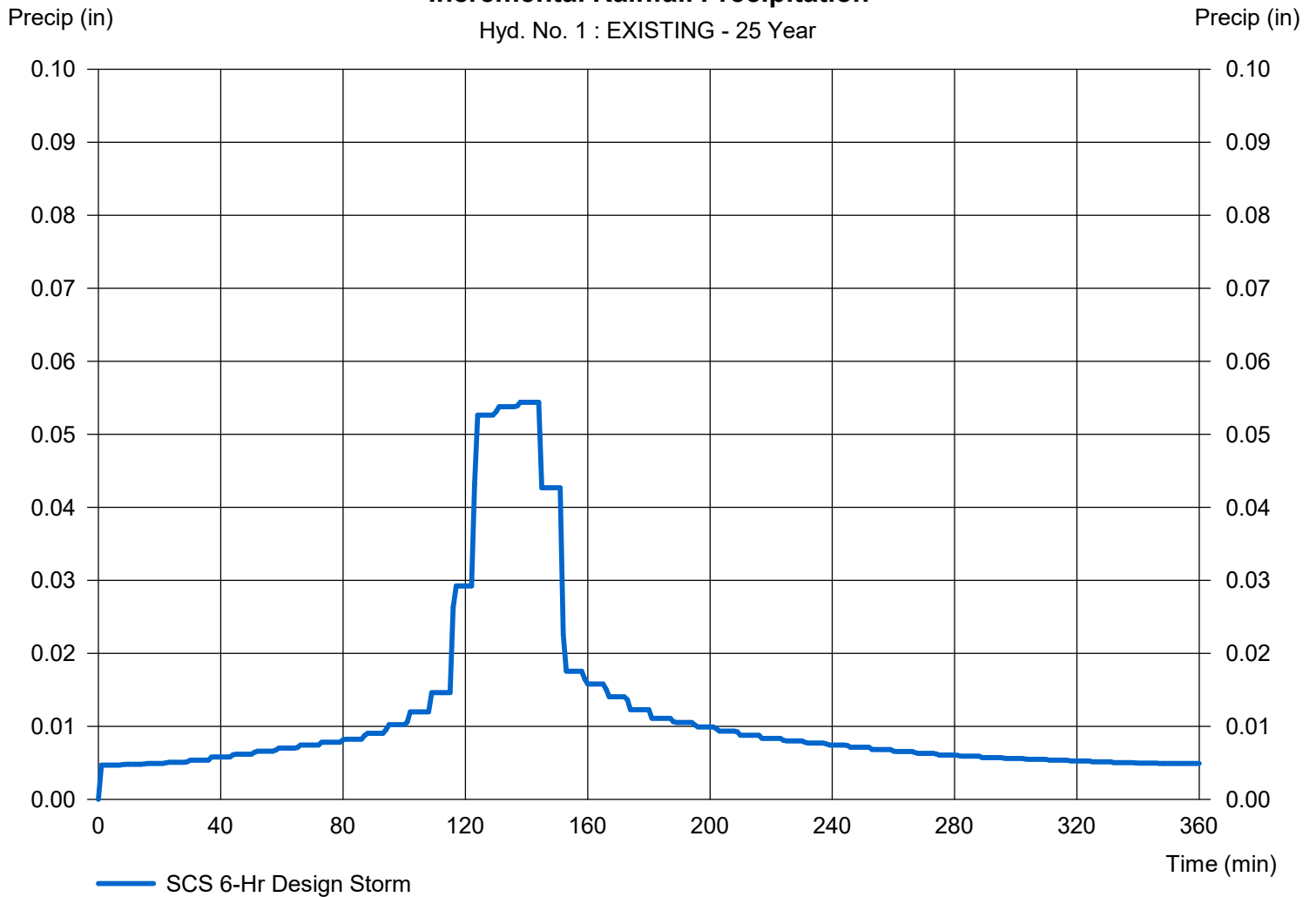
## Hyd. No. 1

EXISTING

Storm Frequency	= 25 yrs	Time interval	= 1 min
Total precip.	= 4.2100 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 1 : EXISTING - 25 Year



# Hydrograph Report

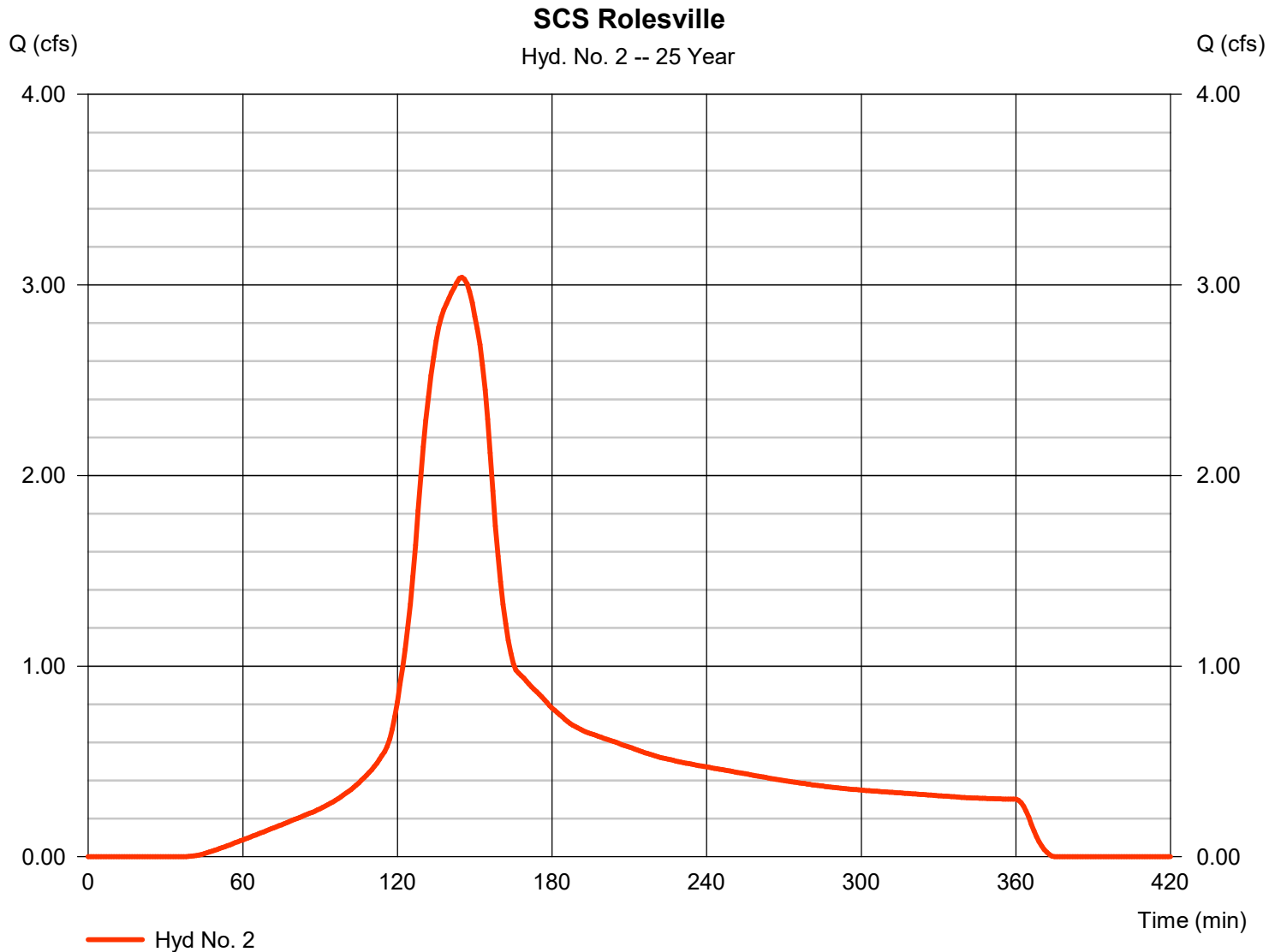
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 2

SCS Rolesville

Hydrograph type	= SCS Runoff	Peak discharge	= 3.041 cfs
Storm frequency	= 25 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 12,657 cuft
Drainage area	= 1.050 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 4.21 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484





# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

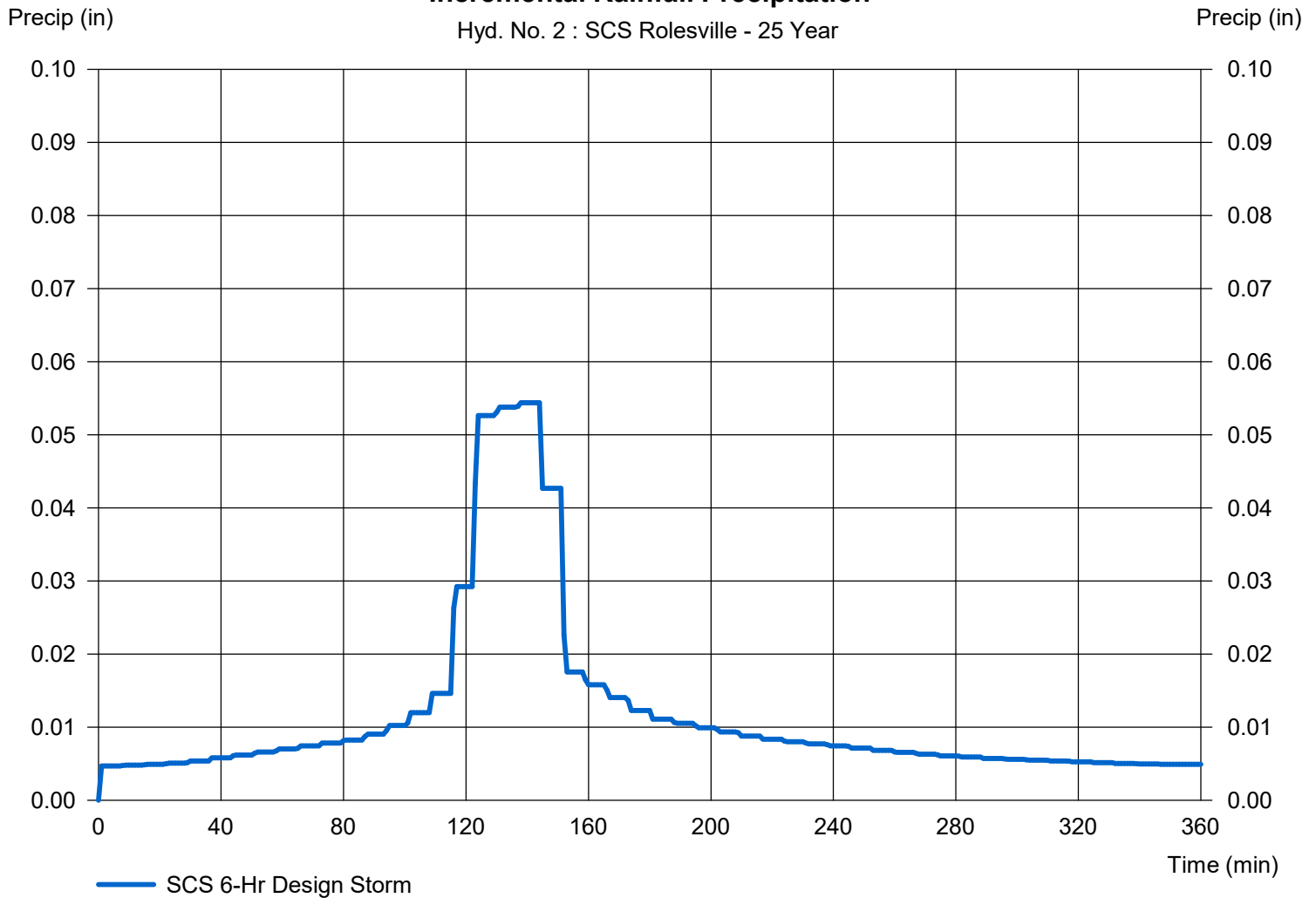
## Hyd. No. 2

SCS Rolesville

Storm Frequency	= 25 yrs	Time interval	= 1 min
Total precip.	= 4.2100 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 2 : SCS Rolesville - 25 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

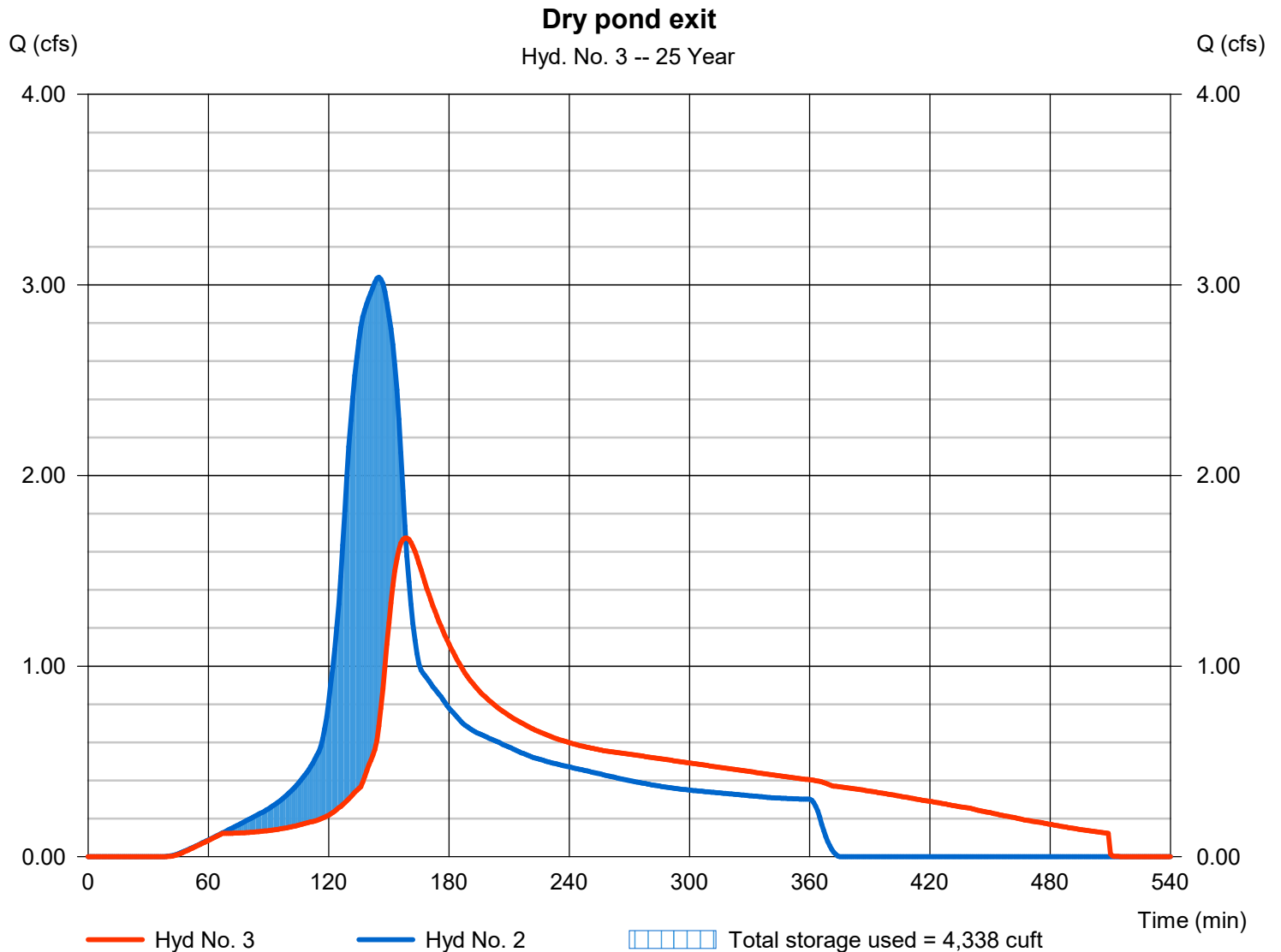
Thursday, 12 / 16 / 2021

## Hyd. No. 3

Dry pond exit

Hydrograph type	= Reservoir	Peak discharge	= 1.673 cfs
Storm frequency	= 25 yrs	Time to peak	= 158 min
Time interval	= 1 min	Hyd. volume	= 12,657 cuft
Inflow hyd. No.	= 2 - SCS Rolesville	Max. Elevation	= 378.33 ft
Reservoir name	= Dry Pond	Max. Storage	= 4,338 cuft

Storage Indication method used.



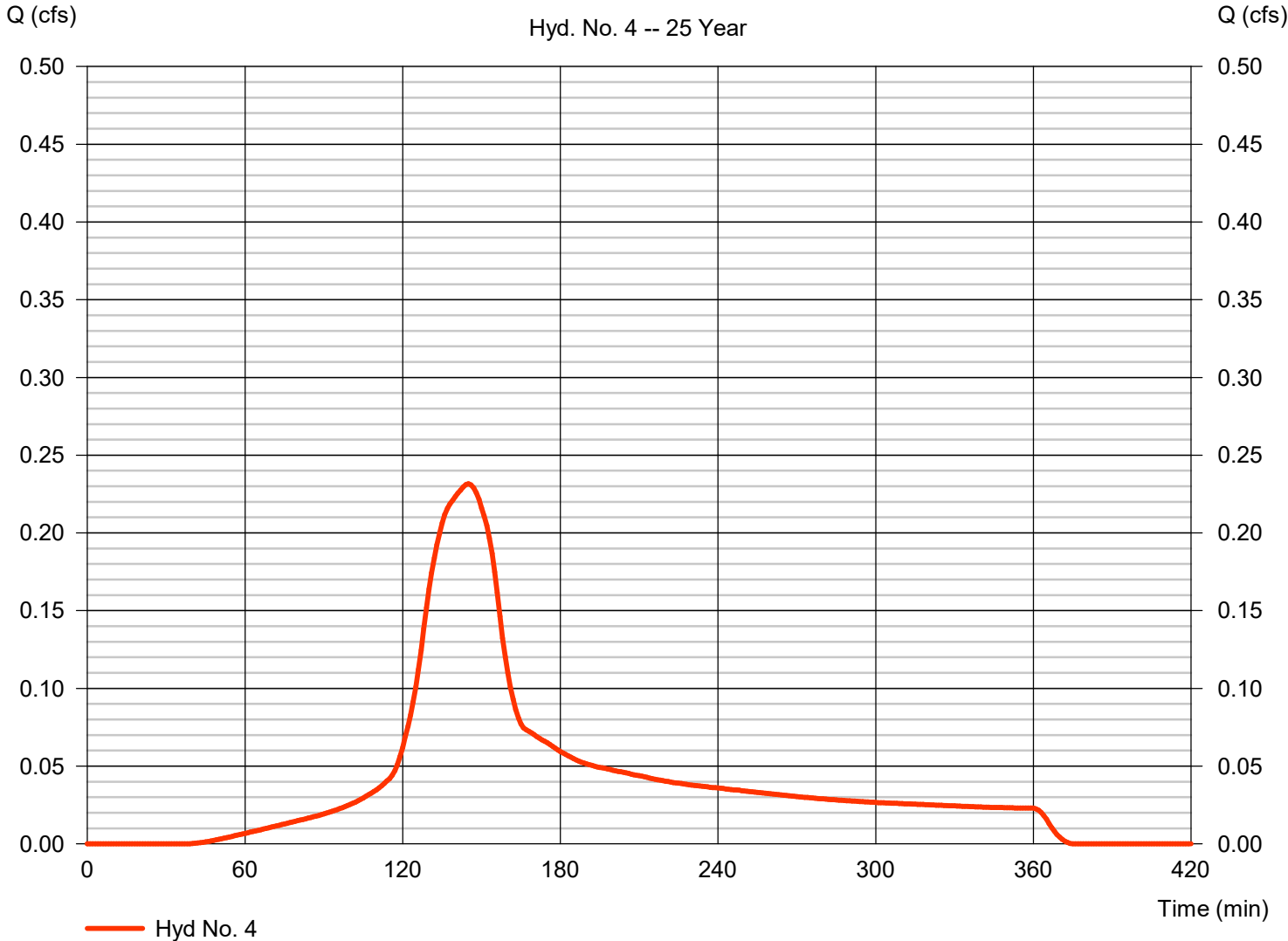
# Hydrograph Report

## Hyd. No. 4

### SCS Rolesville - UNCAPTURED

Hydrograph type	= SCS Runoff	Peak discharge	= 0.232 cfs
Storm frequency	= 25 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 964 cuft
Drainage area	= 0.080 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 4.21 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

### SCS Rolesville - UNCAPTURED



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

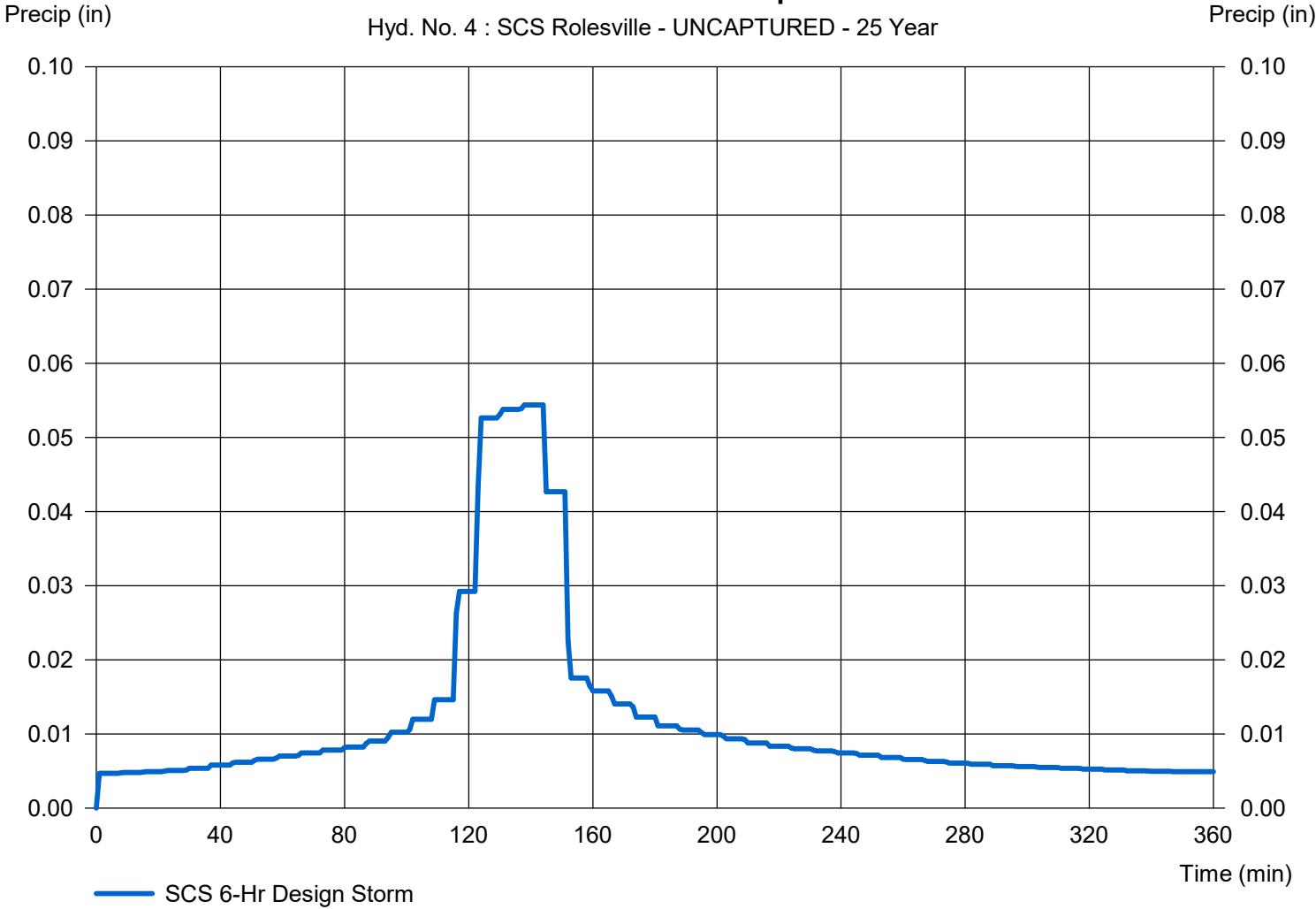
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Storm Frequency	= 25 yrs	Time interval	= 1 min
Total precip.	= 4.2100 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 4 : SCS Rolesville - UNCAPTURED - 25 Year



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

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	SCS Runoff	2.662	1	151	11,465	-----	-----	-----	EXISTING	
2	SCS Runoff	3.562	1	145	14,917	-----	-----	-----	SCS Rolesville	
3	Reservoir	2.130	1	157	14,917	2	378.63	4,902	Dry pond exit	
4	SCS Runoff	0.271	1	145	1,137	-----	-----	-----	SCS Rolesville - UNCAPTURED	
Rolesville.gpw					Return Period: 50 Year			Thursday, 12 / 16 / 2021		

# Hydrograph Report

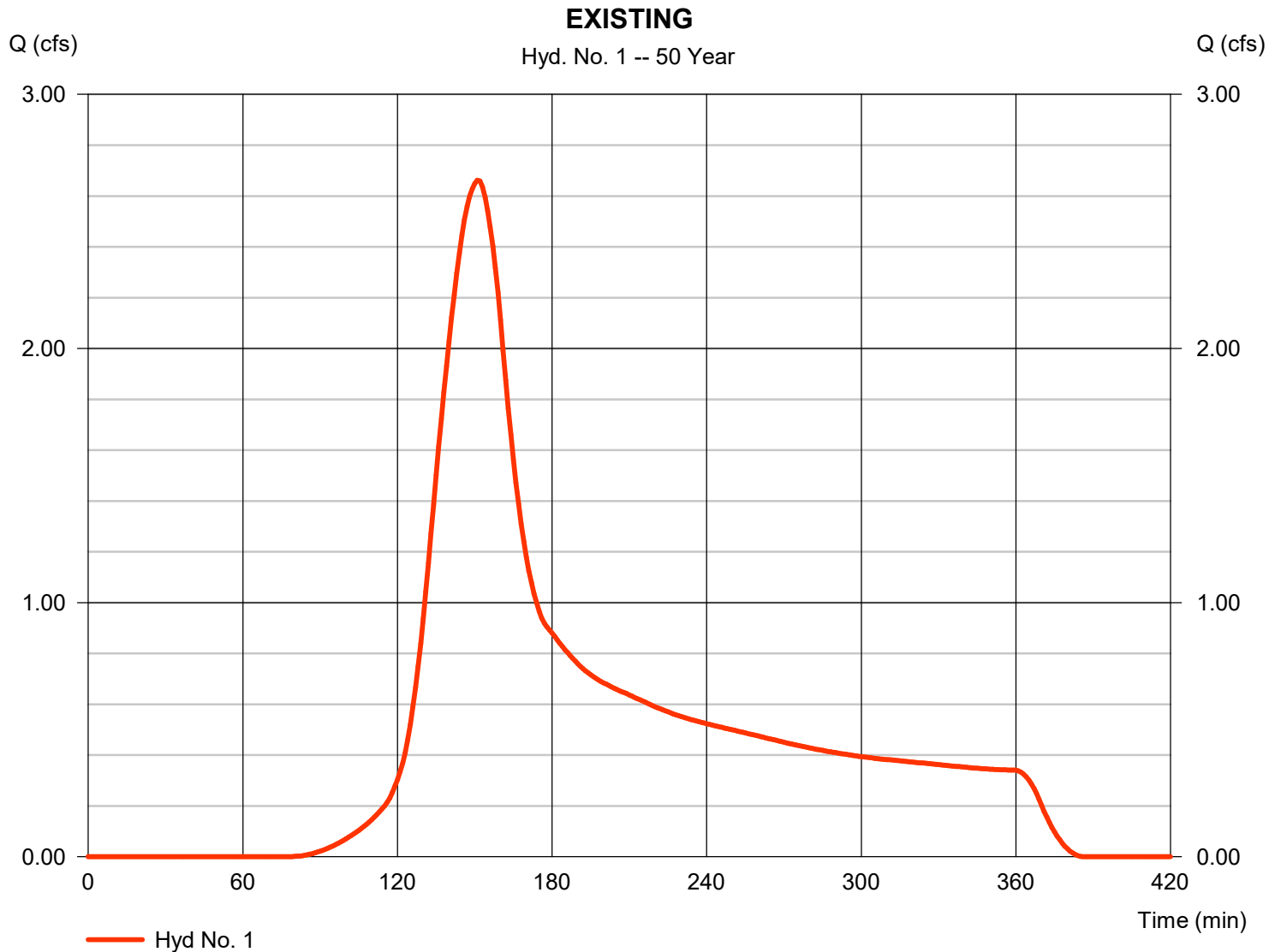
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 1

### EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 2.662 cfs
Storm frequency	= 50 yrs	Time to peak	= 151 min
Time interval	= 1 min	Hyd. volume	= 11,465 cuft
Drainage area	= 1.140 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 16.50 min
Total precip.	= 4.82 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

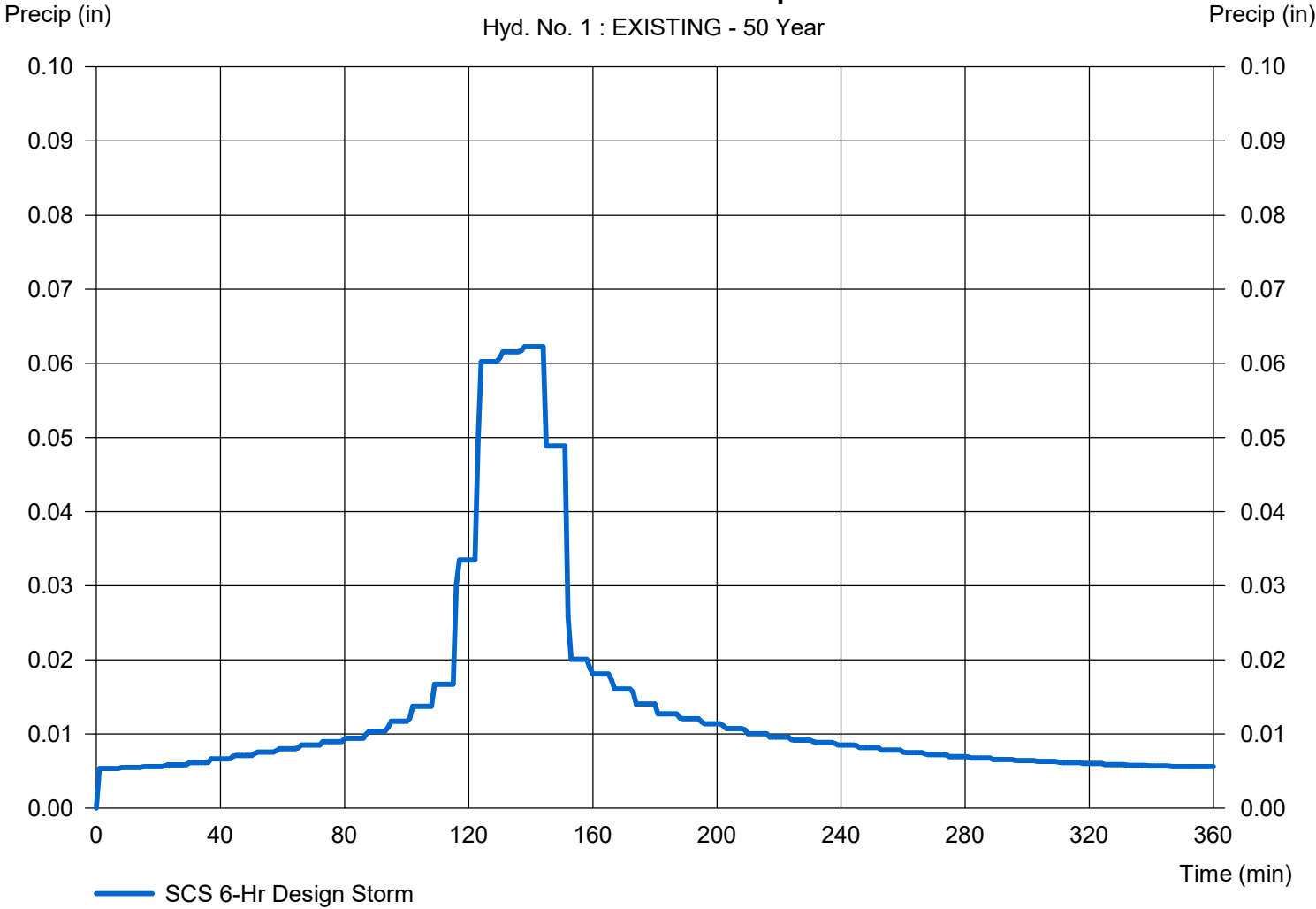
## Hyd. No. 1

EXISTING

Storm Frequency	= 50 yrs	Time interval	= 1 min
Total precip.	= 4.8200 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 1 : EXISTING - 50 Year



# Hydrograph Report

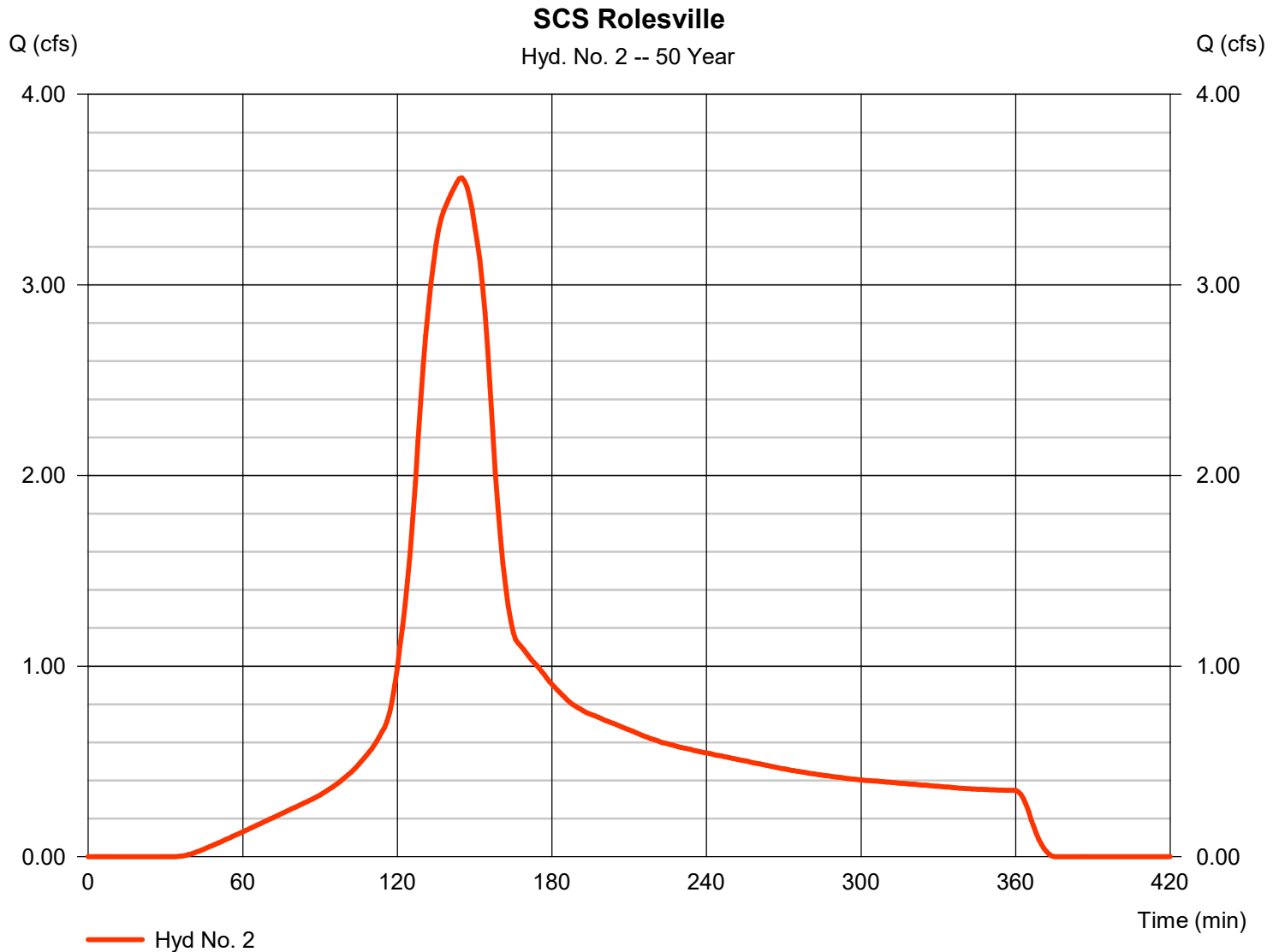
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 2

SCS Rolesville

Hydrograph type	= SCS Runoff	Peak discharge	= 3.562 cfs
Storm frequency	= 50 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 14,917 cuft
Drainage area	= 1.050 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 4.82 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484





# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

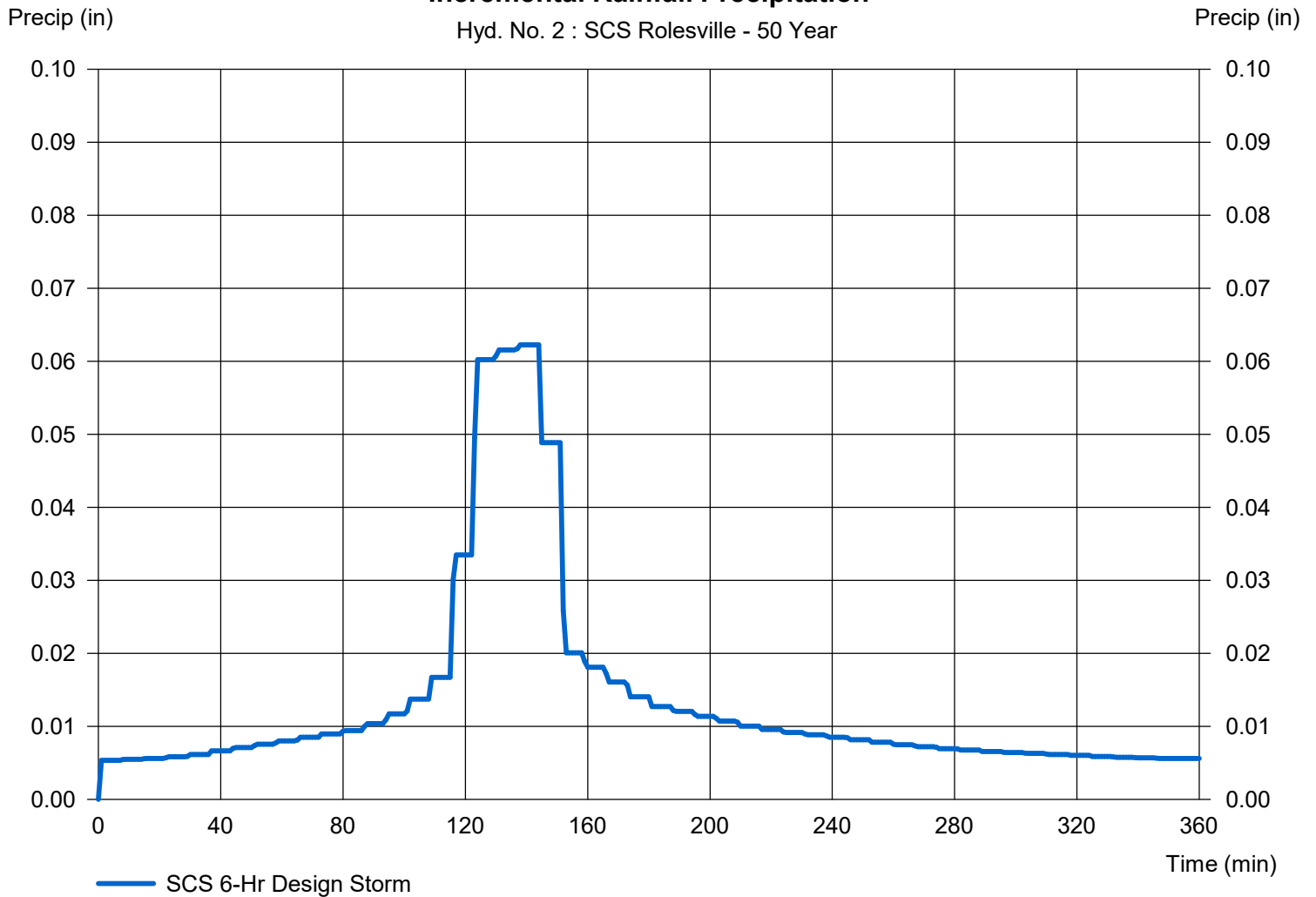
## Hyd. No. 2

SCS Rolesville

Storm Frequency	= 50 yrs	Time interval	= 1 min
Total precip.	= 4.8200 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 2 : SCS Rolesville - 50 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

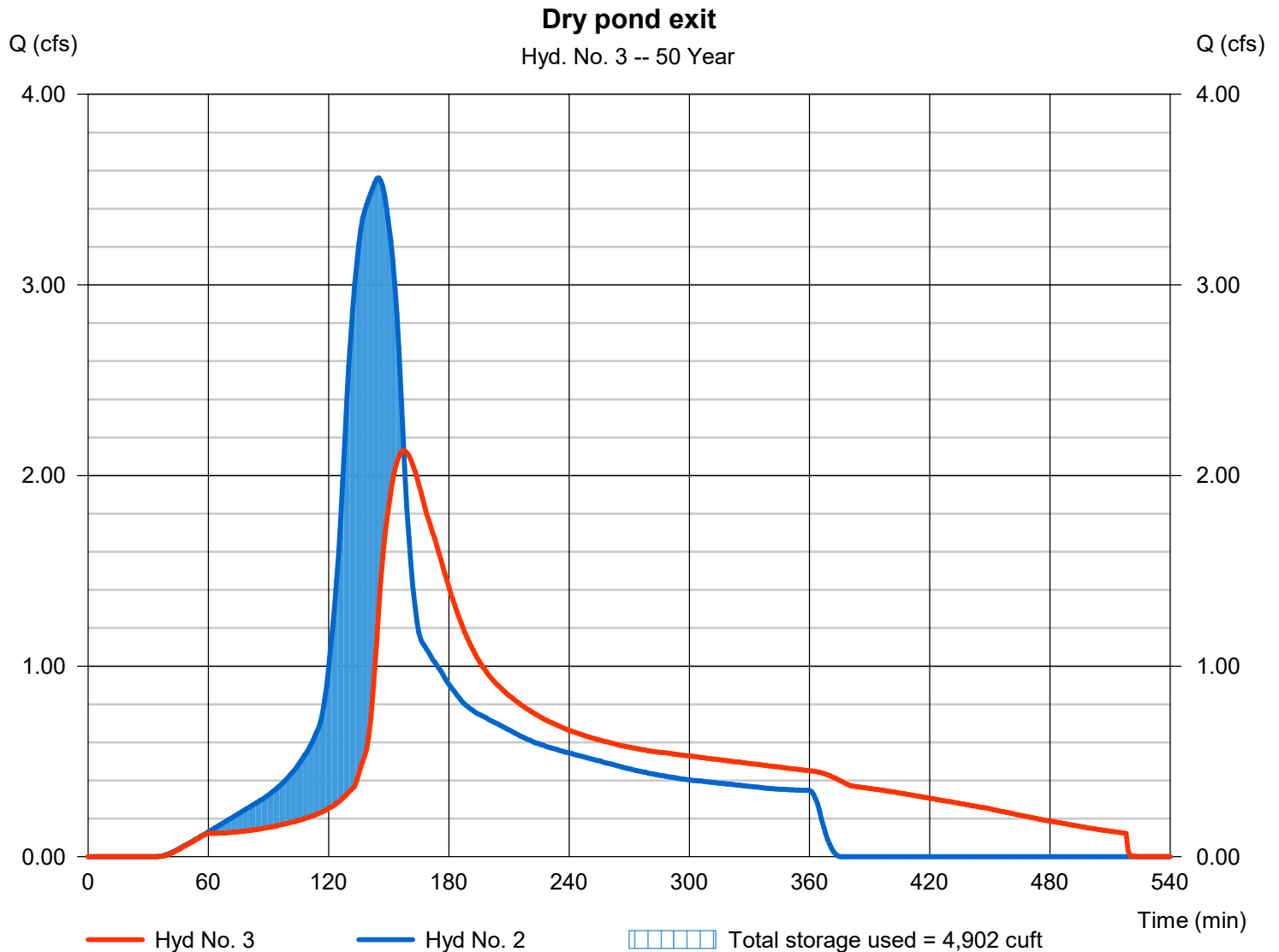
Thursday, 12 / 16 / 2021

## Hyd. No. 3

Dry pond exit

Hydrograph type	= Reservoir	Peak discharge	= 2.130 cfs
Storm frequency	= 50 yrs	Time to peak	= 157 min
Time interval	= 1 min	Hyd. volume	= 14,917 cuft
Inflow hyd. No.	= 2 - SCS Rolesville	Max. Elevation	= 378.63 ft
Reservoir name	= Dry Pond	Max. Storage	= 4,902 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

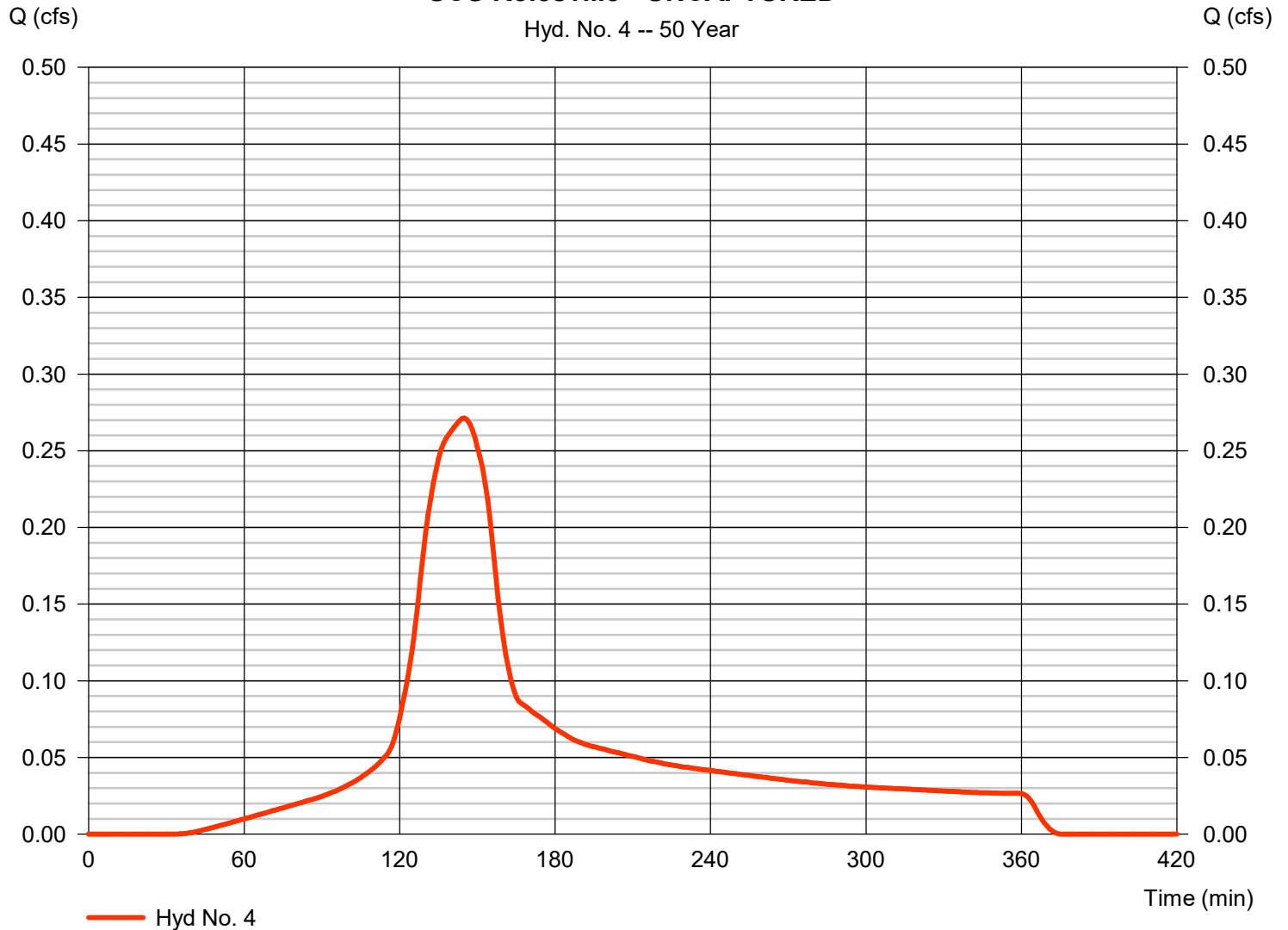
Thursday, 12 / 16 / 2021

## Hyd. No. 4

### SCS Rolesville - UNCAPTURED

Hydrograph type	= SCS Runoff	Peak discharge	= 0.271 cfs
Storm frequency	= 50 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 1,137 cuft
Drainage area	= 0.080 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 4.82 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

### SCS Rolesville - UNCAPTURED



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

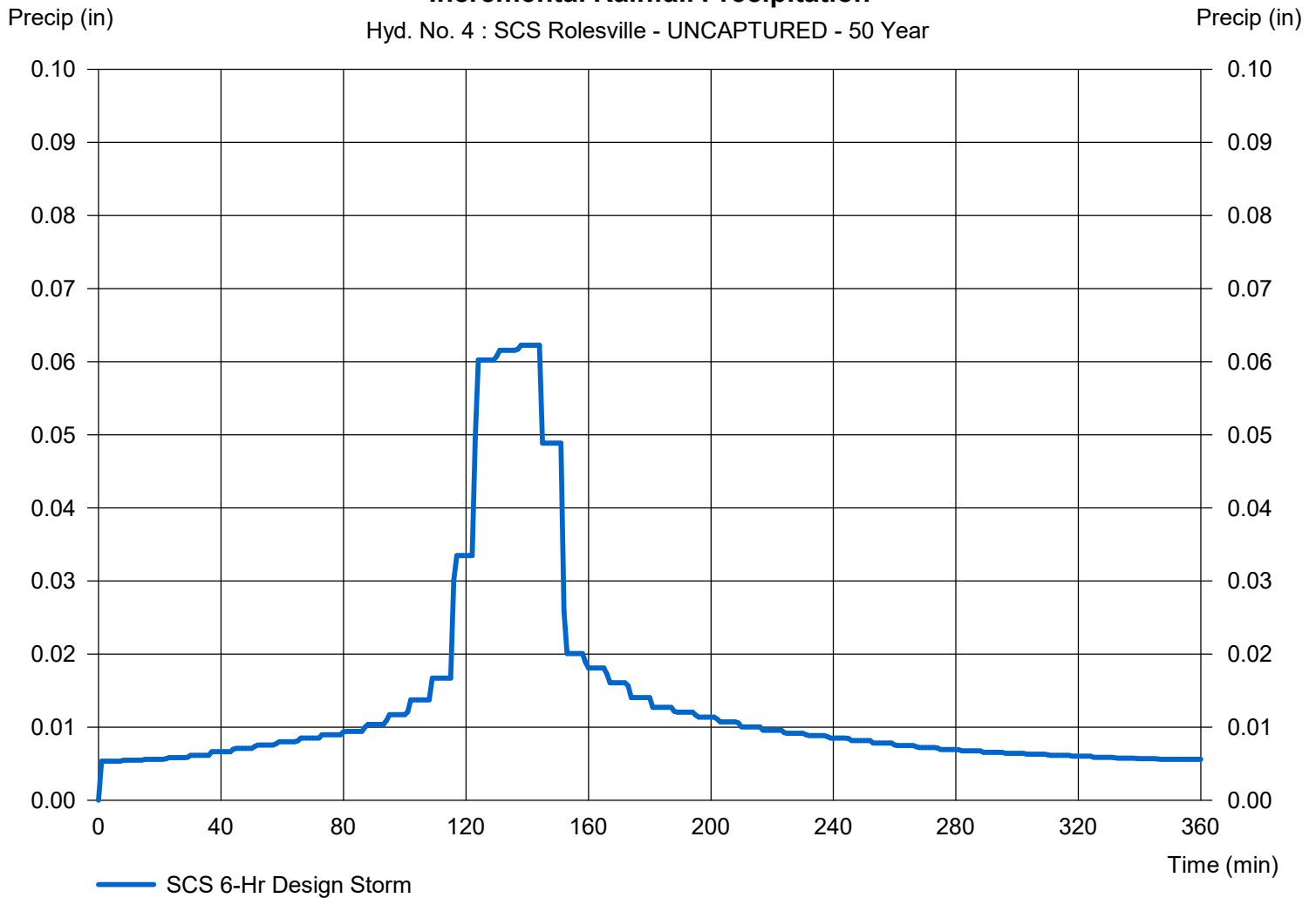
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Storm Frequency	= 50 yrs	Time interval	= 1 min
Total precip.	= 4.8200 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 4 : SCS Rolesville - UNCAPTURED - 50 Year



# Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

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	SCS Runoff	3.196	1	151	13,706	-----	-----	-----	EXISTING	
2	SCS Runoff	4.080	1	145	17,190	-----	-----	-----	SCS Rolesville	
3	Reservoir	2.561	1	157	17,190	2	378.99	5,472	Dry pond exit	
4	SCS Runoff	0.311	1	145	1,310	-----	-----	-----	SCS Rolesville - UNCAPTURED	
Rolesville.gpw					Return Period: 100 Year			Thursday, 12 / 16 / 2021		

# Hydrograph Report

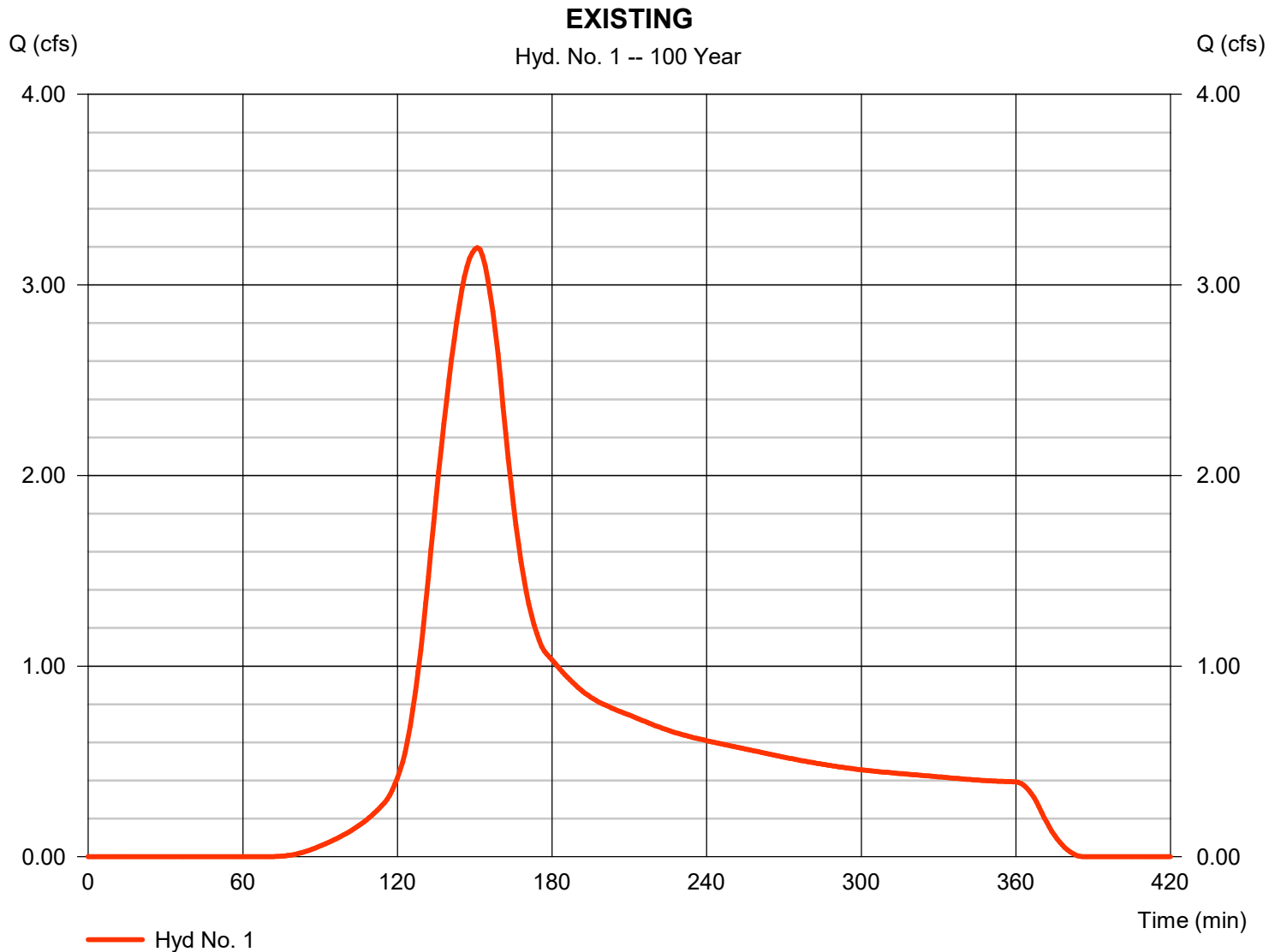
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

## Hyd. No. 1

### EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 3.196 cfs
Storm frequency	= 100 yrs	Time to peak	= 151 min
Time interval	= 1 min	Hyd. volume	= 13,706 cuft
Drainage area	= 1.140 ac	Curve number	= 80
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 16.50 min
Total precip.	= 5.43 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

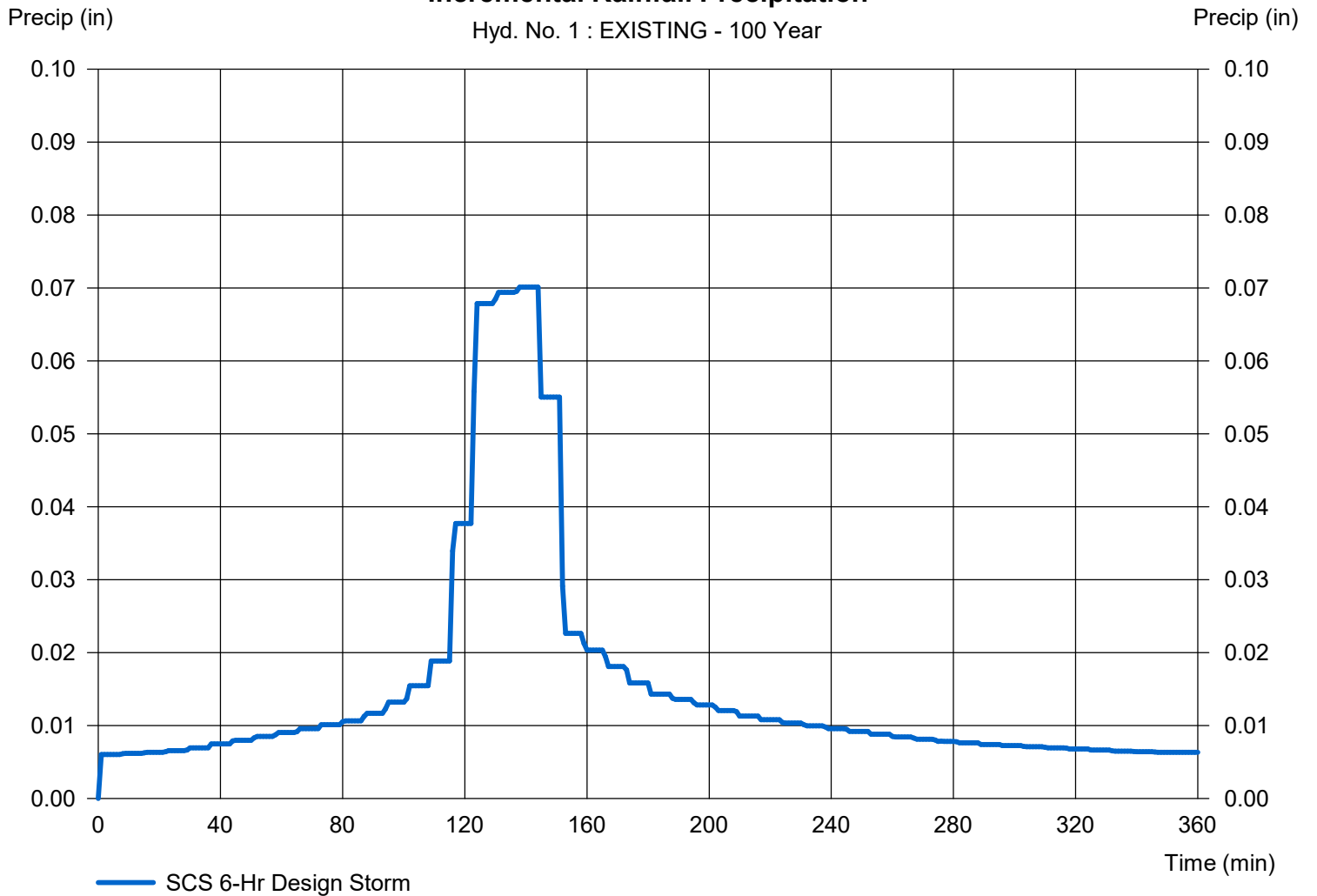
## Hyd. No. 1

EXISTING

Storm Frequency	= 100 yrs	Time interval	= 1 min
Total precip.	= 5.4300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 1 : EXISTING - 100 Year

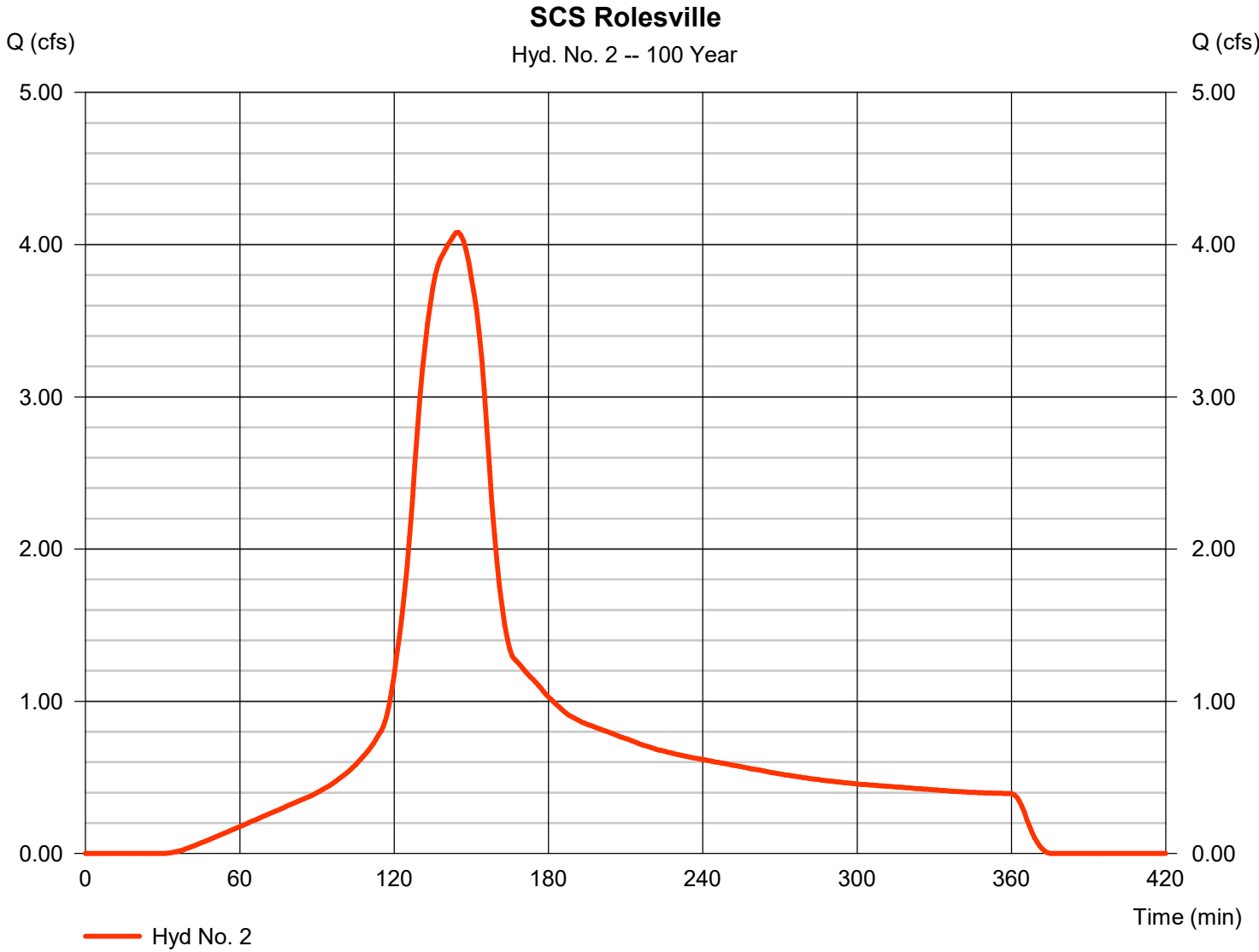


# Hydrograph Report

## Hyd. No. 2

SCS Rolesville

Hydrograph type	= SCS Runoff	Peak discharge	= 4.080 cfs
Storm frequency	= 100 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 17,190 cuft
Drainage area	= 1.050 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 5.43 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484





# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

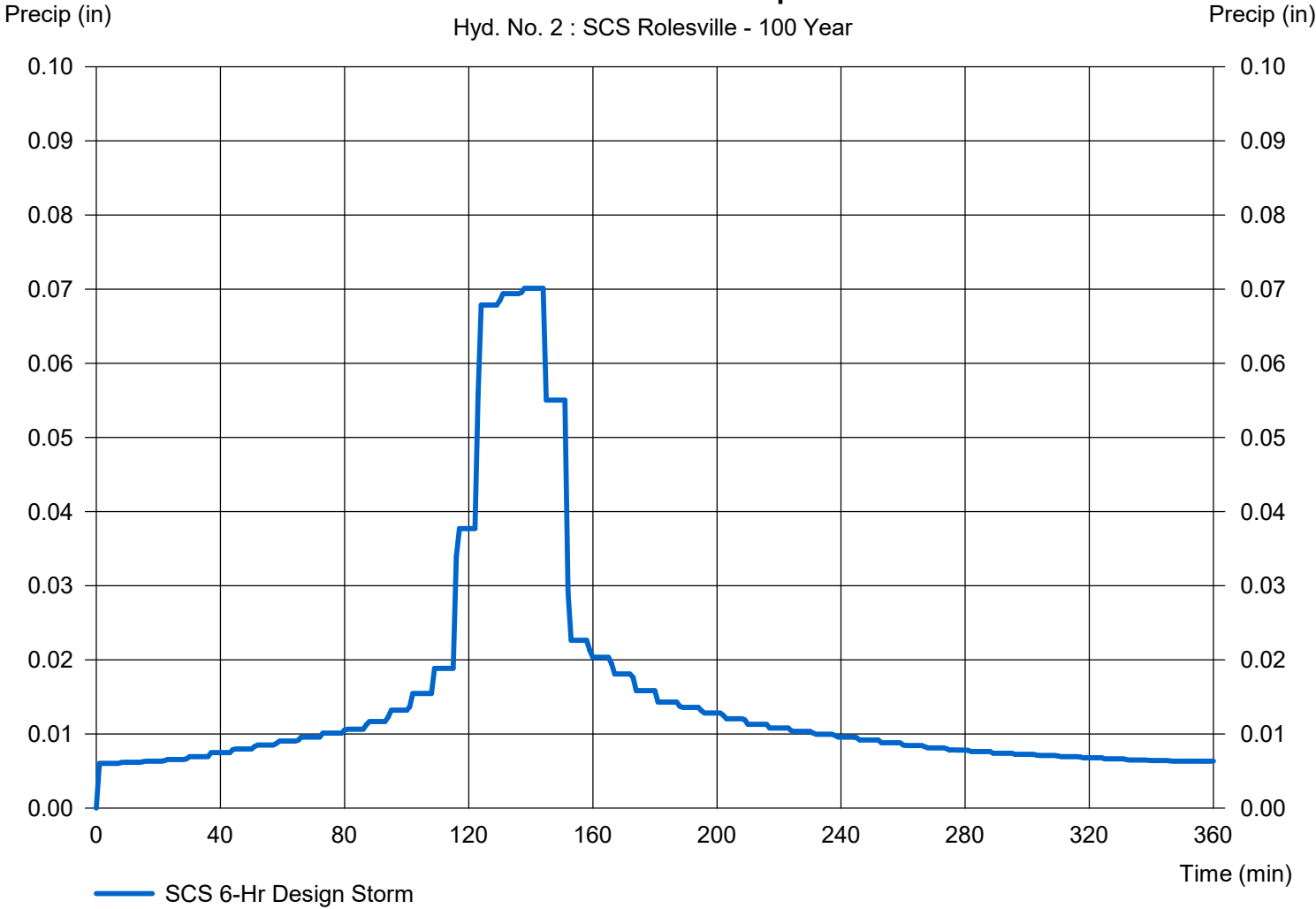
## Hyd. No. 2

SCS Rolesville

Storm Frequency	= 100 yrs	Time interval	= 1 min
Total precip.	= 5.4300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 2 : SCS Rolesville - 100 Year



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

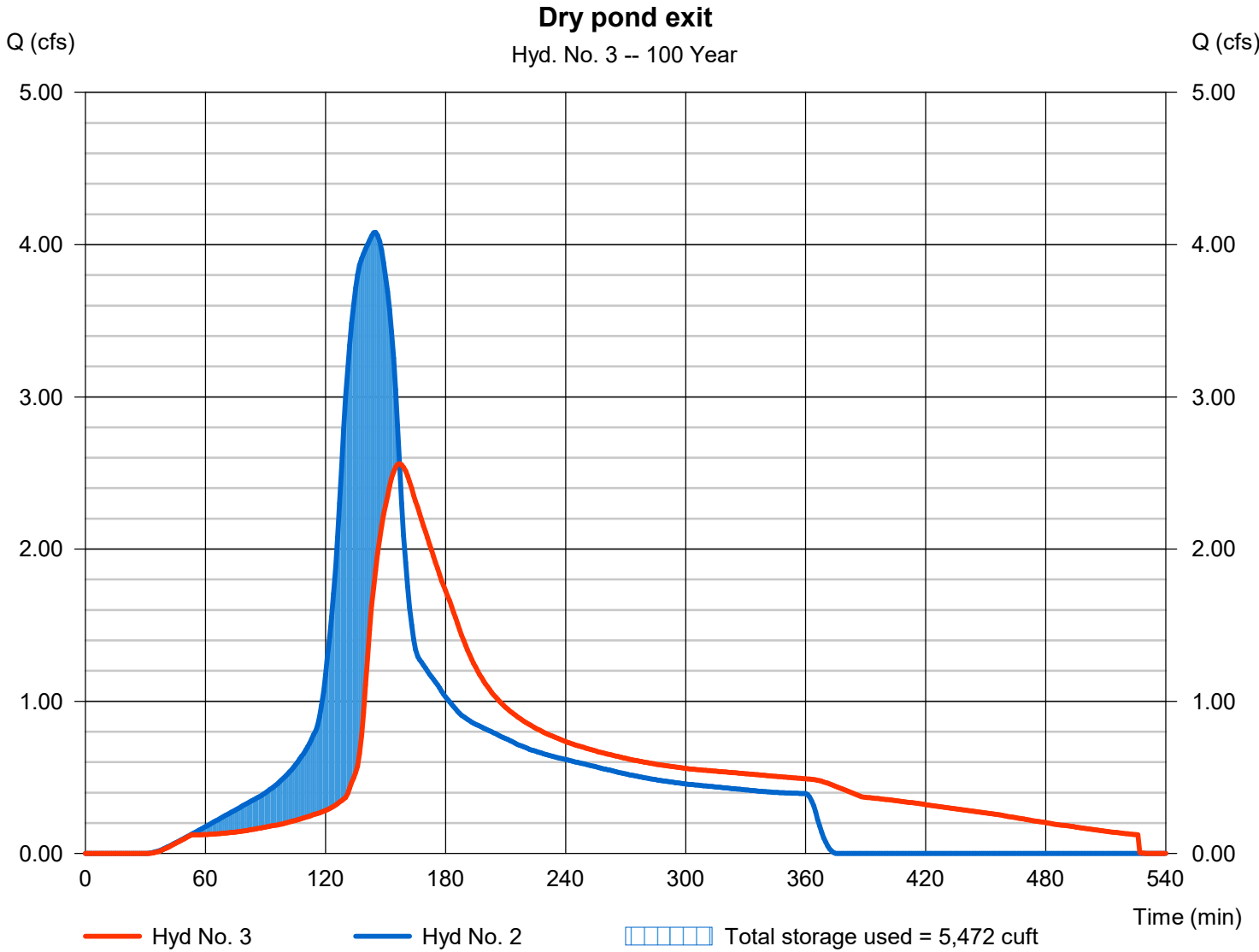
Thursday, 12 / 16 / 2021

## Hyd. No. 3

Dry pond exit

Hydrograph type	= Reservoir	Peak discharge	= 2.561 cfs
Storm frequency	= 100 yrs	Time to peak	= 157 min
Time interval	= 1 min	Hyd. volume	= 17,190 cuft
Inflow hyd. No.	= 2 - SCS Rolesville	Max. Elevation	= 378.99 ft
Reservoir name	= Dry Pond	Max. Storage	= 5,472 cuft

Storage Indication method used.



# Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

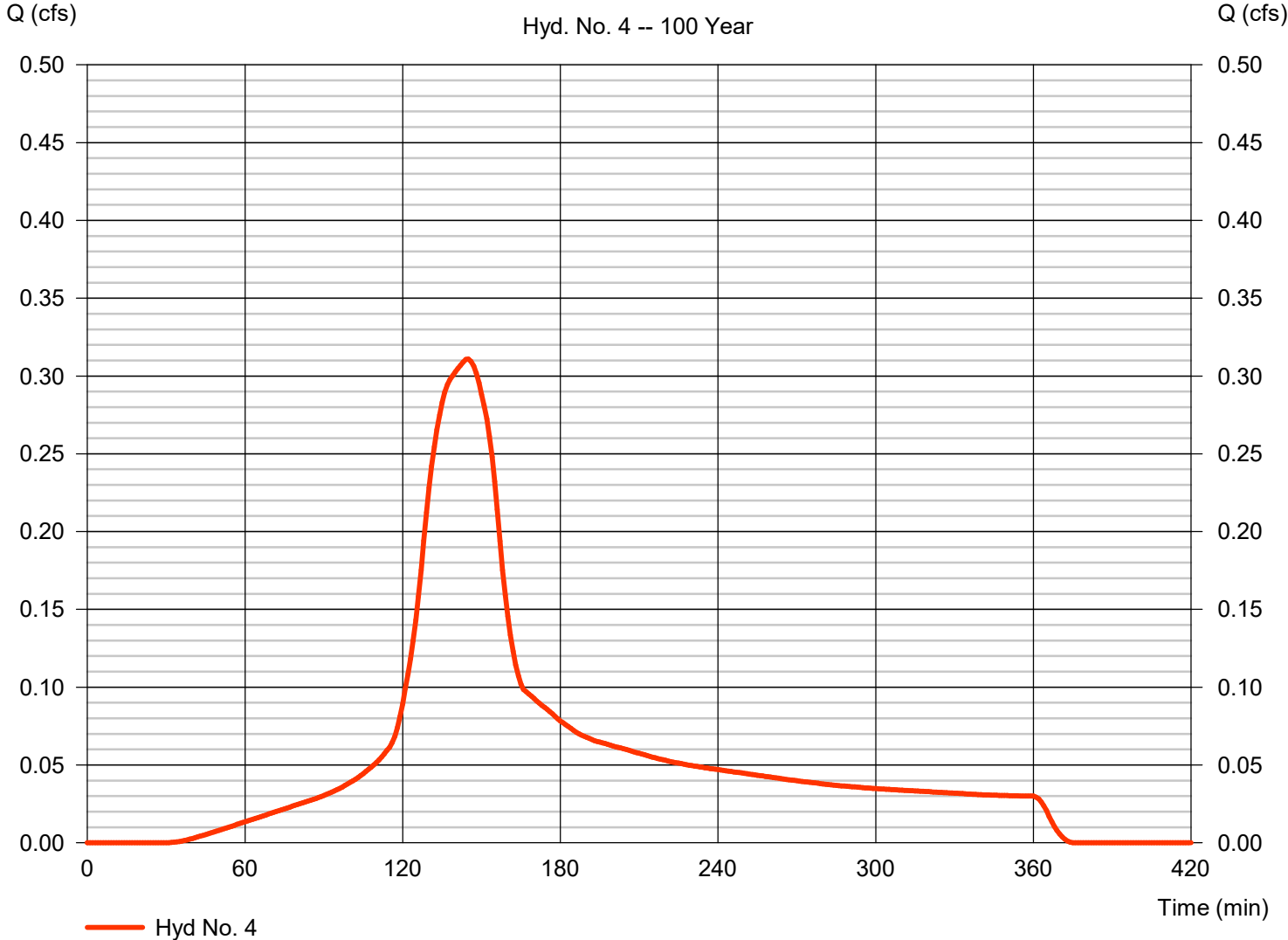
Thursday, 12 / 16 / 2021

## Hyd. No. 4

### SCS Rolesville - UNCAPTURED

Hydrograph type	= SCS Runoff	Peak discharge	= 0.311 cfs
Storm frequency	= 100 yrs	Time to peak	= 145 min
Time interval	= 1 min	Hyd. volume	= 1,310 cuft
Drainage area	= 0.080 ac	Curve number	= 92
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 9.20 min
Total precip.	= 5.43 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs	Shape factor	= 484

### SCS Rolesville - UNCAPTURED



# Precipitation Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2021

Thursday, 12 / 16 / 2021

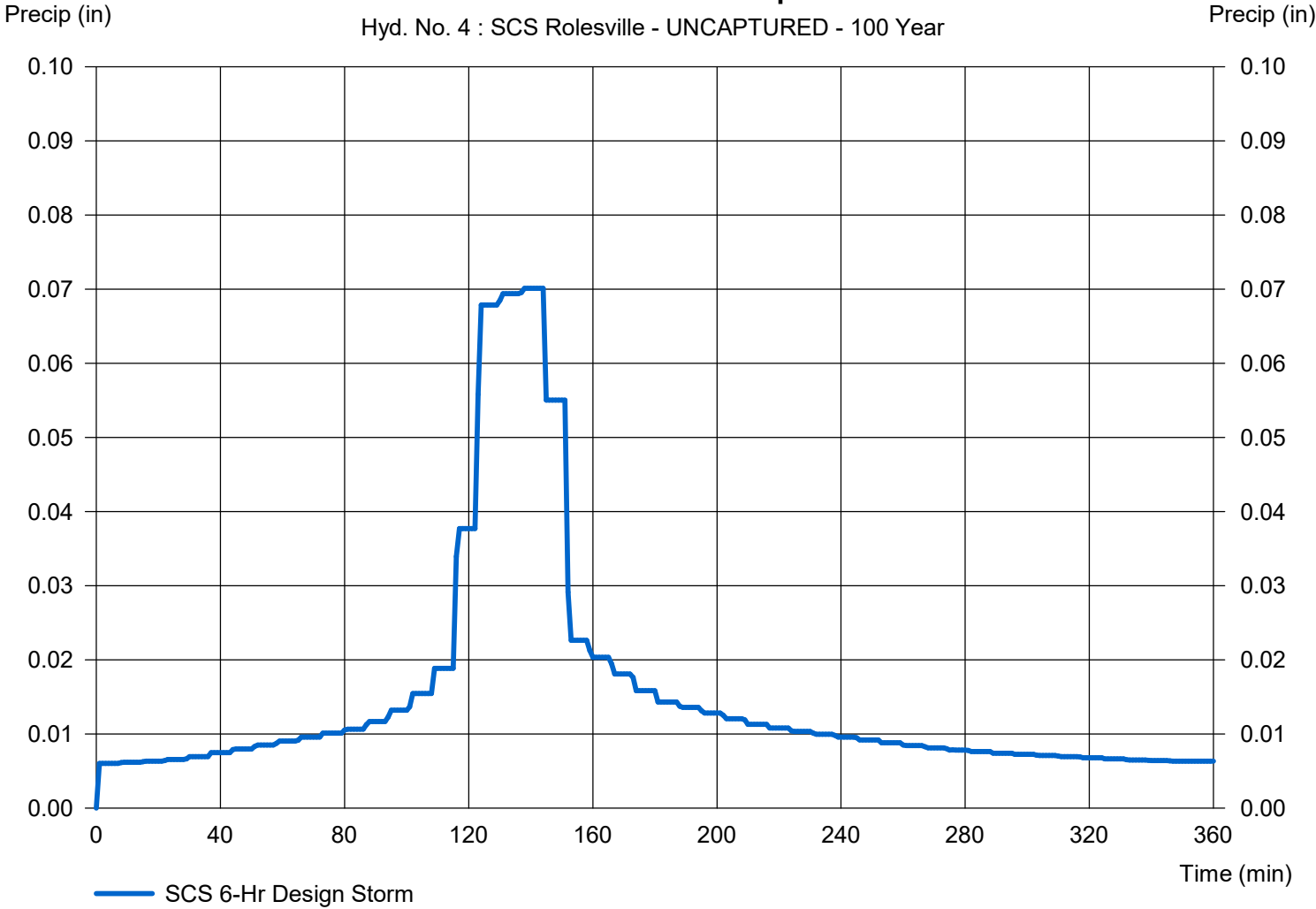
## Hyd. No. 4

SCS Rolesville - UNCAPTURED

Storm Frequency	= 100 yrs	Time interval	= 1 min
Total precip.	= 5.4300 in	Distribution	= SCS 6-Hr
Storm duration	= 6.00 hrs		

### Incremental Rainfall Precipitation

Hyd. No. 4 : SCS Rolesville - UNCAPTURED - 100 Year





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