

Hydrograph Report

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

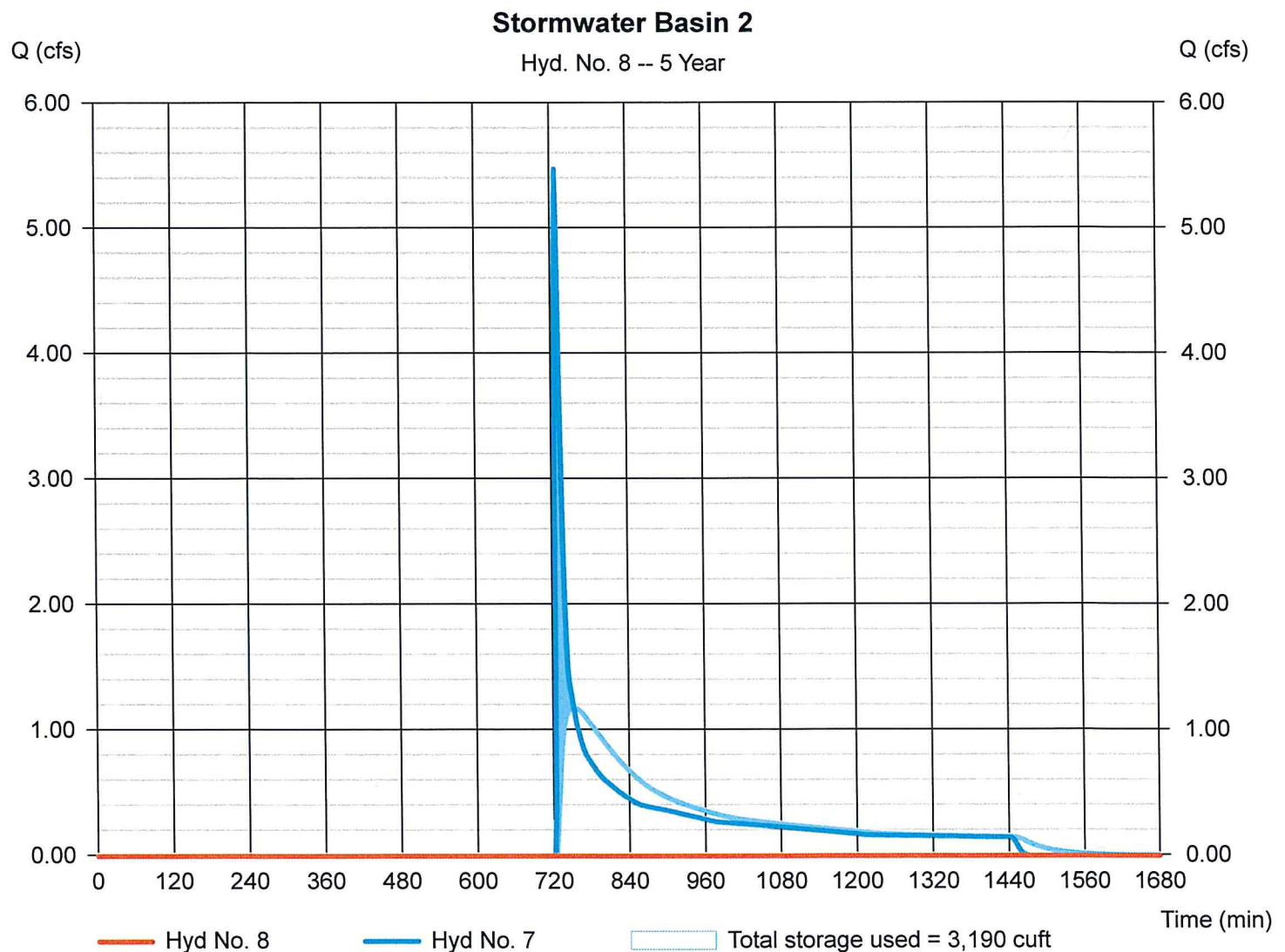
Hyd. No. 8

Stormwater Basin 2

Hydrograph type = Reservoir
Storm frequency = 5 yrs
Time interval = 2 min
Inflow hyd. No. = 7 - Forebay 2
Reservoir name = Stormwater Basin 2

Peak discharge = 0.000 cfs
Time to peak = 816 min
Hyd. volume = 0 cuft
Max. Elevation = 36.77 ft
Max. Storage = 3,190 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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	5.542	1	726	21,123	-----	-----	-----	Existing Conditions - Areas 1
2	SCS Runoff	10.80	1	724	32,973	-----	-----	-----	Proposed Conditions - Area 1
3	Reservoir	1.455	1	768	18,746	2	38.62	15,062	Forebay 1
4	Reservoir	0.244	1	1200	3,893	3	38.53	15,056	Stormwater Basin 1
5	SCS Runoff	5.427	2	726	20,840	-----	-----	-----	Existing Conditions - Area 2
6	SCS Runoff	9.409	2	724	28,351	-----	-----	-----	Proposed Conditions - Area 2
7	Reservoir	9.352	2	724	25,154	6	38.93	3,997	Forebay 2
8	Reservoir	0.000	2	866	0	7	37.55	6,699	Stormwater Basin 2
A&B Excavation TR55.gpw					Return Period: 10 Year			Tuesday, Aug 1, 2023	

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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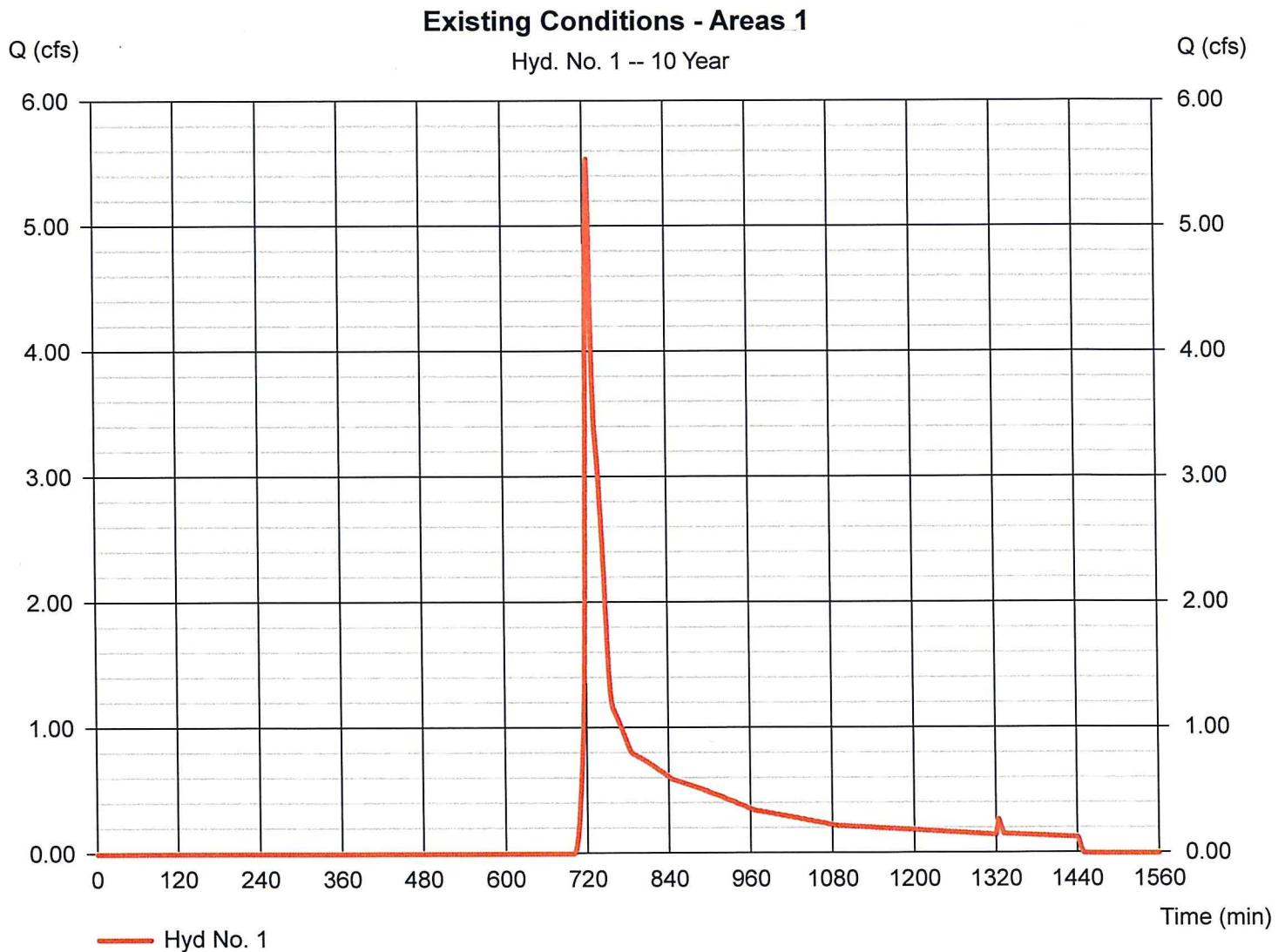
Hyd. No. 1

Existing Conditions - Areas 1

Hydrograph type = SCS Runoff
 Storm frequency = 10 yrs
 Time interval = 1 min
 Drainage area = 5.700 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 5.02 in
 Storm duration = 24 hrs

Peak discharge = 5.542 cfs
 Time to peak = 726 min
 Hyd. volume = 21,123 cuft
 Curve number = 55*
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 5.30 min
 Distribution = Type III
 Shape factor = 484

* Composite (Area/CN) = $[(5.300 \times 55)] / 5.700$



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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Hyd. No. 2

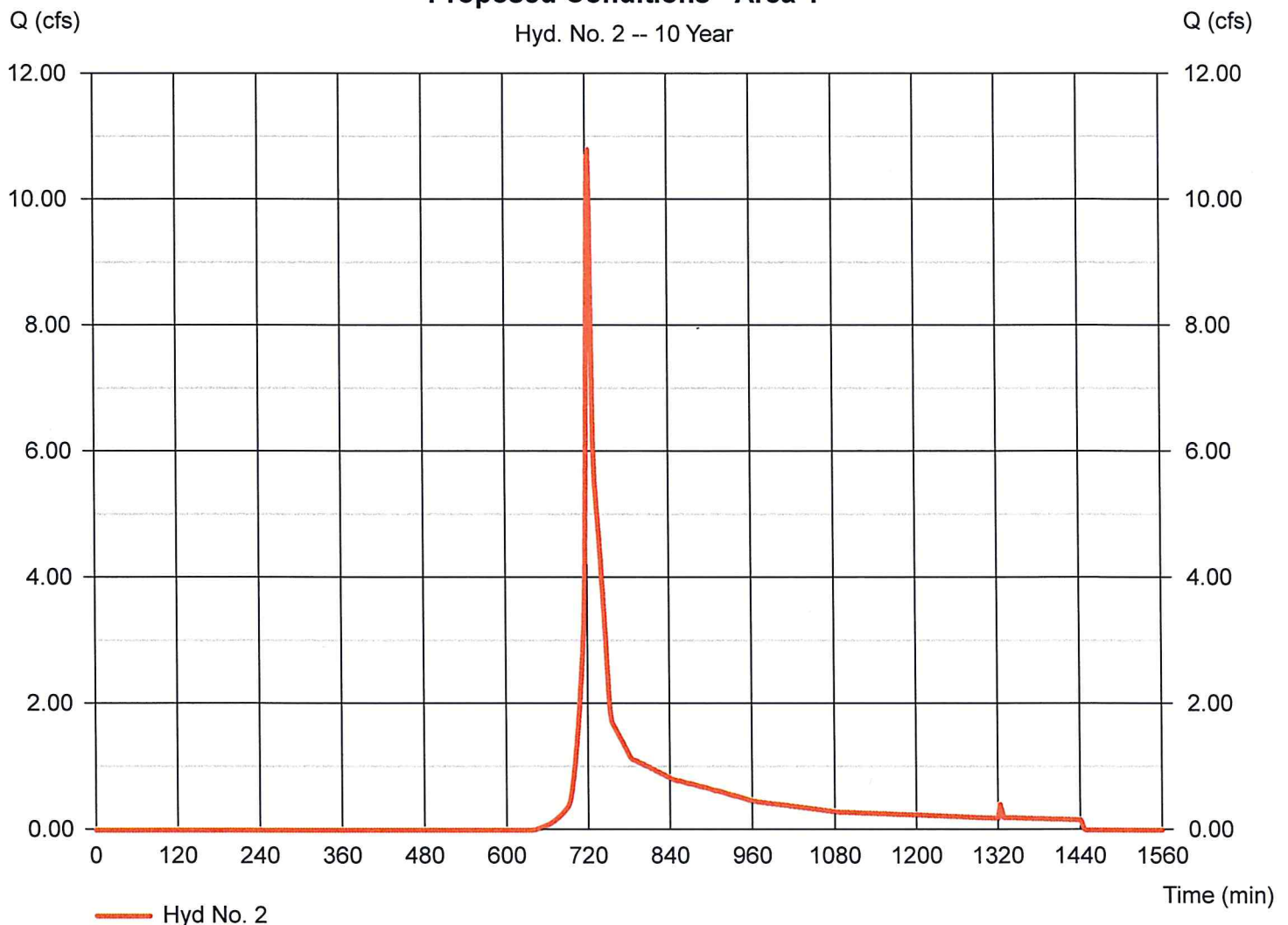
Proposed Conditions - Area 1

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 1 min
Drainage area = 5.700 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.02 in
Storm duration = 24 hrs

Peak discharge = 10.80 cfs
Time to peak = 724 min
Hyd. volume = 32,973 cuft
Curve number = 64*
Hydraulic length = 0 ft
Time of conc. (Tc) = 4.50 min
Distribution = Type III
Shape factor = 484

* Composite (Area/CN) = [(1.900 x 83) + (3.800 x 55)] / 5.700

Proposed Conditions - Area 1



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Tuesday, Aug 1, 2023

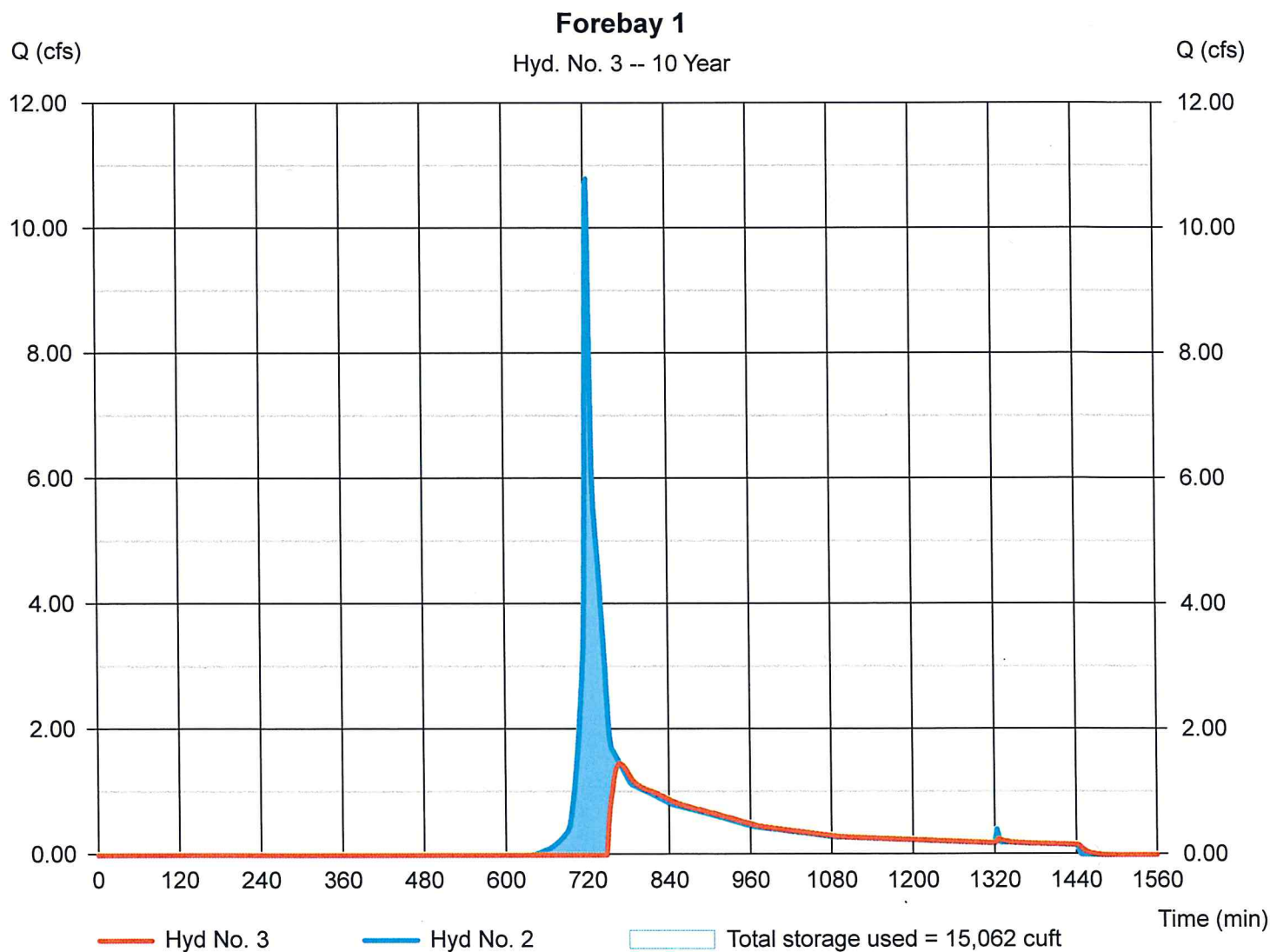
Hyd. No. 3

Forebay 1

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyd. No. = 2 - Proposed Conditions - Area 1
Reservoir name = Forebay #1

Peak discharge = 1.455 cfs
Time to peak = 768 min
Hyd. volume = 18,746 cuft
Max. Elevation = 38.62 ft
Max. Storage = 15,062 cuft

Storage Indication method used.



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

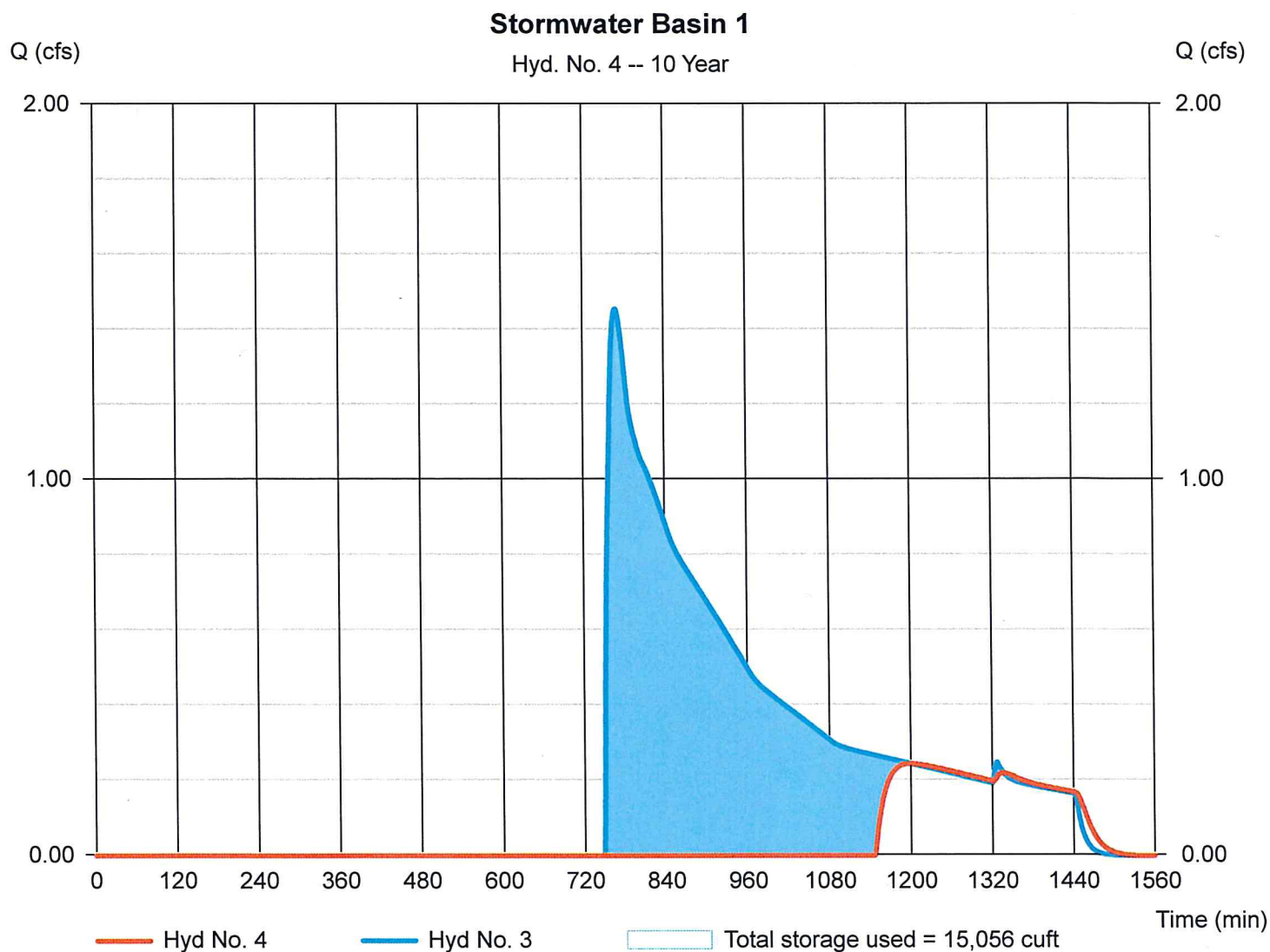
Hyd. No. 4

Stormwater Basin 1

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Time interval = 1 min
Inflow hyd. No. = 3 - Forebay 1
Reservoir name = Stormwater Basin 1

Peak discharge = 0.244 cfs
Time to peak = 1200 min
Hyd. volume = 3,893 cuft
Max. Elevation = 38.53 ft
Max. Storage = 15,056 cuft

Storage Indication method used.



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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Hyd. No. 5

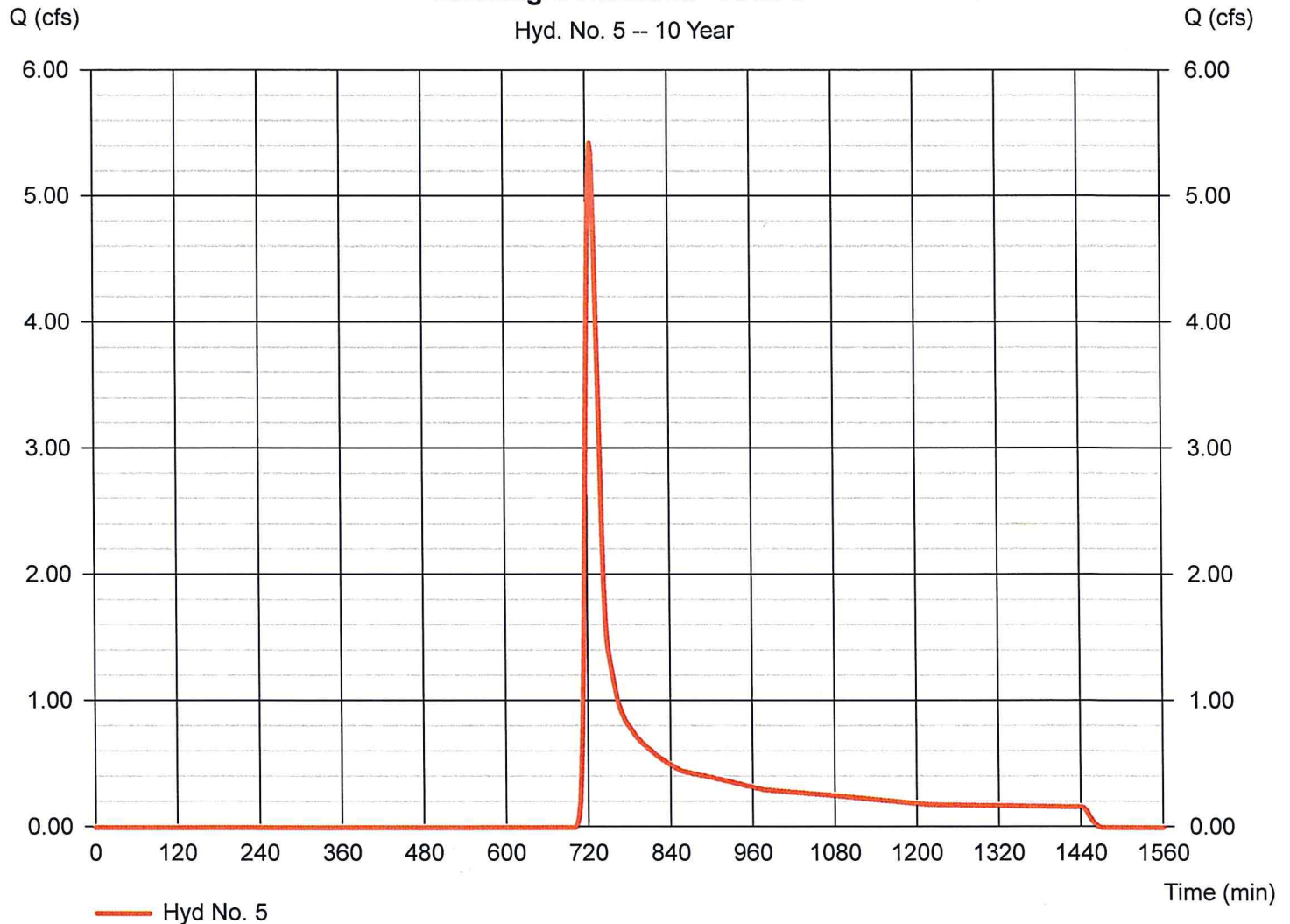
Existing Conditions - Area 2

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 2 min
Drainage area = 5.800 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.02 in
Storm duration = 24 hrs

Peak discharge = 5.427 cfs
Time to peak = 726 min
Hyd. volume = 20,840 cuft
Curve number = 55*
Hydraulic length = 0 ft
Time of conc. (Tc) = 16.90 min
Distribution = Type II
Shape factor = 484

* Composite (Area/CN) = [(4.700 x 55)] / 5.800

Existing Conditions - Area 2



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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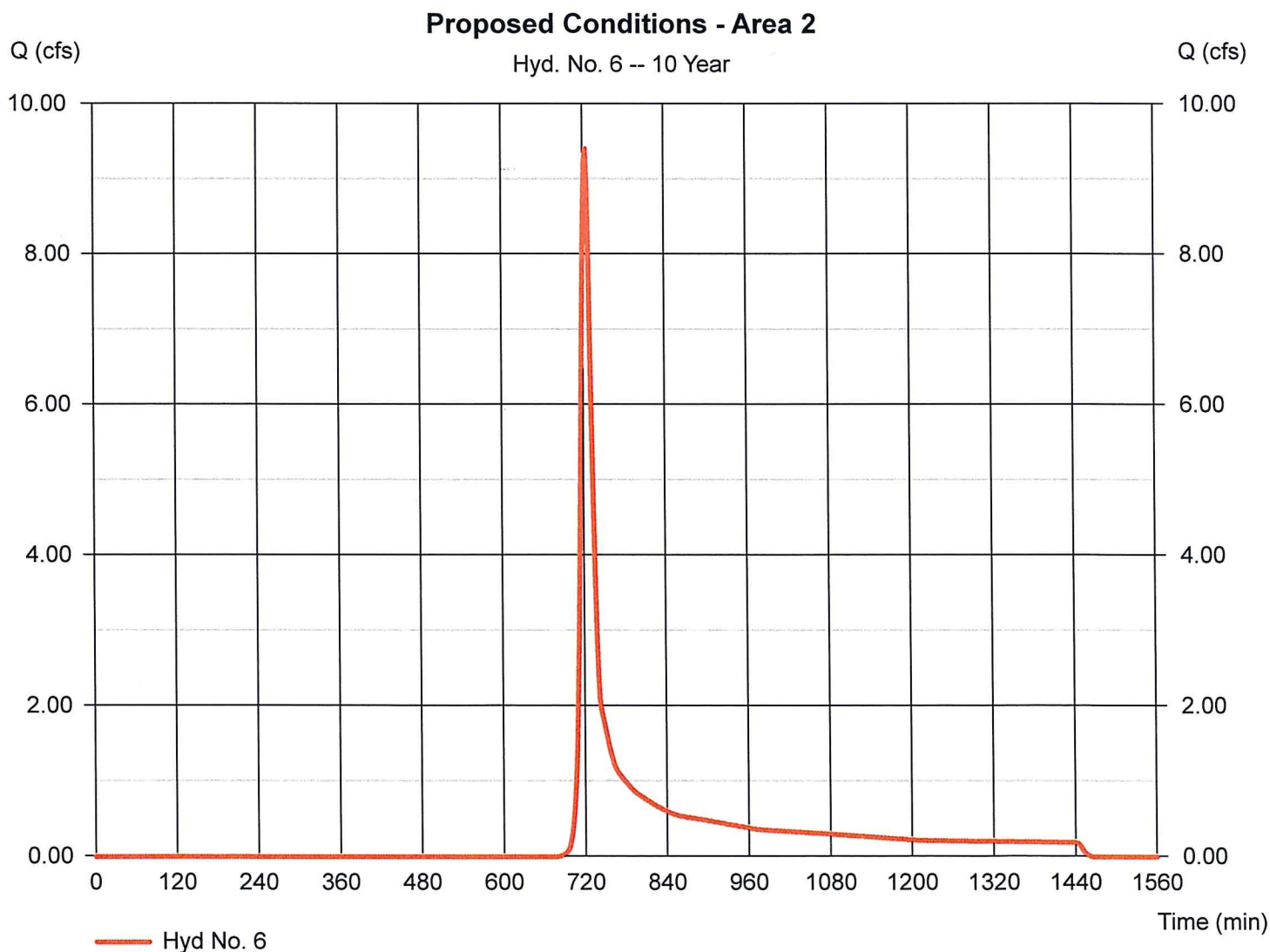
Hyd. No. 6

Proposed Conditions - Area 2

Hydrograph type = SCS Runoff
Storm frequency = 10 yrs
Time interval = 2 min
Drainage area = 5.800 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 5.02 in
Storm duration = 24 hrs

Peak discharge = 9.409 cfs
Time to peak = 724 min
Hyd. volume = 28,351 cuft
Curve number = 61*
Hydraulic length = 0 ft
Time of conc. (Tc) = 16.50 min
Distribution = Type II
Shape factor = 484

* Composite (Area/CN) = $[(1.200 \times 83) + (4.600 \times 55)] / 5.800$



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

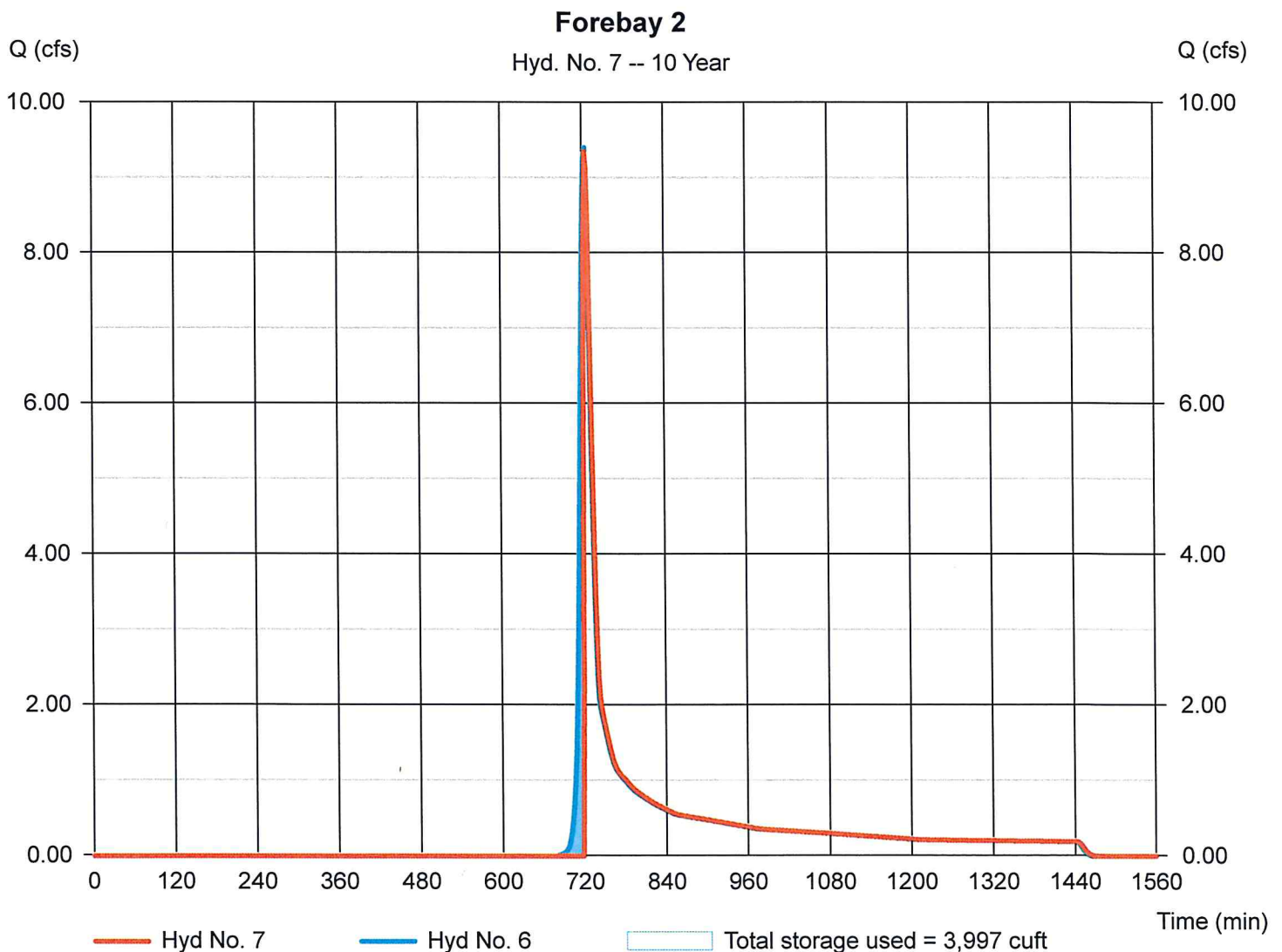
Tuesday, Aug 1, 2023

Hyd. No. 7

Forebay 2

Hydrograph type	= Reservoir	Peak discharge	= 9.352 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 25,154 cuft
Inflow hyd. No.	= 6 - Proposed Conditions - Area 2	Max. Elevation	= 38.93 ft
Reservoir name	= Forbay #2	Max. Storage	= 3,997 cuft

Storage Indication method used.



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

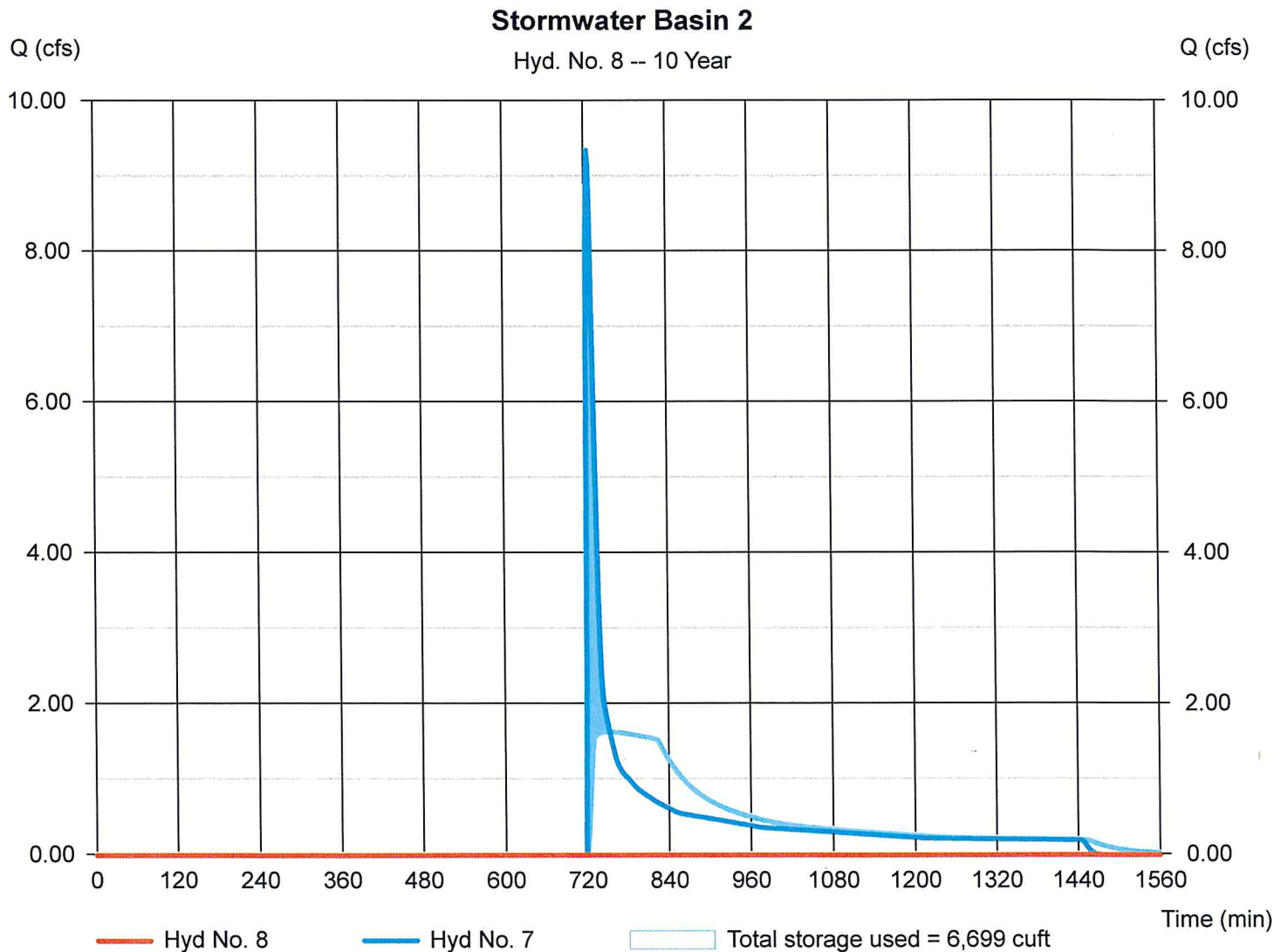
Hyd. No. 8

Stormwater Basin 2

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyd. No. = 7 - Forebay 2
Reservoir name = Stormwater Basin 2

Peak discharge = 0.000 cfs
Time to peak = 866 min
Hyd. volume = 0 cuft
Max. Elevation = 37.55 ft
Max. Storage = 6,699 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Summary Report

Hydroflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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	9.625	1	725	33,124	-----	-----	-----	Existing Conditions - Areas 1
2	SCS Runoff	16.08	1	724	47,719	-----	-----	-----	Proposed Conditions - Area 1
3	Reservoir	6.357	1	739	33,492	2	38.83	16,509	Forebay 1
4	Reservoir	1.101	1	851	18,639	3	38.62	15,662	Stormwater Basin 1
5	SCS Runoff	9.411	2	726	32,684	-----	-----	-----	Existing Conditions - Area 2
6	SCS Runoff	14.42	2	724	41,995	-----	-----	-----	Proposed Conditions - Area 2
7	Reservoir	14.38	2	724	38,797	6	39.07	4,293	Forebay 2
8	Reservoir	2.244	2	740	2,175	7	38.66	12,265	Stormwater Basin 2
A&B Excavation TR55.gpw					Return Period: 25 Year			Tuesday, Aug 1, 2023	

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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Hyd. No. 1

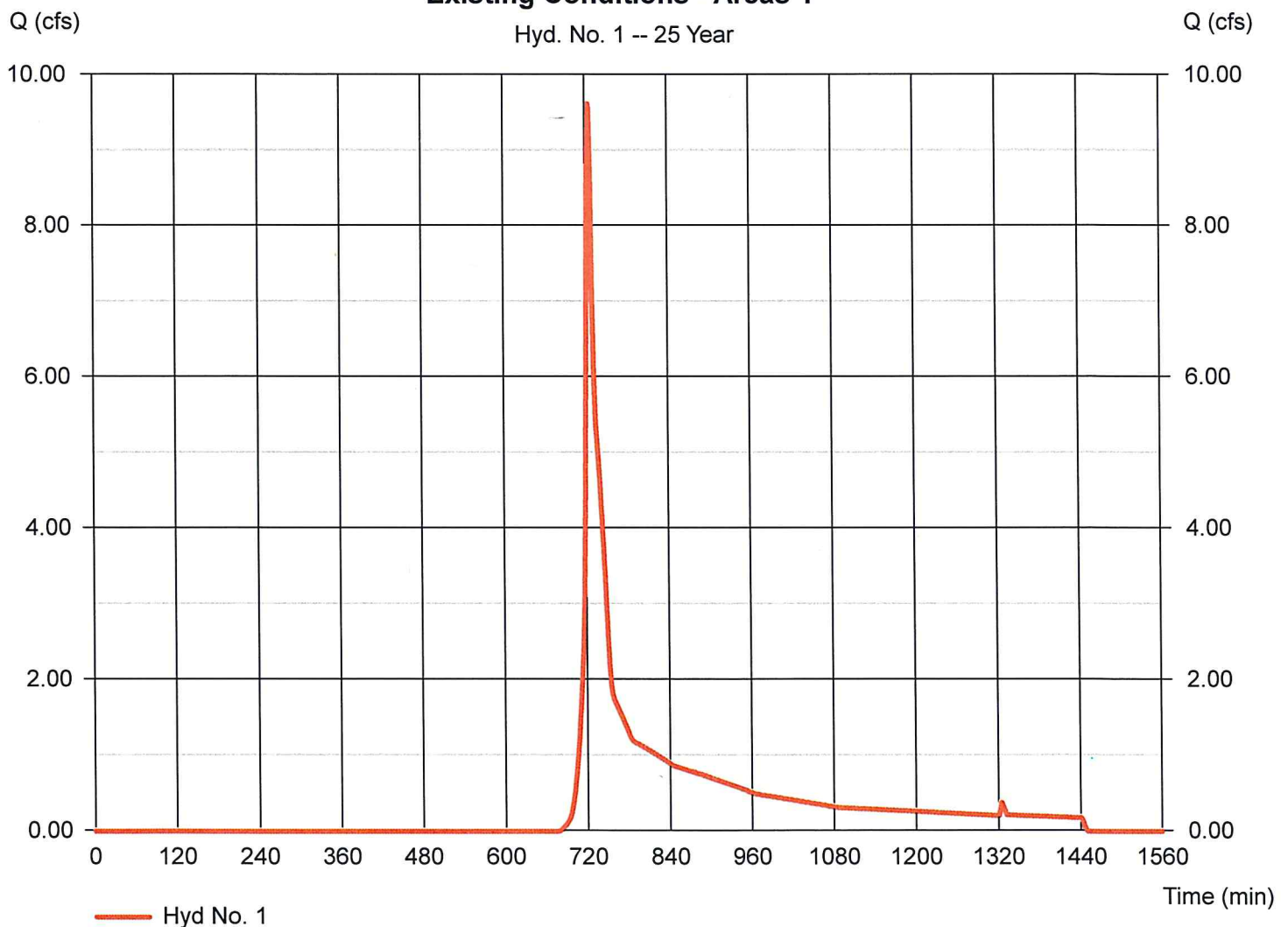
Existing Conditions - Areas 1

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 5.700 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.06 in
Storm duration = 24 hrs

Peak discharge = 9.625 cfs
Time to peak = 725 min
Hyd. volume = 33,124 cuft
Curve number = 55*
Hydraulic length = 0 ft
Time of conc. (Tc) = 5.30 min
Distribution = Type III
Shape factor = 484

* Composite (Area/CN) = [(5.300 x 55)] / 5.700

Existing Conditions - Areas 1



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

Hyd. No. 2

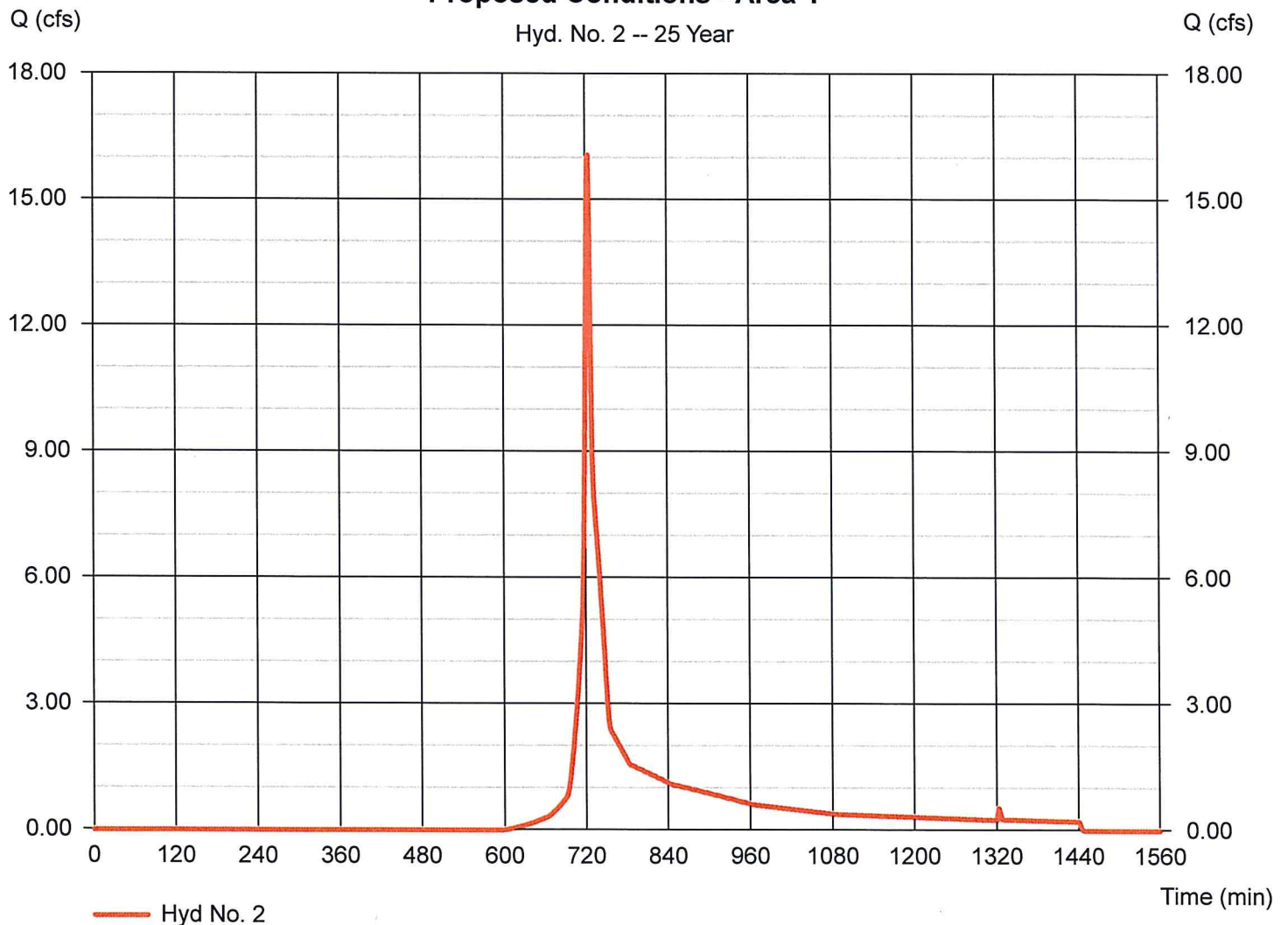
Proposed Conditions - Area 1

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 1 min
Drainage area = 5.700 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.06 in
Storm duration = 24 hrs

Peak discharge = 16.08 cfs
Time to peak = 724 min
Hyd. volume = 47,719 cuft
Curve number = 64*
Hydraulic length = 0 ft
Time of conc. (Tc) = 4.50 min
Distribution = Type III
Shape factor = 484

* Composite (Area/CN) = $[(1.900 \times 83) + (3.800 \times 55)] / 5.700$

Proposed Conditions - Area 1



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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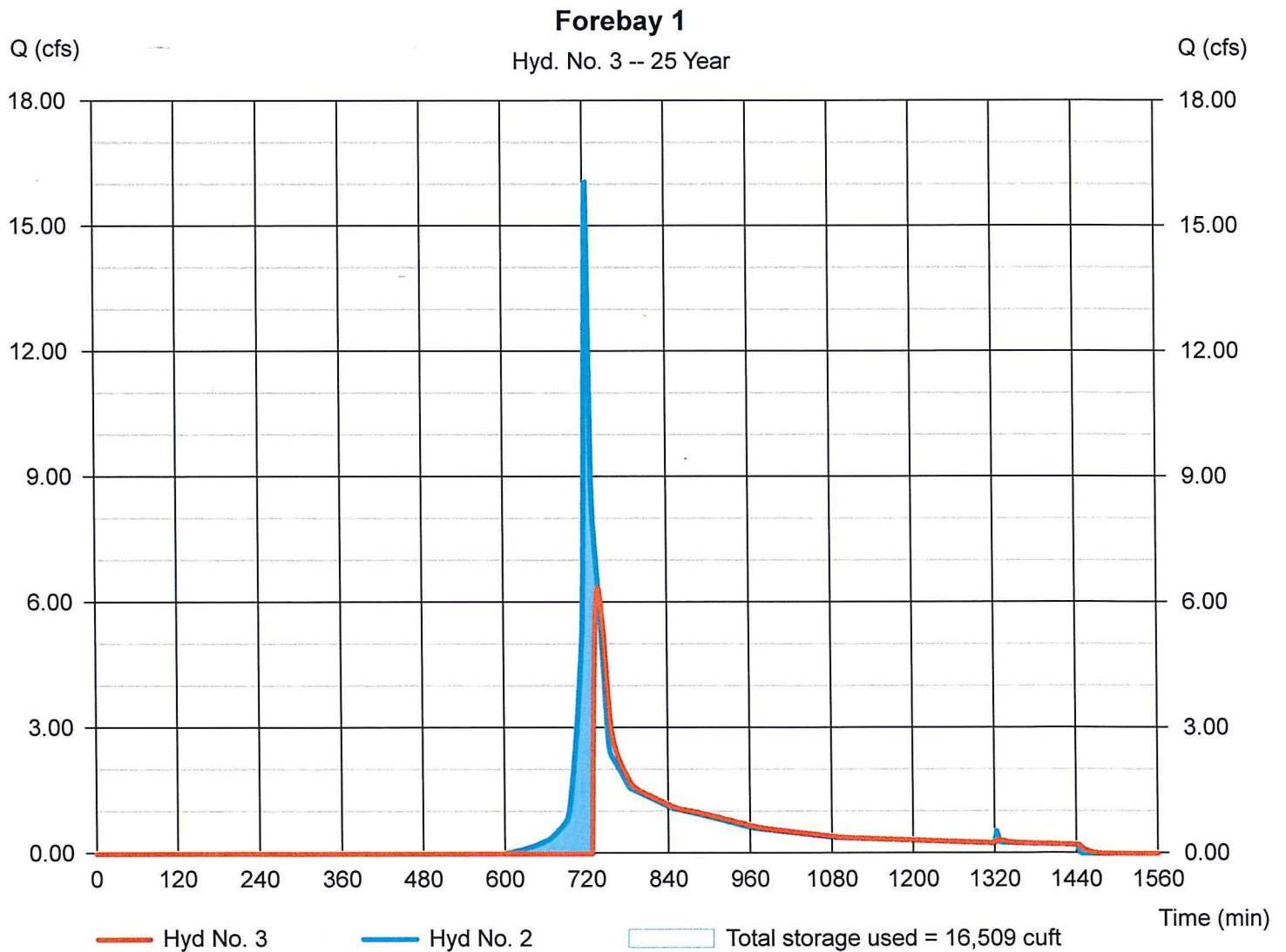
Hyd. No. 3

Forebay 1

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 1 min
Inflow hyd. No. = 2 - Proposed Conditions - Area 1
Reservoir name = Forebay #1

Peak discharge = 6.357 cfs
Time to peak = 739 min
Hyd. volume = 33,492 cuft
Max. Elevation = 38.83 ft
Max. Storage = 16,509 cuft

Storage Indication method used.



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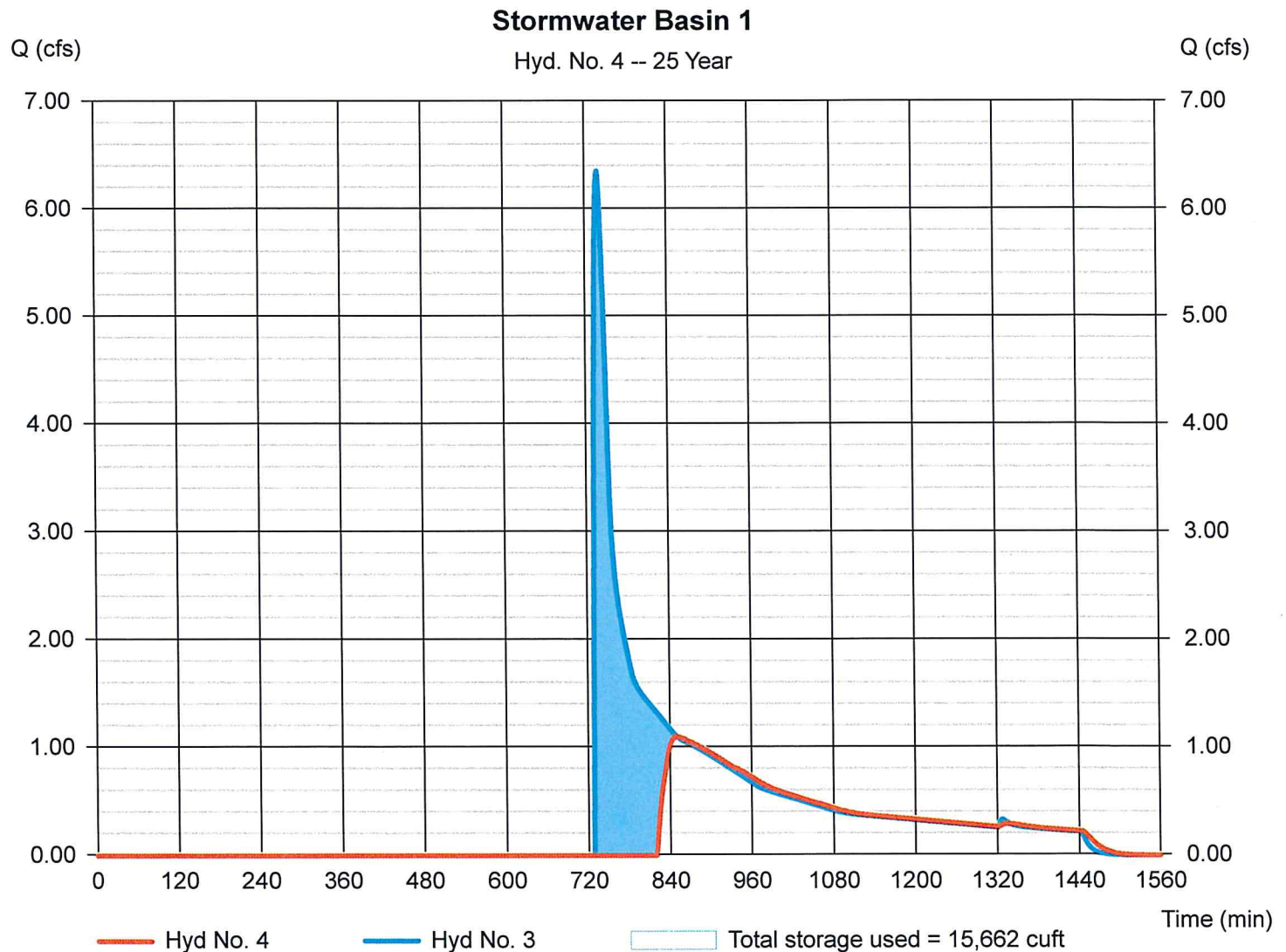
Hyd. No. 4

Stormwater Basin 1

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 1 min
Inflow hyd. No. = 3 - Forebay 1
Reservoir name = Stormwater Basin 1

Peak discharge = 1.101 cfs
Time to peak = 851 min
Hyd. volume = 18,639 cuft
Max. Elevation = 38.62 ft
Max. Storage = 15,662 cuft

Storage Indication method used.



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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Hyd. No. 5

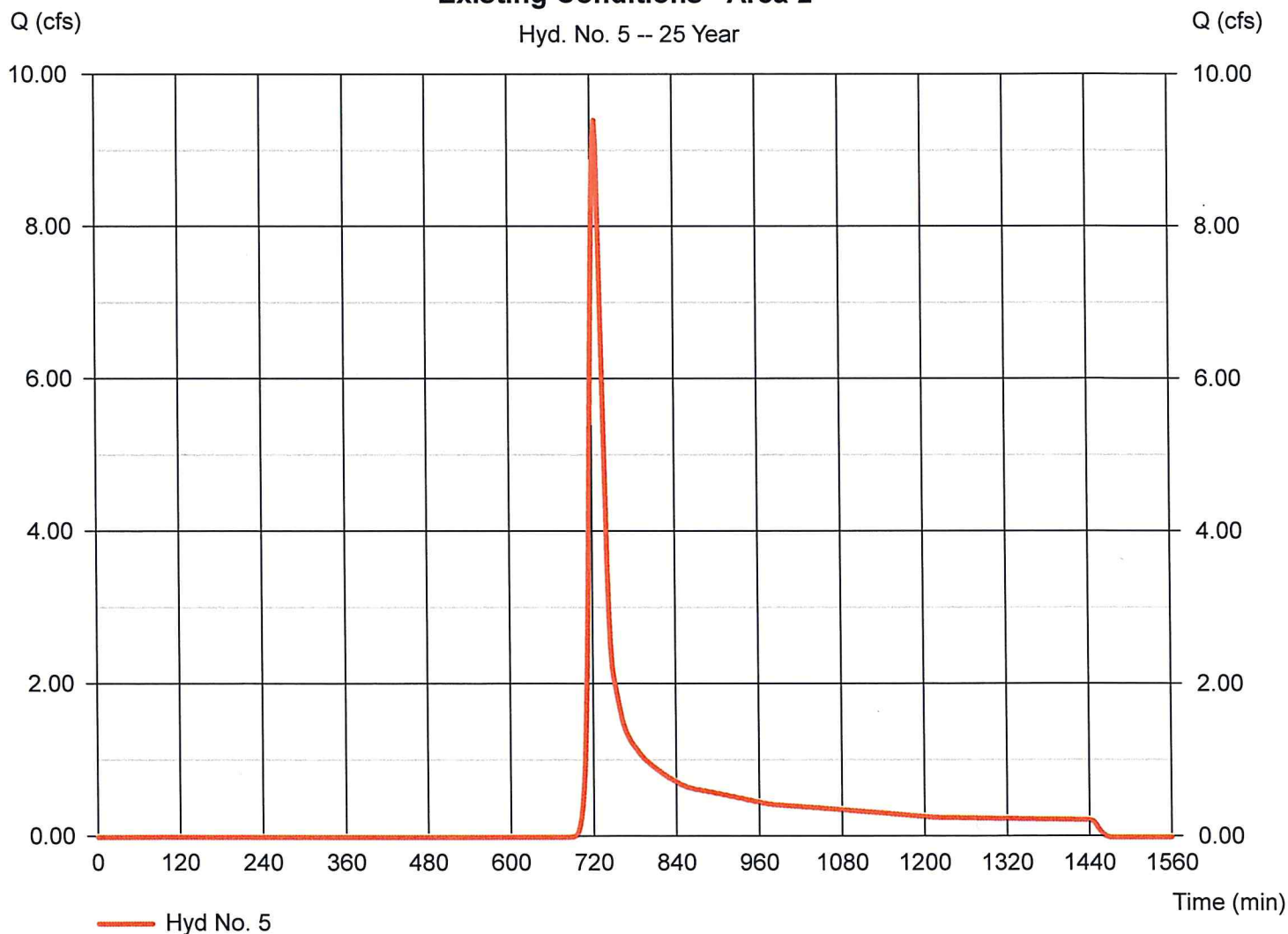
Existing Conditions - Area 2

Hydrograph type = SCS Runoff
Storm frequency = 25 yrs
Time interval = 2 min
Drainage area = 5.800 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 6.06 in
Storm duration = 24 hrs

Peak discharge = 9.411 cfs
Time to peak = 726 min
Hyd. volume = 32,684 cuft
Curve number = 55*
Hydraulic length = 0 ft
Time of conc. (Tc) = 16.90 min
Distribution = Type II
Shape factor = 484

* Composite (Area/CN) = [(4.700 x 55)] / 5.800

Existing Conditions - Area 2



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

Hyd. No. 6

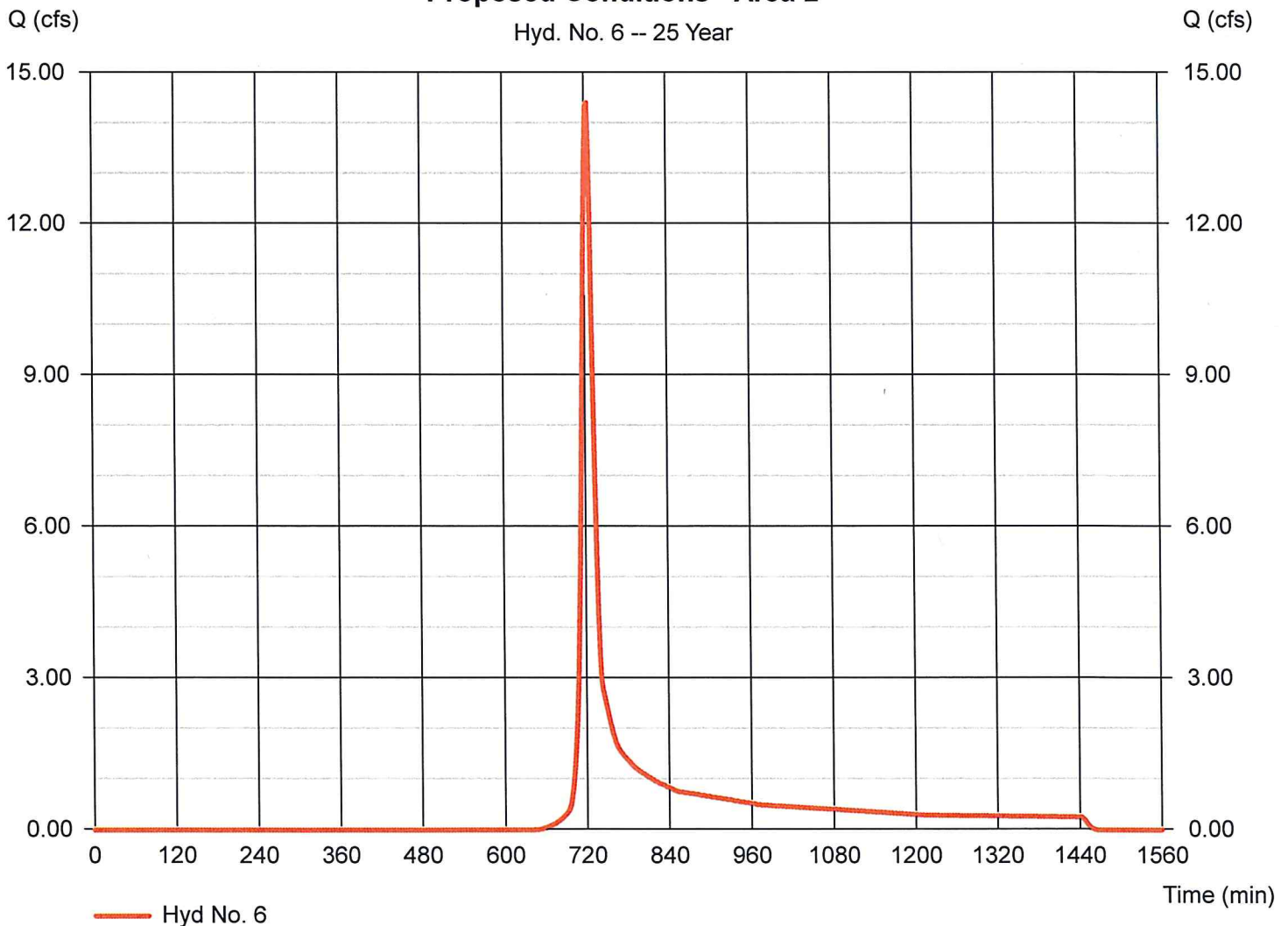
Proposed Conditions - Area 2

Hydrograph type = SCS Runoff
 Storm frequency = 25 yrs
 Time interval = 2 min
 Drainage area = 5.800 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 6.06 in
 Storm duration = 24 hrs

Peak discharge = 14.42 cfs
 Time to peak = 724 min
 Hyd. volume = 41,995 cuft
 Curve number = 61*
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 16.50 min
 Distribution = Type II
 Shape factor = 484

* Composite (Area/CN) = $[(1.200 \times 83) + (4.600 \times 55)] / 5.800$

Proposed Conditions - Area 2



Hydrograph Report

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

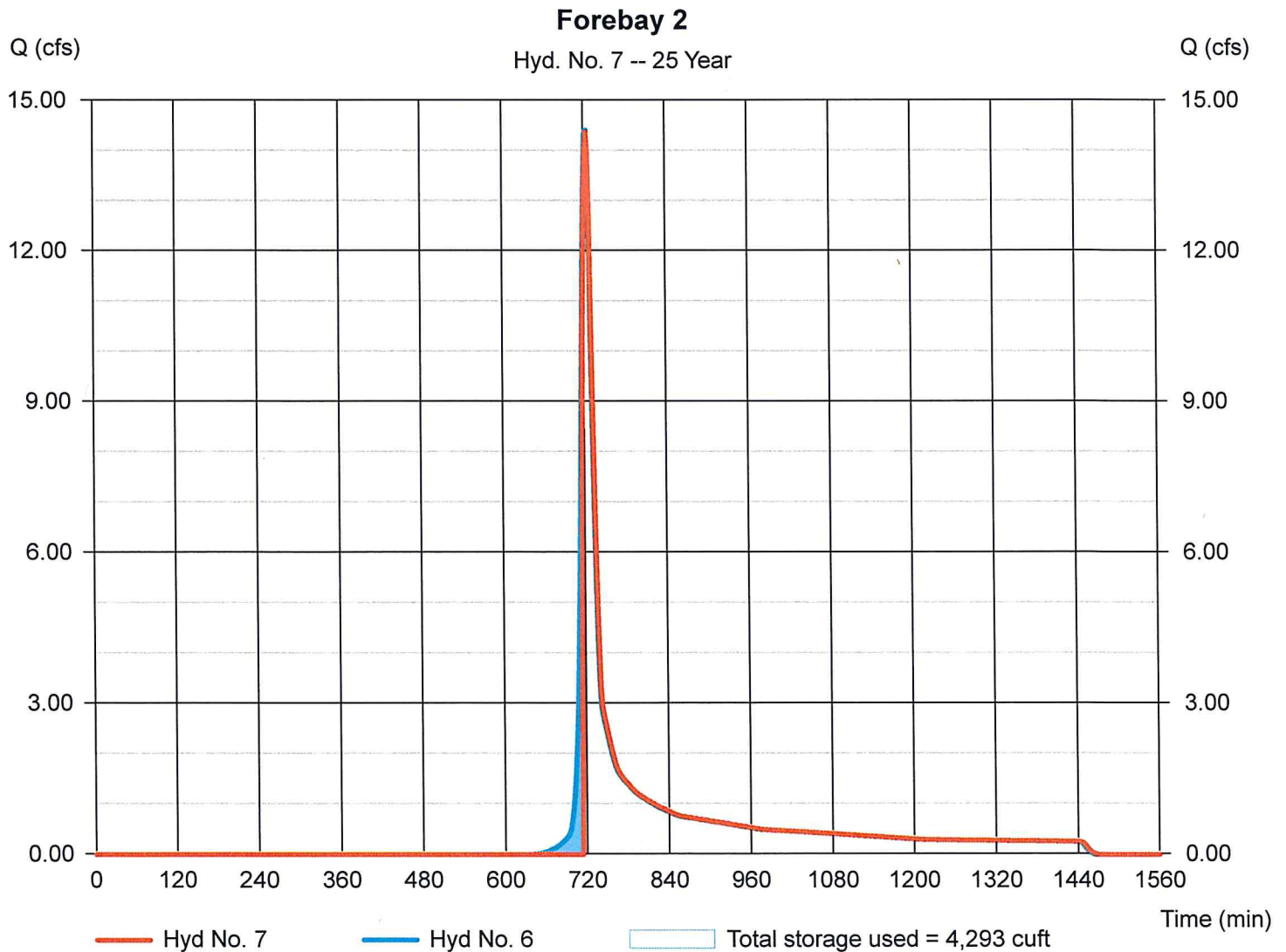
Hyd. No. 7

Forebay 2

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 2 min
Inflow hyd. No. = 6 - Proposed Conditions - Area 2
Reservoir name = Forbay #2

Peak discharge = 14.38 cfs
Time to peak = 724 min
Hyd. volume = 38,797 cuft
Max. Elevation = 39.07 ft
Max. Storage = 4,293 cuft

Storage Indication method used.



Hydrograph Report

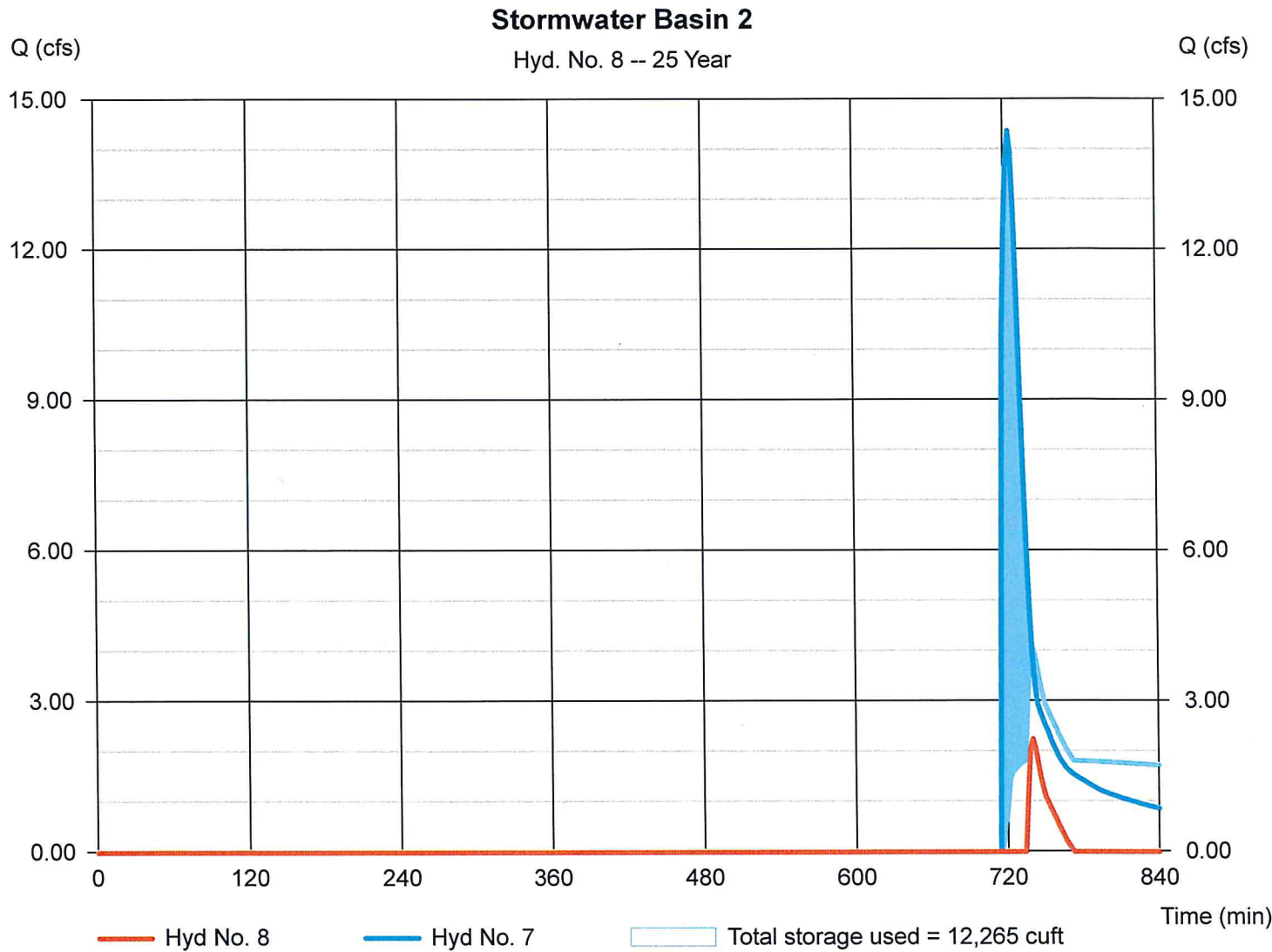
Hyd. No. 8

Stormwater Basin 2

Hydrograph type = Reservoir
Storm frequency = 25 yrs
Time interval = 2 min
Inflow hyd. No. = 7 - Forebay 2
Reservoir name = Stormwater Basin 2

Peak discharge = 2.244 cfs
Time to peak = 740 min
Hyd. volume = 2,175 cuft
Max. Elevation = 38.66 ft
Max. Storage = 12,265 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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	16.98	1	725	54,644	-----	-----	-----	Existing Conditions - Areas 1
2	SCS Runoff	24.96	1	723	72,830	-----	-----	-----	Proposed Conditions - Area 1
3	Reservoir	18.69	1	727	58,603	2	39.18	19,112	Forebay 1
4	Reservoir	6.702	1	749	43,749	3	38.91	17,614	Stormwater Basin 1
5	SCS Runoff	16.46	2	726	53,918	-----	-----	-----	Existing Conditions - Area 2
6	SCS Runoff	23.09	2	722	65,588	-----	-----	-----	Proposed Conditions - Area 2
7	Reservoir	23.04	2	724	62,391	6	39.28	4,777	Forebay 2
8	Reservoir	16.39	2	730	16,567	7	39.13	14,730	Stormwater Basin 2
A&B Excavation TR55.gpw					Return Period: 100 Year			Tuesday, Aug 1, 2023	

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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

Hyd. No. 1

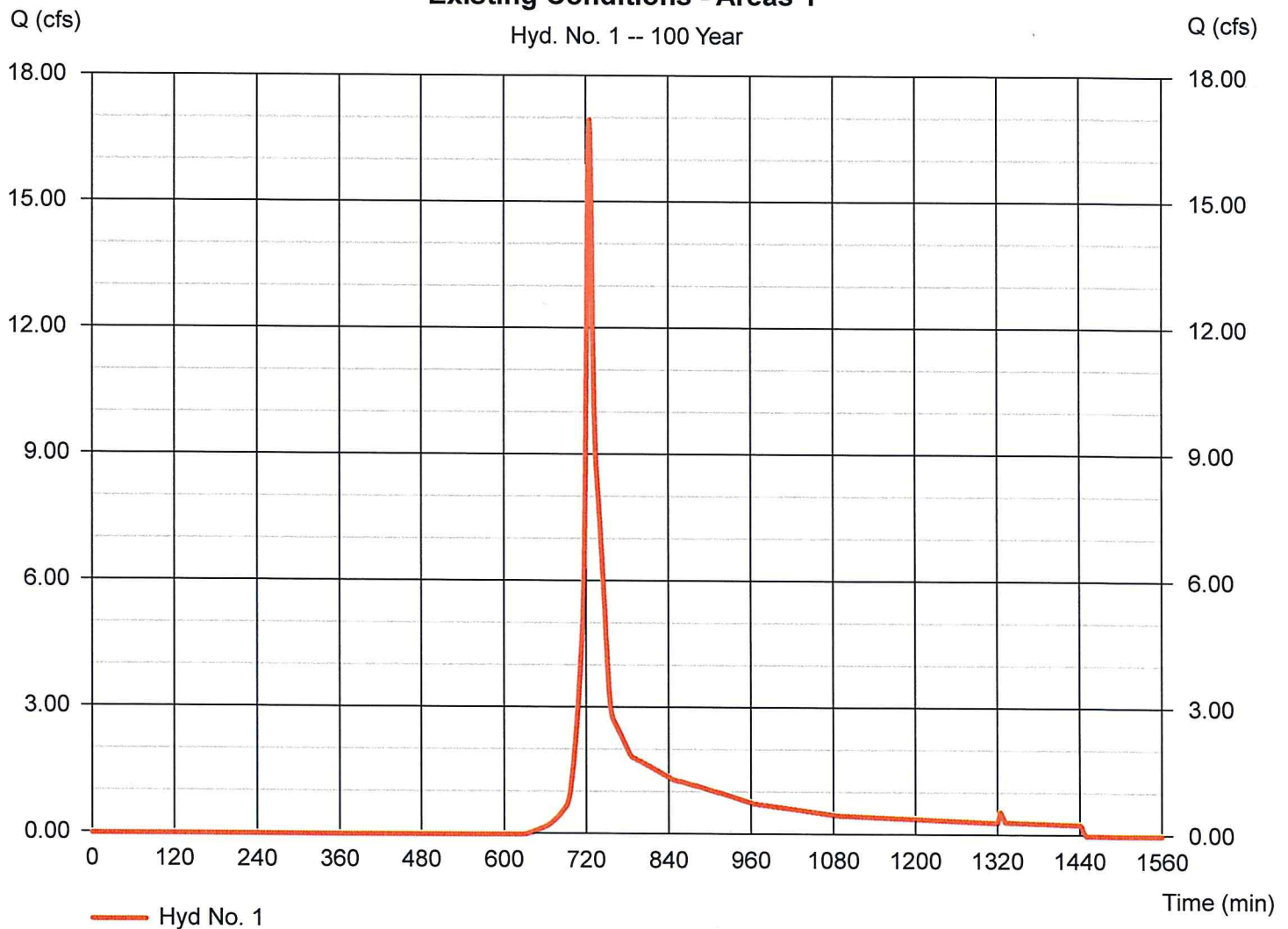
Existing Conditions - Areas 1

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 5.700 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 7.67 in
Storm duration = 24 hrs

Peak discharge = 16.98 cfs
Time to peak = 725 min
Hyd. volume = 54,644 cuft
Curve number = 55*
Hydraulic length = 0 ft
Time of conc. (Tc) = 5.30 min
Distribution = Type III
Shape factor = 484

* Composite (Area/CN) = [(5.300 x 55)] / 5.700

Existing Conditions - Areas 1



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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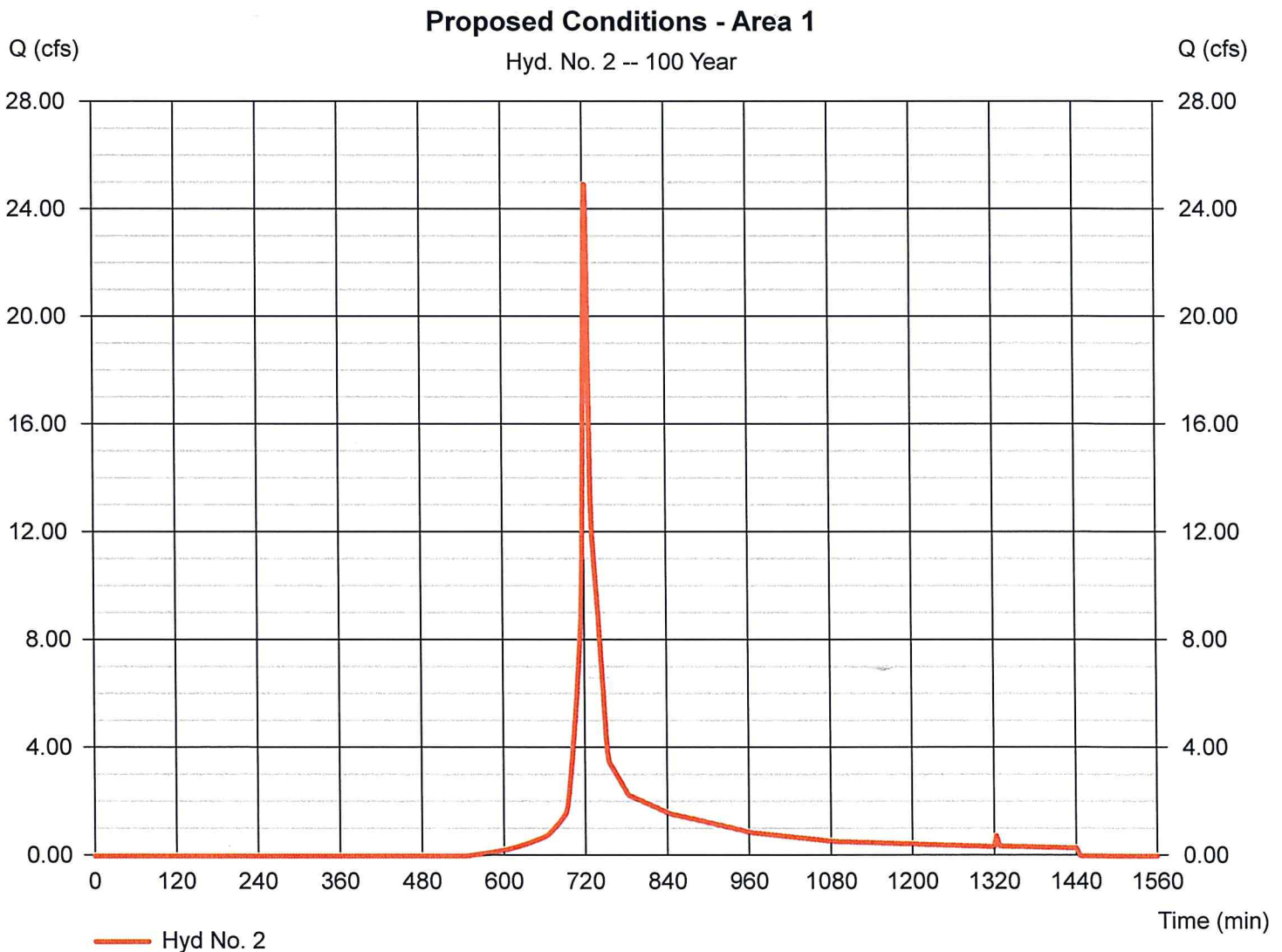
Hyd. No. 2

Proposed Conditions - Area 1

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 5.700 ac
Basin Slope = 0.0 %
Tc method = TR55
Total precip. = 7.67 in
Storm duration = 24 hrs

Peak discharge = 24.96 cfs
Time to peak = 723 min
Hyd. volume = 72,830 cuft
Curve number = 64*
Hydraulic length = 0 ft
Time of conc. (Tc) = 4.50 min
Distribution = Type III
Shape factor = 484

* Composite (Area/CN) = $[(1.900 \times 83) + (3.800 \times 55)] / 5.700$



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

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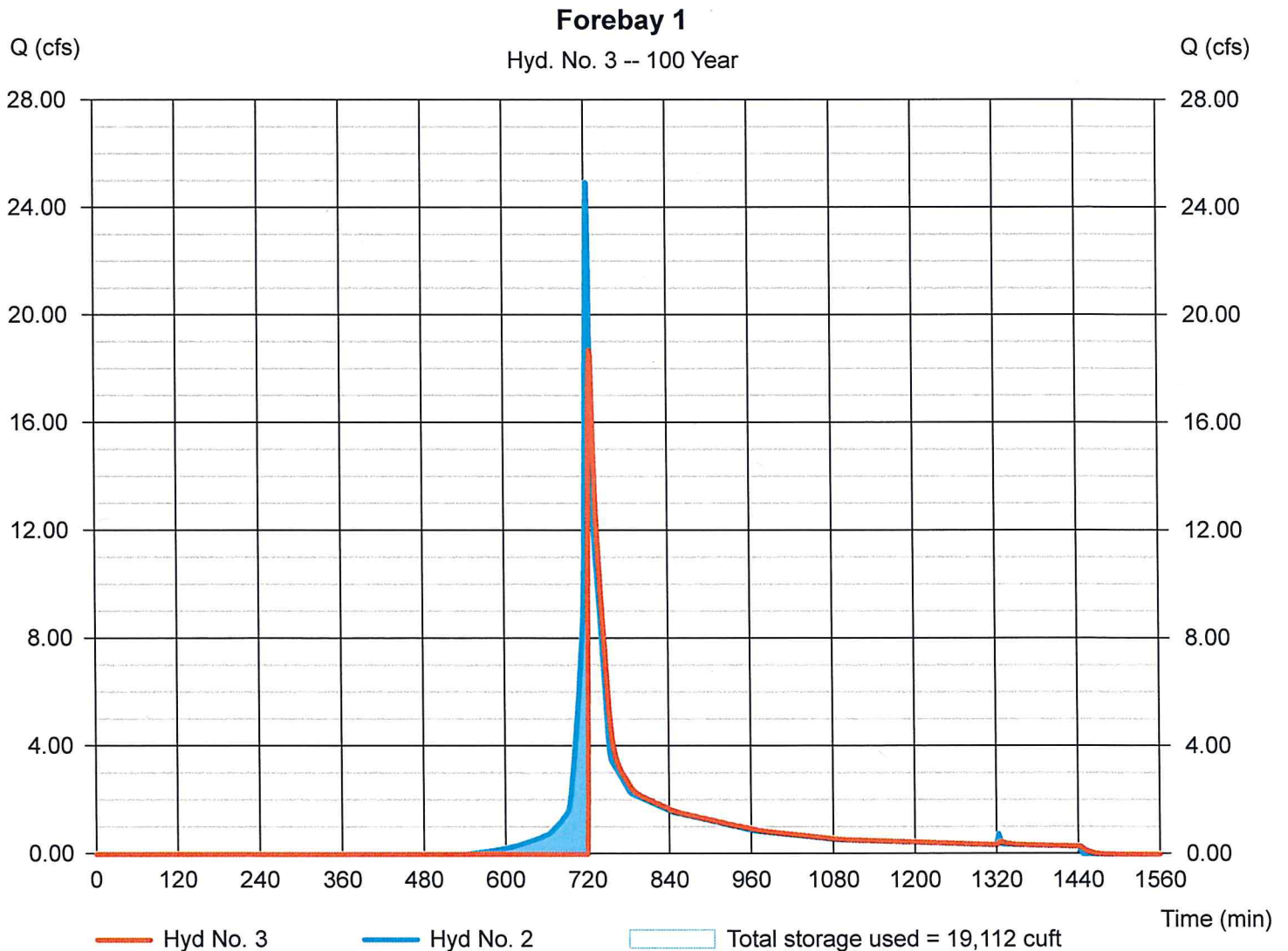
Hyd. No. 3

Forebay 1

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyd. No. = 2 - Proposed Conditions - Area 1
Reservoir name = Forebay #1

Peak discharge = 18.69 cfs
Time to peak = 727 min
Hyd. volume = 58,603 cuft
Max. Elevation = 39.18 ft
Max. Storage = 19,112 cuft

Storage Indication method used.



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Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

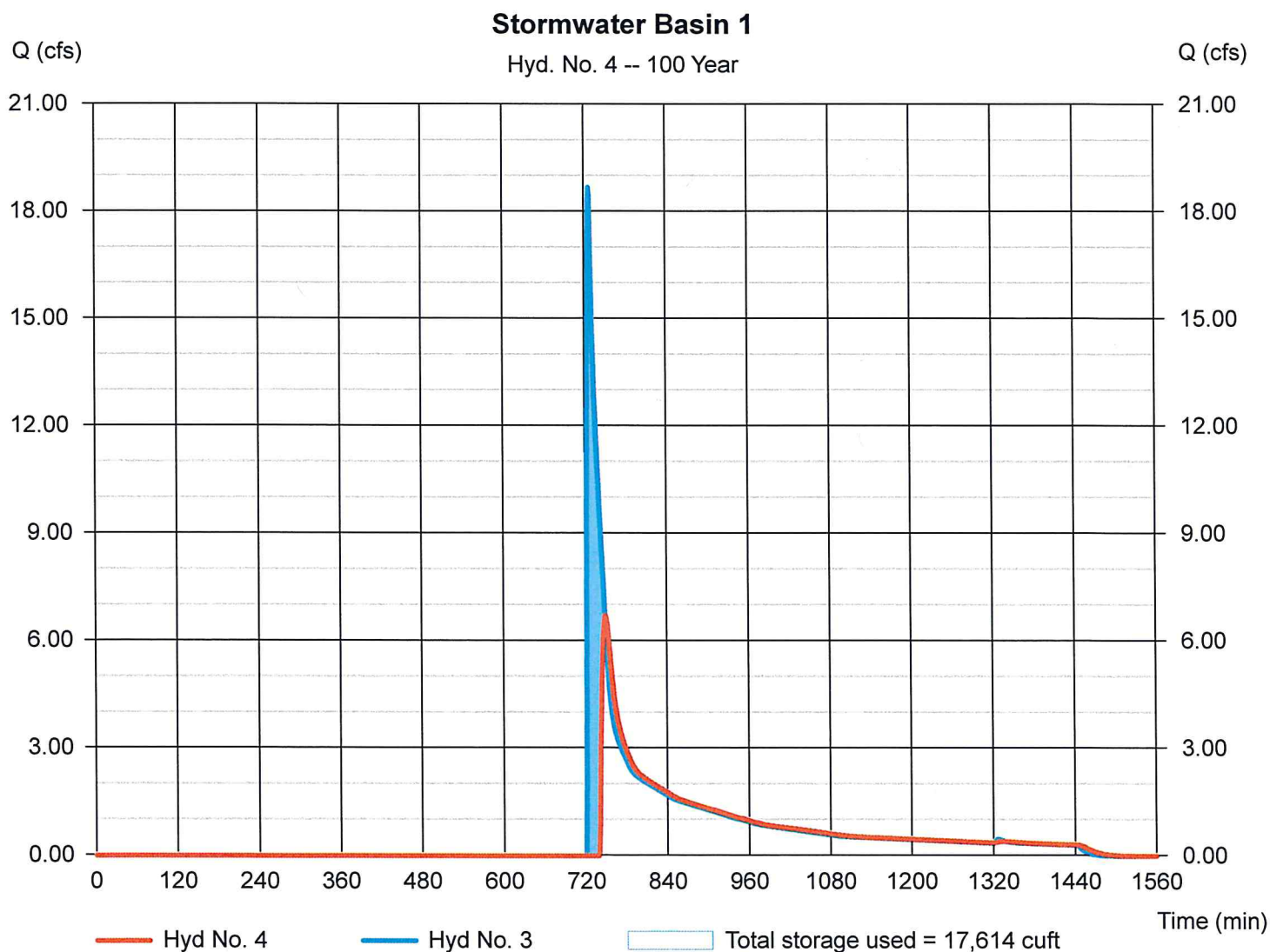
Hyd. No. 4

Stormwater Basin 1

Hydrograph type = Reservoir
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyd. No. = 3 - Forebay 1
Reservoir name = Stormwater Basin 1

Peak discharge = 6.702 cfs
Time to peak = 749 min
Hyd. volume = 43,749 cuft
Max. Elevation = 38.91 ft
Max. Storage = 17,614 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066

Tuesday, Aug 1, 2023

Hyd. No. 5

Existing Conditions - Area 2

Hydrograph type = SCS Runoff
 Storm frequency = 100 yrs
 Time interval = 2 min
 Drainage area = 5.800 ac
 Basin Slope = 0.0 %
 Tc method = TR55
 Total precip. = 7.67 in
 Storm duration = 24 hrs

Peak discharge = 16.46 cfs
 Time to peak = 726 min
 Hyd. volume = 53,918 cuft
 Curve number = 55*
 Hydraulic length = 0 ft
 Time of conc. (Tc) = 16.90 min
 Distribution = Type II
 Shape factor = 484

* Composite (Area/CN) = [(4.700 x 55)] / 5.800

Existing Conditions - Area 2

