Bryant Development and Review Committee Meeting

Boswell Municipal Complex - City Hall Conference Room

210 SW 3rd Street

Date: January 05, 2026 - **Time:** 9:00 AM

Call to Order

Old Business

New Business

1. 3492 Marketplace Ave - Site Plan

GarNat Engineering - Requesting Site Plan Approval

- 1002-RSP-01.pdf
- 1002-PLN-02.pdf

2. Vernia Park Phase 2 - Commercial Subdivision Plat

Zane Robbins - Requesting Recommendation for Approval of Commercial Subdivision Plat

- 1013-PLT-02.pdf
- 1013-Summerwoods Gym 3 Drainage Report.pdf
- 1013-Summerwoods Gym 3_Civil Set.pdf
- 1013-DRN-01.pdf
- 1013-DRN-02.pdf

3. 203 NE 2nd St - Lots 7 and 8, Block 14 Original Town of Bryant - Replat

Zane Robbins - Requesting Recommendation for Approval for Replat

- 1014-PLT-02.pdf
- 1014-PLOT-02.pdf

Staff Approved

4. Marketplace Veterinary Clinic - 3116 Horizon Ave #1 - Sign Permit

Ryan Berry - Requesting Sign Permit Approval - STAFF APPROVED

- 94465-APP-01.png
- 94465-APP-03.jpg
- 94465-APP-02.jpg

5. Ascend Body Therapy and Wellness - 22461 I-30 STE 1000 - Sign Permit

Jacob Knoedl - Requesting Sign Permit Approval - STAFF APPROVED

- 94466-SIGNAPP-01.pdf

6. Tahiti Tans - 3316 Horizon Ave #2 - Sign Permit

Ryan Berry - Requesting Sign Permit Approval - STAFF APPROVED

- 94467-APP-02.pdf
- 94467-APP-01.png

7. Jiffy Lube - 1900 N Reynolds Road - Sign Permit

Rocky River LLC - Requesting Sign Permit Approval - STAFF APPROVED

- 94468-SIGNAPP-01.pdf

8. Elliot Electrical - 22095 I-30, BLDG 300 - Sign Permit

Chris Coffman - Requesting Sign Permit Approval - STAFF APPROVED

- 94494-SGNAPP-01.pdf

9. Honey Baked Hams - 3213 Main Ste - Sign Permit

Cuerden Sign - Requesting Sign Permit Approval - STAFF APPROVED

- 94548-SGNAPP-01.jpg

10. 501 Tattoo and Piercing - 5311 Hwy 5, STE 310 - Sign Permit

Rods Signs - Requesting Sign Permit Approval - STAFF APPROVED

- 94556-SIGNAPP-01.pdf

Permit Report

Adjournments

Vernon Williams <garnatengineering@gmail.com> Mon, Dec 29, 2025 at 1:35 PM
To: George Wooden <georgewooden98@gmail.com>

Vernon J. Williams, P.E.
GarNat Engineering, LLC
Mailing Address: Physical Address:
P.O. Box 116 3825 Mt Carmel Road
Benton, AR 72018 Bryant, AR 72022
Ph: (501) 408-4650 Cell: (501) 425-2771
www.garnatengineering.com

---------- Forwarded message ---------
From: **Colton Leonard** <cleonard@cityofbryant.com>
Date: Mon, Nov 17, 2025 at 11:50 AM
Subject: Re: Can I get the DRC comments from yesterday for Bart's plot plan?
To: Vernon Williams <garnatengineering@gmail.com>

Sorry for the delay! Here are those comments.

Best,
Colton

1. 3492 Market Place Ave - site plan

Utilities

1. Submit full set of utility plans No extensions required - Water and sewer mains added to plot plan
2. What is the proposed building use? Office / Retail lease space
3. Show existing water main. Verify that the building footprint is not over the water line. The building cannot be on top of the water line. Must remain 7.5' from the water line. Plot plan updated
4. Show connection of water and sewer services Services added to plot plan

Streets

1. No comments

Stormwater

1. Small Scale ADEQ permit required and submitted to City of Bryant Per discussion w/ Troy Ellis we are disturbing 0.35 acres & no SWPPP is required.
2. NOC submitted to City of Bryant and posted on site See response above

Engineering

1. Handicap parking requires a sign Sign added
2. Show dimensions on handicap parking Dimensions added

3. Show parking lot counts and dimensions Added

Planning

1. There will be a need for an island with curbing at least for a portion along Progress Way to delineate the entrance for Progress Way and allow for a separation of the street entrance and the parking lot. Such as what was done across the street. Island added

Fire

1. Include a Knox Box near the main entrance at a height of 60” - 66”. [AFPC, 506.1] Will comply

On Fri, Nov 14, 2025 at 9:32 AM Vernon Williams <garnatengineering@gmail.com> wrote:

> Vernon J. Williams, P.E.
> GarNat Engineering, LLC
> Mailing Address: Physical Address:
> P.O. Box 116 3825 Mt Carmel Road
> Benton, AR 72018 Bryant, AR 72022
> Ph: (501) 408-4650 Cell: (501) 425-2771
> www.garnatengineering.com

--

Colton Leonard, AICP
Interim Director of Planning and Development

501-943-0301

cleonard@cityofbryant.com

www.cityofbryant.com

210 SW 3rd St, Bryant, AR 72022

GNE Designing our client's success

P.O. Box 116 — 3825 Mt Carmel Rd
Benton, AR 72018 — Bryant, AR 72022
Ph (501) 408-4650 — garnatengineering@gmail.com

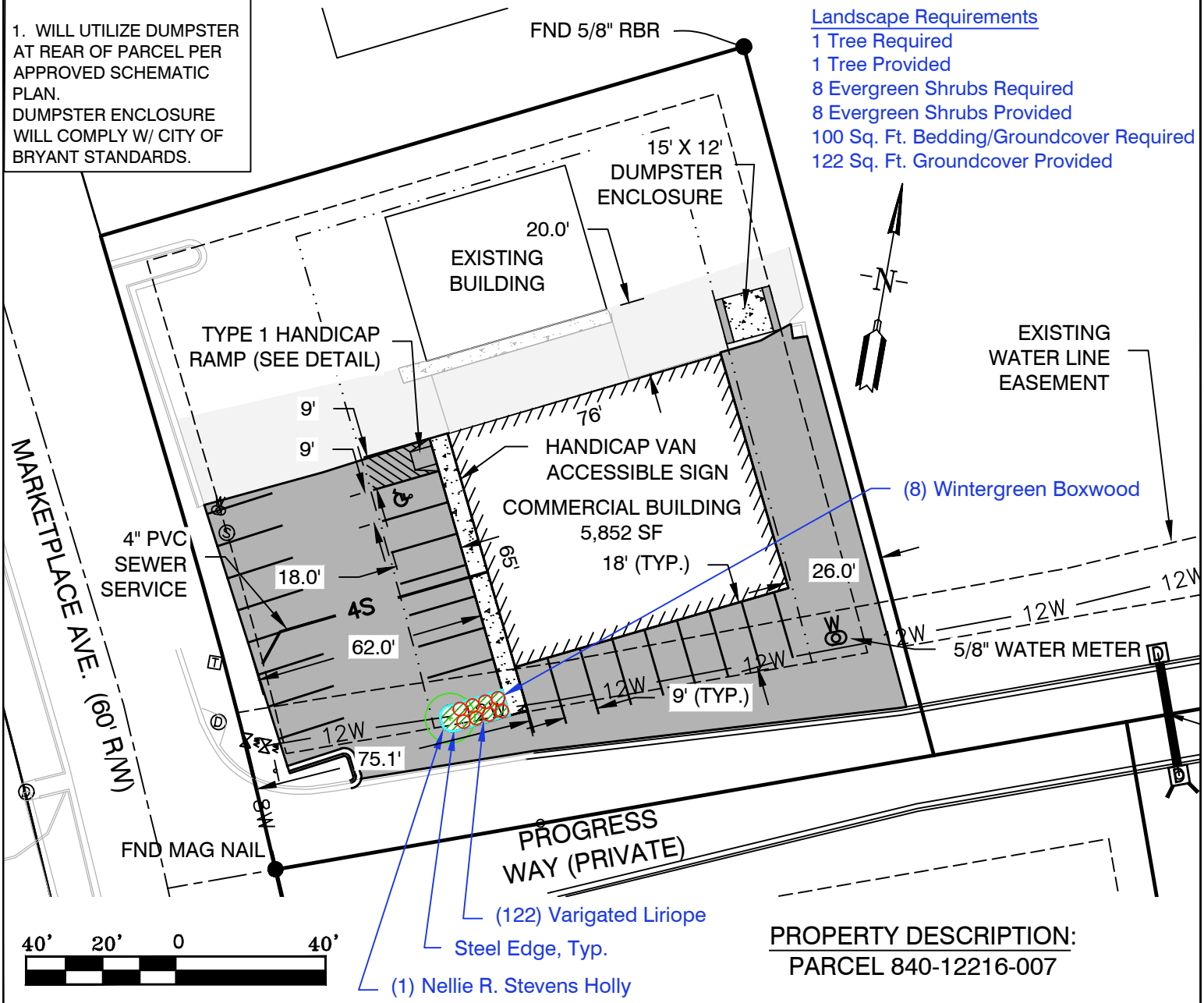
FOR EXCLUSIVE USE & BENEFIT OF:

Name: BART FERGUSON

LEGEND
- Computed point
- Found monument
- Set #4 RB/Plas. Cap
(M)-Measured
(R)-Record
(P)-Platted

NOTES:

1. WILL UTILIZE DUMPSTER AT REAR OF PARCEL PER APPROVED SCHEMATIC PLAN.
DUMPSTER ENCLOSURE WILL COMPLY W/ CITY OF BRYANT STANDARDS.



PROPERTY DESCRIPTION:
PARCEL 840-12216-007

JOB NUMBER:

20022 MARKETPLACE EAST, PHASE 1

12/29/2025

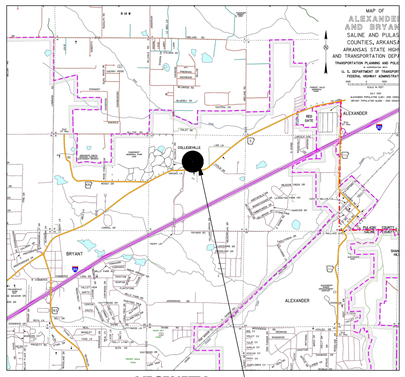
PLOT PLAN

This Plot Plan depicts the lot as it appears on the subdivision final plat. This drawing does not represent an actual survey.

According the the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Saline County unincorporated areas, panel # 05125C0240E dated 06/05/2020, no portion , dated of the property described hereon does lie within the 100 year flood hazard boundary.

PARKING
22 - REGULAR SPOTS
1 - HANDICAP SPOT
23 - TOTAL SPOTS

J:\Projects\2020 Projects\20022 Bart Ferguson – Marketplace East Subdivision\Drawings\DWGs\Design\20022 Marketplace East Subdivision Phase 1 – Corner–Building–Design – R3 – 112125.dwg



VICINITY MAP
NTS

0 25' 50' 100'
SCALE: 1" = 50'

REGISTERED LAND SURVEYOR
STATE OF ARKANSAS
NO. 1853
SIGNATURE
12/10/2025
ZANE ROBBINS
PROFESSIONAL LAND SURVEYOR

CERTIFICATE OF AUTHORIZATION
ROBBINS PROFESSIONAL LAND SERVICES
#4151
ARKANSAS SURVEYOR

CERTIFICATE OF SURVEY ACCURACY

I, ZANE ROBBINS, HEREBY CERTIFY THAT THIS REPLAT CORRECTLY REPRESENTS A BOUNDARY SURVEY MADE OR VERIFIED BY ME, THAT ALL SURVEYING REQUIREMENTS OF THE STATE OF ARKANSAS AND CITY OF BRYANT SUBDIVISION RULES AND REGULATIONS HAVE BEEN COMPLIED WITH AND FILED FOR RECORD AS REQUIRED.

DATE OF EXECUTION

Zane Robbins
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 1853 ARKANSAS

CERTIFICATE OF OWNER

WE, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED AND SUBDIVIDED, AND DO HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAT.

DATE OF EXECUTION _____

SIGNED _____

NAME Doug Hendrix

ADDRESS 1500 Christy Lane, Alexander, AR, 72002

SOURCE OF TITLE: INSTRUMENT No. 2023-016335
2023-016337

CERTIFICATE OF FINAL PLAT APPROVAL

PURSUANT TO THE CITY OF BRYANT SUBDIVISION RULES AND REGULATIONS, THIS DOCUMENT WAS GIVEN APPROVAL BY THE BRYANT PLANNING COMMISSION AT A MEETING HELD _____, 20_____. ALL OF THE DOCUMENT IS HEREBY ACCEPTED, AND THIS CERTIFICATE EXECUTED UNDER THE AUTHORITY OF SAID RULES AND REGULATIONS.

SIGNED,

DATE OF EXECUTION

NAME,
BRYANT PLANNING COMMISSION

SUBDIVIDER:

EAST NORTH REAL ESTATE VII LLC
1500 CHRISTY LN
ALEXANDER, AR 72002

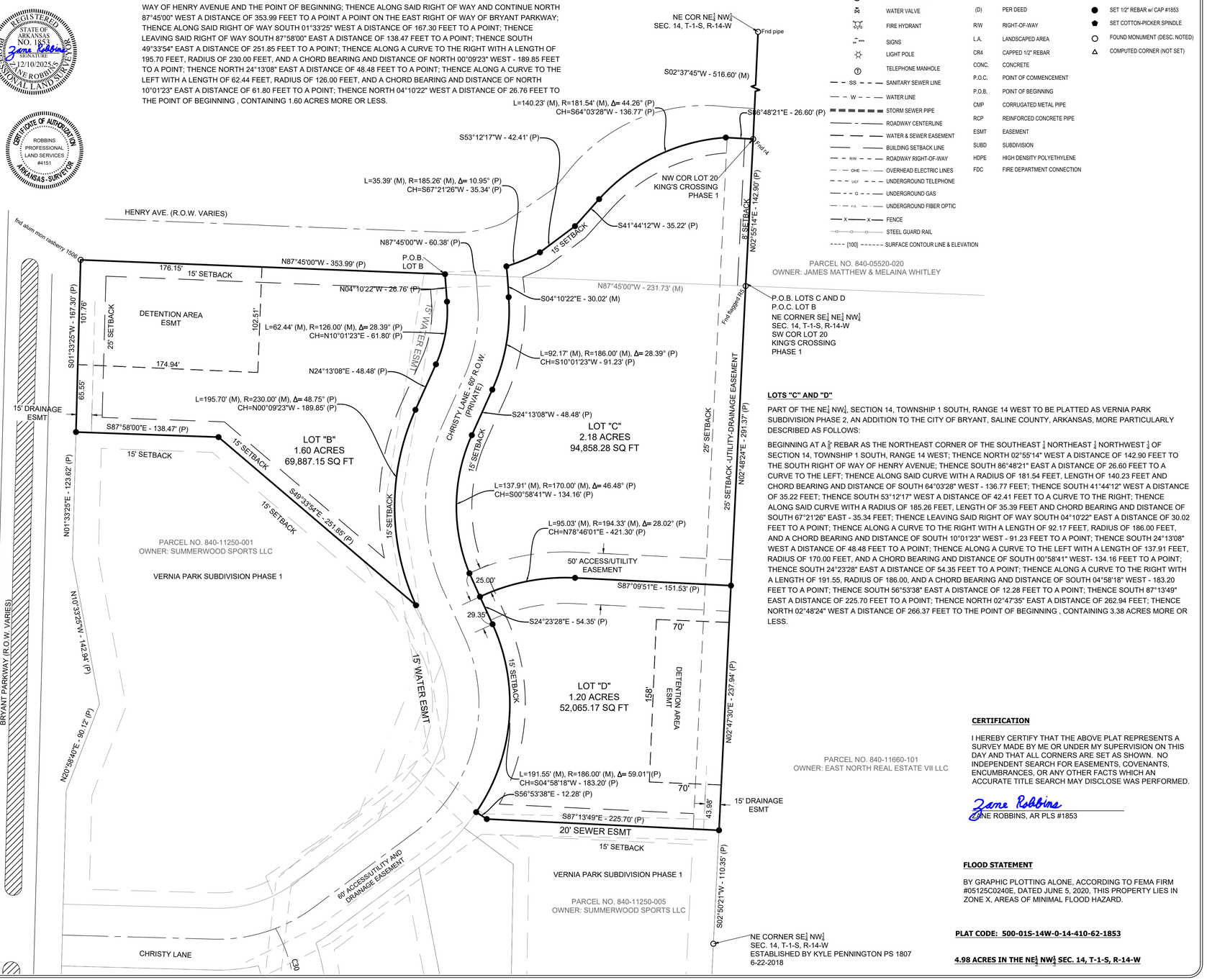
GENERAL NOTES

1. BASIS OF BEARING FOR THIS SURVEY IS BASED ON ARKANSAS STATE PLANE GRID SOUTH COORDINATES (NAD83 DATUM). MEASURED DISTANCES ARE GROUND DISTANCES. ELEVATIONS SHOWN ARE ABOVE MEAN SEA LEVEL (NAVD88 DATUM).
2. REFERENCES:
   A. INSTRUMENT NO. 2018-013165 FILED 07/13/2018
   B. INSTRUMENT NO. 2018-013162 FILED 07/13/2018
   C. INSTRUMENT NO. 2017-021243 FILED 11/08/2017
   D. INSTRUMENT NO. 2017-021242 FILED 11/08/2017
   E. SURVEY BY HOPE ENGINEERING FOR AF PARTNERS LLC DATED 06/21/2018.
   F, AMENDED FINAL PLAT VERNIA PARK SUBDIVISION PHASE 1

LOT "B"

PART OF THE NE¼ NW¼, SECTION 14, TOWNSHIP 1 SOUTH, RANGE 14 WEST TO BE PLATTED AS VERNIA PARK SUBDIVISION PHASE 2, AN ADDITION TO THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A ⅜" REBAR AS THE NORTHEAST CORNER OF THE SOUTHEAST ¼ NORTHEAST ¼ NORTHWEST ¼ OF SECTION 14, TOWNSHIP 1 SOUTH, RANGE 14 WEST; THENCE NORTH 87°45'00" WEST A DISTANCE OF 231.73 FEET TO A POINT; THENCE CONTINUE NORTH 87°45'00" WEST A DISTANCE OF 60.38 FEET TO A POINT ON THE SOUTH RIGHT OF WAY OF HENRY AVENUE AND THE POINT OF BEGINNING; THENCE ALONG SAID RIGHT OF WAY AND CONTINUE NORTH 87°45'00" WEST A DISTANCE OF 353.99 FEET TO A POINT A POINT ON THE EAST RIGHT OF WAY OF BRYANT PARKWAY; THENCE ALONG SAID RIGHT OF WAY SOUTH 01°33'25" WEST A DISTANCE OF 167.30 FEET TO A POINT; THENCE LEAVING SAID RIGHT OF WAY SOUTH 87°58'00" EAST A DISTANCE OF 138.47 FEET TO A POINT; THENCE SOUTH 49°33'54" EAST A DISTANCE OF 251.85 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT WITH A LENGTH OF 195.70 FEET, RADIUS OF 230.00 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 00°09'23" WEST - 189.85 FEET TO A POINT; THENCE NORTH 24°13'08" EAST A DISTANCE OF 48.48 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT WITH A LENGTH OF 62.44 FEET, RADIUS OF 126.00 FEET, AND A CHORD BEARING AND DISTANCE OF NORTH 10°01'23" EAST A DISTANCE OF 61.80 FEET TO A POINT; THENCE NORTH 04°10'22" WEST A DISTANCE OF 26.76 FEET TO THE POINT OF BEGINNING , CONTAINING 1.60 ACRES MORE OR LESS.



LEGEND OF SYMBOLS & ABBREVIATIONS

GAS METER	N	NORTH		ASPHALT	
WATER METER	S	SOUTH			
GUY WIRE	E	EAST		CONCRETE	
POWER/UTILITY POLE	W	WEST			
TELEPHONE PEDESTAL	(M)	AS MEASURED			
SEWER MANHOLE	(D)	PER DEED		SET 1/2" REBAR w/ CAP #1853	
WATER VALVE	R/W	RIGHT-OF-WAY		SET COTTON-PICKER SPINDLE	
FIRE HYDRANT	L.A.	LANDSCAPED AREA		FOUND MONUMENT (DESC. NOTED)	
SIGNS	CR4	CAPPED 1/2" REBAR		COMPUTED CORNER (NOT SET)	
LIGHT POLE	CONC.	CONCRETE			
TELEPHONE MANHOLE	P.O.C.	POINT OF COMMENCEMENT			
SANITARY SEWER LINE	P.O.B.	POINT OF BEGINNING			
WATER LINE	CMP	CORRUGATED METAL PIPE			
STORM SEWER PIPE	RCP	REINFORCED CONCRETE PIPE			
ROADWAY CENTERLINE	ESMT	EASEMENT			
WATER & SEWER EASEMENT	SUBD	SUBDIVISION			
BUILDING SETBACK LINE	HDPE	HIGH DENSITY POLYETHYLENE			
ROADWAY RIGHT-OF-WAY	FDC	FIRE DEPARTMENT CONNECTION			
OVERHEAD ELECTRIC LINES					
UNDERGROUND TELEPHONE					
UNDERGROUND GAS					
UNDERGROUND FIBER OPTIC					
FENCE					
STEEL GUARD RAIL					
SURFACE CONTOUR LINE & ELEVATION					

LOTS "C" AND "D"

PART OF THE NE¼ NW¼, SECTION 14, TOWNSHIP 1 SOUTH, RANGE 14 WEST TO BE PLATTED AS VERNIA PARK SUBDIVISION PHASE 2, AN ADDITION TO THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A ⅜" REBAR AS THE NORTHEAST CORNER OF THE SOUTHEAST ¼ NORTHEAST ¼ NORTHWEST ¼ OF SECTION 14, TOWNSHIP 1 SOUTH, RANGE 14 WEST; THENCE NORTH 02°55'14" WEST A DISTANCE OF 142.90 FEET TO THE SOUTH RIGHT OF WAY OF HENRY AVENUE; THENCE SOUTH 86°48'21" EAST A DISTANCE OF 26.60 FEET TO A CURVE TO THE LEFT; THENCE ALONG SAID CURVE WITH A RADIUS OF 181.54 FEET, LENGTH OF 140.23 FEET AND CHORD BEARING AND DISTANCE OF SOUTH 64°03'28" WEST - 136.77 FEET; THENCE SOUTH 41°44'12" WEST A DISTANCE OF 35.22 FEET; THENCE SOUTH 53°12'17" WEST A DISTANCE OF 42.41 FEET TO A CURVE TO THE RIGHT; THENCE ALONG SAID CURVE WITH A RADIUS OF 185.26 FEET, LENGTH OF 35.39 FEET AND CHORD BEARING AND DISTANCE OF SOUTH 67°21'26" EAST - 35.34 FEET; THENCE LEAVING SAID RIGHT OF WAY SOUTH 04°10'22" EAST A DISTANCE OF 30.02 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT WITH A LENGTH OF 92.17 FEET, RADIUS OF 186.00 FEET, AND A CHORD BEARING AND DISTANCE OF SOUTH 10°01'23" WEST - 91.23 FEET TO A POINT; THENCE SOUTH 24°13'08" WEST A DISTANCE OF 48.48 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT WITH A LENGTH OF 137.91 FEET, RADIUS OF 170.00 FEET, AND A CHORD BEARING AND DISTANCE OF SOUTH 00°58'41" WEST- 134.16 FEET TO A POINT; THENCE SOUTH 24°23'28" EAST A DISTANCE OF 54.35 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT WITH A LENGTH OF 191.55, RADIUS OF 186.00, AND A CHORD BEARING AND DISTANCE OF SOUTH 04°58'18" WEST - 183.20 FEET TO A POINT; THENCE SOUTH 56°53'38" EAST A DISTANCE OF 12.28 FEET TO A POINT; THENCE SOUTH 87°13'49" EAST A DISTANCE OF 225.70 FEET TO A POINT; THENCE NORTH 02°47'35" EAST A DISTANCE OF 262.94 FEET; THENCE NORTH 02°48'24" WEST A DISTANCE OF 266.37 FEET TO THE POINT OF BEGINNING , CONTAINING 3.38 ACRES MORE OR LESS.

CERTIFICATION

I HEREBY CERTIFY THAT THE ABOVE PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY SUPERVISION ON THIS DAY AND THAT ALL CORNERS ARE SET AS SHOWN. NO INDEPENDENT SEARCH FOR EASEMENTS, COVENANTS, ENCUMBRANCES, OR ANY OTHER FACTS WHICH AN ACCURATE TITLE SEARCH MAY DISCLOSE WAS PERFORMED.

Zane Robbins
ZANE ROBBINS, AR PLS #1853

FLOOD STATEMENT

BY GRAPHIC PLOTTING ALONE, ACCORDING TO FEMA FIRM #05125C0240E, DATED JUNE 5, 2020, THIS PROPERTY LIES IN ZONE X, AREAS OF MINIMAL FLOOD HAZARD.

PLAT CODE: 500-01S-14W-0-14-410-62-1853

4.98 ACRES IN THE NE¼ NW¼ SEC. 14, T-1-S, R-14-W

REVISIONS	DATE

VERNIA PARK SUBDIVISION PHASE 2, A REPLAT OF LOTS 1, 2, 3, 10, 11, 12 & 14, AND PART OF THE ABANDONED R.O.W. OF NORTHERN AVE, NORTH ST., COLLEGE ST., EASTERN AVE., STATE ST., & CONGRESS ST. SURROUNDING SAID BLOCKS, OF THE ORIGINAL TOWN OF COLLEGEVILLE, PLAT DATED JUNE 21, 1838.

FINAL PLAT

ROBBINS PROFESSIONAL LAND SERVICES
INCORPORATED
SURVEYING | GIS | CONSTRUCTION STAKING
P.O. BOX 939 | BRYANT, ARKANSAS 72089
OFFICE: 501.425.6300 | EMAIL: ZANEROBBINS@GMAIL.COM

DRAWN BY	ZR
DESIGNED	
CHECKED	ZR
DATE	12-10-25
SCALE	1" = 50'
PROJECT NO.	2021180
SHEET NO.	

SUMMERWOOD SPORTS GYM #3

DRAINAGE REPORT

Date: **01-10-2024**

Located in: **Bryant, Arkansas**

Prepared for:
City of Bryant, Arkansas

Prepared by:

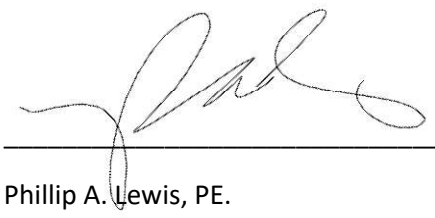
PHILLIP LEWIS ENGINEERING

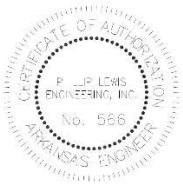
Structural + Civil Consultants

23620 Interstate 30 | Bryant, AR
PH: 501-350-9840

CERTIFICATION

I hereby state that this Final Drainage has been prepared by me or under my supervision and meets the standard of care and expertise which is usual and customary in this community of professional engineers. The analysis has been prepared utilizing procedures and practices by the City of Bryant and within the standard accepted practices.







DATE: 01-10-2024

Phillip A. Lewis, PE.

PROJECT LOCATION MAP



DESCRIPTION OF PROPERTY

The proposed project is for the consruction of the third gymnasium of the Summerwood Sports Complex located along Bryant Parkway and Hwy 5. The proposed development is a 19,000 sq. ft. building and parking lot.

The intent of this drainage analysis is to reevaluate the previous drainage design and ensure that the completetion of this development still meets the design intent and capacity of the previous constructed onsite detention facilities.

The existing ground coverage for the entire development drainage basin consisted of and partially still consists of natural vegetation (3%-8% slope), hydrologic soil group C/D (C = 0.50).

According to FEMA Flood Insurance Rate Map, Panel 05125C0240E, this property lies within Zone X, areas determined to be outside the 0.2% annual chance floodplain. A copy of the map can be found in the appendix.

DRAINAGE CRITERIA

In accordance with the requirements of the City of Bryant, the proposed developments drainage plan and this drainage report were developed with the criteria established in the Bryant Stormwater Management & Drainage Manual provided on cityofbryant.com.

All drainage calculations were performed using HydroCAD software to determine and analyze the changes in stormrunoff volume, flow rates, and design the outlet release structure. Hydraflow Express software was used to appropriately design and size all storm sewer inlets, pipes and channels.

Calculations were performed using the Rational Method, using NOAA rainfall data, and the pond volume and outlet structure was determined by the 100-year storm event while

the outlet structure is designed to match or reduce pre-development flow rates for all storm events: 2-yr, 10-yr, 25-yr, and 100-yr storms.

Detention Basin Design Specifications:

- *3:1 maximum side slopes*
- *Outlet structures designed to reduce flow rate to match or reduce the pre-development runoff rates for the 2-yr, 5-yr, 10-yr, 25-yr and 100-yr storms.*
- *The pond bottom and side is to be solid sod to prevent erosion*
- *The basins are located and designed to allow access for continued maintenance after construction is completed*

DESCRIPTION OF PREVIOUS DETENTION FACILITIES

Phillip Lewis Engineering has evaluated the previously supplied drainage analysis and made site investigations to fully understand the current drainage situation.

The previous drainage analysis studied the pre vs. post scenarios as a single 6 acre node. Post development was studied as one node routing through the detention pond that is now constructed on the site. Due to the nature of how phase one construction evolved, some areas were not routed to this detention pond. Some of these areas ultimately discharge to other detention facilities located elsewhere on the site, and some are freely discharged to the adjacent eastern parcel.

This drainage study is intended to account for these descrepencies and ensure that the detention basin is throttling appropriately to offset the free discharges from the previous phase and this new proposed phase.

PROPOSED DRAINAGE SYSTEM

This develompent is designed to capture the majority of runoff within the parking lot curb and gutter, collecting stormwater with “Nyloplast” area inlets, and downspout collector pipes. The existing storm sewer network will remain, with the addition of two area grates along the frontage of gym #3. The existing detention basin that was constructed for the first two gymnasiums will remain as planned previously with the development of gym 1 and 2. This drainage analysis will provide supporting evidence to validate the previously constructed detention basin’s functionality.

While the pond footprint will remain as constructed, current design plans detail for this pond rim to be reestablished at the intended 400.00’ elevation, and for adequate trickle channels to be constructed within the pond bottom (per city of Bryant Requirements).

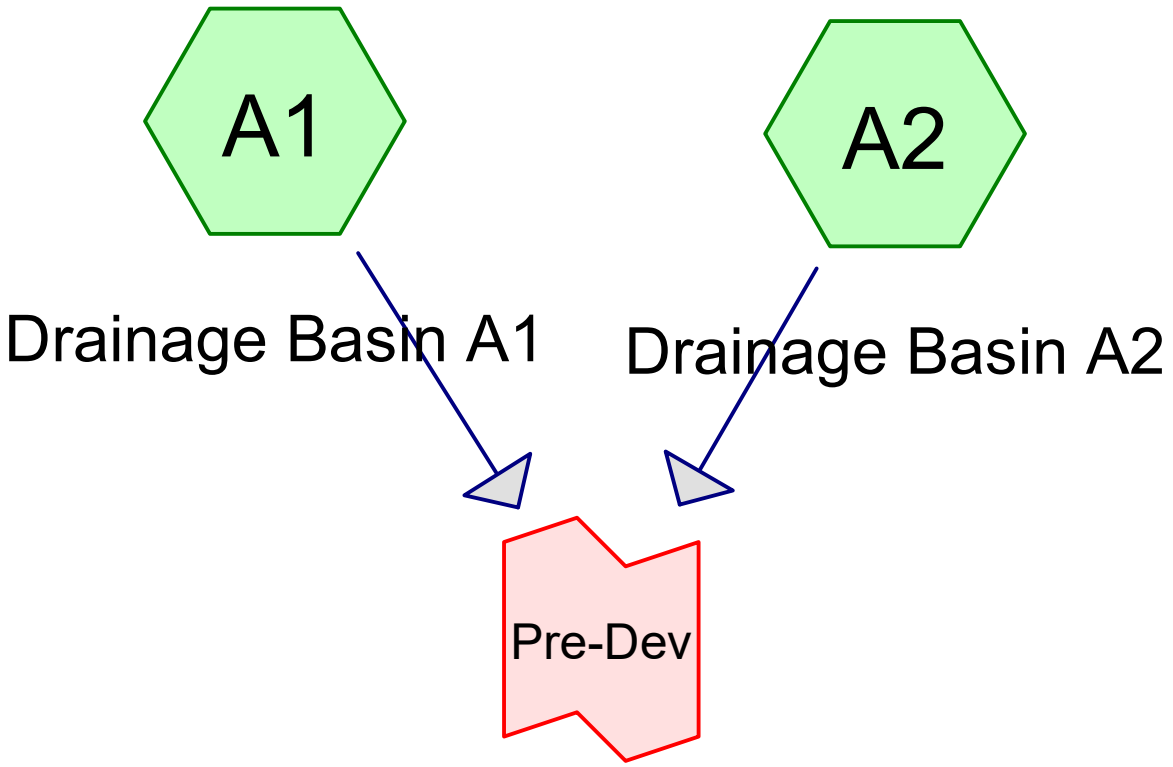
The detention pond was designed to detain stromwater volumes based off the 100-yr storm events with a concrete overflow spillway to release water if a rainfall event were to exceed the 100-yr storm event. The outlet control structures are detailed within this report.

Overall Pre-development and Post-development runoff/discharge rates are compared below:

Storm Event	Pre-development Discharge (cfs)	Post-development Discharge (cfs)
2-yr	10.33	10.14
5-yr	12.27	12.27
10-yr	13.82	13.74
25-yr	15.94	15.69
100-yr	18.93	18.25

Overall pre development and post development discharge rates are displayed in the following hydrographs. A final discharge link has been added to each to show one comparable discharge number. This final discharge will verify that the design detention basin should offset any bypassing watershed within the development.

PRE DEVELOPMENT HYDROGRAPHS



Pre Dev Runoff

Subcat Reach Pond Link

Routing Diagram for Summerwood Gym 3
Prepared by Phillip Lewis Engineering, Printed 1/11/2024
HydroCAD® 10.20-2f s/n 12520 © 2022 HydroCAD Software Solutions LLC

Summary for Subcatchment A1: Drainage Basin A1

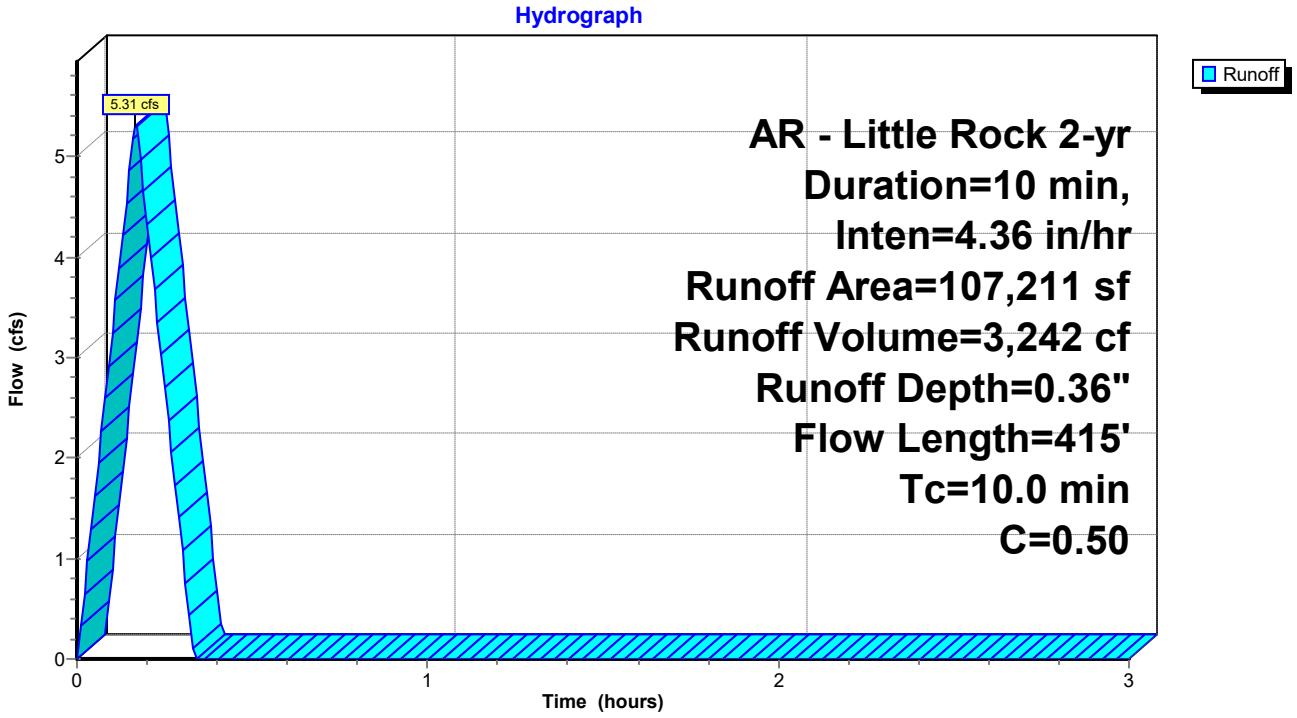
Runoff = 5.31 cfs @ 0.17 hrs, Volume= 3,242 cf, Depth= 0.36"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
107,211	0.50	Existing Natural Vegeation
107,211		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A1: Drainage Basin A1



Summary for Subcatchment A2: Drainage Basin A2

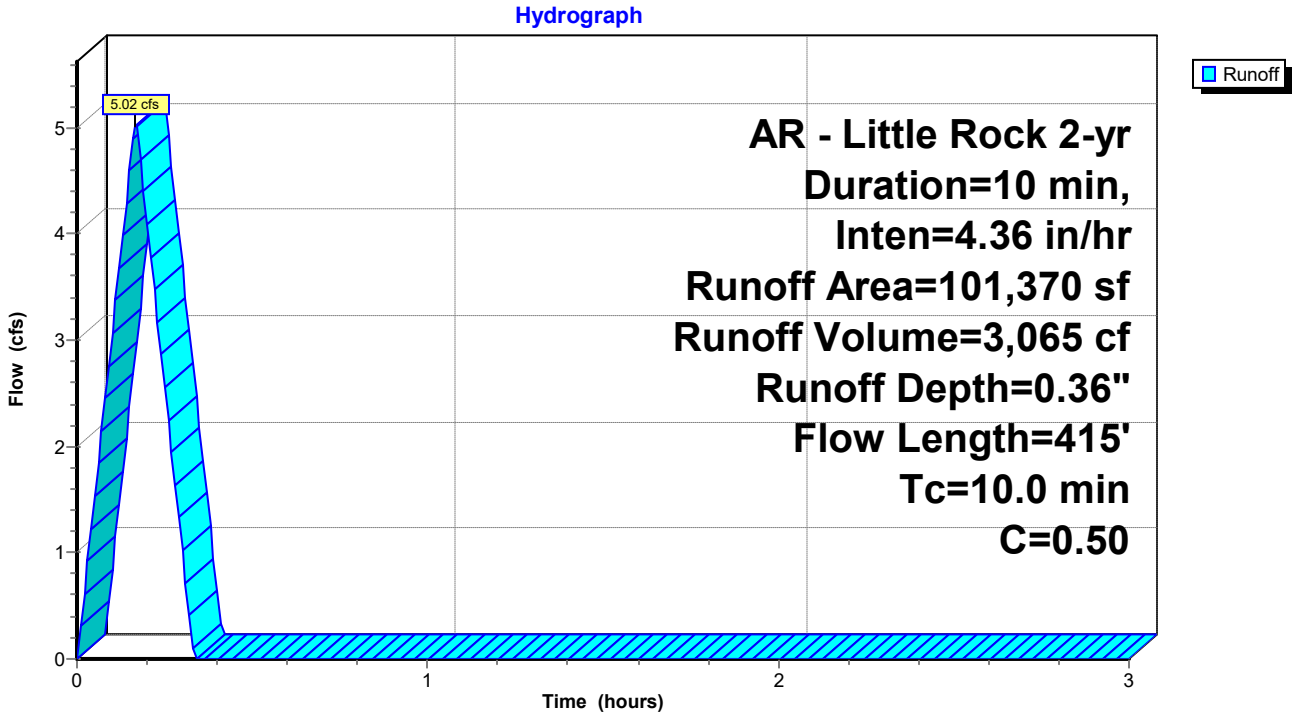
Runoff = 5.02 cfs @ 0.17 hrs, Volume= 3,065 cf, Depth= 0.36"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
101,370	0.50	Existing Natural Vegetation
101,370		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A2: Drainage Basin A2

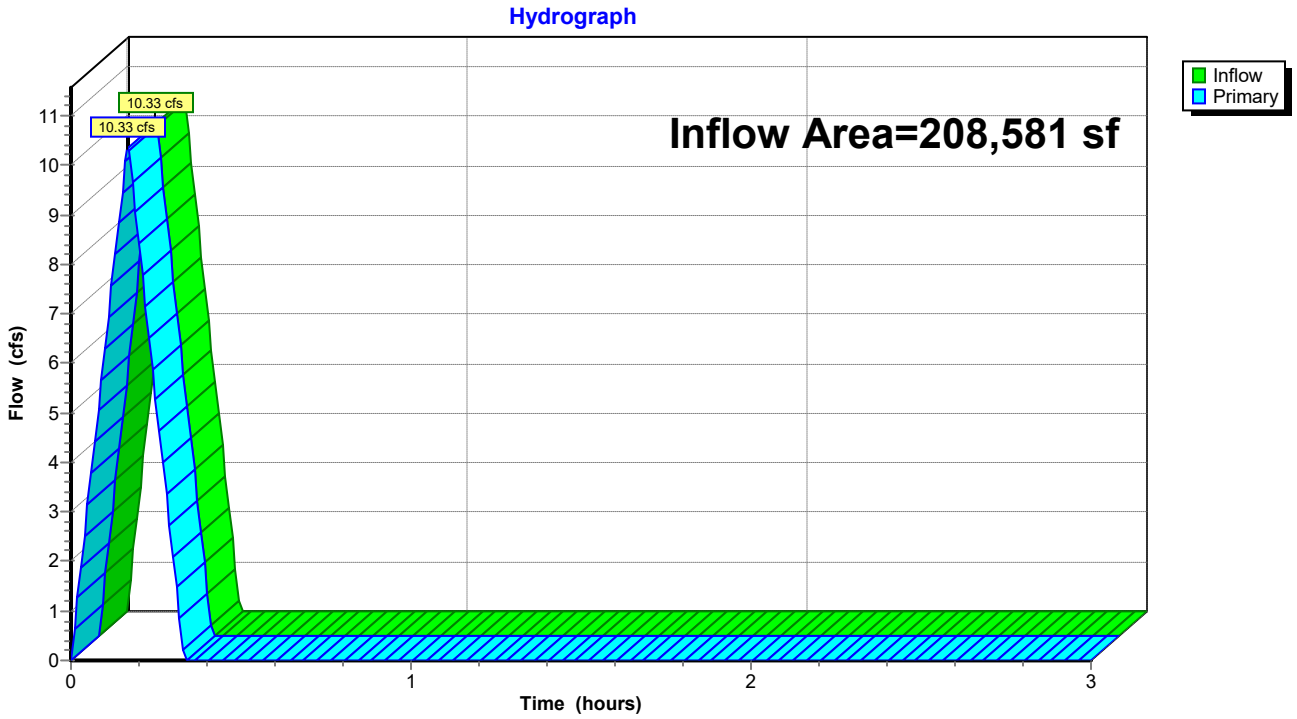


Summary for Link Pre-Dev: Pre Dev Runoff

Inflow Area = 208,581 sf, 0.00% Impervious, Inflow Depth = 0.36" for 2-yr event
Inflow = 10.33 cfs @ 0.17 hrs, Volume= 6,307 cf
Primary = 10.33 cfs @ 0.17 hrs, Volume= 6,307 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Pre-Dev: Pre Dev Runoff



Summary for Subcatchment A1: Drainage Basin A1

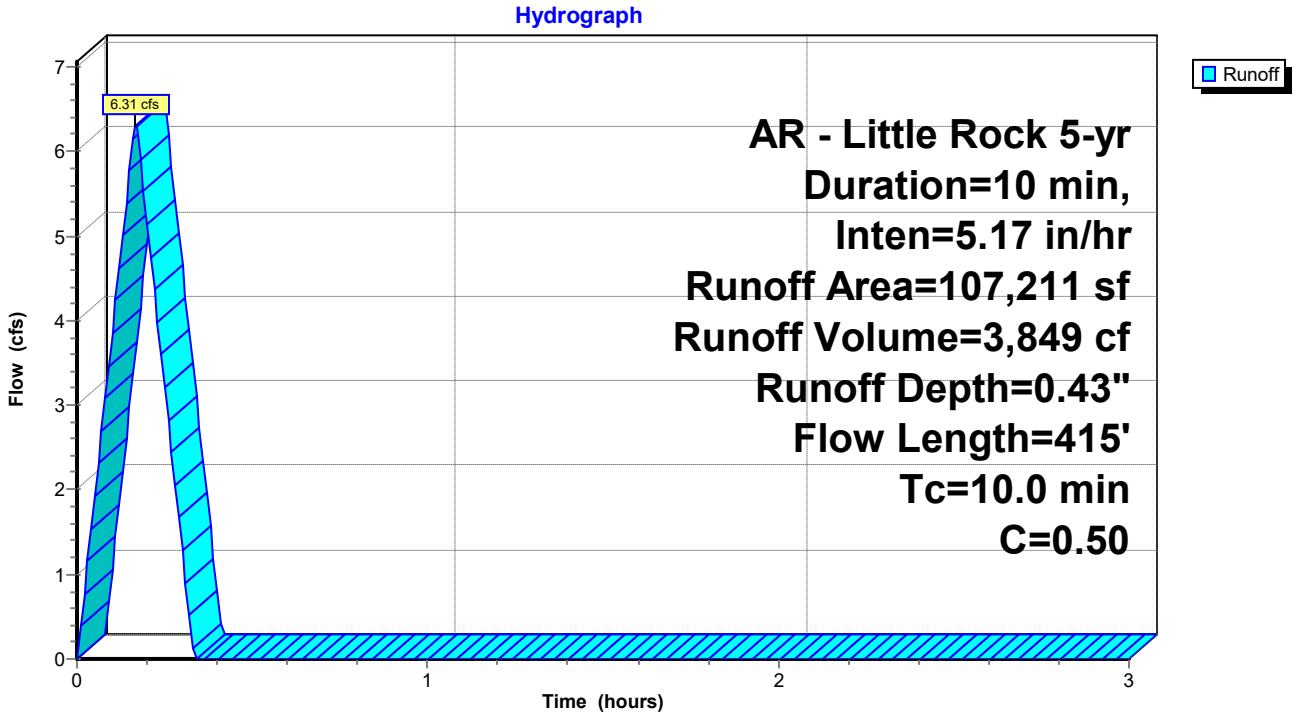
Runoff = 6.31 cfs @ 0.17 hrs, Volume= 3,849 cf, Depth= 0.43"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
107,211	0.50	Existing Natural Vegeation
107,211		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A1: Drainage Basin A1



Summary for Subcatchment A2: Drainage Basin A2

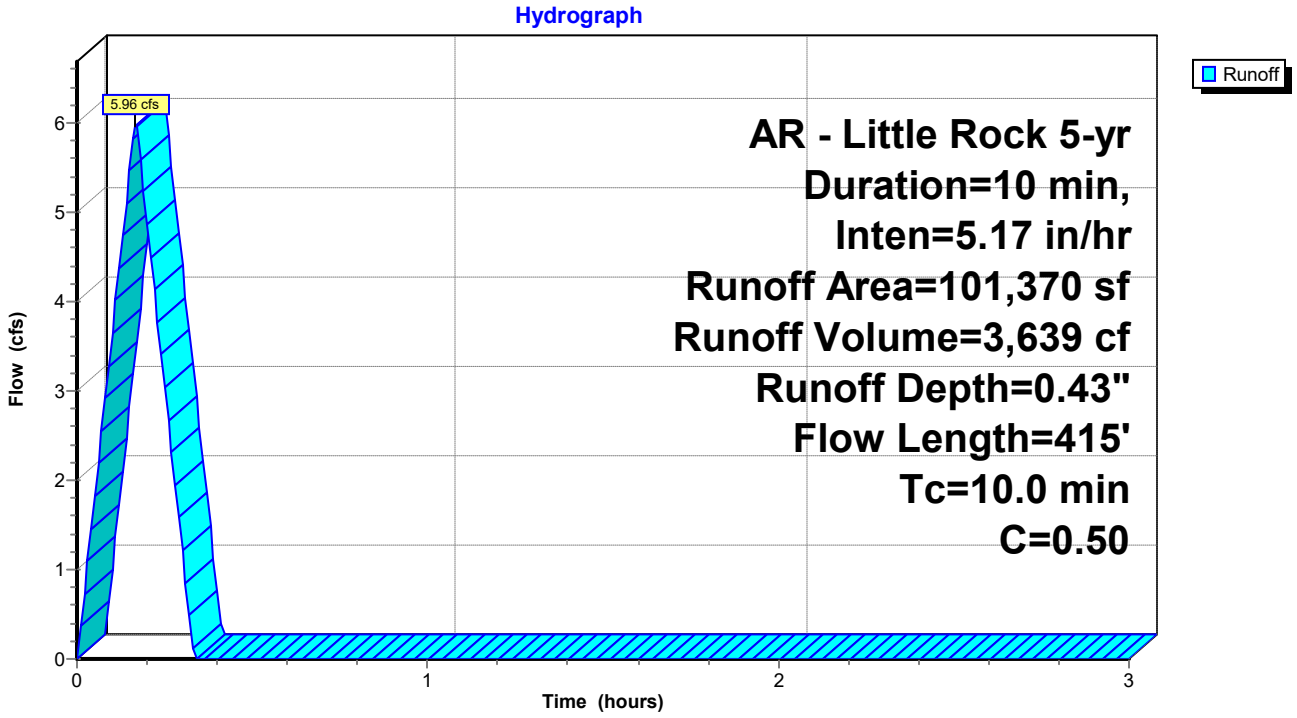
Runoff = 5.96 cfs @ 0.17 hrs, Volume= 3,639 cf, Depth= 0.43"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
101,370	0.50	Existing Natural Vegetation
101,370		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A2: Drainage Basin A2

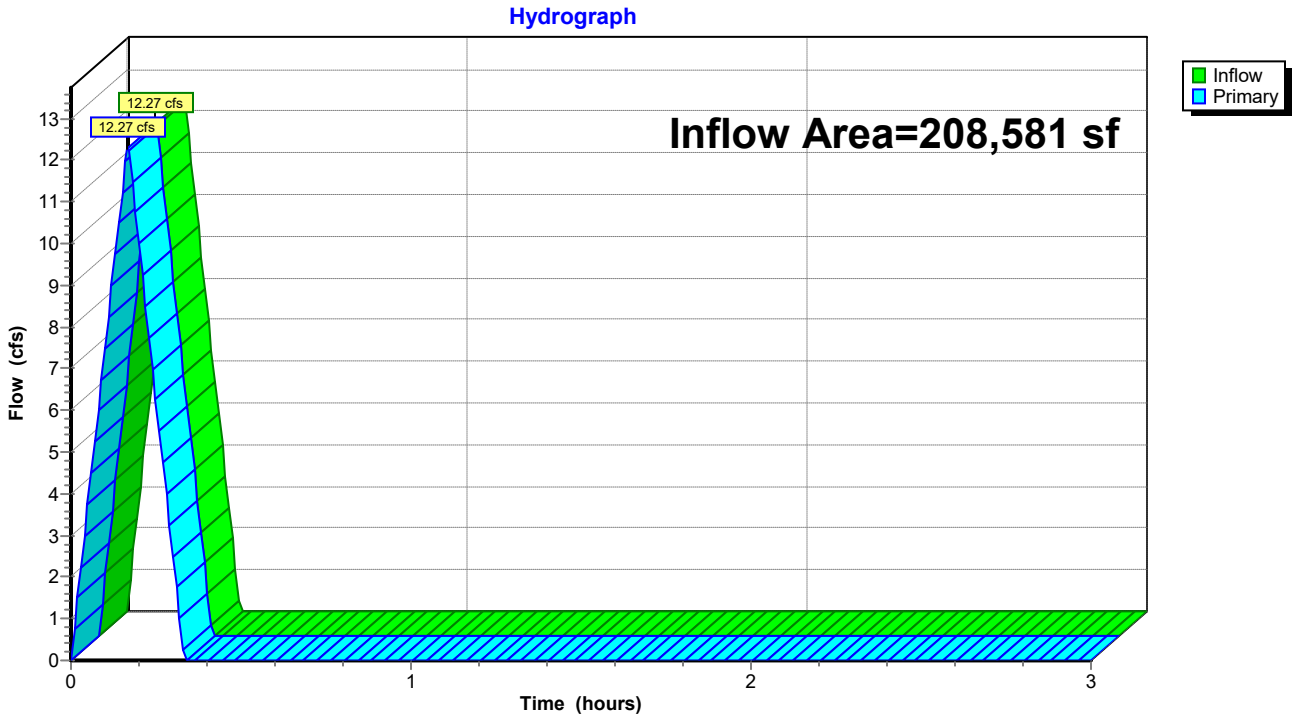


Summary for Link Pre-Dev: Pre Dev Runoff

Inflow Area = 208,581 sf, 0.00% Impervious, Inflow Depth = 0.43" for 5-yr event
Inflow = 12.27 cfs @ 0.17 hrs, Volume= 7,489 cf
Primary = 12.27 cfs @ 0.17 hrs, Volume= 7,489 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Pre-Dev: Pre Dev Runoff



Summary for Subcatchment A1: Drainage Basin A1

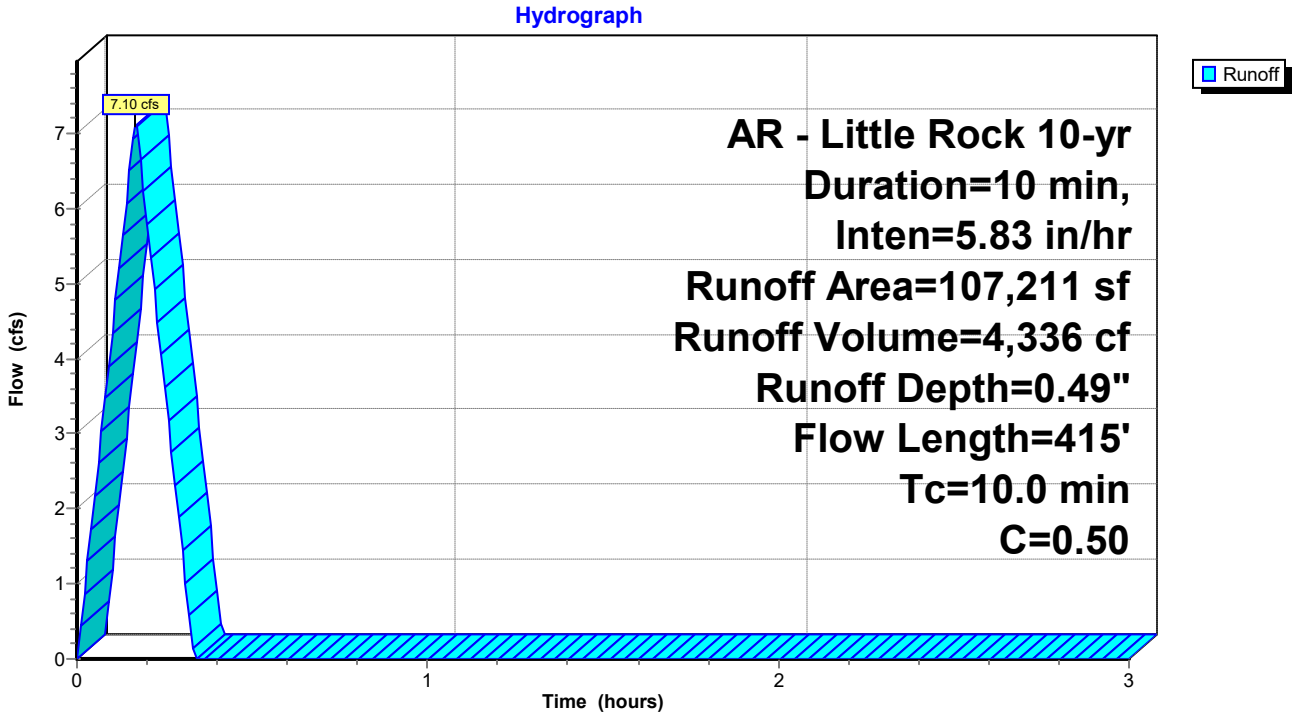
Runoff = 7.10 cfs @ 0.17 hrs, Volume= 4,336 cf, Depth= 0.49"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
107,211	0.50	Existing Natural Vegeation
107,211		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A1: Drainage Basin A1



Summary for Subcatchment A2: Drainage Basin A2

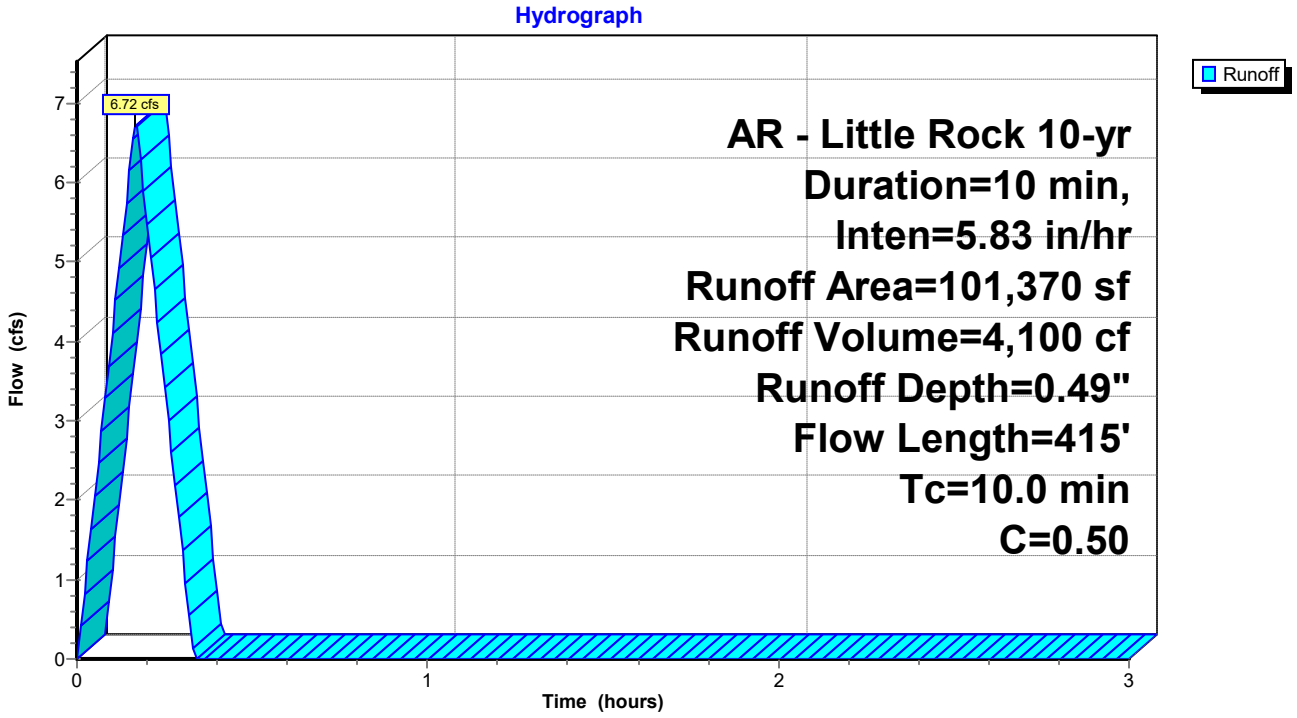
Runoff = 6.72 cfs @ 0.17 hrs, Volume= 4,100 cf, Depth= 0.49"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
101,370	0.50	Existing Natural Vegetation
101,370		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A2: Drainage Basin A2

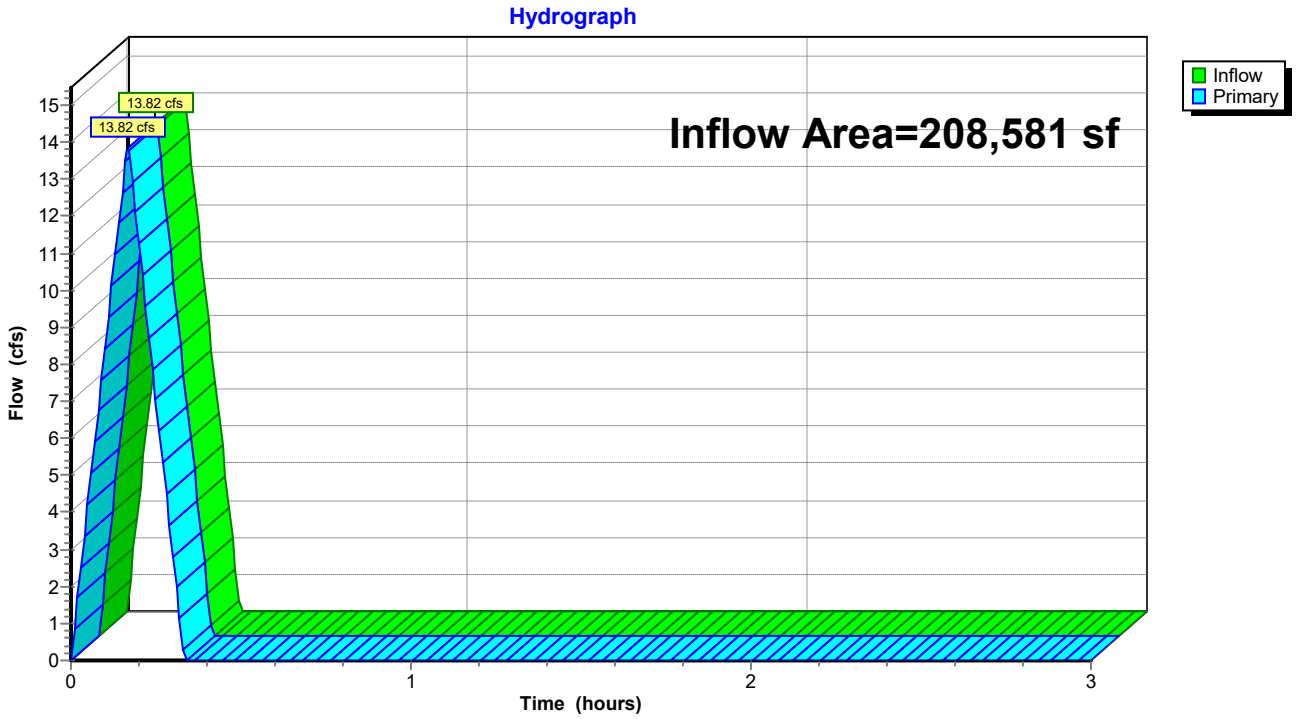


Summary for Link Pre-Dev: Pre Dev Runoff

Inflow Area = 208,581 sf, 0.00% Impervious, Inflow Depth = 0.49" for 10-yr event
Inflow = 13.82 cfs @ 0.17 hrs, Volume= 8,435 cf
Primary = 13.82 cfs @ 0.17 hrs, Volume= 8,435 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Pre-Dev: Pre Dev Runoff



Summary for Subcatchment A1: Drainage Basin A1

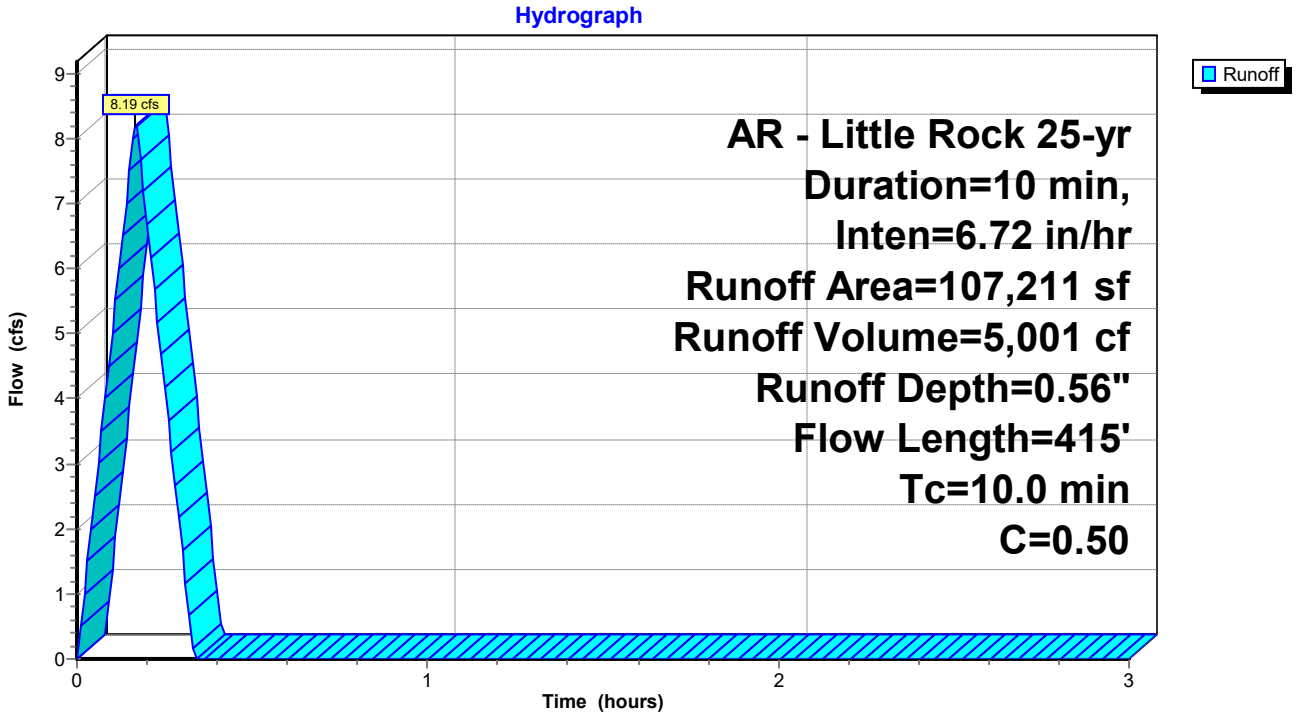
Runoff = 8.19 cfs @ 0.17 hrs, Volume= 5,001 cf, Depth= 0.56"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
107,211	0.50	Existing Natural Vegeation
107,211		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A1: Drainage Basin A1



Summary for Subcatchment A2: Drainage Basin A2

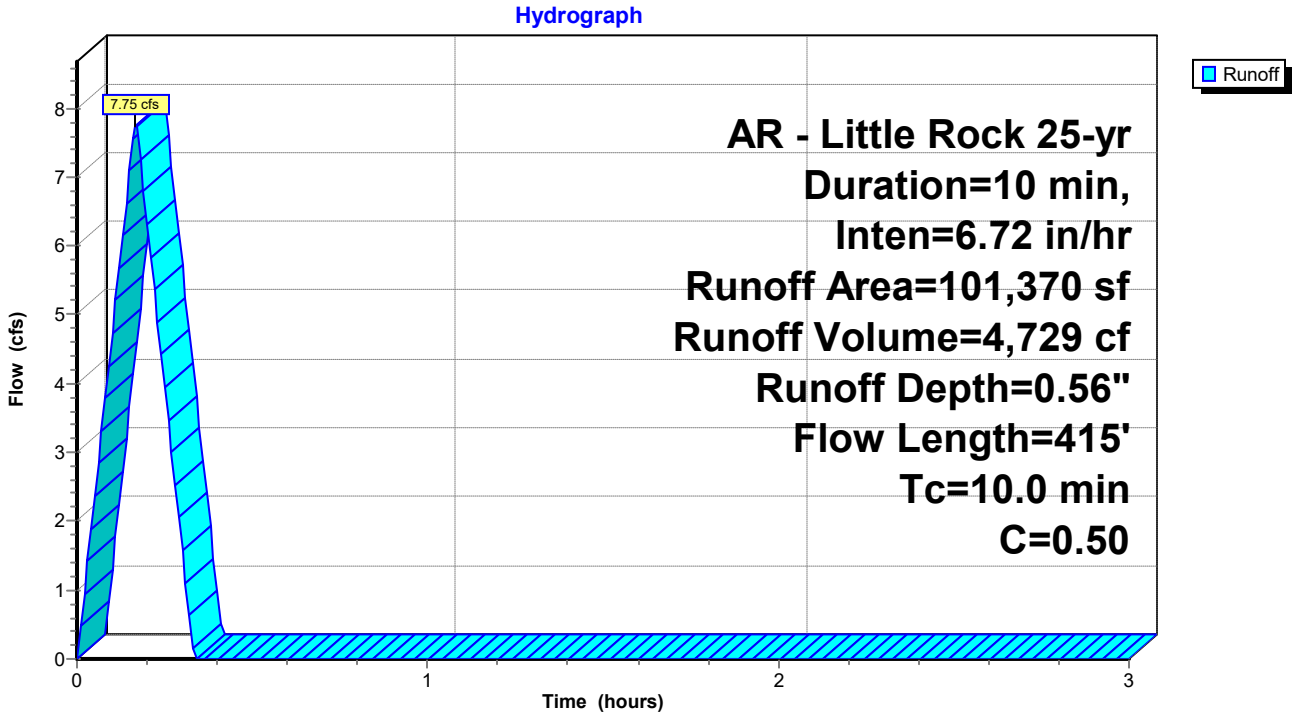
Runoff = 7.75 cfs @ 0.17 hrs, Volume= 4,729 cf, Depth= 0.56"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
101,370	0.50	Existing Natural Vegetation
101,370		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A2: Drainage Basin A2

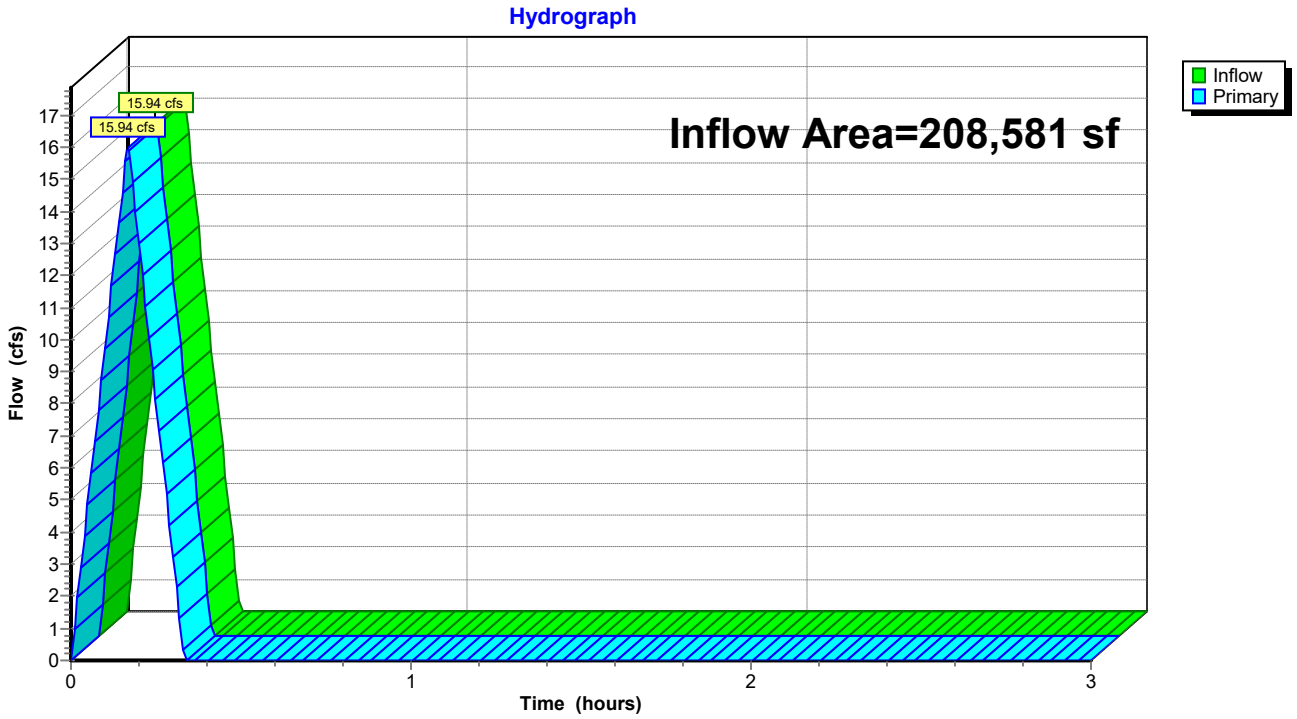


Summary for Link Pre-Dev: Pre Dev Runoff

Inflow Area = 208,581 sf, 0.00% Impervious, Inflow Depth = 0.56" for 25-yr event
Inflow = 15.94 cfs @ 0.17 hrs, Volume= 9,730 cf
Primary = 15.94 cfs @ 0.17 hrs, Volume= 9,730 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Pre-Dev: Pre Dev Runoff



Summary for Subcatchment A1: Drainage Basin A1

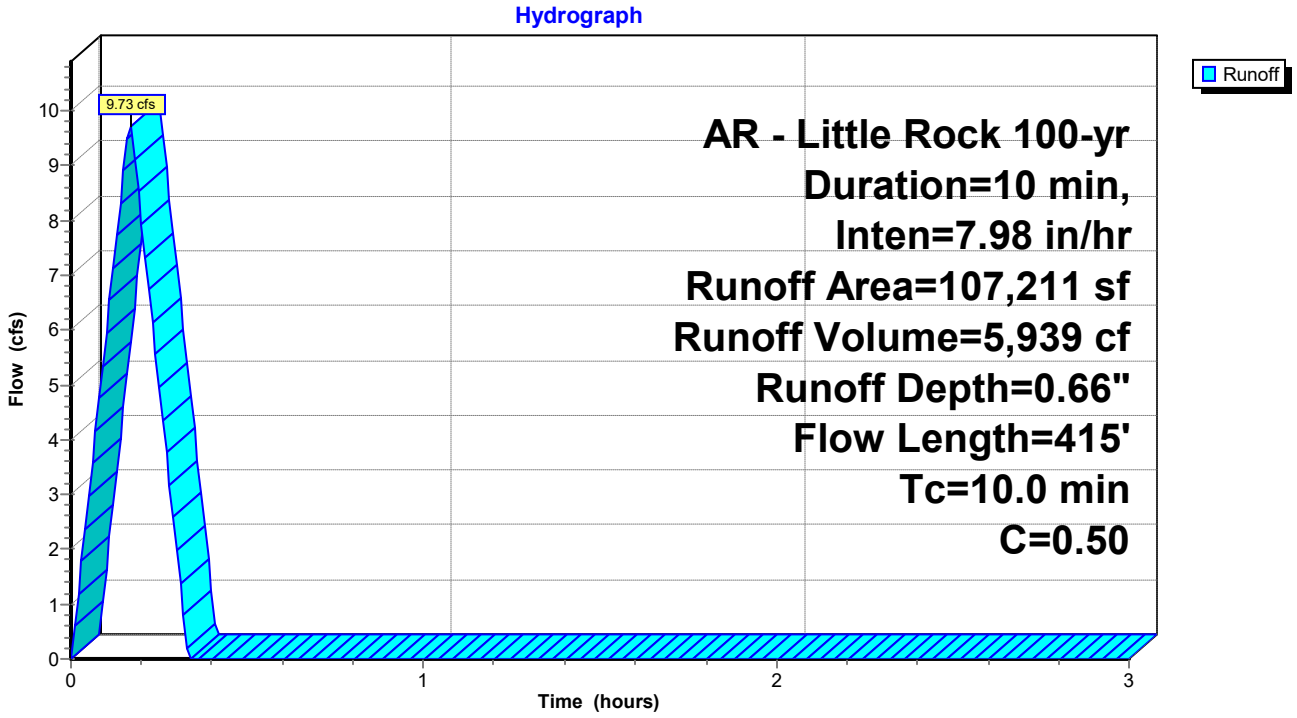
Runoff = 9.73 cfs @ 0.17 hrs, Volume= 5,939 cf, Depth= 0.66"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
107,211	0.50	Existing Natural Vegeation
107,211		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A1: Drainage Basin A1



Summary for Subcatchment A2: Drainage Basin A2

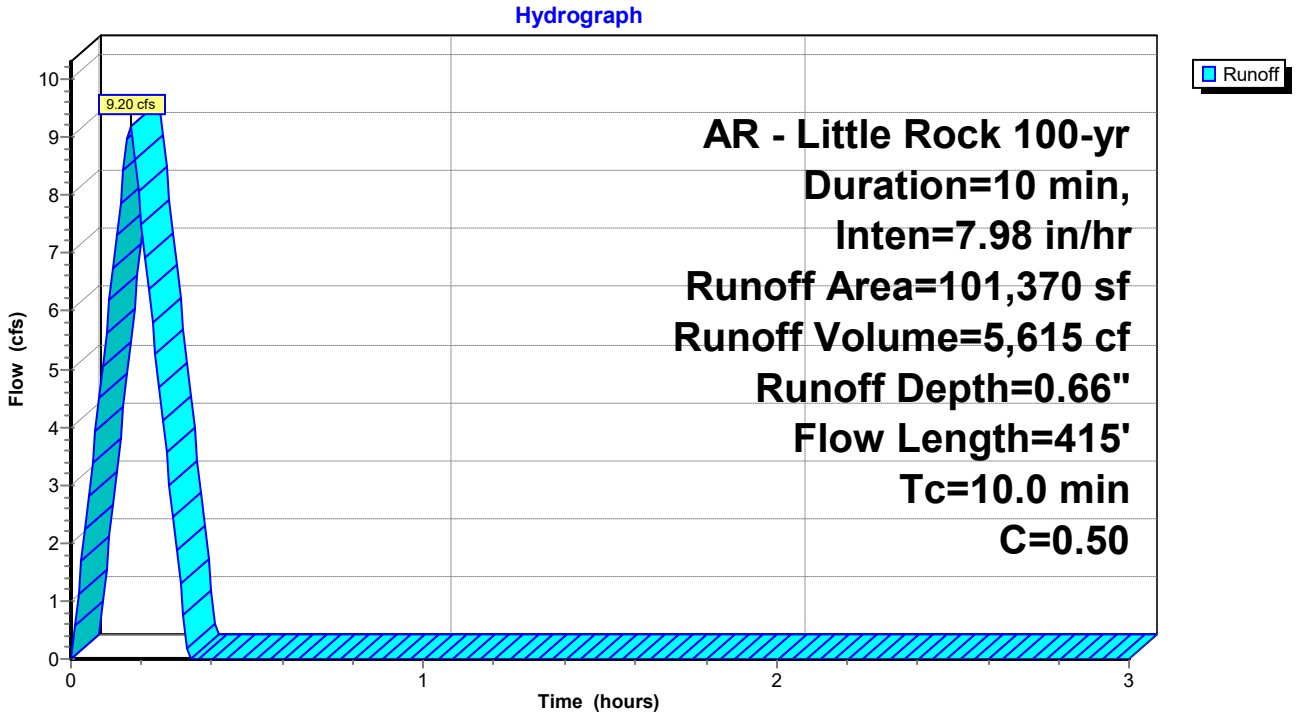
Runoff = 9.20 cfs @ 0.17 hrs, Volume= 5,615 cf, Depth= 0.66"
Routed to Link Pre-Dev : Pre Dev Runoff

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
101,370	0.50	Existing Natural Vegetation
101,370		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment A2: Drainage Basin A2

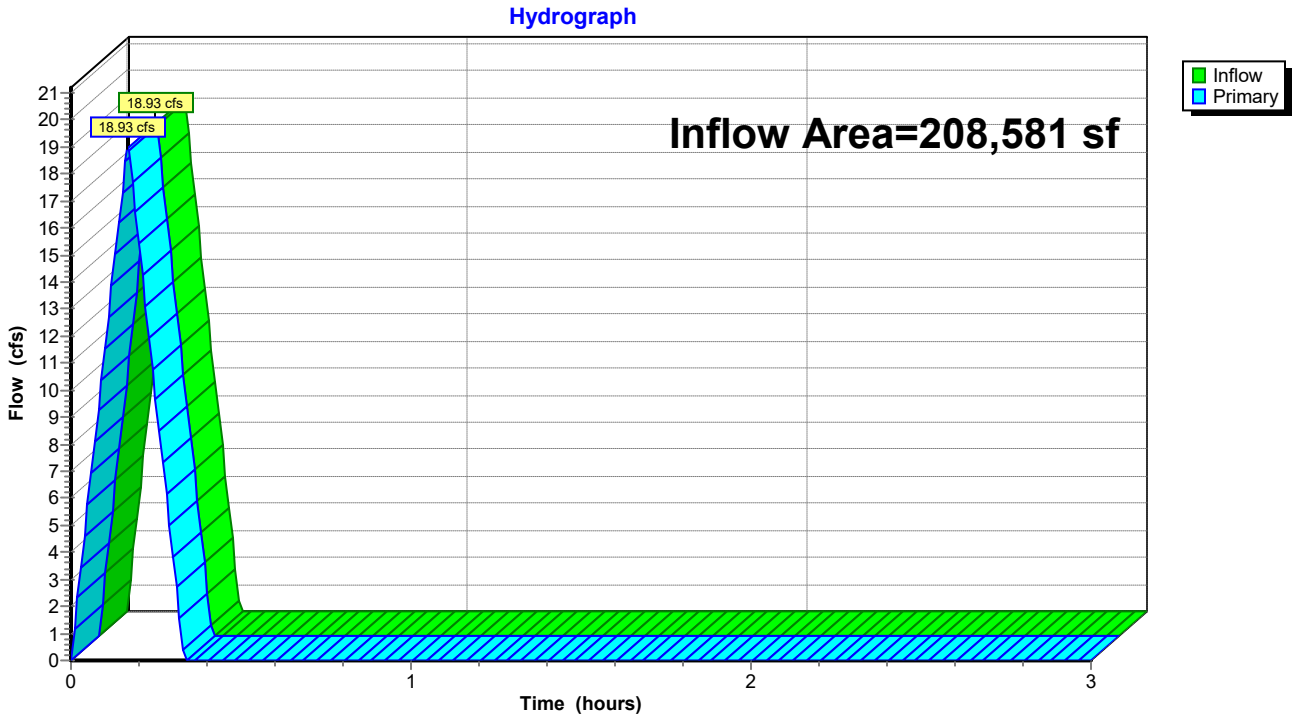


Summary for Link Pre-Dev: Pre Dev Runoff

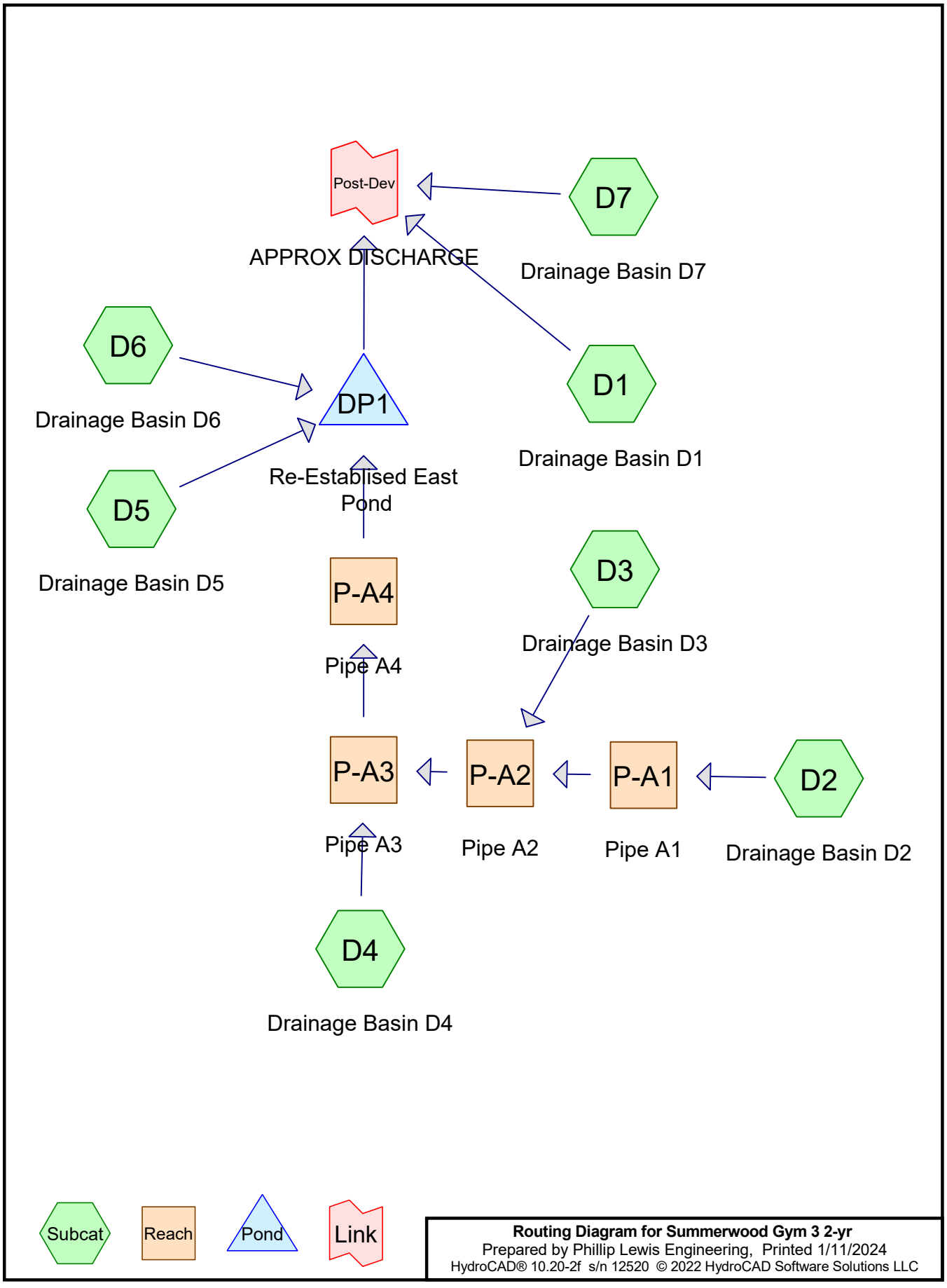
Inflow Area = 208,581 sf, 0.00% Impervious, Inflow Depth = 0.66" for 100-yr event
Inflow = 18.93 cfs @ 0.17 hrs, Volume= 11,554 cf
Primary = 18.93 cfs @ 0.17 hrs, Volume= 11,554 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Pre-Dev: Pre Dev Runoff



POST DEVELOPMENT HYDROGRAPHS



Routing Diagram for Summerwood Gym 3 2-yr
Prepared by Phillip Lewis Engineering, Printed 1/11/2024
HydroCAD® 10.20-2f s/n 12520 © 2022 HydroCAD Software Solutions LLC

Summary for Subcatchment D1: Drainage Basin D1

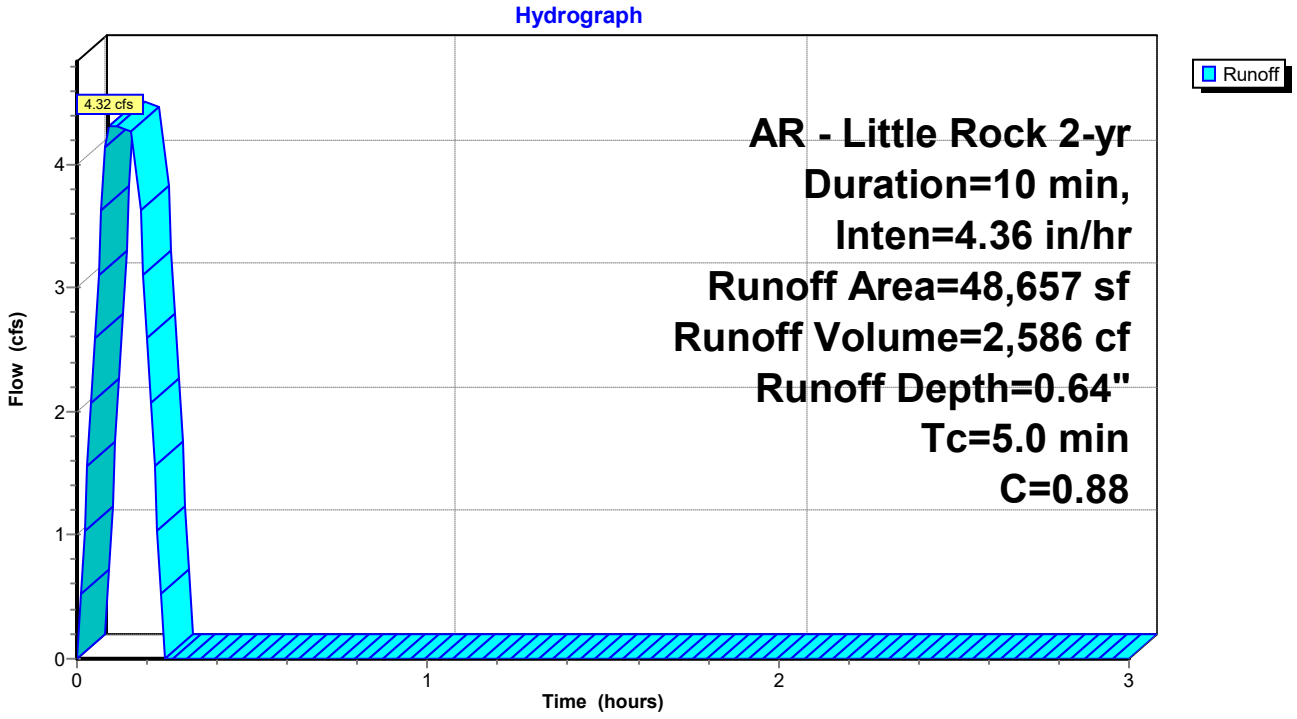
Runoff = 4.32 cfs @ 0.09 hrs, Volume= 2,586 cf, Depth= 0.64"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
3,421	0.40	Sod Yard
45,236	0.92	Rood, Drives, Sidewalks
48,657	0.88	Weighted Average
48,657		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D1: Drainage Basin D1



Summary for Subcatchment D2: Drainage Basin D2

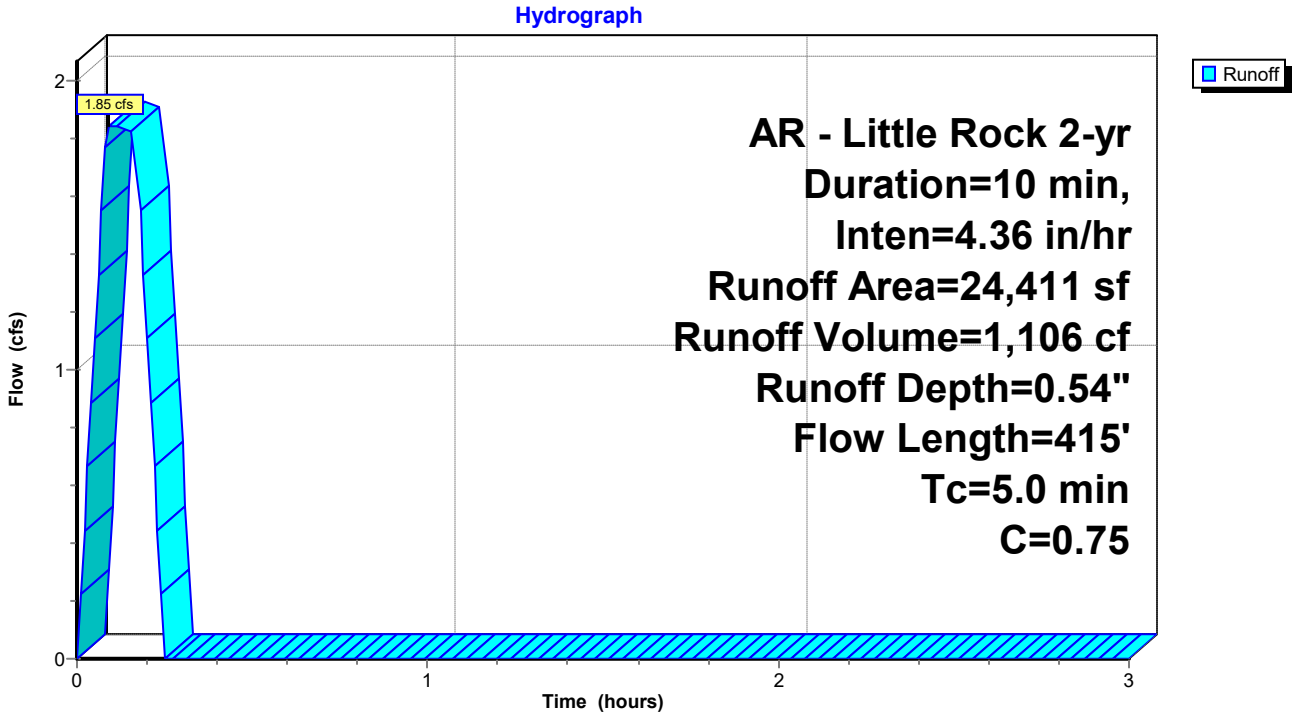
Runoff = 1.85 cfs @ 0.09 hrs, Volume= 1,106 cf, Depth= 0.54"
Routed to Reach P-A1 : Pipe A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
8,845	0.45	Rip Rap Embankment
15,566	0.92	Roof, Drives, Sidewalks
24,411	0.75	Weighted Average
24,411		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D2: Drainage Basin D2



Summary for Subcatchment D3: Drainage Basin D3

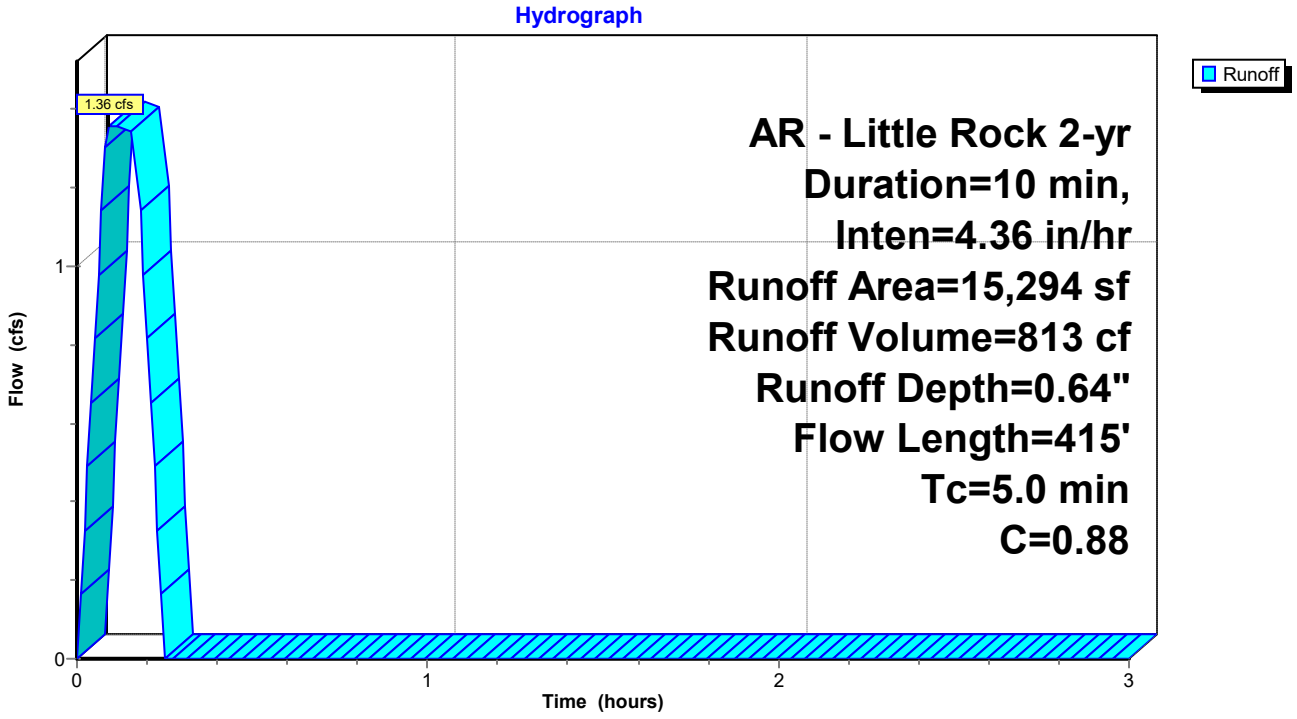
Runoff = 1.36 cfs @ 0.09 hrs, Volume= 813 cf, Depth= 0.64"
Routed to Reach P-A2 : Pipe A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
1,065	0.40	Sod Yard
14,229	0.92	Paving, Sidewalks
15,294	0.88	Weighted Average
15,294		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D3: Drainage Basin D3



Summary for Subcatchment D4: Drainage Basin D4

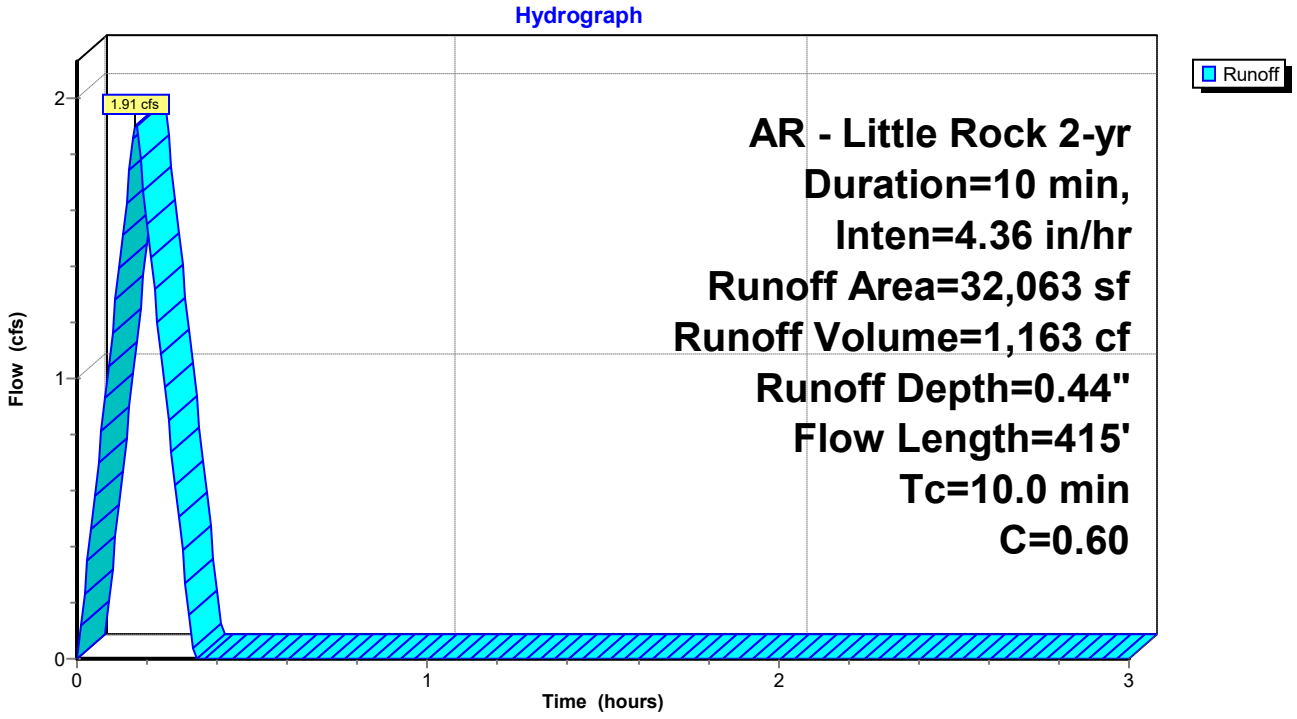
Runoff = 1.91 cfs @ 0.17 hrs, Volume= 1,163 cf, Depth= 0.44"
Routed to Reach P-A3 : Pipe A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
20,032	0.40	
12,031	0.92	
32,063	0.60	Weighted Average
32,063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D4: Drainage Basin D4



Summary for Subcatchment D5: Drainage Basin D5

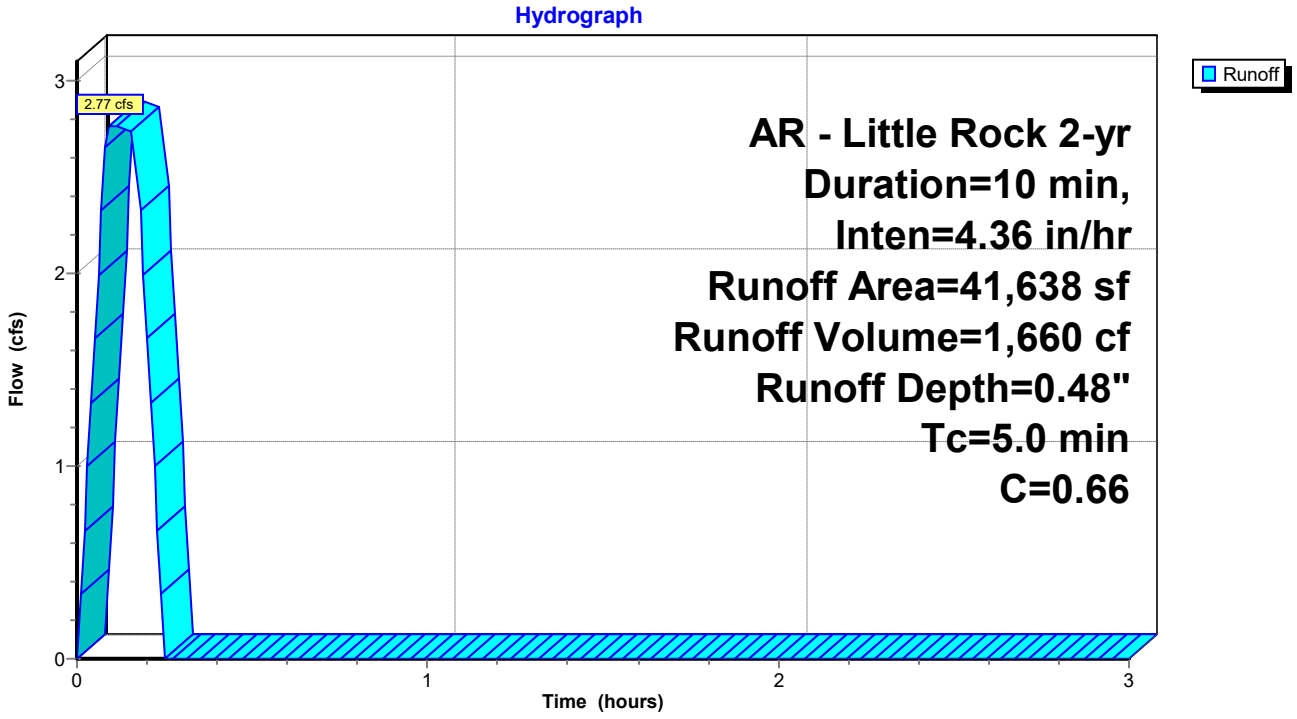
Runoff = 2.77 cfs @ 0.09 hrs, Volume= 1,660 cf, Depth= 0.48"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
21,201	0.40	Sod Yard, Natural Vegetation
20,437	0.92	Paving, Sidewalks
41,638	0.66	Weighted Average
41,638		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D5: Drainage Basin D5



Summary for Subcatchment D6: Drainage Basin D6

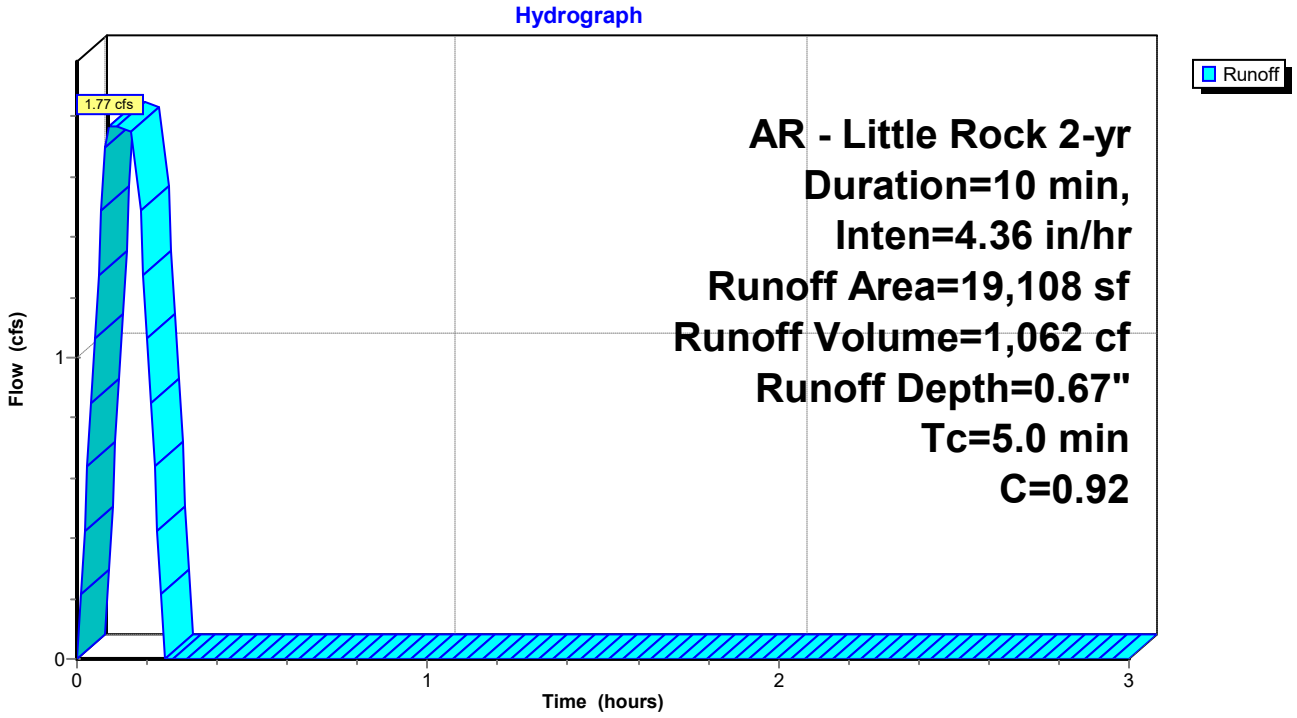
Runoff = 1.77 cfs @ 0.09 hrs, Volume= 1,062 cf, Depth= 0.67"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
19,108	0.92	Roof
19,108		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D6: Drainage Basin D6



Summary for Subcatchment D7: Drainage Basin D7

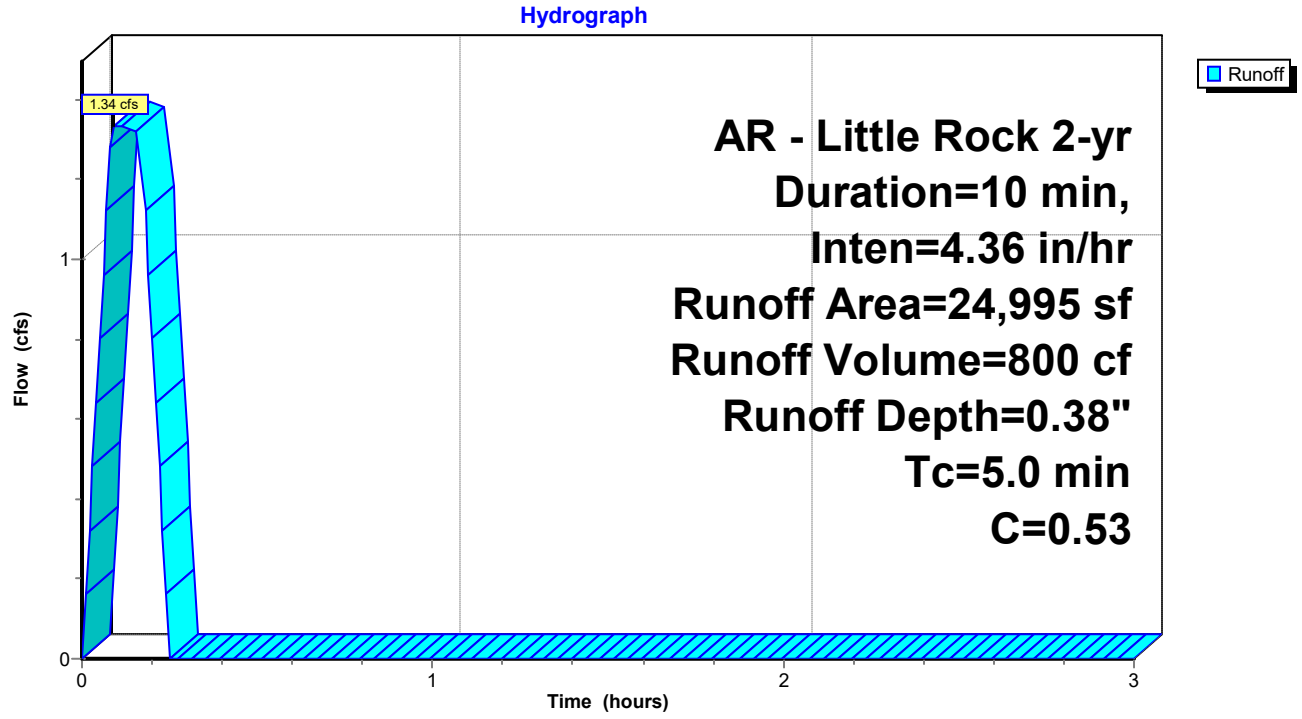
Runoff = 1.34 cfs @ 0.09 hrs, Volume= 800 cf, Depth= 0.38"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 2-yr Duration=10 min, Inten=4.36 in/hr

Area (sf)	C	Description
18,798	0.40	Sod Yard, Natural Vegetation
6,197	0.92	Paving, Sidewalks
24,995	0.53	Weighted Average
24,995		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D7: Drainage Basin D7



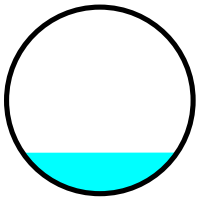
Summary for Reach P-A1: Pipe A1

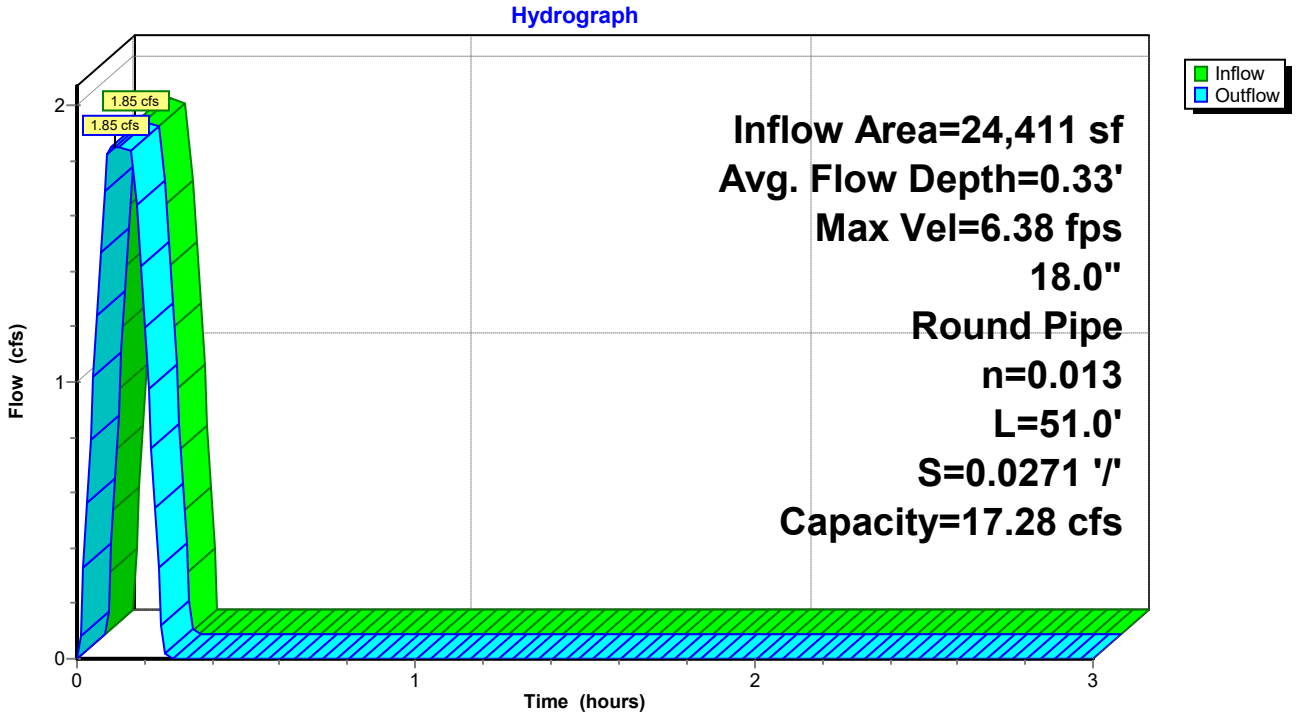
Inflow Area = 24,411 sf, 0.00% Impervious, Inflow Depth = 0.54" for 2-yr event
Inflow = 1.85 cfs @ 0.09 hrs, Volume= 1,106 cf
Outflow = 1.85 cfs @ 0.11 hrs, Volume= 1,106 cf, Atten= 0%, Lag= 1.2 min
Routed to Reach P-A2 : Pipe A2

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.38 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 4.53 fps, Avg. Travel Time= 0.2 min

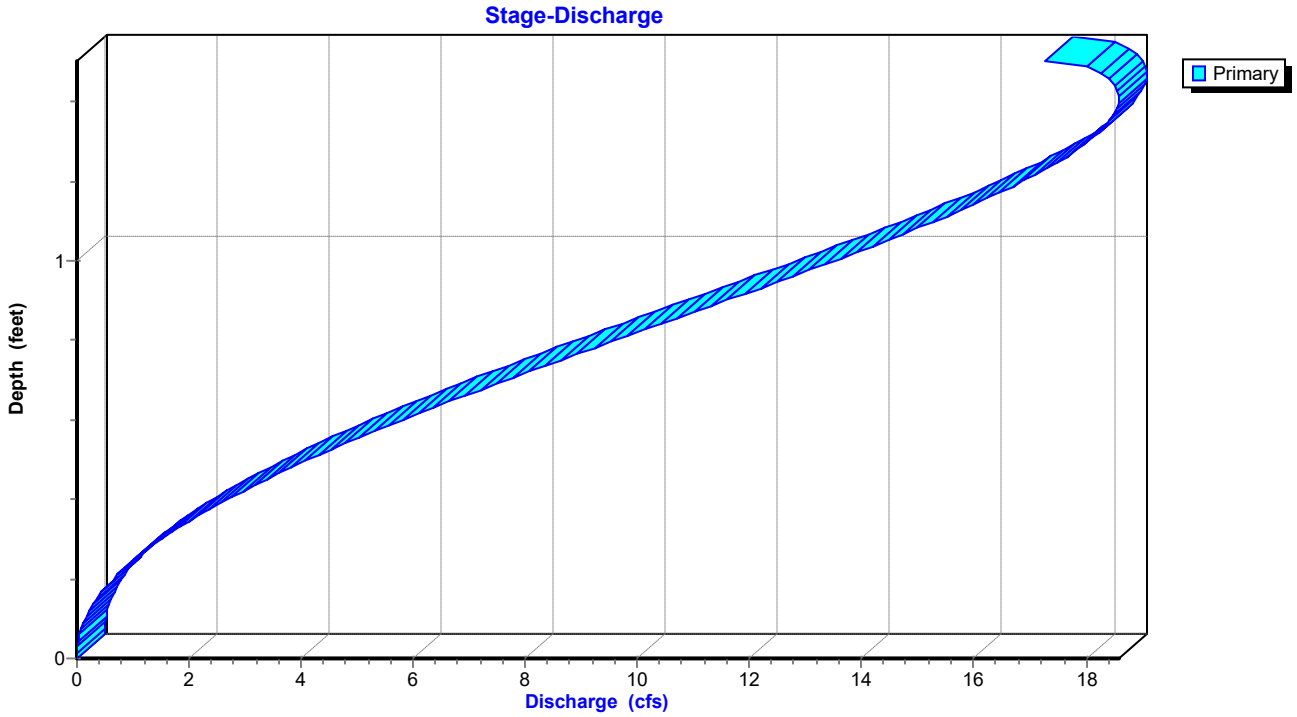
Peak Storage= 15 cf @ 0.09 hrs
Average Depth at Peak Storage= 0.33' , Surface Width= 1.24'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.28 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 51.0' Slope= 0.0271 '/'
Inlet Invert= 408.33', Outlet Invert= 406.95'





Reach P-A1: Pipe A1



Stage-Area-Storage for Reach P-A1: Pipe A1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
408.33	0.0	0
408.35	0.0	0
408.37	0.0	1
408.39	0.0	1
408.41	0.0	2
408.43	0.1	3
408.45	0.1	3
408.47	0.1	4
408.49	0.1	5
408.51	0.1	6
408.53	0.1	7
408.55	0.2	8
408.57	0.2	9
408.59	0.2	10
408.61	0.2	12
408.63	0.3	13
408.65	0.3	14
408.67	0.3	15
408.69	0.3	17
408.71	0.4	18
408.73	0.4	19
408.75	0.4	21
408.77	0.4	22
408.79	0.5	23
408.81	0.5	25
408.83	0.5	26
408.85	0.5	28
408.87	0.6	29
408.89	0.6	31
408.91	0.6	32
408.93	0.7	34
408.95	0.7	35
408.97	0.7	37
408.99	0.7	38
409.01	0.8	40
409.03	0.8	41
409.05	0.8	43
409.07	0.9	44
409.09	0.9	46
409.11	0.9	47
409.13	1.0	49
409.15	1.0	50
409.17	1.0	52
409.19	1.0	53
409.21	1.1	55
409.23	1.1	56
409.25	1.1	58
409.27	1.2	59
409.29	1.2	61
409.31	1.2	62
409.33	1.3	64
409.35	1.3	65
409.37	1.3	67
409.39	1.3	68
409.41	1.4	69
409.43	1.4	71
409.45	1.4	72
409.47	1.4	73
409.49	1.5	75
409.51	1.5	76
409.53	1.5	77
409.55	1.5	78
409.57	1.6	80
409.59	1.6	81
409.61	1.6	82
409.63	1.6	83
409.65	1.6	84
409.67	1.7	85
409.69	1.7	86
409.71	1.7	87
409.73	1.7	88
409.75	1.7	88
409.77	1.7	89
409.79	1.8	89
409.81	1.8	90
409.83	**1.8**	**90**

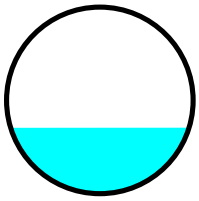
Summary for Reach P-A2: Pipe A2

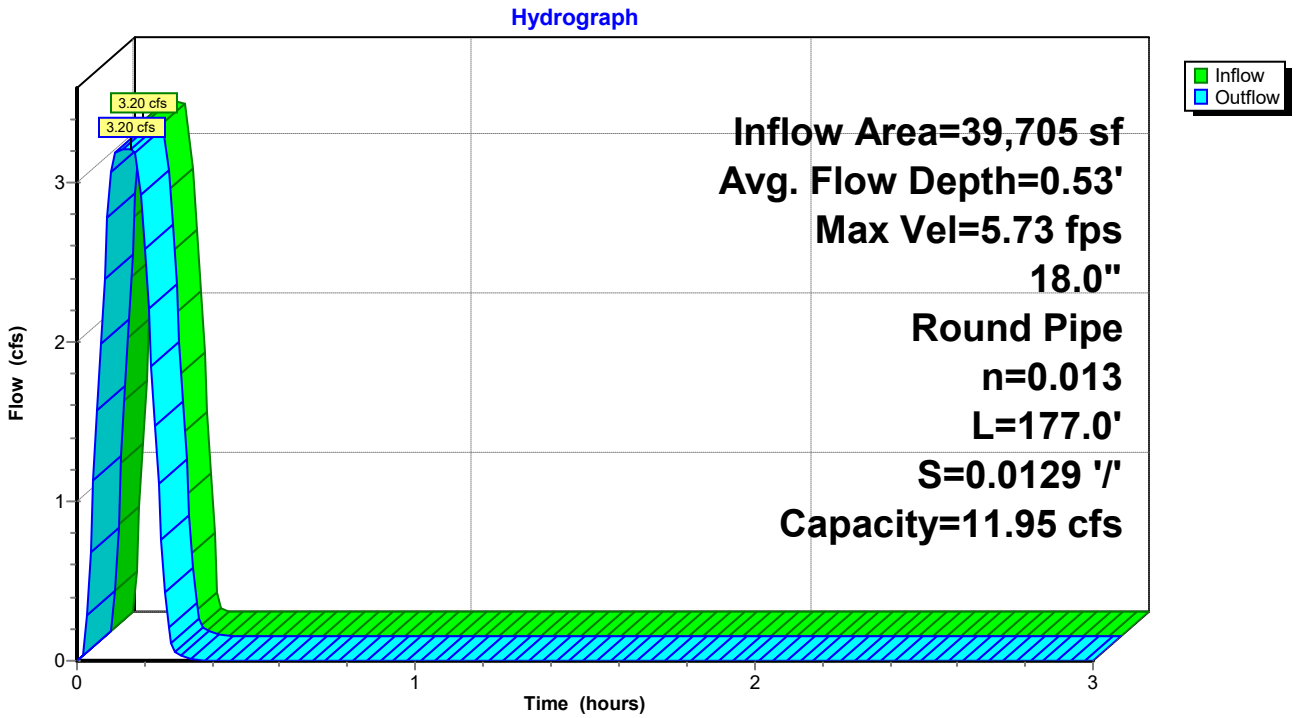
Inflow Area = 39,705 sf, 0.00% Impervious, Inflow Depth = 0.58" for 2-yr event
Inflow = 3.20 cfs @ 0.11 hrs, Volume= 1,919 cf
Outflow = 3.20 cfs @ 0.16 hrs, Volume= 1,919 cf, Atten= 0%, Lag= 3.0 min
Routed to Reach P-A3 : Pipe A3

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 5.73 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 1.3 min

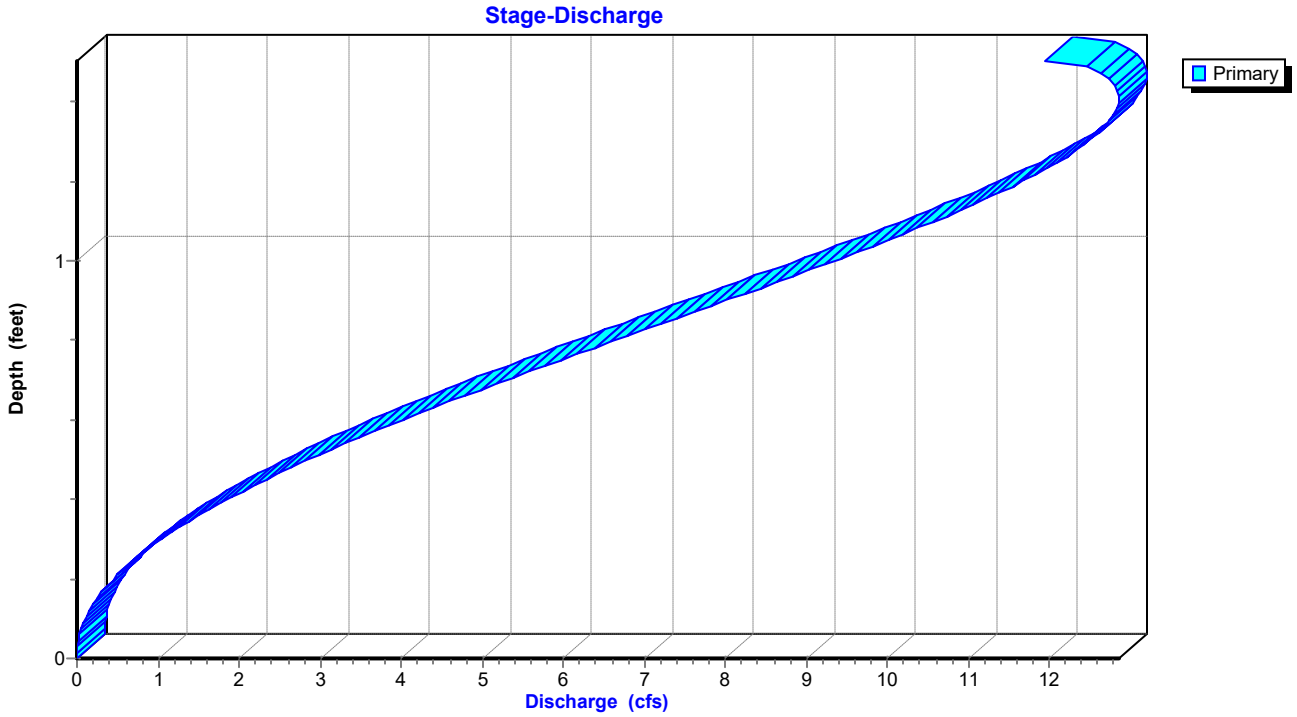
Peak Storage= 99 cf @ 0.16 hrs
Average Depth at Peak Storage= 0.53' , Surface Width= 1.43'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 177.0' Slope= 0.0129 '/'
Inlet Invert= 406.85', Outlet Invert= 404.56'





Reach P-A2: Pipe A2



Stage-Area-Storage for Reach P-A2: Pipe A2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
406.85	0.0	0
406.87	0.0	1
406.89	0.0	2
406.91	0.0	4
406.93	0.0	6
406.95	0.1	9
406.97	0.1	12
406.99	0.1	15
407.01	0.1	18
407.03	0.1	21
407.05	0.1	25
407.07	0.2	28
407.09	0.2	32
407.11	0.2	36
407.13	0.2	40
407.15	0.3	45
407.17	0.3	49
407.19	0.3	53
407.21	0.3	58
407.23	0.4	62
407.25	0.4	67
407.27	0.4	72
407.29	0.4	76
407.31	0.5	81
407.33	0.5	86
407.35	0.5	91
407.37	0.5	96
407.39	0.6	101
407.41	0.6	106
407.43	0.6	112
407.45	0.7	117
407.47	0.7	122
407.49	0.7	127
407.51	0.7	133
407.53	0.8	138
407.55	0.8	143
407.57	0.8	148
407.59	0.9	154
407.61	0.9	159
407.63	0.9	164
407.65	1.0	170
407.67	1.0	175
407.69	1.0	180
407.71	1.0	185
407.73	1.1	191
407.75	1.1	196
407.77	1.1	201
407.79	1.2	206
407.81	1.2	211
407.83	1.2	216
407.85	1.3	222
407.87	1.3	226
407.89	1.3	231
407.91	1.3	236
407.93	1.4	241
407.95	1.4	246
407.97	1.4	250
407.99	1.4	255
408.01	1.5	260
408.03	1.5	264
408.05	1.5	268
408.07	1.5	272
408.09	1.6	277
408.11	1.6	280
408.13	1.6	284
408.15	1.6	288
408.17	1.6	292
408.19	1.7	295
408.21	1.7	298
408.23	1.7	301
408.25	1.7	304
408.27	1.7	306
408.29	1.7	309
408.31	1.8	310
408.33	1.8	312
408.35	**1.8**	**313**

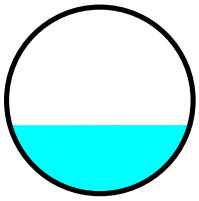
Summary for Reach P-A3: Pipe A3

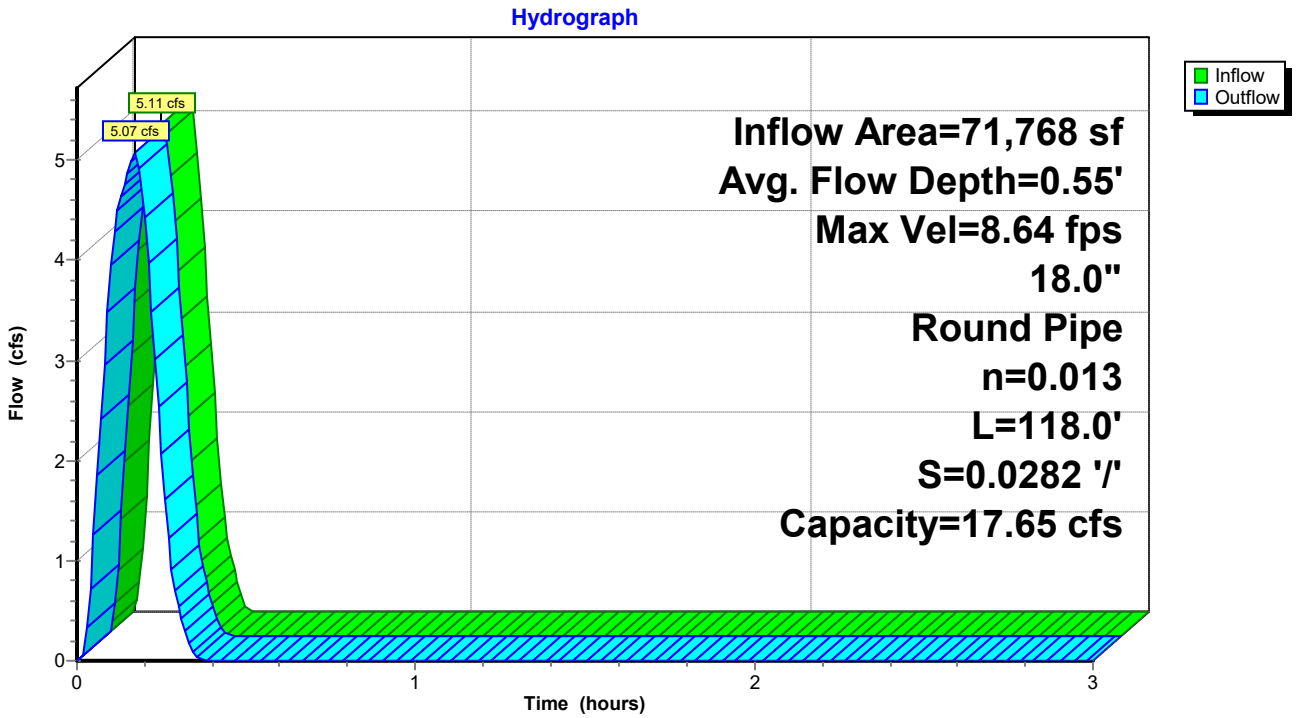
Inflow Area = 71,768 sf, 0.00% Impervious, Inflow Depth = 0.52" for 2-yr event
Inflow = 5.11 cfs @ 0.17 hrs, Volume= 3,082 cf
Outflow = 5.07 cfs @ 0.17 hrs, Volume= 3,082 cf, Atten= 1%, Lag= 0.3 min
Routed to Reach P-A4 : Pipe A4

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.64 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.61 fps, Avg. Travel Time= 0.5 min

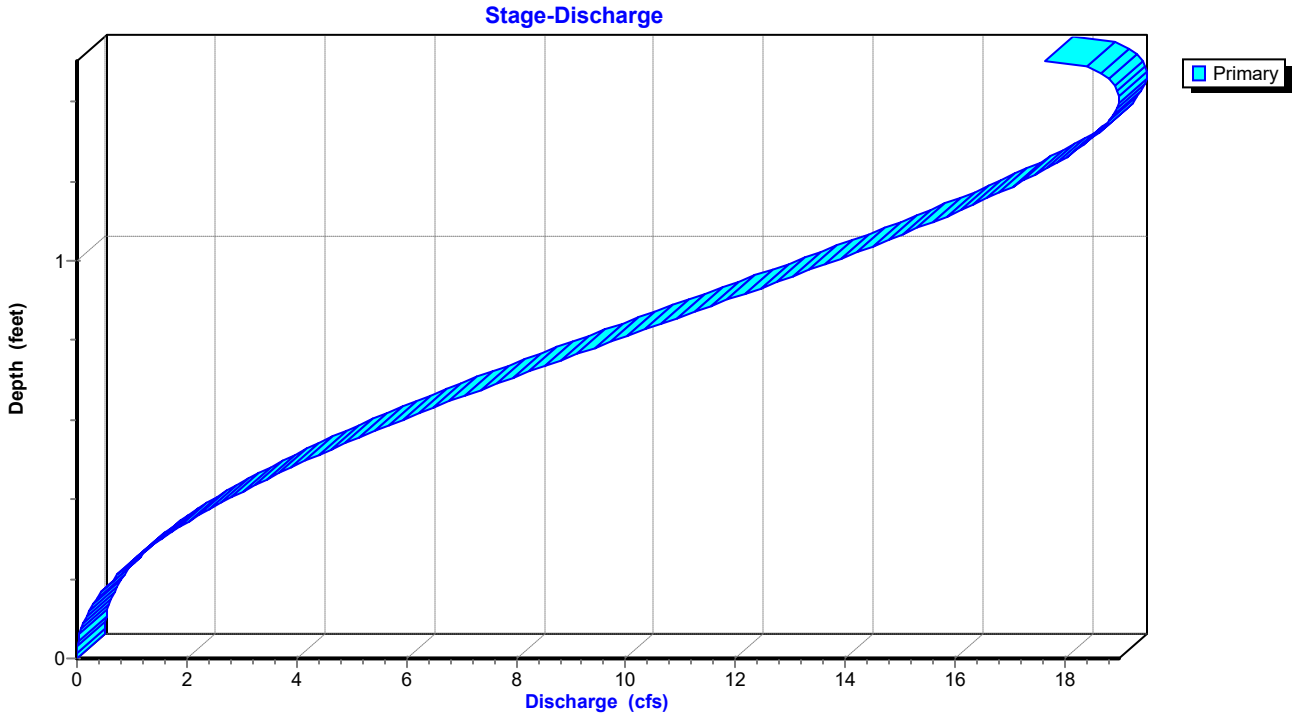
Peak Storage= 70 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.55' , Surface Width= 1.45'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.65 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 118.0' Slope= 0.0282 '/'
Inlet Invert= 404.46', Outlet Invert= 401.13'





Reach P-A3: Pipe A3



Stage-Area-Storage for Reach P-A3: Pipe A3

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
404.46	0.0	0
404.48	0.0	1
404.50	0.0	2
404.52	0.0	3
404.54	0.0	4
404.56	0.1	6
404.58	0.1	8
404.60	0.1	10
404.62	0.1	12
404.64	0.1	14
404.66	0.1	17
404.68	0.2	19
404.70	0.2	22
404.72	0.2	24
404.74	0.2	27
404.76	0.3	30
404.78	0.3	33
404.80	0.3	35
404.82	0.3	38
404.84	0.4	42
404.86	0.4	45
404.88	0.4	48
404.90	0.4	51
404.92	0.5	54
404.94	0.5	58
404.96	0.5	61
404.98	0.5	64
405.00	0.6	68
405.02	0.6	71
405.04	0.6	74
405.06	0.7	78
405.08	0.7	81
405.10	0.7	85
405.12	0.7	88
405.14	0.8	92
405.16	0.8	95
405.18	0.8	99
405.20	0.9	102
405.22	0.9	106
405.24	0.9	110
405.26	1.0	113
405.28	1.0	117
405.30	1.0	120
405.32	1.0	124
405.34	1.1	127
405.36	1.1	131
405.38	1.1	134
405.40	1.2	138
405.42	1.2	141
405.44	1.2	144
405.46	1.3	148
405.48	1.3	151
405.50	1.3	154
405.52	1.3	158
405.54	1.4	161
405.56	1.4	164
405.58	1.4	167
405.60	1.4	170
405.62	1.5	173
405.64	1.5	176
405.66	1.5	179
405.68	1.5	182
405.70	1.6	184
405.72	1.6	187
405.74	1.6	190
405.76	1.6	192
405.78	1.6	194
405.80	1.7	197
405.82	1.7	199
405.84	1.7	201
405.86	1.7	203
405.88	1.7	204
405.90	1.7	206
405.92	1.8	207
405.94	1.8	208
405.96	**1.8**	**209**

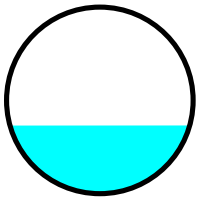
Summary for Reach P-A4: Pipe A4

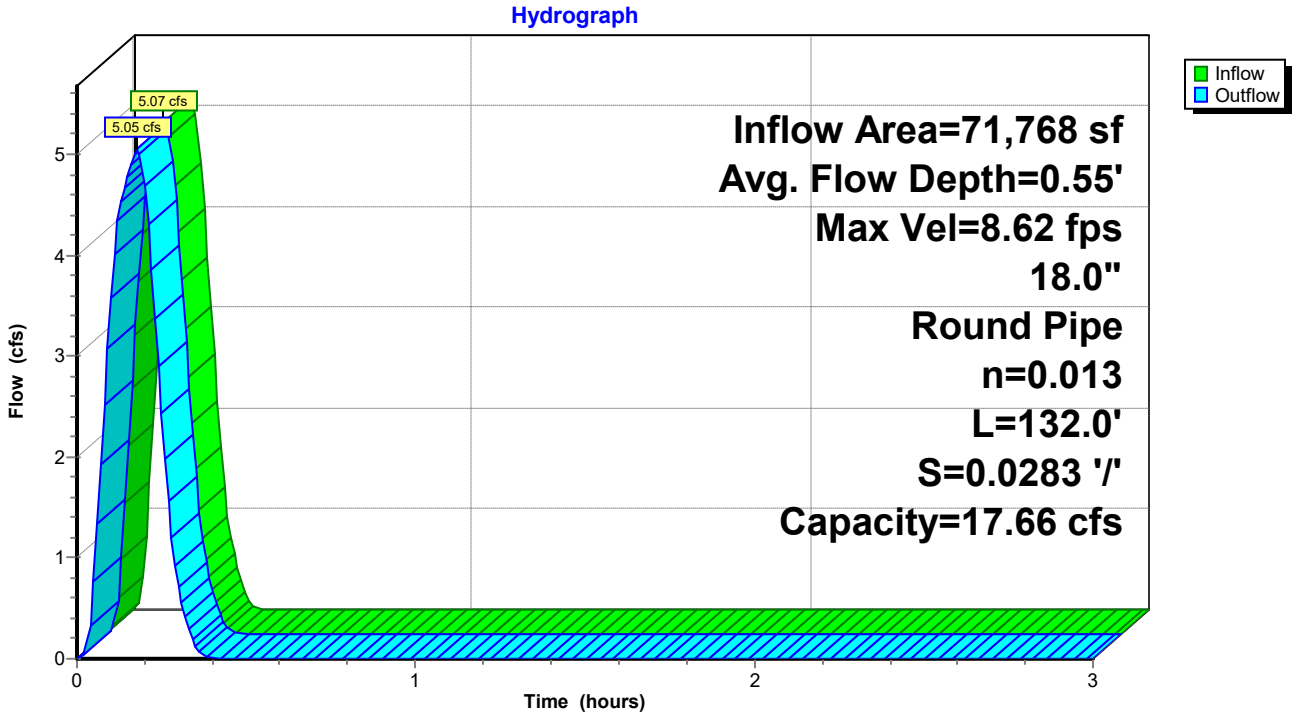
Inflow Area = 71,768 sf, 0.00% Impervious, Inflow Depth = 0.52" for 2-yr event
Inflow = 5.07 cfs @ 0.17 hrs, Volume= 3,082 cf
Outflow = 5.05 cfs @ 0.18 hrs, Volume= 3,082 cf, Atten= 0%, Lag= 0.4 min
Routed to Pond DP1 : Re-Establised East Pond

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 8.62 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 3.43 fps, Avg. Travel Time= 0.6 min

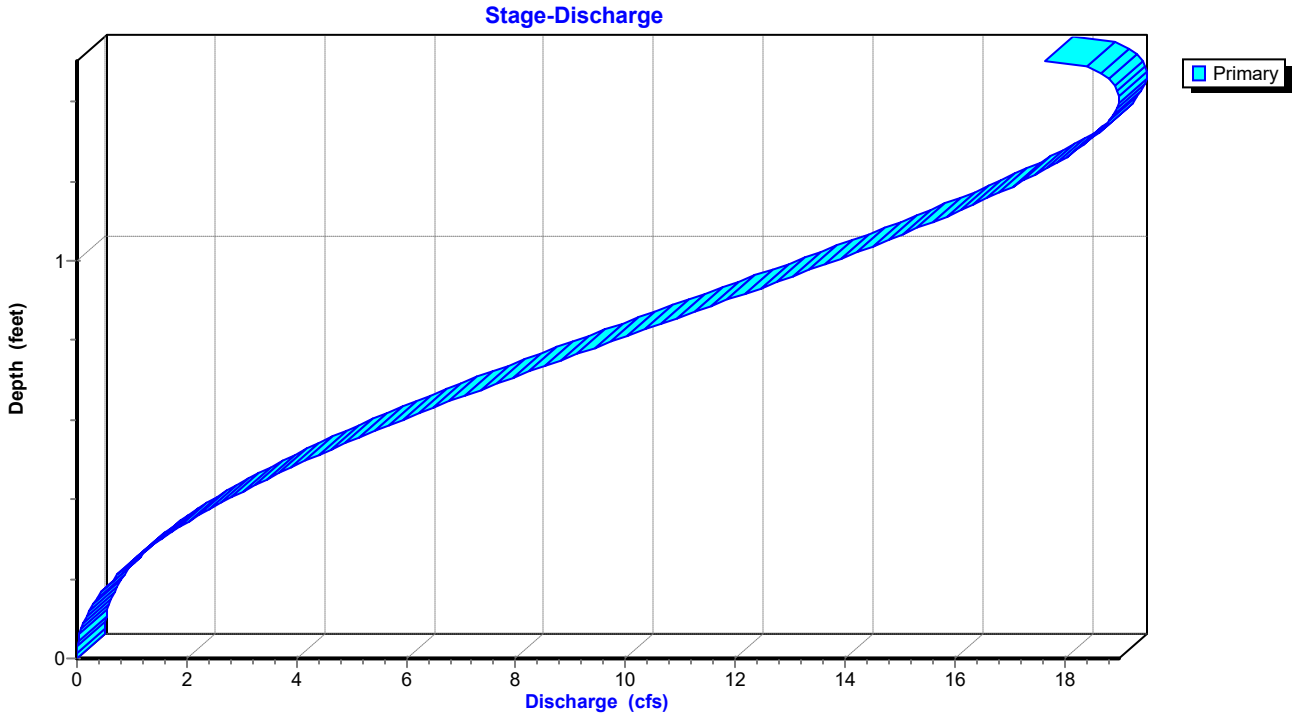
Peak Storage= 77 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.55' , Surface Width= 1.45'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.66 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 132.0' Slope= 0.0283 '/'
Inlet Invert= 401.03', Outlet Invert= 397.30'





Reach P-A4: Pipe A4



Stage-Area-Storage for Reach P-A4: Pipe A4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
401.03	0.0	0
401.05	0.0	1
401.07	0.0	2
401.09	0.0	3
401.11	0.0	5
401.13	0.1	7
401.15	0.1	9
401.17	0.1	11
401.19	0.1	13
401.21	0.1	16
401.23	0.1	18
401.25	0.2	21
401.27	0.2	24
401.29	0.2	27
401.31	0.2	30
401.33	0.3	33
401.35	0.3	36
401.37	0.3	40
401.39	0.3	43
401.41	0.4	46
401.43	0.4	50
401.45	0.4	53
401.47	0.4	57
401.49	0.5	61
401.51	0.5	64
401.53	0.5	68
401.55	0.5	72
401.57	0.6	76
401.59	0.6	79
401.61	0.6	83
401.63	0.7	87
401.65	0.7	91
401.67	0.7	95
401.69	0.7	99
401.71	0.8	103
401.73	0.8	107
401.75	0.8	111
401.77	0.9	115
401.79	0.9	119
401.81	0.9	123
401.83	1.0	127
401.85	1.0	130
401.87	1.0	134
401.89	1.0	138
401.91	1.1	142
401.93	1.1	146
401.95	1.1	150
401.97	1.2	154
401.99	1.2	158
402.01	1.2	161
402.03	1.3	165
402.05	1.3	169
402.07	1.3	173
402.09	1.3	176
402.11	1.4	180
402.13	1.4	183
402.15	1.4	187
402.17	1.4	190
402.19	1.5	194
402.21	1.5	197
402.23	1.5	200
402.25	1.5	203
402.27	1.6	206
402.29	1.6	209
402.31	1.6	212
402.33	1.6	215
402.35	1.6	217
402.37	1.7	220
402.39	1.7	222
402.41	1.7	225
402.43	1.7	227
402.45	1.7	228
402.47	1.7	230
402.49	1.8	232
402.51	1.8	233
402.53	**1.8**	**233**

Summary for Pond DP1: Re-Establised East Pond

Inflow Area = 132,514 sf, 0.00% Impervious, Inflow Depth = 0.53" for 2-yr event
Inflow = 9.45 cfs @ 0.16 hrs, Volume= 5,804 cf
Outflow = 5.39 cfs @ 0.22 hrs, Volume= 5,804 cf, Atten= 43%, Lag= 3.6 min
Primary = 5.39 cfs @ 0.22 hrs, Volume= 5,804 cf
Routed to Link Post-Dev : APPROX DISCHARGE

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 397.63' @ 0.22 hrs Storage= 2,855 cf

Plug-Flow detention time= 7.8 min calculated for 5,804 cf (100% of inflow)
Center-of-Mass det. time= 7.7 min (16.7 - 9.0)

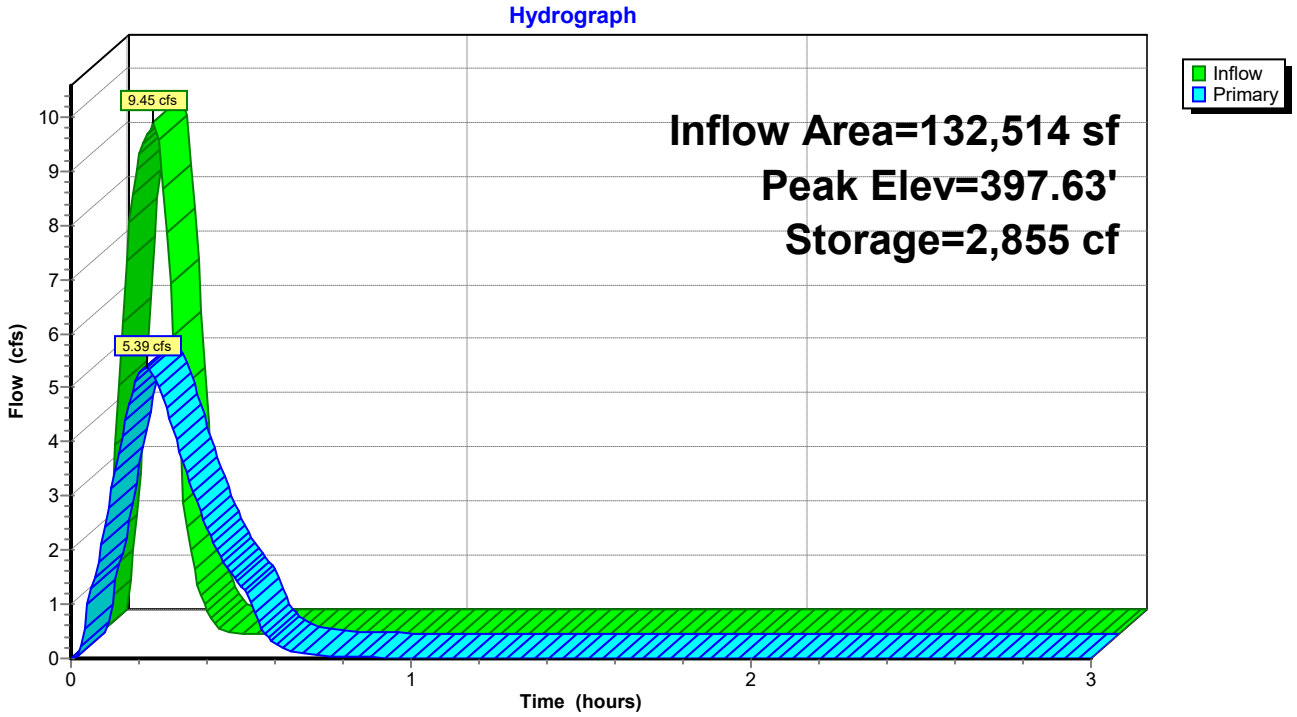
Volume	Invert	Avail.Storage	Storage Description
#1	396.00'	8,557 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
396.00	0	0
396.50	250	250
397.00	1,092	1,342
398.00	2,387	3,729
399.00	2,405	6,134
400.00	2,423	8,557

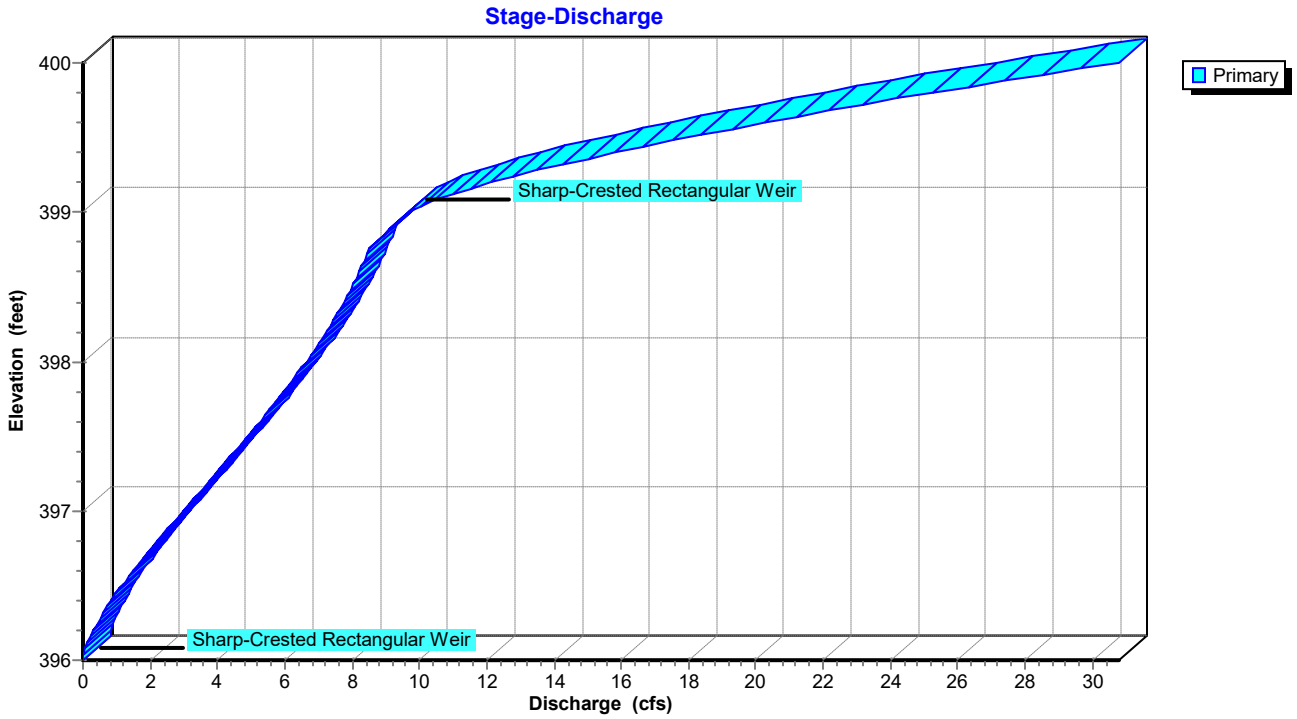
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	396.00'	**1.1' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 10.0' Crest Height

Primary OutFlow Max=5.38 cfs @ 0.22 hrs HW=397.63' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
2=Sharp-Crested Rectangular Weir (Weir Controls 5.38 cfs @ 4.26 fps)

Pond DP1: Re-Establised East Pond



Pond DP1: Re-Establised East Pond



Stage-Area-Storage for Pond DP1: Re-Establised East Pond

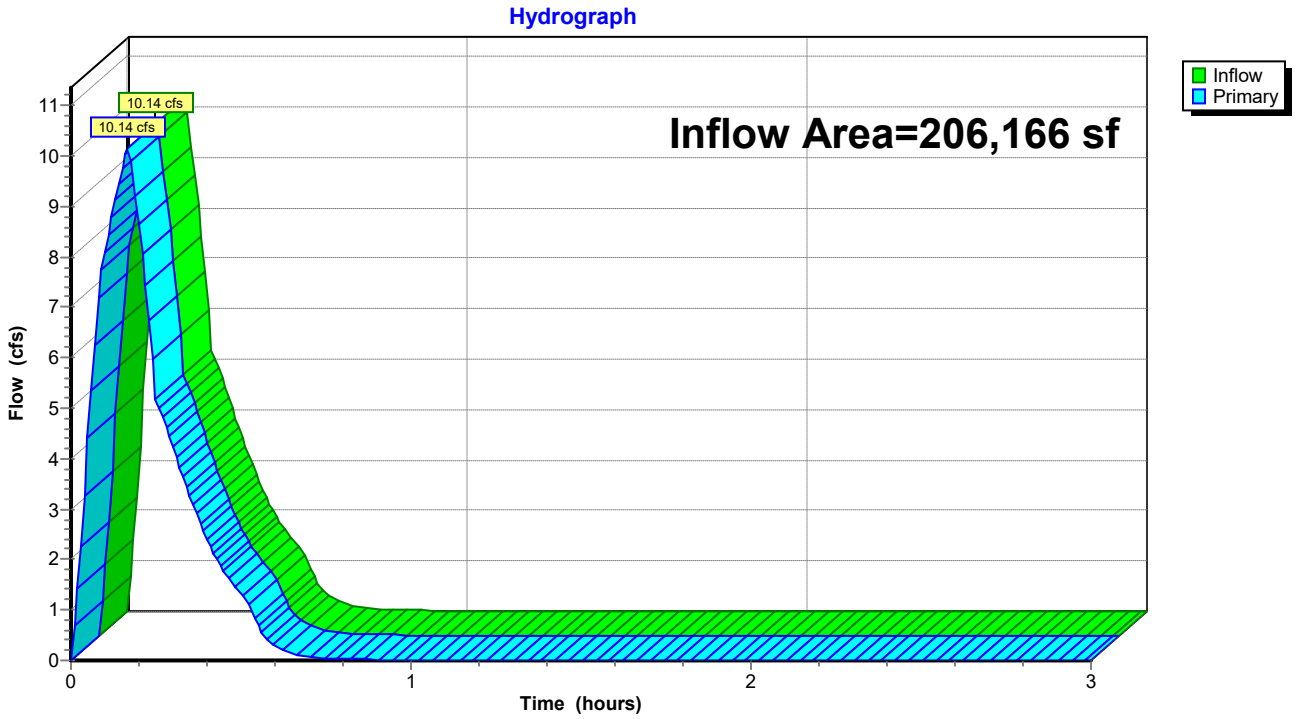
Elevation (feet)	Storage (cubic-feet)
396.00	0
396.05	25
396.10	50
396.15	75
396.20	100
396.25	125
396.30	150
396.35	175
396.40	200
396.45	225
396.50	250
396.55	359
396.60	468
396.65	578
396.70	687
396.75	796
396.80	905
396.85	1,014
396.90	1,124
396.95	1,233
397.00	1,342
397.05	1,461
397.10	1,581
397.15	1,700
397.20	1,819
397.25	1,939
397.30	2,058
397.35	2,177
397.40	2,297
397.45	2,416
397.50	2,536
397.55	2,655
397.60	2,774
397.65	2,894
397.70	3,013
397.75	3,132
397.80	3,252
397.85	3,371
397.90	3,490
397.95	3,610
398.00	3,729
398.05	3,849
398.10	3,970
398.15	4,090
398.20	4,210
398.25	4,330
398.30	4,451
398.35	4,571
398.40	4,691
398.45	4,811
398.50	4,932
398.55	5,052
398.60	5,172
398.65	5,292
398.70	5,412
398.75	5,533
398.80	5,653
398.85	5,773
398.90	5,893
398.95	6,014
399.00	6,134
399.05	6,255
399.10	6,376
399.15	6,497
399.20	6,619
399.25	6,740
399.30	6,861
399.35	6,982
399.40	7,103
399.45	7,224
399.50	7,346
399.55	7,467
399.60	7,588
399.65	7,709
399.70	7,830
399.75	7,951
399.80	8,072
399.85	8,194
399.90	8,315
399.95	8,436
400.00	**8,557**

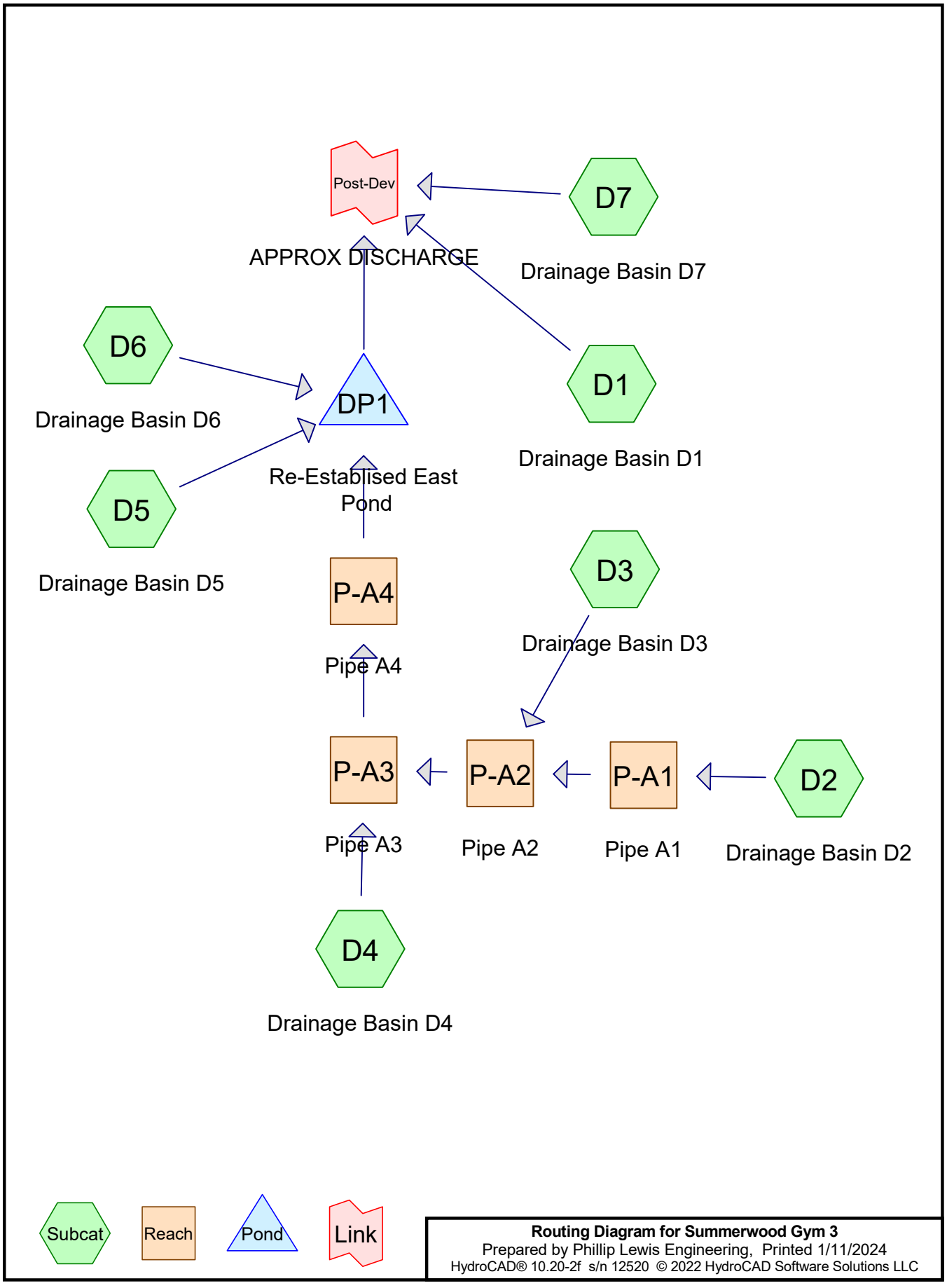
Summary for Link Post-Dev: APPROX DISCHARGE

Inflow Area = 206,166 sf, 0.00% Impervious, Inflow Depth = 0.53" for 2-yr event
Inflow = 10.14 cfs @ 0.17 hrs, Volume= 9,191 cf
Primary = 10.14 cfs @ 0.17 hrs, Volume= 9,191 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Post-Dev: APPROX DISCHARGE





Routing Diagram for Summerwood Gym 3
Prepared by Phillip Lewis Engineering, Printed 1/11/2024
HydroCAD® 10.20-2f s/n 12520 © 2022 HydroCAD Software Solutions LLC

Summary for Subcatchment D1: Drainage Basin D1

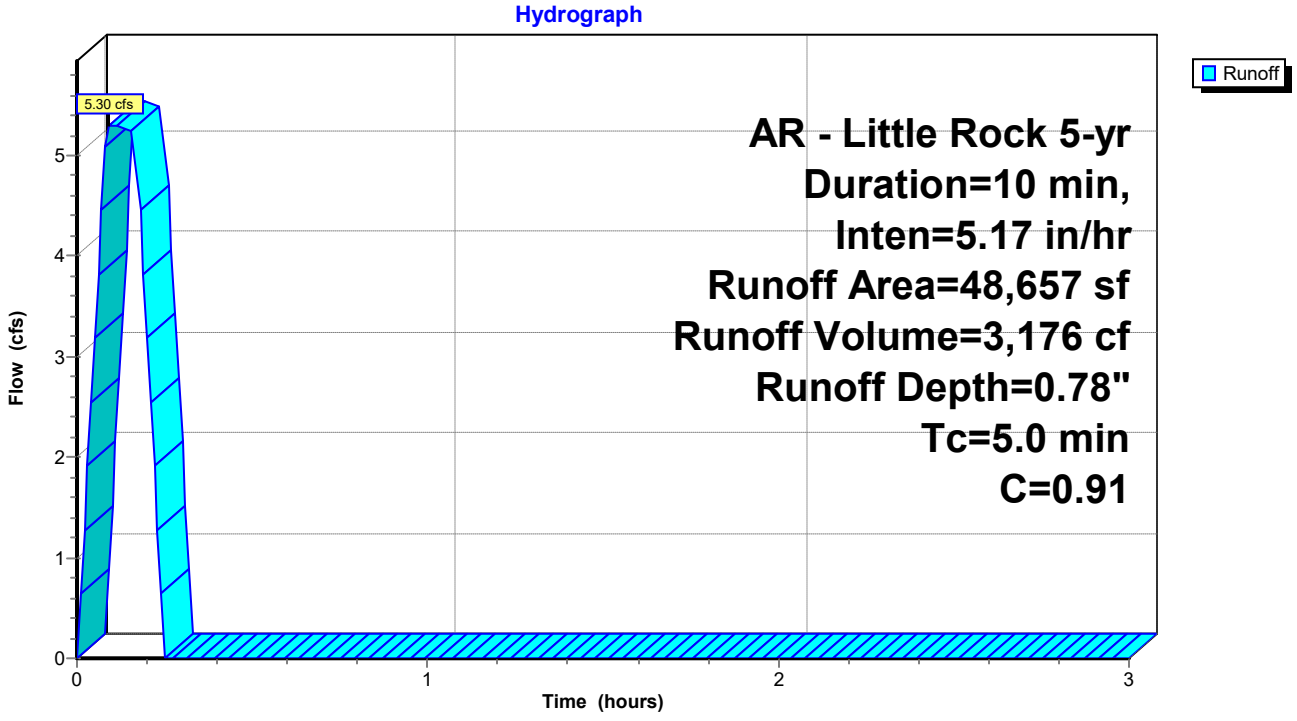
Runoff = 5.30 cfs @ 0.09 hrs, Volume= 3,176 cf, Depth= 0.78"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
3,421	0.40	Sod Yard
45,236	0.95	Rood, Drives, Sidewalks
48,657	0.91	Weighted Average
3,421		7.03% Pervious Area
45,236		92.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D1: Drainage Basin D1



Summary for Subcatchment D2: Drainage Basin D2

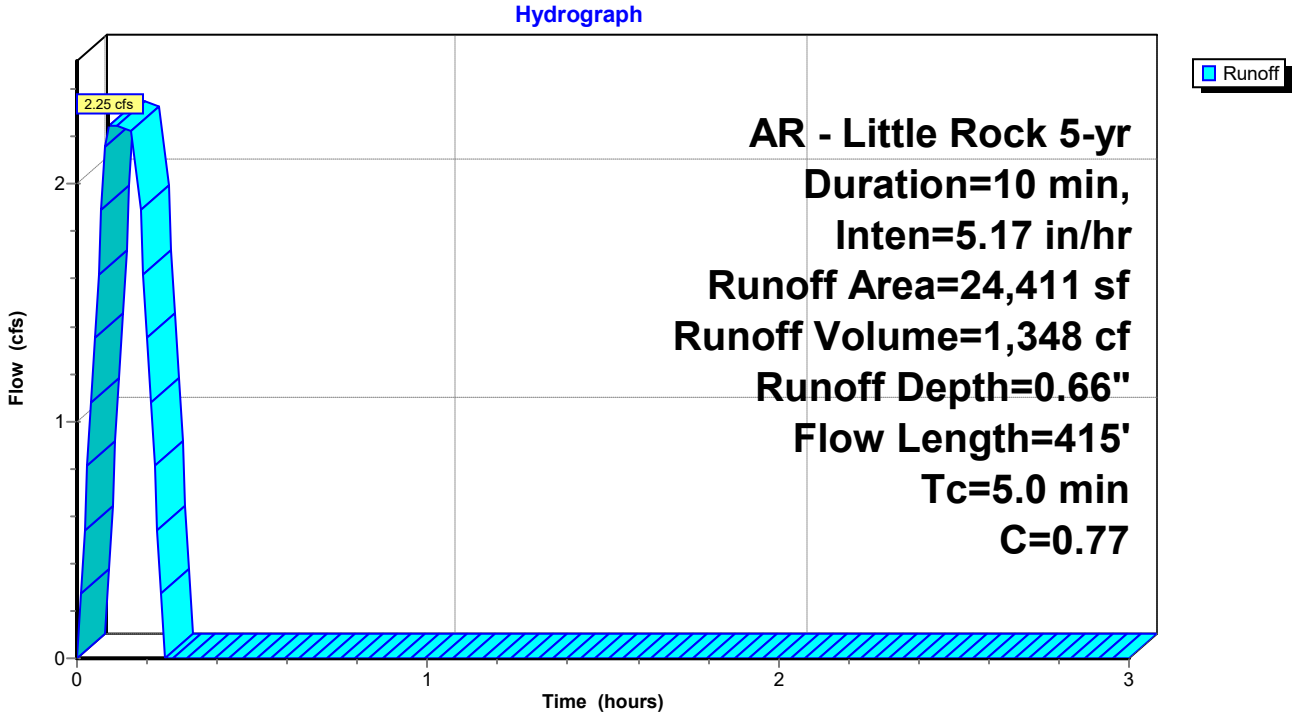
Runoff = 2.25 cfs @ 0.09 hrs, Volume= 1,348 cf, Depth= 0.66"
Routed to Reach P-A1 : Pipe A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
8,845	0.45	Rip Rap Embankment
15,566	0.95	Roof, Drives, Sidewalks
24,411	0.77	Weighted Average
8,845		36.23% Pervious Area
15,566		63.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D2: Drainage Basin D2



Summary for Subcatchment D3: Drainage Basin D3

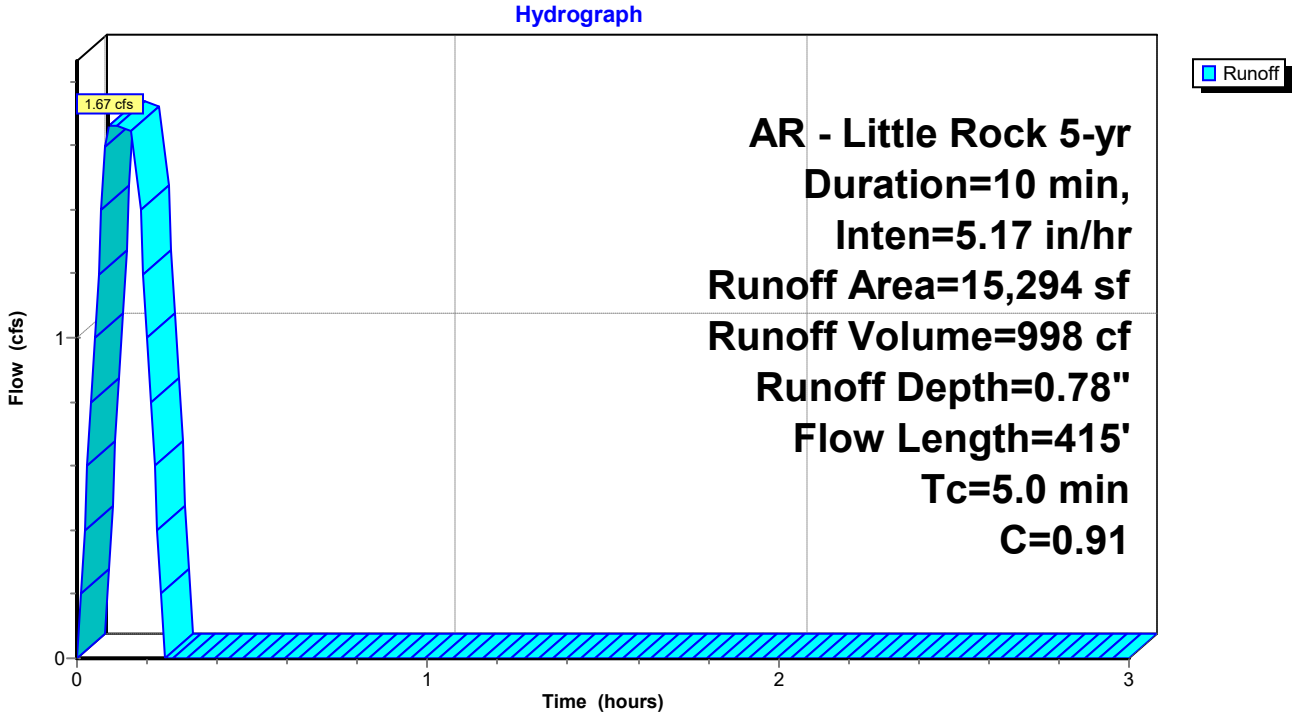
Runoff = 1.67 cfs @ 0.09 hrs, Volume= 998 cf, Depth= 0.78"
Routed to Reach P-A2 : Pipe A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
1,065	0.40	Sod Yard
14,229	0.95	Paving, Sidewalks
15,294	0.91	Weighted Average
1,065		6.96% Pervious Area
14,229		93.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D3: Drainage Basin D3



Summary for Subcatchment D4: Drainage Basin D4

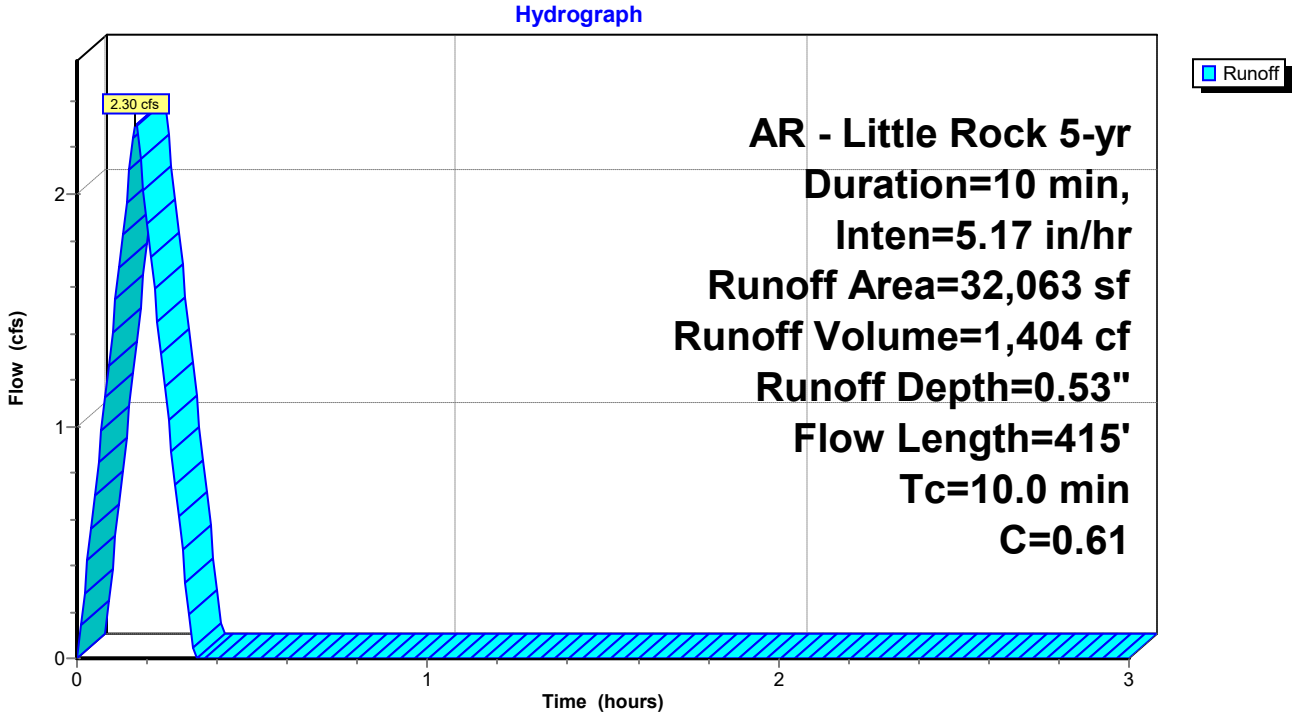
Runoff = 2.30 cfs @ 0.17 hrs, Volume= 1,404 cf, Depth= 0.53"
Routed to Reach P-A3 : Pipe A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
20,032	0.40	
12,031	0.95	
32,063	0.61	Weighted Average
20,032		62.48% Pervious Area
12,031		37.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D4: Drainage Basin D4



Summary for Subcatchment D5: Drainage Basin D5

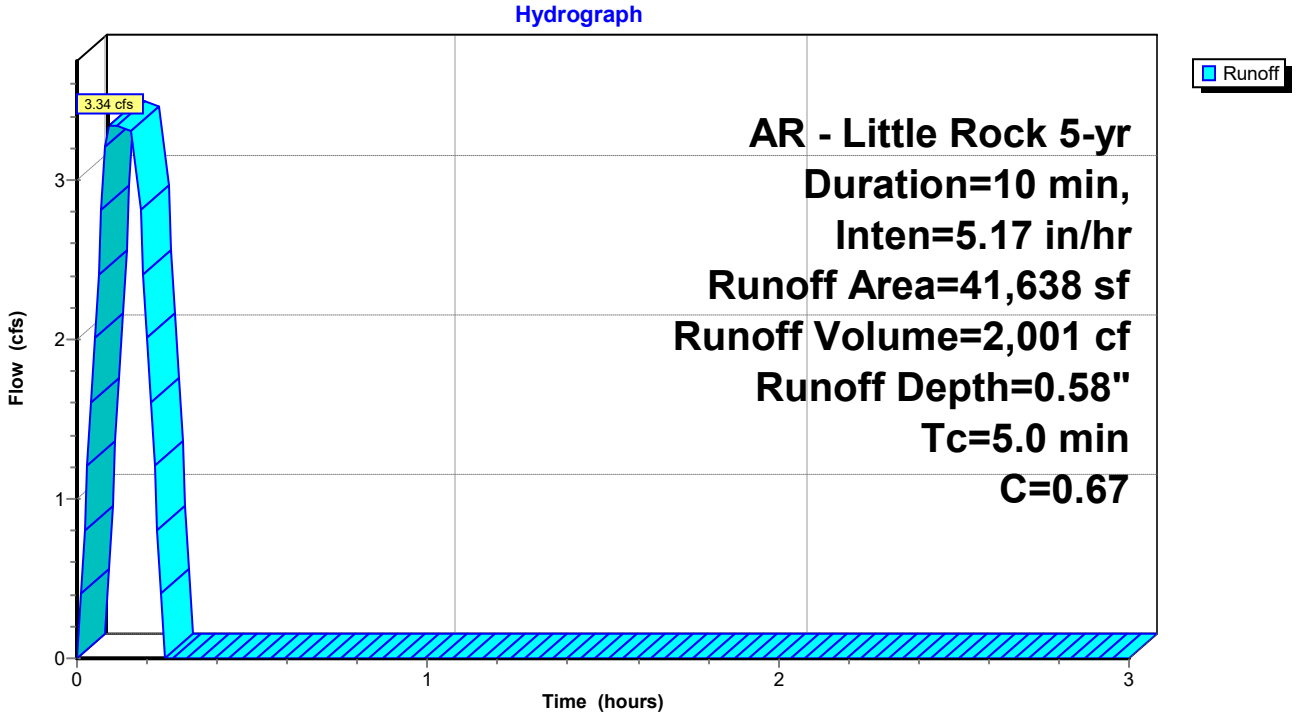
Runoff = 3.34 cfs @ 0.09 hrs, Volume= 2,001 cf, Depth= 0.58"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
21,201	0.40	Sod Yard, Natural Vegetation
20,437	0.95	Paving, Sidewalks
41,638	0.67	Weighted Average
21,201		50.92% Pervious Area
20,437		49.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D5: Drainage Basin D5



Summary for Subcatchment D6: Drainage Basin D6

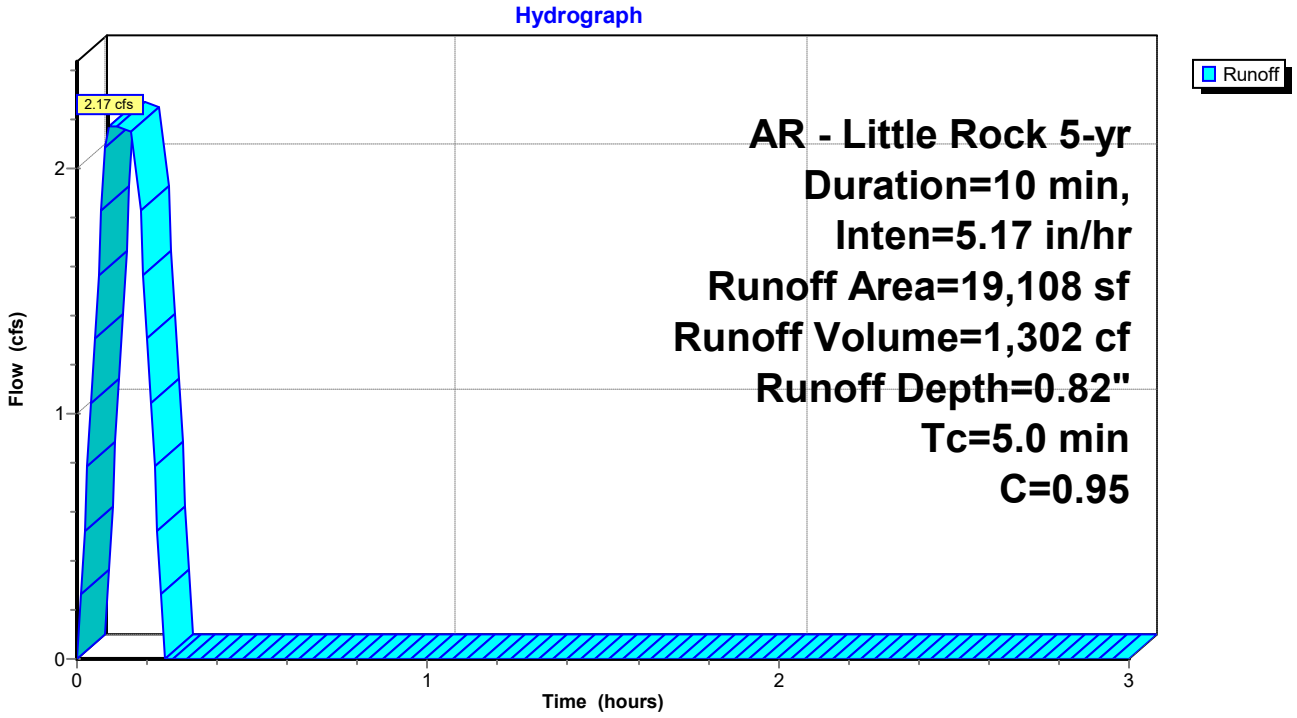
Runoff = 2.17 cfs @ 0.09 hrs, Volume= 1,302 cf, Depth= 0.82"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
19,108	0.95	Roof
19,108		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D6: Drainage Basin D6



Summary for Subcatchment D7: Drainage Basin D7

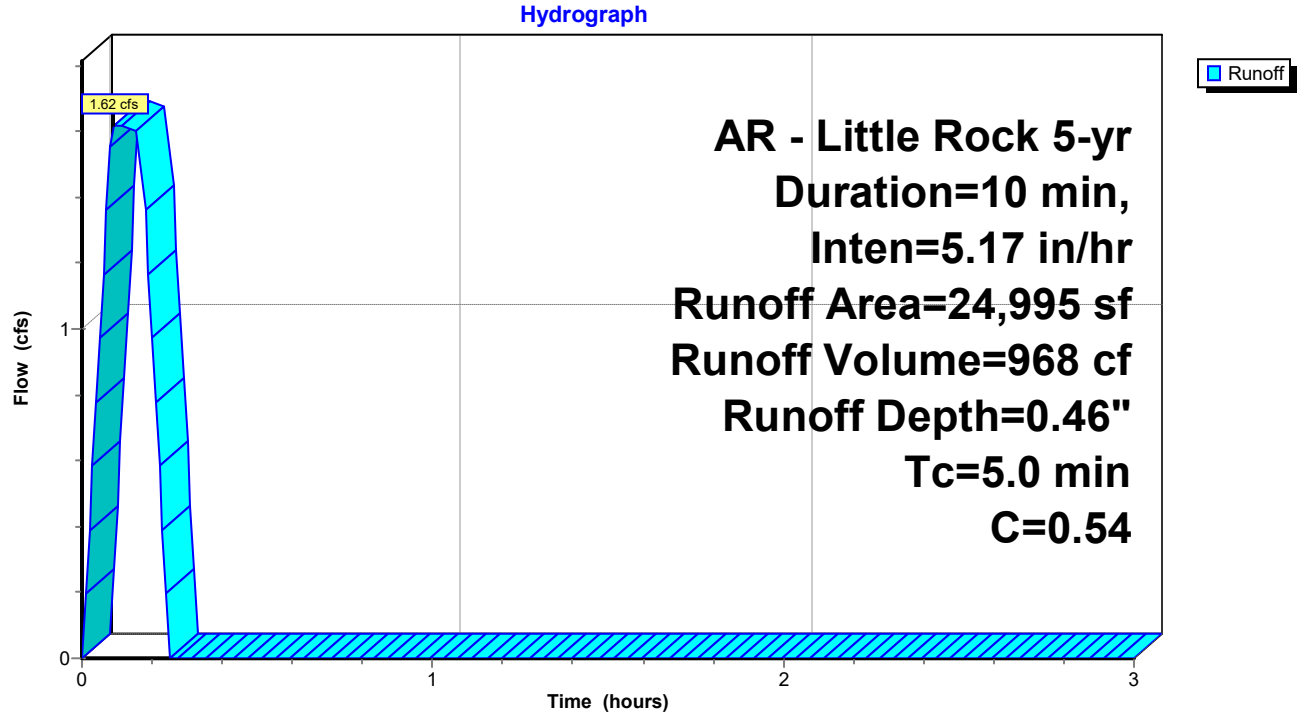
Runoff = 1.62 cfs @ 0.09 hrs, Volume= 968 cf, Depth= 0.46"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 5-yr Duration=10 min, Inten=5.17 in/hr

Area (sf)	C	Description
18,798	0.40	Sod Yard, Natural Vegetation
6,197	0.95	Paving, Sidewalks
24,995	0.54	Weighted Average
18,798		75.21% Pervious Area
6,197		24.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D7: Drainage Basin D7



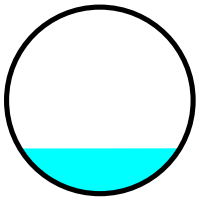
Summary for Reach P-A1: Pipe A1

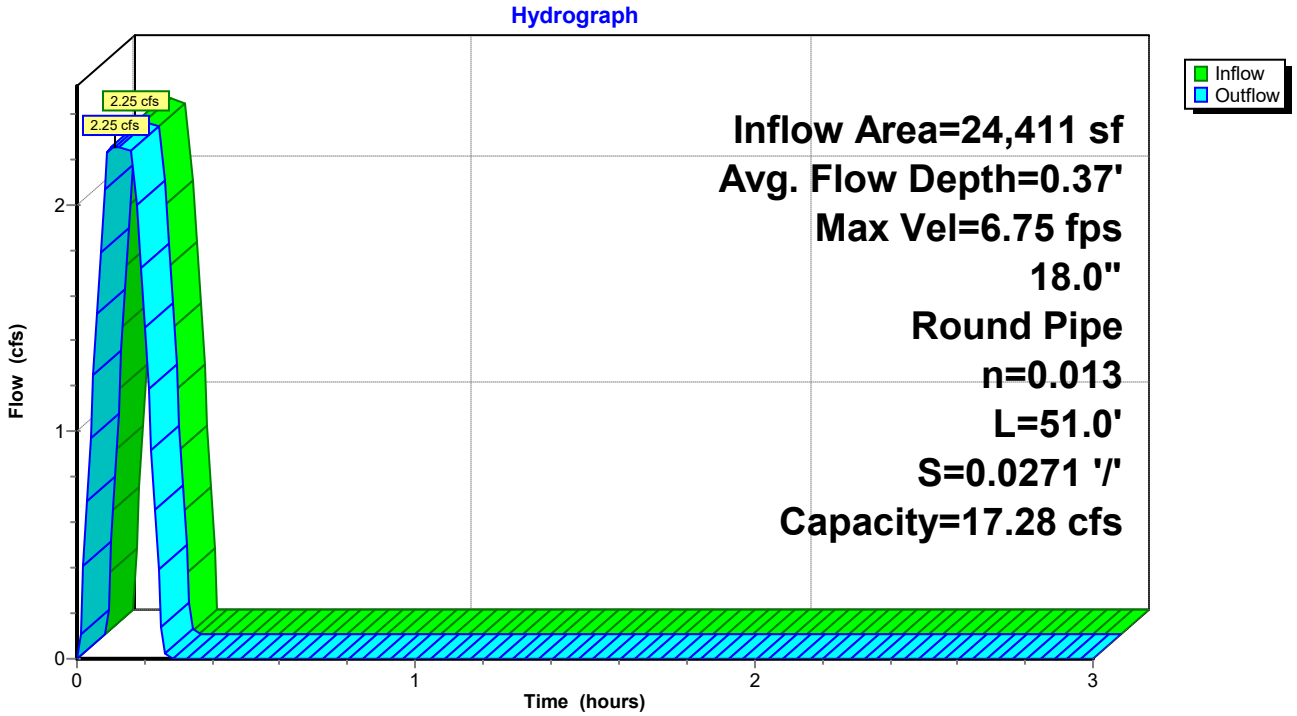
Inflow Area = 24,411 sf, 63.77% Impervious, Inflow Depth = 0.66" for 5-yr event
Inflow = 2.25 cfs @ 0.09 hrs, Volume= 1,348 cf
Outflow = 2.25 cfs @ 0.11 hrs, Volume= 1,348 cf, Atten= 0%, Lag= 1.2 min
Routed to Reach P-A2 : Pipe A2

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.75 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 4.79 fps, Avg. Travel Time= 0.2 min

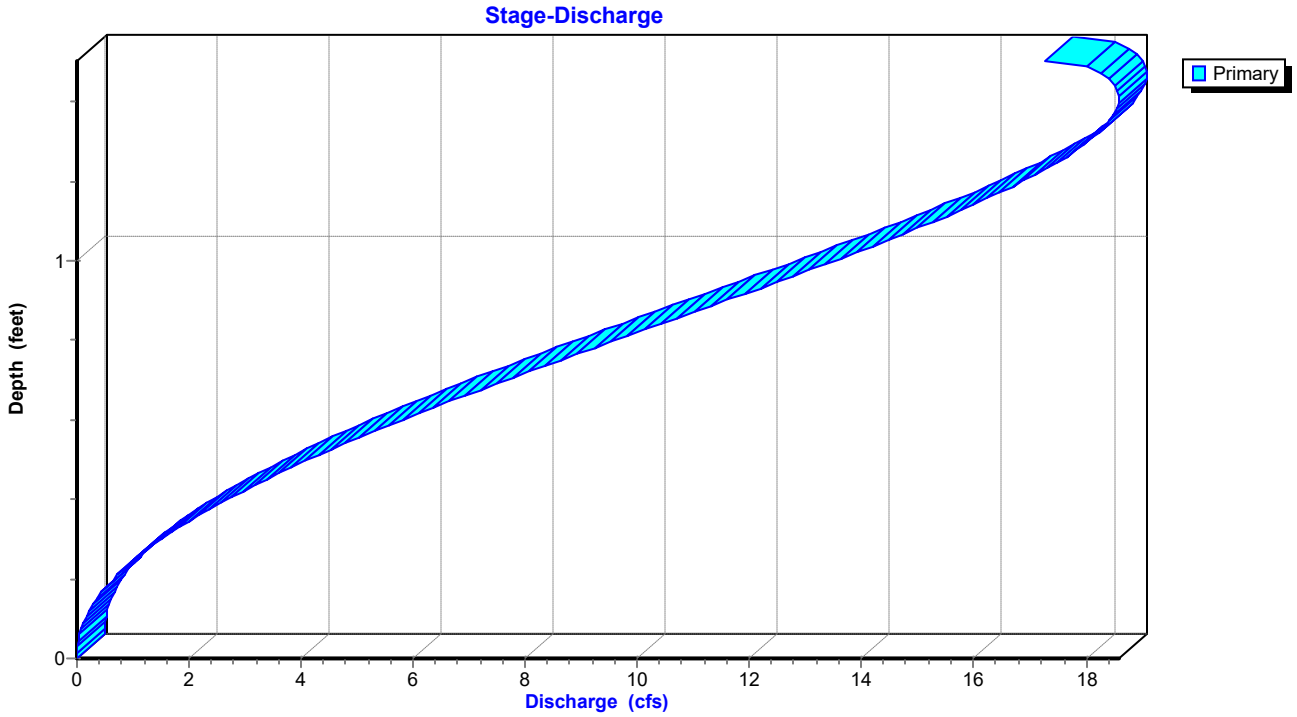
Peak Storage= 17 cf @ 0.09 hrs
Average Depth at Peak Storage= 0.37' , Surface Width= 1.29'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.28 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 51.0' Slope= 0.0271 '/'
Inlet Invert= 408.33', Outlet Invert= 406.95'





Reach P-A1: Pipe A1



Stage-Area-Storage for Reach P-A1: Pipe A1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
408.33	0.0	0
408.35	0.0	0
408.37	0.0	1
408.39	0.0	1
408.41	0.0	2
408.43	0.1	3
408.45	0.1	3
408.47	0.1	4
408.49	0.1	5
408.51	0.1	6
408.53	0.1	7
408.55	0.2	8
408.57	0.2	9
408.59	0.2	10
408.61	0.2	12
408.63	0.3	13
408.65	0.3	14
408.67	0.3	15
408.69	0.3	17
408.71	0.4	18
408.73	0.4	19
408.75	0.4	21
408.77	0.4	22
408.79	0.5	23
408.81	0.5	25
408.83	0.5	26
408.85	0.5	28
408.87	0.6	29
408.89	0.6	31
408.91	0.6	32
408.93	0.7	34
408.95	0.7	35
408.97	0.7	37
408.99	0.7	38
409.01	0.8	40
409.03	0.8	41
409.05	0.8	43
409.07	0.9	44
409.09	0.9	46
409.11	0.9	47
409.13	1.0	49
409.15	1.0	50
409.17	1.0	52
409.19	1.0	53
409.21	1.1	55
409.23	1.1	56
409.25	1.1	58
409.27	1.2	59
409.29	1.2	61
409.31	1.2	62
409.33	1.3	64
409.35	1.3	65
409.37	1.3	67
409.39	1.3	68
409.41	1.4	69
409.43	1.4	71
409.45	1.4	72
409.47	1.4	73
409.49	1.5	75
409.51	1.5	76
409.53	1.5	77
409.55	1.5	78
409.57	1.6	80
409.59	1.6	81
409.61	1.6	82
409.63	1.6	83
409.65	1.6	84
409.67	1.7	85
409.69	1.7	86
409.71	1.7	87
409.73	1.7	88
409.75	1.7	88
409.77	1.7	89
409.79	1.8	89
409.81	1.8	90
409.83	**1.8**	**90**

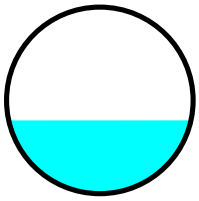
Summary for Reach P-A2: Pipe A2

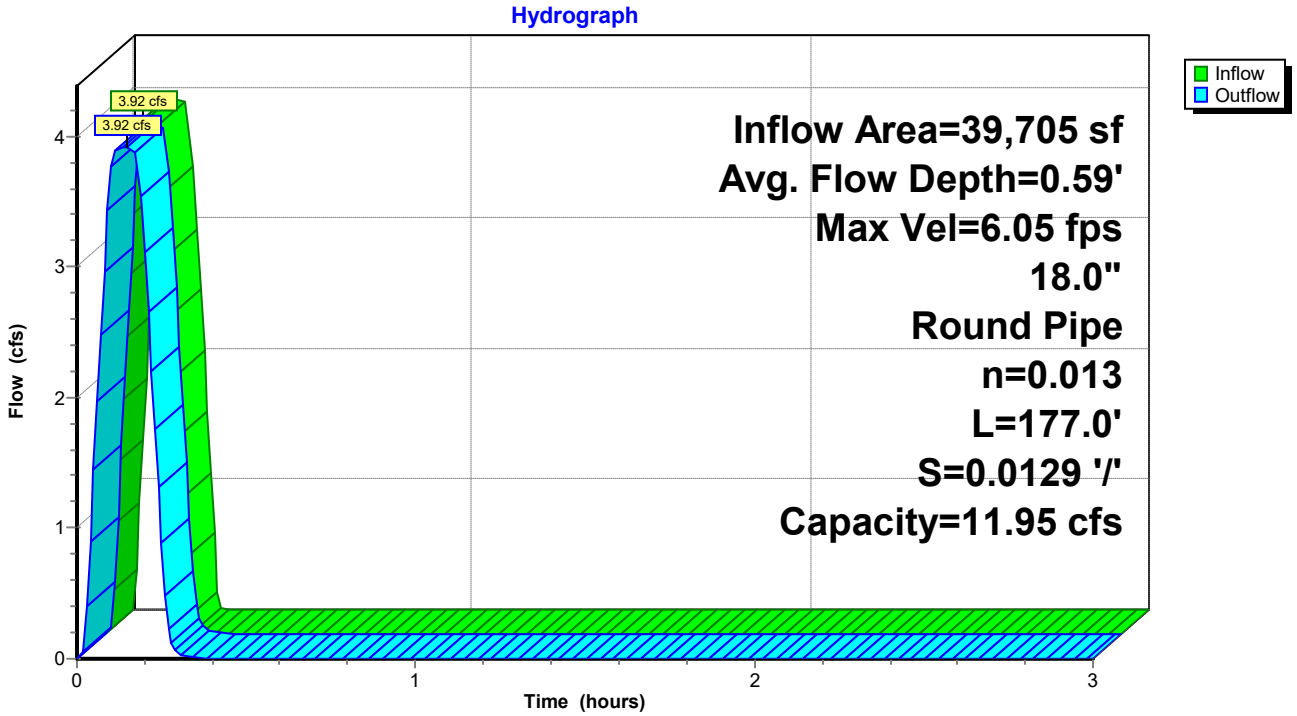
Inflow Area = 39,705 sf, 75.04% Impervious, Inflow Depth = 0.71" for 5-yr event
Inflow = 3.92 cfs @ 0.11 hrs, Volume= 2,346 cf
Outflow = 3.92 cfs @ 0.15 hrs, Volume= 2,346 cf, Atten= 0%, Lag= 2.4 min
Routed to Reach P-A3 : Pipe A3

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.05 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.43 fps, Avg. Travel Time= 1.2 min

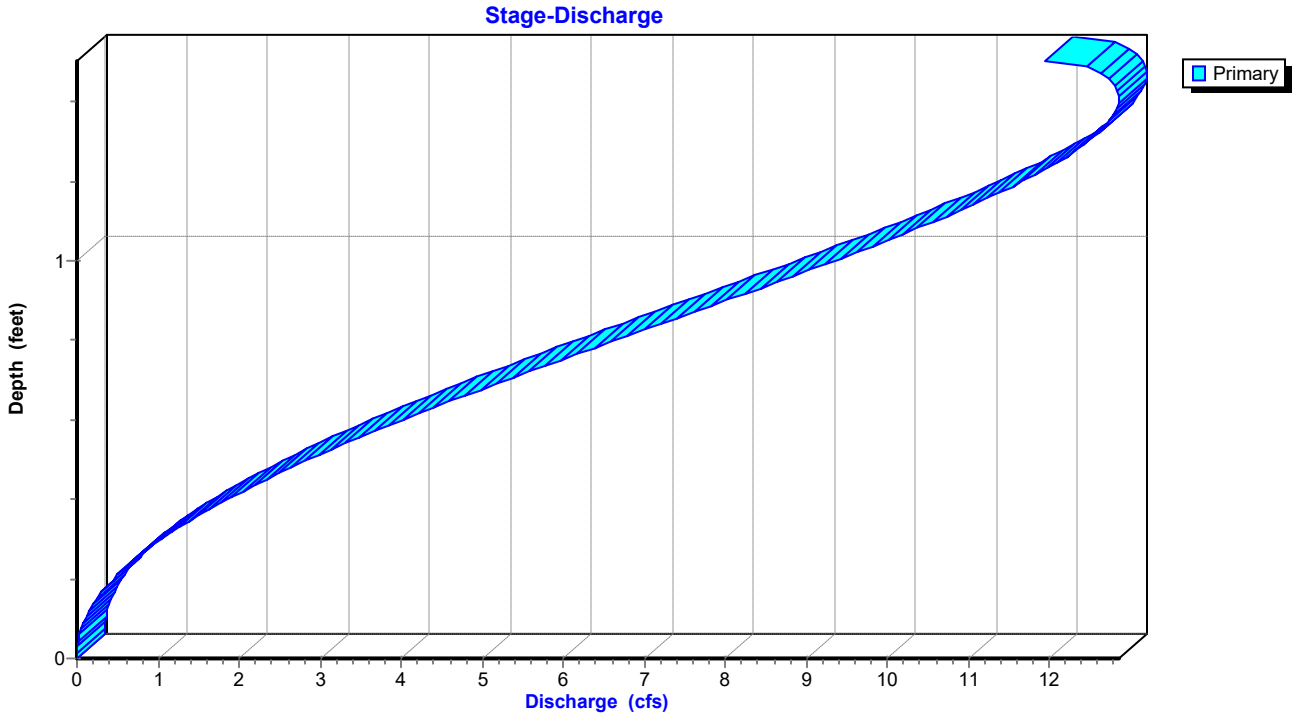
Peak Storage= 114 cf @ 0.14 hrs
Average Depth at Peak Storage= 0.59' , Surface Width= 1.47'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 177.0' Slope= 0.0129 '/'
Inlet Invert= 406.85', Outlet Invert= 404.56'





Reach P-A2: Pipe A2



Stage-Area-Storage for Reach P-A2: Pipe A2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
406.85	0.0	0
406.87	0.0	1
406.89	0.0	2
406.91	0.0	4
406.93	0.0	6
406.95	0.1	9
406.97	0.1	12
406.99	0.1	15
407.01	0.1	18
407.03	0.1	21
407.05	0.1	25
407.07	0.2	28
407.09	0.2	32
407.11	0.2	36
407.13	0.2	40
407.15	0.3	45
407.17	0.3	49
407.19	0.3	53
407.21	0.3	58
407.23	0.4	62
407.25	0.4	67
407.27	0.4	72
407.29	0.4	76
407.31	0.5	81
407.33	0.5	86
407.35	0.5	91
407.37	0.5	96
407.39	0.6	101
407.41	0.6	106
407.43	0.6	112
407.45	0.7	117
407.47	0.7	122
407.49	0.7	127
407.51	0.7	133
407.53	0.8	138
407.55	0.8	143
407.57	0.8	148
407.59	0.9	154
407.61	0.9	159
407.63	0.9	164
407.65	1.0	170
407.67	1.0	175
407.69	1.0	180
407.71	1.0	185
407.73	1.1	191
407.75	1.1	196
407.77	1.1	201
407.79	1.2	206
407.81	1.2	211
407.83	1.2	216
407.85	1.3	222
407.87	1.3	226
407.89	1.3	231
407.91	1.3	236
407.93	1.4	241
407.95	1.4	246
407.97	1.4	250
407.99	1.4	255
408.01	1.5	260
408.03	1.5	264
408.05	1.5	268
408.07	1.5	272
408.09	1.6	277
408.11	1.6	280
408.13	1.6	284
408.15	1.6	288
408.17	1.6	292
408.19	1.7	295
408.21	1.7	298
408.23	1.7	301
408.25	1.7	304
408.27	1.7	306
408.29	1.7	309
408.31	1.8	310
408.33	1.8	312
408.35	**1.8**	**313**

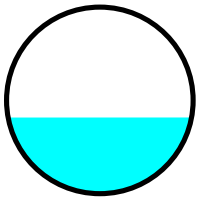
Summary for Reach P-A3: Pipe A3

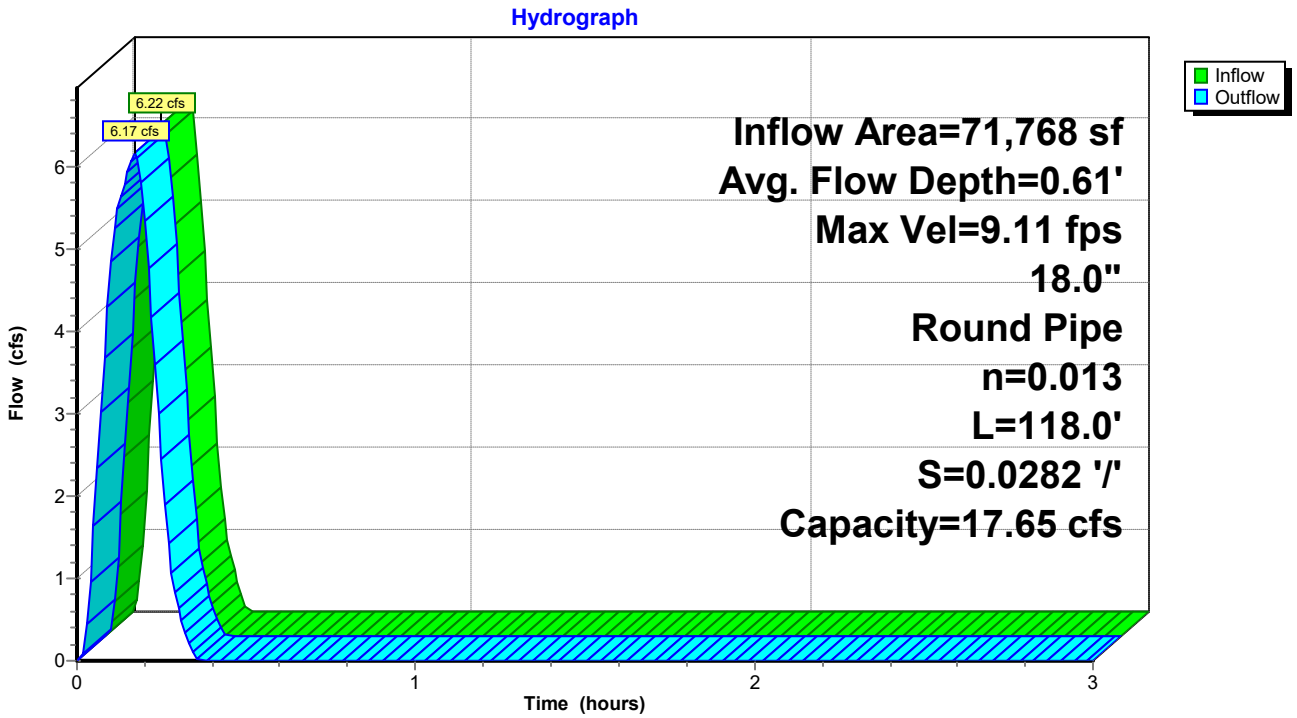
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.63" for 5-yr event
Inflow = 6.22 cfs @ 0.17 hrs, Volume= 3,751 cf
Outflow = 6.17 cfs @ 0.17 hrs, Volume= 3,751 cf, Atten= 1%, Lag= 0.3 min
Routed to Reach P-A4 : Pipe A4

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.11 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.79 fps, Avg. Travel Time= 0.5 min

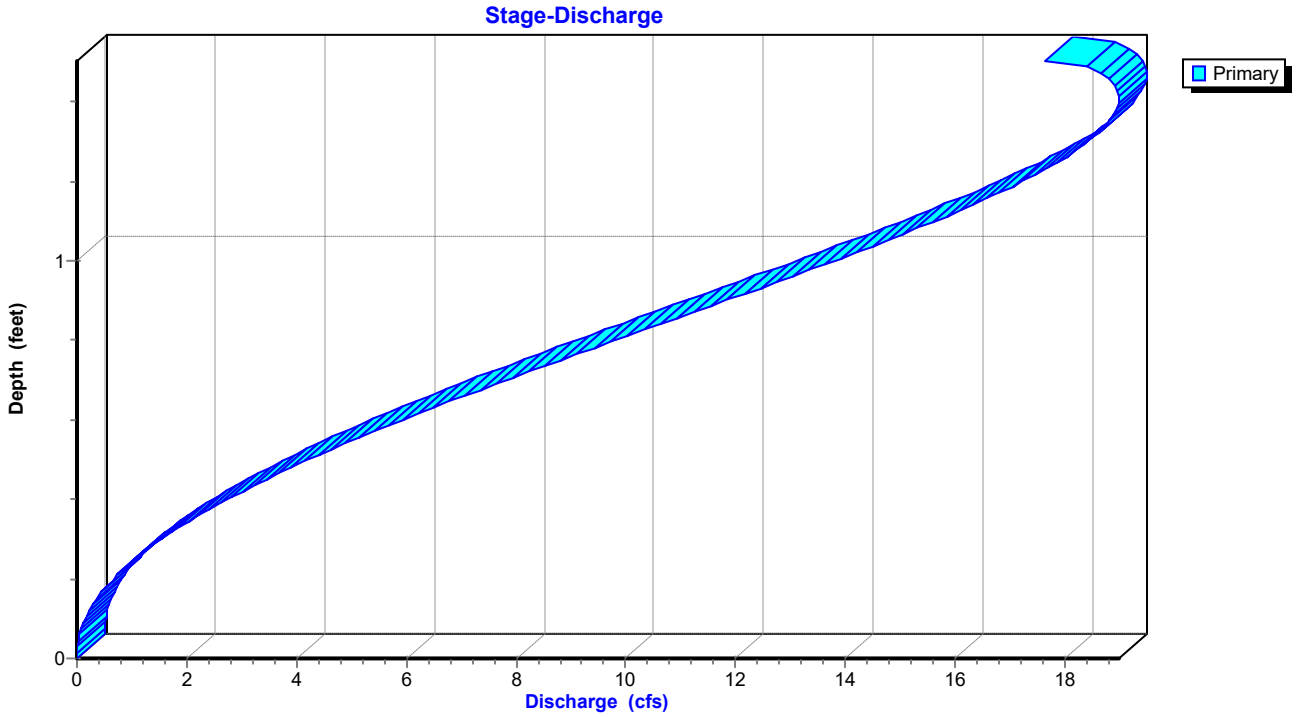
Peak Storage= 80 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.61' , Surface Width= 1.48'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.65 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 118.0' Slope= 0.0282 '/'
Inlet Invert= 404.46', Outlet Invert= 401.13'





Reach P-A3: Pipe A3



Stage-Area-Storage for Reach P-A3: Pipe A3

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
404.46	0.0	0
404.48	0.0	1
404.50	0.0	2
404.52	0.0	3
404.54	0.0	4
404.56	0.1	6
404.58	0.1	8
404.60	0.1	10
404.62	0.1	12
404.64	0.1	14
404.66	0.1	17
404.68	0.2	19
404.70	0.2	22
404.72	0.2	24
404.74	0.2	27
404.76	0.3	30
404.78	0.3	33
404.80	0.3	35
404.82	0.3	38
404.84	0.4	42
404.86	0.4	45
404.88	0.4	48
404.90	0.4	51
404.92	0.5	54
404.94	0.5	58
404.96	0.5	61
404.98	0.5	64
405.00	0.6	68
405.02	0.6	71
405.04	0.6	74
405.06	0.7	78
405.08	0.7	81
405.10	0.7	85
405.12	0.7	88
405.14	0.8	92
405.16	0.8	95
405.18	0.8	99
405.20	0.9	102
405.22	0.9	106
405.24	0.9	110
405.26	1.0	113
405.28	1.0	117
405.30	1.0	120
405.32	1.0	124
405.34	1.1	127
405.36	1.1	131
405.38	1.1	134
405.40	1.2	138
405.42	1.2	141
405.44	1.2	144
405.46	1.3	148
405.48	1.3	151
405.50	1.3	154
405.52	1.3	158
405.54	1.4	161
405.56	1.4	164
405.58	1.4	167
405.60	1.4	170
405.62	1.5	173
405.64	1.5	176
405.66	1.5	179
405.68	1.5	182
405.70	1.6	184
405.72	1.6	187
405.74	1.6	190
405.76	1.6	192
405.78	1.6	194
405.80	1.7	197
405.82	1.7	199
405.84	1.7	201
405.86	1.7	203
405.88	1.7	204
405.90	1.7	206
405.92	1.8	207
405.94	1.8	208
405.96	**1.8**	**209**

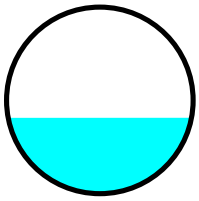
Summary for Reach P-A4: Pipe A4

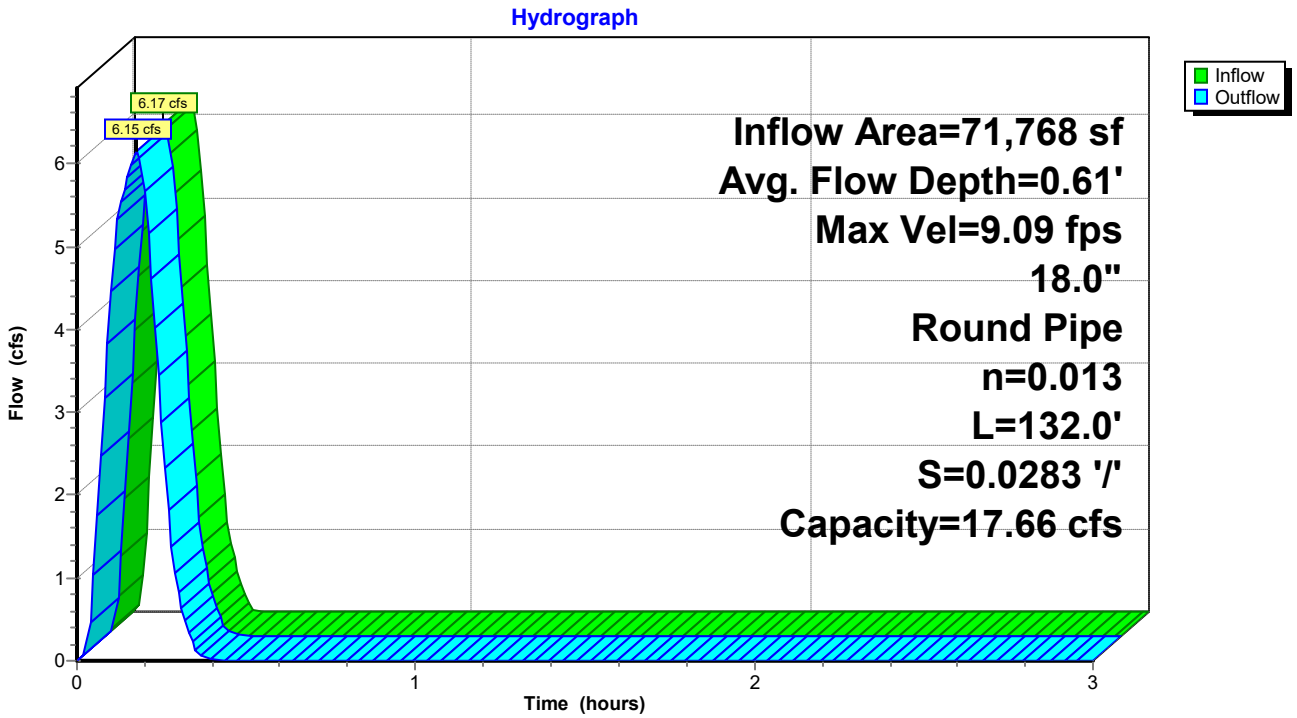
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.63" for 5-yr event
Inflow = 6.17 cfs @ 0.17 hrs, Volume= 3,751 cf
Outflow = 6.15 cfs @ 0.18 hrs, Volume= 3,751 cf, Atten= 0%, Lag= 0.4 min
Routed to Pond DP1 : Re-Establised East Pond

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.09 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.60 fps, Avg. Travel Time= 0.6 min

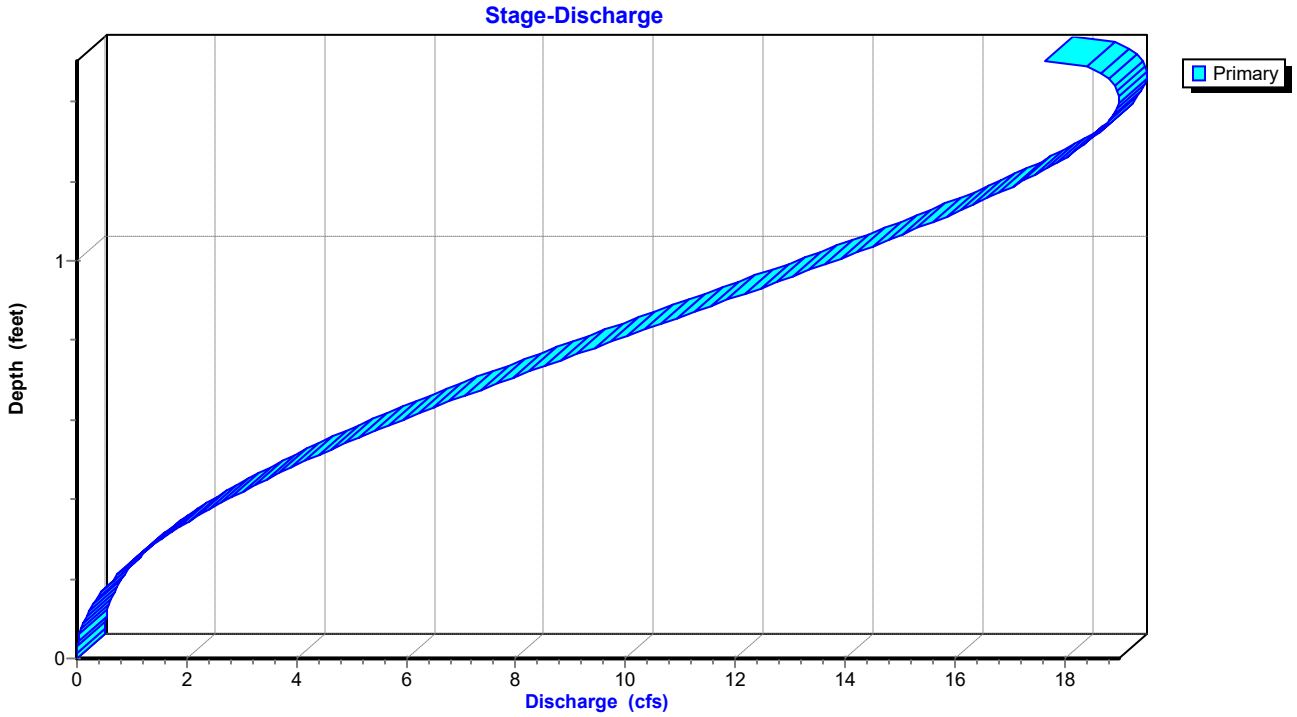
Peak Storage= 89 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.61' , Surface Width= 1.47'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.66 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 132.0' Slope= 0.0283 '/'
Inlet Invert= 401.03', Outlet Invert= 397.30'





Reach P-A4: Pipe A4



Stage-Area-Storage for Reach P-A4: Pipe A4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
401.03	0.0	0
401.05	0.0	1
401.07	0.0	2
401.09	0.0	3
401.11	0.0	5
401.13	0.1	7
401.15	0.1	9
401.17	0.1	11
401.19	0.1	13
401.21	0.1	16
401.23	0.1	18
401.25	0.2	21
401.27	0.2	24
401.29	0.2	27
401.31	0.2	30
401.33	0.3	33
401.35	0.3	36
401.37	0.3	40
401.39	0.3	43
401.41	0.4	46
401.43	0.4	50
401.45	0.4	53
401.47	0.4	57
401.49	0.5	61
401.51	0.5	64
401.53	0.5	68
401.55	0.5	72
401.57	0.6	76
401.59	0.6	79
401.61	0.6	83
401.63	0.7	87
401.65	0.7	91
401.67	0.7	95
401.69	0.7	99
401.71	0.8	103
401.73	0.8	107
401.75	0.8	111
401.77	0.9	115
401.79	0.9	119
401.81	0.9	123
401.83	1.0	127
401.85	1.0	130
401.87	1.0	134
401.89	1.0	138
401.91	1.1	142
401.93	1.1	146
401.95	1.1	150
401.97	1.2	154
401.99	1.2	158
402.01	1.2	161
402.03	1.3	165
402.05	1.3	169
402.07	1.3	173
402.09	1.3	176
402.11	1.4	180
402.13	1.4	183
402.15	1.4	187
402.17	1.4	190
402.19	1.5	194
402.21	1.5	197
402.23	1.5	200
402.25	1.5	203
402.27	1.6	206
402.29	1.6	209
402.31	1.6	212
402.33	1.6	215
402.35	1.6	217
402.37	1.7	220
402.39	1.7	222
402.41	1.7	225
402.43	1.7	227
402.45	1.7	228
402.47	1.7	230
402.49	1.8	232
402.51	1.8	233
402.53	**1.8**	**233**

Summary for Pond DP1: Re-Establised East Pond

Inflow Area = 132,514 sf, 61.41% Impervious, Inflow Depth = 0.64" for 5-yr event
Inflow = 11.49 cfs @ 0.16 hrs, Volume= 7,053 cf
Outflow = 6.40 cfs @ 0.22 hrs, Volume= 7,053 cf, Atten= 44%, Lag= 3.6 min
Primary = 6.40 cfs @ 0.22 hrs, Volume= 7,053 cf
Routed to Link Post-Dev : APPROX DISCHARGE

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 397.93' @ 0.22 hrs Storage= 3,558 cf

Plug-Flow detention time= 8.2 min calculated for 7,053 cf (100% of inflow)
Center-of-Mass det. time= 8.1 min (17.0 - 8.9)

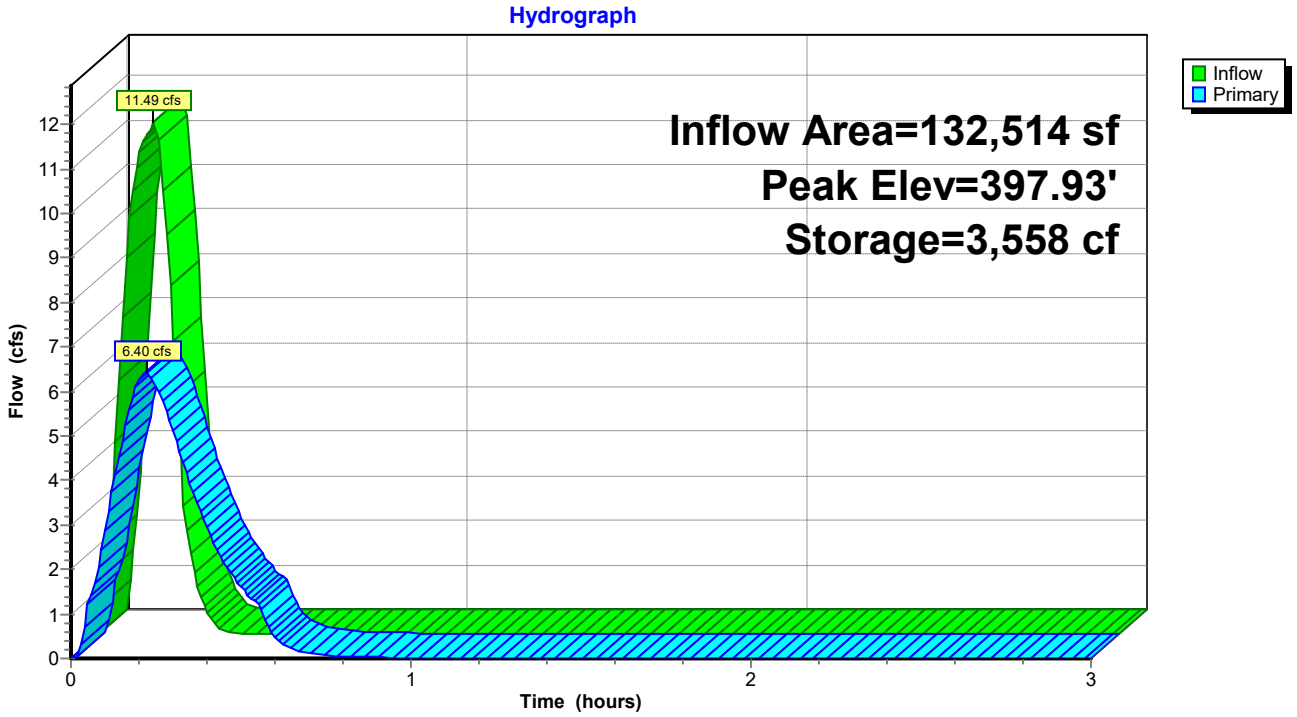
Volume	Invert	Avail.Storage	Storage Description
#1	396.00'	8,557 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
396.00	0	0
396.50	250	250
397.00	1,092	1,342
398.00	2,387	3,729
399.00	2,405	6,134
400.00	2,423	8,557

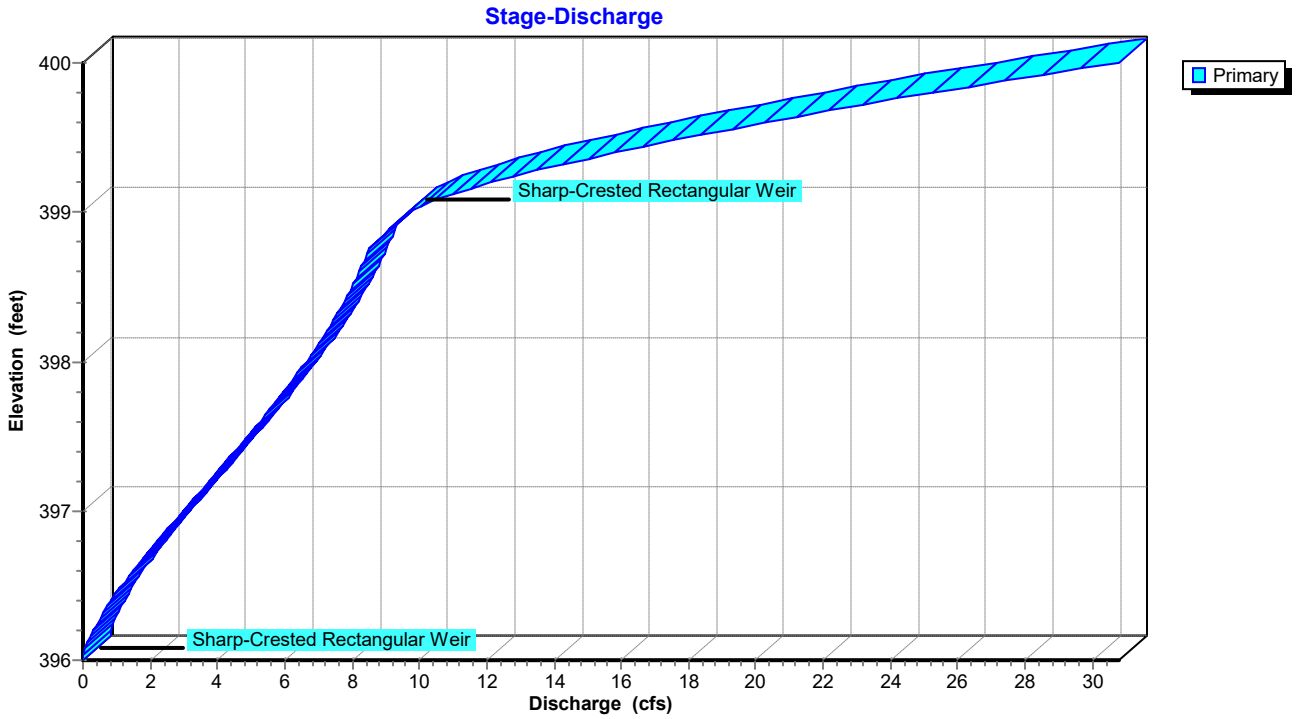
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	396.00'	**1.1' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 10.0' Crest Height

Primary OutFlow Max=6.40 cfs @ 0.22 hrs HW=397.93' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
2=Sharp-Crested Rectangular Weir (Weir Controls 6.40 cfs @ 4.65 fps)

Pond DP1: Re-Establised East Pond



Pond DP1: Re-Establised East Pond



Stage-Area-Storage for Pond DP1: Re-Establised East Pond

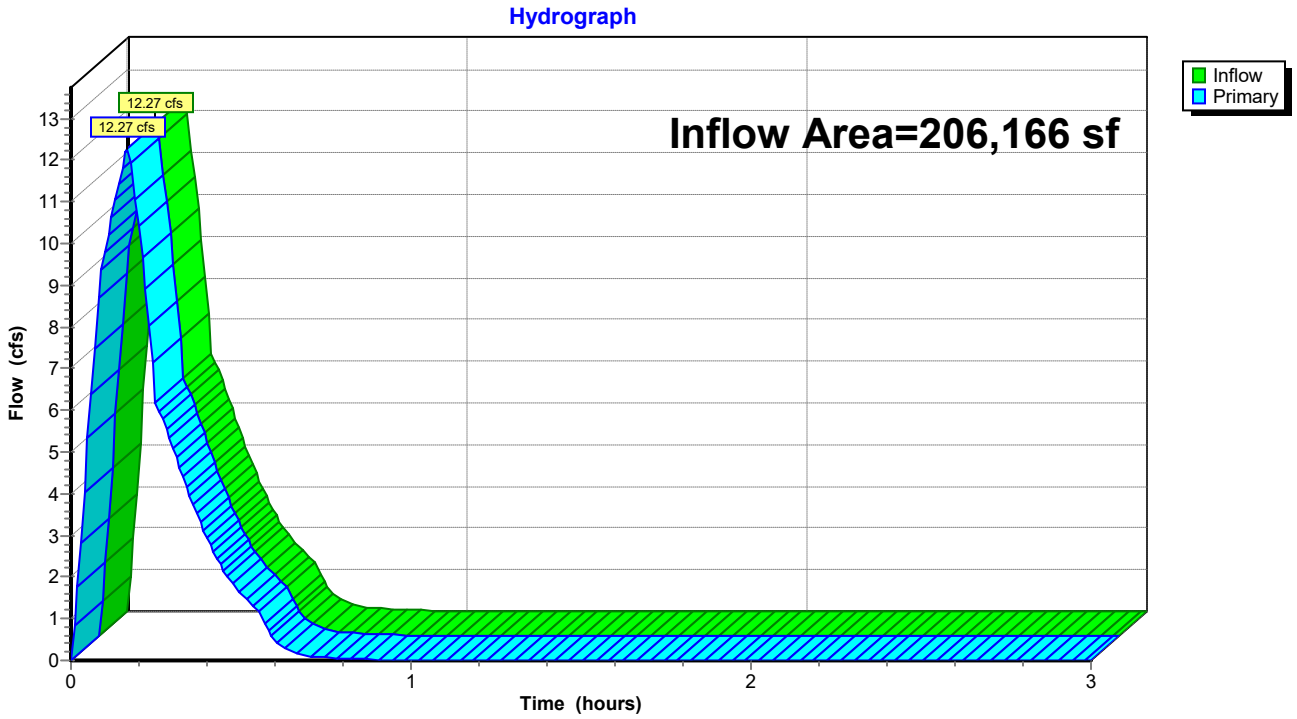
Elevation (feet)	Storage (cubic-feet)
396.00	0
396.05	25
396.10	50
396.15	75
396.20	100
396.25	125
396.30	150
396.35	175
396.40	200
396.45	225
396.50	250
396.55	359
396.60	468
396.65	578
396.70	687
396.75	796
396.80	905
396.85	1,014
396.90	1,124
396.95	1,233
397.00	1,342
397.05	1,461
397.10	1,581
397.15	1,700
397.20	1,819
397.25	1,939
397.30	2,058
397.35	2,177
397.40	2,297
397.45	2,416
397.50	2,536
397.55	2,655
397.60	2,774
397.65	2,894
397.70	3,013
397.75	3,132
397.80	3,252
397.85	3,371
397.90	3,490
397.95	3,610
398.00	3,729
398.05	3,849
398.10	3,970
398.15	4,090
398.20	4,210
398.25	4,330
398.30	4,451
398.35	4,571
398.40	4,691
398.45	4,811
398.50	4,932
398.55	5,052
398.60	5,172
398.65	5,292
398.70	5,412
398.75	5,533
398.80	5,653
398.85	5,773
398.90	5,893
398.95	6,014
399.00	6,134
399.05	6,255
399.10	6,376
399.15	6,497
399.20	6,619
399.25	6,740
399.30	6,861
399.35	6,982
399.40	7,103
399.45	7,224
399.50	7,346
399.55	7,467
399.60	7,588
399.65	7,709
399.70	7,830
399.75	7,951
399.80	8,072
399.85	8,194
399.90	8,315
399.95	8,436
400.00	**8,557**

Summary for Link Post-Dev: APPROX DISCHARGE

Inflow Area = 206,166 sf, 64.42% Impervious, Inflow Depth = 0.65" for 5-yr event
Inflow = 12.27 cfs @ 0.17 hrs, Volume= 11,197 cf
Primary = 12.27 cfs @ 0.17 hrs, Volume= 11,197 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Post-Dev: APPROX DISCHARGE



Summary for Subcatchment D1: Drainage Basin D1

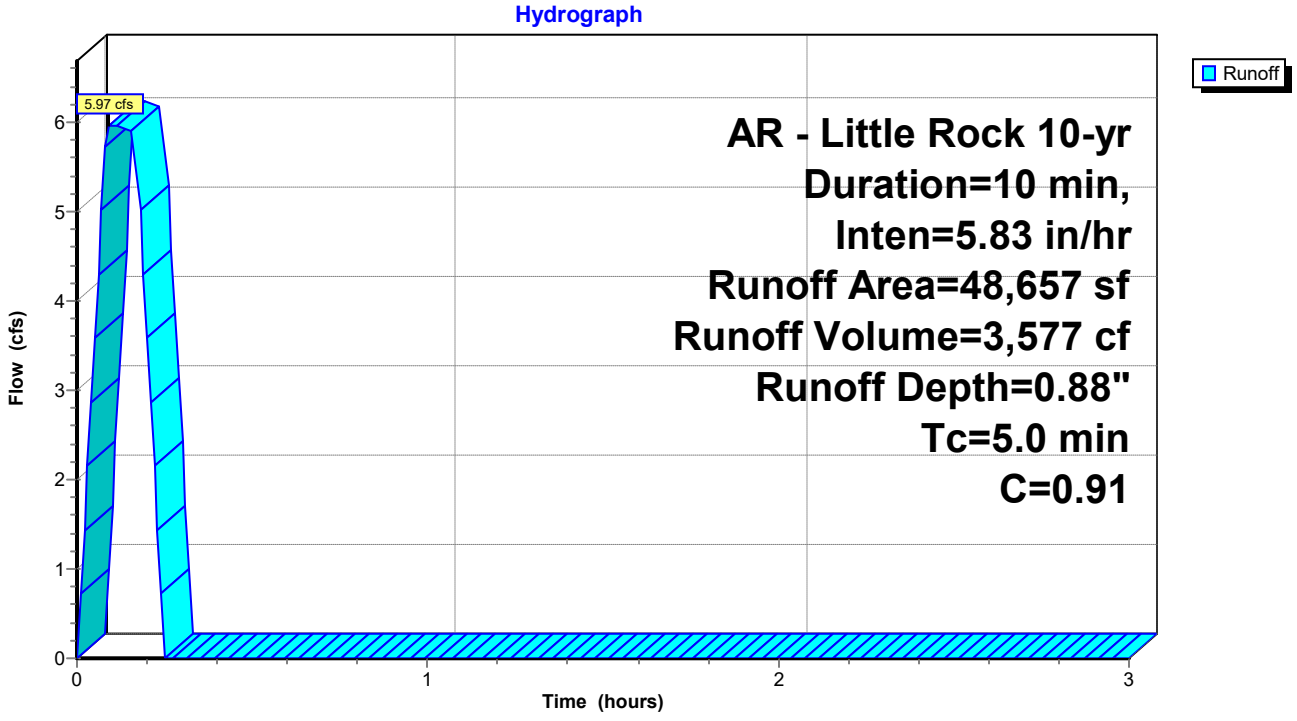
Runoff = 5.97 cfs @ 0.09 hrs, Volume= 3,577 cf, Depth= 0.88"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
3,421	0.40	Sod Yard
45,236	0.95	Rood, Drives, Sidewalks
48,657	0.91	Weighted Average
3,421		7.03% Pervious Area
45,236		92.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D1: Drainage Basin D1



Summary for Subcatchment D2: Drainage Basin D2

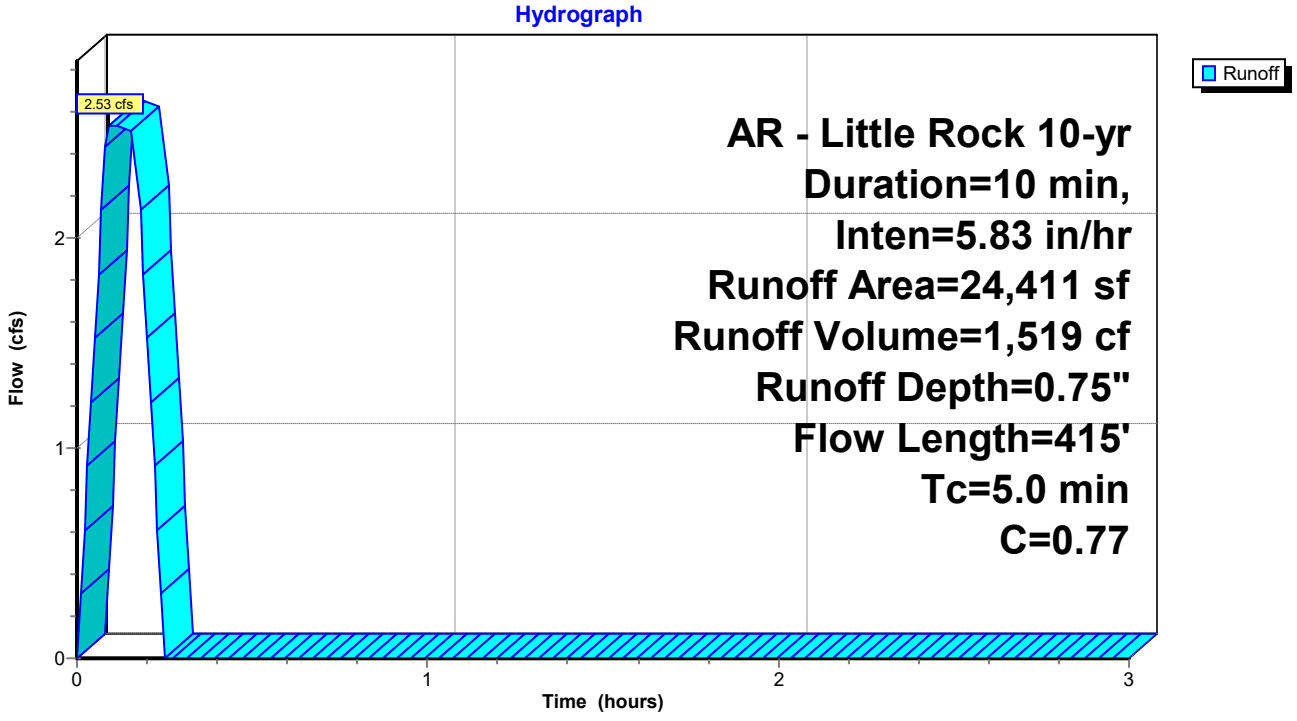
Runoff = 2.53 cfs @ 0.09 hrs, Volume= 1,519 cf, Depth= 0.75"
Routed to Reach P-A1 : Pipe A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
8,845	0.45	Rip Rap Embankment
15,566	0.95	Roof, Drives, Sidewalks
24,411	0.77	Weighted Average
8,845		36.23% Pervious Area
15,566		63.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D2: Drainage Basin D2



Summary for Subcatchment D3: Drainage Basin D3

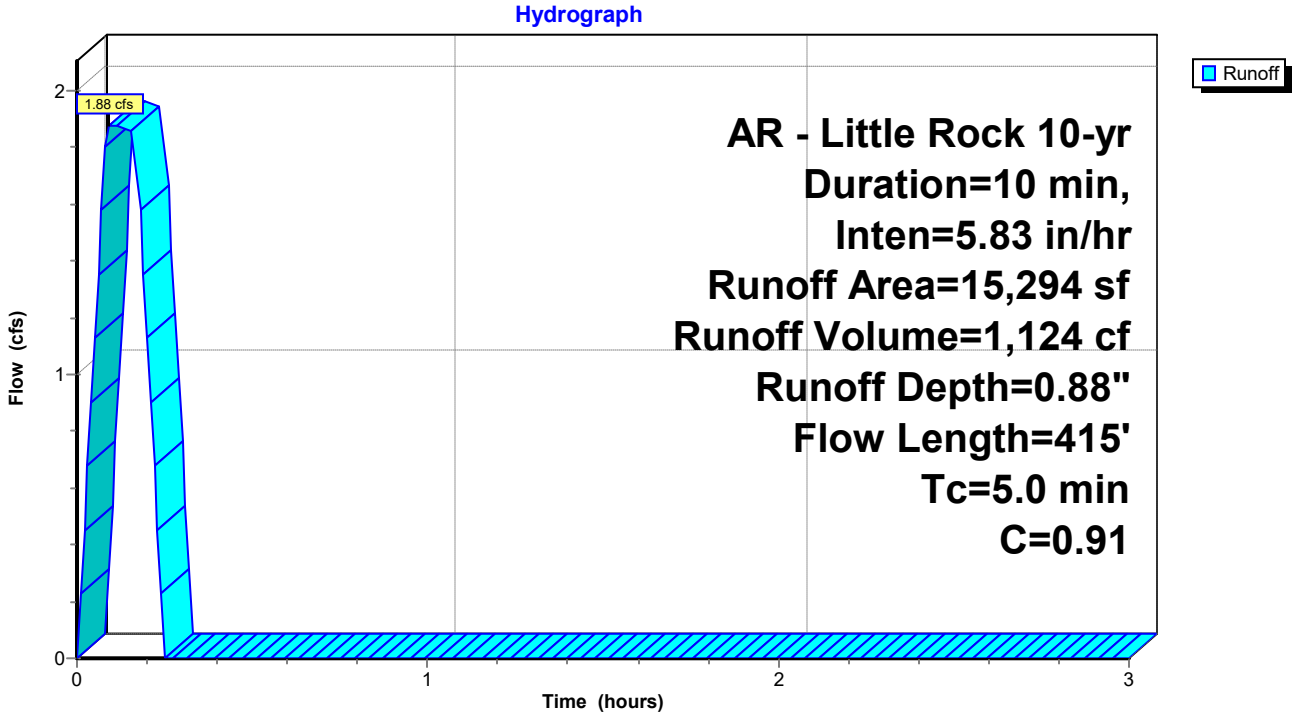
Runoff = 1.88 cfs @ 0.09 hrs, Volume= 1,124 cf, Depth= 0.88"
Routed to Reach P-A2 : Pipe A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
1,065	0.40	Sod Yard
14,229	0.95	Paving, Sidewalks
15,294	0.91	Weighted Average
1,065		6.96% Pervious Area
14,229		93.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D3: Drainage Basin D3



Summary for Subcatchment D4: Drainage Basin D4

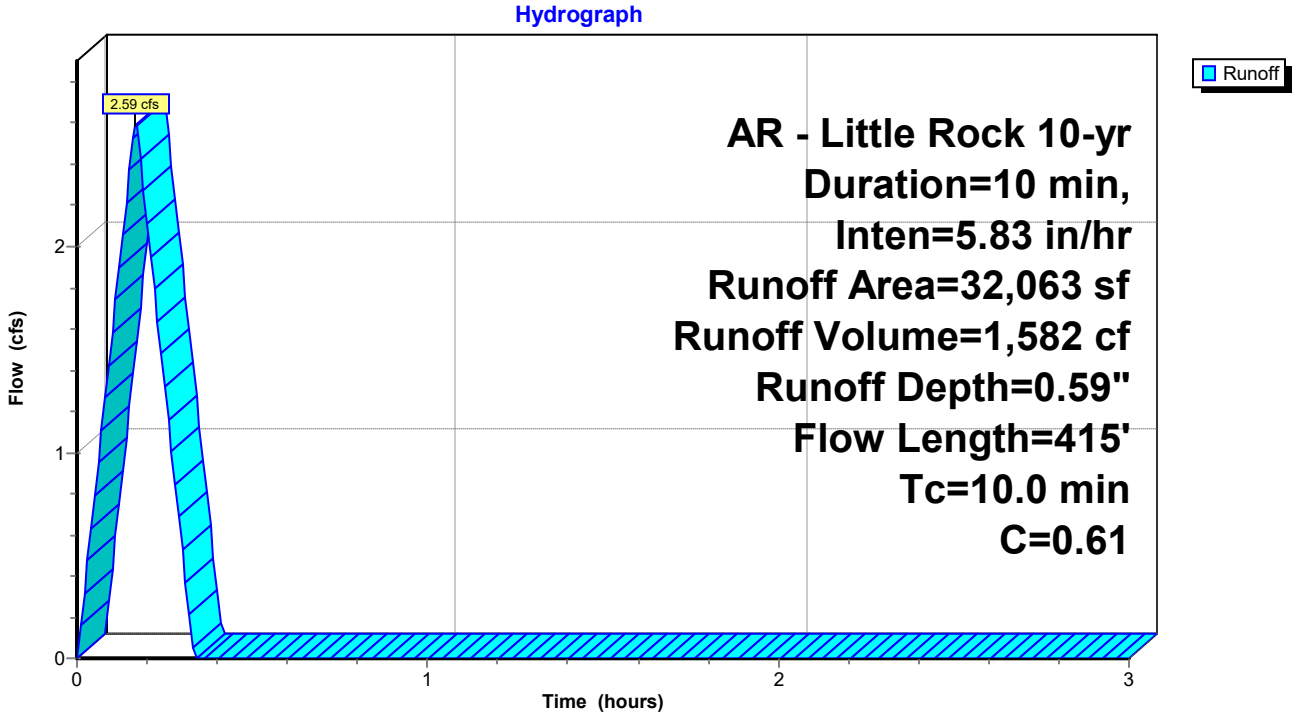
Runoff = 2.59 cfs @ 0.17 hrs, Volume= 1,582 cf, Depth= 0.59"
Routed to Reach P-A3 : Pipe A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
20,032	0.40	
12,031	0.95	
32,063	0.61	Weighted Average
20,032		62.48% Pervious Area
12,031		37.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D4: Drainage Basin D4



Summary for Subcatchment D5: Drainage Basin D5

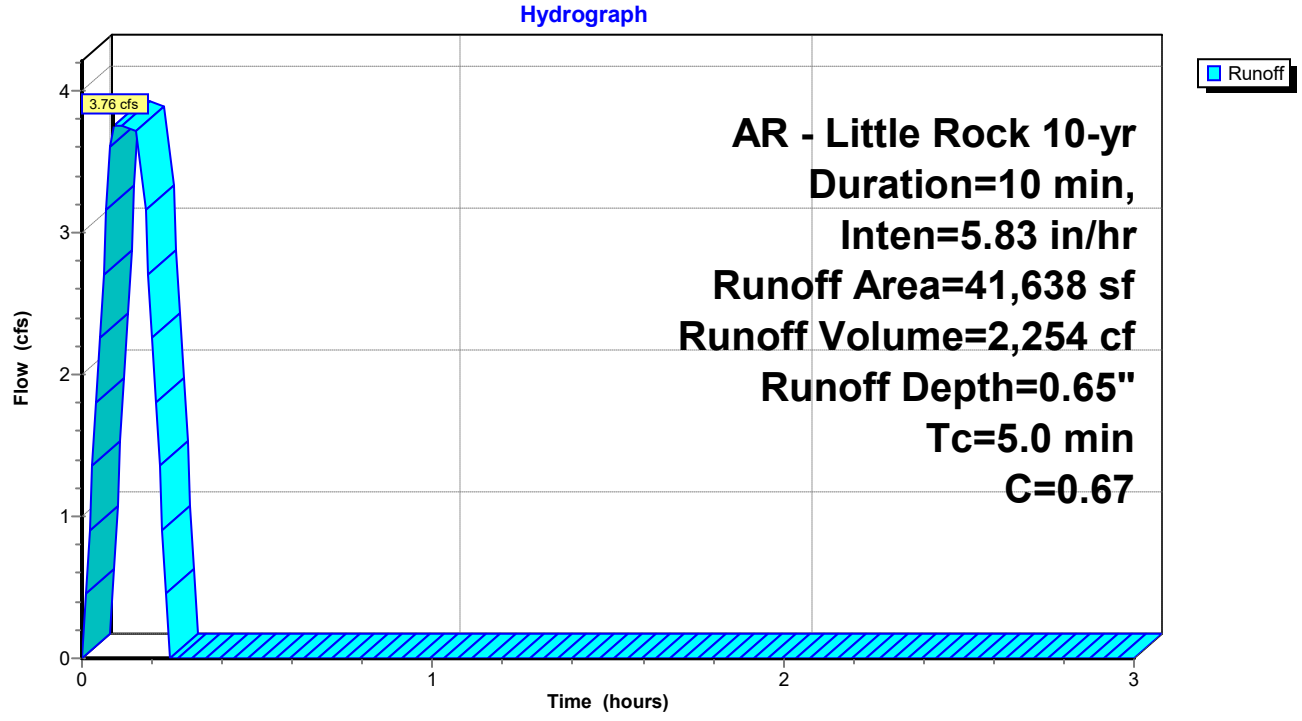
Runoff = 3.76 cfs @ 0.09 hrs, Volume= 2,254 cf, Depth= 0.65"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
21,201	0.40	Sod Yard, Natural Vegetation
20,437	0.95	Paving, Sidewalks
41,638	0.67	Weighted Average
21,201		50.92% Pervious Area
20,437		49.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D5: Drainage Basin D5



Summary for Subcatchment D6: Drainage Basin D6

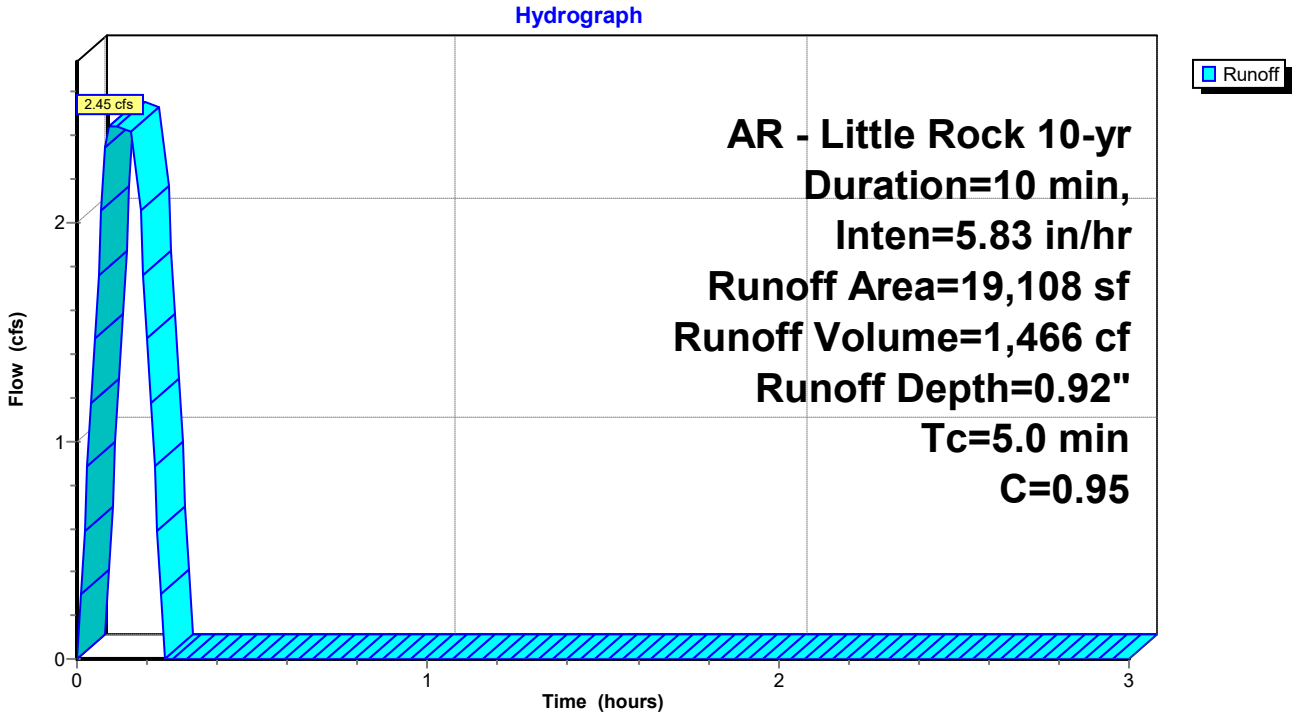
Runoff = 2.45 cfs @ 0.09 hrs, Volume= 1,466 cf, Depth= 0.92"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
19,108	0.95	Roof
19,108		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D6: Drainage Basin D6



Summary for Subcatchment D7: Drainage Basin D7

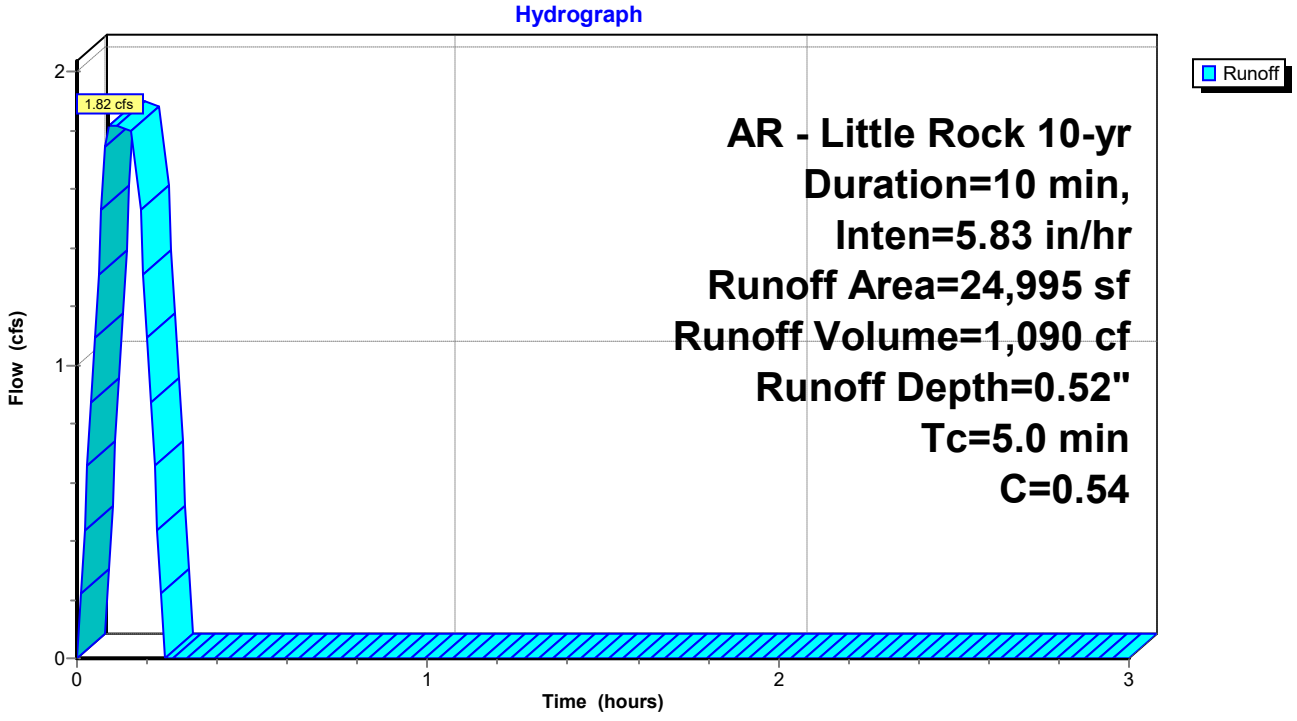
Runoff = 1.82 cfs @ 0.09 hrs, Volume= 1,090 cf, Depth= 0.52"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 10-yr Duration=10 min, Inten=5.83 in/hr

Area (sf)	C	Description
18,798	0.40	Sod Yard, Natural Vegetation
6,197	0.95	Paving, Sidewalks
24,995	0.54	Weighted Average
18,798		75.21% Pervious Area
6,197		24.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D7: Drainage Basin D7



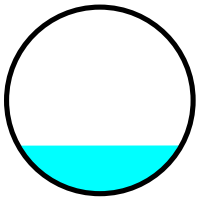
Summary for Reach P-A1: Pipe A1

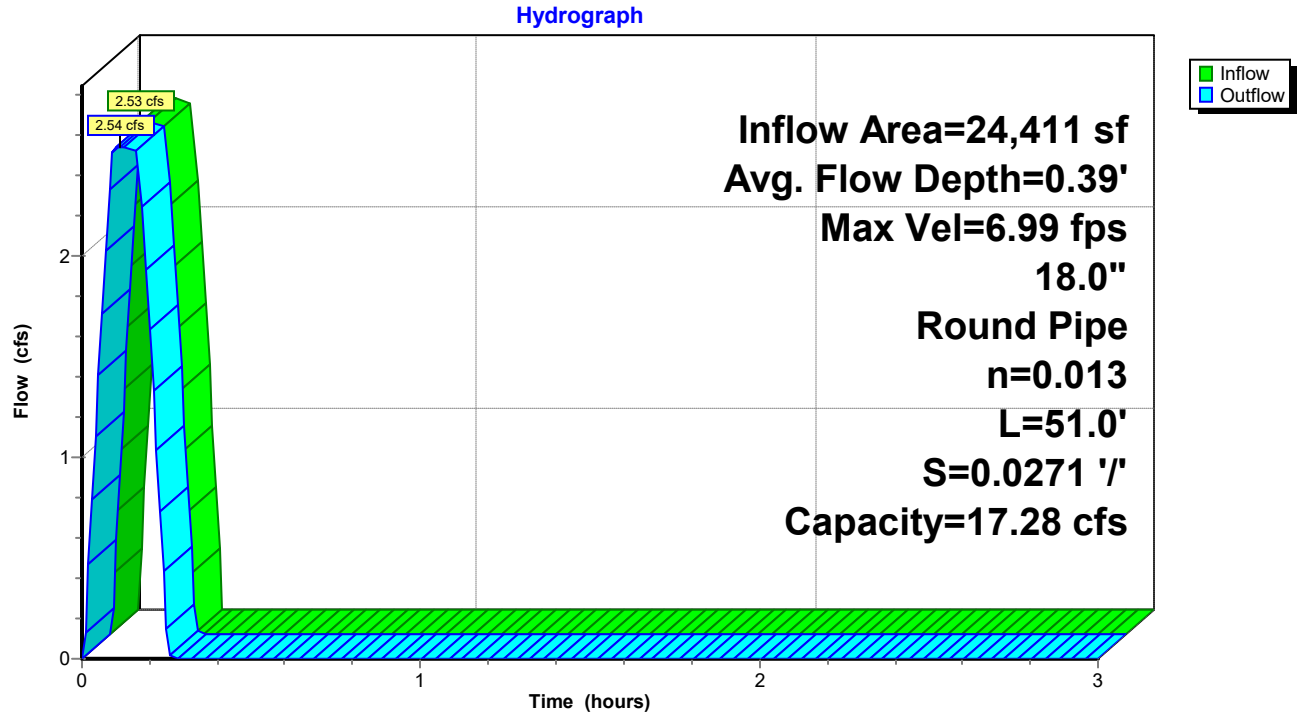
Inflow Area = 24,411 sf, 63.77% Impervious, Inflow Depth = 0.75" for 10-yr event
Inflow = 2.53 cfs @ 0.09 hrs, Volume= 1,519 cf
Outflow = 2.54 cfs @ 0.11 hrs, Volume= 1,519 cf, Atten= 0%, Lag= 1.2 min
Routed to Reach P-A2 : Pipe A2

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.99 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 5.09 fps, Avg. Travel Time= 0.2 min

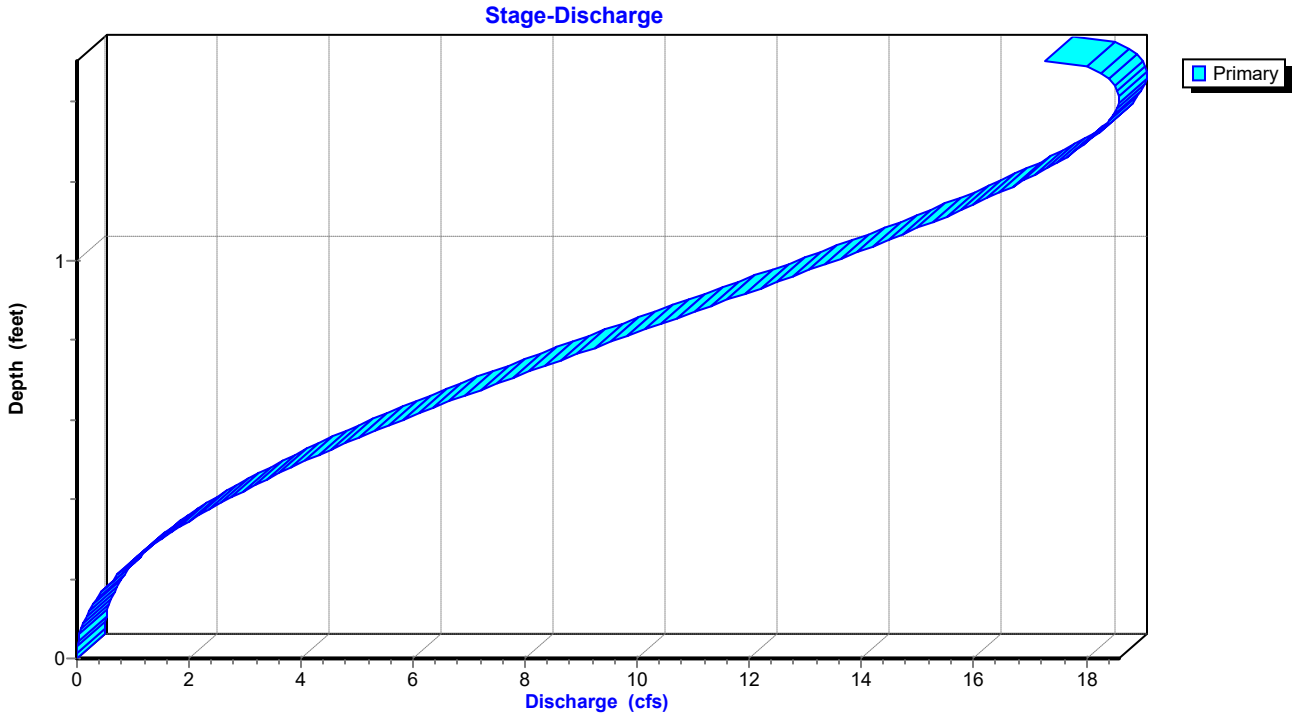
Peak Storage= 19 cf @ 0.09 hrs
Average Depth at Peak Storage= 0.39' , Surface Width= 1.31'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.28 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 51.0' Slope= 0.0271 '/'
Inlet Invert= 408.33', Outlet Invert= 406.95'





Reach P-A1: Pipe A1



Stage-Area-Storage for Reach P-A1: Pipe A1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
408.33	0.0	0
408.35	0.0	0
408.37	0.0	1
408.39	0.0	1
408.41	0.0	2
408.43	0.1	3
408.45	0.1	3
408.47	0.1	4
408.49	0.1	5
408.51	0.1	6
408.53	0.1	7
408.55	0.2	8
408.57	0.2	9
408.59	0.2	10
408.61	0.2	12
408.63	0.3	13
408.65	0.3	14
408.67	0.3	15
408.69	0.3	17
408.71	0.4	18
408.73	0.4	19
408.75	0.4	21
408.77	0.4	22
408.79	0.5	23
408.81	0.5	25
408.83	0.5	26
408.85	0.5	28
408.87	0.6	29
408.89	0.6	31
408.91	0.6	32
408.93	0.7	34
408.95	0.7	35
408.97	0.7	37
408.99	0.7	38
409.01	0.8	40
409.03	0.8	41
409.05	0.8	43
409.07	0.9	44
409.09	0.9	46
409.11	0.9	47
409.13	1.0	49
409.15	1.0	50
409.17	1.0	52
409.19	1.0	53
409.21	1.1	55
409.23	1.1	56
409.25	1.1	58
409.27	1.2	59
409.29	1.2	61
409.31	1.2	62
409.33	1.3	64
409.35	1.3	65
409.37	1.3	67
409.39	1.3	68
409.41	1.4	69
409.43	1.4	71
409.45	1.4	72
409.47	1.4	73
409.49	1.5	75
409.51	1.5	76
409.53	1.5	77
409.55	1.5	78
409.57	1.6	80
409.59	1.6	81
409.61	1.6	82
409.63	1.6	83
409.65	1.6	84
409.67	1.7	85
409.69	1.7	86
409.71	1.7	87
409.73	1.7	88
409.75	1.7	88
409.77	1.7	89
409.79	1.8	89
409.81	1.8	90
409.83	**1.8**	**90**

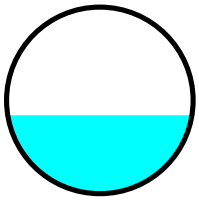
Summary for Reach P-A2: Pipe A2

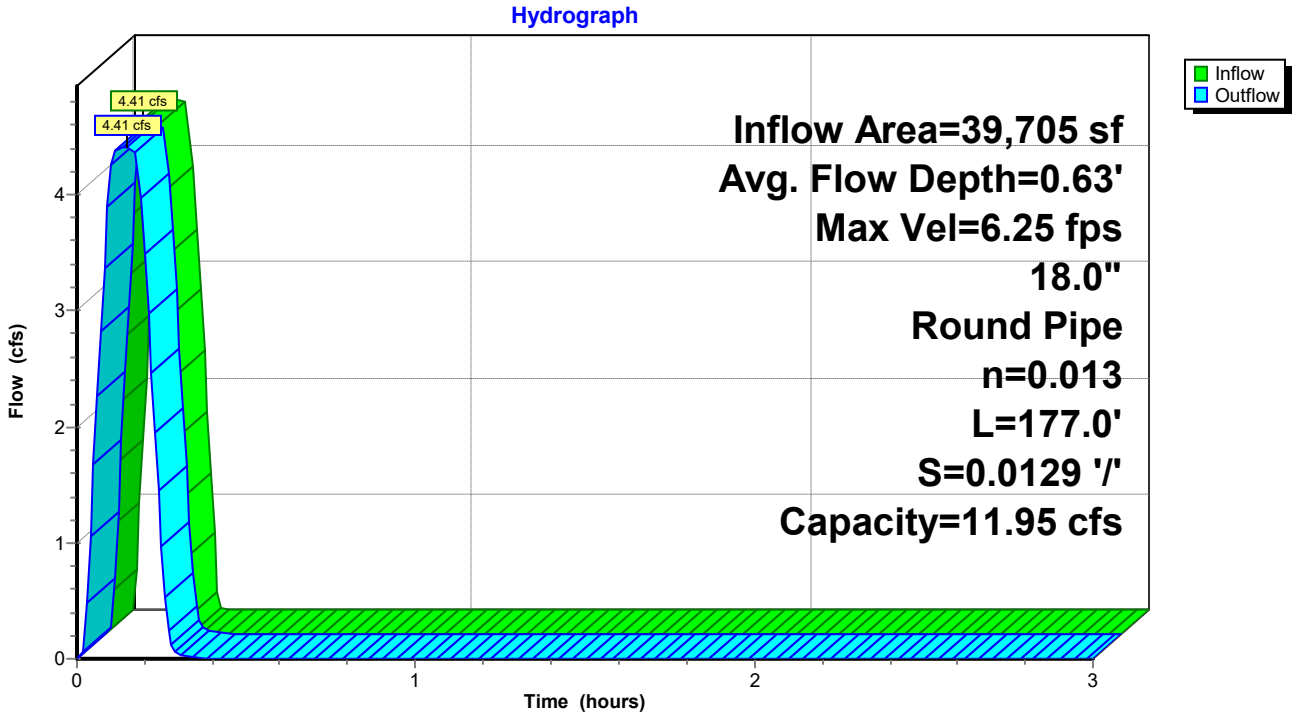
Inflow Area = 39,705 sf, 75.04% Impervious, Inflow Depth = 0.80" for 10-yr event
Inflow = 4.41 cfs @ 0.11 hrs, Volume= 2,643 cf
Outflow = 4.41 cfs @ 0.15 hrs, Volume= 2,643 cf, Atten= 0%, Lag= 2.4 min
Routed to Reach P-A3 : Pipe A3

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.25 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.50 fps, Avg. Travel Time= 1.2 min

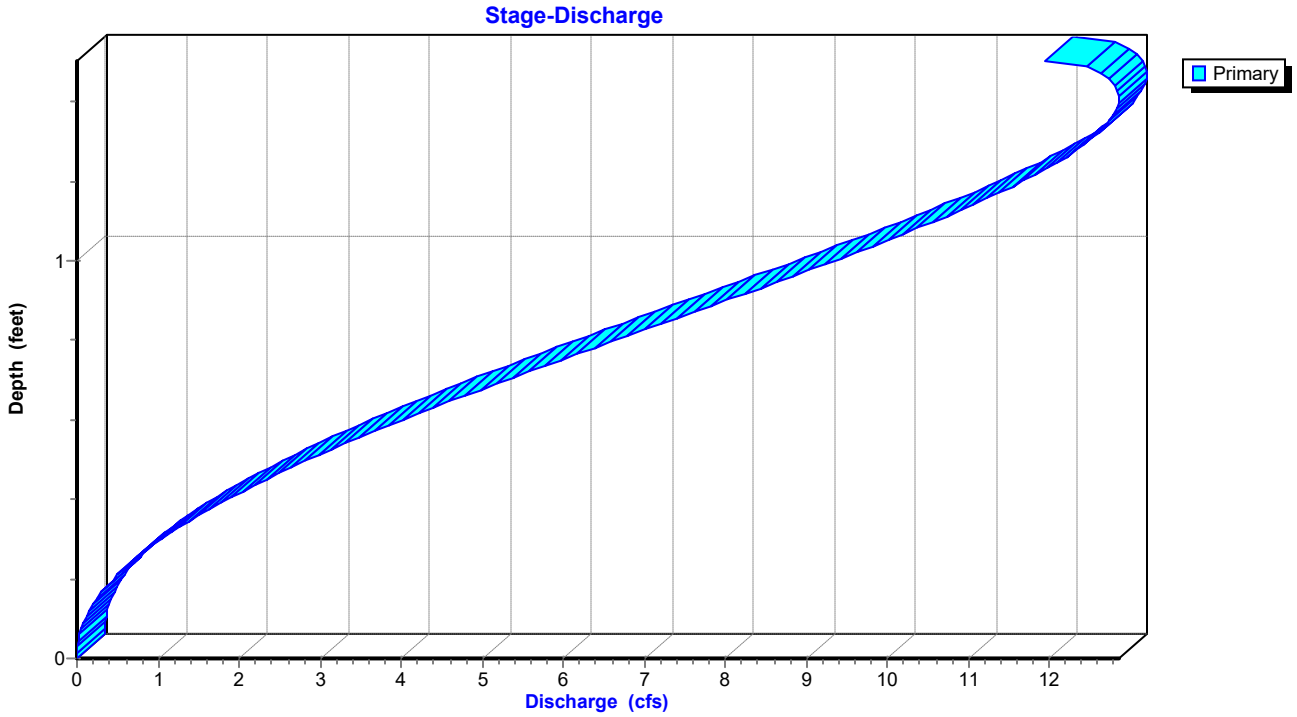
Peak Storage= 125 cf @ 0.14 hrs
Average Depth at Peak Storage= 0.63' , Surface Width= 1.48'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 177.0' Slope= 0.0129 '/'
Inlet Invert= 406.85', Outlet Invert= 404.56'





Reach P-A2: Pipe A2



Stage-Area-Storage for Reach P-A2: Pipe A2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
406.85	0.0	0
406.87	0.0	1
406.89	0.0	2
406.91	0.0	4
406.93	0.0	6
406.95	0.1	9
406.97	0.1	12
406.99	0.1	15
407.01	0.1	18
407.03	0.1	21
407.05	0.1	25
407.07	0.2	28
407.09	0.2	32
407.11	0.2	36
407.13	0.2	40
407.15	0.3	45
407.17	0.3	49
407.19	0.3	53
407.21	0.3	58
407.23	0.4	62
407.25	0.4	67
407.27	0.4	72
407.29	0.4	76
407.31	0.5	81
407.33	0.5	86
407.35	0.5	91
407.37	0.5	96
407.39	0.6	101
407.41	0.6	106
407.43	0.6	112
407.45	0.7	117
407.47	0.7	122
407.49	0.7	127
407.51	0.7	133
407.53	0.8	138
407.55	0.8	143
407.57	0.8	148
407.59	0.9	154
407.61	0.9	159
407.63	0.9	164
407.65	1.0	170
407.67	1.0	175
407.69	1.0	180
407.71	1.0	185
407.73	1.1	191
407.75	1.1	196
407.77	1.1	201
407.79	1.2	206
407.81	1.2	211
407.83	1.2	216
407.85	1.3	222
407.87	1.3	226
407.89	1.3	231
407.91	1.3	236
407.93	1.4	241
407.95	1.4	246
407.97	1.4	250
407.99	1.4	255
408.01	1.5	260
408.03	1.5	264
408.05	1.5	268
408.07	1.5	272
408.09	1.6	277
408.11	1.6	280
408.13	1.6	284
408.15	1.6	288
408.17	1.6	292
408.19	1.7	295
408.21	1.7	298
408.23	1.7	301
408.25	1.7	304
408.27	1.7	306
408.29	1.7	309
408.31	1.8	310
408.33	1.8	312
408.35	**1.8**	**313**

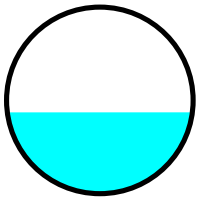
Summary for Reach P-A3: Pipe A3

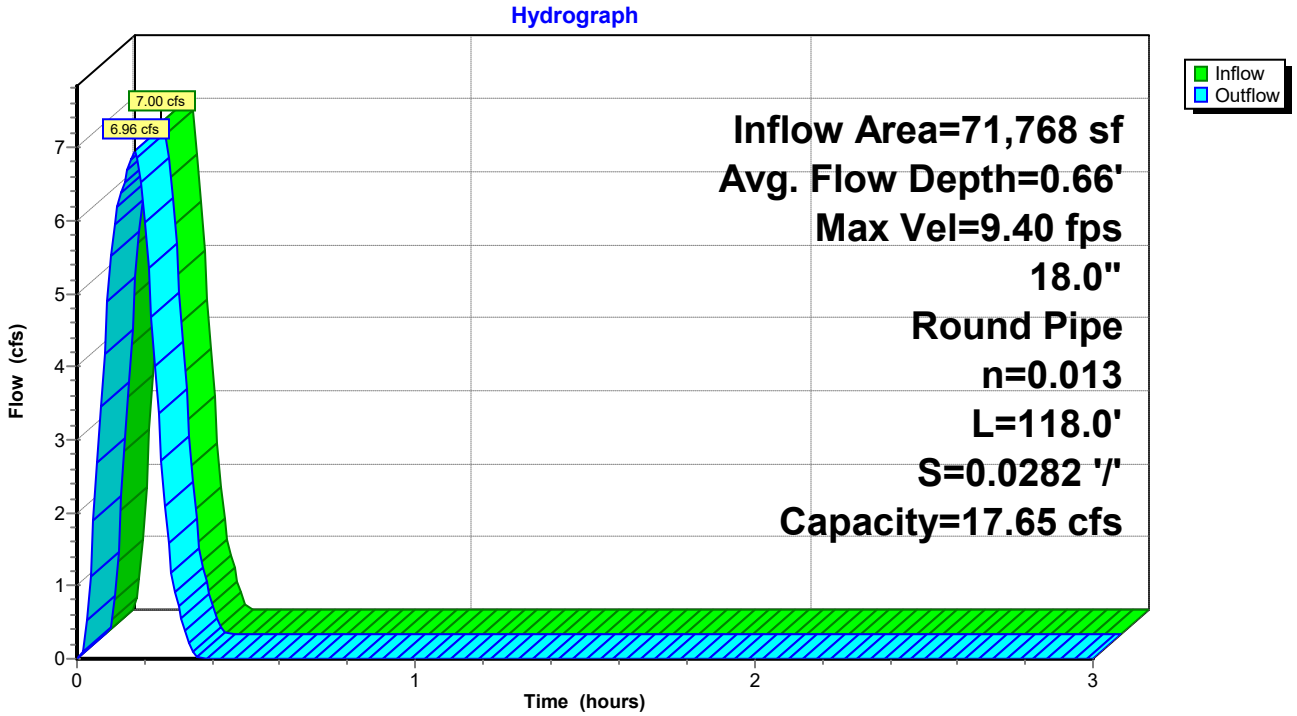
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.71" for 10-yr event
Inflow = 7.00 cfs @ 0.17 hrs, Volume= 4,225 cf
Outflow = 6.96 cfs @ 0.17 hrs, Volume= 4,225 cf, Atten= 1%, Lag= 0.3 min
Routed to Reach P-A4 : Pipe A4

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.40 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.90 fps, Avg. Travel Time= 0.5 min

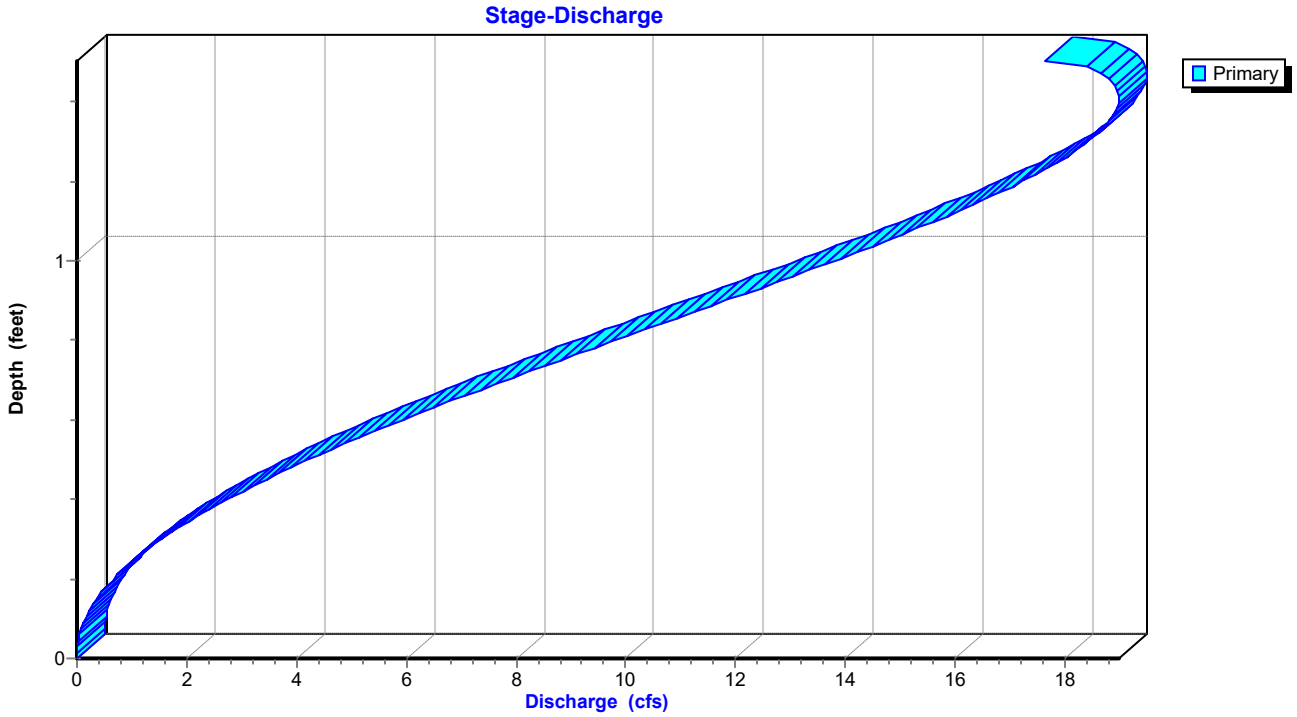
Peak Storage= 88 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.66' , Surface Width= 1.49'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.65 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 118.0' Slope= 0.0282 '/'
Inlet Invert= 404.46', Outlet Invert= 401.13'





Reach P-A3: Pipe A3



Stage-Area-Storage for Reach P-A3: Pipe A3

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
404.46	0.0	0
404.48	0.0	1
404.50	0.0	2
404.52	0.0	3
404.54	0.0	4
404.56	0.1	6
404.58	0.1	8
404.60	0.1	10
404.62	0.1	12
404.64	0.1	14
404.66	0.1	17
404.68	0.2	19
404.70	0.2	22
404.72	0.2	24
404.74	0.2	27
404.76	0.3	30
404.78	0.3	33
404.80	0.3	35
404.82	0.3	38
404.84	0.4	42
404.86	0.4	45
404.88	0.4	48
404.90	0.4	51
404.92	0.5	54
404.94	0.5	58
404.96	0.5	61
404.98	0.5	64
405.00	0.6	68
405.02	0.6	71
405.04	0.6	74
405.06	0.7	78
405.08	0.7	81
405.10	0.7	85
405.12	0.7	88
405.14	0.8	92
405.16	0.8	95
405.18	0.8	99
405.20	0.9	102
405.22	0.9	106
405.24	0.9	110
405.26	1.0	113
405.28	1.0	117
405.30	1.0	120
405.32	1.0	124
405.34	1.1	127
405.36	1.1	131
405.38	1.1	134
405.40	1.2	138
405.42	1.2	141
405.44	1.2	144
405.46	1.3	148
405.48	1.3	151
405.50	1.3	154
405.52	1.3	158
405.54	1.4	161
405.56	1.4	164
405.58	1.4	167
405.60	1.4	170
405.62	1.5	173
405.64	1.5	176
405.66	1.5	179
405.68	1.5	182
405.70	1.6	184
405.72	1.6	187
405.74	1.6	190
405.76	1.6	192
405.78	1.6	194
405.80	1.7	197
405.82	1.7	199
405.84	1.7	201
405.86	1.7	203
405.88	1.7	204
405.90	1.7	206
405.92	1.8	207
405.94	1.8	208
405.96	**1.8**	**209**

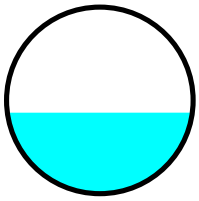
Summary for Reach P-A4: Pipe A4

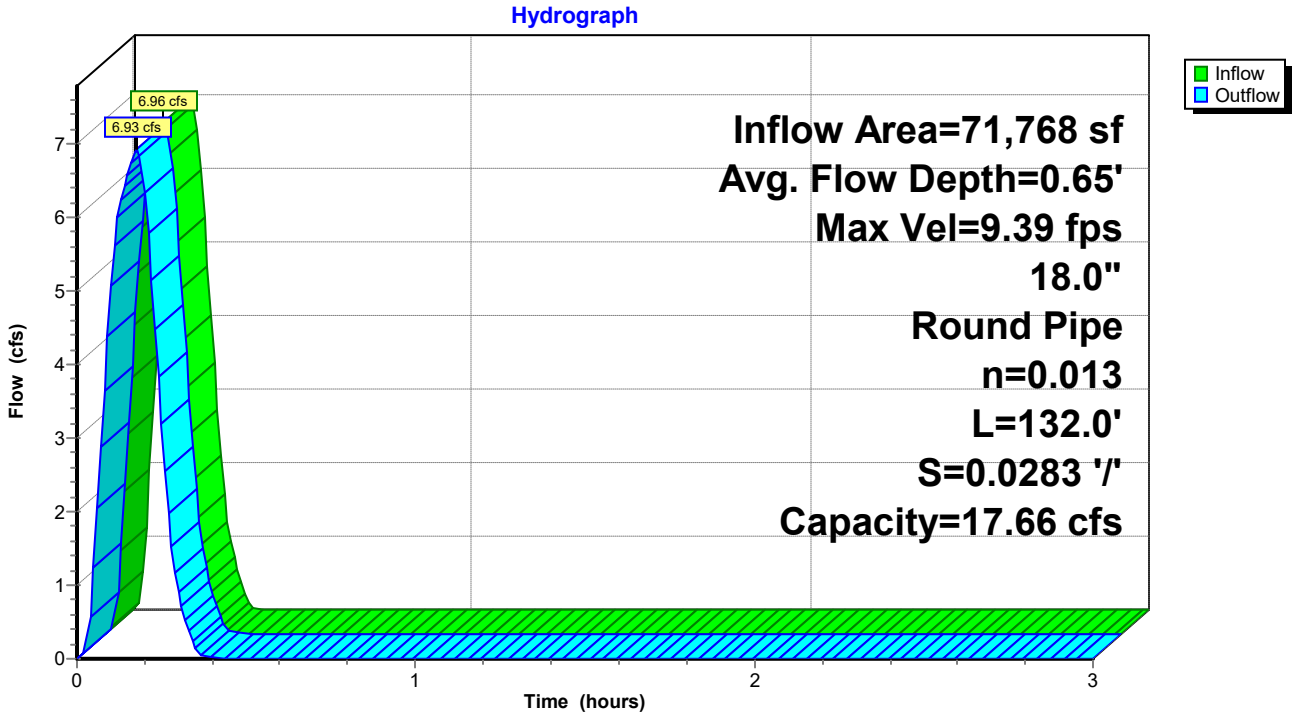
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.71" for 10-yr event
Inflow = 6.96 cfs @ 0.17 hrs, Volume= 4,225 cf
Outflow = 6.93 cfs @ 0.18 hrs, Volume= 4,225 cf, Atten= 0%, Lag= 0.4 min
Routed to Pond DP1 : Re-Establised East Pond

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.39 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.71 fps, Avg. Travel Time= 0.6 min

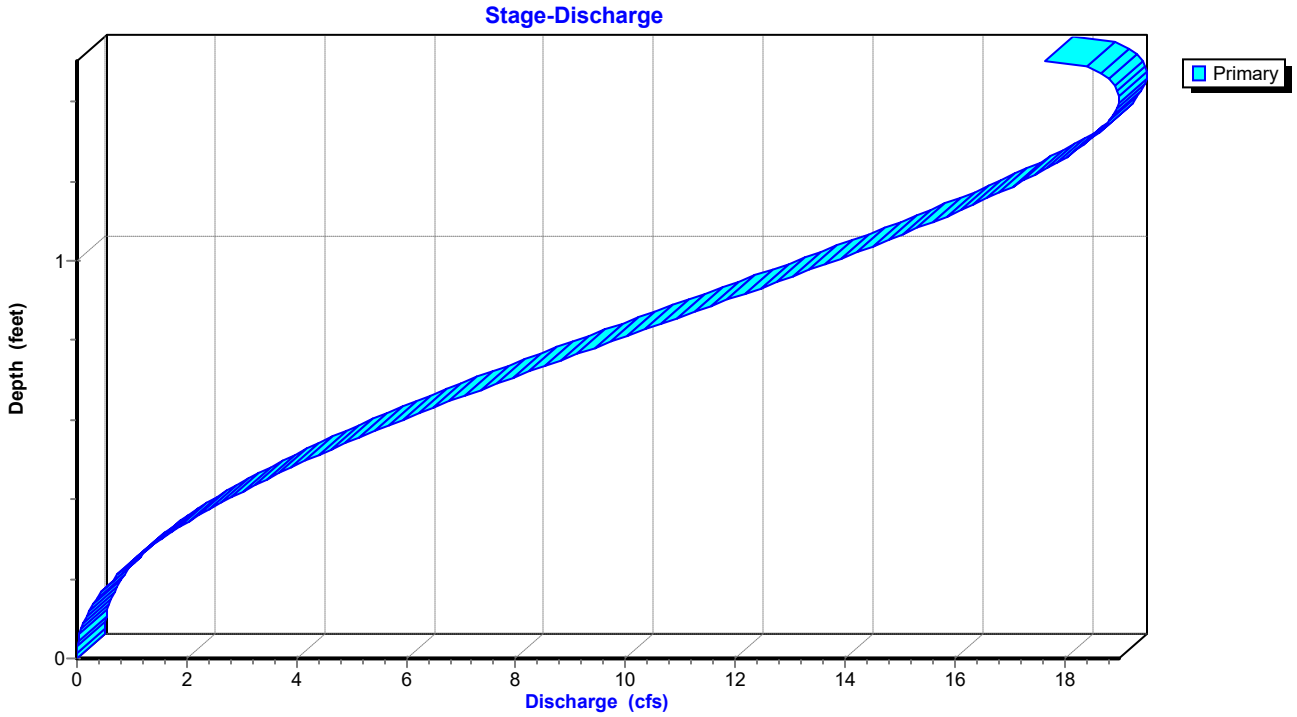
Peak Storage= 98 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.65' , Surface Width= 1.49'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.66 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 132.0' Slope= 0.0283 '/'
Inlet Invert= 401.03', Outlet Invert= 397.30'





Reach P-A4: Pipe A4



Stage-Area-Storage for Reach P-A4: Pipe A4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
401.03	0.0	0
401.05	0.0	1
401.07	0.0	2
401.09	0.0	3
401.11	0.0	5
401.13	0.1	7
401.15	0.1	9
401.17	0.1	11
401.19	0.1	13
401.21	0.1	16
401.23	0.1	18
401.25	0.2	21
401.27	0.2	24
401.29	0.2	27
401.31	0.2	30
401.33	0.3	33
401.35	0.3	36
401.37	0.3	40
401.39	0.3	43
401.41	0.4	46
401.43	0.4	50
401.45	0.4	53
401.47	0.4	57
401.49	0.5	61
401.51	0.5	64
401.53	0.5	68
401.55	0.5	72
401.57	0.6	76
401.59	0.6	79
401.61	0.6	83
401.63	0.7	87
401.65	0.7	91
401.67	0.7	95
401.69	0.7	99
401.71	0.8	103
401.73	0.8	107
401.75	0.8	111
401.77	0.9	115
401.79	0.9	119
401.81	0.9	123
401.83	1.0	127
401.85	1.0	130
401.87	1.0	134
401.89	1.0	138
401.91	1.1	142
401.93	1.1	146
401.95	1.1	150
401.97	1.2	154
401.99	1.2	158
402.01	1.2	161
402.03	1.3	165
402.05	1.3	169
402.07	1.3	173
402.09	1.3	176
402.11	1.4	180
402.13	1.4	183
402.15	1.4	187
402.17	1.4	190
402.19	1.5	194
402.21	1.5	197
402.23	1.5	200
402.25	1.5	203
402.27	1.6	206
402.29	1.6	209
402.31	1.6	212
402.33	1.6	215
402.35	1.6	217
402.37	1.7	220
402.39	1.7	222
402.41	1.7	225
402.43	1.7	227
402.45	1.7	228
402.47	1.7	230
402.49	1.8	232
402.51	1.8	233
402.53	**1.8**	**233**

Summary for Pond DP1: Re-Establised East Pond

Inflow Area = 132,514 sf, 61.41% Impervious, Inflow Depth = 0.72" for 10-yr event
Inflow = 12.95 cfs @ 0.16 hrs, Volume= 7,945 cf
Outflow = 7.07 cfs @ 0.22 hrs, Volume= 7,945 cf, Atten= 45%, Lag= 3.7 min
Primary = 7.07 cfs @ 0.22 hrs, Volume= 7,945 cf
Routed to Link Post-Dev : APPROX DISCHARGE

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 398.14' @ 0.22 hrs Storage= 4,074 cf

Plug-Flow detention time= 8.2 min calculated for 7,919 cf (100% of inflow)
Center-of-Mass det. time= 8.3 min (17.2 - 8.9)

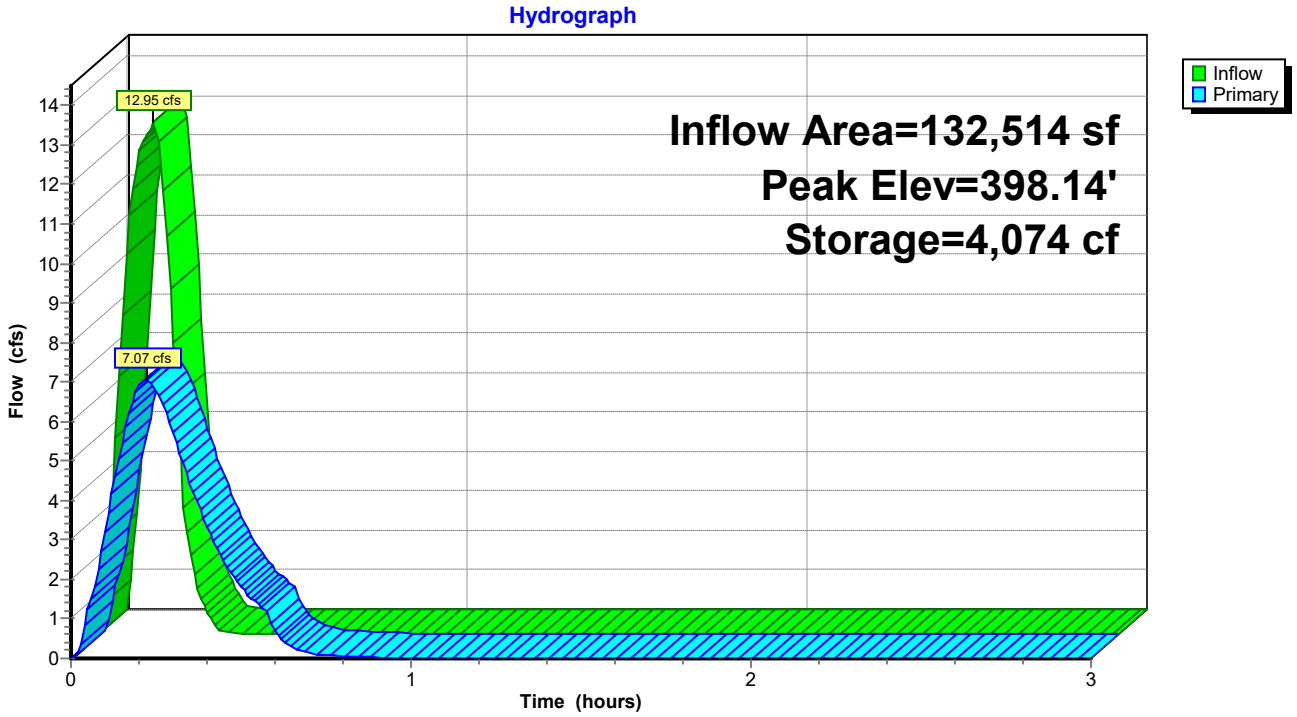
Volume	Invert	Avail.Storage	Storage Description
#1	396.00'	8,557 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
396.00	0	0
396.50	250	250
397.00	1,092	1,342
398.00	2,387	3,729
399.00	2,405	6,134
400.00	2,423	8,557

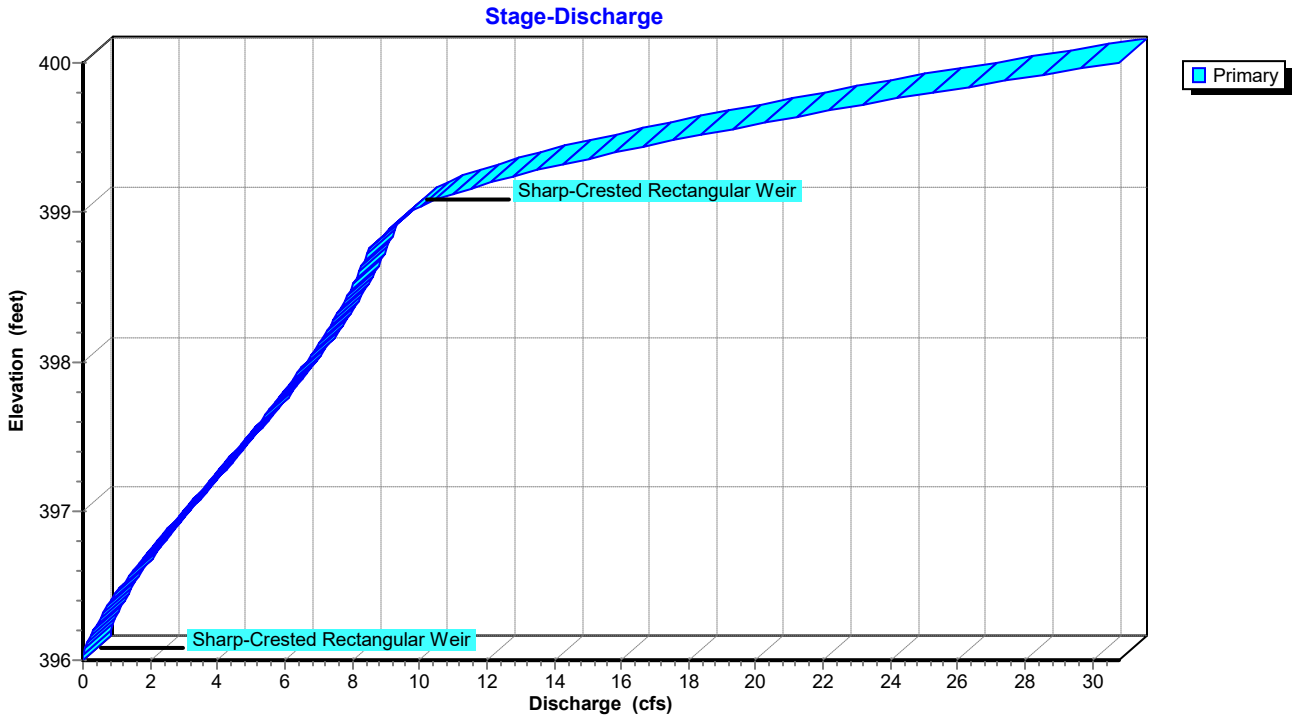
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	396.00'	**1.1' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 10.0' Crest Height

Primary OutFlow Max=7.06 cfs @ 0.22 hrs HW=398.14' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
2=Sharp-Crested Rectangular Weir (Weir Controls 7.06 cfs @ 4.91 fps)

Pond DP1: Re-Establised East Pond



Pond DP1: Re-Establised East Pond



Stage-Area-Storage for Pond DP1: Re-Establised East Pond

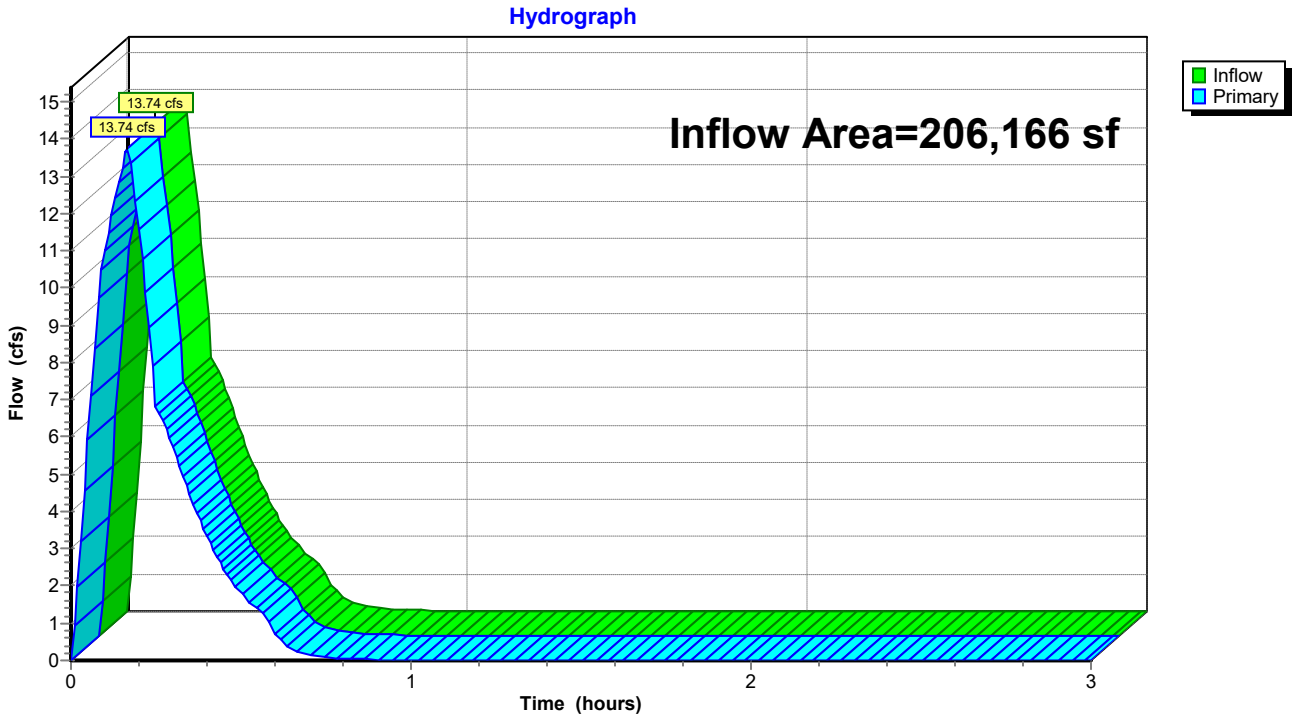
Elevation (feet)	Storage (cubic-feet)
396.00	0
396.05	25
396.10	50
396.15	75
396.20	100
396.25	125
396.30	150
396.35	175
396.40	200
396.45	225
396.50	250
396.55	359
396.60	468
396.65	578
396.70	687
396.75	796
396.80	905
396.85	1,014
396.90	1,124
396.95	1,233
397.00	1,342
397.05	1,461
397.10	1,581
397.15	1,700
397.20	1,819
397.25	1,939
397.30	2,058
397.35	2,177
397.40	2,297
397.45	2,416
397.50	2,536
397.55	2,655
397.60	2,774
397.65	2,894
397.70	3,013
397.75	3,132
397.80	3,252
397.85	3,371
397.90	3,490
397.95	3,610
398.00	3,729
398.05	3,849
398.10	3,970
398.15	4,090
398.20	4,210
398.25	4,330
398.30	4,451
398.35	4,571
398.40	4,691
398.45	4,811
398.50	4,932
398.55	5,052
398.60	5,172
398.65	5,292
398.70	5,412
398.75	5,533
398.80	5,653
398.85	5,773
398.90	5,893
398.95	6,014
399.00	6,134
399.05	6,255
399.10	6,376
399.15	6,497
399.20	6,619
399.25	6,740
399.30	6,861
399.35	6,982
399.40	7,103
399.45	7,224
399.50	7,346
399.55	7,467
399.60	7,588
399.65	7,709
399.70	7,830
399.75	7,951
399.80	8,072
399.85	8,194
399.90	8,315
399.95	8,436
400.00	**8,557**

Summary for Link Post-Dev: APPROX DISCHARGE

Inflow Area = 206,166 sf, 64.42% Impervious, Inflow Depth = 0.73" for 10-yr event
Inflow = 13.74 cfs @ 0.17 hrs, Volume= 12,613 cf
Primary = 13.74 cfs @ 0.17 hrs, Volume= 12,613 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Post-Dev: APPROX DISCHARGE



Summary for Subcatchment D1: Drainage Basin D1

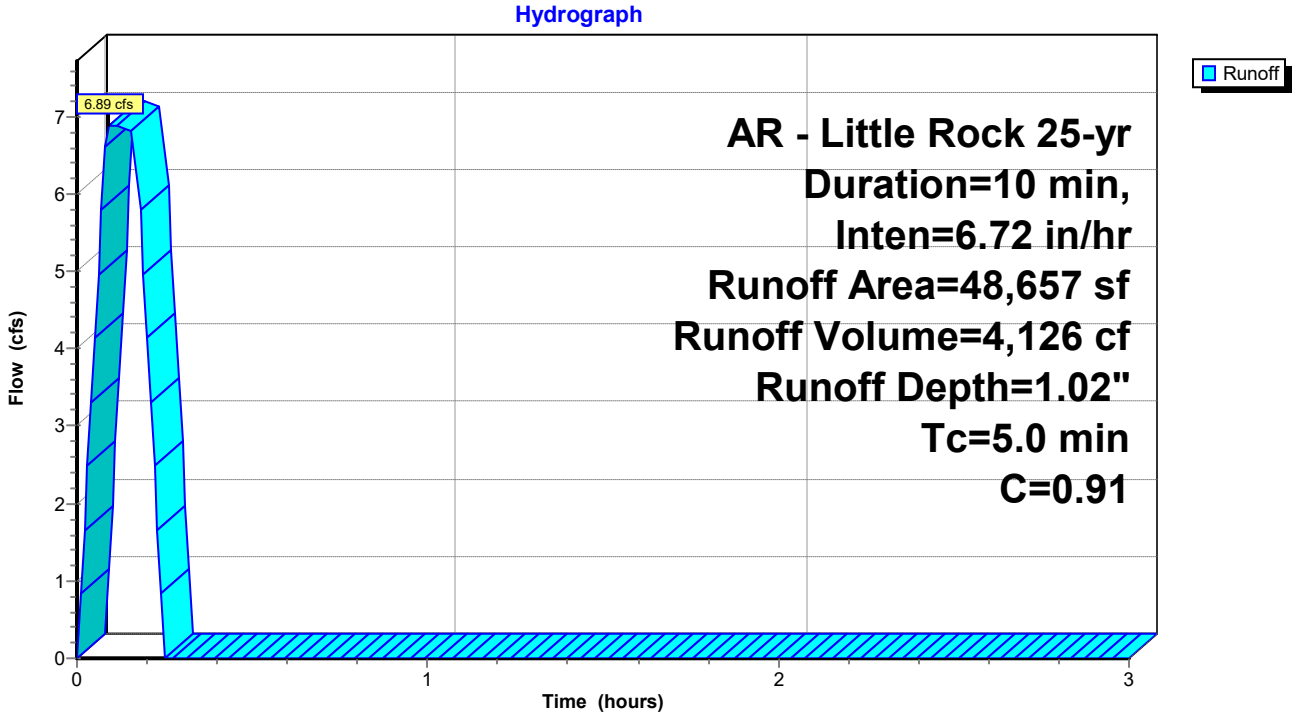
Runoff = 6.89 cfs @ 0.09 hrs, Volume= 4,126 cf, Depth= 1.02"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
3,421	0.40	Sod Yard
45,236	0.95	Rood, Drives, Sidewalks
48,657	0.91	Weighted Average
3,421		7.03% Pervious Area
45,236		92.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D1: Drainage Basin D1



Summary for Subcatchment D2: Drainage Basin D2

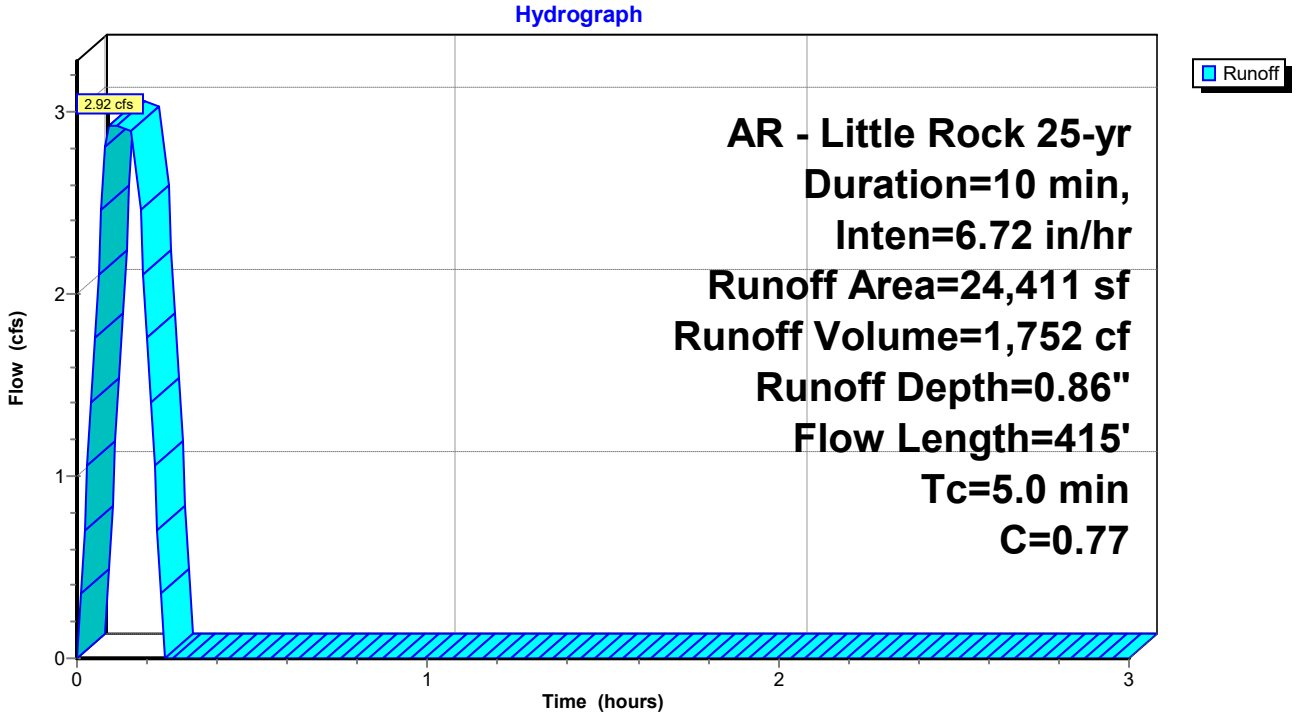
Runoff = 2.92 cfs @ 0.09 hrs, Volume= 1,752 cf, Depth= 0.86"
Routed to Reach P-A1 : Pipe A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
8,845	0.45	Rip Rap Embankment
15,566	0.95	Roof, Drives, Sidewalks
24,411	0.77	Weighted Average
8,845		36.23% Pervious Area
15,566		63.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D2: Drainage Basin D2



Summary for Subcatchment D3: Drainage Basin D3

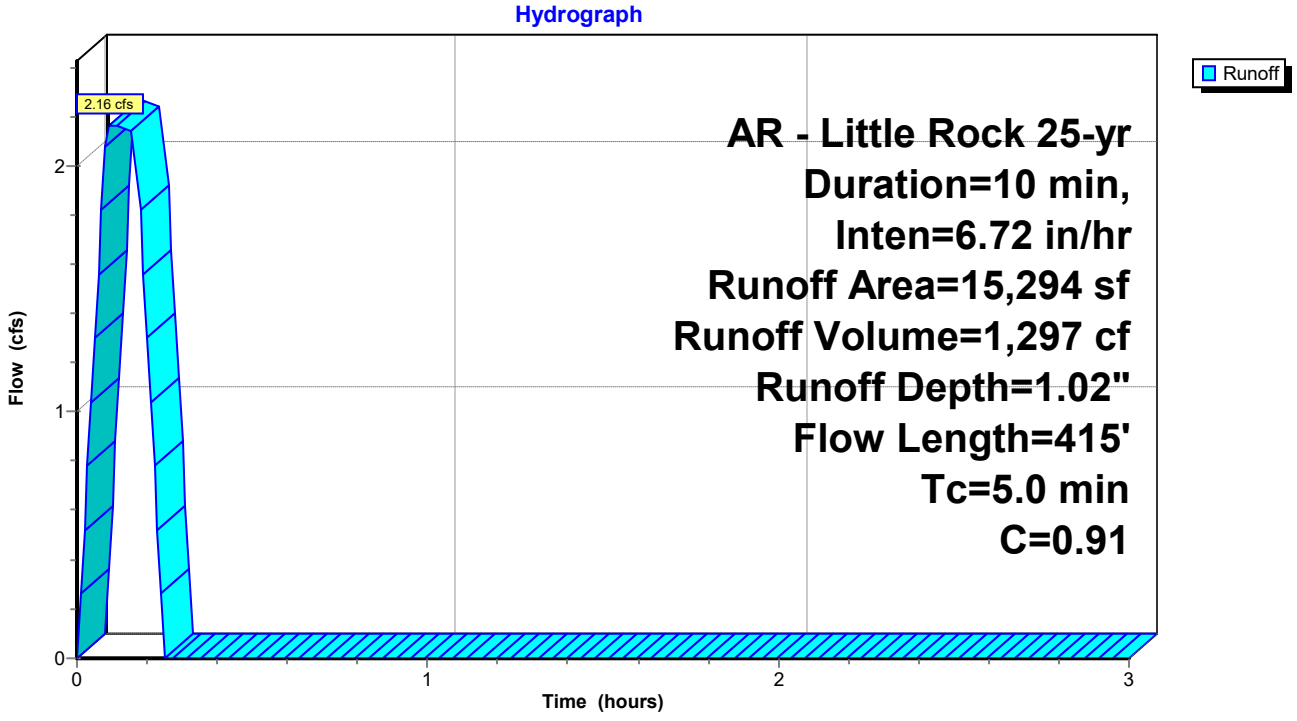
Runoff = 2.16 cfs @ 0.09 hrs, Volume= 1,297 cf, Depth= 1.02"
Routed to Reach P-A2 : Pipe A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
1,065	0.40	Sod Yard
14,229	0.95	Paving, Sidewalks
15,294	0.91	Weighted Average
1,065		6.96% Pervious Area
14,229		93.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D3: Drainage Basin D3



Summary for Subcatchment D4: Drainage Basin D4

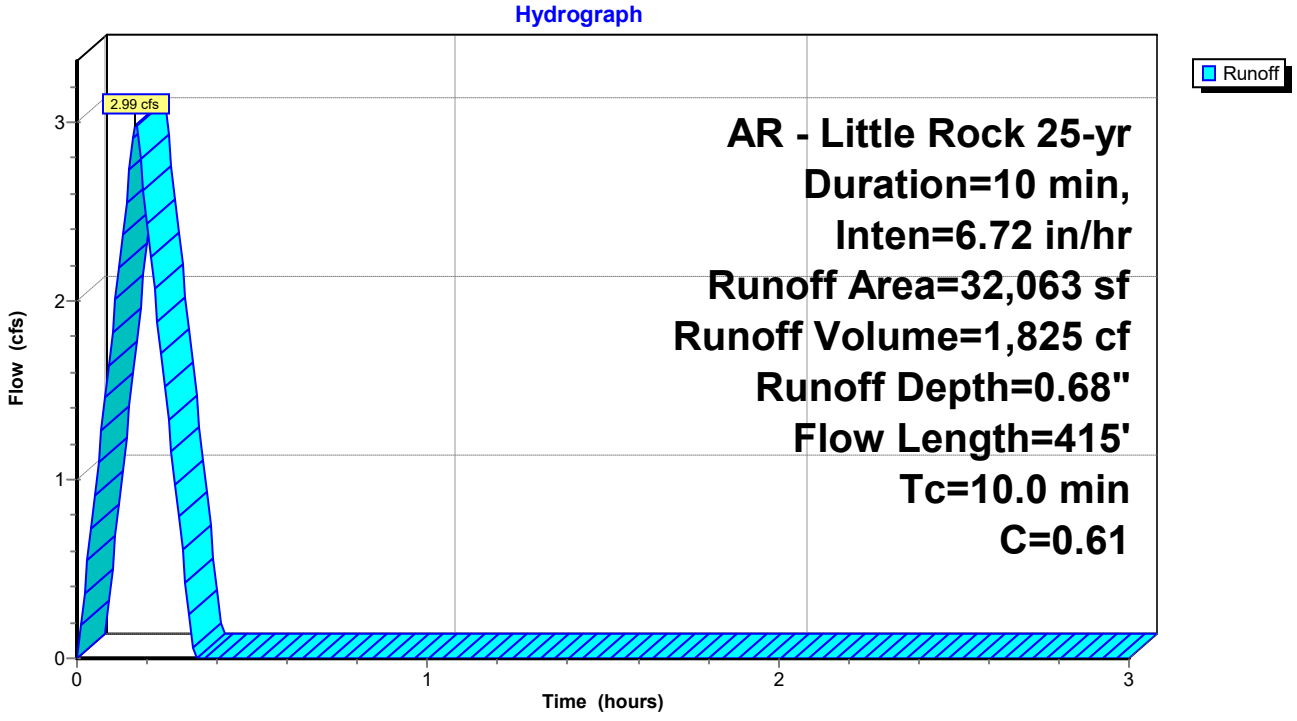
Runoff = 2.99 cfs @ 0.17 hrs, Volume= 1,825 cf, Depth= 0.68"
Routed to Reach P-A3 : Pipe A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
20,032	0.40	
12,031	0.95	
32,063	0.61	Weighted Average
20,032		62.48% Pervious Area
12,031		37.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D4: Drainage Basin D4



Summary for Subcatchment D5: Drainage Basin D5

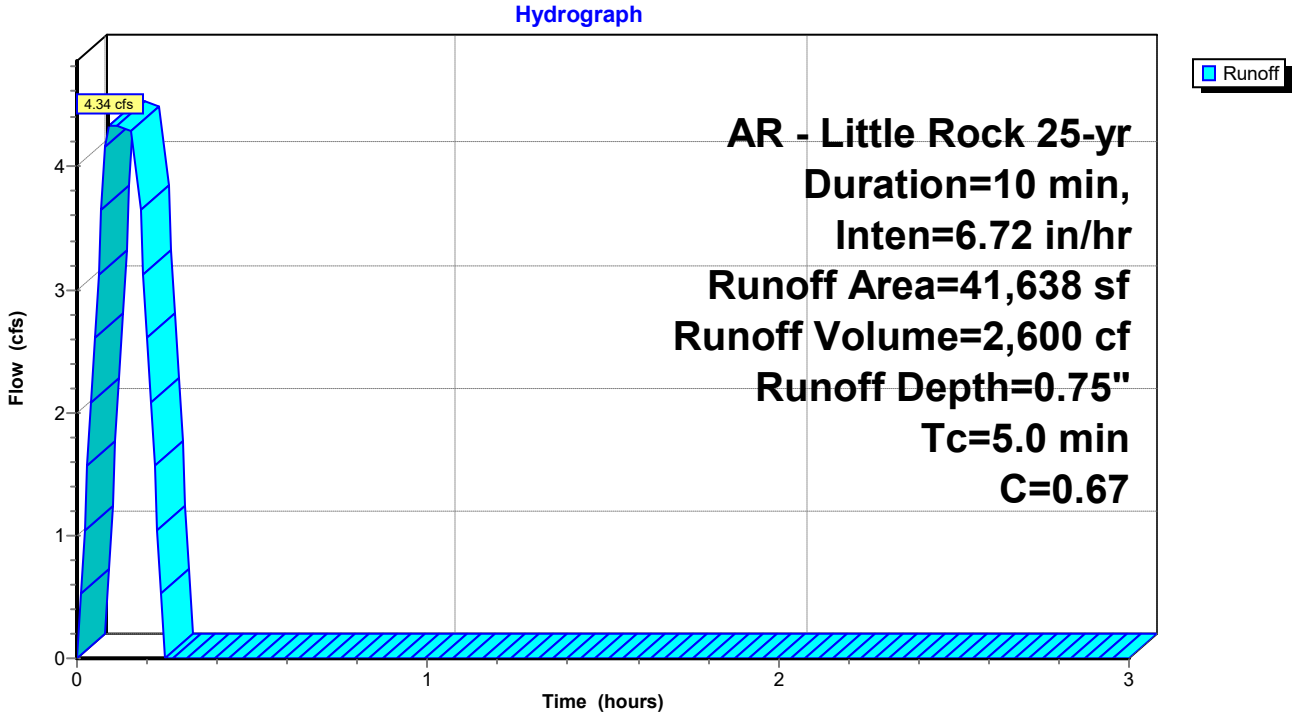
Runoff = 4.34 cfs @ 0.09 hrs, Volume= 2,600 cf, Depth= 0.75"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
21,201	0.40	Sod Yard, Natural Vegetation
20,437	0.95	Paving, Sidewalks
41,638	0.67	Weighted Average
21,201		50.92% Pervious Area
20,437		49.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D5: Drainage Basin D5



Summary for Subcatchment D6: Drainage Basin D6

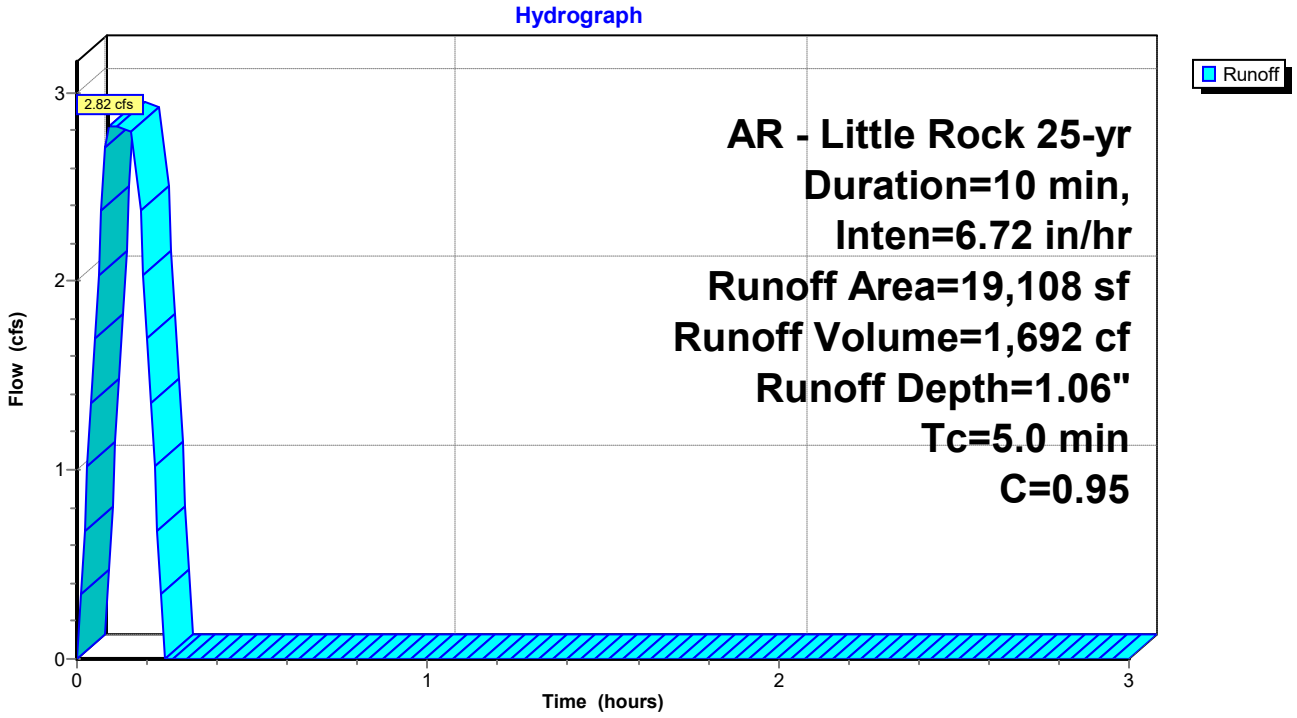
Runoff = 2.82 cfs @ 0.09 hrs, Volume= 1,692 cf, Depth= 1.06"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
19,108	0.95	Roof
19,108		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D6: Drainage Basin D6



Summary for Subcatchment D7: Drainage Basin D7

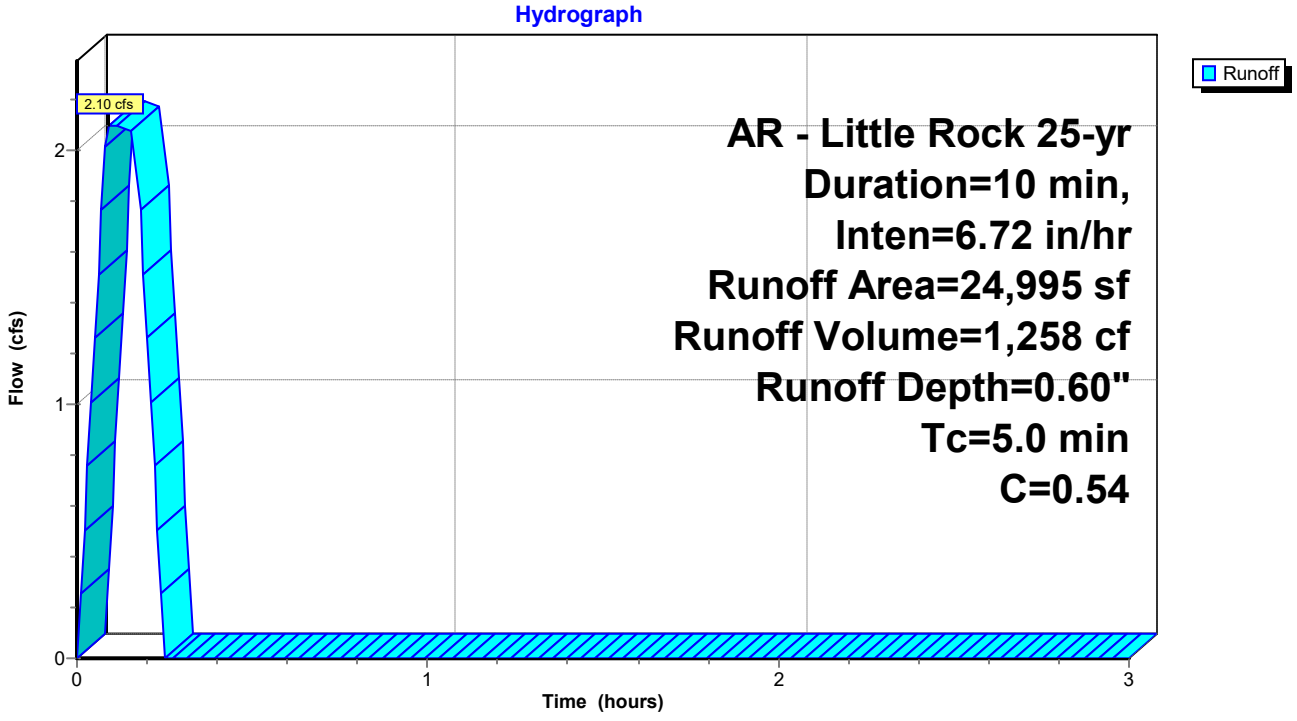
Runoff = 2.10 cfs @ 0.09 hrs, Volume= 1,258 cf, Depth= 0.60"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 25-yr Duration=10 min, Inten=6.72 in/hr

Area (sf)	C	Description
18,798	0.40	Sod Yard, Natural Vegetation
6,197	0.95	Paving, Sidewalks
24,995	0.54	Weighted Average
18,798		75.21% Pervious Area
6,197		24.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D7: Drainage Basin D7



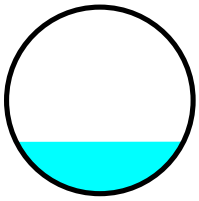
Summary for Reach P-A1: Pipe A1

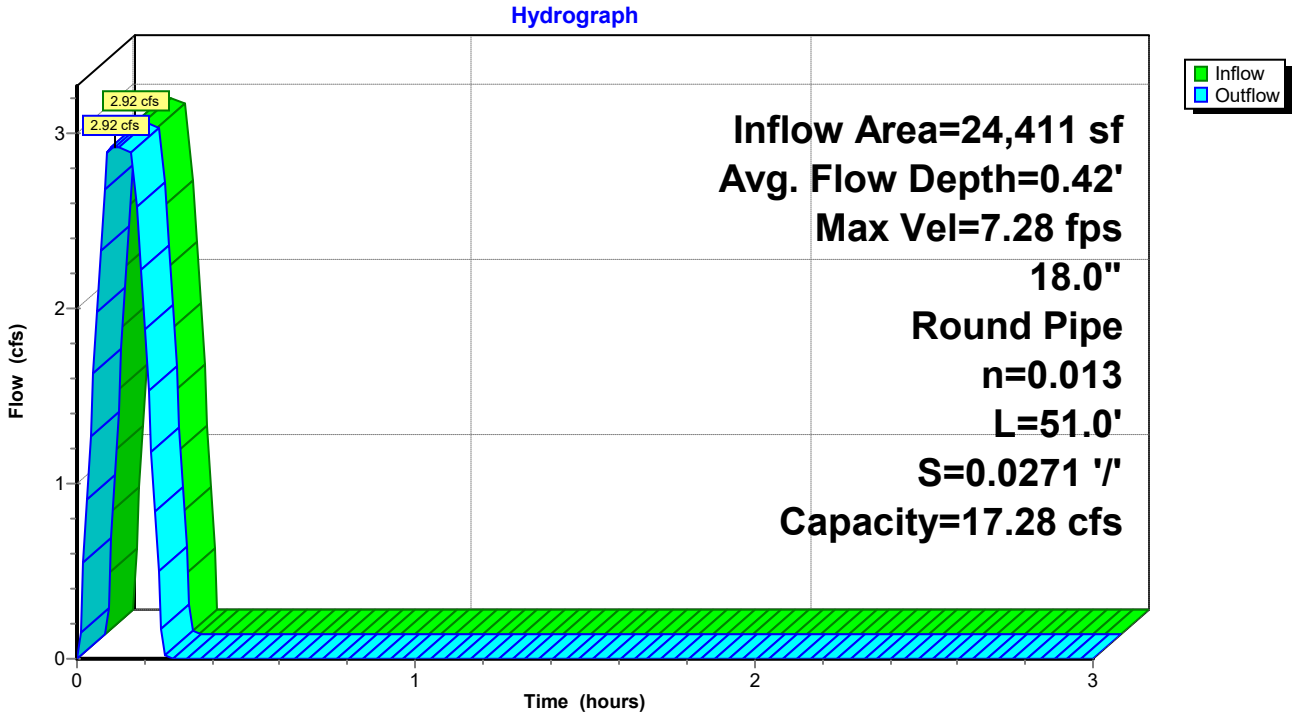
Inflow Area = 24,411 sf, 63.77% Impervious, Inflow Depth = 0.86" for 25-yr event
Inflow = 2.92 cfs @ 0.09 hrs, Volume= 1,752 cf
Outflow = 2.92 cfs @ 0.11 hrs, Volume= 1,752 cf, Atten= 0%, Lag= 1.2 min
Routed to Reach P-A2 : Pipe A2

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.28 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 5.29 fps, Avg. Travel Time= 0.2 min

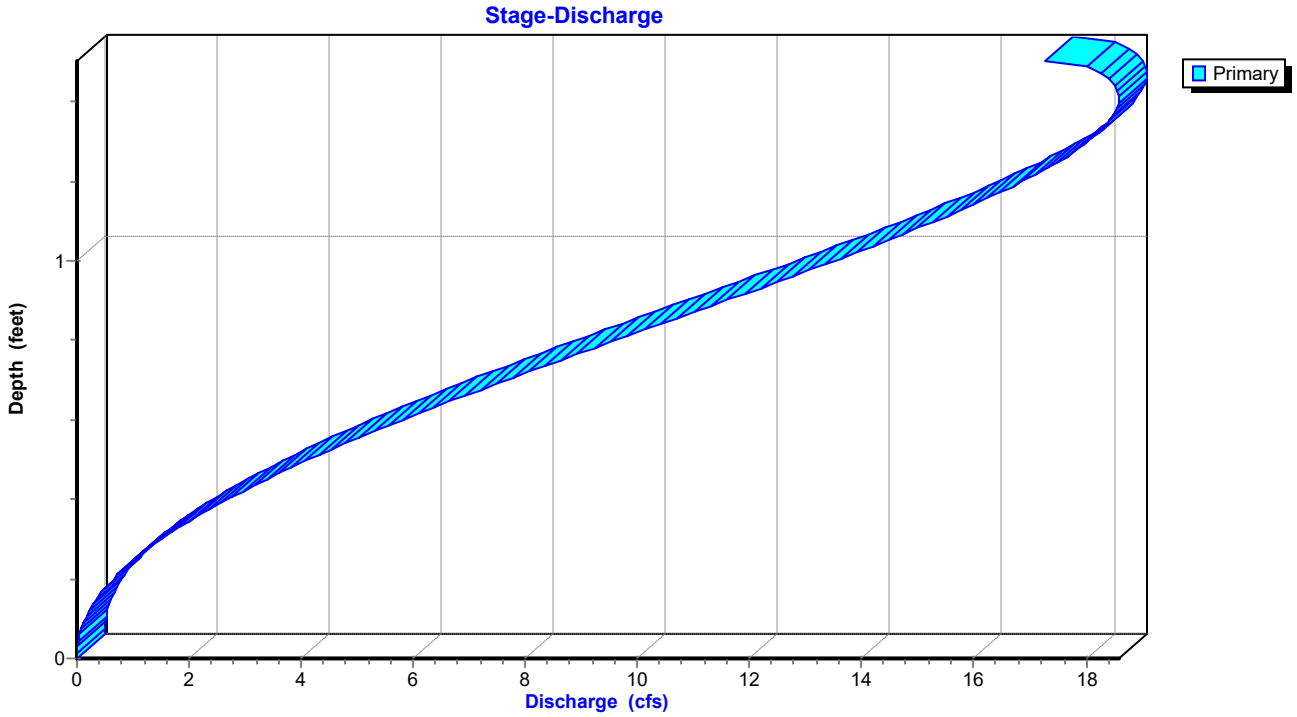
Peak Storage= 20 cf @ 0.09 hrs
Average Depth at Peak Storage= 0.42' , Surface Width= 1.34'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.28 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 51.0' Slope= 0.0271 '/'
Inlet Invert= 408.33', Outlet Invert= 406.95'





Reach P-A1: Pipe A1



Stage-Area-Storage for Reach P-A1: Pipe A1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
408.33	0.0	0
408.35	0.0	0
408.37	0.0	1
408.39	0.0	1
408.41	0.0	2
408.43	0.1	3
408.45	0.1	3
408.47	0.1	4
408.49	0.1	5
408.51	0.1	6
408.53	0.1	7
408.55	0.2	8
408.57	0.2	9
408.59	0.2	10
408.61	0.2	12
408.63	0.3	13
408.65	0.3	14
408.67	0.3	15
408.69	0.3	17
408.71	0.4	18
408.73	0.4	19
408.75	0.4	21
408.77	0.4	22
408.79	0.5	23
408.81	0.5	25
408.83	0.5	26
408.85	0.5	28
408.87	0.6	29
408.89	0.6	31
408.91	0.6	32
408.93	0.7	34
408.95	0.7	35
408.97	0.7	37
408.99	0.7	38
409.01	0.8	40
409.03	0.8	41
409.05	0.8	43
409.07	0.9	44
409.09	0.9	46
409.11	0.9	47
409.13	1.0	49
409.15	1.0	50
409.17	1.0	52
409.19	1.0	53
409.21	1.1	55
409.23	1.1	56
409.25	1.1	58
409.27	1.2	59
409.29	1.2	61
409.31	1.2	62
409.33	1.3	64
409.35	1.3	65
409.37	1.3	67
409.39	1.3	68
409.41	1.4	69
409.43	1.4	71
409.45	1.4	72
409.47	1.4	73
409.49	1.5	75
409.51	1.5	76
409.53	1.5	77
409.55	1.5	78
409.57	1.6	80
409.59	1.6	81
409.61	1.6	82
409.63	1.6	83
409.65	1.6	84
409.67	1.7	85
409.69	1.7	86
409.71	1.7	87
409.73	1.7	88
409.75	1.7	88
409.77	1.7	89
409.79	1.8	89
409.81	1.8	90
409.83	**1.8**	**90**

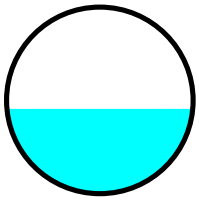
Summary for Reach P-A2: Pipe A2

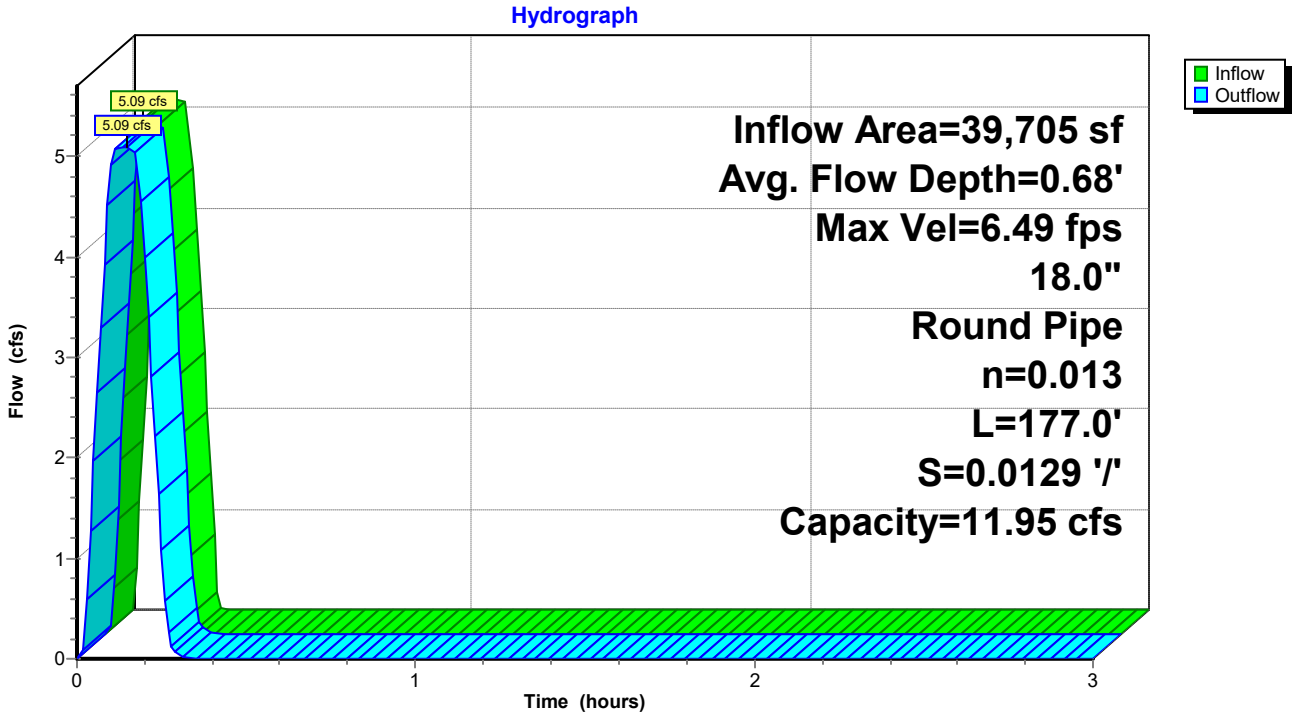
Inflow Area = 39,705 sf, 75.04% Impervious, Inflow Depth = 0.92" for 25-yr event
Inflow = 5.09 cfs @ 0.11 hrs, Volume= 3,048 cf
Outflow = 5.09 cfs @ 0.15 hrs, Volume= 3,048 cf, Atten= 0%, Lag= 2.4 min
Routed to Reach P-A3 : Pipe A3

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.49 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.58 fps, Avg. Travel Time= 1.1 min

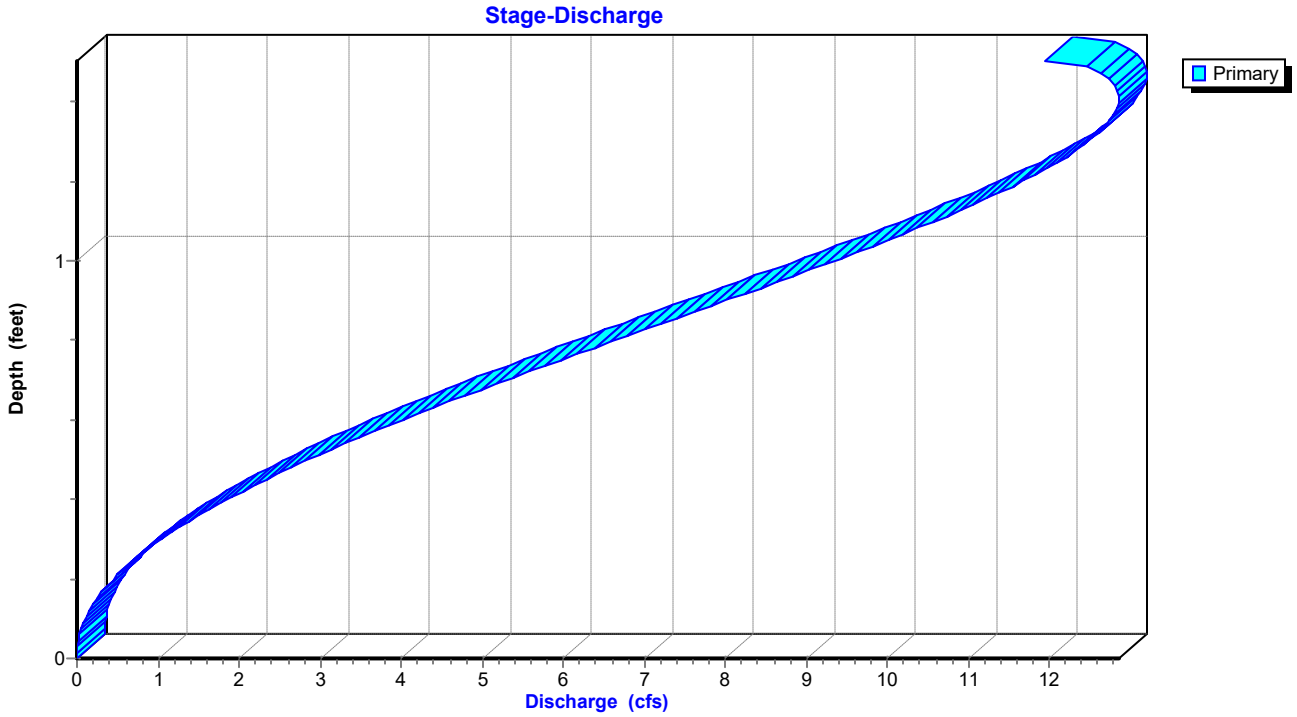
Peak Storage= 139 cf @ 0.14 hrs
Average Depth at Peak Storage= 0.68' , Surface Width= 1.49'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 177.0' Slope= 0.0129 '/'
Inlet Invert= 406.85', Outlet Invert= 404.56'





Reach P-A2: Pipe A2



Stage-Area-Storage for Reach P-A2: Pipe A2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
406.85	0.0	0
406.87	0.0	1
406.89	0.0	2
406.91	0.0	4
406.93	0.0	6
406.95	0.1	9
406.97	0.1	12
406.99	0.1	15
407.01	0.1	18
407.03	0.1	21
407.05	0.1	25
407.07	0.2	28
407.09	0.2	32
407.11	0.2	36
407.13	0.2	40
407.15	0.3	45
407.17	0.3	49
407.19	0.3	53
407.21	0.3	58
407.23	0.4	62
407.25	0.4	67
407.27	0.4	72
407.29	0.4	76
407.31	0.5	81
407.33	0.5	86
407.35	0.5	91
407.37	0.5	96
407.39	0.6	101
407.41	0.6	106
407.43	0.6	112
407.45	0.7	117
407.47	0.7	122
407.49	0.7	127
407.51	0.7	133
407.53	0.8	138
407.55	0.8	143
407.57	0.8	148
407.59	0.9	154
407.61	0.9	159
407.63	0.9	164
407.65	1.0	170
407.67	1.0	175
407.69	1.0	180
407.71	1.0	185
407.73	1.1	191
407.75	1.1	196
407.77	1.1	201
407.79	1.2	206
407.81	1.2	211
407.83	1.2	216
407.85	1.3	222
407.87	1.3	226
407.89	1.3	231
407.91	1.3	236
407.93	1.4	241
407.95	1.4	246
407.97	1.4	250
407.99	1.4	255
408.01	1.5	260
408.03	1.5	264
408.05	1.5	268
408.07	1.5	272
408.09	1.6	277
408.11	1.6	280
408.13	1.6	284
408.15	1.6	288
408.17	1.6	292
408.19	1.7	295
408.21	1.7	298
408.23	1.7	301
408.25	1.7	304
408.27	1.7	306
408.29	1.7	309
408.31	1.8	310
408.33	1.8	312
408.35	**1.8**	**313**

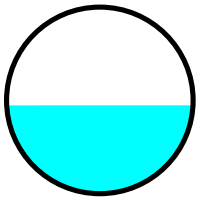
Summary for Reach P-A3: Pipe A3

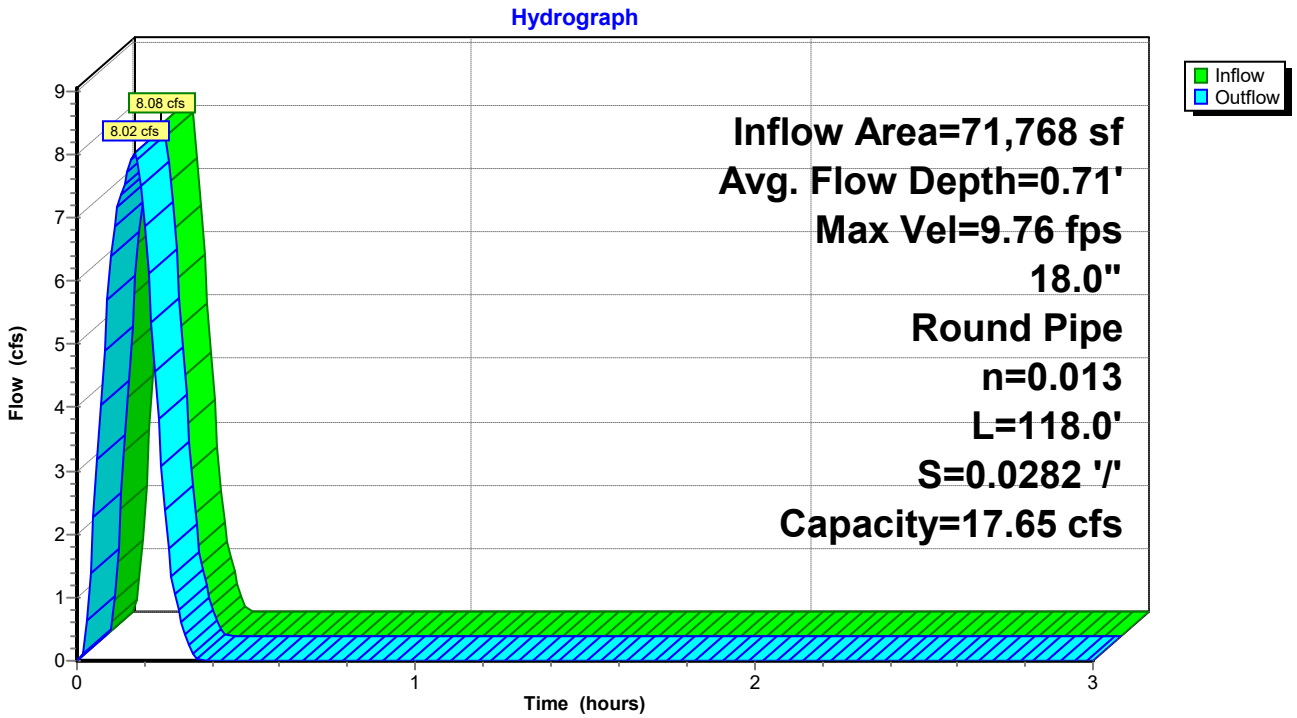
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.81" for 25-yr event
Inflow = 8.08 cfs @ 0.17 hrs, Volume= 4,873 cf
Outflow = 8.02 cfs @ 0.17 hrs, Volume= 4,873 cf, Atten= 1%, Lag= 0.2 min
Routed to Reach P-A4 : Pipe A4

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.76 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.04 fps, Avg. Travel Time= 0.5 min

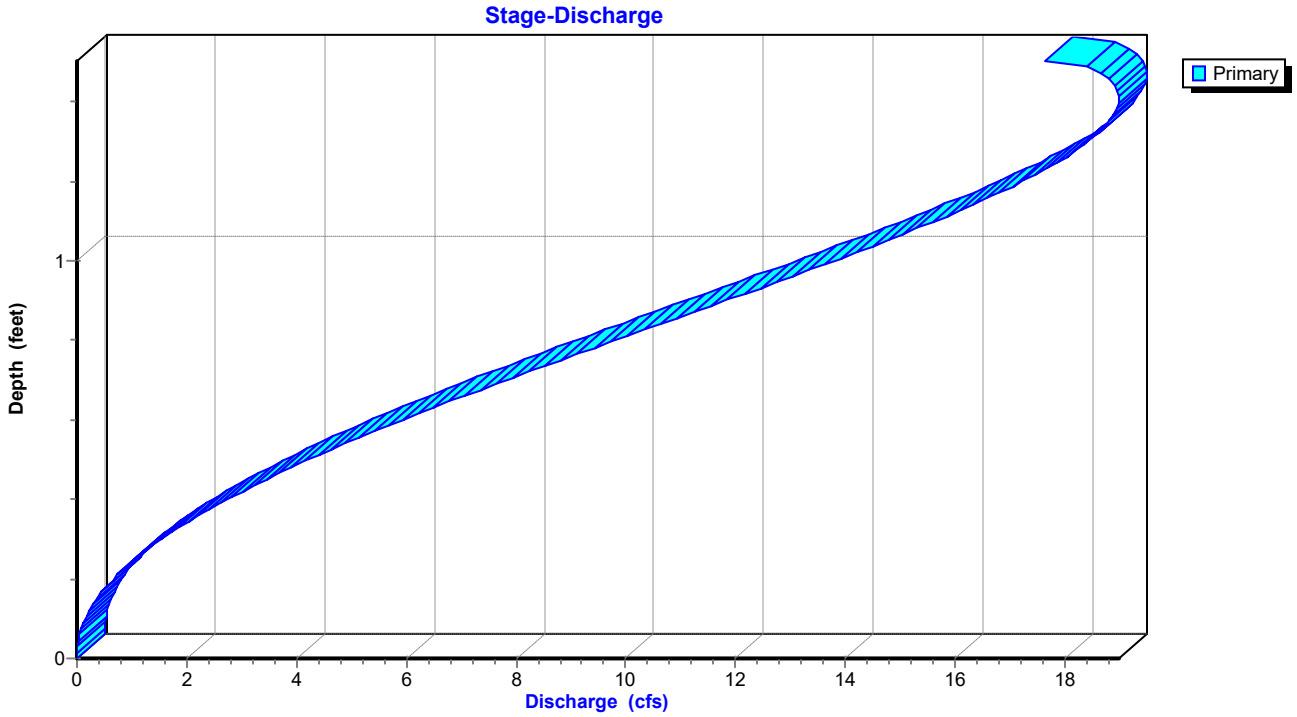
Peak Storage= 97 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.65 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 118.0' Slope= 0.0282 '/'
Inlet Invert= 404.46', Outlet Invert= 401.13'





Reach P-A3: Pipe A3



Stage-Area-Storage for Reach P-A3: Pipe A3

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
404.46	0.0	0
404.48	0.0	1
404.50	0.0	2
404.52	0.0	3
404.54	0.0	4
404.56	0.1	6
404.58	0.1	8
404.60	0.1	10
404.62	0.1	12
404.64	0.1	14
404.66	0.1	17
404.68	0.2	19
404.70	0.2	22
404.72	0.2	24
404.74	0.2	27
404.76	0.3	30
404.78	0.3	33
404.80	0.3	35
404.82	0.3	38
404.84	0.4	42
404.86	0.4	45
404.88	0.4	48
404.90	0.4	51
404.92	0.5	54
404.94	0.5	58
404.96	0.5	61
404.98	0.5	64
405.00	0.6	68
405.02	0.6	71
405.04	0.6	74
405.06	0.7	78
405.08	0.7	81
405.10	0.7	85
405.12	0.7	88
405.14	0.8	92
405.16	0.8	95
405.18	0.8	99
405.20	0.9	102
405.22	0.9	106
405.24	0.9	110
405.26	1.0	113
405.28	1.0	117
405.30	1.0	120
405.32	1.0	124
405.34	1.1	127
405.36	1.1	131
405.38	1.1	134
405.40	1.2	138
405.42	1.2	141
405.44	1.2	144
405.46	1.3	148
405.48	1.3	151
405.50	1.3	154
405.52	1.3	158
405.54	1.4	161
405.56	1.4	164
405.58	1.4	167
405.60	1.4	170
405.62	1.5	173
405.64	1.5	176
405.66	1.5	179
405.68	1.5	182
405.70	1.6	184
405.72	1.6	187
405.74	1.6	190
405.76	1.6	192
405.78	1.6	194
405.80	1.7	197
405.82	1.7	199
405.84	1.7	201
405.86	1.7	203
405.88	1.7	204
405.90	1.7	206
405.92	1.8	207
405.94	1.8	208
405.96	**1.8**	**209**

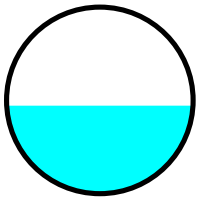
Summary for Reach P-A4: Pipe A4

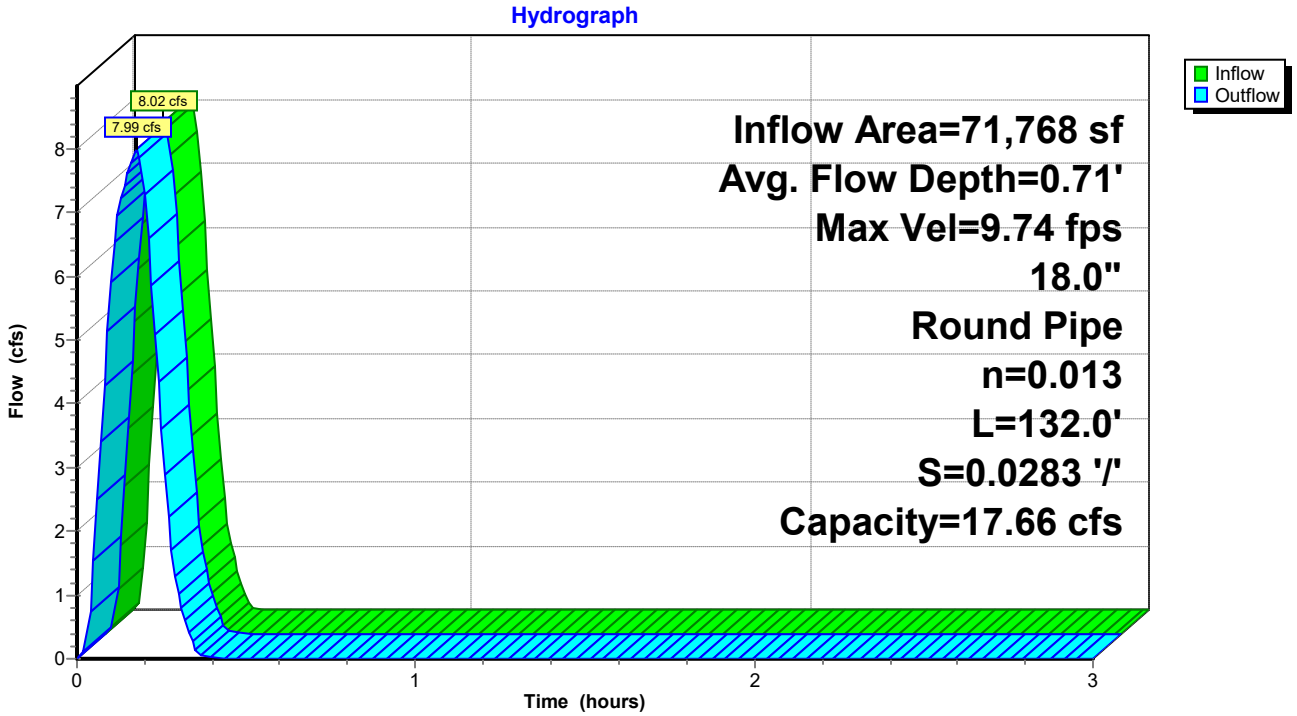
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.81" for 25-yr event
Inflow = 8.02 cfs @ 0.17 hrs, Volume= 4,873 cf
Outflow = 7.99 cfs @ 0.18 hrs, Volume= 4,873 cf, Atten= 0%, Lag= 0.4 min
Routed to Pond DP1 : Re-Establised East Pond

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 9.74 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.84 fps, Avg. Travel Time= 0.6 min

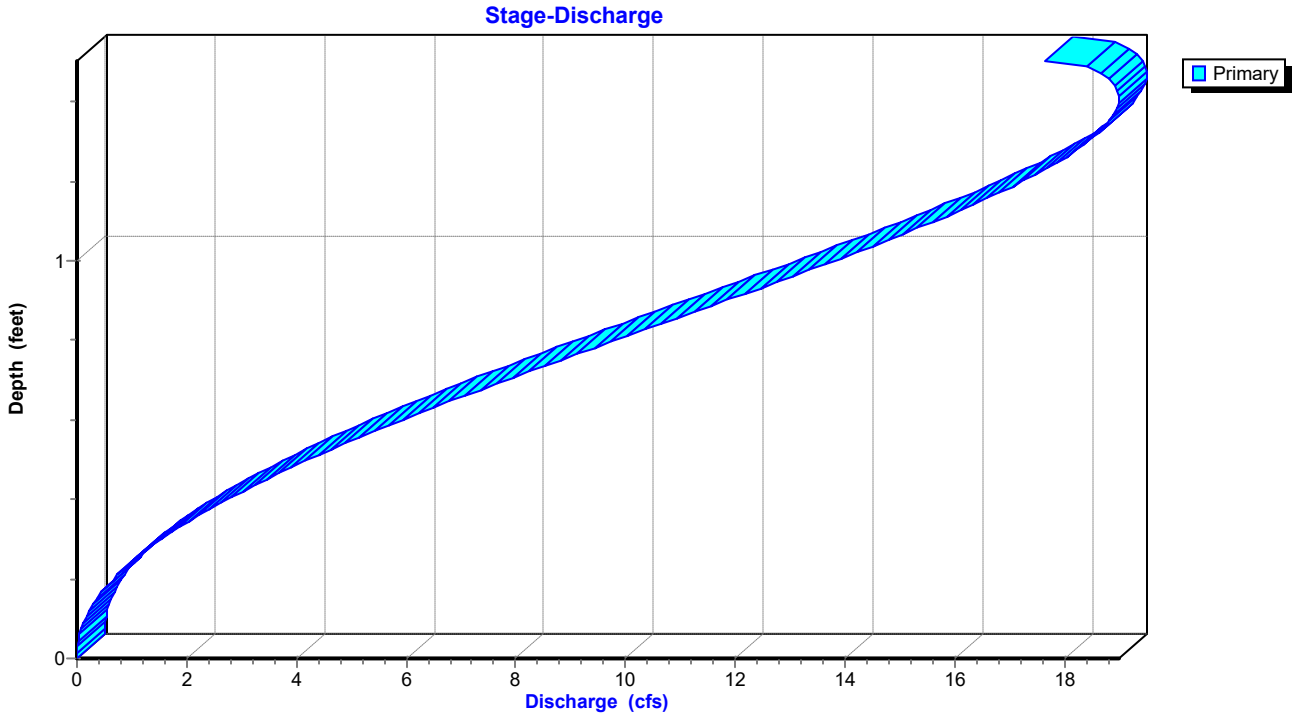
Peak Storage= 108 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.71' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.66 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 132.0' Slope= 0.0283 '/'
Inlet Invert= 401.03', Outlet Invert= 397.30'





Reach P-A4: Pipe A4



Stage-Area-Storage for Reach P-A4: Pipe A4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
401.03	0.0	0
401.05	0.0	1
401.07	0.0	2
401.09	0.0	3
401.11	0.0	5
401.13	0.1	7
401.15	0.1	9
401.17	0.1	11
401.19	0.1	13
401.21	0.1	16
401.23	0.1	18
401.25	0.2	21
401.27	0.2	24
401.29	0.2	27
401.31	0.2	30
401.33	0.3	33
401.35	0.3	36
401.37	0.3	40
401.39	0.3	43
401.41	0.4	46
401.43	0.4	50
401.45	0.4	53
401.47	0.4	57
401.49	0.5	61
401.51	0.5	64
401.53	0.5	68
401.55	0.5	72
401.57	0.6	76
401.59	0.6	79
401.61	0.6	83
401.63	0.7	87
401.65	0.7	91
401.67	0.7	95
401.69	0.7	99
401.71	0.8	103
401.73	0.8	107
401.75	0.8	111
401.77	0.9	115
401.79	0.9	119
401.81	0.9	123
401.83	1.0	127
401.85	1.0	130
401.87	1.0	134
401.89	1.0	138
401.91	1.1	142
401.93	1.1	146
401.95	1.1	150
401.97	1.2	154
401.99	1.2	158
402.01	1.2	161
402.03	1.3	165
402.05	1.3	169
402.07	1.3	173
402.09	1.3	176
402.11	1.4	180
402.13	1.4	183
402.15	1.4	187
402.17	1.4	190
402.19	1.5	194
402.21	1.5	197
402.23	1.5	200
402.25	1.5	203
402.27	1.6	206
402.29	1.6	209
402.31	1.6	212
402.33	1.6	215
402.35	1.6	217
402.37	1.7	220
402.39	1.7	222
402.41	1.7	225
402.43	1.7	227
402.45	1.7	228
402.47	1.7	230
402.49	1.8	232
402.51	1.8	233
402.53	**1.8**	**233**

Summary for Pond DP1: Re-Establised East Pond

Inflow Area = 132,514 sf, 61.41% Impervious, Inflow Depth = 0.83" for 25-yr event
Inflow = 14.95 cfs @ 0.16 hrs, Volume= 9,164 cf
Outflow = 7.87 cfs @ 0.22 hrs, Volume= 9,164 cf, Atten= 47%, Lag= 3.8 min
Primary = 7.87 cfs @ 0.22 hrs, Volume= 9,164 cf
Routed to Link Post-Dev : APPROX DISCHARGE

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 398.45' @ 0.22 hrs Storage= 4,803 cf

Plug-Flow detention time= 8.8 min calculated for 9,164 cf (100% of inflow)
Center-of-Mass det. time= 8.7 min (17.5 - 8.8)

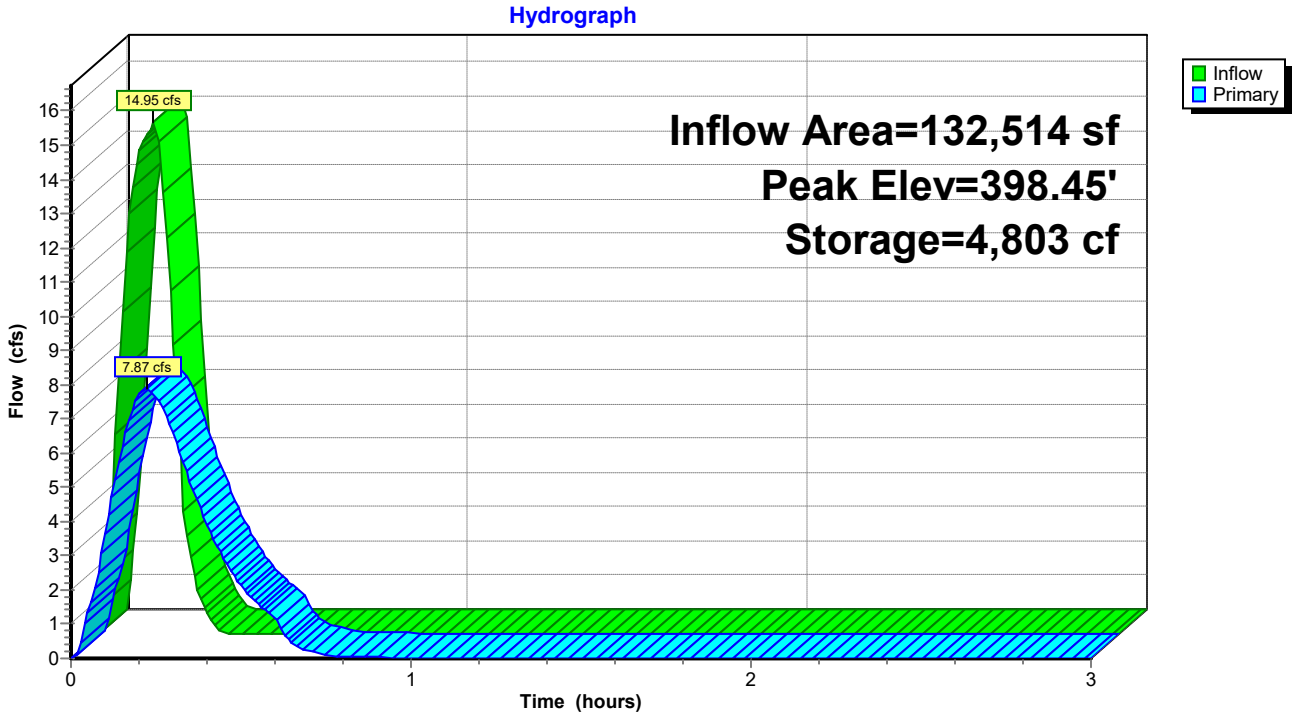
Volume	Invert	Avail.Storage	Storage Description
#1	396.00'	8,557 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
396.00	0	0
396.50	250	250
397.00	1,092	1,342
398.00	2,387	3,729
399.00	2,405	6,134
400.00	2,423	8,557

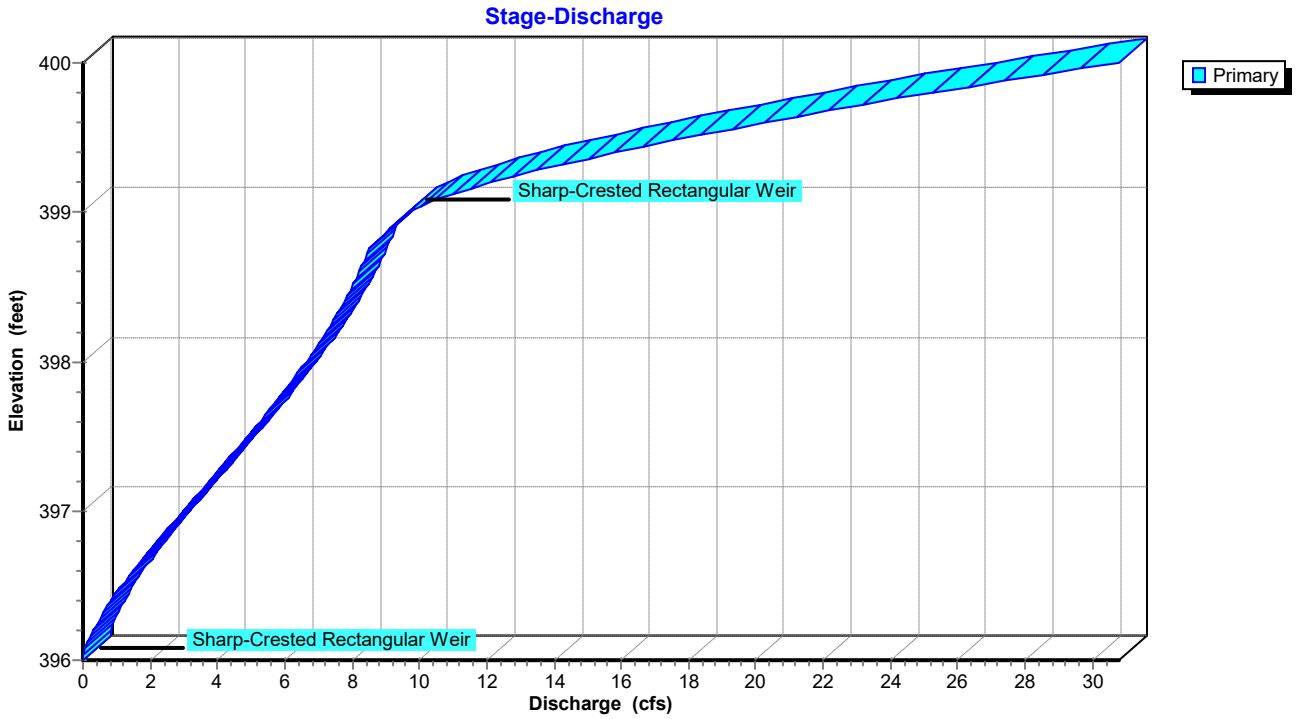
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	396.00'	**1.1' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 10.0' Crest Height

Primary OutFlow Max=7.86 cfs @ 0.22 hrs HW=398.44' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
2=Sharp-Crested Rectangular Weir (Weir Controls 7.86 cfs @ 5.26 fps)

Pond DP1: Re-Establised East Pond



Pond DP1: Re-Establised East Pond



Stage-Area-Storage for Pond DP1: Re-Establised East Pond

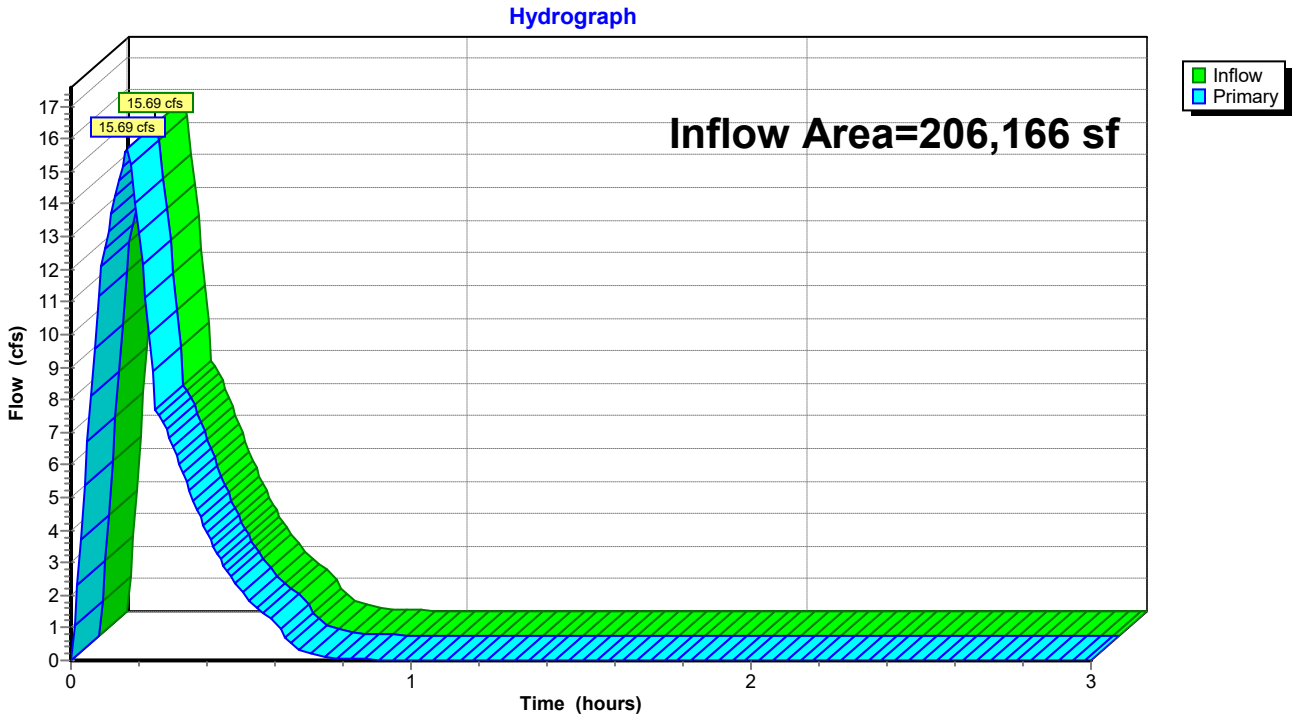
Elevation (feet)	Storage (cubic-feet)
396.00	0
396.05	25
396.10	50
396.15	75
396.20	100
396.25	125
396.30	150
396.35	175
396.40	200
396.45	225
396.50	250
396.55	359
396.60	468
396.65	578
396.70	687
396.75	796
396.80	905
396.85	1,014
396.90	1,124
396.95	1,233
397.00	1,342
397.05	1,461
397.10	1,581
397.15	1,700
397.20	1,819
397.25	1,939
397.30	2,058
397.35	2,177
397.40	2,297
397.45	2,416
397.50	2,536
397.55	2,655
397.60	2,774
397.65	2,894
397.70	3,013
397.75	3,132
397.80	3,252
397.85	3,371
397.90	3,490
397.95	3,610
398.00	3,729
398.05	3,849
398.10	3,970
398.15	4,090
398.20	4,210
398.25	4,330
398.30	4,451
398.35	4,571
398.40	4,691
398.45	4,811
398.50	4,932
398.55	5,052
398.60	5,172
398.65	5,292
398.70	5,412
398.75	5,533
398.80	5,653
398.85	5,773
398.90	5,893
398.95	6,014
399.00	6,134
399.05	6,255
399.10	6,376
399.15	6,497
399.20	6,619
399.25	6,740
399.30	6,861
399.35	6,982
399.40	7,103
399.45	7,224
399.50	7,346
399.55	7,467
399.60	7,588
399.65	7,709
399.70	7,830
399.75	7,951
399.80	8,072
399.85	8,194
399.90	8,315
399.95	8,436
400.00	**8,557**

Summary for Link Post-Dev: APPROX DISCHARGE

Inflow Area = 206,166 sf, 64.42% Impervious, Inflow Depth = 0.85" for 25-yr event
Inflow = 15.69 cfs @ 0.17 hrs, Volume= 14,548 cf
Primary = 15.69 cfs @ 0.17 hrs, Volume= 14,548 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Post-Dev: APPROX DISCHARGE



Summary for Subcatchment D1: Drainage Basin D1

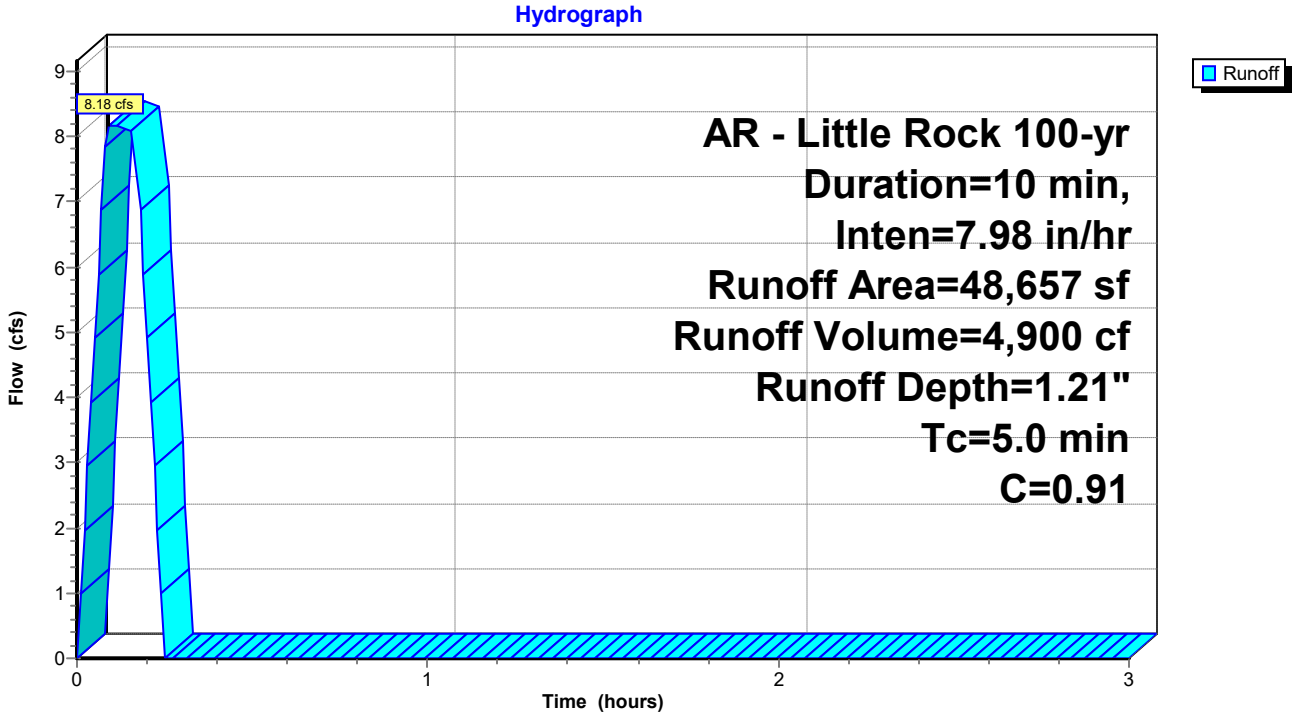
Runoff = 8.18 cfs @ 0.09 hrs, Volume= 4,900 cf, Depth= 1.21"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
3,421	0.40	Sod Yard
45,236	0.95	Rood, Drives, Sidewalks
48,657	0.91	Weighted Average
3,421		7.03% Pervious Area
45,236		92.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D1: Drainage Basin D1



Summary for Subcatchment D2: Drainage Basin D2

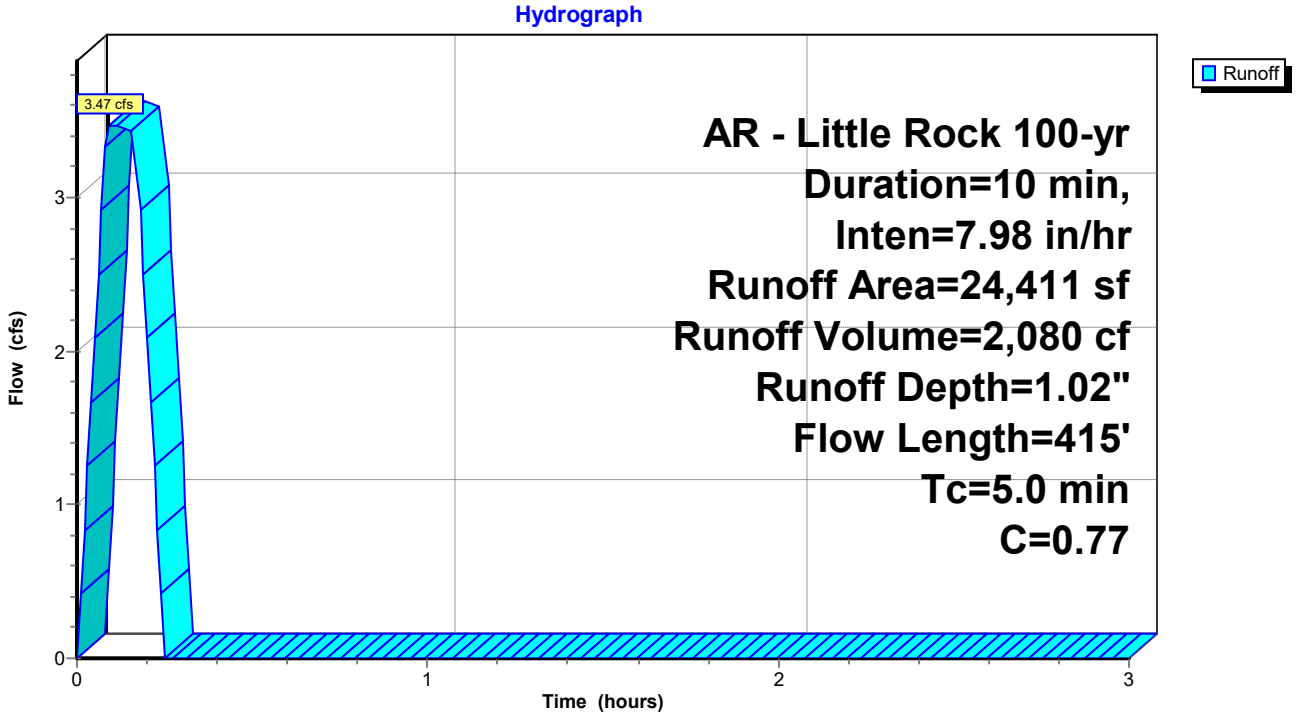
Runoff = 3.47 cfs @ 0.09 hrs, Volume= 2,080 cf, Depth= 1.02"
Routed to Reach P-A1 : Pipe A1

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
8,845	0.45	Rip Rap Embankment
15,566	0.95	Roof, Drives, Sidewalks
24,411	0.77	Weighted Average
8,845		36.23% Pervious Area
15,566		63.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D2: Drainage Basin D2



Summary for Subcatchment D3: Drainage Basin D3

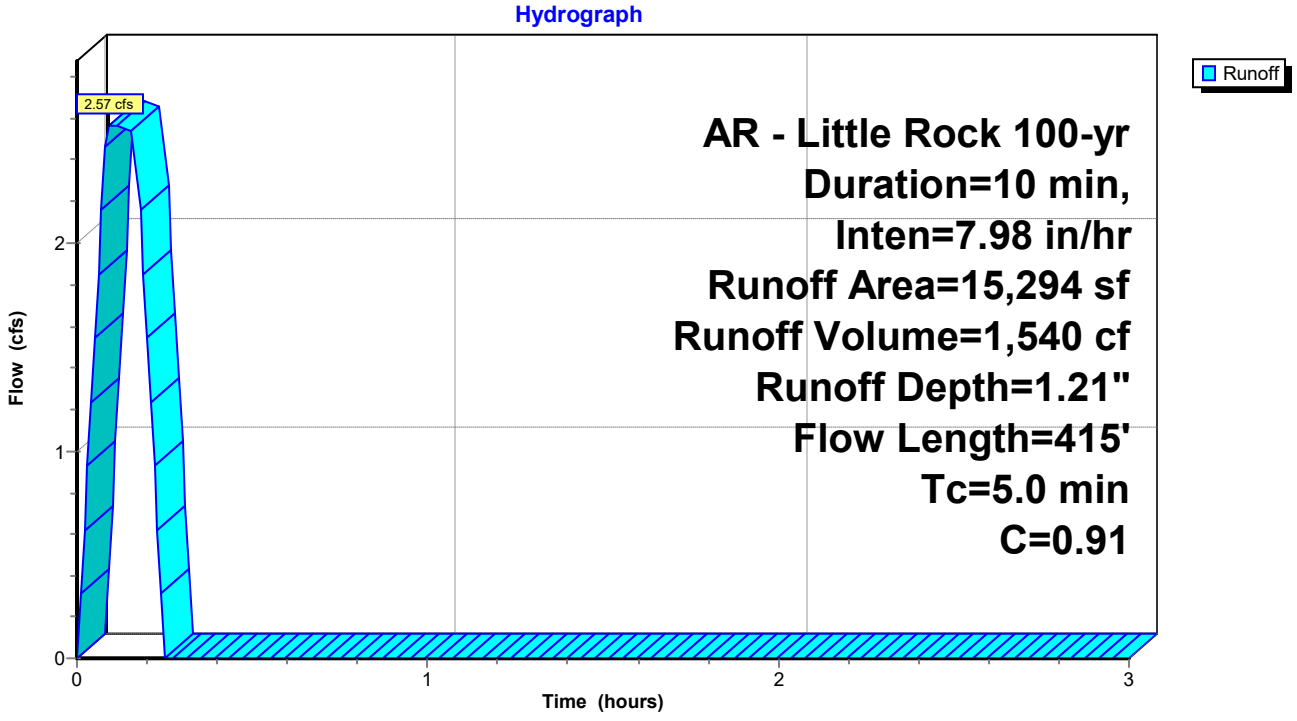
Runoff = 2.57 cfs @ 0.09 hrs, Volume= 1,540 cf, Depth= 1.21"
Routed to Reach P-A2 : Pipe A2

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
1,065	0.40	Sod Yard
14,229	0.95	Paving, Sidewalks
15,294	0.91	Weighted Average
1,065		6.96% Pervious Area
14,229		93.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	415		1.38		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D3: Drainage Basin D3



Summary for Subcatchment D4: Drainage Basin D4

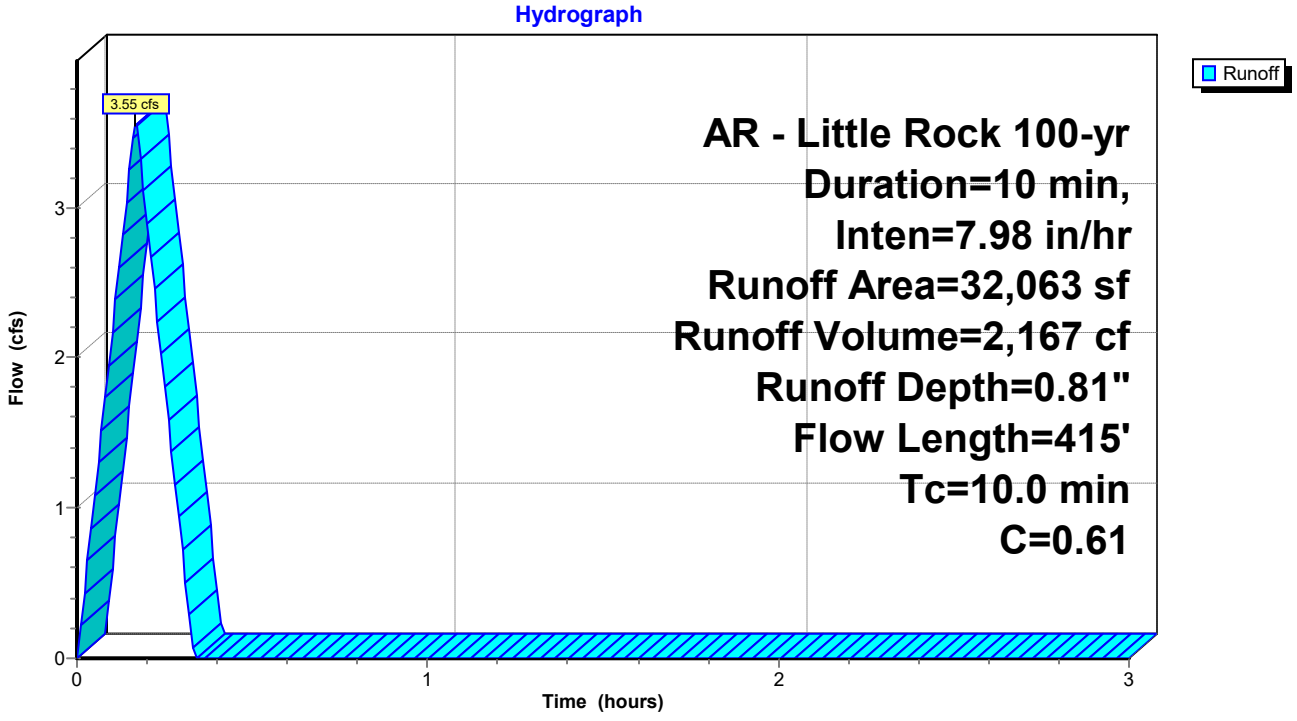
Runoff = 3.55 cfs @ 0.17 hrs, Volume= 2,167 cf, Depth= 0.81"
Routed to Reach P-A3 : Pipe A3

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
20,032	0.40	
12,031	0.95	
32,063	0.61	Weighted Average
20,032		62.48% Pervious Area
12,031		37.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0	415		0.69		**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D4: Drainage Basin D4



Summary for Subcatchment D5: Drainage Basin D5

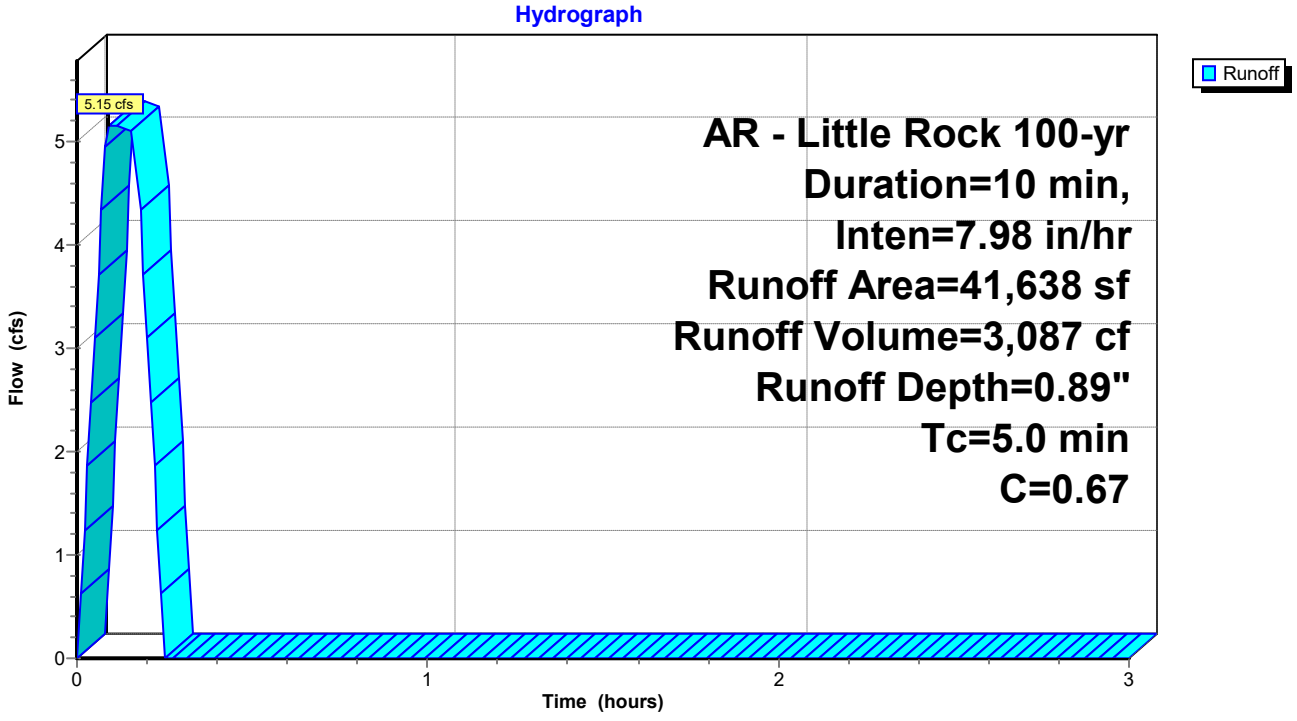
Runoff = 5.15 cfs @ 0.09 hrs, Volume= 3,087 cf, Depth= 0.89"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
21,201	0.40	Sod Yard, Natural Vegetation
20,437	0.95	Paving, Sidewalks
41,638	0.67	Weighted Average
21,201		50.92% Pervious Area
20,437		49.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D5: Drainage Basin D5



Summary for Subcatchment D6: Drainage Basin D6

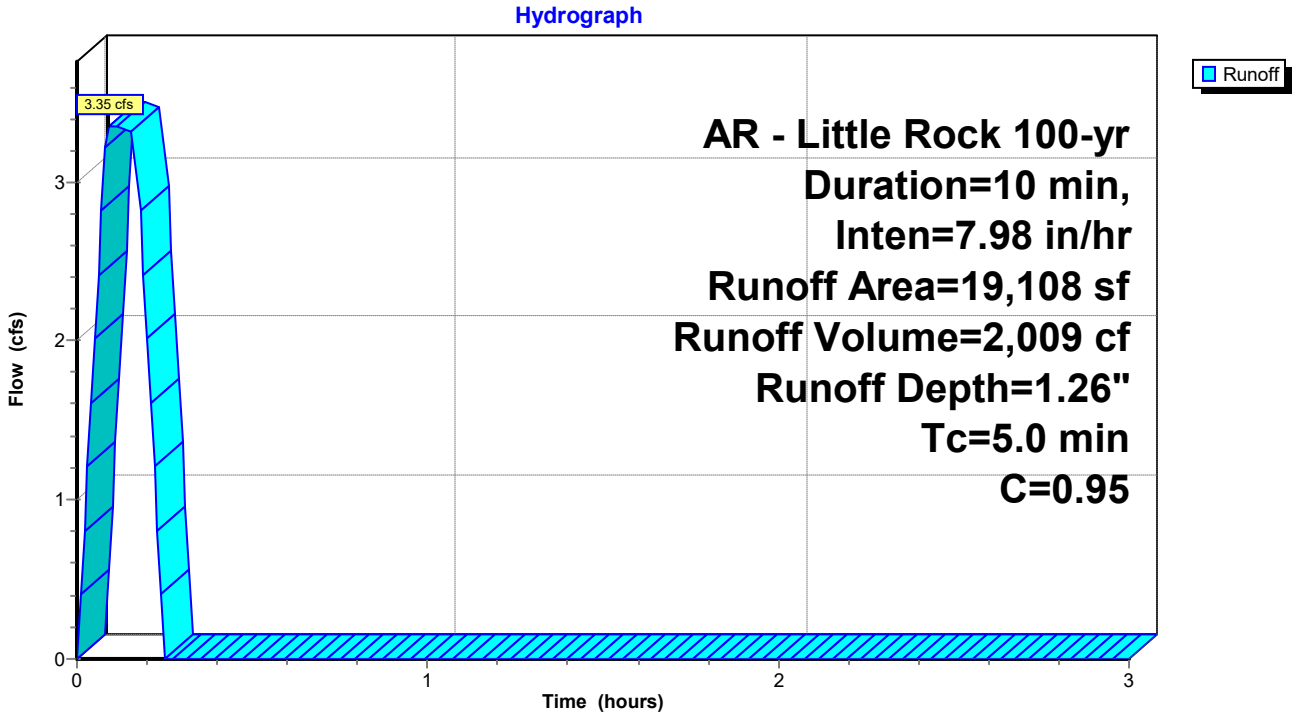
Runoff = 3.35 cfs @ 0.09 hrs, Volume= 2,009 cf, Depth= 1.26"
Routed to Pond DP1 : Re-Establised East Pond

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
19,108	0.95	Roof
19,108		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D6: Drainage Basin D6



Summary for Subcatchment D7: Drainage Basin D7

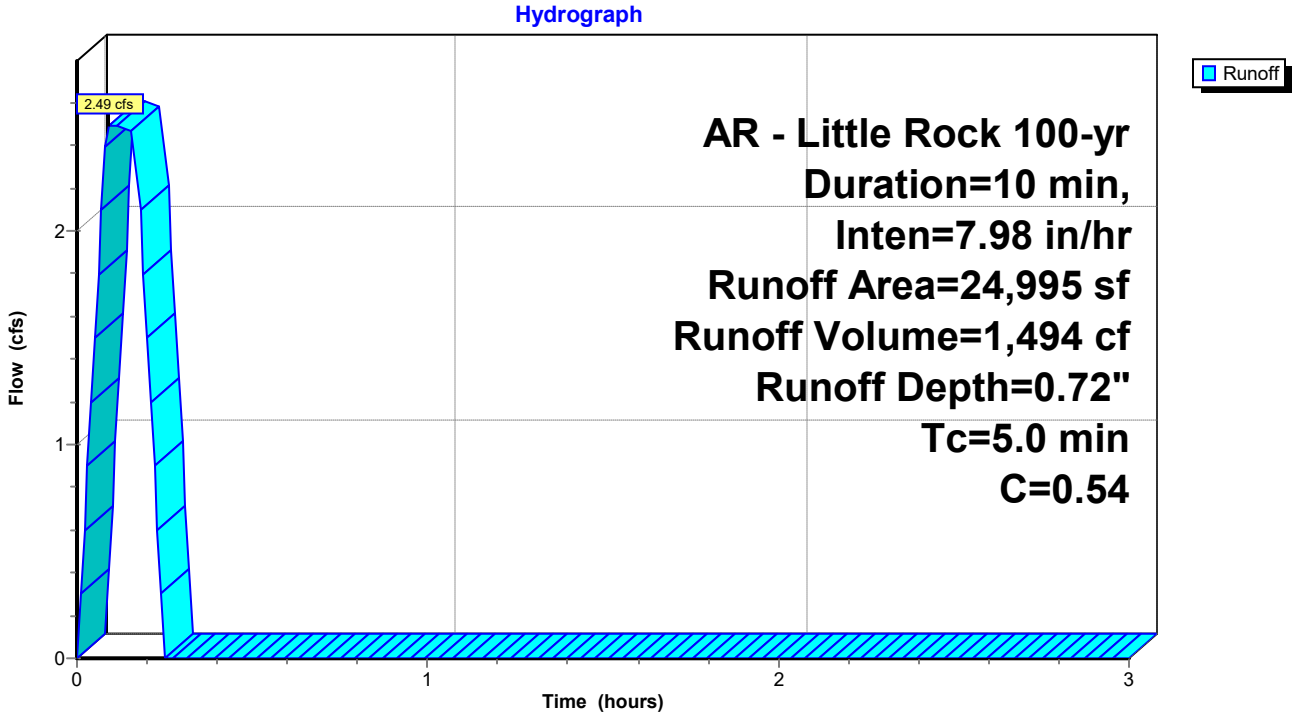
Runoff = 2.49 cfs @ 0.09 hrs, Volume= 1,494 cf, Depth= 0.72"
Routed to Link Post-Dev : APPROX DISCHARGE

Runoff by Rational method, Rise/Fall=1.0/1.0 xTc, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
AR - Little Rock 100-yr Duration=10 min, Inten=7.98 in/hr

Area (sf)	C	Description
18,798	0.40	Sod Yard, Natural Vegetation
6,197	0.95	Paving, Sidewalks
24,995	0.54	Weighted Average
18,798		75.21% Pervious Area
6,197		24.79% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Overland Concentrated Flow (Min)**

Subcatchment D7: Drainage Basin D7



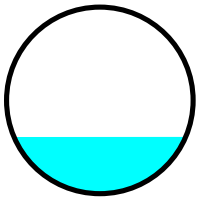
Summary for Reach P-A1: Pipe A1

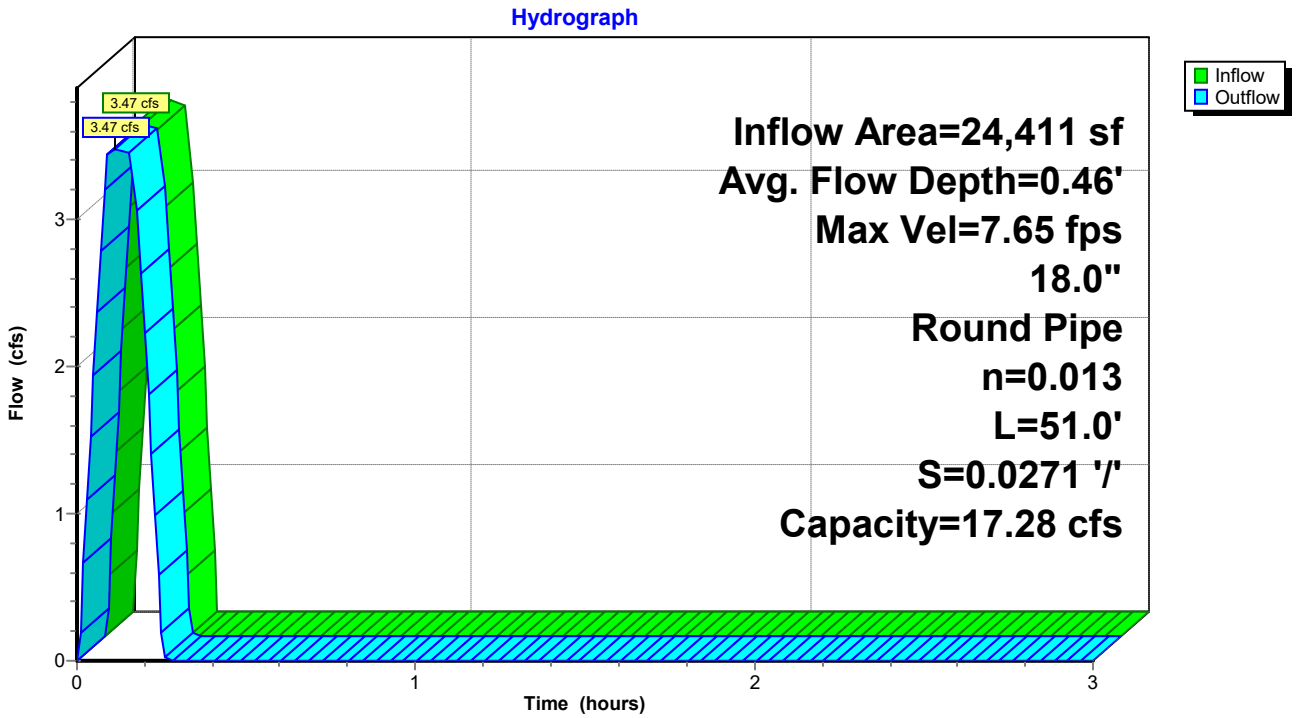
Inflow Area = 24,411 sf, 63.77% Impervious, Inflow Depth = 1.02" for 100-yr event
Inflow = 3.47 cfs @ 0.09 hrs, Volume= 2,080 cf
Outflow = 3.47 cfs @ 0.11 hrs, Volume= 2,080 cf, Atten= 0%, Lag= 1.2 min
Routed to Reach P-A2 : Pipe A2

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 7.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 6.08 fps, Avg. Travel Time= 0.1 min

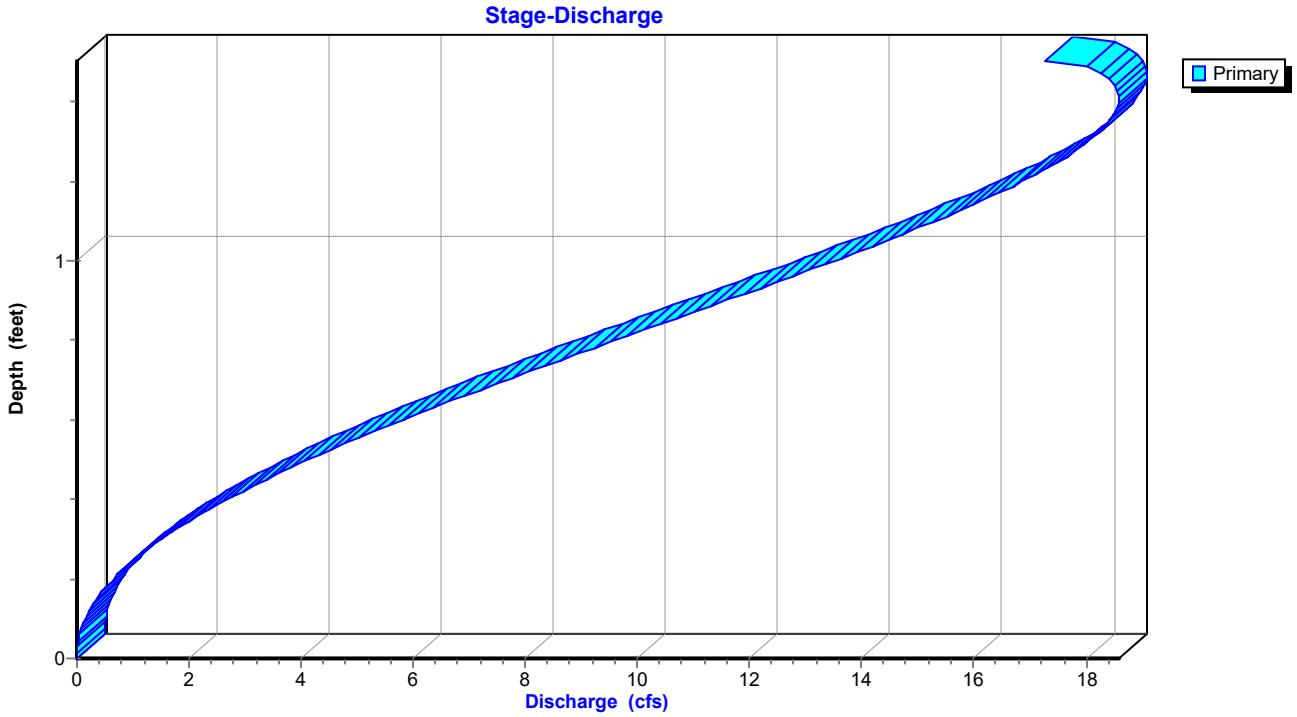
Peak Storage= 23 cf @ 0.09 hrs
Average Depth at Peak Storage= 0.46' , Surface Width= 1.38'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.28 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 51.0' Slope= 0.0271 '/'
Inlet Invert= 408.33', Outlet Invert= 406.95'





Reach P-A1: Pipe A1



Stage-Area-Storage for Reach P-A1: Pipe A1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
408.33	0.0	0
408.35	0.0	0
408.37	0.0	1
408.39	0.0	1
408.41	0.0	2
408.43	0.1	3
408.45	0.1	3
408.47	0.1	4
408.49	0.1	5
408.51	0.1	6
408.53	0.1	7
408.55	0.2	8
408.57	0.2	9
408.59	0.2	10
408.61	0.2	12
408.63	0.3	13
408.65	0.3	14
408.67	0.3	15
408.69	0.3	17
408.71	0.4	18
408.73	0.4	19
408.75	0.4	21
408.77	0.4	22
408.79	0.5	23
408.81	0.5	25
408.83	0.5	26
408.85	0.5	28
408.87	0.6	29
408.89	0.6	31
408.91	0.6	32
408.93	0.7	34
408.95	0.7	35
408.97	0.7	37
408.99	0.7	38
409.01	0.8	40
409.03	0.8	41
409.05	0.8	43
409.07	0.9	44
409.09	0.9	46
409.11	0.9	47
409.13	1.0	49
409.15	1.0	50
409.17	1.0	52
409.19	1.0	53
409.21	1.1	55
409.23	1.1	56
409.25	1.1	58
409.27	1.2	59
409.29	1.2	61
409.31	1.2	62
409.33	1.3	64
409.35	1.3	65
409.37	1.3	67
409.39	1.3	68
409.41	1.4	69
409.43	1.4	71
409.45	1.4	72
409.47	1.4	73
409.49	1.5	75
409.51	1.5	76
409.53	1.5	77
409.55	1.5	78
409.57	1.6	80
409.59	1.6	81
409.61	1.6	82
409.63	1.6	83
409.65	1.6	84
409.67	1.7	85
409.69	1.7	86
409.71	1.7	87
409.73	1.7	88
409.75	1.7	88
409.77	1.7	89
409.79	1.8	89
409.81	1.8	90
409.83	**1.8**	**90**

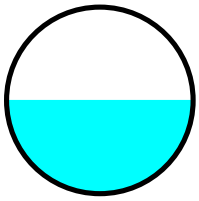
Summary for Reach P-A2: Pipe A2

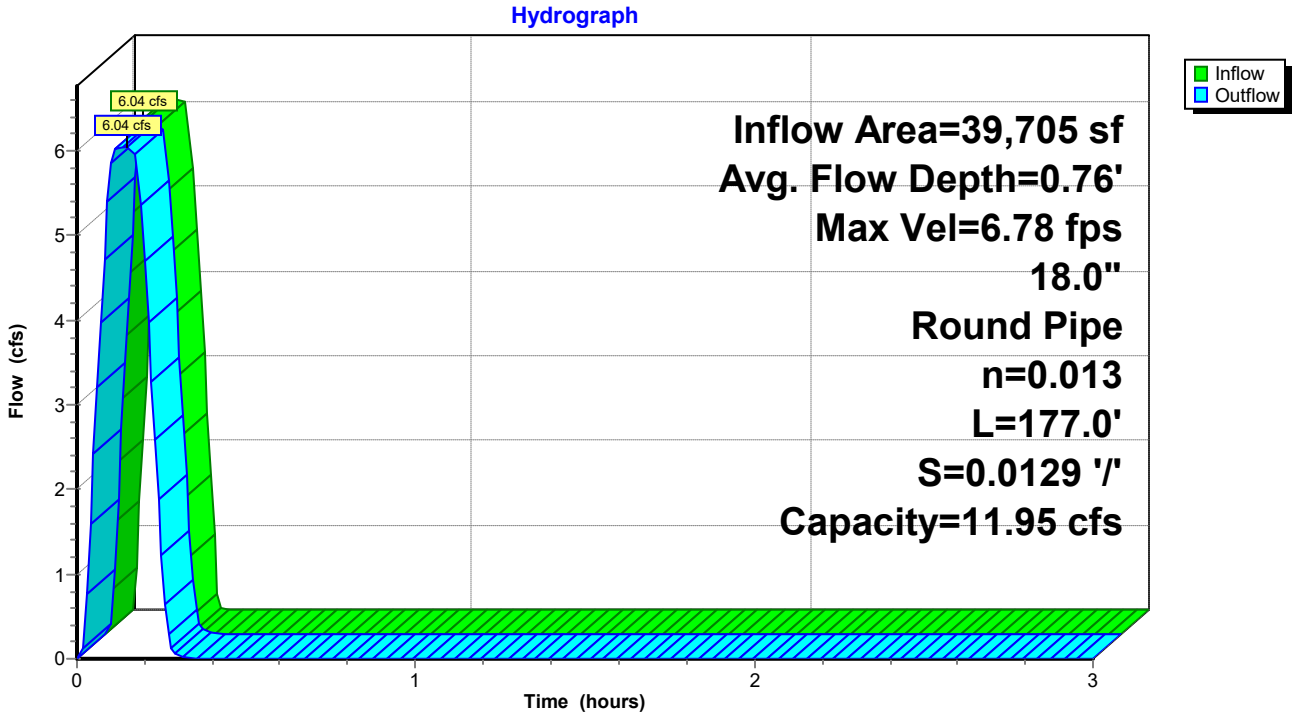
Inflow Area = 39,705 sf, 75.04% Impervious, Inflow Depth = 1.09" for 100-yr event
Inflow = 6.04 cfs @ 0.11 hrs, Volume= 3,620 cf
Outflow = 6.04 cfs @ 0.15 hrs, Volume= 3,620 cf, Atten= 0%, Lag= 2.4 min
Routed to Reach P-A3 : Pipe A3

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 6.78 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.68 fps, Avg. Travel Time= 1.1 min

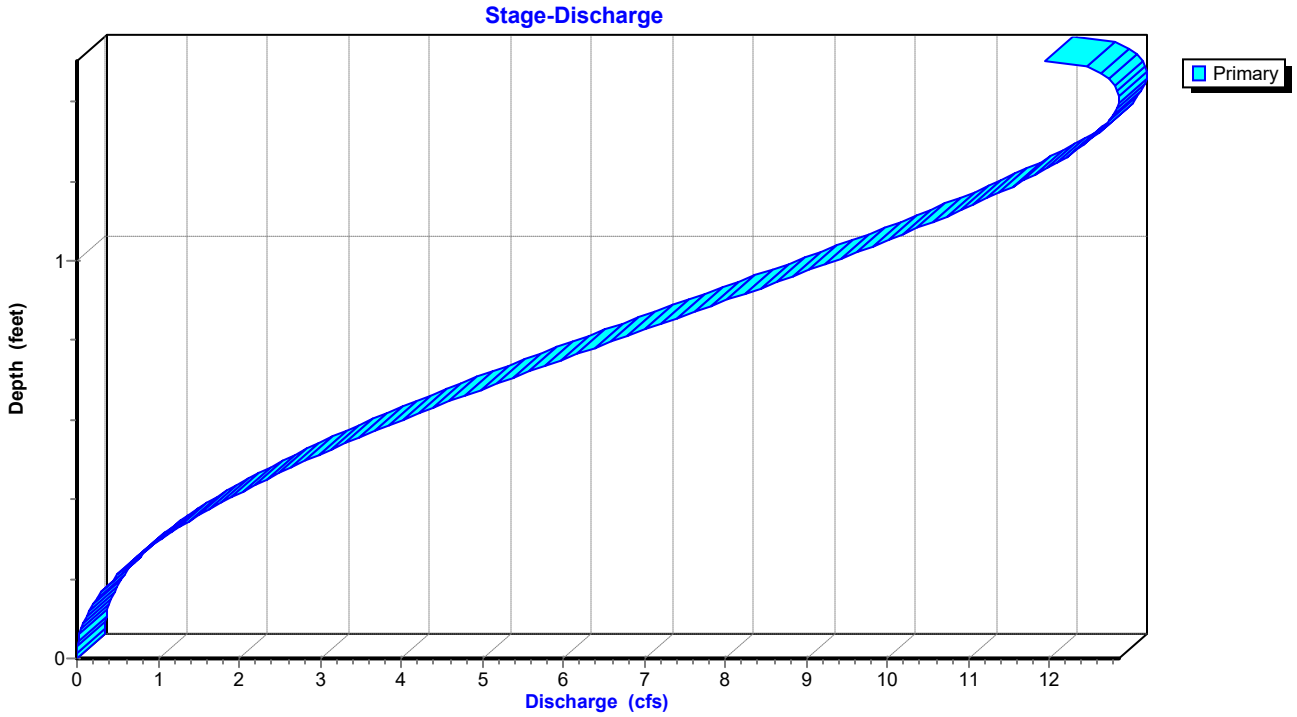
Peak Storage= 158 cf @ 0.12 hrs
Average Depth at Peak Storage= 0.76' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 177.0' Slope= 0.0129 '/'
Inlet Invert= 406.85', Outlet Invert= 404.56'





Reach P-A2: Pipe A2



Stage-Area-Storage for Reach P-A2: Pipe A2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
406.85	0.0	0
406.87	0.0	1
406.89	0.0	2
406.91	0.0	4
406.93	0.0	6
406.95	0.1	9
406.97	0.1	12
406.99	0.1	15
407.01	0.1	18
407.03	0.1	21
407.05	0.1	25
407.07	0.2	28
407.09	0.2	32
407.11	0.2	36
407.13	0.2	40
407.15	0.3	45
407.17	0.3	49
407.19	0.3	53
407.21	0.3	58
407.23	0.4	62
407.25	0.4	67
407.27	0.4	72
407.29	0.4	76
407.31	0.5	81
407.33	0.5	86
407.35	0.5	91
407.37	0.5	96
407.39	0.6	101
407.41	0.6	106
407.43	0.6	112
407.45	0.7	117
407.47	0.7	122
407.49	0.7	127
407.51	0.7	133
407.53	0.8	138
407.55	0.8	143
407.57	0.8	148
407.59	0.9	154
407.61	0.9	159
407.63	0.9	164
407.65	1.0	170
407.67	1.0	175
407.69	1.0	180
407.71	1.0	185
407.73	1.1	191
407.75	1.1	196
407.77	1.1	201
407.79	1.2	206
407.81	1.2	211
407.83	1.2	216
407.85	1.3	222
407.87	1.3	226
407.89	1.3	231
407.91	1.3	236
407.93	1.4	241
407.95	1.4	246
407.97	1.4	250
407.99	1.4	255
408.01	1.5	260
408.03	1.5	264
408.05	1.5	268
408.07	1.5	272
408.09	1.6	277
408.11	1.6	280
408.13	1.6	284
408.15	1.6	288
408.17	1.6	292
408.19	1.7	295
408.21	1.7	298
408.23	1.7	301
408.25	1.7	304
408.27	1.7	306
408.29	1.7	309
408.31	1.8	310
408.33	1.8	312
408.35	**1.8**	**313**

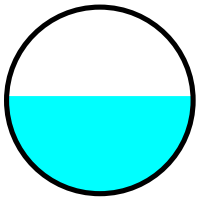
Summary for Reach P-A3: Pipe A3

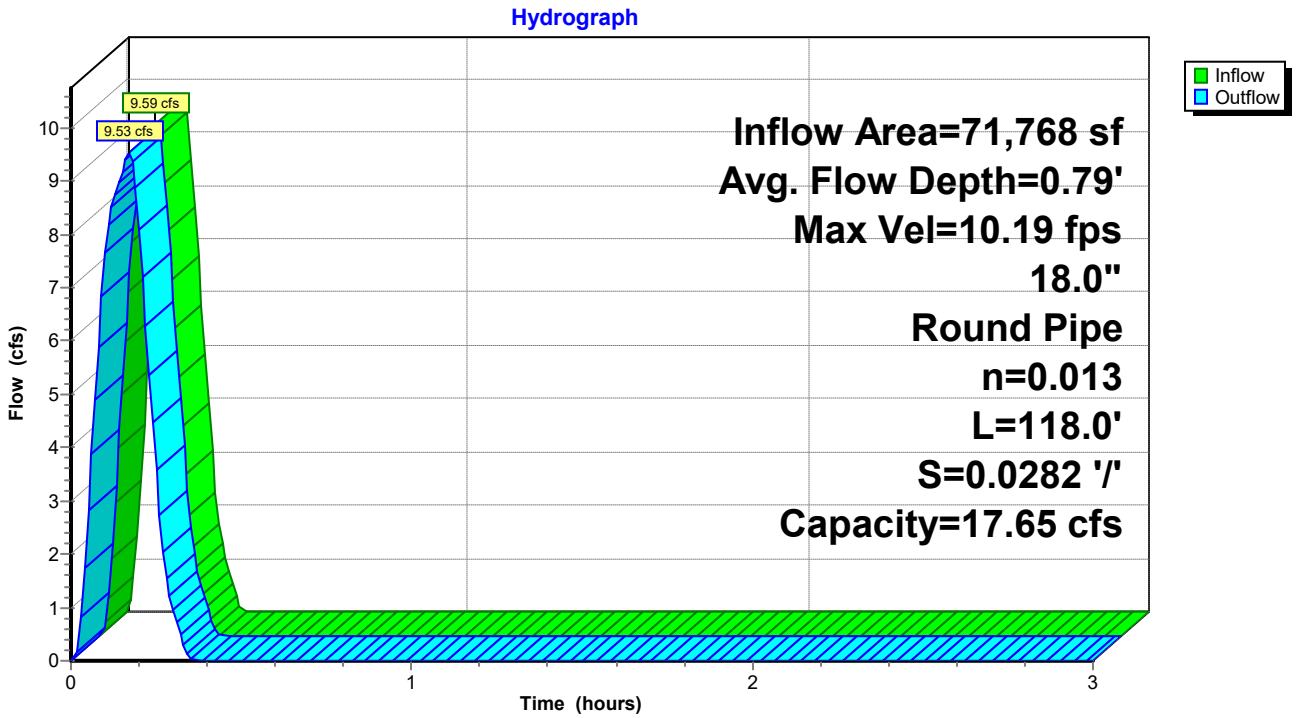
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.97" for 100-yr event
Inflow = 9.59 cfs @ 0.17 hrs, Volume= 5,787 cf
Outflow = 9.53 cfs @ 0.17 hrs, Volume= 5,787 cf, Atten= 1%, Lag= 0.2 min
Routed to Reach P-A4 : Pipe A4

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.19 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.21 fps, Avg. Travel Time= 0.5 min

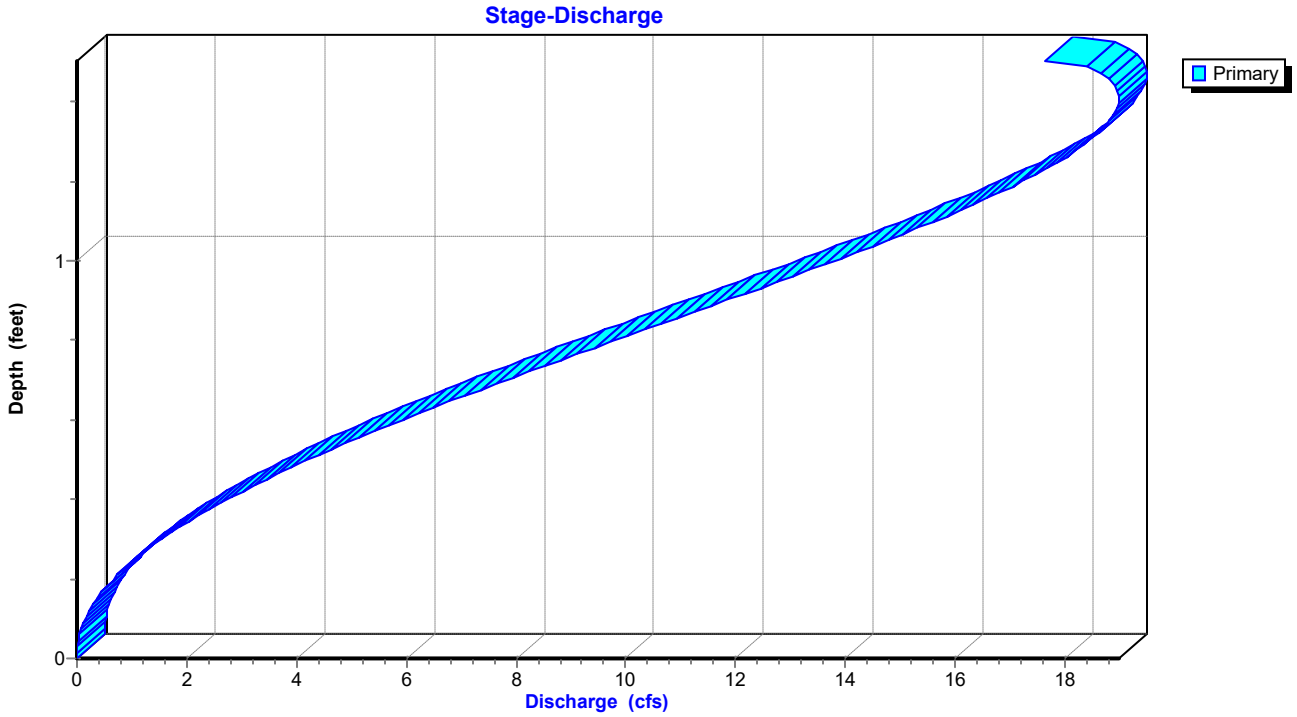
Peak Storage= 111 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.79' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.65 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 118.0' Slope= 0.0282 '/'
Inlet Invert= 404.46', Outlet Invert= 401.13'





Reach P-A3: Pipe A3



Stage-Area-Storage for Reach P-A3: Pipe A3

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
404.46	0.0	0
404.48	0.0	1
404.50	0.0	2
404.52	0.0	3
404.54	0.0	4
404.56	0.1	6
404.58	0.1	8
404.60	0.1	10
404.62	0.1	12
404.64	0.1	14
404.66	0.1	17
404.68	0.2	19
404.70	0.2	22
404.72	0.2	24
404.74	0.2	27
404.76	0.3	30
404.78	0.3	33
404.80	0.3	35
404.82	0.3	38
404.84	0.4	42
404.86	0.4	45
404.88	0.4	48
404.90	0.4	51
404.92	0.5	54
404.94	0.5	58
404.96	0.5	61
404.98	0.5	64
405.00	0.6	68
405.02	0.6	71
405.04	0.6	74
405.06	0.7	78
405.08	0.7	81
405.10	0.7	85
405.12	0.7	88
405.14	0.8	92
405.16	0.8	95
405.18	0.8	99
405.20	0.9	102
405.22	0.9	106
405.24	0.9	110
405.26	1.0	113
405.28	1.0	117
405.30	1.0	120
405.32	1.0	124
405.34	1.1	127
405.36	1.1	131
405.38	1.1	134
405.40	1.2	138
405.42	1.2	141
405.44	1.2	144
405.46	1.3	148
405.48	1.3	151
405.50	1.3	154
405.52	1.3	158
405.54	1.4	161
405.56	1.4	164
405.58	1.4	167
405.60	1.4	170
405.62	1.5	173
405.64	1.5	176
405.66	1.5	179
405.68	1.5	182
405.70	1.6	184
405.72	1.6	187
405.74	1.6	190
405.76	1.6	192
405.78	1.6	194
405.80	1.7	197
405.82	1.7	199
405.84	1.7	201
405.86	1.7	203
405.88	1.7	204
405.90	1.7	206
405.92	1.8	207
405.94	1.8	208
405.96	**1.8**	**209**

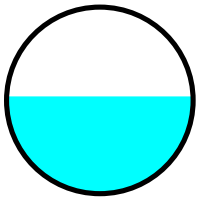
Summary for Reach P-A4: Pipe A4

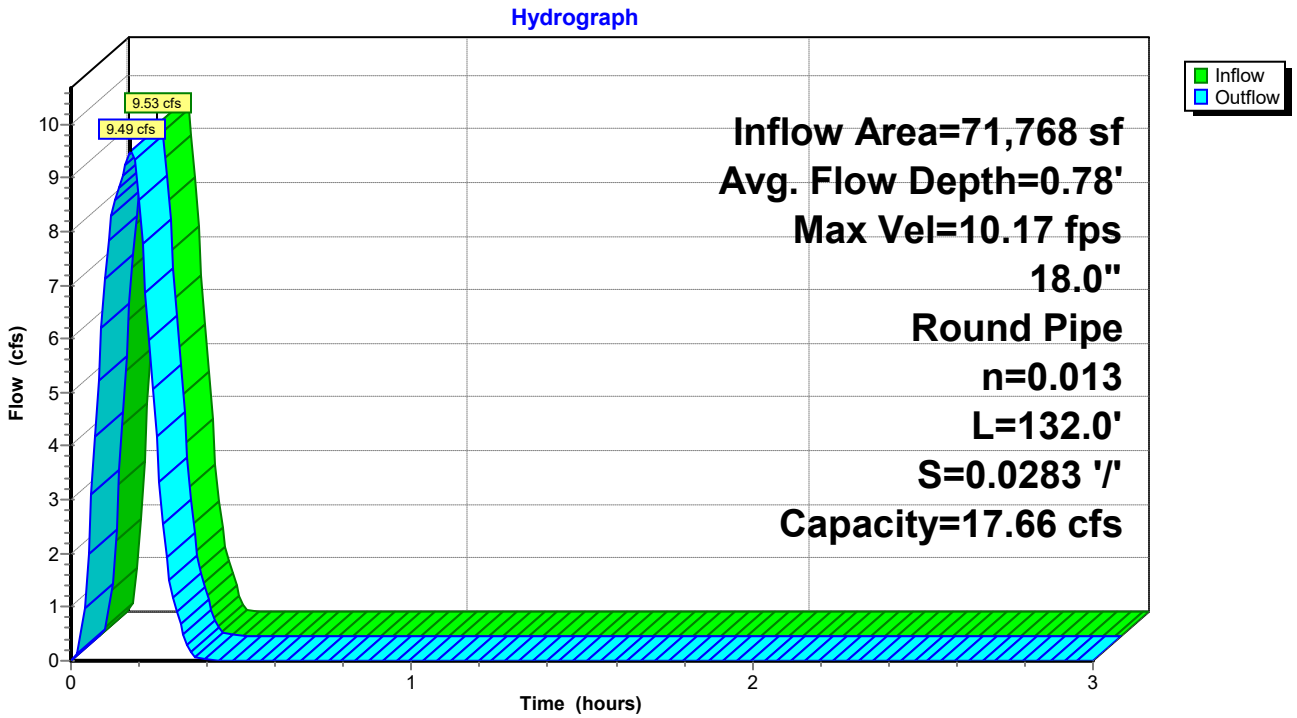
Inflow Area = 71,768 sf, 58.28% Impervious, Inflow Depth = 0.97" for 100-yr event
Inflow = 9.53 cfs @ 0.17 hrs, Volume= 5,787 cf
Outflow = 9.49 cfs @ 0.18 hrs, Volume= 5,787 cf, Atten= 0%, Lag= 0.4 min
Routed to Pond DP1 : Re-Establised East Pond

Routing by Stor-Ind+Trans method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Max. Velocity= 10.17 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.00 fps, Avg. Travel Time= 0.6 min

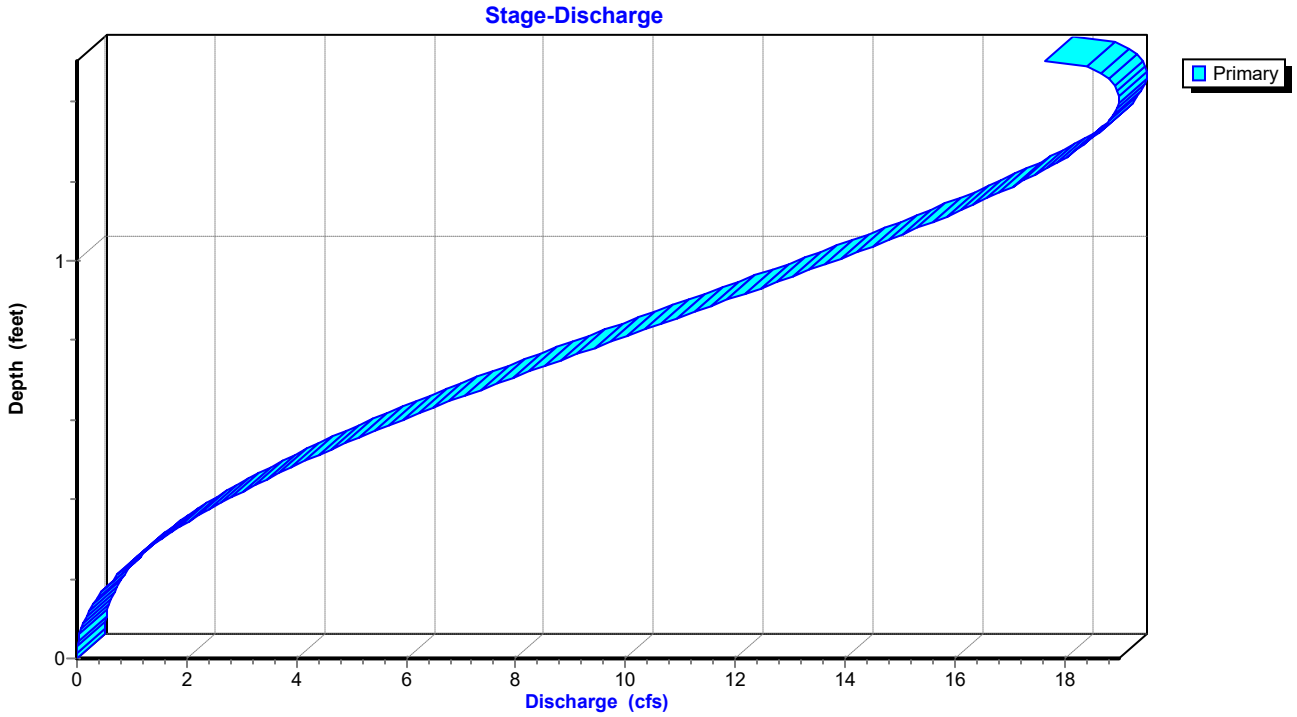
Peak Storage= 123 cf @ 0.17 hrs
Average Depth at Peak Storage= 0.78' , Surface Width= 1.50'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 17.66 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 132.0' Slope= 0.0283 '/'
Inlet Invert= 401.03', Outlet Invert= 397.30'





Reach P-A4: Pipe A4



Stage-Area-Storage for Reach P-A4: Pipe A4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
401.03	0.0	0
401.05	0.0	1
401.07	0.0	2
401.09	0.0	3
401.11	0.0	5
401.13	0.1	7
401.15	0.1	9
401.17	0.1	11
401.19	0.1	13
401.21	0.1	16
401.23	0.1	18
401.25	0.2	21
401.27	0.2	24
401.29	0.2	27
401.31	0.2	30
401.33	0.3	33
401.35	0.3	36
401.37	0.3	40
401.39	0.3	43
401.41	0.4	46
401.43	0.4	50
401.45	0.4	53
401.47	0.4	57
401.49	0.5	61
401.51	0.5	64
401.53	0.5	68
401.55	0.5	72
401.57	0.6	76
401.59	0.6	79
401.61	0.6	83
401.63	0.7	87
401.65	0.7	91
401.67	0.7	95
401.69	0.7	99
401.71	0.8	103
401.73	0.8	107
401.75	0.8	111
401.77	0.9	115
401.79	0.9	119
401.81	0.9	123
401.83	1.0	127
401.85	1.0	130
401.87	1.0	134
401.89	1.0	138
401.91	1.1	142
401.93	1.1	146
401.95	1.1	150
401.97	1.2	154
401.99	1.2	158
402.01	1.2	161
402.03	1.3	165
402.05	1.3	169
402.07	1.3	173
402.09	1.3	176
402.11	1.4	180
402.13	1.4	183
402.15	1.4	187
402.17	1.4	190
402.19	1.5	194
402.21	1.5	197
402.23	1.5	200
402.25	1.5	203
402.27	1.6	206
402.29	1.6	209
402.31	1.6	212
402.33	1.6	215
402.35	1.6	217
402.37	1.7	220
402.39	1.7	222
402.41	1.7	225
402.43	1.7	227
402.45	1.7	228
402.47	1.7	230
402.49	1.8	232
402.51	1.8	233
402.53	**1.8**	**233**

Summary for Pond DP1: Re-Establised East Pond

Inflow Area = 132,514 sf, 61.41% Impervious, Inflow Depth = 0.99" for 100-yr event
Inflow = 17.76 cfs @ 0.16 hrs, Volume= 10,883 cf
Outflow = 9.14 cfs @ 0.22 hrs, Volume= 10,883 cf, Atten= 49%, Lag= 3.8 min
Primary = 9.14 cfs @ 0.22 hrs, Volume= 10,883 cf
Routed to Link Post-Dev : APPROX DISCHARGE

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs
Peak Elev= 398.89' @ 0.22 hrs Storage= 5,867 cf

Plug-Flow detention time= 9.3 min calculated for 10,883 cf (100% of inflow)
Center-of-Mass det. time= 9.1 min (18.0 - 8.8)

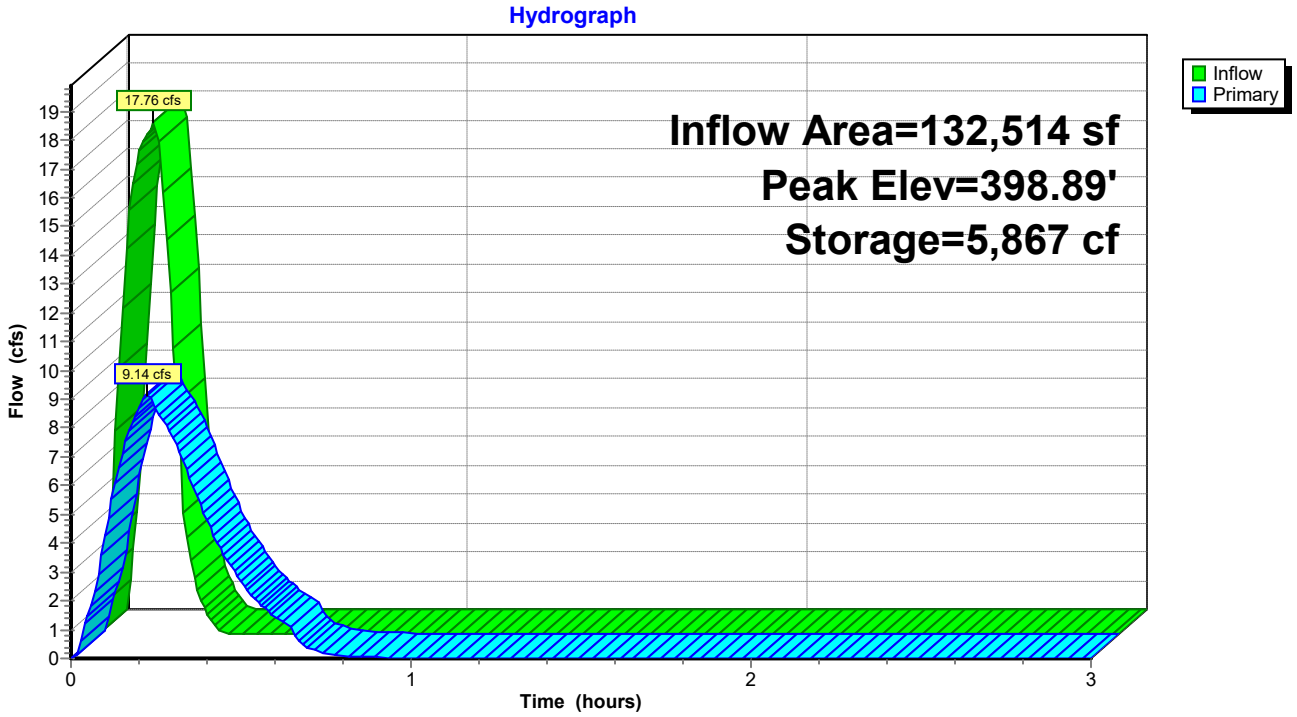
Volume	Invert	Avail.Storage	Storage Description
#1	396.00'	8,557 cf	**Custom Stage Data** Listed below

Elevation (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
396.00	0	0
396.50	250	250
397.00	1,092	1,342
398.00	2,387	3,729
399.00	2,405	6,134
400.00	2,423	8,557

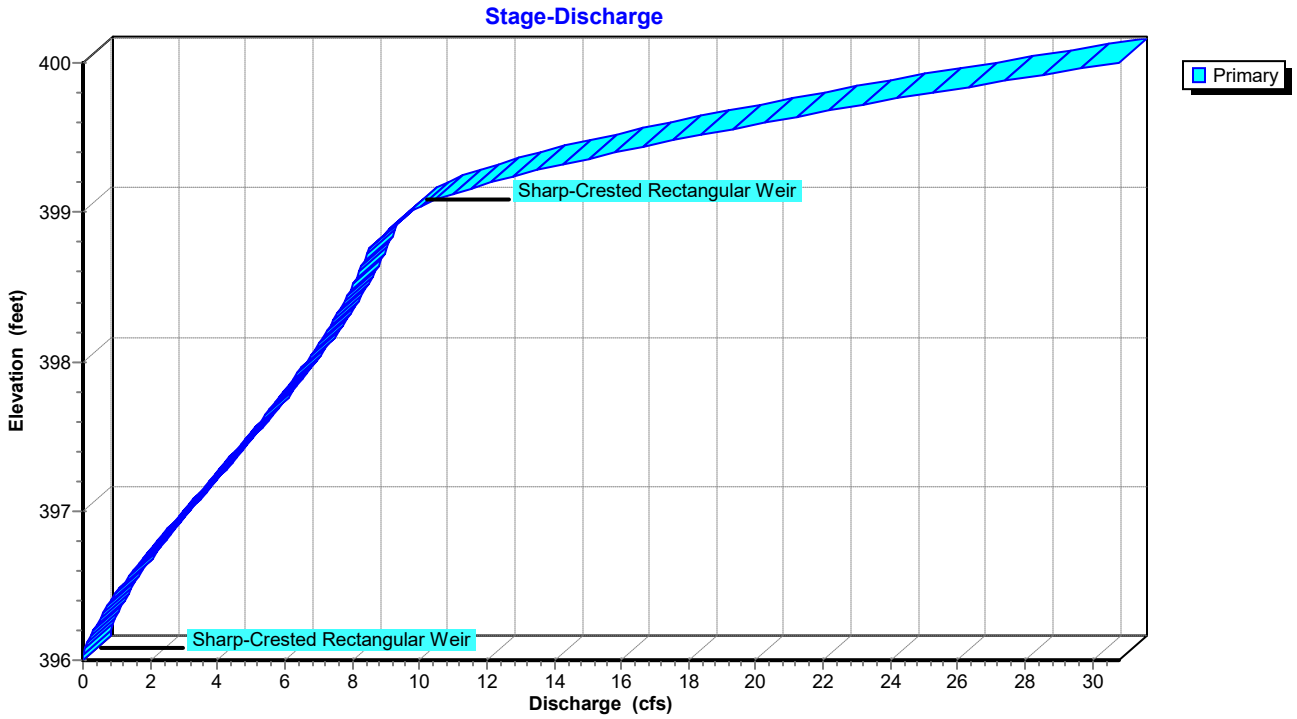
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s)
#2	Primary	396.00'	**1.1' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 10.0' Crest Height

Primary OutFlow Max=9.13 cfs @ 0.22 hrs HW=398.89' (Free Discharge)
1=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
2=Sharp-Crested Rectangular Weir (Weir Controls 9.13 cfs @ 5.75 fps)

Pond DP1: Re-Establised East Pond



Pond DP1: Re-Establised East Pond



Stage-Area-Storage for Pond DP1: Re-Establised East Pond

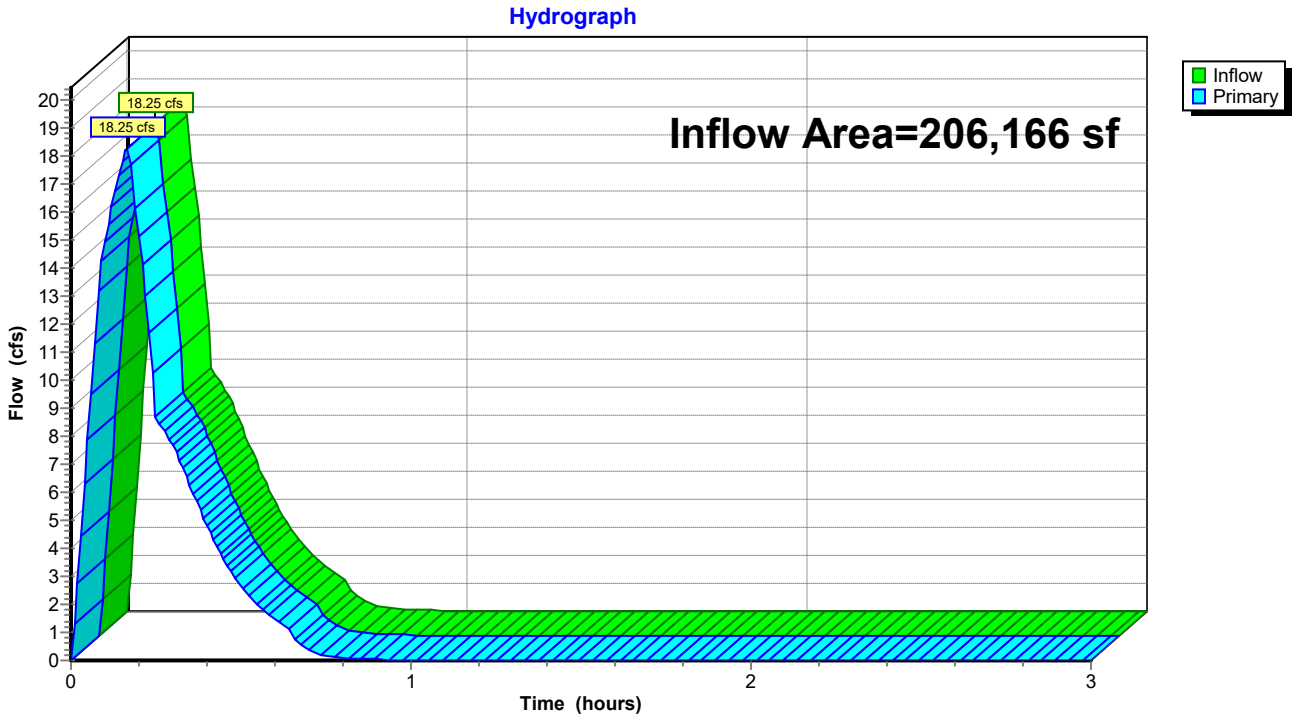
Elevation (feet)	Storage (cubic-feet)
396.00	0
396.05	25
396.10	50
396.15	75
396.20	100
396.25	125
396.30	150
396.35	175
396.40	200
396.45	225
396.50	250
396.55	359
396.60	468
396.65	578
396.70	687
396.75	796
396.80	905
396.85	1,014
396.90	1,124
396.95	1,233
397.00	1,342
397.05	1,461
397.10	1,581
397.15	1,700
397.20	1,819
397.25	1,939
397.30	2,058
397.35	2,177
397.40	2,297
397.45	2,416
397.50	2,536
397.55	2,655
397.60	2,774
397.65	2,894
397.70	3,013
397.75	3,132
397.80	3,252
397.85	3,371
397.90	3,490
397.95	3,610
398.00	3,729
398.05	3,849
398.10	3,970
398.15	4,090
398.20	4,210
398.25	4,330
398.30	4,451
398.35	4,571
398.40	4,691
398.45	4,811
398.50	4,932
398.55	5,052
398.60	5,172
398.65	5,292
398.70	5,412
398.75	5,533
398.80	5,653
398.85	5,773
398.90	5,893
398.95	6,014
399.00	6,134
399.05	6,255
399.10	6,376
399.15	6,497
399.20	6,619
399.25	6,740
399.30	6,861
399.35	6,982
399.40	7,103
399.45	7,224
399.50	7,346
399.55	7,467
399.60	7,588
399.65	7,709
399.70	7,830
399.75	7,951
399.80	8,072
399.85	8,194
399.90	8,315
399.95	8,436
400.00	**8,557**

Summary for Link Post-Dev: APPROX DISCHARGE

Inflow Area = 206,166 sf, 64.42% Impervious, Inflow Depth = 1.01" for 100-yr event
Inflow = 18.25 cfs @ 0.16 hrs, Volume= 17,276 cf
Primary = 18.25 cfs @ 0.16 hrs, Volume= 17,276 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs

Link Post-Dev: APPROX DISCHARGE



STROM SEWER SIZING

Inlet Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Jan 10 2024

AI-A2

Drop Grate Inlet

Location	= Sag
Curb Length (ft)	= -0-
Throat Height (in)	= -0-
Grate Area (sqft)	= 2.00
Grate Width (ft)	= 2.00
Grate Length (ft)	= 2.00

Gutter

Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.050
Local Depr (in)	= -0-
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

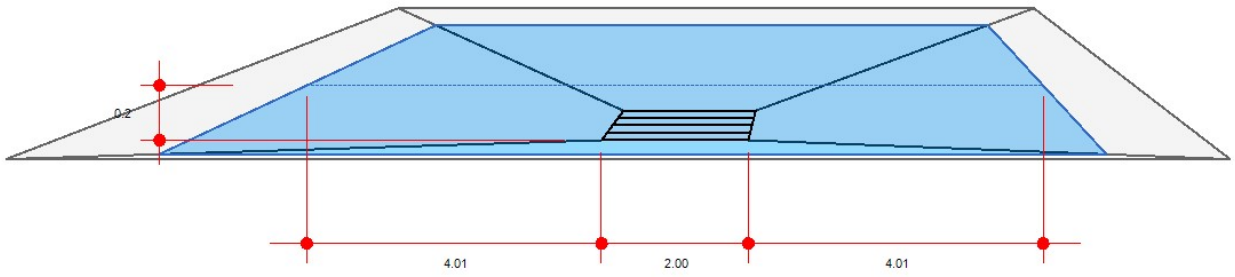
Calculations

Compute by:	Known Q
Q (cfs)	= 2.16

Highlighted

Q Total (cfs)	= 2.16
Q Capt (cfs)	= 2.16
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 2.41
Efficiency (%)	= 100
Gutter Spread (ft)	= 10.03
Gutter Vel (ft/s)	= -0-
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-

All dimensions in feet



Inlet Report

AI-A3

Drop Grate Inlet

Location	= Sag
Curb Length (ft)	= -0-
Throat Height (in)	= -0-
Grate Area (sqft)	= 2.00
Grate Width (ft)	= 2.00
Grate Length (ft)	= 2.00

Gutter

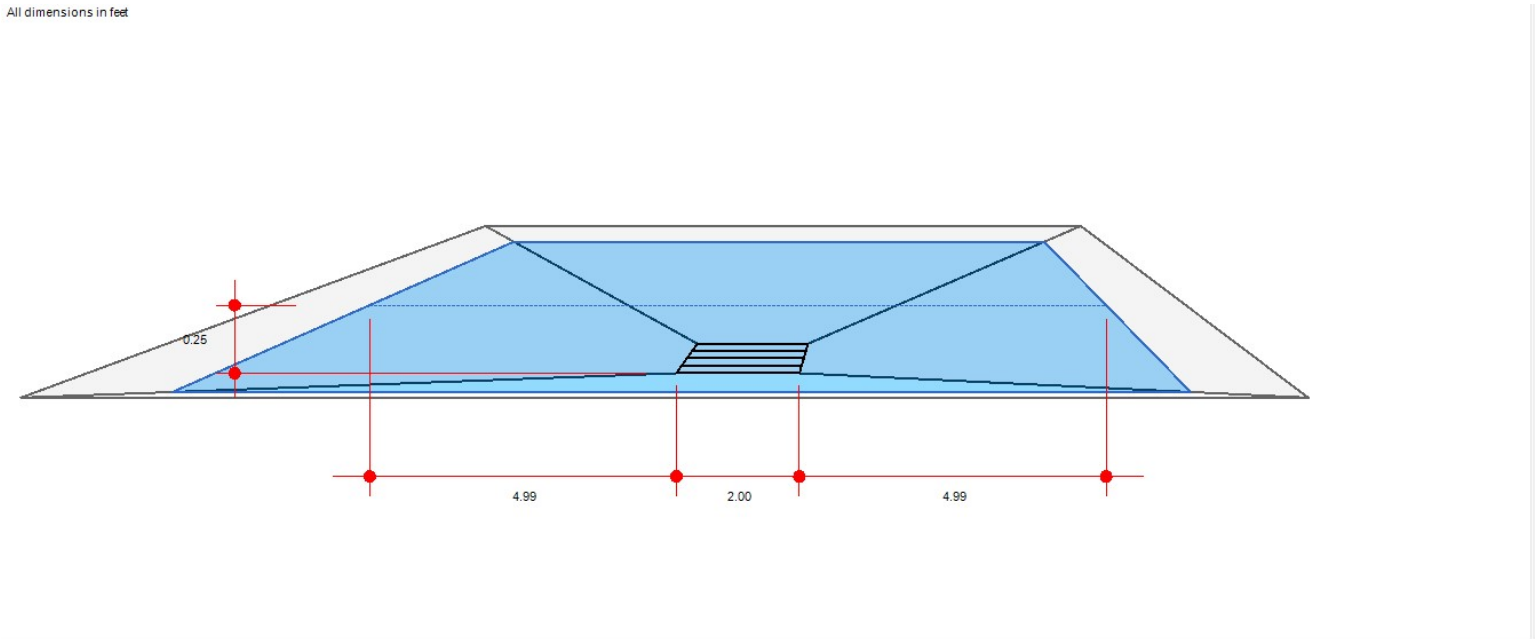
Slope, Sw (ft/ft)	= 0.050
Slope, Sx (ft/ft)	= 0.050
Local Depr (in)	= -0-
Gutter Width (ft)	= 2.00
Gutter Slope (%)	= -0-
Gutter n-value	= -0-

Calculations

Compute by:	Known Q
Q (cfs)	= 2.99

Highlighted

Q Total (cfs)	= 2.99
Q Capt (cfs)	= 2.99
Q Bypass (cfs)	= -0-
Depth at Inlet (in)	= 2.99
Efficiency (%)	= 100
Gutter Spread (ft)	= 11.97
Gutter Vel (ft/s)	= -0-
Bypass Spread (ft)	= -0-
Bypass Depth (in)	= -0-



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jan 11 2024

Pipe A1

Circular

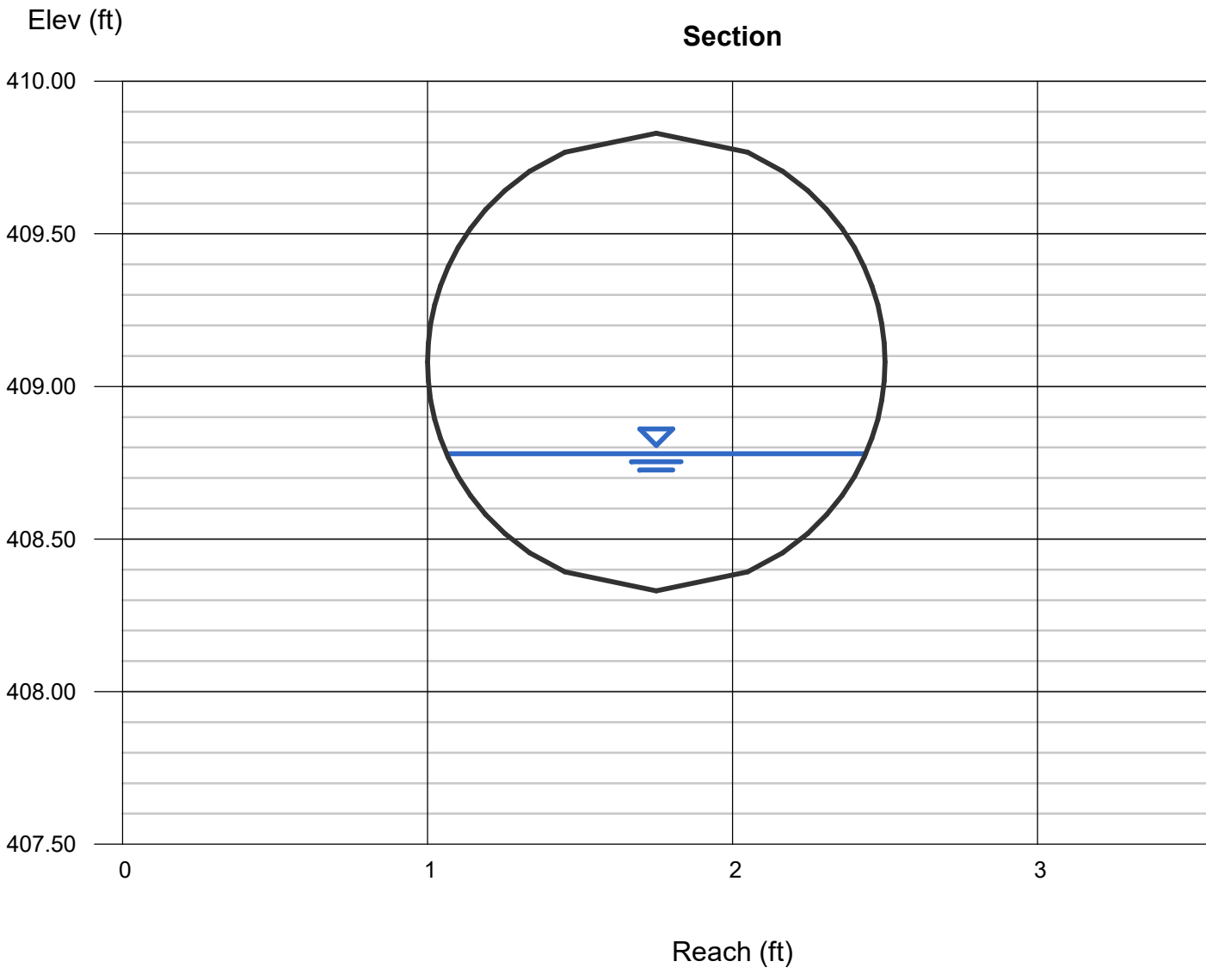
Diameter (ft)	= 1.50
Invert Elev (ft)	= 408.33
Slope (%)	= 2.70
N-Value	= 0.015

Calculations

Compute by:	Known Q
Known Q (cfs)	= 2.92

Highlighted

Depth (ft)	= 0.45
Q (cfs)	= 2.920
Area (sqft)	= 0.45
Velocity (ft/s)	= 6.54
Wetted Perim (ft)	= 1.74
Crit Depth, Yc (ft)	= 0.65
Top Width (ft)	= 1.38
EGL (ft)	= 1.11



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jan 11 2024

Pipe A2

Circular

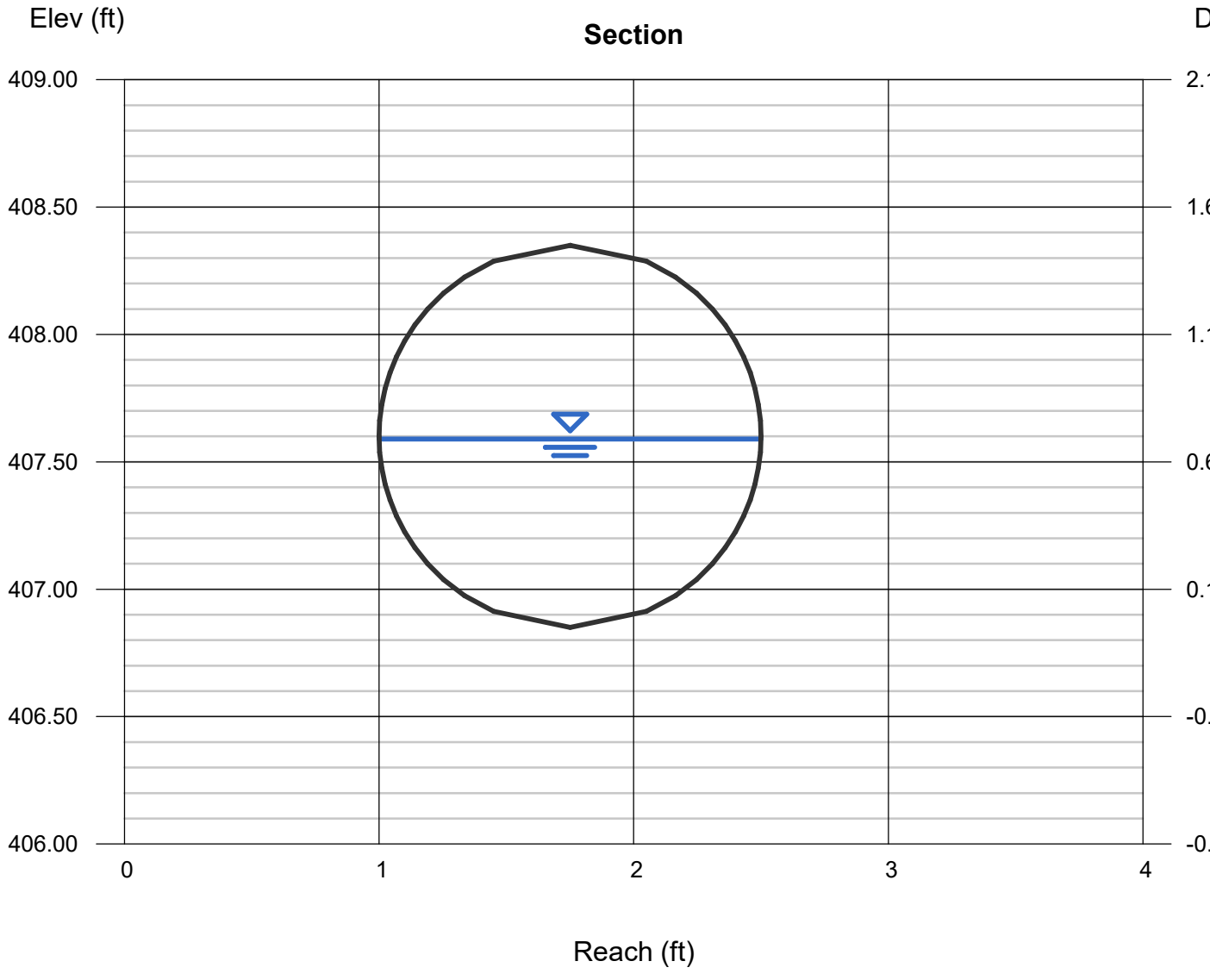
Diameter (ft)	= 1.50
Invert Elev (ft)	= 406.85
Slope (%)	= 1.30
N-Value	= 0.015

Calculations

Compute by:	Known Q
Known Q (cfs)	= 5.09

Highlighted

Depth (ft)	= 0.74
Q (cfs)	= 5.090
Area (sqft)	= 0.87
Velocity (ft/s)	= 5.84
Wetted Perim (ft)	= 2.34
Crit Depth, Yc (ft)	= 0.87
Top Width (ft)	= 1.50
EGL (ft)	= 1.27



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Thursday, Jan 11 2024

Pipe A3

Circular

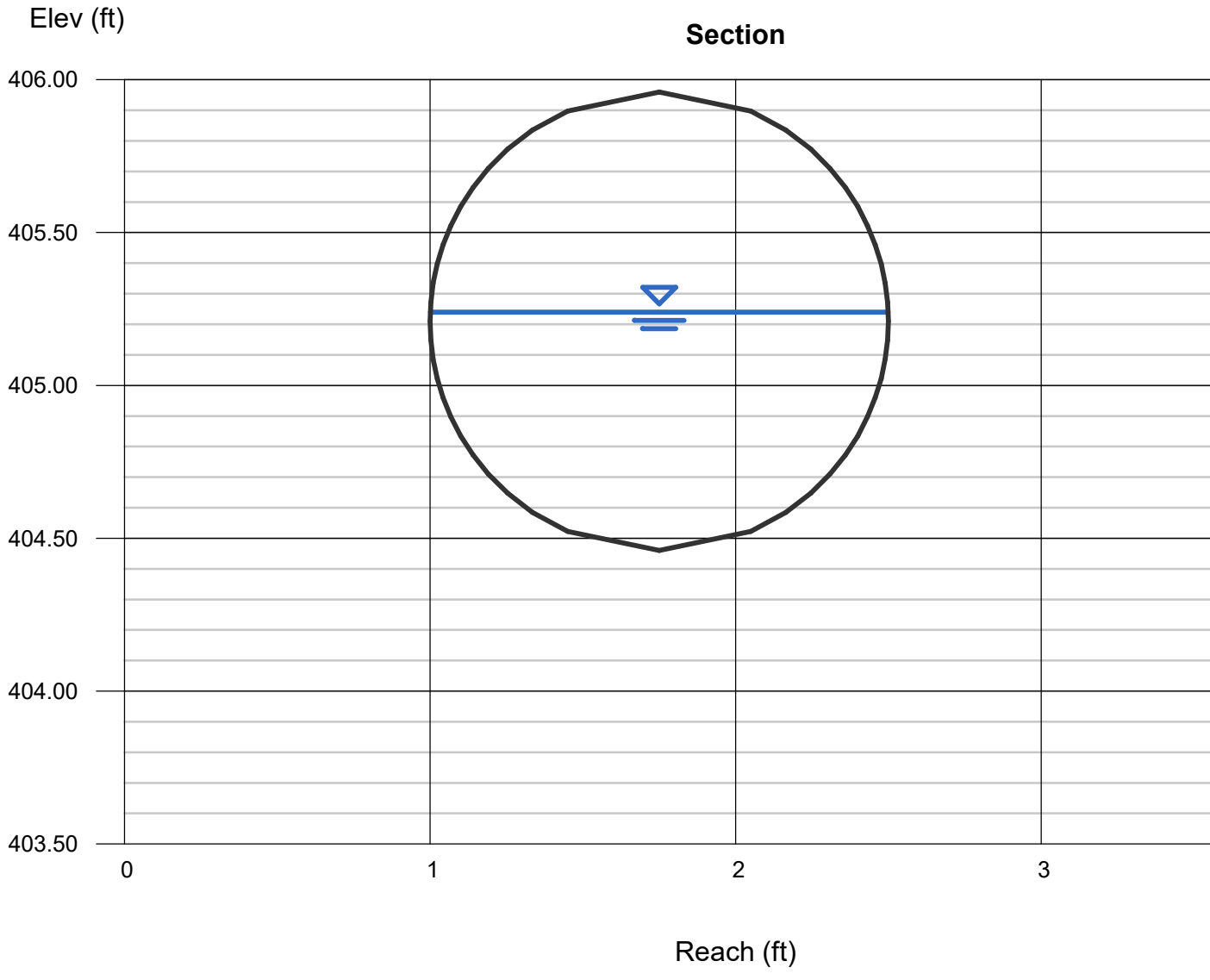
Diameter (ft)	= 1.50
Invert Elev (ft)	= 404.46
Slope (%)	= 2.80
N-Value	= 0.015

Calculations

Compute by:	Known Q
Known Q (cfs)	= 8.02

Highlighted

Depth (ft)	= 0.78
Q (cfs)	= 8.020
Area (sqft)	= 0.93
Velocity (ft/s)	= 8.59
Wetted Perim (ft)	= 2.42
Crit Depth, Yc (ft)	= 1.10
Top Width (ft)	= 1.50
EGL (ft)	= 1.93



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Jan 10 2024

Pipe A4

Circular

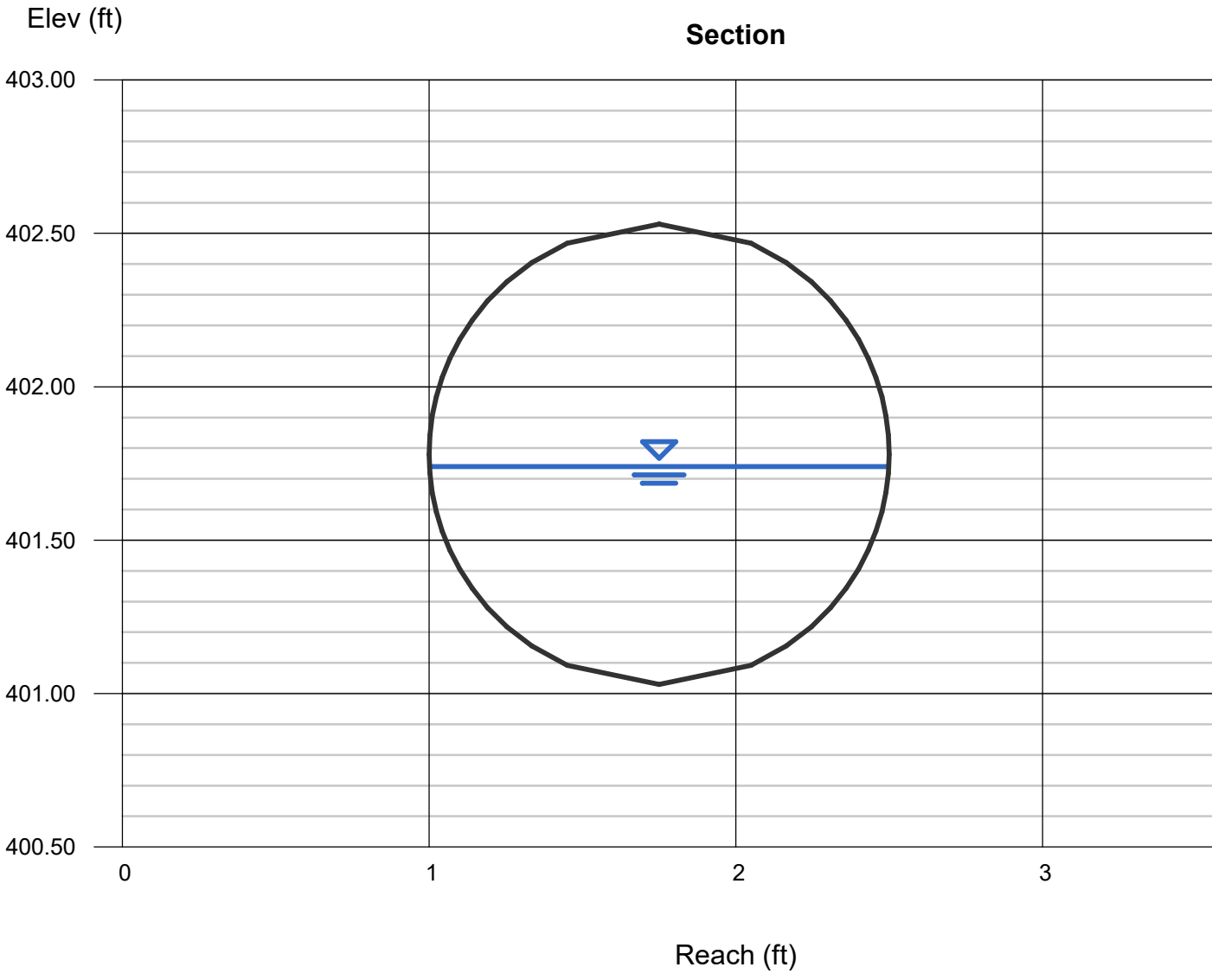
Diameter (ft)	= 1.50
Invert Elev (ft)	= 401.03
Slope (%)	= 2.83
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 8.02

Highlighted

Depth (ft)	= 0.71
Q (cfs)	= 8.020
Area (sqft)	= 0.83
Velocity (ft/s)	= 9.70
Wetted Perim (ft)	= 2.28
Crit Depth, Yc (ft)	= 1.10
Top Width (ft)	= 1.50
EGL (ft)	= 2.17



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Jan 10 2024

5' Curb Cut & Flume to Pond

Rectangular

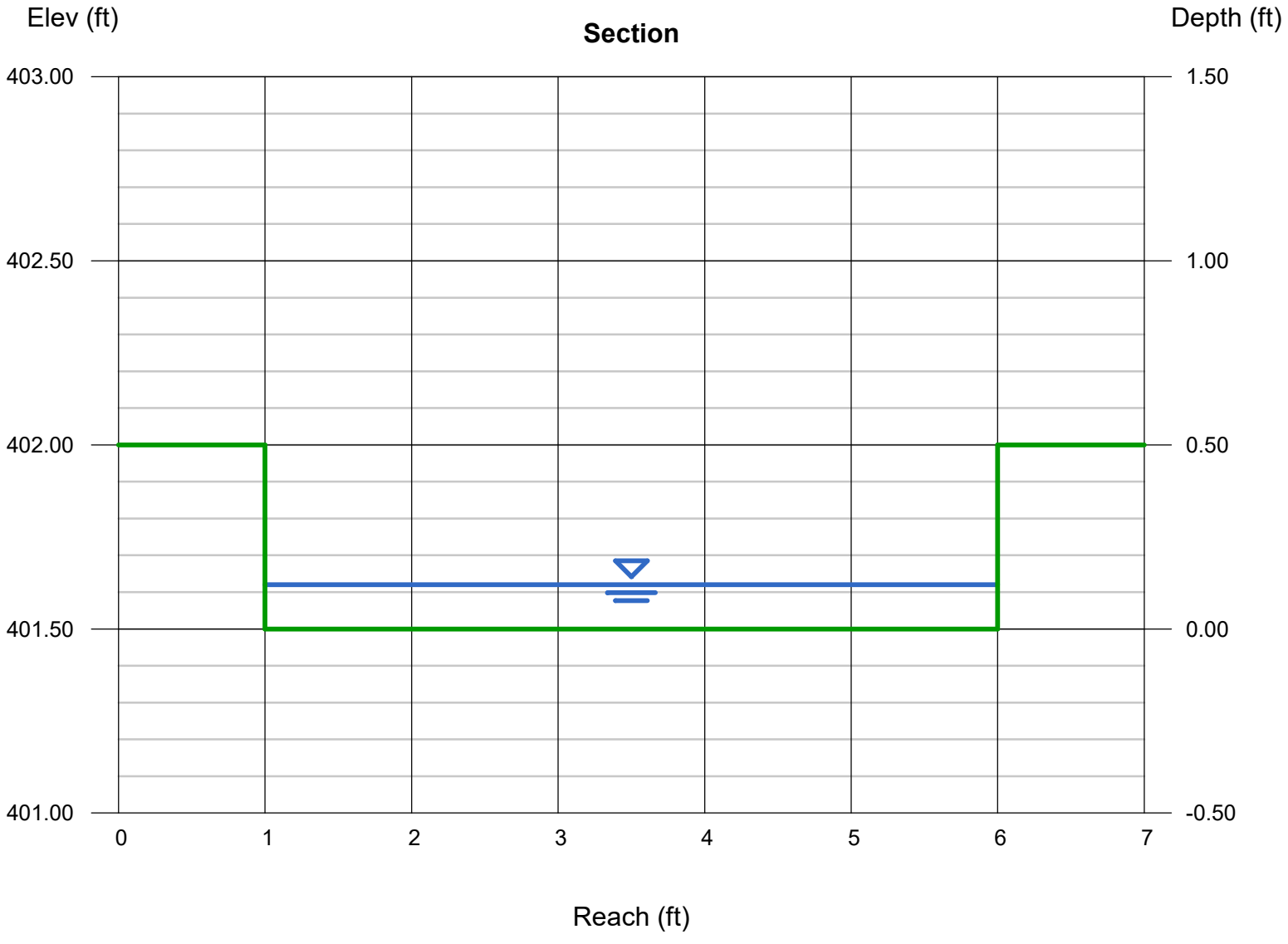
Bottom Width (ft)	= 5.00
Total Depth (ft)	= 0.50
Invert Elev (ft)	= 401.50
Slope (%)	= 15.00
N-Value	= 0.015

Calculations

Compute by:	Known Q
Known Q (cfs)	= 5.15

Highlighted

Depth (ft)	= 0.12
Q (cfs)	= 5.150
Area (sqft)	= 0.60
Velocity (ft/s)	= 8.58
Wetted Perim (ft)	= 5.24
Crit Depth, Yc (ft)	= 0.33
Top Width (ft)	= 5.00
EGL (ft)	= 1.27



Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Jan 10 2024

Curb Cut by Dumpster Pad

Rectangular

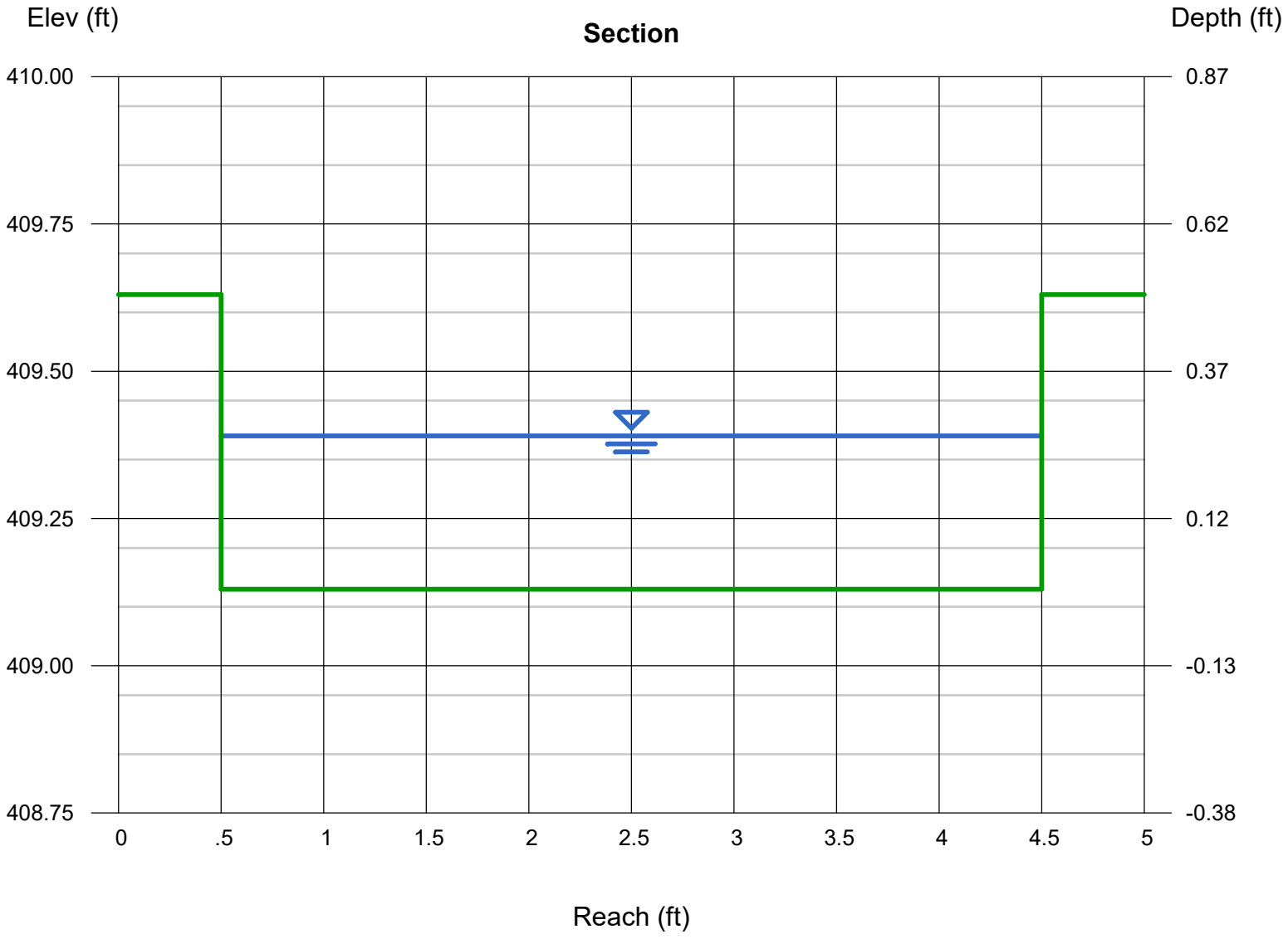
Bottom Width (ft)	= 4.00
Total Depth (ft)	= 0.50
Invert Elev (ft)	= 409.13
Slope (%)	= 5.00
N-Value	= 0.015

Calculations

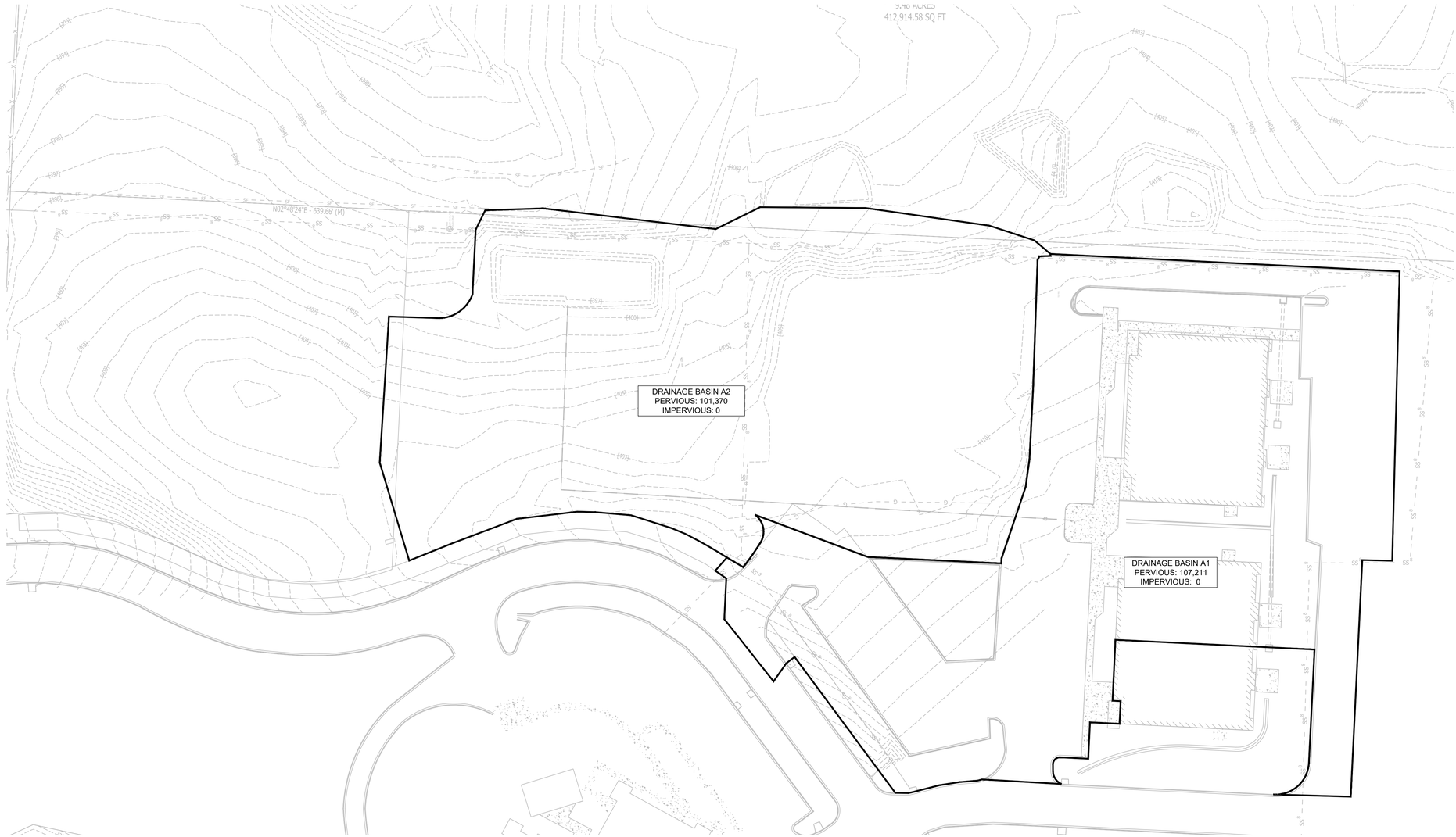
Compute by:	Known Q
Known Q (cfs)	= 8.18

Highlighted

Depth (ft)	= 0.26
Q (cfs)	= 8.180
Area (sqft)	= 1.04
Velocity (ft/s)	= 7.87
Wetted Perim (ft)	= 4.52
Crit Depth, Yc (ft)	= 0.50
Top Width (ft)	= 4.00
EGL (ft)	= 1.22



DRAINAGE BASIN MAPS



PRE DRAINAGE MAP

SCALE 1" = 40'

PHILLIP LEWIS ENGINEERING, INC.
Structural + Civil Consultants
23620 Interstate 30 | Bryant, Arkansas
PH: 501-350-9840

REVISION:

SUMMERWOOD SPORTS GYMNASIUM #3
7817 Hwy 5 N
Bryant, Arkansas

CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
ARKANSAS-ENGINEERS

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

PROJECT NUMBER:

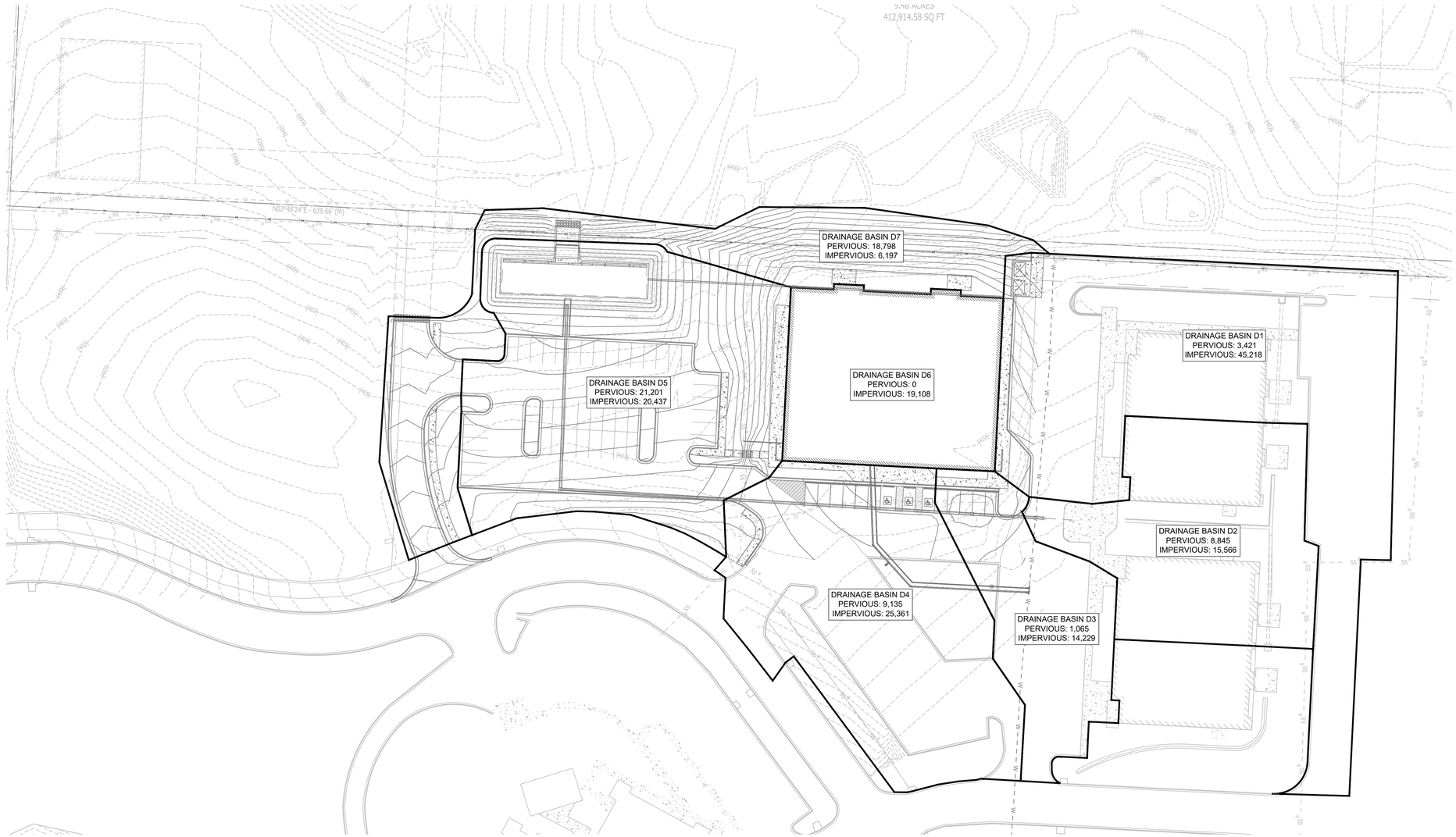
SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
PRE DRAINAGE MAP

SHEET NUMBER:
C1.5

N

0 40'
1" = 40'-0"



POST DRAINAGE MAP

SCALE 1" = 40'

N

0 40'

1" = 40'-0"

PHILLIP LEWIS ENGINEERING, INC.
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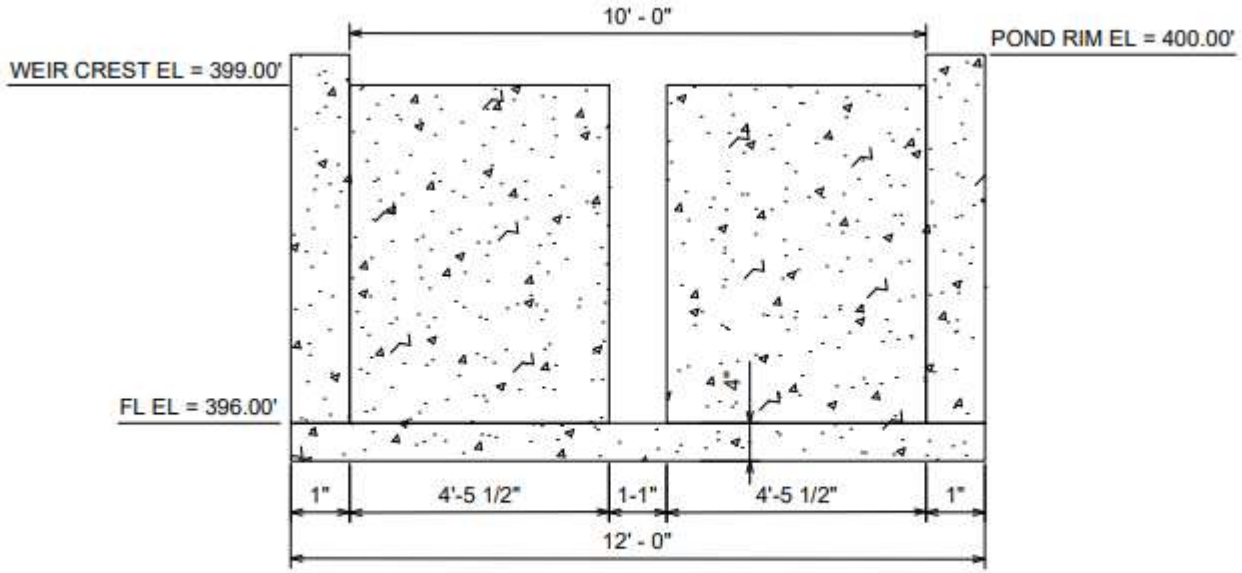
PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
POST DRAINAGE MAP

SHEET NUMBER:
C1.6

DETENTION BASIN OUTLET STRUCTURES



EXISTING DETENTION POND OUTLET STRUCTURE DETAIL NOT TO SCALE

SOIL CLASSIFICATION MAPS

Custom Soil Resource Report
Soil Map



Map Scale: 1:2,250 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

Saline County, Arkansas

29—Tiak silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: m06q
Elevation: 70 to 570 feet
Mean annual precipitation: 44 to 61 inches
Mean annual air temperature: 49 to 74 degrees F
Frost-free period: 185 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Tiak and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tiak

Setting

Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy and clayey marine deposits

Typical profile

A - 0 to 7 inches: silt loam
E - 7 to 9 inches: loam
Bt1 - 9 to 32 inches: clay
Bt2 - 32 to 72 inches: clay

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C/D
Ecological site: F133BY002TX - Seasonally Wet Upland
Hydric soil rating: No

FEMA FLOOD INSURANCE RATE MAP

National Flood Hazard Layer FIRMette

FEMA

92°28'37"W 34°38'34"N



92°28'W 34°38'4"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

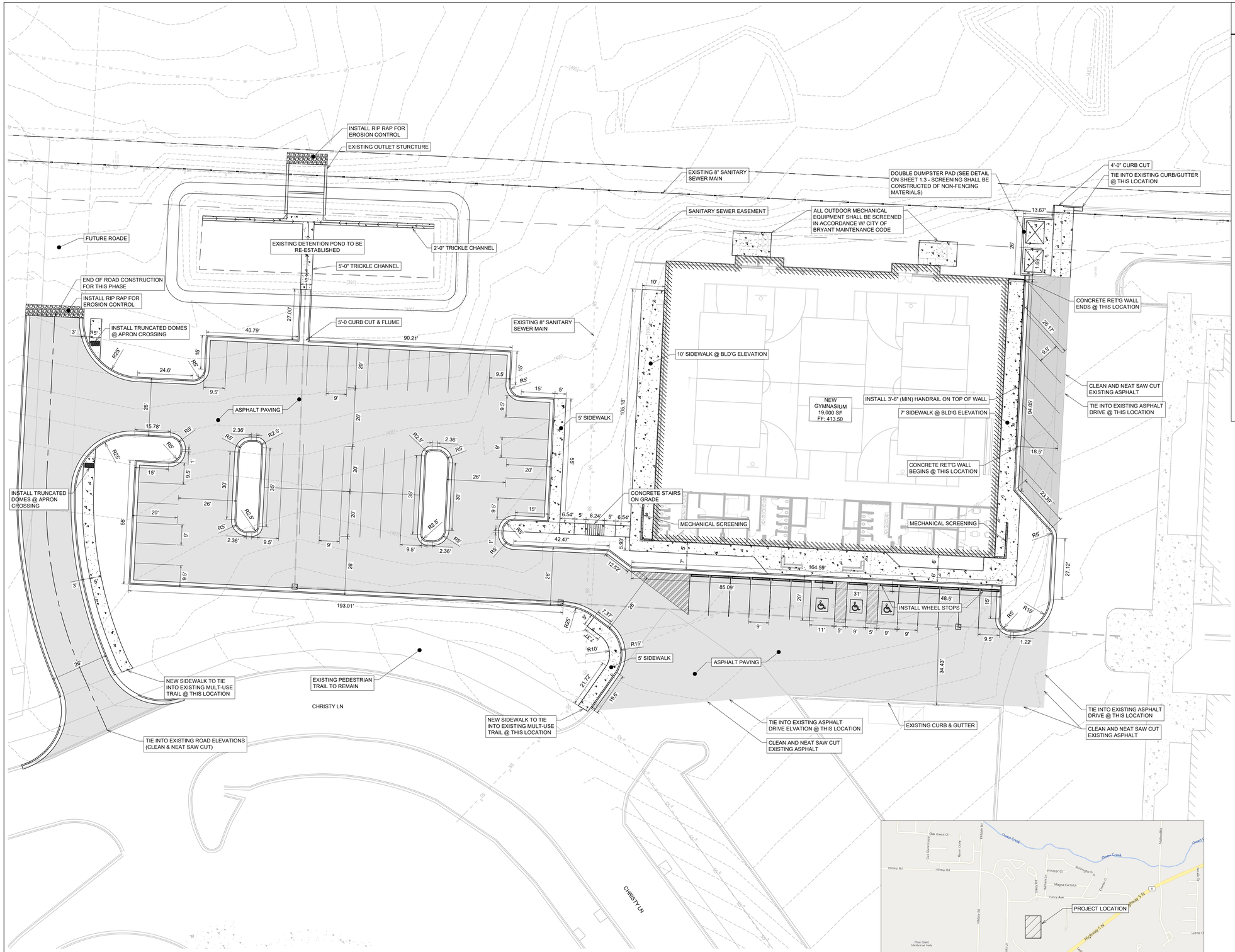
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The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/10/2024 at 5:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



SITE PLAN

SCALE 1" = 20'

1. 64 PARKING SPACES PROVIDED INCLUDING 3 ADA ACCESSIBLE PARKING SPACES
2. ALL DIMENSIONS ARE TO THE BACK OF CURB AND/OR EDGE OF PAVEMENT
3. DAMAGE TO PUBLIC AND PRIVATE PROPERTY DUE TO HAULING OPERATIONS OR OPERATIONS OF CONSTRUCTION RELATED EQUIPMENT FROM A CONSTRUCTION SITE SHALL BE REPAIRED BY THE THE RESPONSIBLE PARTY PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
4. REPAIR, REPLACE, OR EXTEND EXISTING DAMAGED OR MISSING CURB AND GUTTER, SIDEWALK OR RAMPS WITHIN THE PUBLIC RIGHT OF WAY.
5. ALL SIGNAGE, PAVEMENT MARKING AND PARKING LOT STRIPING SHALL CONFORM TO REQUIREMENTS GIVEN IN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). MUTCD REQUIRES THAT PARKING SPACES BE MARKED IN WHITE.

PROJECT LOCATION
Highway 5 N
Owen Creek
Hilton Rd
Dixon Rd
Williams Ln
Magna Carta Ln
Henry Ave
Windsor Ct
Buckingham Ct
Chester Ct
McDonald Rd
Pine Crest Memorial Park
Jessica Ln
Leslie Ln
Woody Dr
Lyons Ct
Oak Grove Ln
Oak Grove Cir
Hilltop Rd
Hilltop Rd
Owen Creek
Owen Creek
Owen Creek

GENERAL CONSTRUCTION NOTES

A. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR DAMAGES OCCURRING TO ANY PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT. SAID CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PROPERTY DAMAGE.

B. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL SOLELY AND COMPLETELY BE RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.

C. THE DUTY OF BRYANT UTILITIES TO CONDUCT CONSTRUCTION INSPECTION REVIEWS OF THE CONTRACTOR'S PERFORMANCE IS NOT AN INSPECTION OR REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

D. ALL WATER AND SEWER IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION TO THE CITY OF BRYANT'S WATER AND WASTEWATER (SANITARY SEWER) STANDARD SPECIFICATIONS.

E. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.

F. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

G. PRIOR TO INSTALLATION OF ANY UTILITIES, THE CONTRACTOR IS TO EXCAVATE, VERIFY AND CALCULATE ALL CROSSINGS AND INFORM ANY AND ALL UTILITIES OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

H. CONSTRUCTION SHALL NOT START ON ANY WATER UTILITY TIE-INS UNTIL APPROVAL IS GIVEN BY BRYANT UTILITIES. SAID CONTRACTOR SHALL NOT OPERATE ANY VALVE, HYDRANT, OR WATER UTILITY APPURTENANCE NOR SHALL HE ATTACH TO OR TAP ANY WATER UTILITY MAIN WITHOUT APPROVAL. THE CONTRACTOR SHALL BEAR THE COST AND CONSEQUENCE OF ANY DISRUPTION OF UTILITY OPERATION CAUSED BY CONSTRUCTION.

I. FIBER OPTIC CABLE ON AND/OR ADJACENT TO THIS SITE WERE NOT LOCATED BY THE SURVEY AND ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY FIBER OPTIC CABLES ASSOCIATED WITH THIS SITE AND TAKE ALL NECESSARY AND REQUIRED PRECAUTIONS TO PROTECT ANY EXISTING FIBER OPTIC CABLES. CONTRACTORS SHALL COORDINATE ALL EFFORTS WITH OWNER OF FIBER OPTIC CABLES OR THEIR DESIGNATED REPRESENTATIVE.

J. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "ONECALL" SERVICE TO MARK ALL UTILITIES PRIOR TO ANY DEMOLITION, EARTHWORK, OR UTILITY WORK ON THIS SITE.

NEW GYMNASIUM 19,000 SF FF: 413.50

INSTALL HANDRAIL ON TOP OF WALL

TRENCH DRAIN

RIM EL: 400.00

CHRISTY LN

GRADING PLAN

SCALE 1" = 20'

G = GUTTER ELEVATION

TP = TOP OF PAVEMENT ELEVATION

TOC = TOP OF CONCRETE ELEVATION

FG = FINAL GRADE ELEVATION (NON PAVED AREAS)

TC = TOP OF CURB ELEVATION

TOW = TOP OF WALL

CONCRETE RAMP/STAIRS

SCALE 1" = 10'

ADA PARKING

SCALE 1" = 10'

PHILLIP LEWIS ENGINEERING, INC.
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23620 Interstate 30 | Bryant, Arkansas
PH: 501-350-9840

REVISION:

SUMMERWOOD SPORTS GYMNASIUM #3
7817 Hwy 5 N
Bryant, Arkansas

CERTIFICATE OF AUTHORIZATION — PHILLIP LEWIS ENGINEERING, INC. — No. 566 — ARKANSAS ENGINEERING

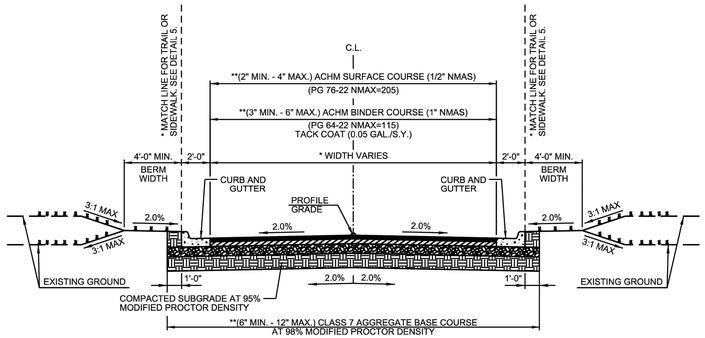
STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 9540 — PHILLIP A. LEWIS

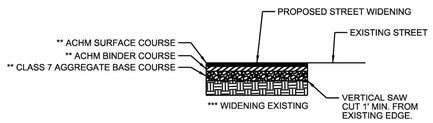
PROJECT NUMBER:

SHEET ISSUE DATE: 1/10/2024

PAGE TITLE: GRADING PLAN

SHEET NUMBER: C1.2





GENERAL NOTES

1. IN AREAS TO RECEIVE BITUMINOUS PAVING, CONCRETE DRIVEWAYS OR CURB AND GUTTER, SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 95% OF MAXIMUM MODIFIED DENSITY OBTAINED AT OPTIMUM MOISTURE CONTENT.
2. FOR AREAS OF SUBGRADE PREPARATION TO RECEIVE CONCRETE SIDEWALKS, SUBGRADE SHALL BE COMPACTED TO DENSITY OF 90% MAXIMUM MODIFIED DENSITY.
3. CRUSHED STONE - MATERIAL IN EACH COURSE SHALL BE COMPACTED TO A DENSITY OF 98% MAXIMUM MODIFIED DENSITY.
4. ACHM BASE COURSE (4" MIN. - 12" MAX) (1 1/2" NMAS) MAY BE USED IF INCLUDED IN AN APPROVED PAVEMENT DESIGN.

* CROSS SECTIONS AND RIGHT-OF-WAY SHALL ADHERE TO THE MINIMUM WIDTH REQUIREMENTS SHOWN IN THE CITY OF BRYANT MASTER TRANSPORTATION PLAN. THE DEVELOPMENT REVIEW COMMITTEE SHALL DETERMINE WHICH VERSION OF STREET CLASSIFICATION AND WHAT WIDTHS WILL BE REQUIRED.

** THICKNESS TO BE DETERMINED BY PAVEMENT DESIGN IN ACCORDANCE WITH SECTION 5.0 OF THE MINIMUM STANDARD SPECIFICATIONS FOR STREETS.

*** PAVEMENT RECONSTRUCTION TO CENTERLINE IS REQUIRED WHEN EXISTING STREET DOES NOT MEET THESE STANDARDS.

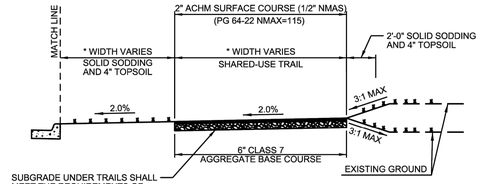
CITY OF BRYANT

TYPICAL SECTION MINOR ARTERIAL

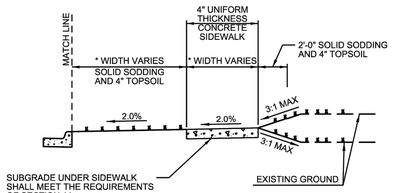
ISSUE DATE: AUGUST 2021

DETAIL 1

REVISION DATE:



SHARED-USE TRAIL END CONDITION



SIDEWALK END CONDITION

* WIDTH SHALL ADHERE TO THE MINIMUM WIDTH REQUIREMENTS SHOWN IN THE CITY OF BRYANT MASTER TRANSPORTATION PLAN. THE DEVELOPMENT REVIEW COMMITTEE SHALL DETERMINE WHICH VERSION OF STREET CLASSIFICATION AND WHAT WIDTHS WILL BE REQUIRED.

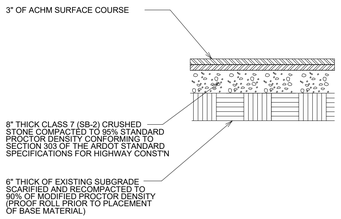
CITY OF BRYANT

TYPICAL SECTION END CONDITIONS

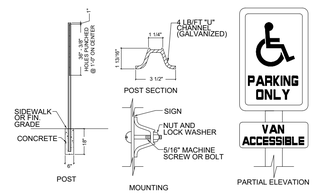
ISSUE DATE: AUGUST 2021

DETAIL 5

REVISION DATE:

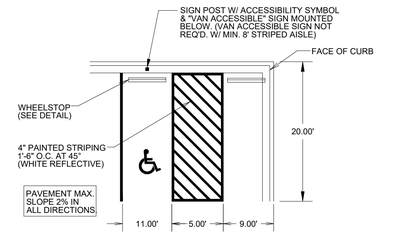


HMAC ASPHALT SURFACE COURSE MEDIUM DUTY — NOT TO SCALE

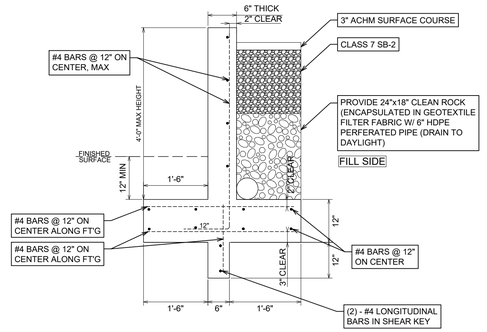


HANDICAP SIGN DETAIL — NOT TO SCALE

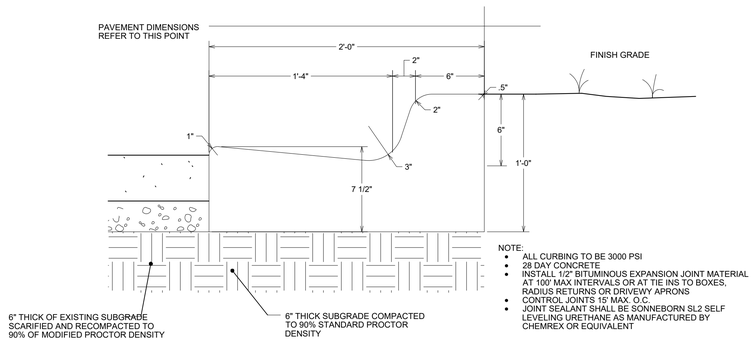
NOTE:
HANDICAP SIGNAGE SHALL BE IN STRICT COMPLIANCE WITH CURRENT FEDERAL AND LOCAL LAW REQUIREMENTS



TYPICAL ACCESSIBLE PARKING STALLS

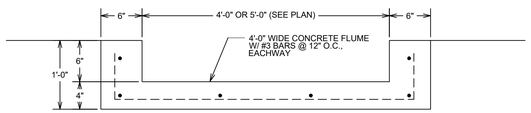


RETAINING WALL — NOT TO SCALE

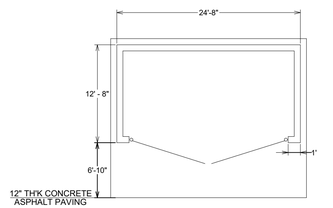


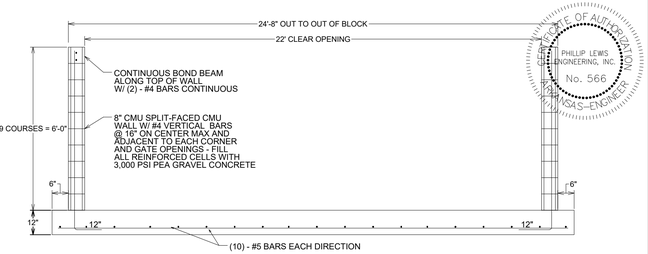
NOTE:
- ALL CURBING TO BE 3000 PSI
- 28 DAY CONCRETE
- INSTALL 1/2" BITUMINOUS EXPANSION JOINT MATERIAL AT 100' MAX INTERVALS OR AT TIE INS TO BOXES, RADIUS RETURNS OR DRIVEWY APRONS
- CONTROL JOINTS 15' MAX. O.C.
- JOINT SEALANT SHALL BE SONNEBORN SL2 SELF LEVELING URETHANE AS MANUFACTURED BY CHEMREX OR EQUIVALENT

2'-0" CONCRETE CURB & GUTTER — NOT TO SCALE



CONCRETE FLUME DETAIL — NOT TO SCALE





DUMPSTER PAD/ENCLOSURE DETAIL — NOT TO SCALE

PHILLIP LEWIS ENGINEERING, INC.
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7817 Hwy 5 N
Bryant, Arkansas

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 566 — PHILLIP O. LEWIS — CERTIFICATE OF AUTHORIZATION — PHILLIP LEWIS ENGINEERING, INC. — ARKANSAS ENGINEER

PROJECT NUMBER:

SHEET ISSUE DATE: 1/10/2024

PAGE TITLE: SITE DETAILS

SHEET NUMBER: C1.3

105 LF of 12" HDPE
DOWNSPOUT COLLECTOR PIPE

150 LF of 12" HDPE
DOWNSPOUT COLLECTOR PIPE

TIE TRENCH DRAIN RELEASE
INTO COLLECTOR PIPE

INSTALL NDS DURA
SLOPE CHANNEL DRAIN

NEW
GYMNASIUM
19,000 SF
FF: 413.50

INLINE DRAIN TO BE SPLICED
INTO EXISTING 18" HDPE PIPE

JB-A4
JUNCTION BOX
STA: 3+46.29
RIM 409.52
SUMP: 401.03
INV IN: 401.13 18" EXISTING HDPE FROM JB-A3
INV OUT: 401.10 18 EXISTING HDPE TO DETENTION POND

JB-A3
NYLOPLAST INLINE DRAINS
W/ 2'x2' GRATE
STA: 2+28.01
RIM: 409.38
SUMP: 404.56
INV IN: 404.56 18" EXISTING HDPE FROM JB-A2
INV OUT: 404.56 18" EXISTING HDPE TO JB-A4

JB-A2
NYLOPLAST INLINE DRAIN
W/ 2'x2' GRATE
STA: 0+51.09
RIM: 412.25
SUMP: 406.95
INV IN: 406.95 18" EXISTING HDPE FROM
INV OUT: 406.95 18" EXISTING HDPE TO JB-A3

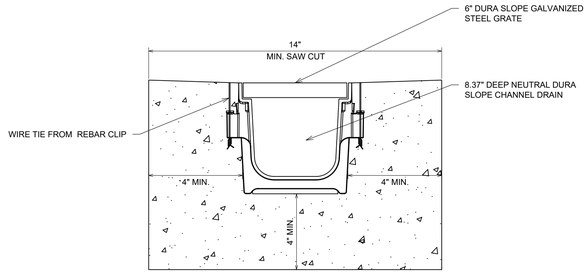
AI-A1
STA: 0+00.00
SUMP: 411.18
INV OUT: 411.18 18" HDPE PIPE

CHRISTY LN

CHRISTY LN

STORMWATER PLAN

SCALE 1" = 20'



NOTES:
1. CHANNELS TO BE INSTALLED WITH GRATE. GRATE TO BE PROTECTED FROM CONCRETE POUR.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

NDS DURA SLOPE CHANNEL DRAIN SYSTEM

TYPICAL CHANNEL DRAIN DETAIL. INSTALL SPECIFIED DRAIN SERIES OR SIMILAR LOAD RATING SERIES.

GENERAL CONSTRUCTION NOTES

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B. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL SOLELY AND COMPLETELY BE RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.

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E. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.

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G. PRIOR TO INSTALLATION OF ANY UTILITIES, THE CONTRACTOR IS TO EXCAVATE, VERIFY AND CALCULATE ALL CROSSINGS AND INFORM ANY AND ALL UTILITIES OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

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J. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "ONECALL" SERVICE TO MARK ALL UTILITIES PRIOR TO ANY DEMOLITION, EARTHWORK, OR UTILITY WORK ON THIS SITE.

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REVISION:

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7817 Hwy 5 N
Bryant, Arkansas

STATE OF ARKANSAS
PHILLIP A. LEWIS
REGISTERED PROFESSIONAL ENGINEER
No. 9540

CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
No. 566
ARKANSAS ENGINEER

PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

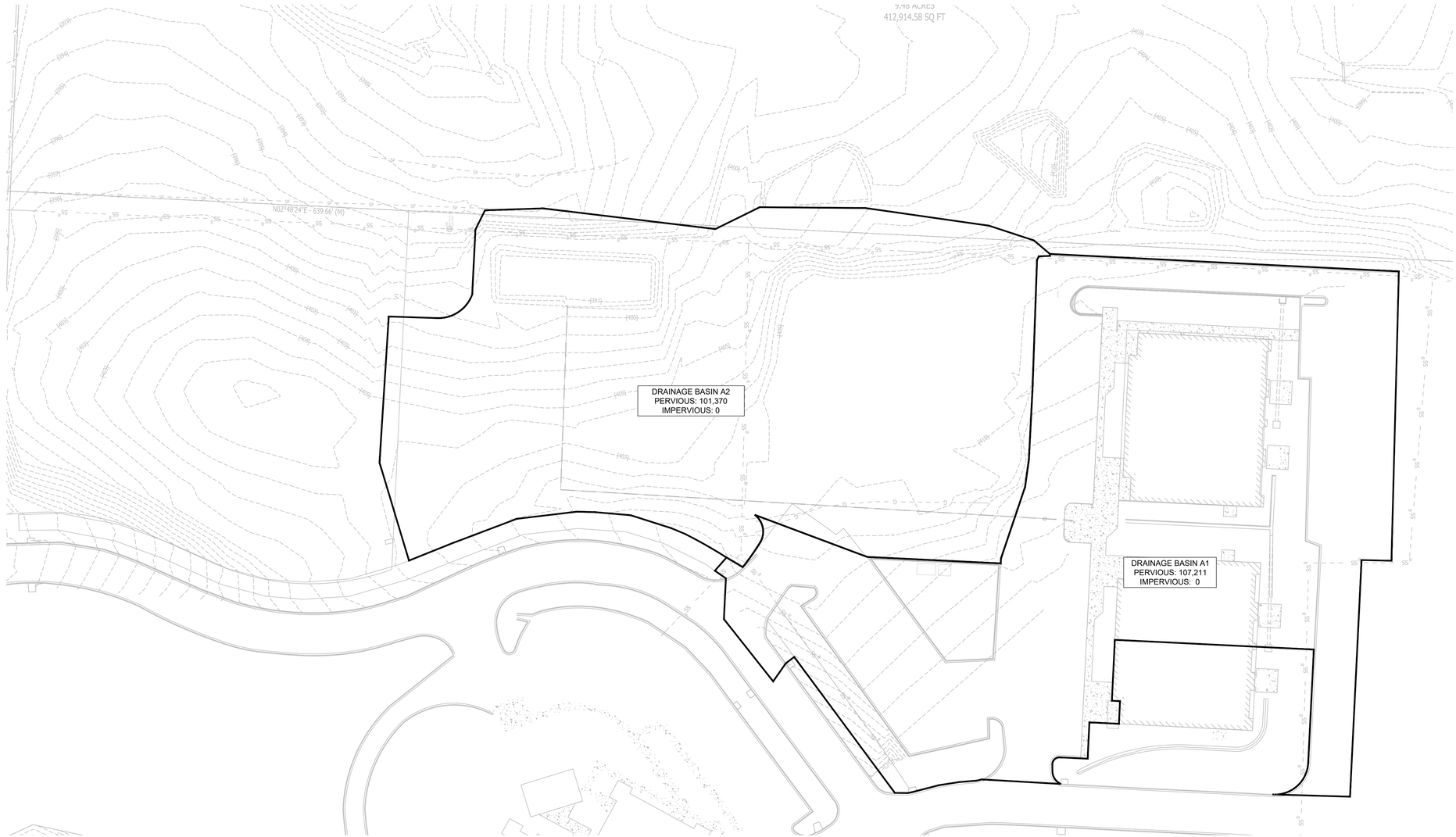
PAGE TITLE:
STORMWATER PLAN

SHEET NUMBER:
C1.4

N

0 20'

1" = 20'-0"



PRE-DEV DRAINAGE MAP

SCALE 1" = 40'

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ARKANSAS ENGINEERING

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No. 9540
PHILLIP A. LEWIS

PROJECT NUMBER:

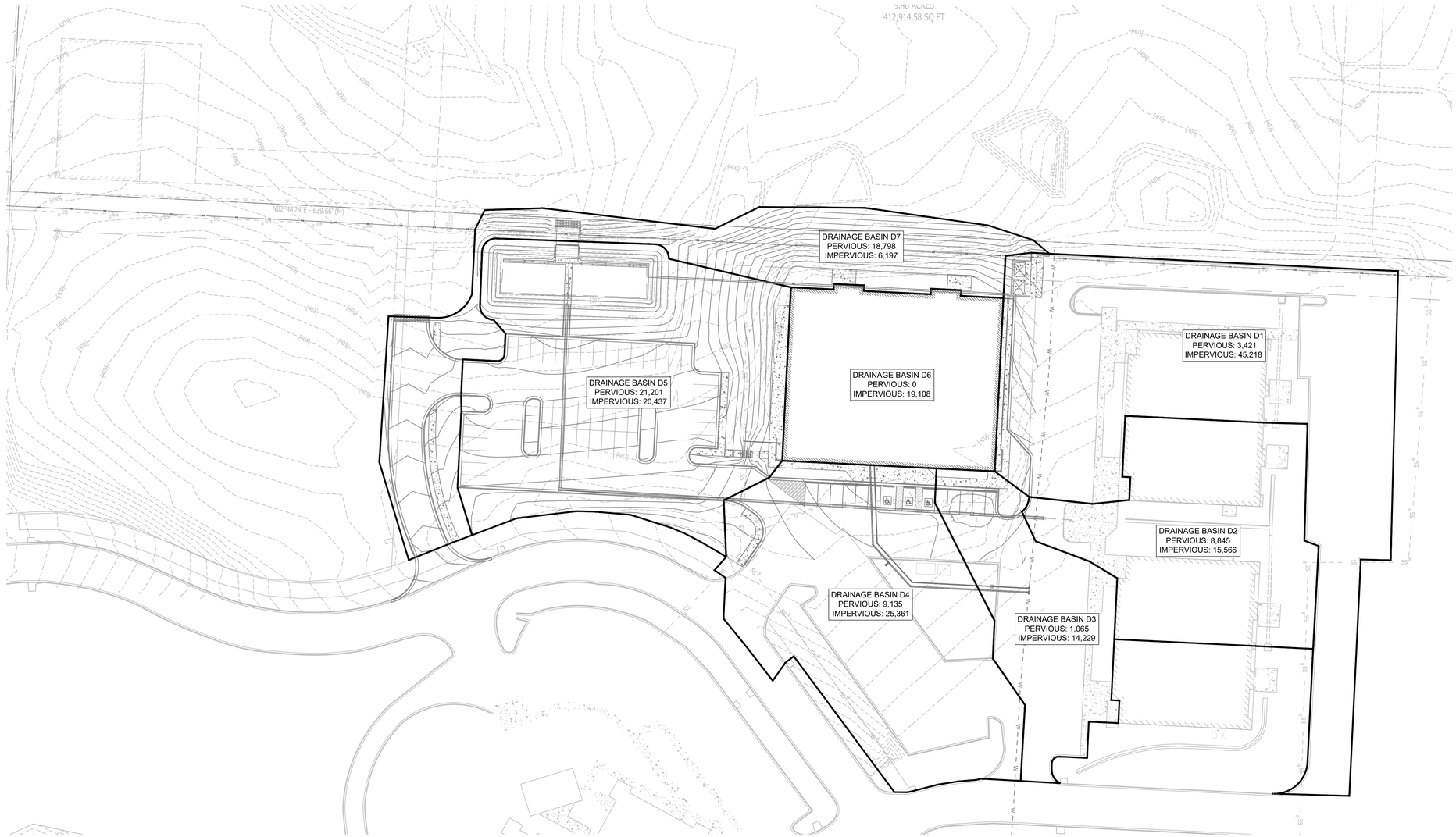
SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
PRE-DEV DRAINAGE MAP

SHEET NUMBER:
C1.5

N

0 40'
1" = 40'-0"



POST-DEV DRAINAGE MAP

SCALE 1" = 40'

PHILLIP LEWIS ENGINEERING, INC.
Structural + Civil Consultants
23620 Interstate 30 | Bryant, Arkansas
PH: 501-350-9840

REVISION:

SUMMERWOOD SPORTS GYMNASIUM #3
7817 Hwy 5 N
Bryant, Arkansas

CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
No. 566
ARKANSAS ENGINEERING

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
POST-DEV DRAINAGE MAP

SHEET NUMBER:
C1.6

N

0 40'
1" = 40'-0"



UTILITY PLAN

SCALE 1" = 20'

GENERAL CONSTRUCTION NOTES

A. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR DAMAGES OCCURRING TO ANY PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT. SAID CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PROPERTY DAMAGE.

B. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL SOLELY AND COMPLETELY BE RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.

C. THE DUTY OF BRYANT UTILITIES TO CONDUCT CONSTRUCTION INSPECTION REVIEWS OF THE CONTRACTOR'S PERFORMANCE IS NOT AN INSPECTION OR REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

D. ALL WATER AND SEWER IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION TO THE CITY OF BRYANT'S WATER AND WASTEWATER (SANITARY SEWER) STANDARD SPECIFICATIONS.

E. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.

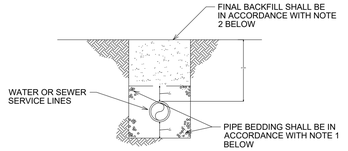
F. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.

G. PRIOR TO INSTALLATION OF ANY UTILITIES, THE CONTRACTOR IS TO EXCAVATE, VERIFY AND CALCULATE ALL CROSSINGS AND INFORM ANY AND ALL UTILITIES OF ANY CONFLICTS PRIOR TO CONSTRUCTION.

H. CONSTRUCTION SHALL NOT START ON ANY WATER UTILITY TIE-INS UNTIL APPROVAL IS GIVEN BY BRYANT UTILITIES. SAID CONTRACTOR SHALL NOT OPERATE ANY VALVE, HYDRANT, OR WATER UTILITY APPURTENANCE NOR SHALL HE ATTACH TO OR TAP ANY WATER UTILITY MAIN WITHOUT APPROVAL. THE CONTRACTOR SHALL BEAR THE COST AND CONSEQUENCE OF ANY DISRUPTION OF UTILITY OPERATION CAUSED BY CONSTRUCTION.

I. FIBER OPTIC CABLE ON AND/OR ADJACENT TO THIS SITE WERE NOT LOCATED BY THE SURVEY AND ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY FIBER OPTIC CABLES ASSOCIATED WITH THIS SITE AND TAKE ALL NECESSARY AND REQUIRED PRECAUTIONS TO PROTECT ANY EXISTING FIBER OPTIC CABLES. CONTRACTORS SHALL COORDINATE ALL EFFORTS WITH OWNER OF FIBER OPTIC CABLES OR THEIR DESIGNATED REPRESENTATIVE.

J. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "ONECALL" SERVICE TO MARK ALL UTILITIES PRIOR TO ANY DEMOLITION, EARTHWORK, OR UTILITY WORK ON THIS SITE.



WATER AND SEWER LINES BEDDING DETAIL

NOT TO SCALE

NOTES:
1. BEDDING SHALL BE "GRIT" PER ASTM 2774 OR ASTM D448 SIZE 67 A MINIMUM OF 6" ALL AROUND PIPE.
2. INITIAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS III COMPACTED TO 90% STANDARD PROCTOR. ALL BACKFILL UNDER PAVED AREAS SHALL BE CLASS 7 CRUSHED STONE (SB-2) COMPACTED TO 95% STANDARD PROCTOR DENSITY.
3. ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D2321-89.
4. ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LIFTS IN ACCORDANCE WITH ASTM D698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED TO NEAR OPTIMUM MOISTURE CONTENT.
6. FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS, AND ROCKS LARGER THAN 3".
7. ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.

N

0 20'

1" = 20'-0"

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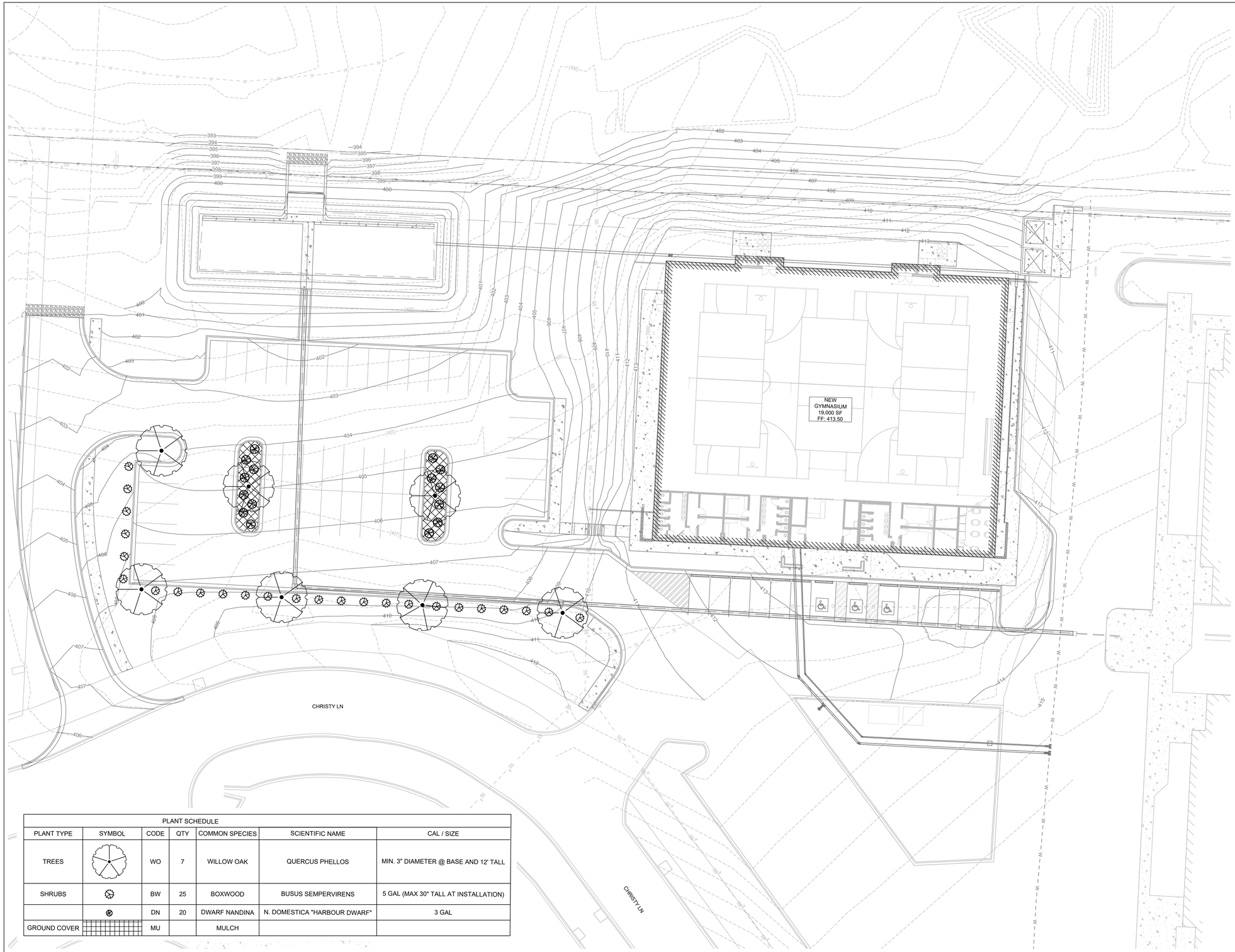
PRELIMINARY
NOT FOR CONSTRUCTION

PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
UTILITY PLAN

SHEET NUMBER:
C1.7



PLANT SCHEDULE						
PLANT TYPE	SYMBOL	CODE	QTY	COMMON SPECIES	SCIENTIFIC NAME	CAL / SIZE
TREES		WO	7	WILLOW OAK	QUERCUS PHELLOS	MIN. 3" DIAMETER @ BASE AND 12' TALL
SHRUBS		BW	25	BOXWOOD	BUSUS SEMPERVIRENS	5 GAL (MAX 30" TALL AT INSTALLATION)
		DN	20	DWARF NANDINA	N. DOMESTICA "HARBOUR DWARF"	3 GAL
GROUND COVER		MU		MULCH		

LANDSCAPING PLAN

SCALE 1" = 20'

THE ABOVE SPECIES IS OPTIONAL IF OWNER WANTS TO GO WITH THE SAME SPECIES AS ADJACENT PROPERTY

N

0 20'

1" = 20'-0"

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CERTIFICATE OF AUTHORIZATION
PHILLIP LEWIS ENGINEERING, INC.
No. 566
ARKANSAS-ENGINEER

STATE OF ARKANSAS
PHILLIP A. LEWIS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

PROJECT NUMBER:

SHEET ISSUE DATE:
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PAGE TITLE:
LANDSCAPING PLAN

SHEET NUMBER:
C1.8

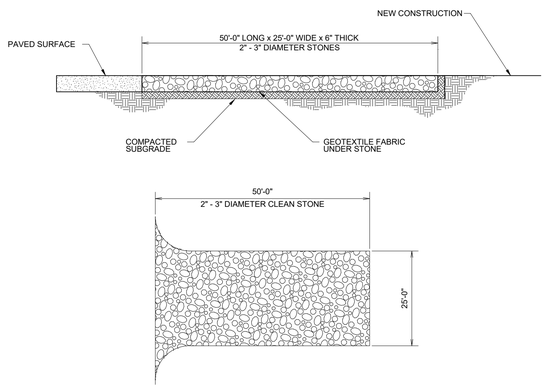


SWPPP PH. 1

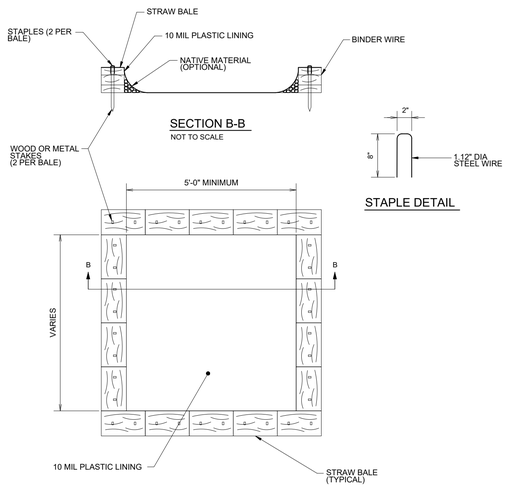
SCALE 1" = 50'

LEGEND

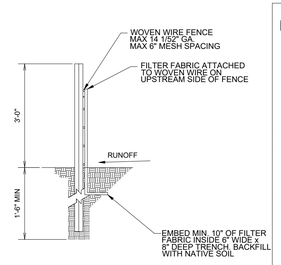
- DISTURBED AREA
- UNDISTURBED AREA
- GRASS SEED
- SEDIMENT FENCE WITH WIRE BACKING
- DRAINAGE DIRECTION



CONSTRUCTION ENTRANCE NOT TO SCALE



CONCRETE WASHOUT NOT TO SCALE



SILT FENCE NOT TO SCALE

NOTES AND SPECIFICATIONS:

1. POSTS SHALL BE A MINIMUM OF 36 INCHES CONSTRUCTED OF EITHER OF THE FOLLOWING MATERIALS: STEEL "T" OR "U" TYPE, OR 2" x 2" HARDWOOD.
2. WOVEN WIRE USED AS ADDITIONAL FENCE SUPPORT SHALL BE MINIMUM 14.5 GA. WITH 6" MAXIMUM SPACING.
3. WOVEN WIRE SHALL BE PLACED ALONG THE UPHILL SIDE OF THE FENCE AND FASTENED WITH WIRE TIES OR 1" STAPLES ALONG THE UPHILL SIDE OF THE POSTS.
4. FILTER FABRIC SHALL BE FASTENED TO WOVEN WIRE ACCORDING TO MANUFACTURER'S RECOMMENDATION, OR WITH TIES EVERY 24" AT THE TOP AND MID-SECTIONS.
5. WHERE TWO PIECES OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6 INCHES AND FOLDED TOGETHER.
6. WHERE TWO POSTS MEET TO JOIN FENCE SECTIONS, THE TOPS OF THE POSTS SHALL BE SECURED TOGETHER WITH WIRE.
7. THE FENCE SHALL BE CONSTRUCTED ALONG THE CONTOUR AS MUCH AS POSSIBLE.
8. ENDS OF FENCES SHALL BE EXTENDED UP THE SLOPE TO PRVENT RUNOFF FROM MIGRATING AROUND THE END OF THE FENCE.
9. INSPECTION OF THE FENCE SHALL BE PERFORMED WEEKLY, OR IMMEDIATELY AFTER A RAIN EVENT, OR WHEN BULGES APPEAR IN THE FENCE. ACCUMALTED SILT SHALL NOT BE ALLOWED TO EXCEED HALF THE HEIGHT OF THE FABRIC. REPAIR AND OR REPLACMENT OF DAMAGED FENCE SHALL BE COMPLETED PROMPTLY.
10. ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED SITE IN SUCH A MANNER THAT IT WILL NOT CONTRIBUTE TO OFF-SITE SILTATION.
11. ALL FENCING SHALL BE REMOVED WITH THE CONSTRUCTION SITE IS FULLY STABLIZED SO AS TO NOT IMPEDE STORM FLOW OR DRAINAGE.
12. PRE-FRABRICATED UNITS DO NOT REQUIRE THE USE OF WOVEN WIRE FENCE.

NOTES (GENERAL):

1. SEE EROSION CONTROL DETAILS IN SWPPP FOR EROSION CONTROL FACILITIES.
2. SEE SWPPP FOR INSTALLATION, MAINTENANCE, INSPECTION, AND RECORD KEEPING REQUIREMENTS.
3. CONTRACTOR SHALL SHOW EROSION CONTROL MEASURE ON SITE MAP.
4. EROSION AND SEDIMENT CONTROL STRUCTURES TO MEET SWPPP DETAILS - APPENDIX D
5. INSTALL ROCK DITCH, CHECK, OR SAND BAG CHECKS AS NECESSARY TO PREVENT SCOUR UNTIL LANDSCAPING IS ESTABLISHED.
6. CONTRACTOR MUST PLACE SEDIMENT BASIN WITH SEDIMENT FENCE OUTLET FOR ANY SEDIMENT CONTAMINATED DEWATERING DISCHARGE.
7. FINAL SLOPE WILL BE SAME DIRECTION AS EXISTING SLOPE.

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Bryant, Arkansas

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No. 19540
PHILLIP A. LEWIS

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No. 566
ARKANSAS-ENGINEER

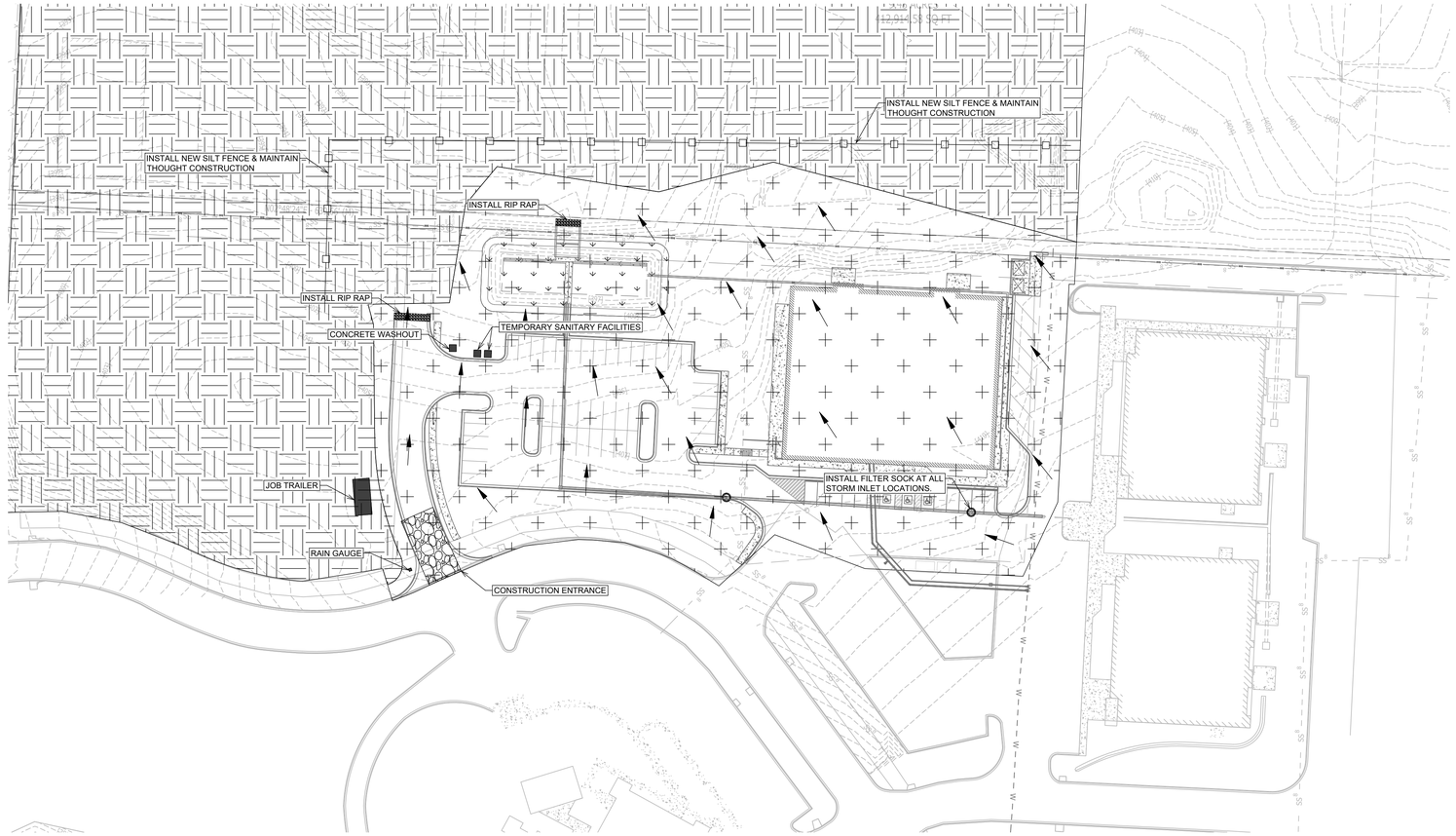
PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
SWPPP PH. 1

SHEET NUMBER:
C1.9

N
0 50'
1" = 50'-0"



SWPPP PH. 2

SCALE 1" = 50'

LEGEND

- DISTURBED AREA
- UNDISTURBED AREA
- GRASS SEED
- SEDIMENT FENCE WITH WIRE BACKING
- DRAINAGE DIRECTION

NOTES (GENERAL):

1. SEE EROSION CONTROL DETAILS IN SWPPP FOR EROSION CONTROL FACILITIES.
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N

0 50'

1" = 50'-0"

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REVISION:

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No. 565
ARKANSAS ENGINEER

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 9540
PHILLIP A. LEWIS

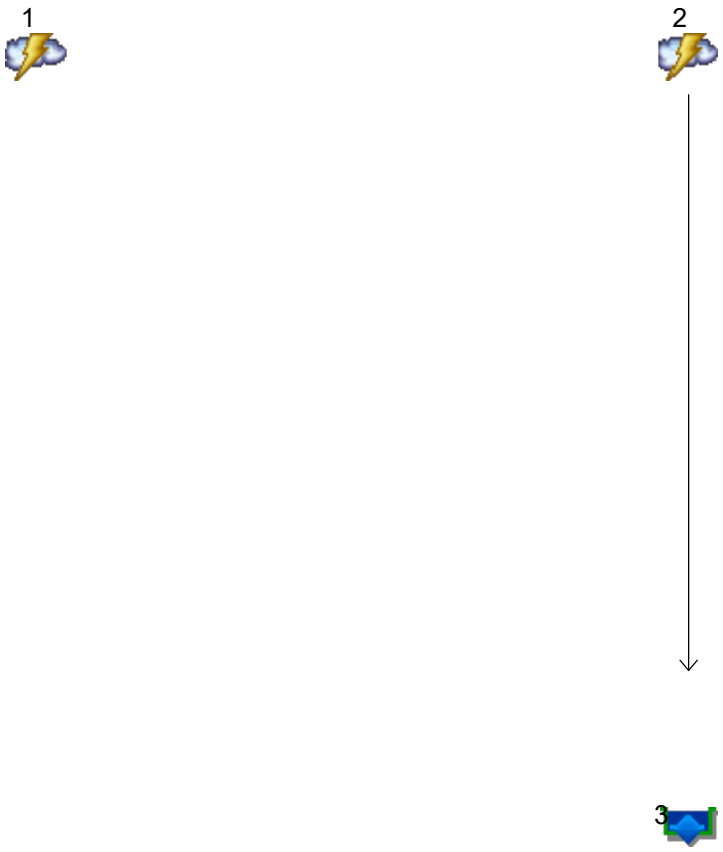
PROJECT NUMBER:

SHEET ISSUE DATE:
1/10/2024

PAGE TITLE:
SWPPP PH. 2

SHEET NUMBER:
C1.10

Watershed Model Schematic



Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Rational	------	-------	13.83	-------	16.30	18.12	20.84	22.96	25.08	PRE
2	Rational	------	-------	32.45	-------	37.45	41.26	47.01	51.53	56.05	POST
3	Reservoir	2	-------	10.29	-------	11.98	13.29	15.43	19.16	23.12	2 EAST POND 2

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	13.83	1	10	8,297	------	------	------	PRE
2	Rational	32.45	1	5	9,735	------	------	------	POST
3	Reservoir	10.29	1	8	9,731	2	398.35	6,846	2 EAST POND 2

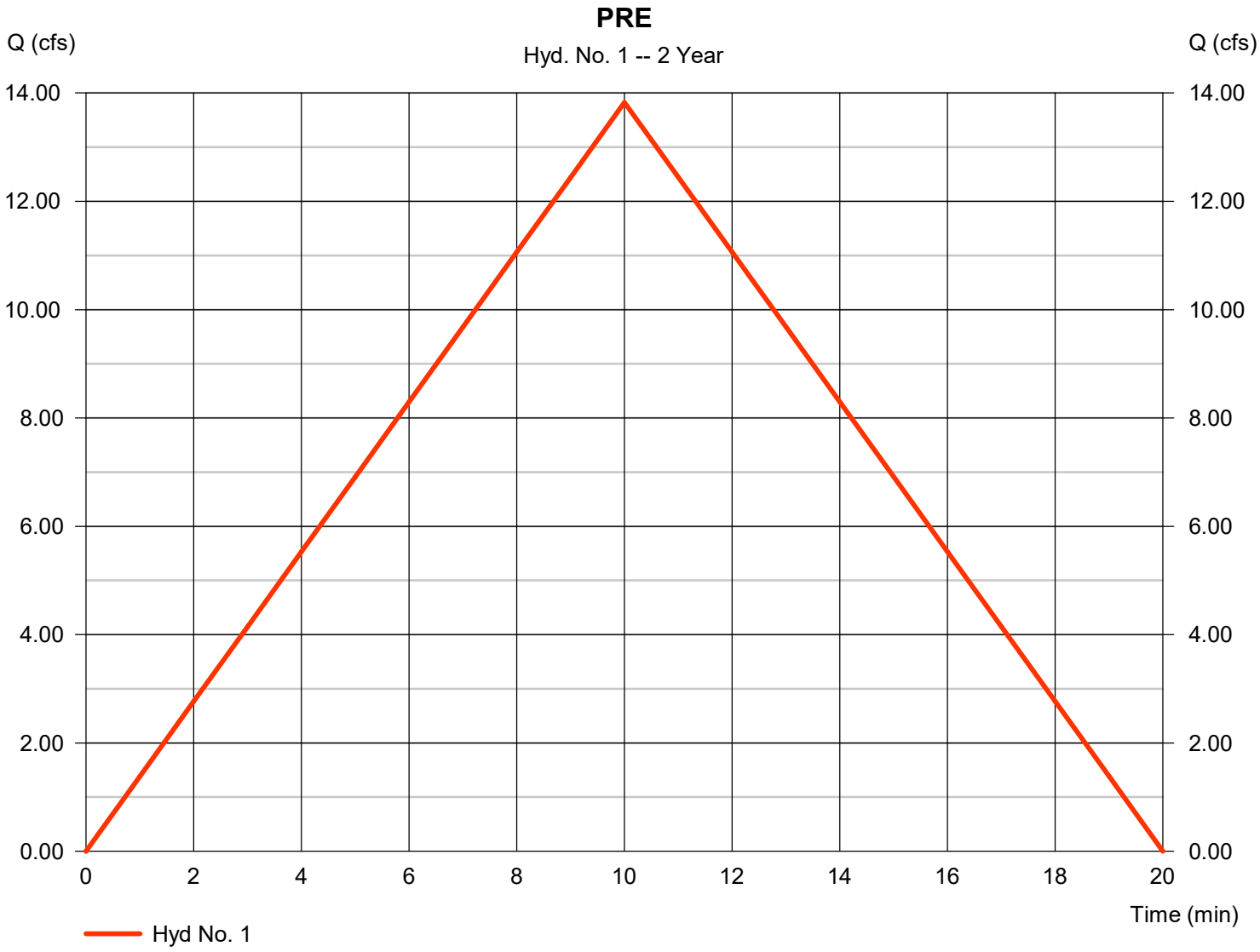
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	13.83 cfs
Storm frequency	=	2 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	8,297 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	4.609 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



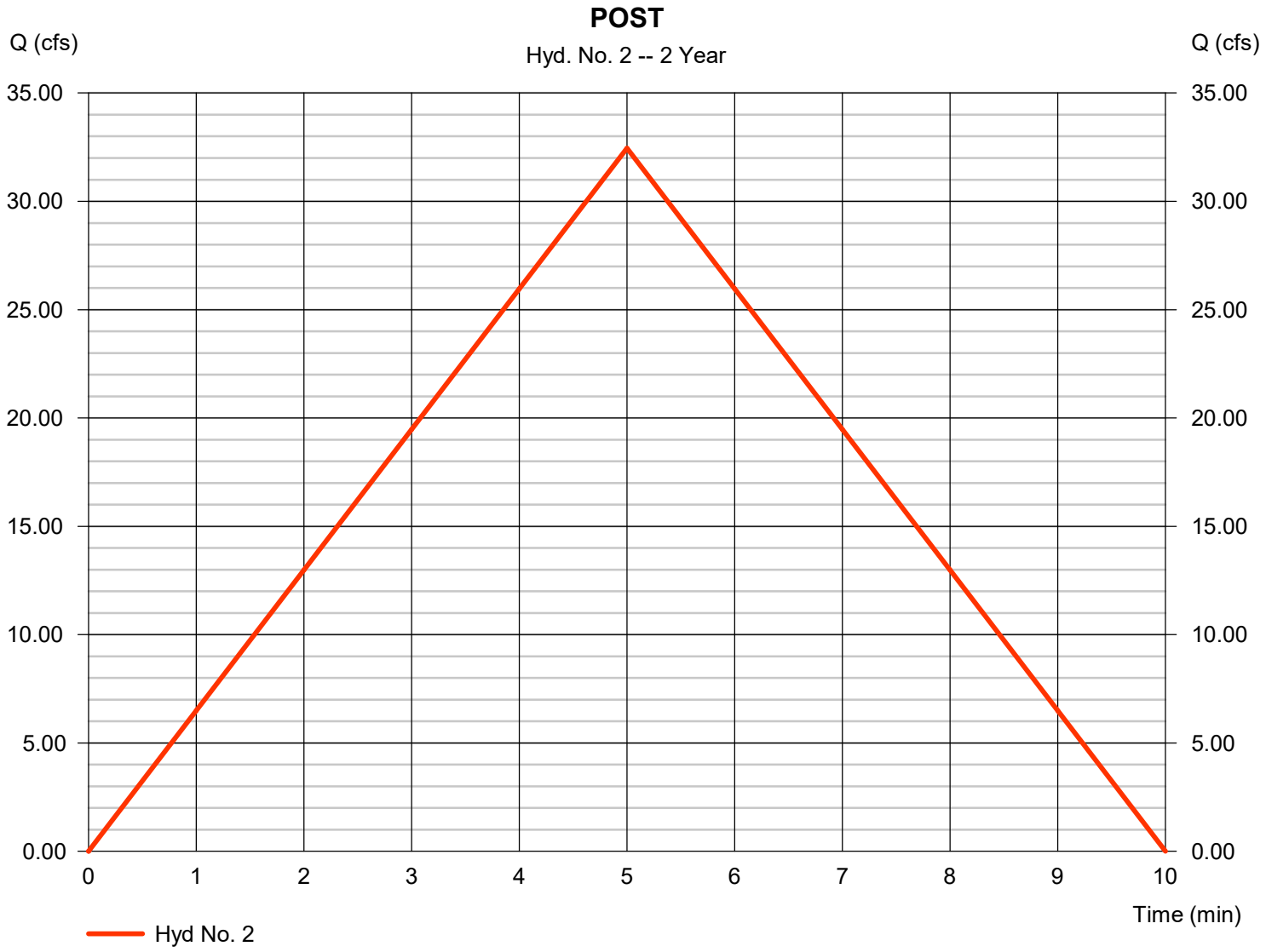
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	32.45 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	9,735 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	5.693 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



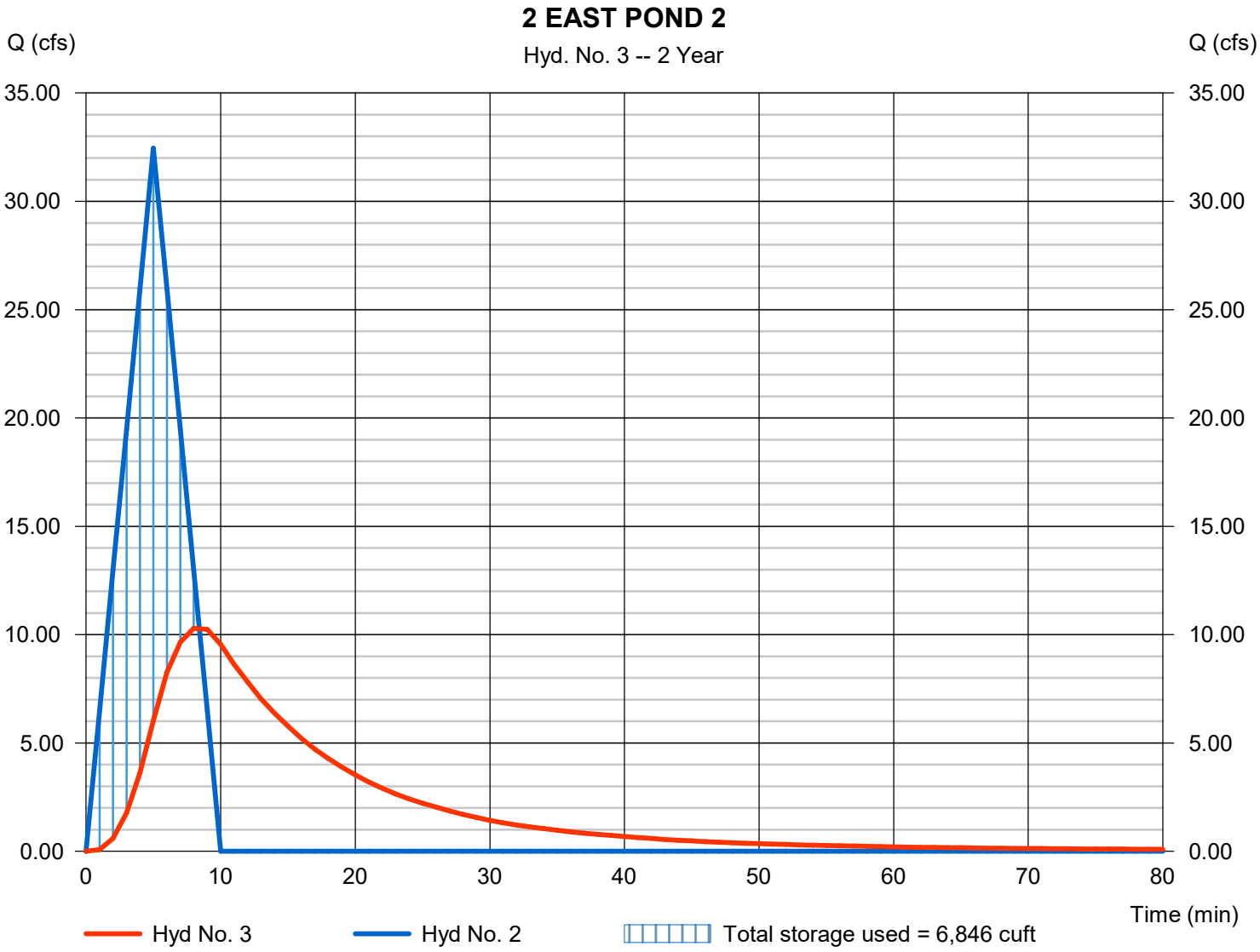
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	= Reservoir	Peak discharge	= 10.29 cfs
Storm frequency	= 2 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 9,731 cuft
Inflow hyd. No.	= 2 - POST	Max. Elevation	= 398.35 ft
Reservoir name	= EAST POND 2	Max. Storage	= 6,846 cuft

Storage Indication method used.



Pond Report

Pond No. 2 - EAST POND 2

Pond Data

Trapezoid -Bottom L x W = 100.0 x 20.0 ft, Side slope = 3.00:1, Bottom elev. = 396.00 ft, Depth = 4.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	396.00	2,000	0	0
0.40	396.40	2,294	858	858
0.80	396.80	2,599	978	1,837
1.20	397.20	2,916	1,103	2,939
1.60	397.60	3,244	1,232	4,171
2.00	398.00	3,584	1,365	5,536
2.40	398.40	3,935	1,503	7,039
2.80	398.80	4,298	1,646	8,686
3.20	399.20	4,673	1,794	10,480
3.60	399.60	5,059	1,946	12,425
4.00	400.00	5,456	2,103	14,528

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 380.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	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

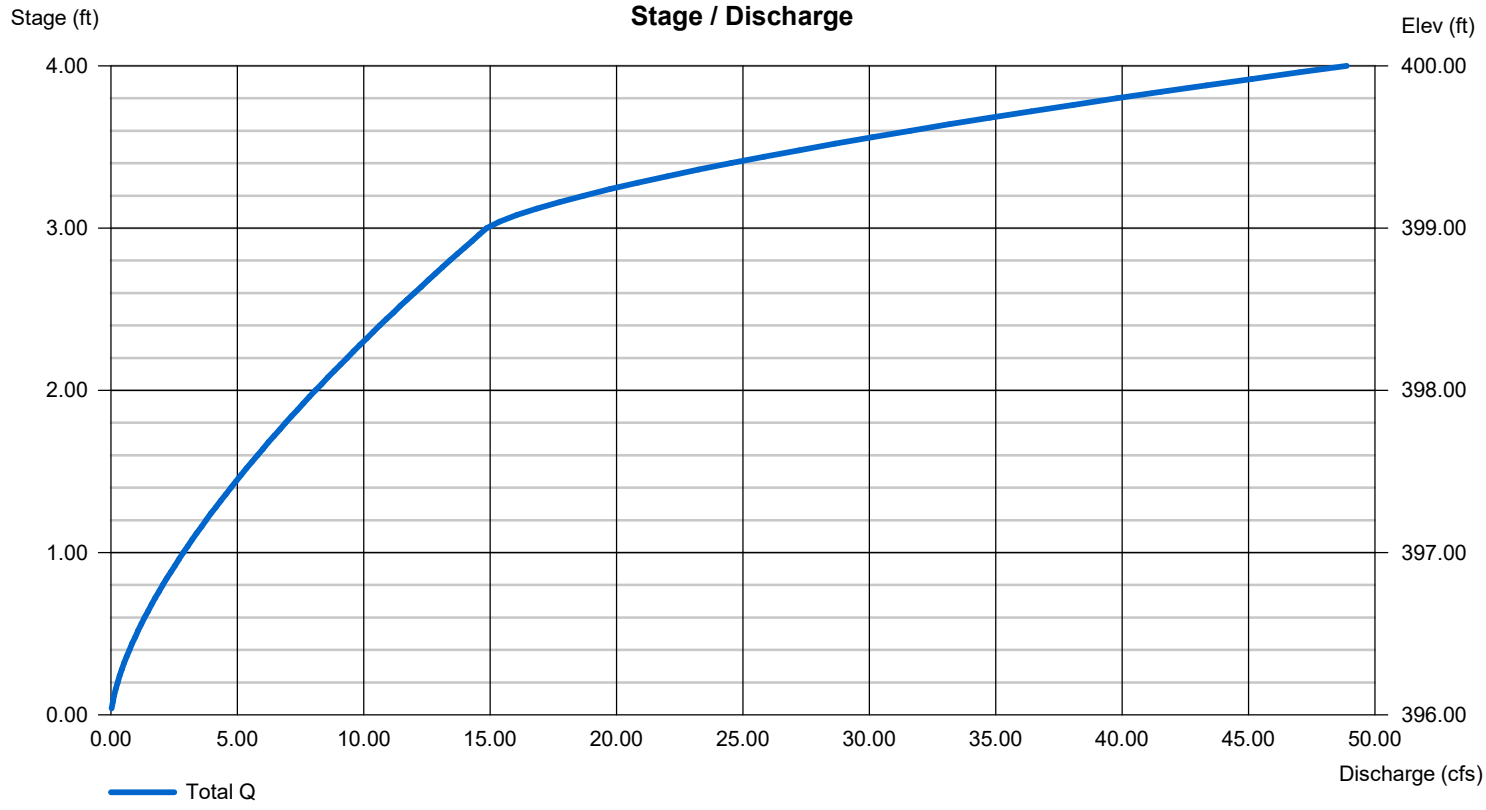
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 1.10	10.00	0.00	0.00
Crest El. (ft)	= 396.00	399.00	0.00	0.00
Weir Coeff.	= 2.60	2.60	3.33	3.33
Weir Type	= Broad	Broad	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

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



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	16.30	1	10	9,778	------	------	------	PRE
2	Rational	37.45	1	5	11,235	------	------	------	POST
3	Reservoir	11.98	1	8	11,231	2	398.60	7,857	2 EAST POND 2

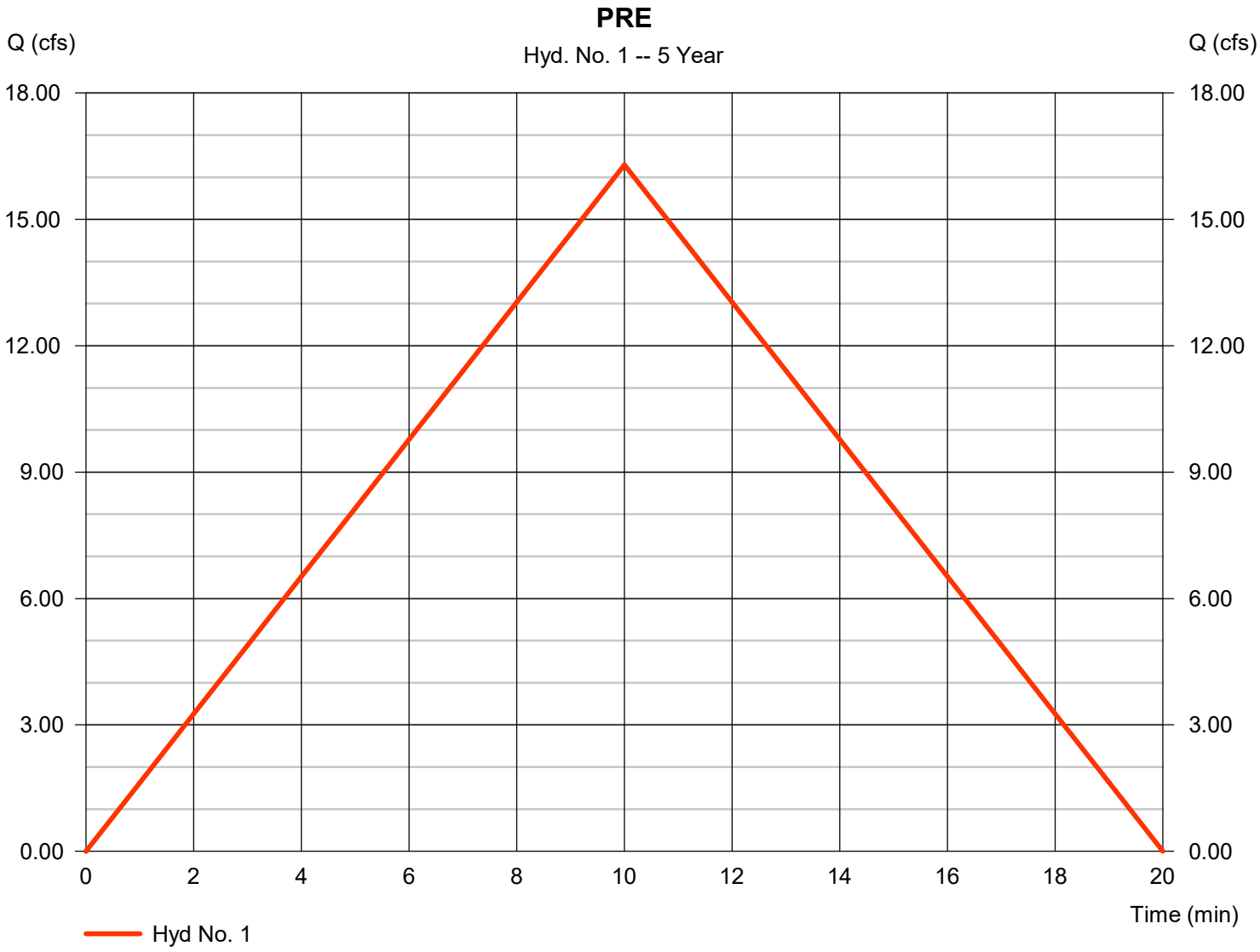
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	16.30 cfs
Storm frequency	=	5 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	9,778 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	5.432 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



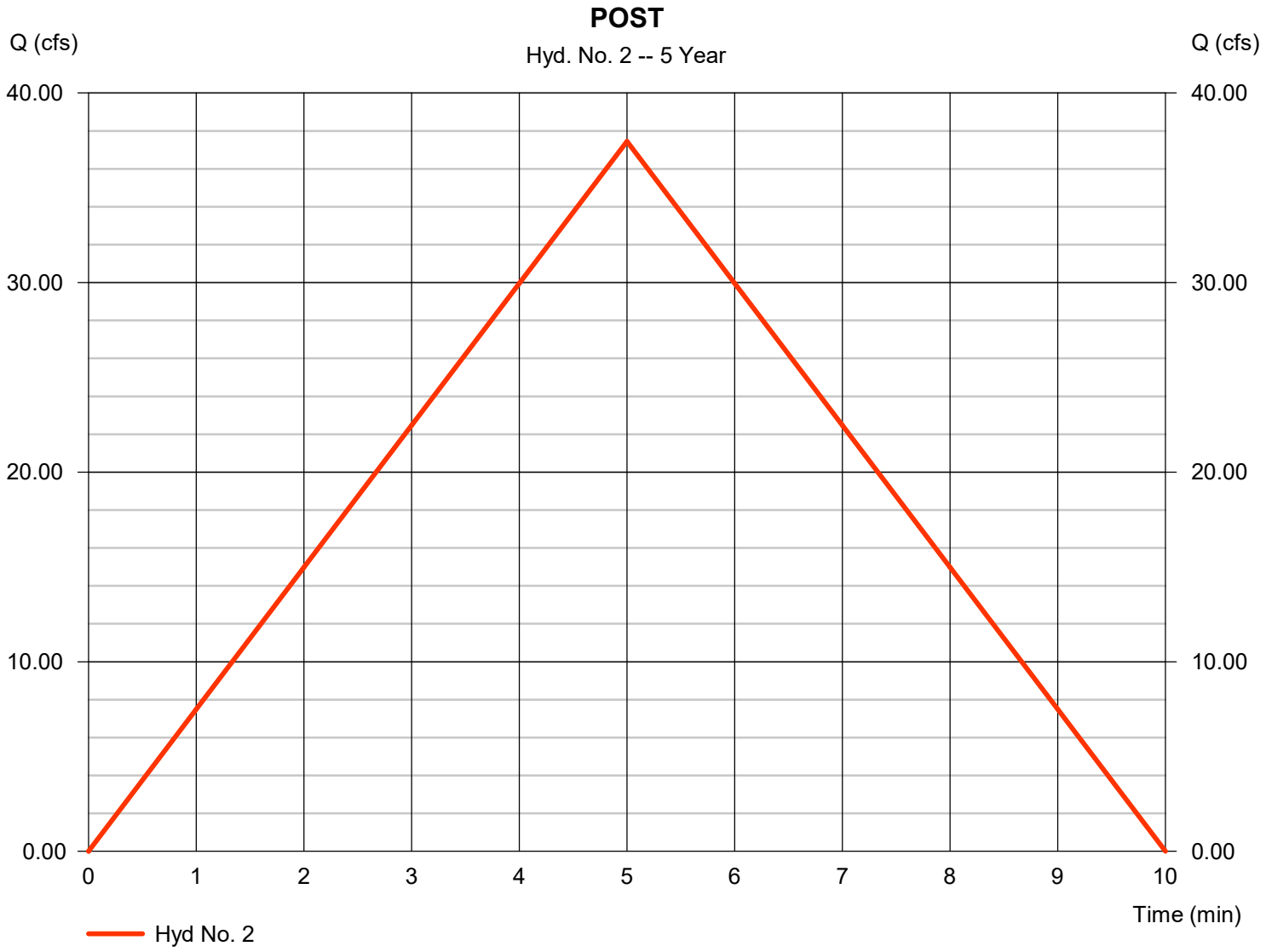
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	37.45 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	11,235 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	6.570 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



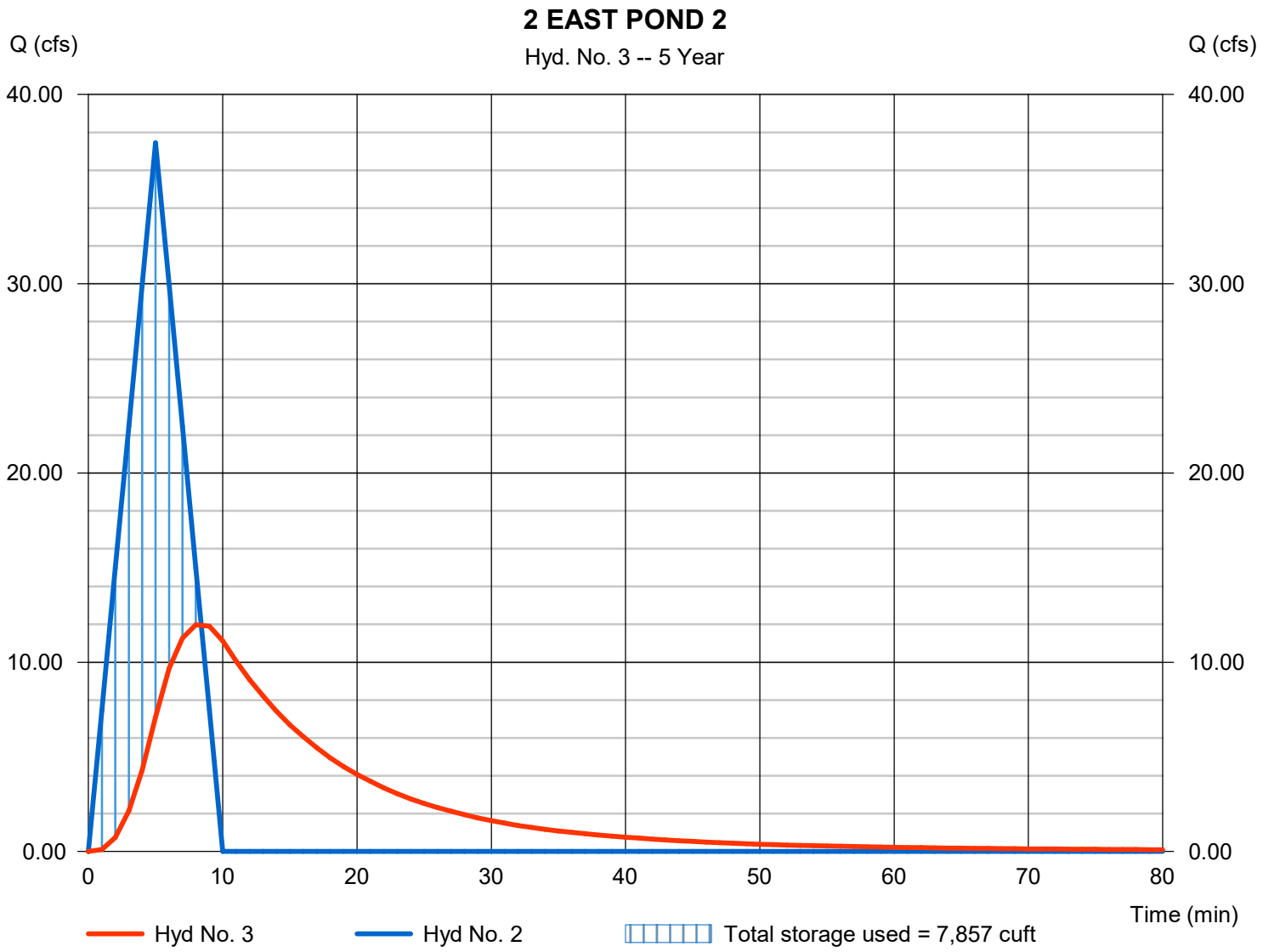
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	=	Reservoir	Peak discharge	=	11.98 cfs
Storm frequency	=	5 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	11,231 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	398.60 ft
Reservoir name	=	EAST POND 2	Max. Storage	=	7,857 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	18.12	1	10	10,875	------	------	------	PRE
2	Rational	41.26	1	5	12,377	------	------	------	POST
3	Reservoir	13.29	1	8	12,373	2	398.78	8,623	2 EAST POND 2

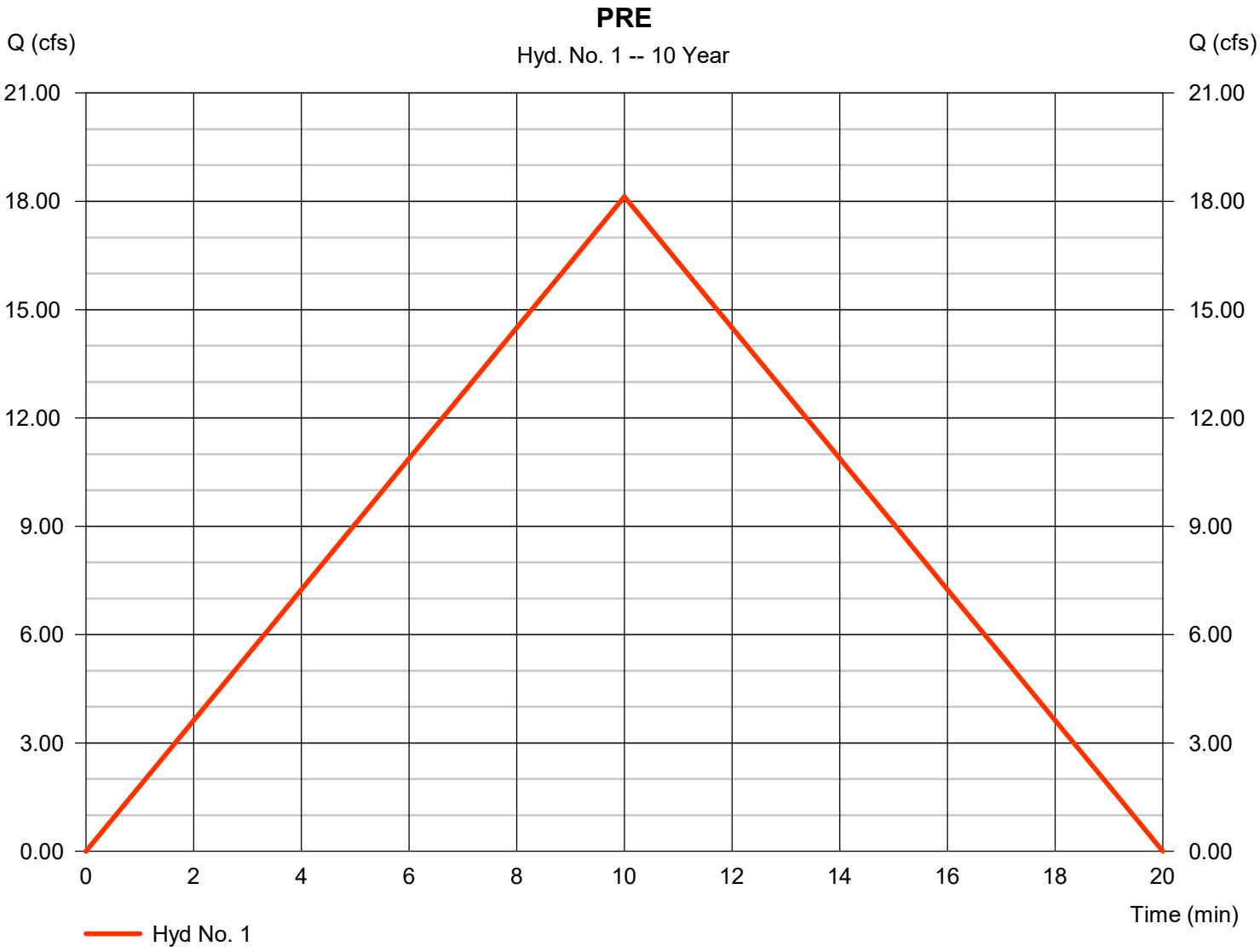
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	18.12 cfs
Storm frequency	=	10 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	10,875 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	6.042 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



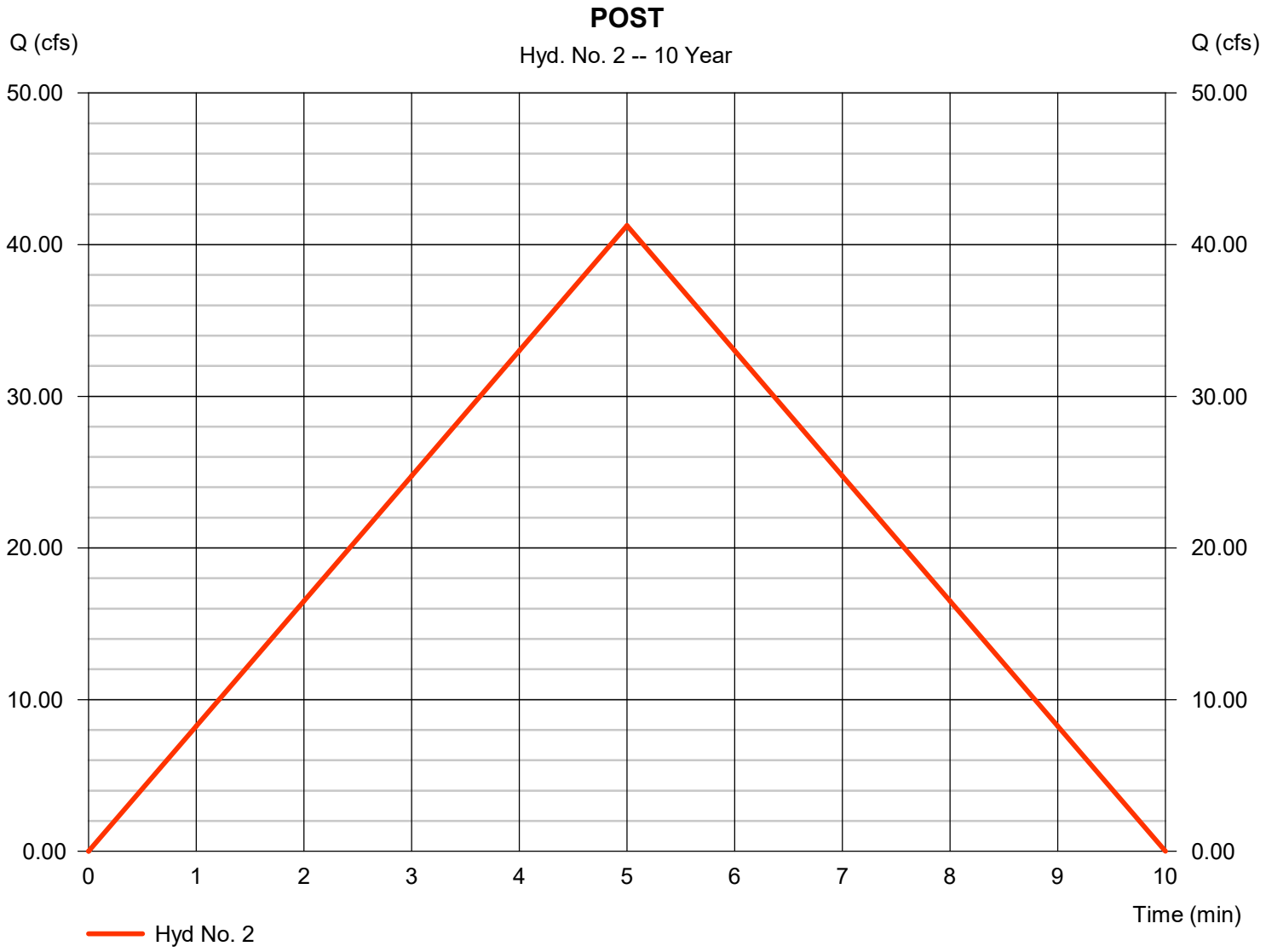
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	41.26 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	12,377 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	7.238 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



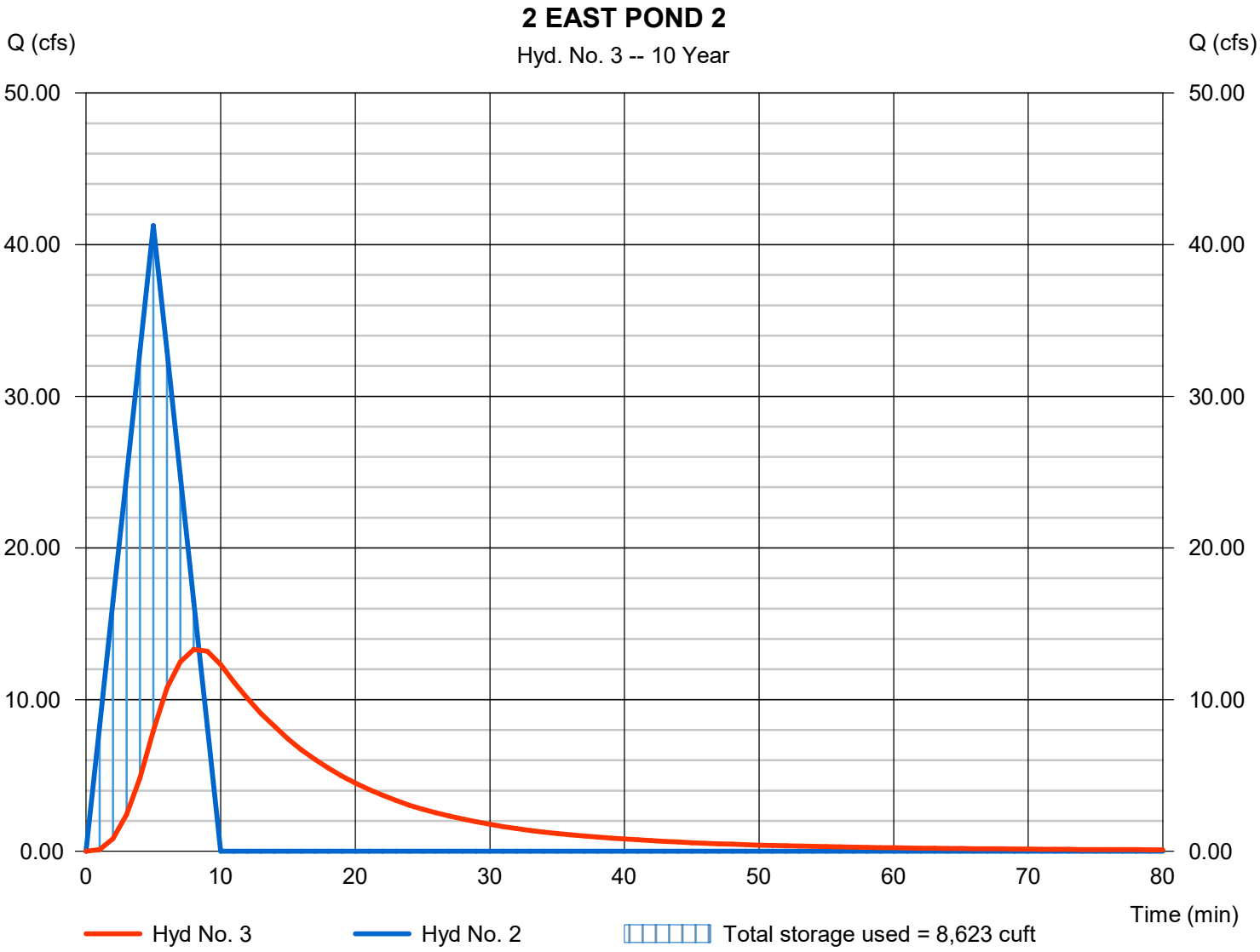
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	=	Reservoir	Peak discharge	=	13.29 cfs
Storm frequency	=	10 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	12,373 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	398.78 ft
Reservoir name	=	EAST POND 2	Max. Storage	=	8,623 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	20.84	1	10	12,502	------	------	------	PRE
2	Rational	47.01	1	5	14,103	------	------	------	POST
3	Reservoir	15.43	1	8	14,099	2	399.04	9,779	2 EAST POND 2

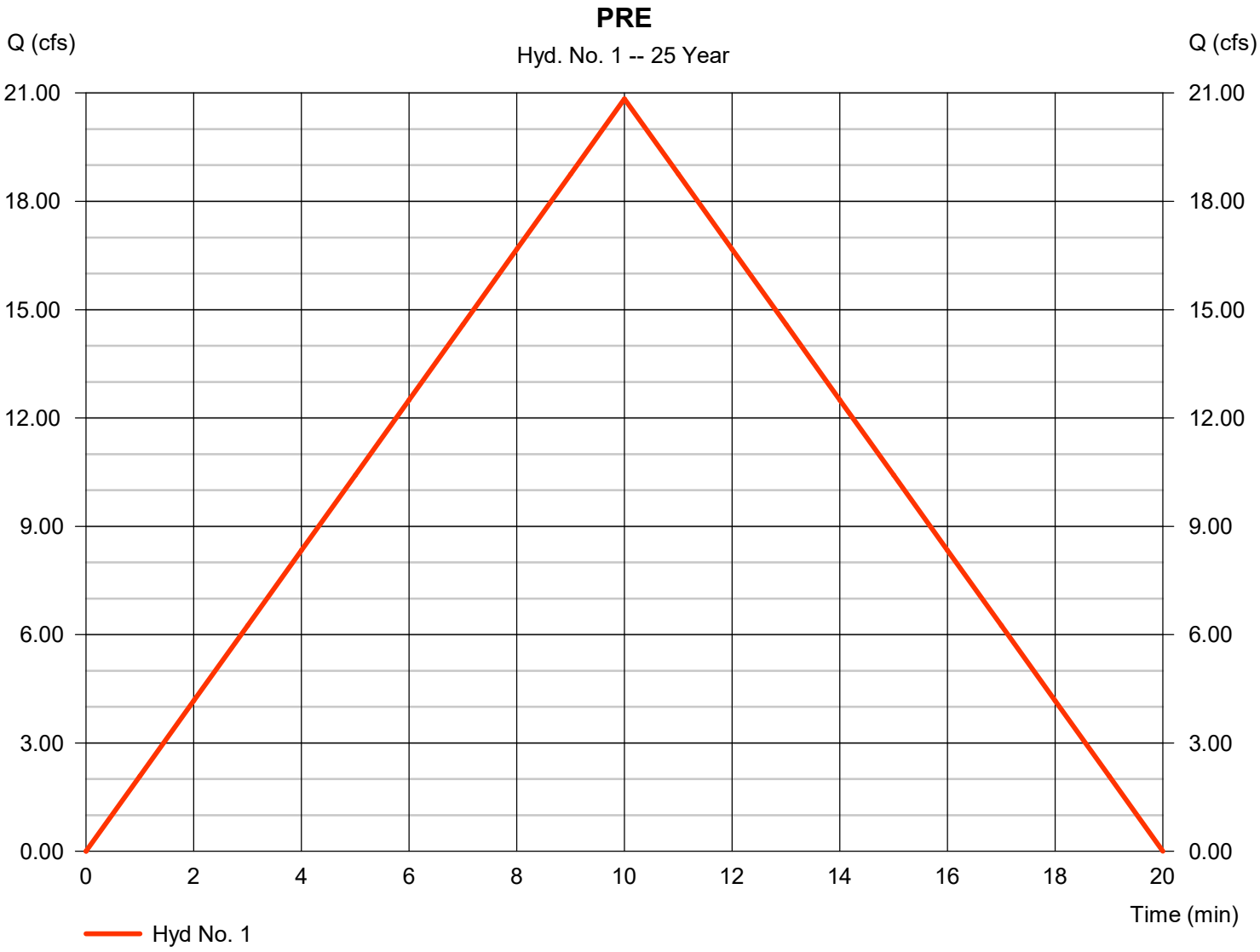
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	20.84 cfs
Storm frequency	=	25 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	12,502 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	6.945 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



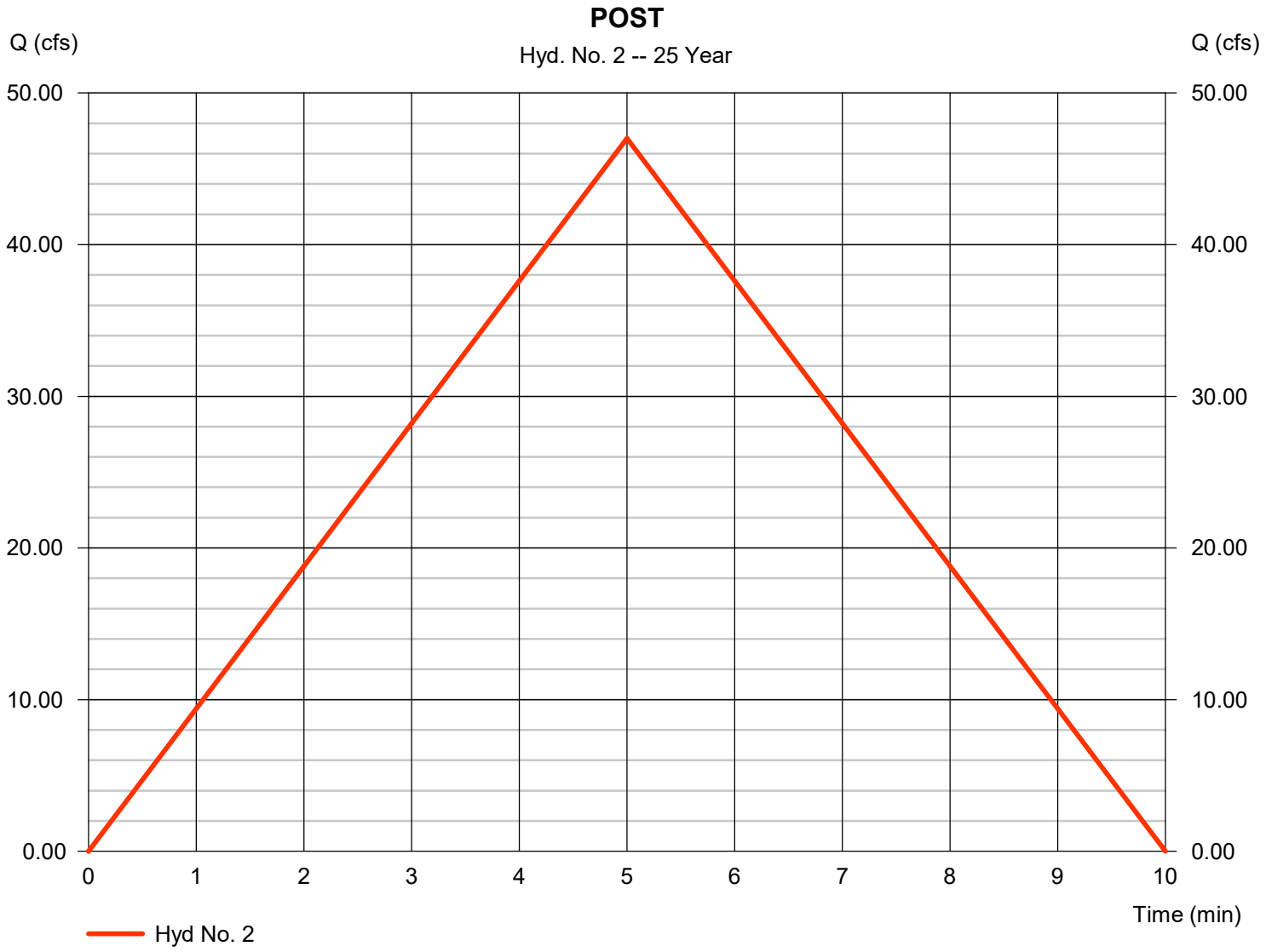
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	47.01 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	14,103 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	8.247 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



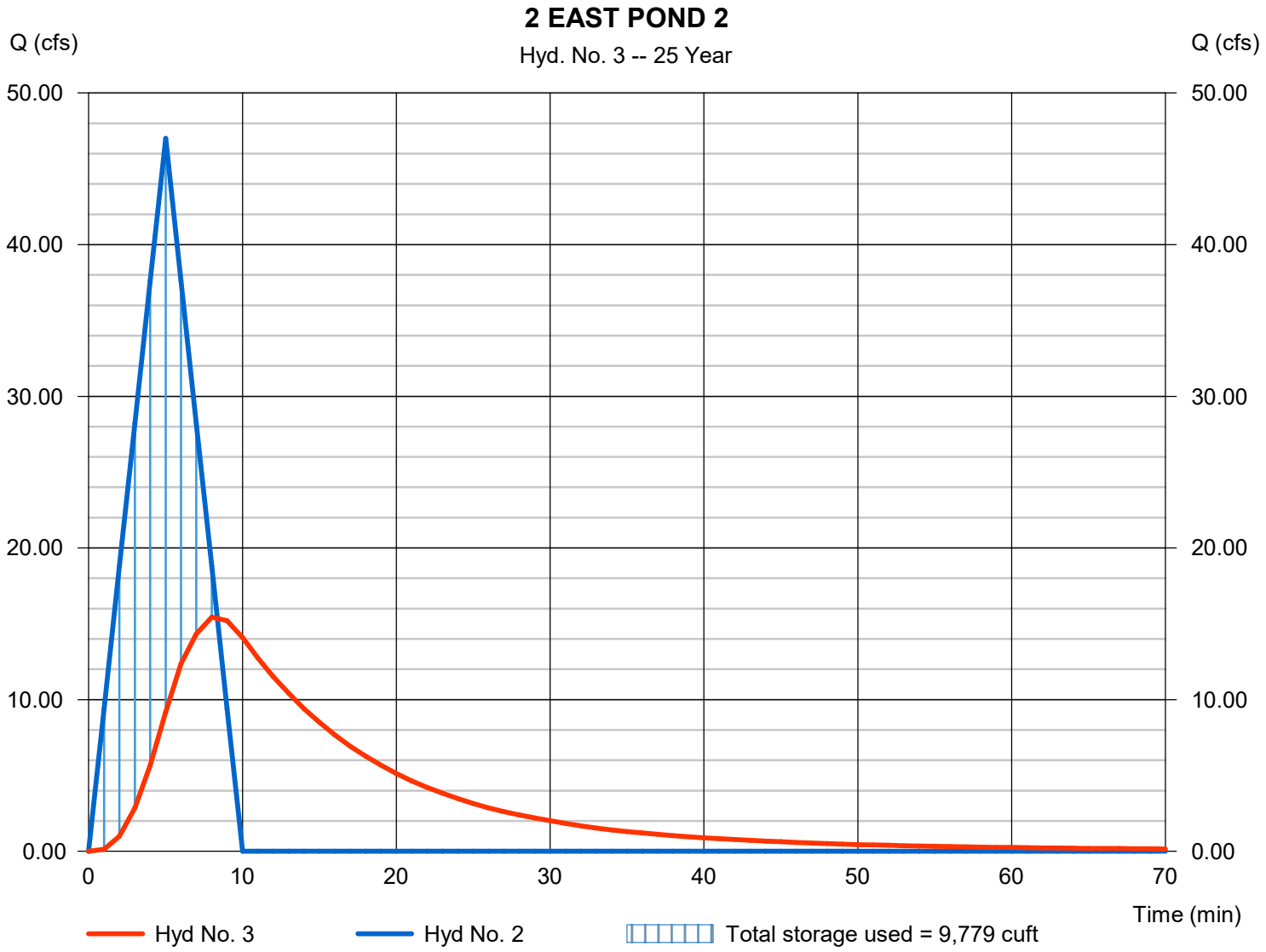
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	=	Reservoir	Peak discharge	=	15.43 cfs
Storm frequency	=	25 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	14,099 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	399.04 ft
Reservoir name	=	EAST POND 2	Max. Storage	=	9,779 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	22.96	1	10	13,777	------	------	------	PRE
2	Rational	51.53	1	5	15,460	------	------	------	POST
3	Reservoir	19.16	1	8	15,456	2	399.22	10,566	2 EAST POND 2

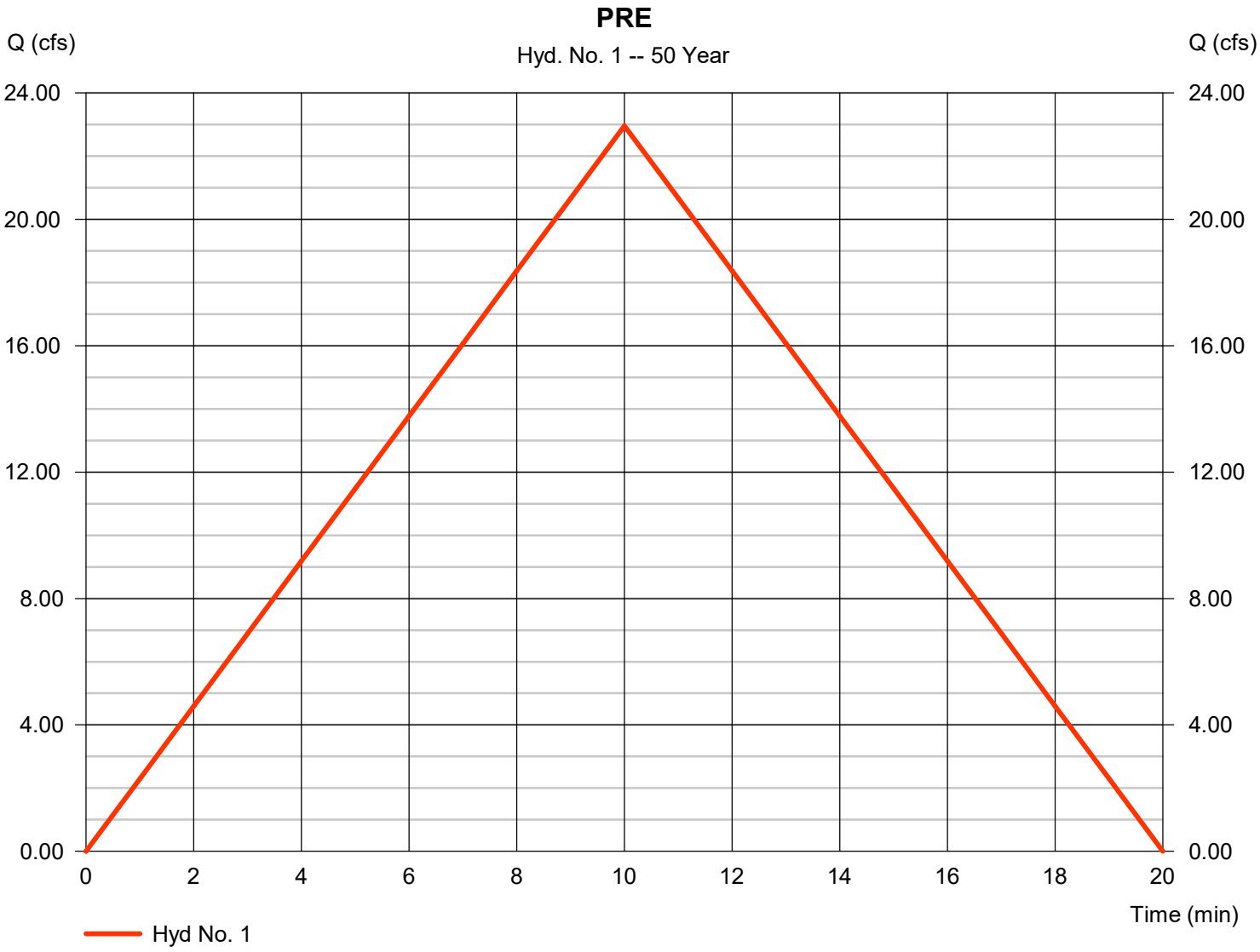
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	22.96 cfs
Storm frequency	=	50 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	13,777 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	7.654 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



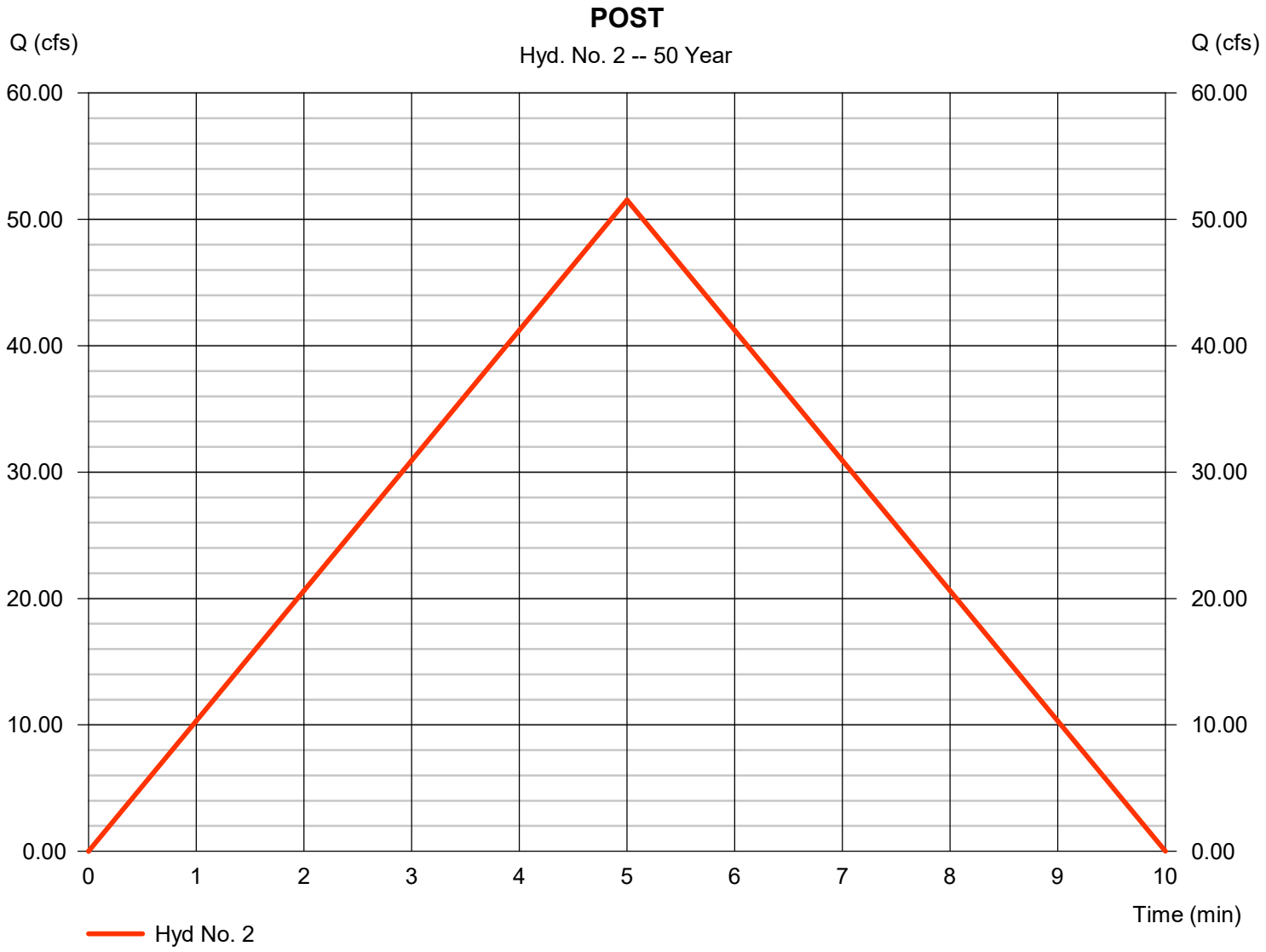
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	51.53 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	15,460 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	9.041 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



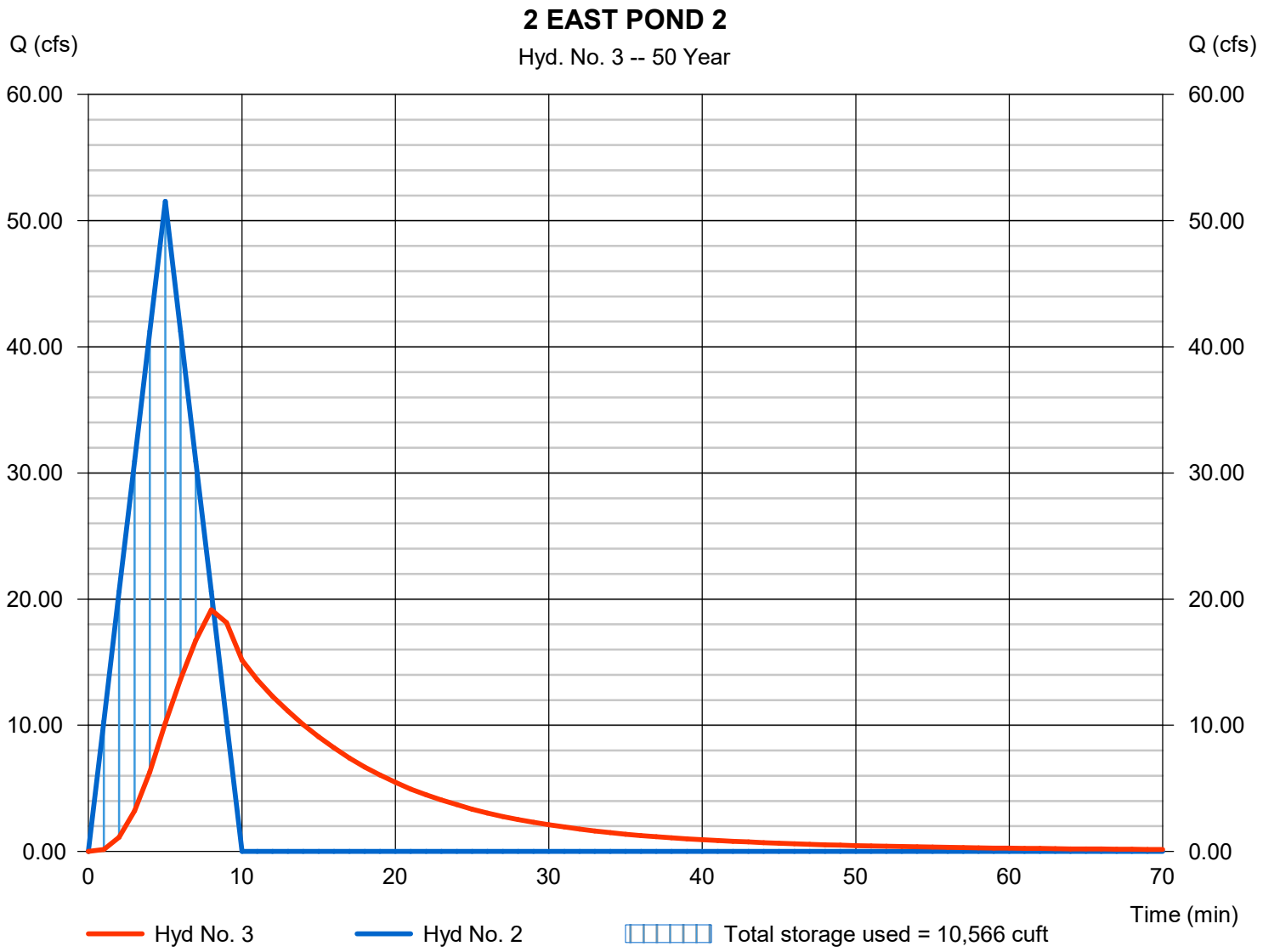
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	=	Reservoir	Peak discharge	=	19.16 cfs
Storm frequency	=	50 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	15,456 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	399.22 ft
Reservoir name	=	EAST POND 2	Max. Storage	=	10,566 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	25.08	1	10	15,047	------	------	------	PRE
2	Rational	56.05	1	5	16,814	------	------	------	POST
3	Reservoir	23.12	1	8	16,810	2	399.36	11,240	2 EAST POND 2

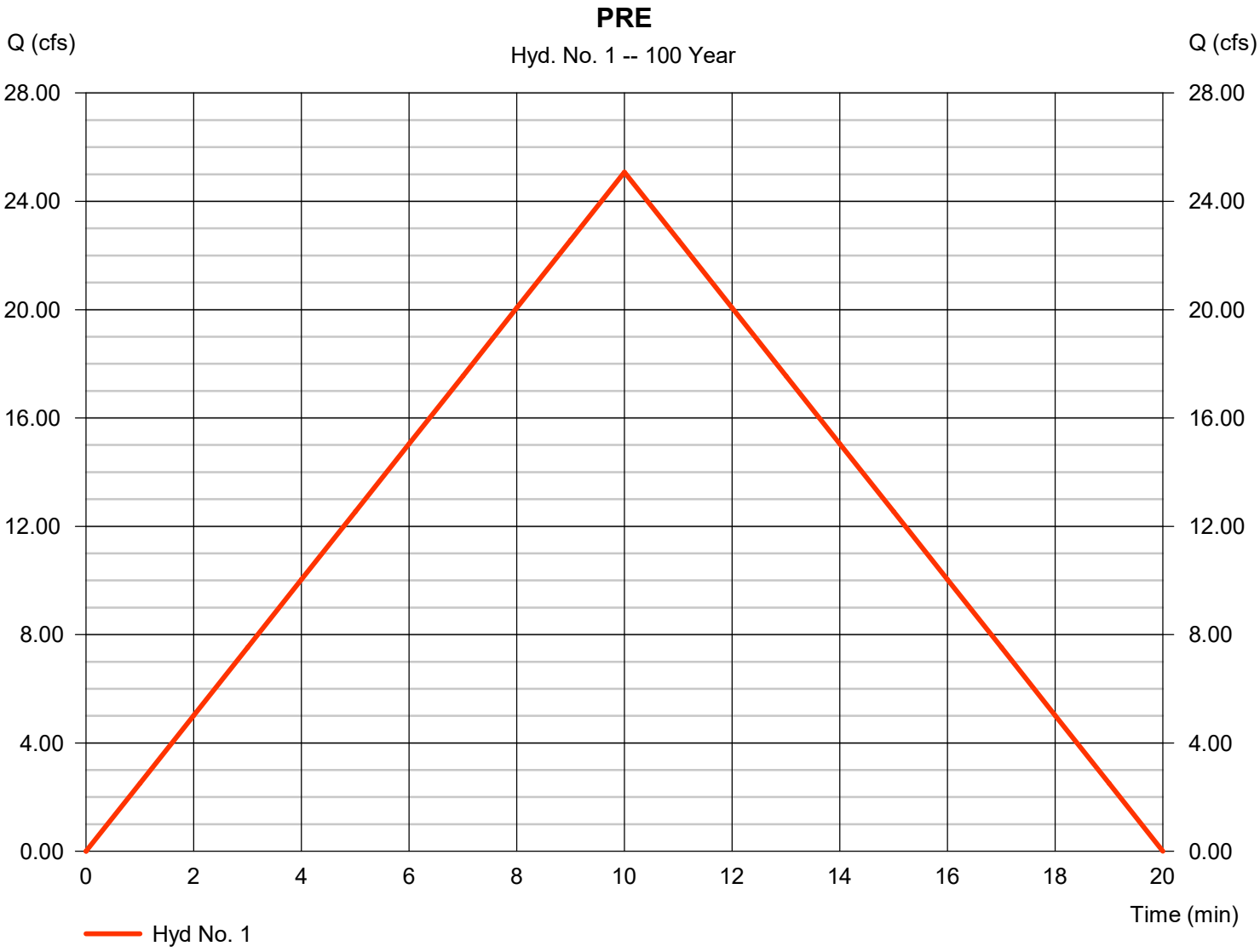
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	25.08 cfs
Storm frequency	=	100 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	15,047 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.5*
Intensity	=	8.360 in/hr	Tc by User	=	10.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 6.000



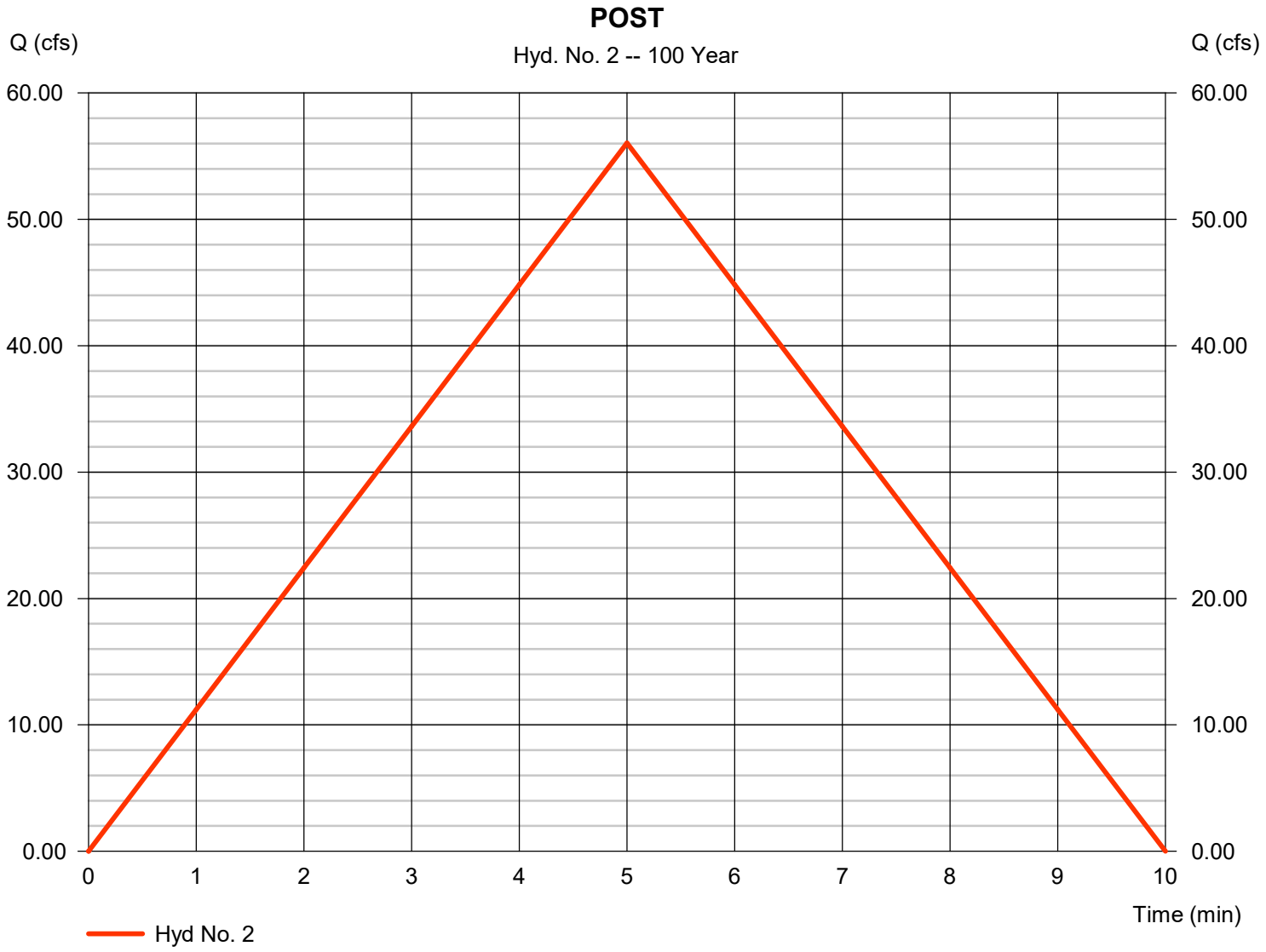
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	56.05 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	16,814 cuft
Drainage area	=	6.000 ac	Runoff coeff.	=	0.95*
Intensity	=	9.833 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 6.000



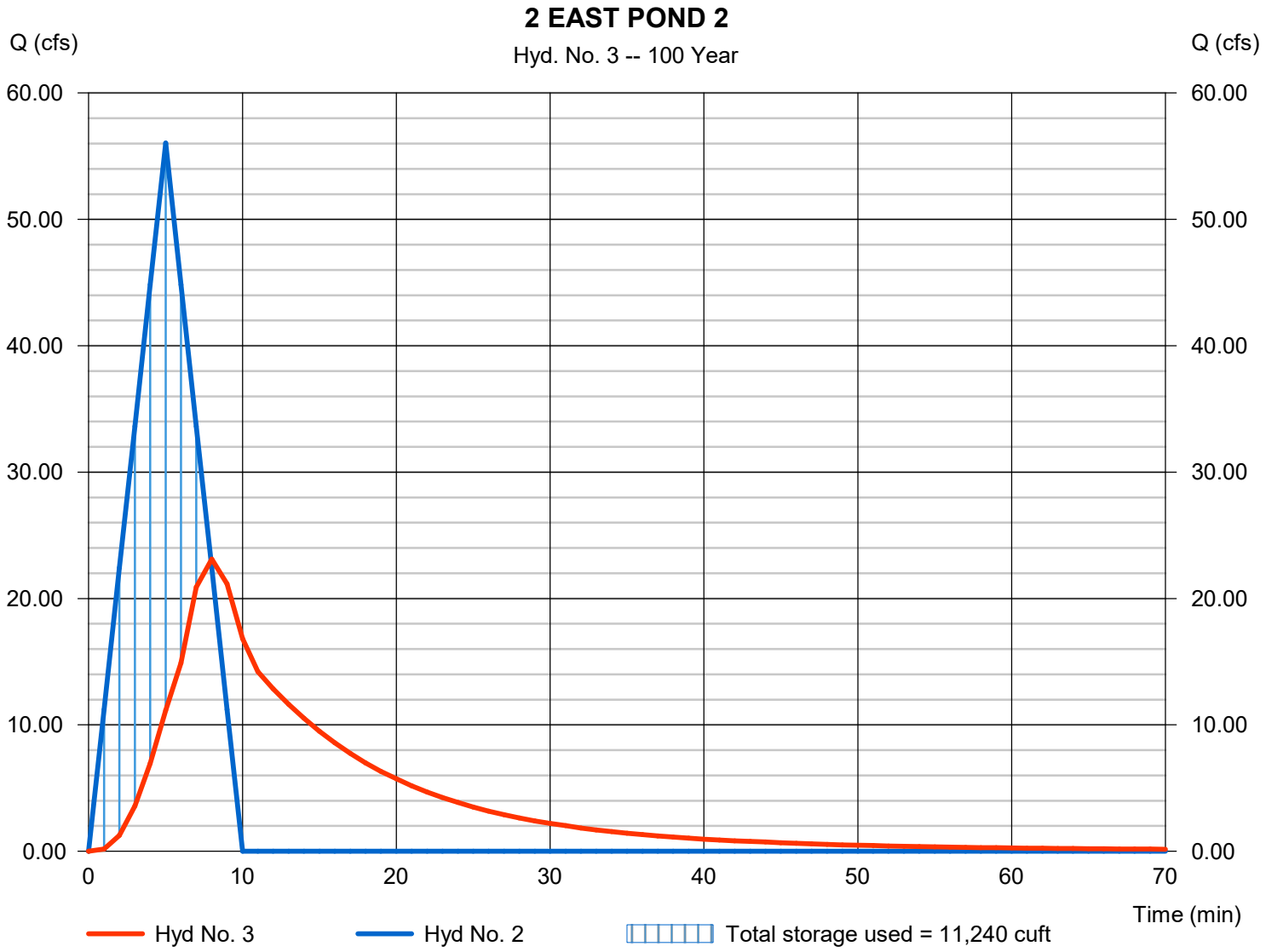
Hydrograph Report

Hyd. No. 3

2 EAST POND 2

Hydrograph type	=	Reservoir	Peak discharge	=	23.12 cfs
Storm frequency	=	100 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	16,810 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	399.36 ft
Reservoir name	=	EAST POND 2	Max. Storage	=	11,240 cuft

Storage Indication method used.



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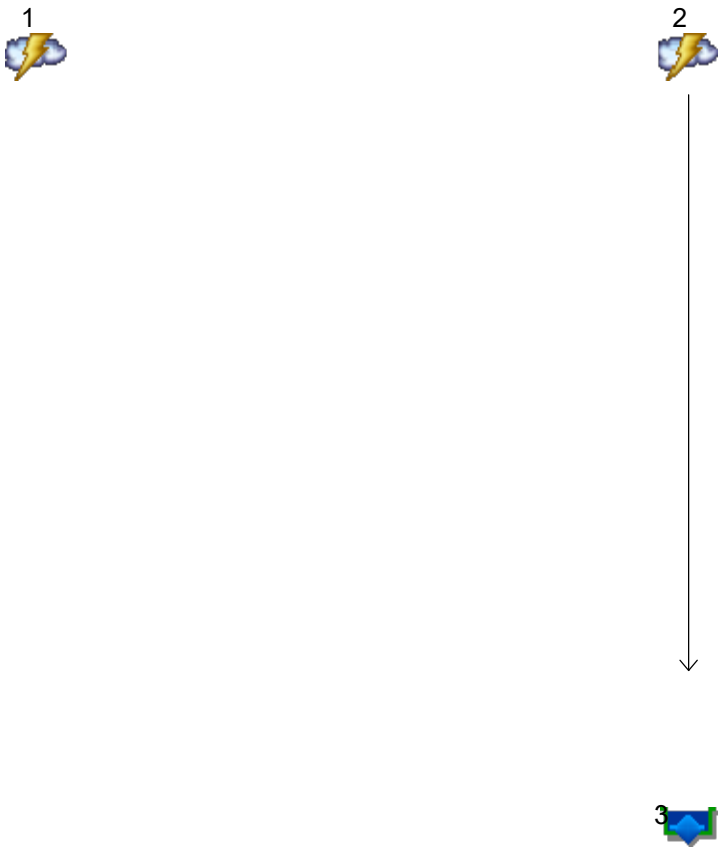
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Watershed Model Schematic



Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Rational	------	-------	17.06	-------	20.35	22.76	26.30	29.07	31.83	PRE
2	Rational	------	-------	45.97	-------	53.05	58.45	66.60	73.00	79.40	POST
3	Reservoir	2	-------	13.30	-------	15.70	17.53	20.38	22.58	25.53	2 NW POND 1

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	17.06	1	14	14,330	------	------	------	PRE
2	Rational	45.97	1	5	13,792	------	------	------	POST
3	Reservoir	13.30	1	9	13,787	2	382.08	10,153	2 NW POND 1

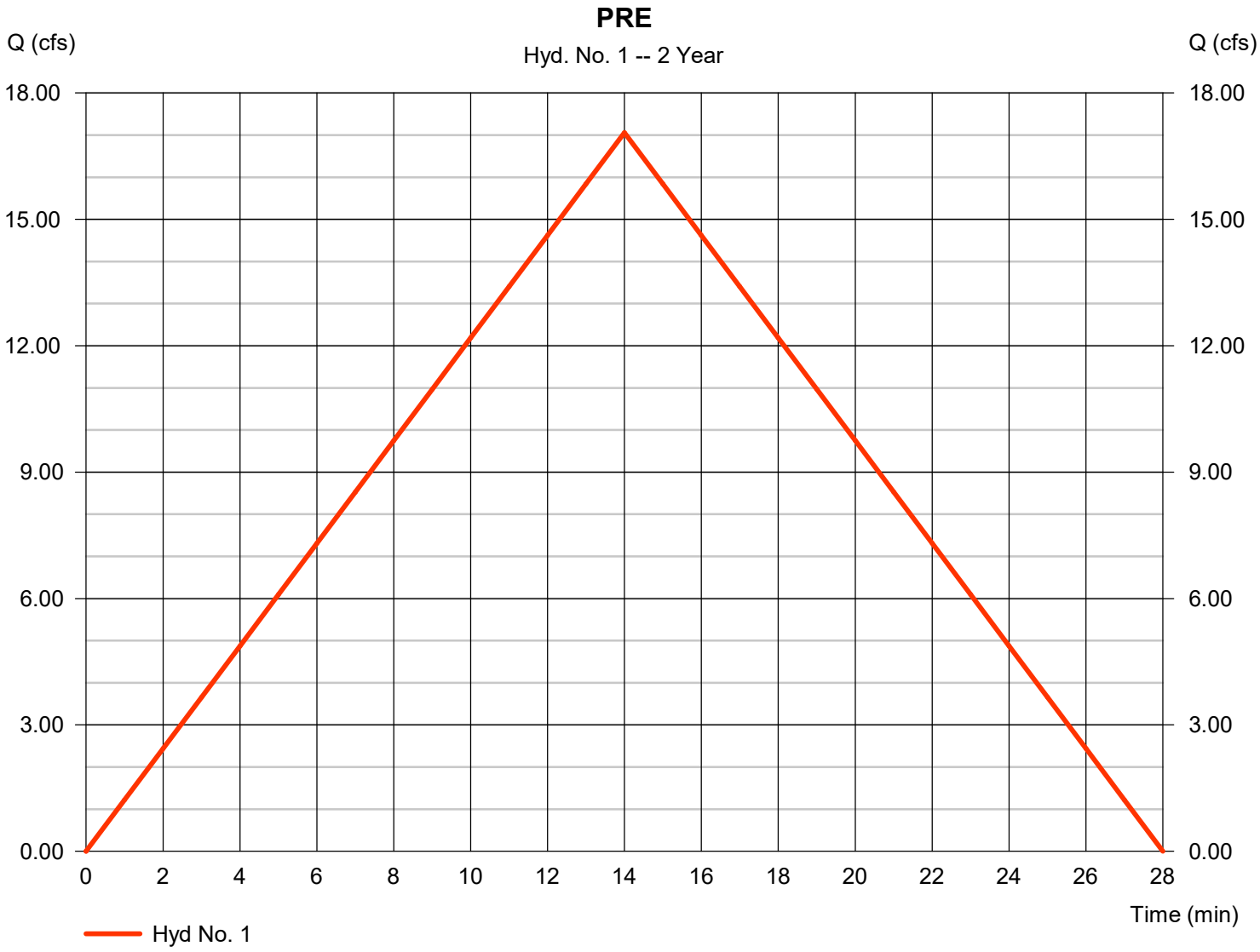
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	17.06 cfs
Storm frequency	=	2 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	14,330 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	4.014 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



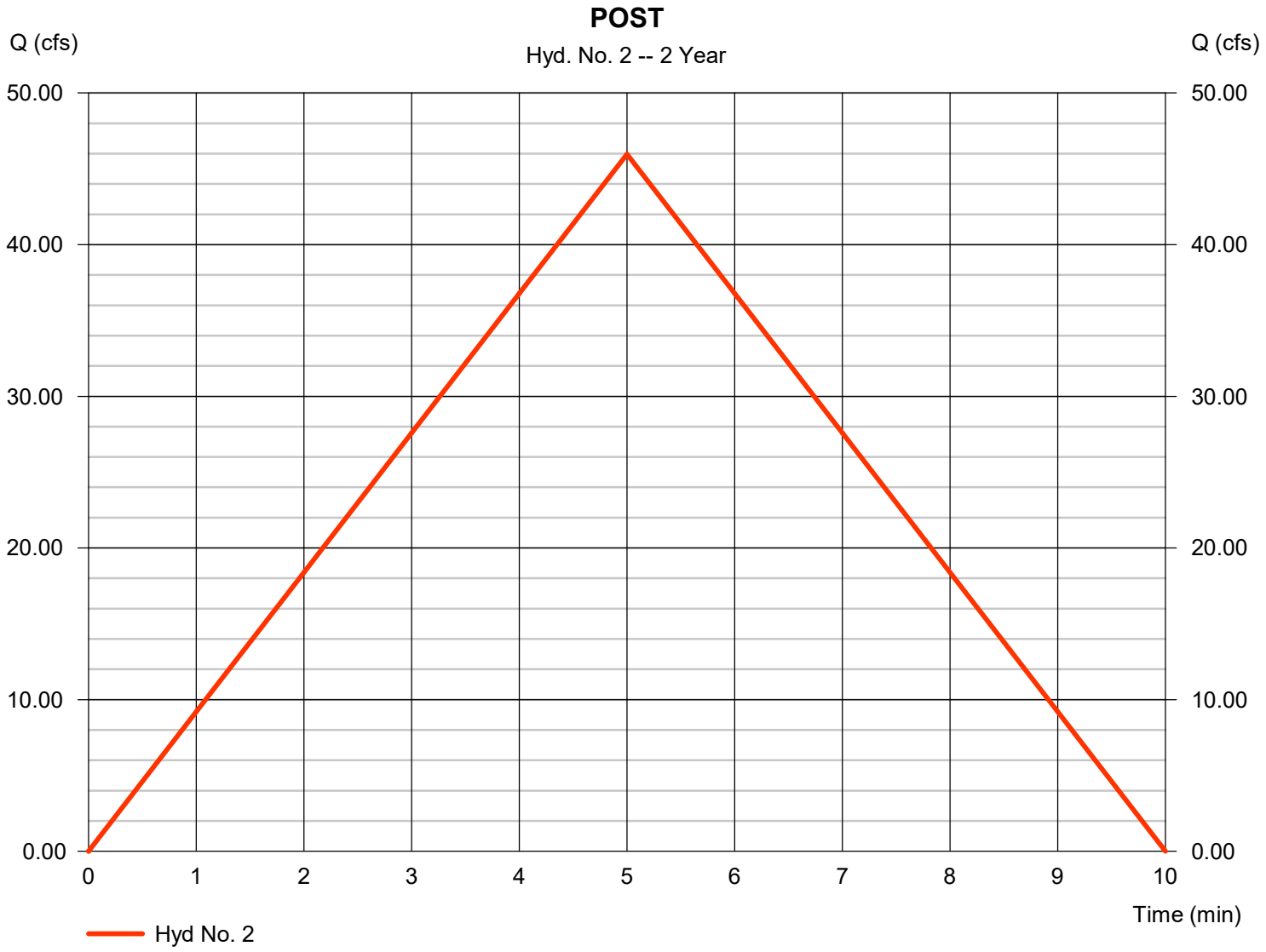
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	45.97 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	13,792 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	5.693 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



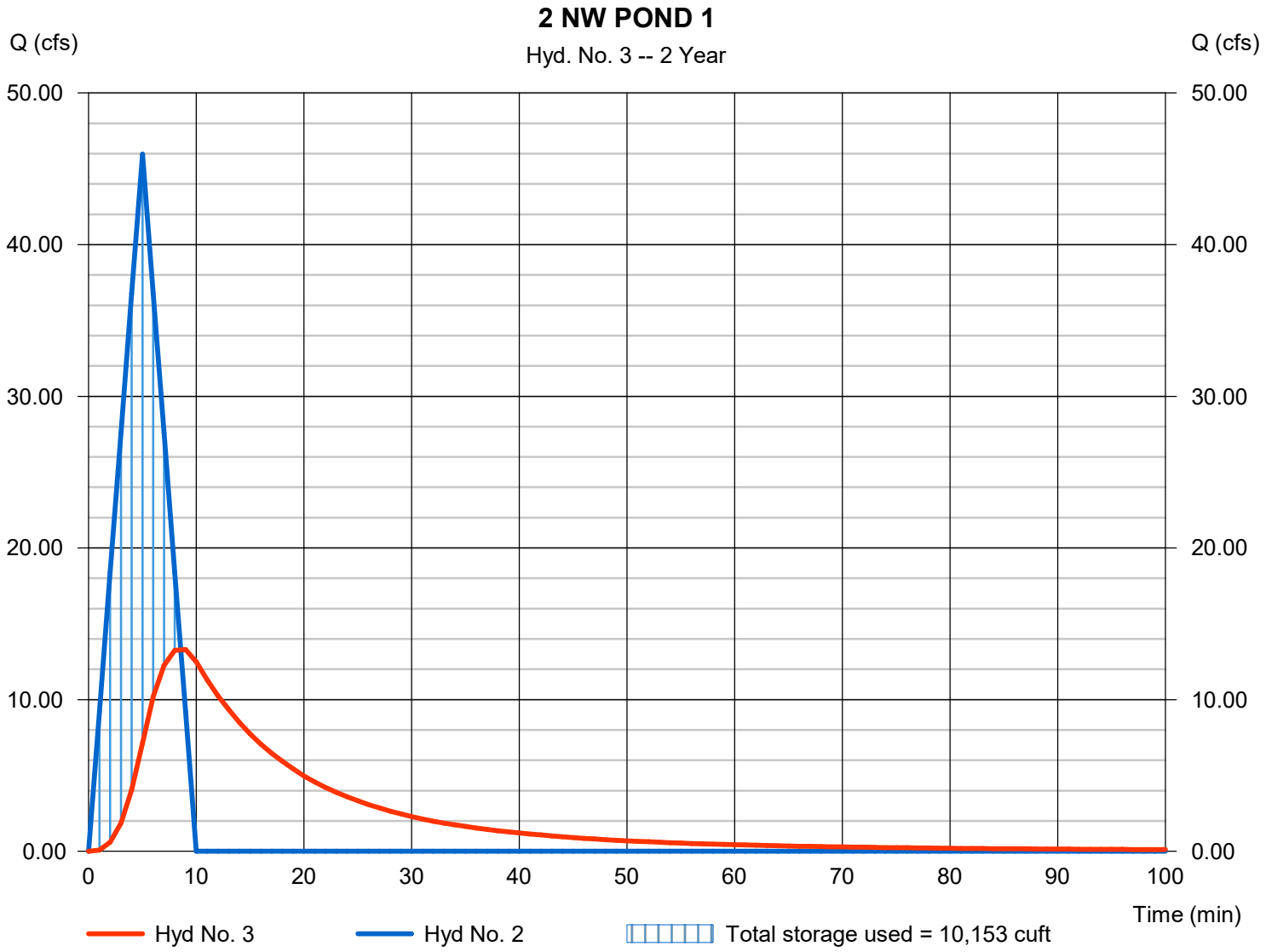
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	13.30 cfs
Storm frequency	=	2 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	13,787 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.08 ft
Reservoir name	=	NW POND 1	Max. Storage	=	10,153 cuft

Storage Indication method used.



Pond Report

Pond No. 2 - NW POND 1

Pond Data

Trapezoid -Bottom L x W = 80.0 x 50.0 ft, Side slope = 3.00:1, Bottom elev. = 380.00 ft, Depth = 4.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	380.00	4,000	0	0
0.40	380.40	4,318	1,663	1,663
0.80	380.80	4,647	1,793	3,456
1.20	381.20	4,988	1,927	5,382
1.60	381.60	5,340	2,065	7,448
2.00	382.00	5,704	2,208	9,656
2.40	382.40	6,079	2,356	12,012
2.80	382.80	6,466	2,509	14,521
3.20	383.20	6,865	2,666	17,187
3.60	383.60	7,275	2,827	20,014
4.00	384.00	7,696	2,994	23,008

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 380.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	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)	= 1.70	20.00	0.00	0.00
Crest El. (ft)	= 380.00	383.10	0.00	0.00
Weir Coeff.	= 2.60	2.60	3.33	3.33
Weir Type	= Broad	Broad	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

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

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	380.00	---	---	---	---	0.00	0.00	---	---	---	---	0.000
0.40	1,663	380.40	---	---	---	---	1.12	0.00	---	---	---	---	1.118
0.80	3,456	380.80	---	---	---	---	3.16	0.00	---	---	---	---	3.163
1.20	5,382	381.20	---	---	---	---	5.81	0.00	---	---	---	---	5.810
1.60	7,448	381.60	---	---	---	---	8.95	0.00	---	---	---	---	8.946
2.00	9,656	382.00	---	---	---	---	12.50	0.00	---	---	---	---	12.50
2.40	12,012	382.40	---	---	---	---	16.43	0.00	---	---	---	---	16.43
2.80	14,521	382.80	---	---	---	---	20.71	0.00	---	---	---	---	20.71
3.20	17,187	383.20	---	---	---	---	25.30	1.64	---	---	---	---	26.95
3.60	20,014	383.60	---	---	---	---	30.19	18.38	---	---	---	---	48.58
4.00	23,008	384.00	---	---	---	---	35.36	44.40	---	---	---	---	79.76

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	20.35	1	14	17,096	------	------	------	PRE
2	Rational	53.05	1	5	15,916	------	------	------	POST
3	Reservoir	15.70	1	9	15,911	2	382.33	11,589	2 NW POND 1

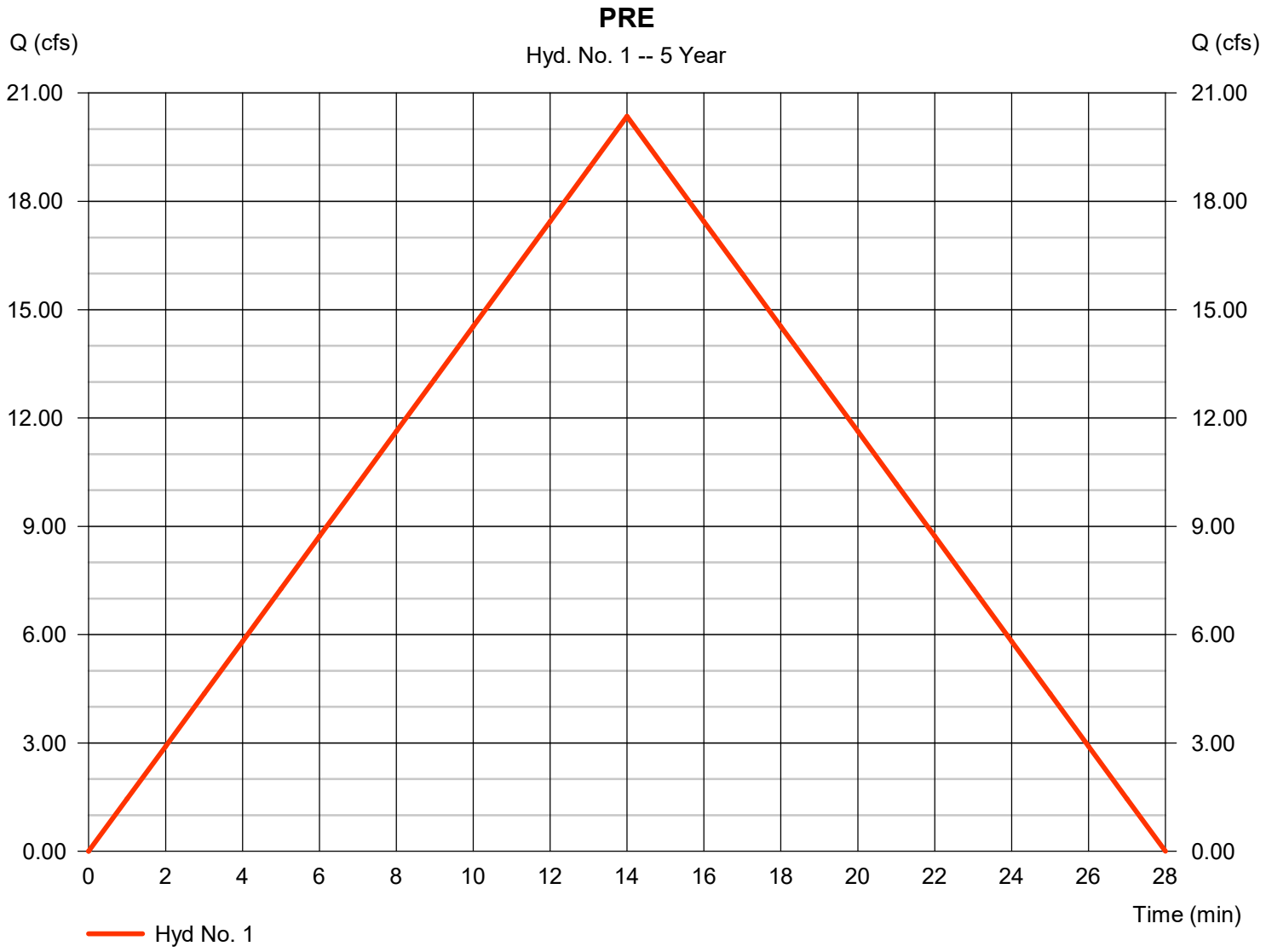
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	20.35 cfs
Storm frequency	=	5 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	17,096 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	4.789 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



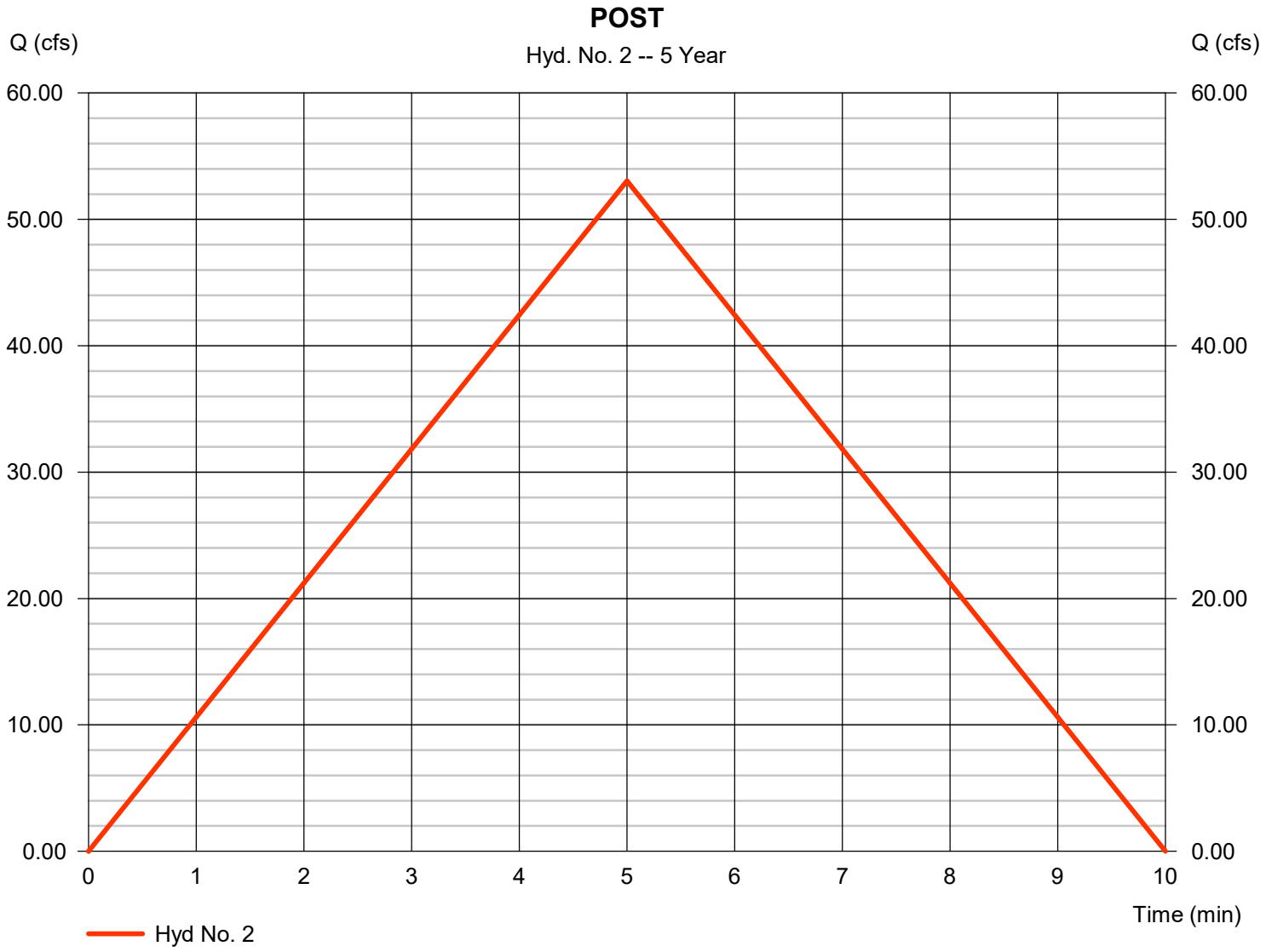
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	53.05 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	15,916 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	6.570 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



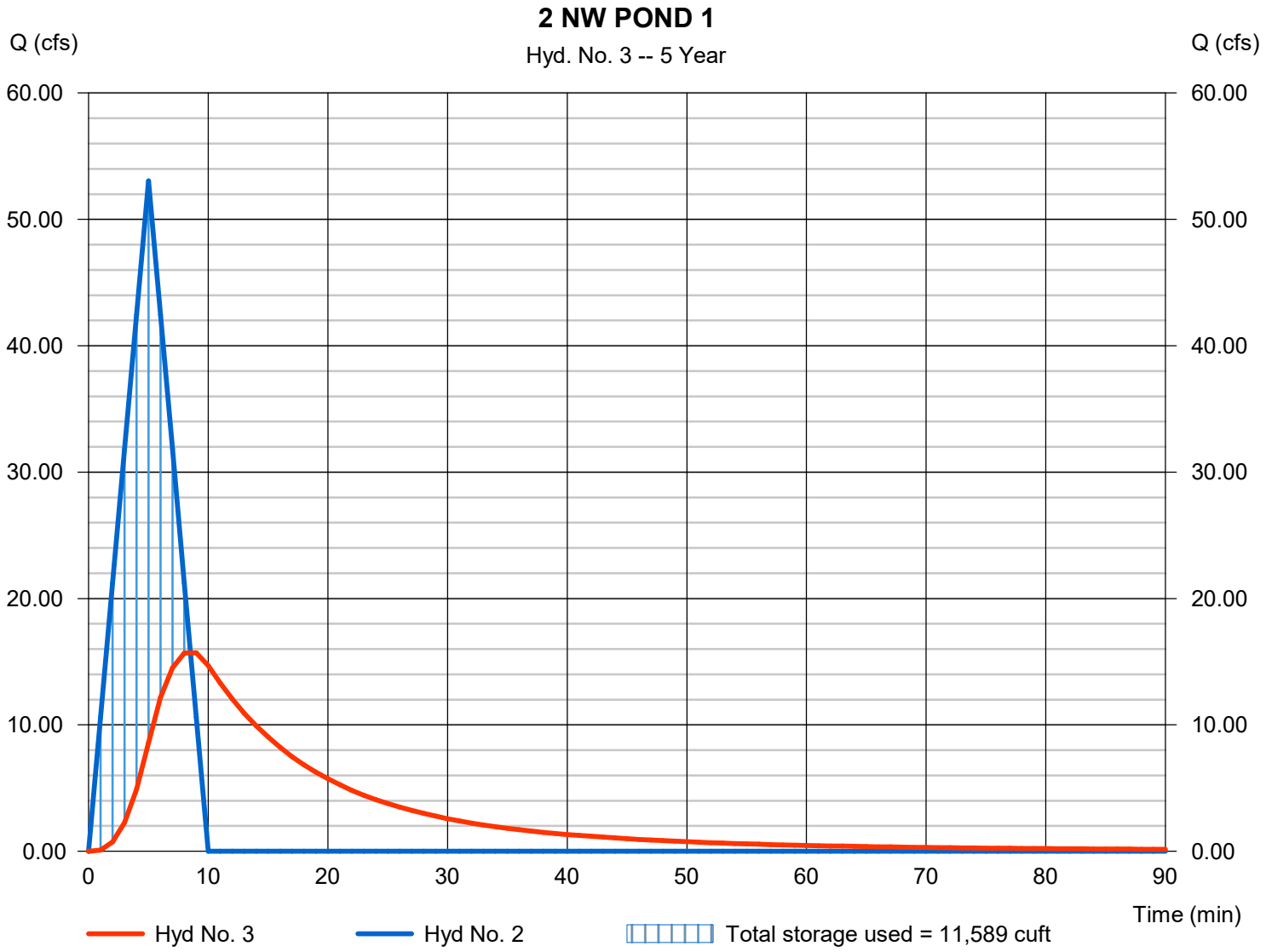
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	15.70 cfs
Storm frequency	=	5 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	15,911 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.33 ft
Reservoir name	=	NW POND 1	Max. Storage	=	11,589 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	22.76	1	14	19,117	------	------	------	PRE
2	Rational	58.45	1	5	17,534	------	------	------	POST
3	Reservoir	17.53	1	8	17,530	2	382.51	12,677	2 NW POND 1

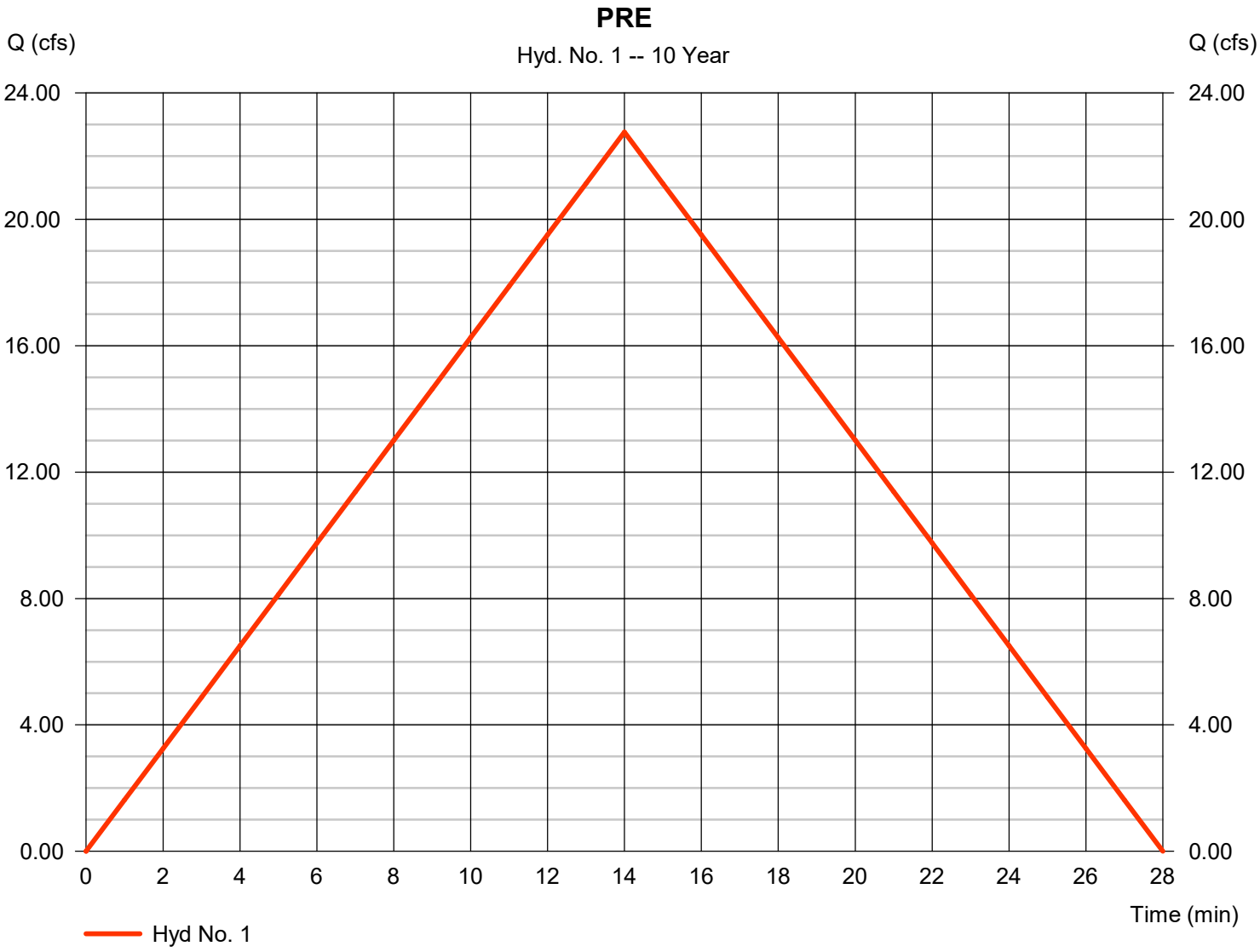
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	22.76 cfs
Storm frequency	=	10 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	19,117 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	5.355 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



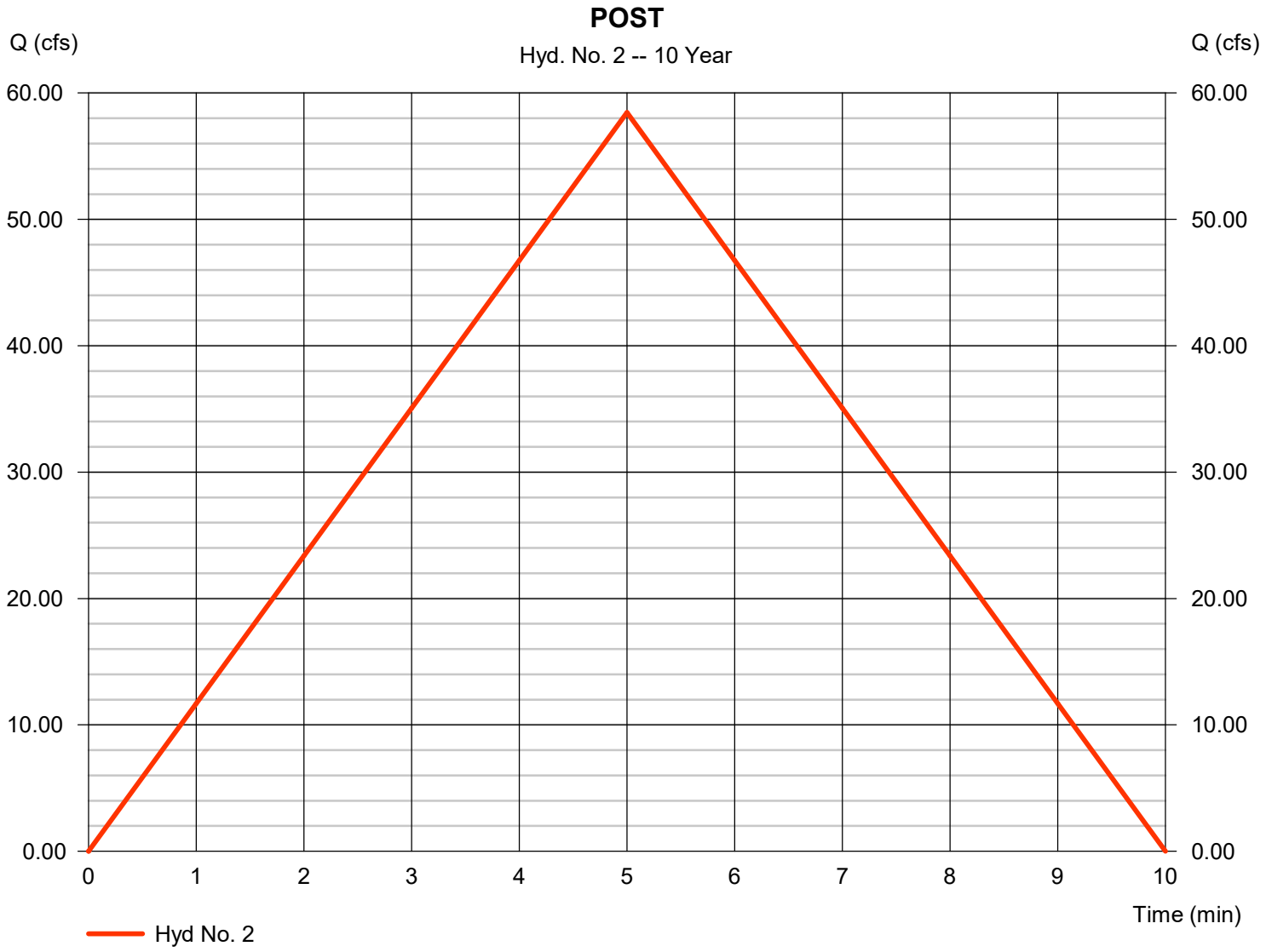
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	58.45 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	17,534 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	7.238 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



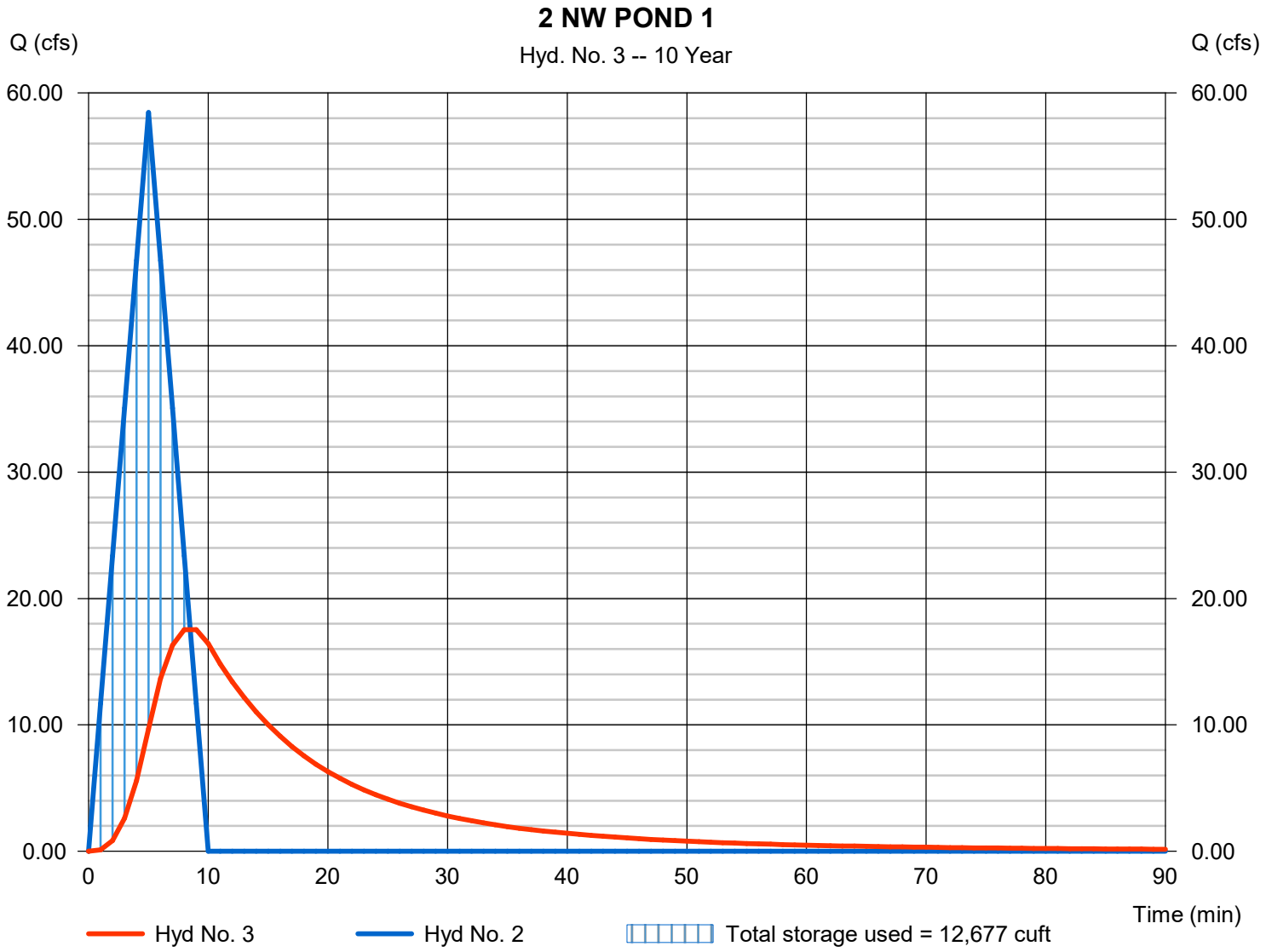
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	17.53 cfs
Storm frequency	=	10 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	17,530 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.51 ft
Reservoir name	=	NW POND 1	Max. Storage	=	12,677 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	26.30	1	14	22,090	------	------	------	PRE
2	Rational	66.60	1	5	19,979	------	------	------	POST
3	Reservoir	20.38	1	8	19,974	2	382.77	14,334	2 NW POND 1

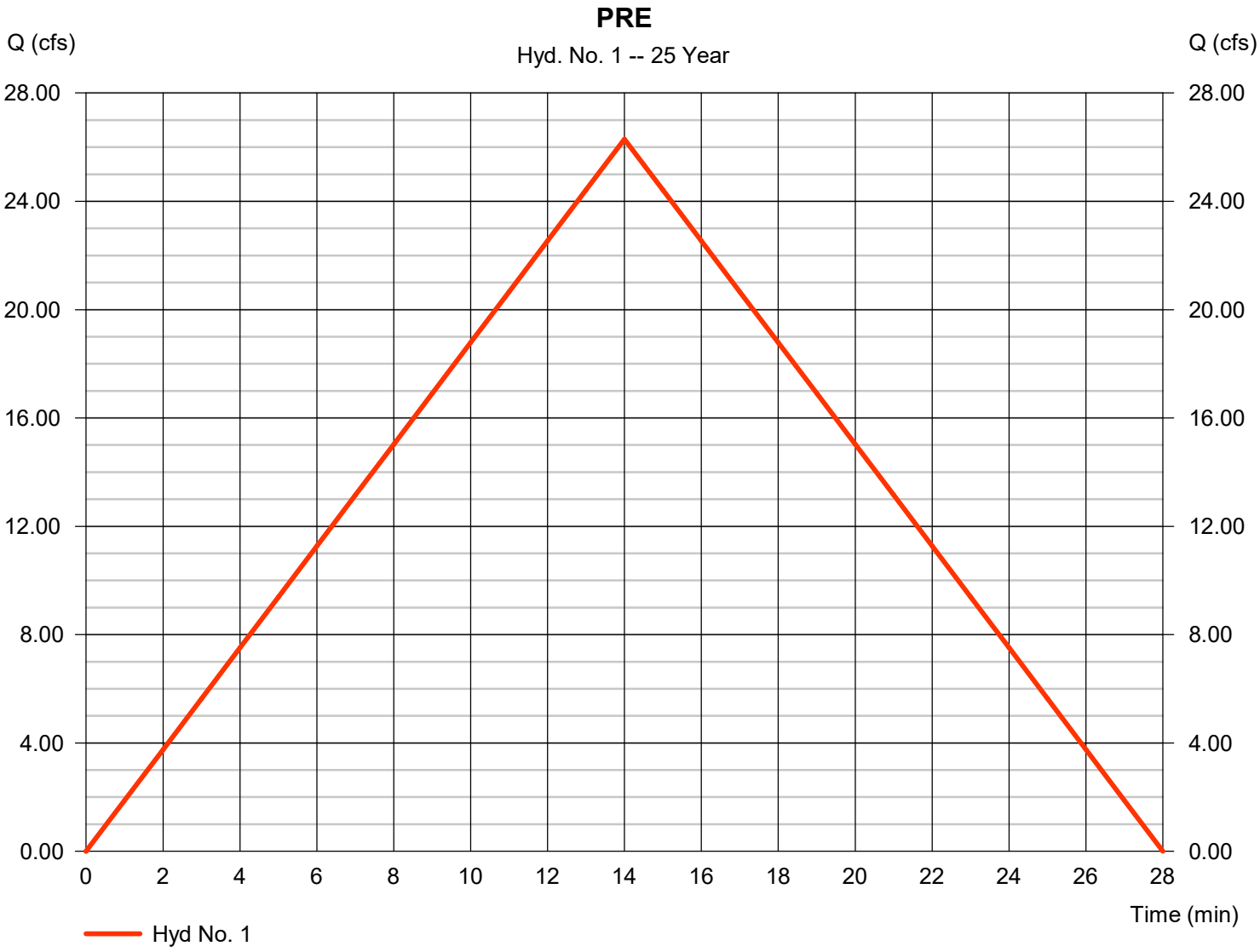
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	26.30 cfs
Storm frequency	=	25 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	22,090 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	6.188 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



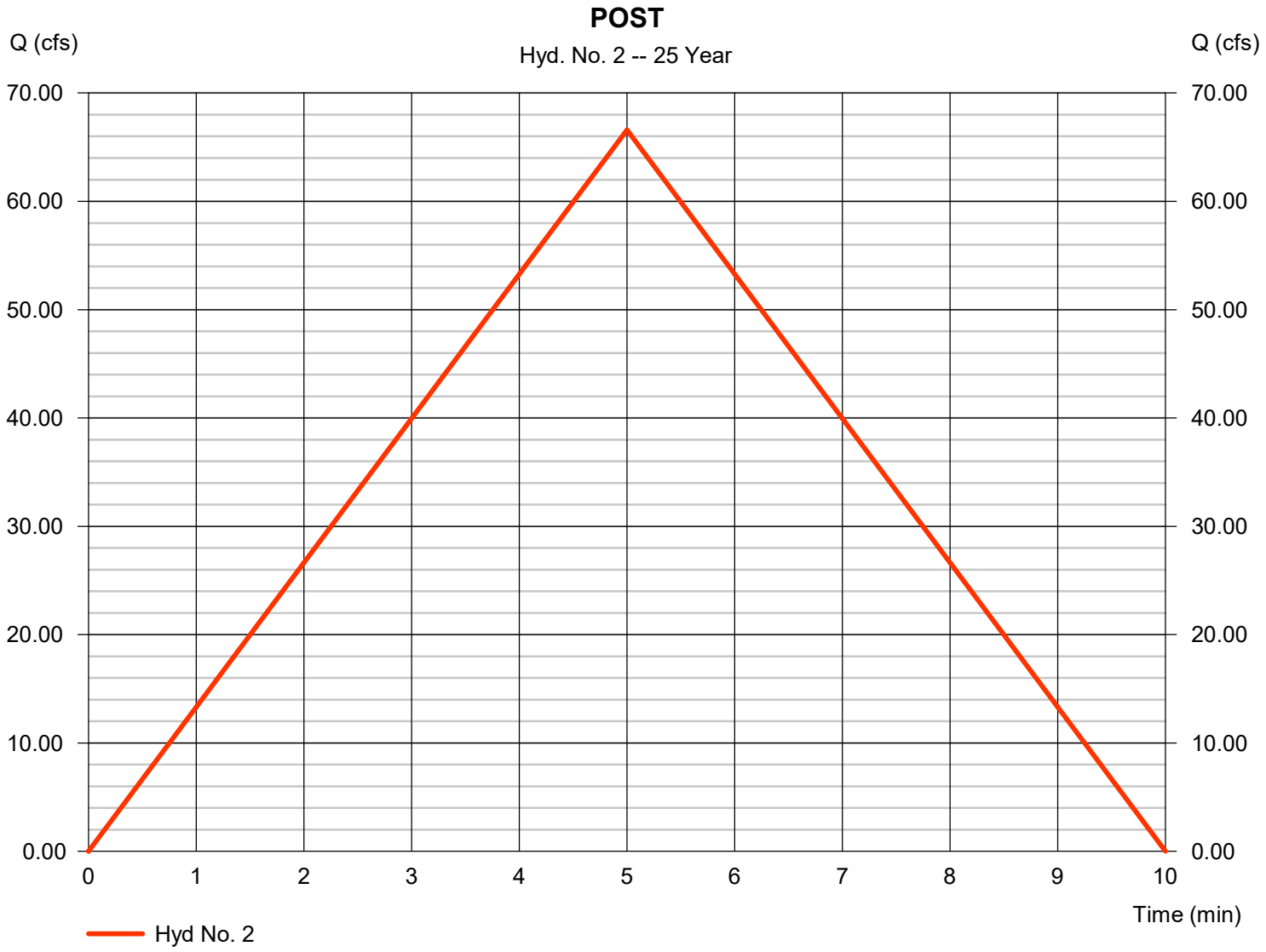
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	66.60 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	19,979 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	8.247 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



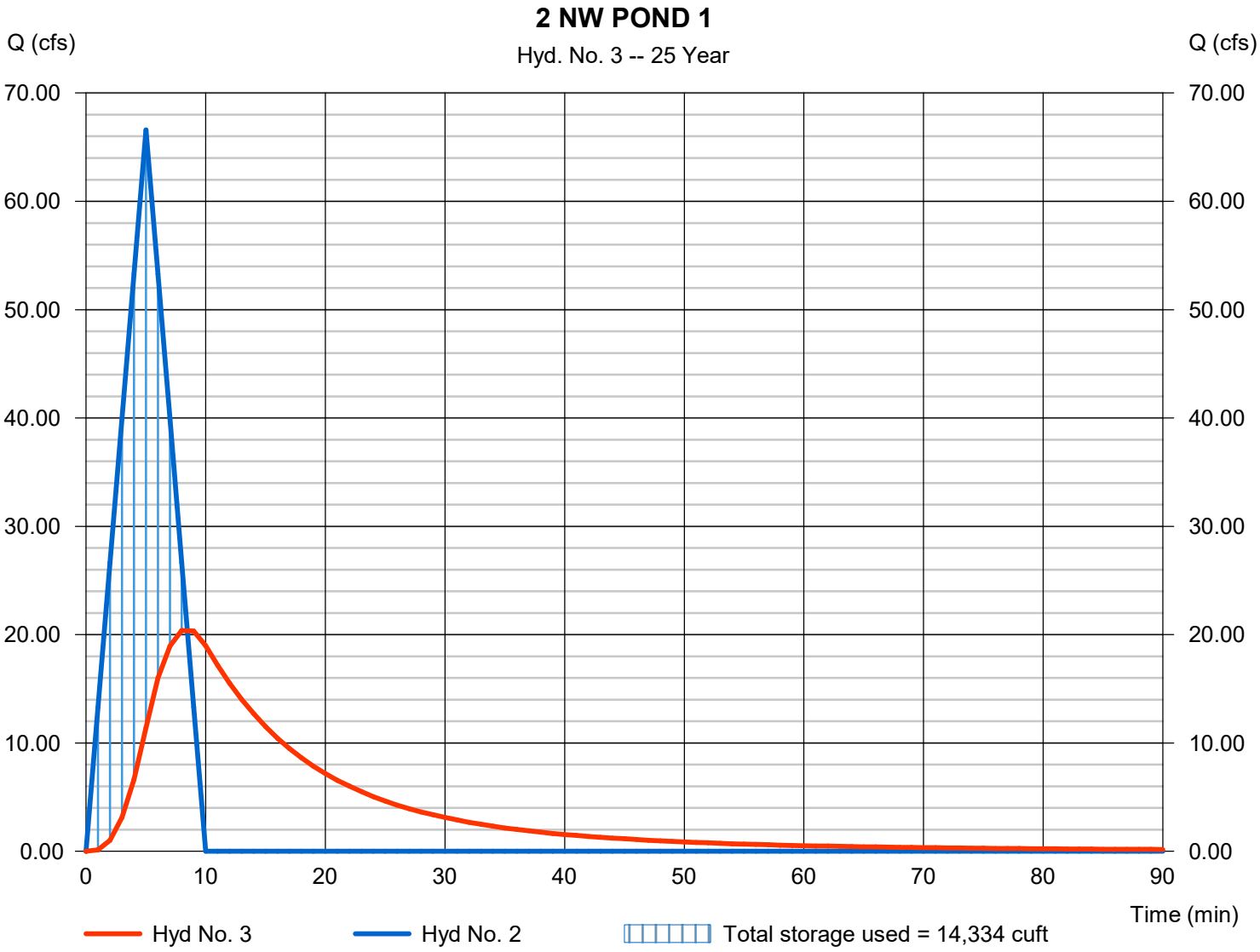
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	20.38 cfs
Storm frequency	=	25 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	19,974 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.77 ft
Reservoir name	=	NW POND 1	Max. Storage	=	14,334 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	29.07	1	14	24,417	------	------	------	PRE
2	Rational	73.00	1	5	21,901	------	------	------	POST
3	Reservoir	22.58	1	8	21,896	2	382.97	15,631	2 NW POND 1

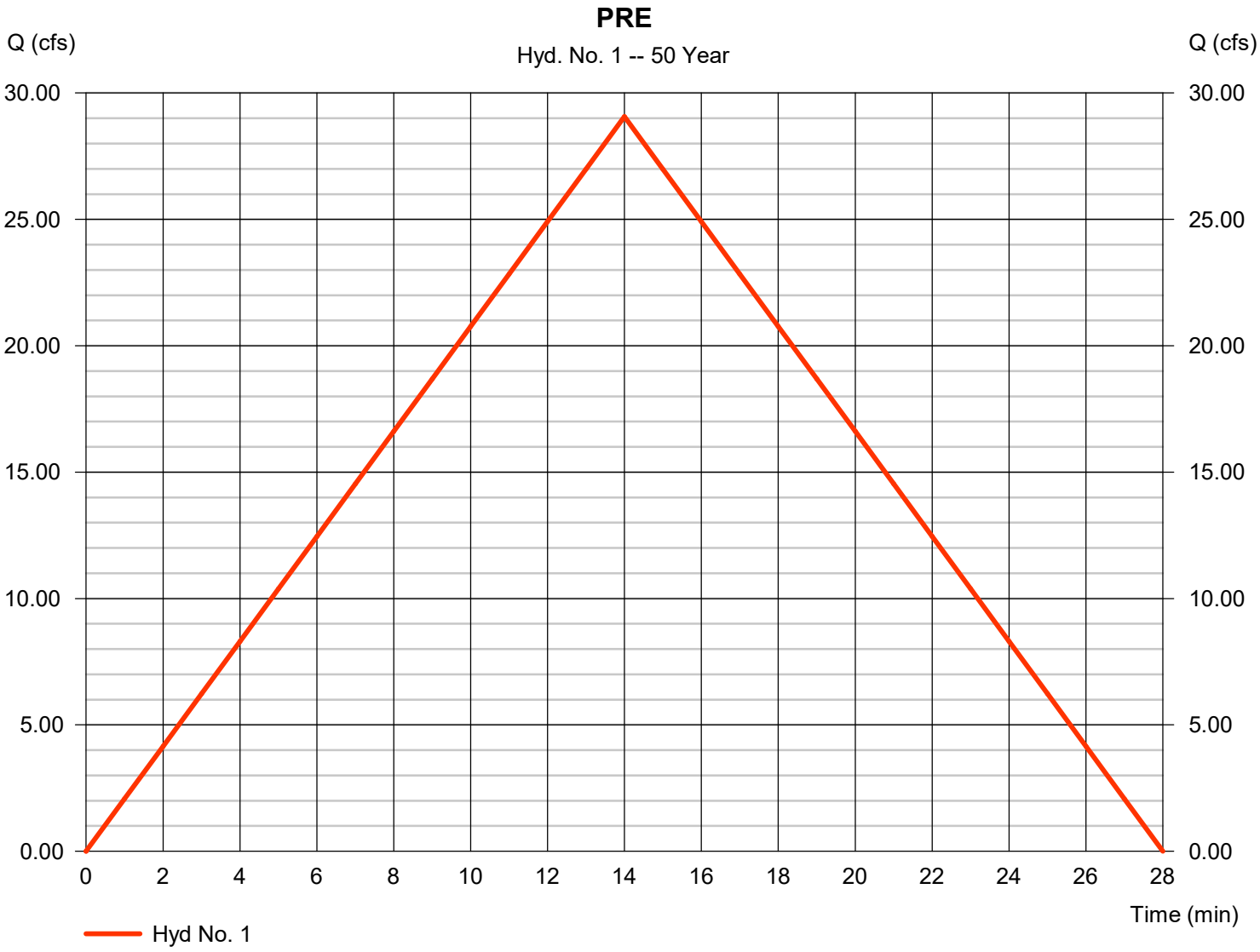
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	29.07 cfs
Storm frequency	=	50 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	24,417 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	6.840 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



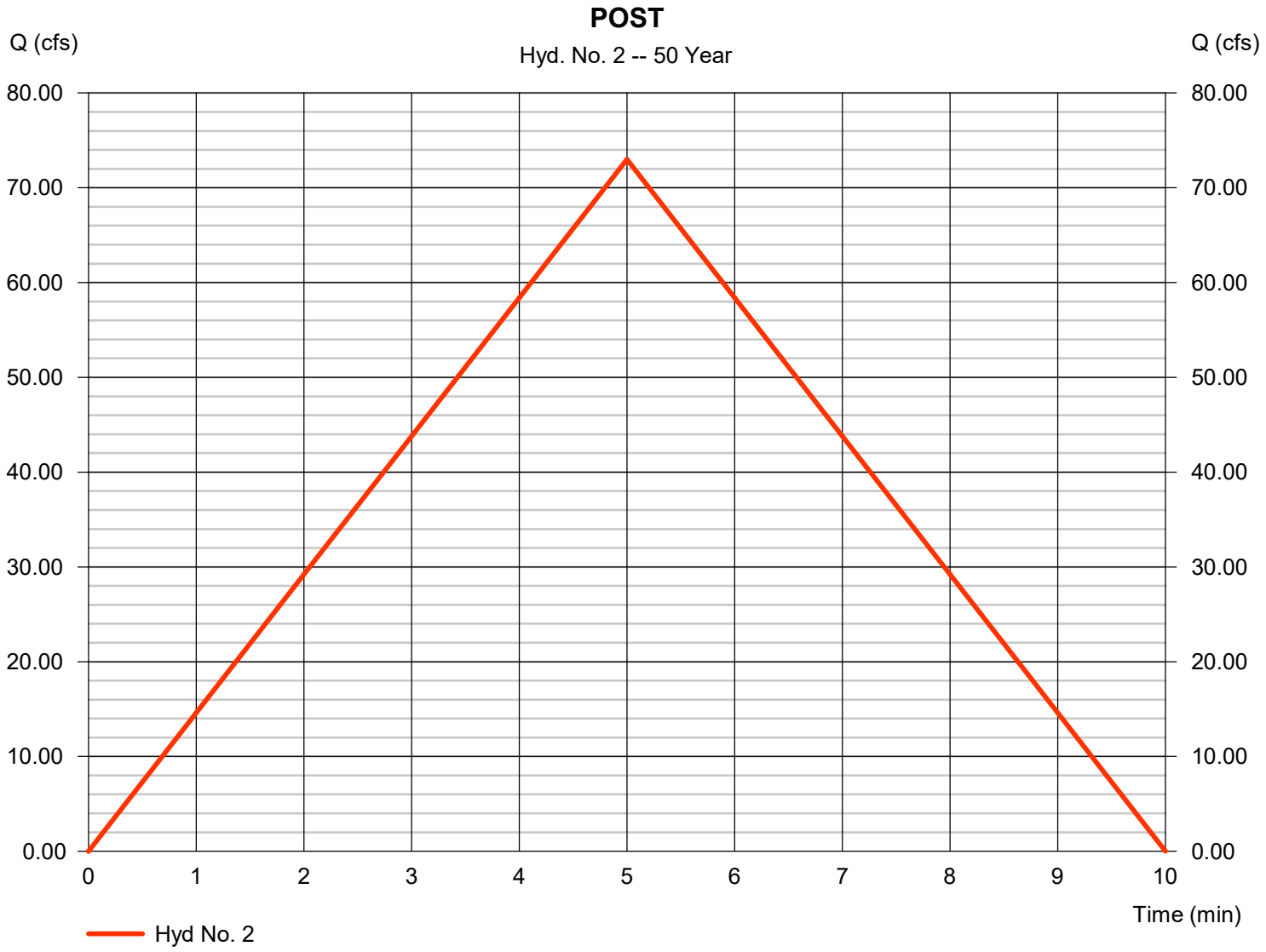
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	73.00 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	21,901 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	9.041 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



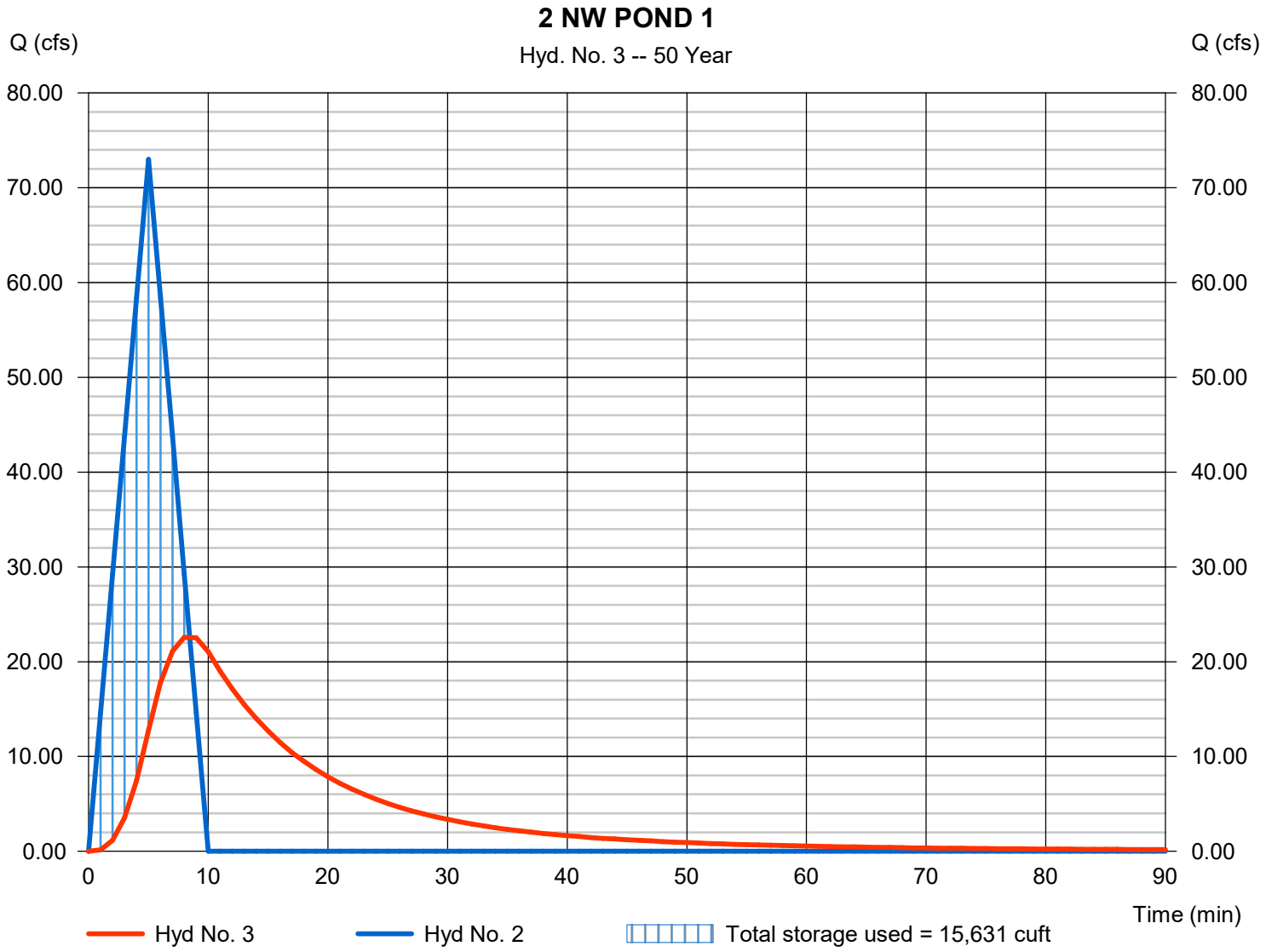
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	22.58 cfs
Storm frequency	=	50 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	21,896 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	382.97 ft
Reservoir name	=	NW POND 1	Max. Storage	=	15,631 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	31.83	1	14	26,734	------	------	------	PRE
2	Rational	79.40	1	5	23,820	------	------	------	POST
3	Reservoir	25.53	1	8	23,815	2	383.16	16,904	2 NW POND 1

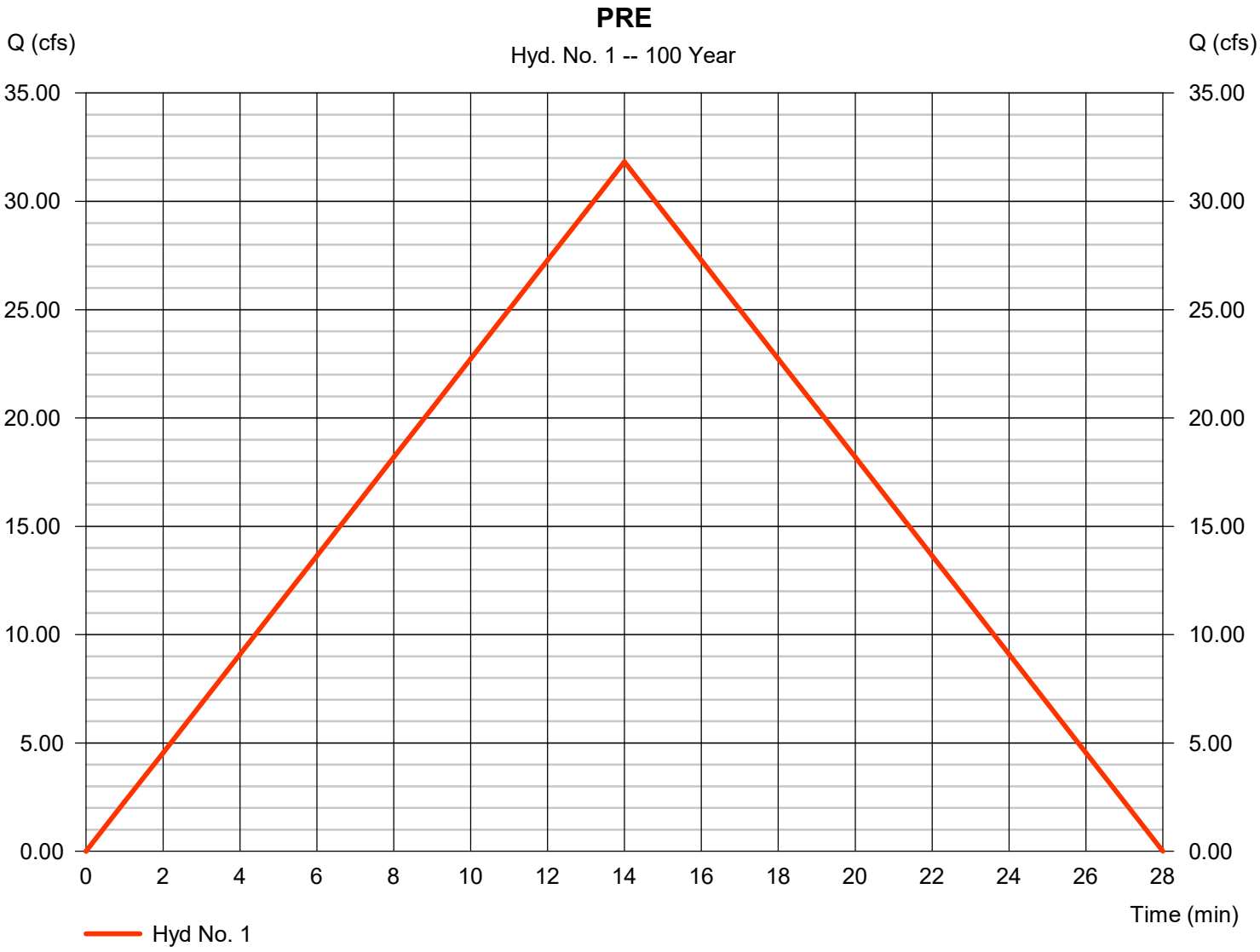
Hydrograph Report

Hyd. No. 1

PRE

Hydrograph type	=	Rational	Peak discharge	=	31.83 cfs
Storm frequency	=	100 yrs	Time to peak	=	14 min
Time interval	=	1 min	Hyd. volume	=	26,734 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.5*
Intensity	=	7.488 in/hr	Tc by User	=	14.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.600 x 0.40) + (0.160 x 0.95)] / 8.500



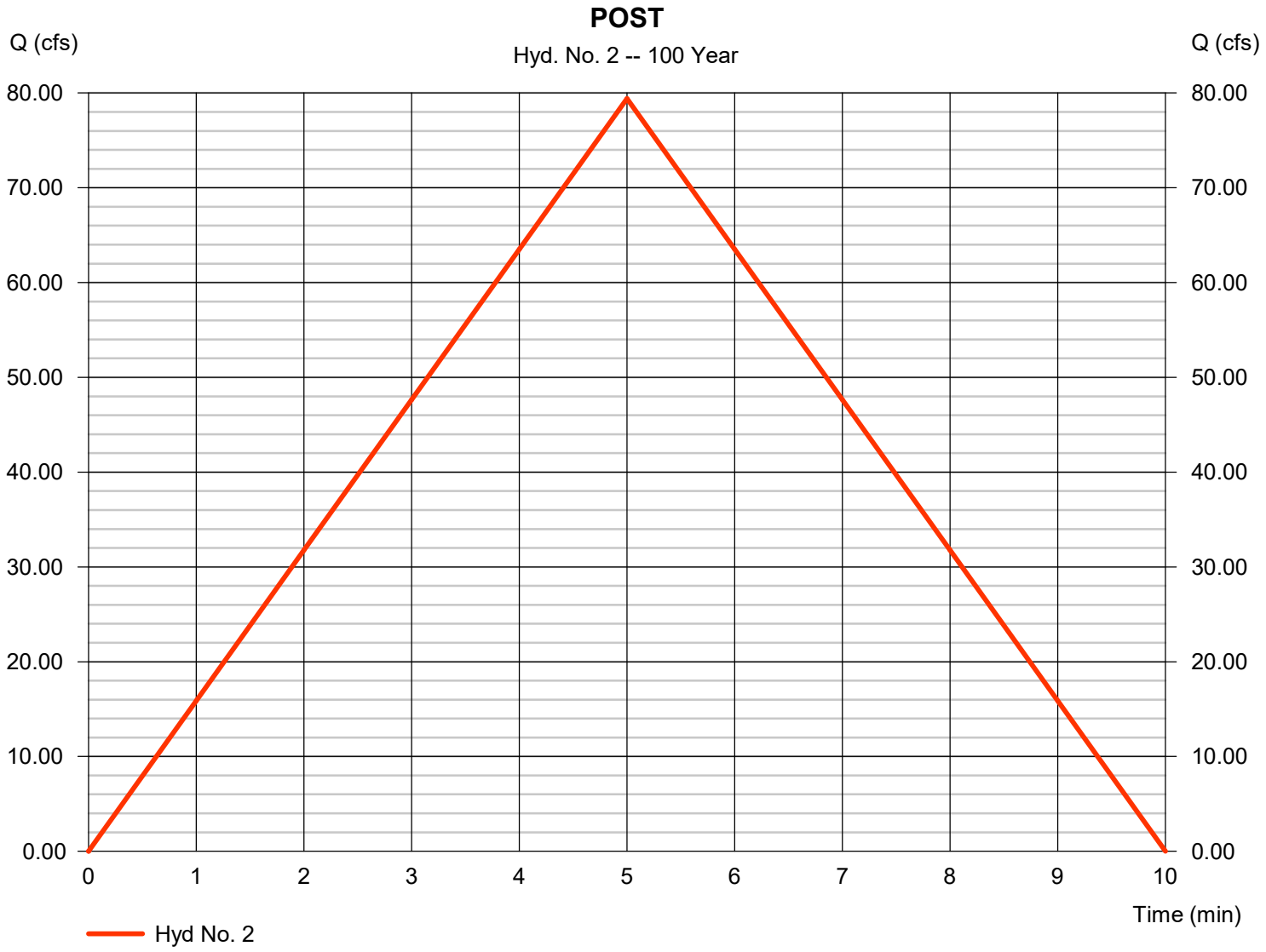
Hydrograph Report

Hyd. No. 2

POST

Hydrograph type	=	Rational	Peak discharge	=	79.40 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	23,820 cuft
Drainage area	=	8.500 ac	Runoff coeff.	=	0.95*
Intensity	=	9.833 in/hr	Tc by User	=	5.00 min
IDF Curve	=	Littlerock.IDF	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(0.300 x 0.40) + (1.460 x 0.95)] / 8.500



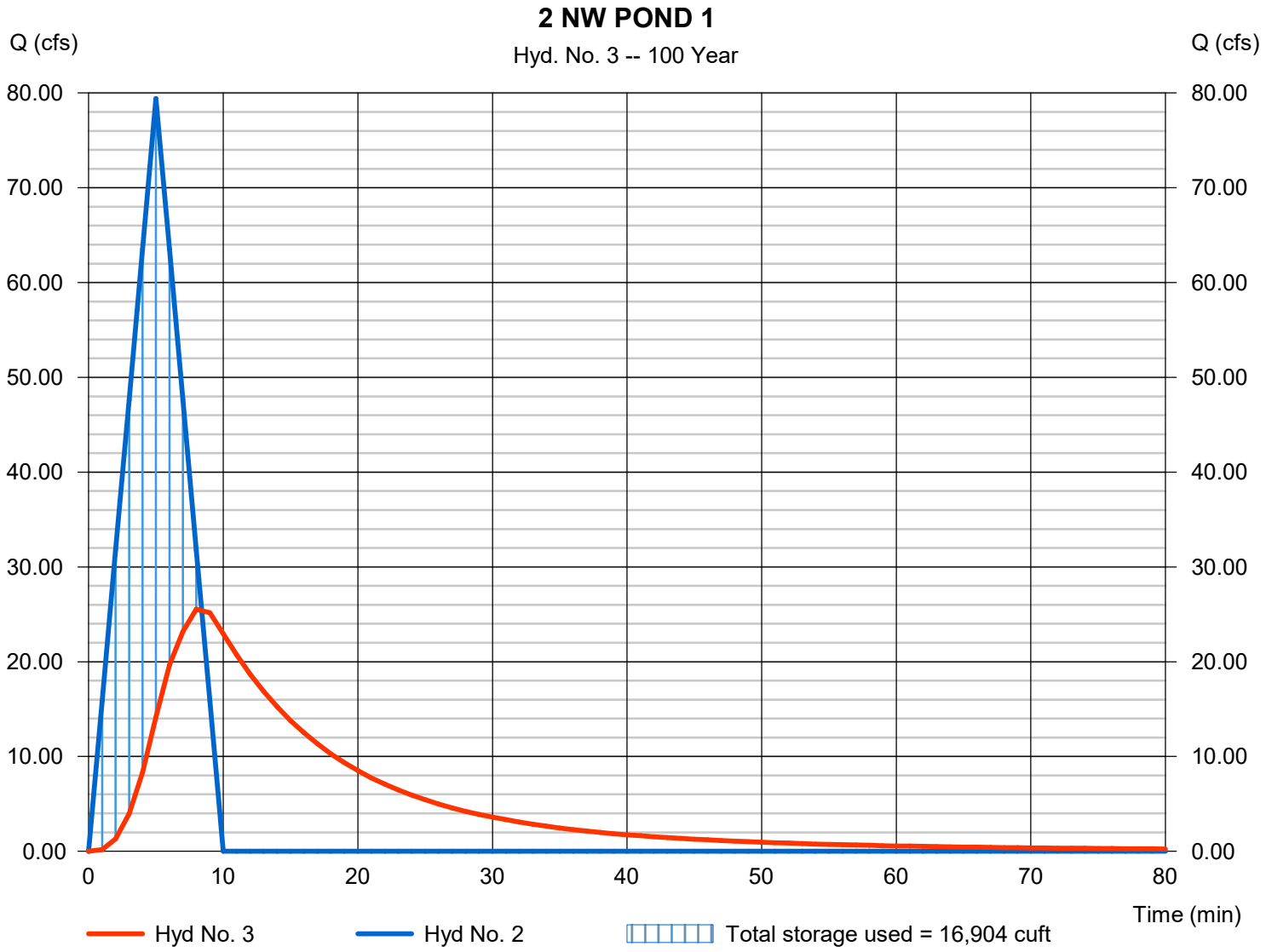
Hydrograph Report

Hyd. No. 3

2 NW POND 1

Hydrograph type	=	Reservoir	Peak discharge	=	25.53 cfs
Storm frequency	=	100 yrs	Time to peak	=	8 min
Time interval	=	1 min	Hyd. volume	=	23,815 cuft
Inflow hyd. No.	=	2 - POST	Max. Elevation	=	383.16 ft
Reservoir name	=	NW POND 1	Max. Storage	=	16,904 cuft

Storage Indication method used.



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CERTIFICATE OF SURVEY ACCURACY

I, ZANE ROBBINS, HEREBY CERTIFY THAT THIS PLAT CORRECTLY REPRESENTS A BOUNDARY SURVEY MADE OR VERIFIED BY ME, THAT ALL SURVEYING REQUIREMENTS OF THE STATE OF ARKANSAS AND CITY OF BRYANT SUBDIVISION RULES AND REGULATIONS HAVE BEEN COMPLIED WITH AND FILED FOR RECORD AS REQUIRED.

_____
DATE OF EXECUTION

Zane Robbins
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 1853 ARKANSAS

CERTIFICATE OF OWNER

WE, THE UNDERSIGNED, OWNERS OF THE REAL ESTATE SHOWN AND DESCRIBED HEREIN, DO HEREBY CERTIFY THAT WE HAVE LAID OFF, PLATTED AND SUBDIVIDED, AND DO HEREBY LAY OFF, PLAT AND SUBDIVIDE SAID REAL ESTATE IN ACCORDANCE WITH THIS PLAT.

DATE OF EXECUTION _____

SIGNED _____

NAME SAM FERGUSON

ADDRESS _____

_____

SOURCE OF TITLE: INSTRUMENT NO.

LAND DESCRIPTION PROVIDED
LOTS 7 AND 8, BLOCK 14 OF THE TOWN, NOW CITY OF BRYANT, ARKANSAS.

GENERAL NOTES

1. BASIS OF BEARING FOR THIS SURVEY IS ARKANSAS GRID SOUTH. DISTANCES SHOWN ARE GROUND DISTANCES.
2. REFERENCES:
   A. PLAT OF THE TOWN OF BRYANT.
   B. WARRANTY DEED TO MINA GLOVER. INSTRUMENT NO. 2002073213.
3. TRACT 1 WILL BE MAINTAINED BY THE PROPERTY OWNER MANAGEMENT GROUP.

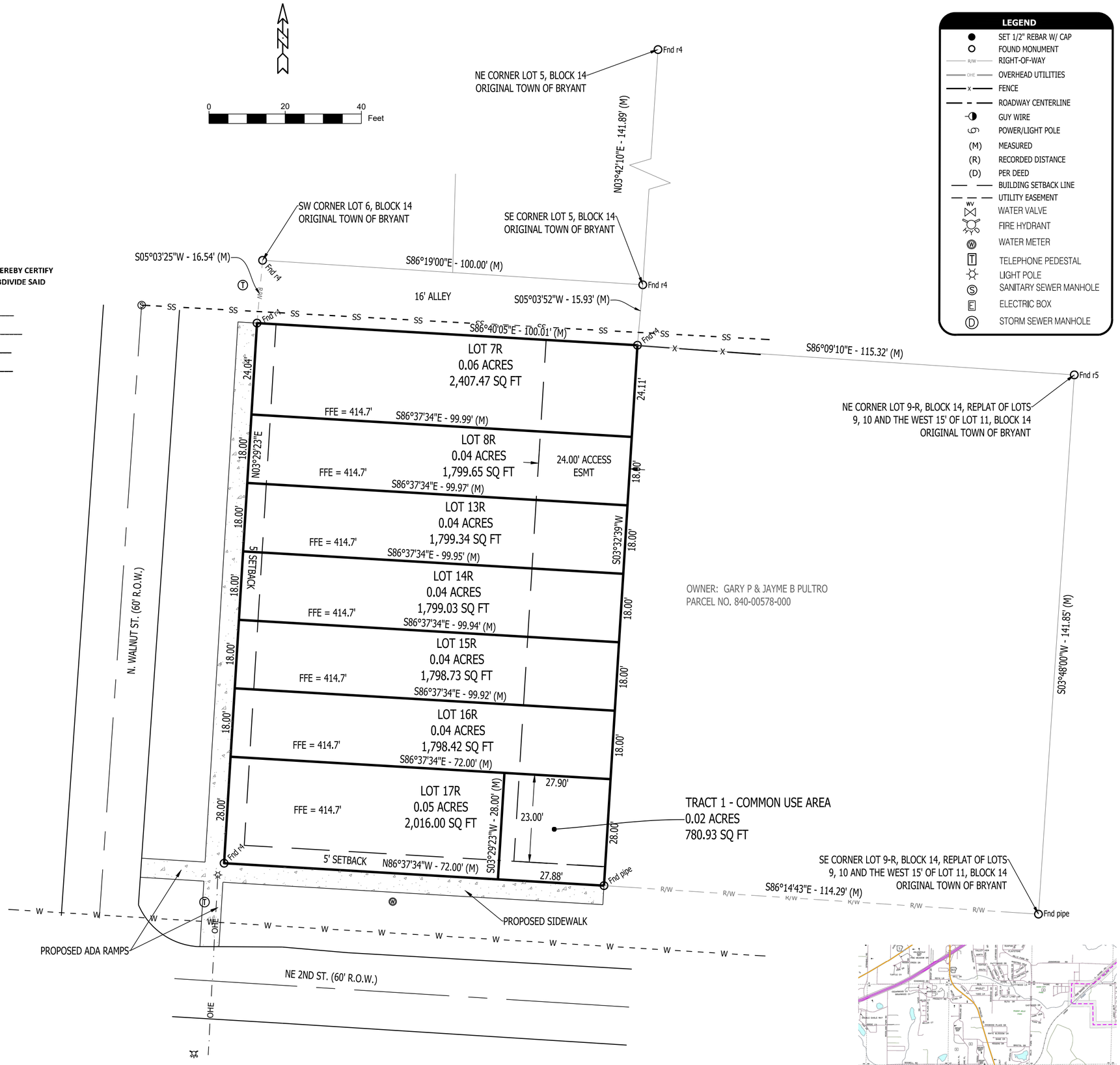
CERTIFICATE OF AUTHORIZATION
ROBBINS PROFESSIONAL LAND SERVICES
#4151
ARKANSAS - SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1853
SIGNATURE
12/11/2025
ZANE ROBBINS
PROFESSIONAL LAND SURVEYOR

CERTIFICATION

I HEREBY CERTIFY THAT THE ABOVE PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY SUPERVISION ON THIS DAY AND THAT ALL CORNERS ARE SET AS SHOWN. NO INDEPENDENT SEARCH FOR EASEMENTS, COVENANTS, ENCUMBRANCES, OR ANY OTHER FACTS WHICH AN ACCURATE TITLE SEARCH MAY DISCLOSE WAS PERFORMED.

Zane Robbins
ZANE ROBBINS, AR PLS #1853



PROPERTY ADDRESS
203 NE SECOND ST
BRYANT, AR 72022

UTILITIES DISCLAIMER

UTILITIES SHOWN ARE NOTED BY VISIBLE OBSERVATION ONLY. UNDERGROUND UTILITIES ARE TAKEN FROM UTILITY MAPS; EXACT LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AS NO EXCAVATION HAS TAKEN PLACE AS OF THIS DATE TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THIS DRAWING.

CERTIFICATE OF FINAL PLAT APPROVAL

ALL REQUIREMENTS OF THE BRYANT SUBDIVISION RULES AND REGULATIONS RELATIVE TO THE PREPARATION AND SUBMITTAL TO A FINAL PLAT HAVE BEEN FULFILLED, APPROVAL OF THIS PLAT IS HEREBY GRANTED, SUBJECT TO FURTHER PROVISIONS OF SAID RULES AND REGULATIONS.

SIGNED,

_____
DATE OF EXECUTION

_____
BRYANT PLANNING COMMISSION

LEGEND

- SET 1/2" REBAR W/ CAP
- FOUND MONUMENT
- R/W — RIGHT-OF-WAY
- OHE — OVERHEAD UTILITIES
- x — FENCE
- ROADWAY CENTERLINE
- GUY WIRE
- POWER/LIGHT POLE
- (M) MEASURED
- (R) RECORDED DISTANCE
- (D) PER DEED
- BUILDING SETBACK LINE
- UTILITY EASEMENT
- WV WATER VALVE
- FIRE HYDRANT
- W WATER METER
- T TELEPHONE PEDESTAL
- LIGHT POLE
- S SANITARY SEWER MANHOLE
- E ELECTRIC BOX
- D STORM SEWER MANHOLE

VICINITY MAP (NTS)
BRYANT, AR
SITE LOCATION

PLAT CODE: 500-01S14W-0-34-140-62-1853

DATE	REVISIONS

LOTS 1R-7R, A REPLAT OF LOTS 7 & 8, BLOCK 14 ORIGINAL TOWN OF BRYANT, ARKANSAS SALINE COUNTY

REPLAT

ROBBINS PROFESSIONAL LAND SERVICES
INCORPORATED
SURVEYING | GIS | CONSTRUCTION STAKING
P.O. BOX 939 | BRYANT, ARKANSAS 72089
OFFICE: 501.425.6380 | EMAIL: ZANE@ROBBINSS6@GMAIL.COM

DRAWN BY	ZR
CHECKED BY	ZR
DATE	12/11/2025
SCALE	1"=20'
PROJECT No.	20251010
PAGE	1 of 1

Y:\2025\20251010 FERGUSON ORIGINAL TOWN OF BRYANT\20251010 REPLAT.dwg | PLOTTED BY: Ray | PLOT DATE: 12/30/2025 8:48:28 AM | ©2024 ROBBINS PROFESSIONAL LAND SERVICES INCORPORATED

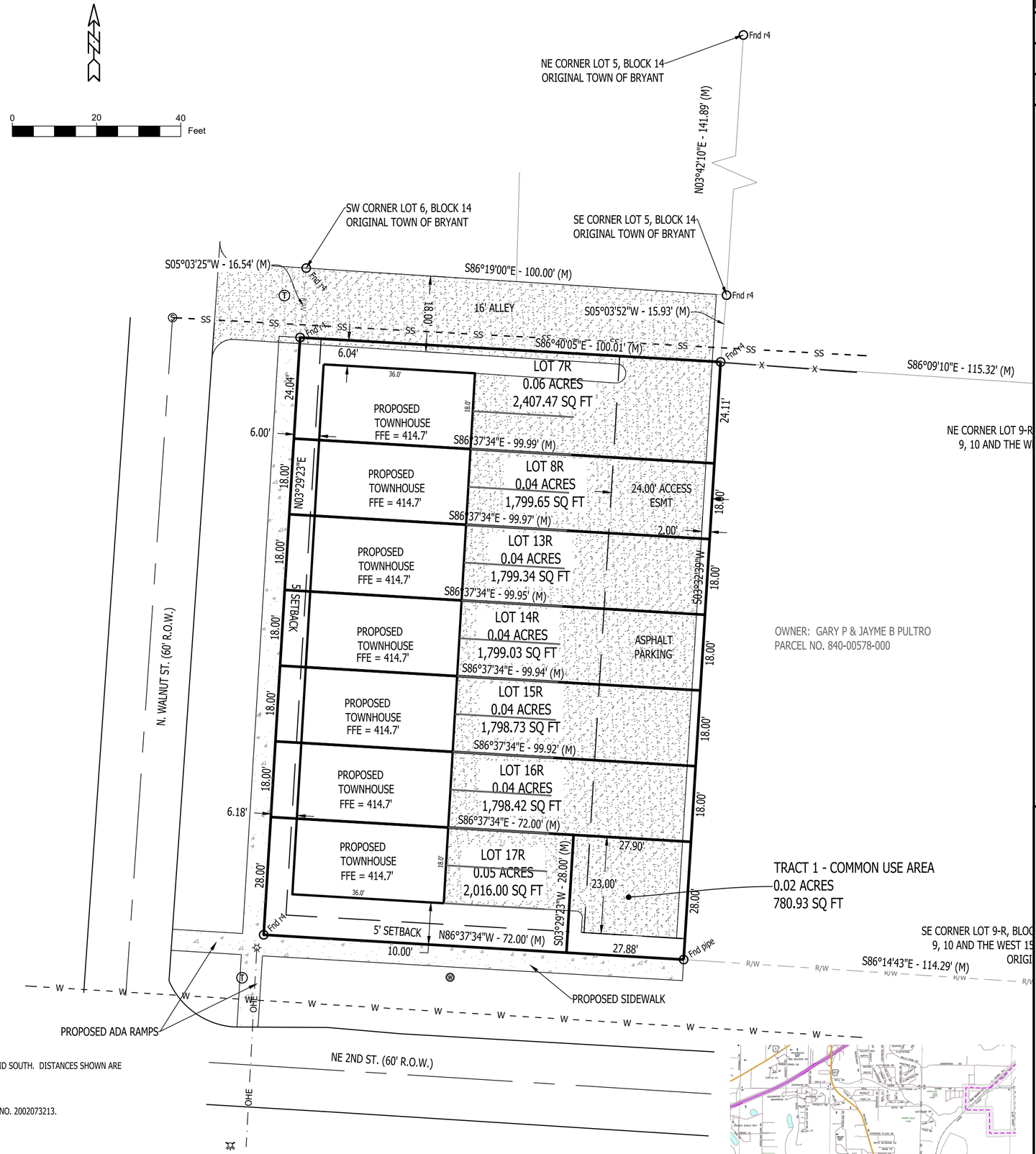
DATE	REVISIONS

LOTS 1R-7R, A REPLAT OF LOTS 7 & 8, BLOCK 14
TOWN, NOW CITY OF BRYANT, ARKANSAS
SALINE COUNTY

PRELIMINARY PLOT PLAN

LEGEND

- SET 1/2" REBAR W/ CAP
- FOUND MONUMENT
- R/W — RIGHT-OF-WAY
- OHE — OVERHEAD UTILITIES
- x — FENCE
- ROADWAY CENTERLINE
- GUY WIRE
- POWER/LIGHT POLE
- (M) MEASURED
- (R) RECORDED DISTANCE
- (D) PER DEED
- BUILDING SETBACK LINE
- UTILITY EASEMENT
- WV — WATER VALVE
- FIRE HYDRANT
- WATER METER
- TELEPHONE PEDESTAL
- LIGHT POLE
- SANITARY SEWER MANHOLE
- ELECTRIC BOX
- STORM SEWER MANHOLE



LAND DESCRIPTION PROVIDED
LOTS 7 AND 8, BLOCK 14 OF THE TOWN, NOW CITY OF BRYANT, ARKANSAS.

GENERAL NOTES

1. BASIS OF BEARING FOR THIS SURVEY IS ARKANSAS GRID SOUTH. DISTANCES SHOWN ARE GROUND DISTANCES.
2. REFERENCES:
   A. PLAT OF THE TOWN OF BRYANT.
   B. WARRANTY DEED TO MINA GLOVER. INSTRUMENT NO. 2002073213.

PROPERTY ADDRESS
203 NE SECOND ST
BRYANT, AR 72022

UTILITIES DISCLAIMER

UTILITIES SHOWN ARE NOTED BY VISIBLE OBSERVATION ONLY. UNDERGROUND UTILITIES ARE TAKEN FROM UTILITY MAPS; EXACT LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AS NO EXCAVATION HAS TAKEN PLACE AS OF THIS DATE TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THIS DRAWING.

CERTIFICATE OF AUTHORIZATION
ROBBINS PROFESSIONAL LAND SERVICES
#4151
ARKANSAS - SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1853
SIGNATURE
12/11/2025
ZANE ROBBINS
PROFESSIONAL LAND SURVEYOR

CERTIFICATION

I HEREBY CERTIFY THAT THE ABOVE PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY SUPERVISION ON THIS DAY AND THAT ALL CORNERS ARE SET AS SHOWN. NO INDEPENDENT SEARCH FOR EASEMENTS, COVENANTS, ENCUMBRANCES, OR ANY OTHER FACTS WHICH AN ACCURATE TITLE SEARCH MAY DISCLOSE WAS PERFORMED.

Zane Robbins
ZANE ROBBINS, AR PLS #1853

ROBBINS PROFESSIONAL LAND SERVICES
INCORPORATED
SURVEYING | GIS | CONSTRUCTION STAKING
P.O. BOX 939 | BRYANT, ARKANSAS 72089
OFFICE: 501.425.6380 | EMAIL: ZANEROBBINS36@GMAIL.COM

DRAWN BY	ZR
CHECKED BY	ZR
DATE	12/11/2025
SCALE	1"=20'
PROJECT No.	20251010
PAGE	1 of 1

V:\2025\20251010 FERGUSON ORIGINAL TOWN OF BRYANT\20251010 REPLAT.dwg | PLOTTED BY: Ray | PLOT DATE: 12/30/2025 8:53:29 AM | ©2024 ROBBINS PROFESSIONAL LAND SERVICES INCORPORATED

Use table below to enter information regarding each sign for approval. Please use each letter to reference each sign rendering in packet.

SIGN	**Type** (Façade, Pole, Monument, other)	**Dimensions** (Height, Length, Width)	**Sqft** (Measurement standards found on Pg.7 of Sign Code)	**Façade Width** (Linear Ft of building façade where wall sign is being installed)	**Height** To Top	To Bottom
A	FAÇADE	H: 35" W: 155.25" Depth: 2"	39 sqft	30'	N/A	N/A
B	FAÇADE	H: 35" W: 155.25" Depth: 2"	39 sqft	41'	N/A	N/A
C						
D						
E						
F						


Marketplace
Veterinary Clinic
RAM
Glover Electric


Marketplace
Veterinary Clinic

City of Bryant, Arkansas
Code Enforcement, Permits and Inspections
312 Roya Lane
Bryant, Ar 72022
501-943-0943

SIGN PERMIT APPLICATION

Applicants are advised to read the sign ordinance prior to completing and signing this form. The Sign Ordinance is available at www.cityofbryant.com

Site plan showing placement of sign and any existing signs on the property. A rendering of sign showing correct dimensions of all signs are required with application. Additional documentation may be required by Sign Administrator.

Date: 11/25/2025

Note: Electrical permits may be Required, Please contact the Permits Office at 501-943-0943 for more information.

SIGN CO. OR SIGN OWNER
Name Jacob Knoedl
Address 11420 Bass Pro Parkway
City, State, Zip Little Rock, AR, 72210
Phone 501-317-5751
Alternate Phone 501-551-8960

PROPERTY OWNER
Name L&M Properties / Steve Landers
Address 3316 Highway 5
City, State, Zip Baten, AR, 72015
Phone Robin Miller (501) 580-3183
Alternate Phone NA

GENERAL DETAILS
Name of Business Ascend Body Therapy & Wellness Center
Address/Location of sign 22461 I-30 Bryant AR Suite 1000
Sign dimensions (height, length, width) 5x10
Zoning Classification Unsure

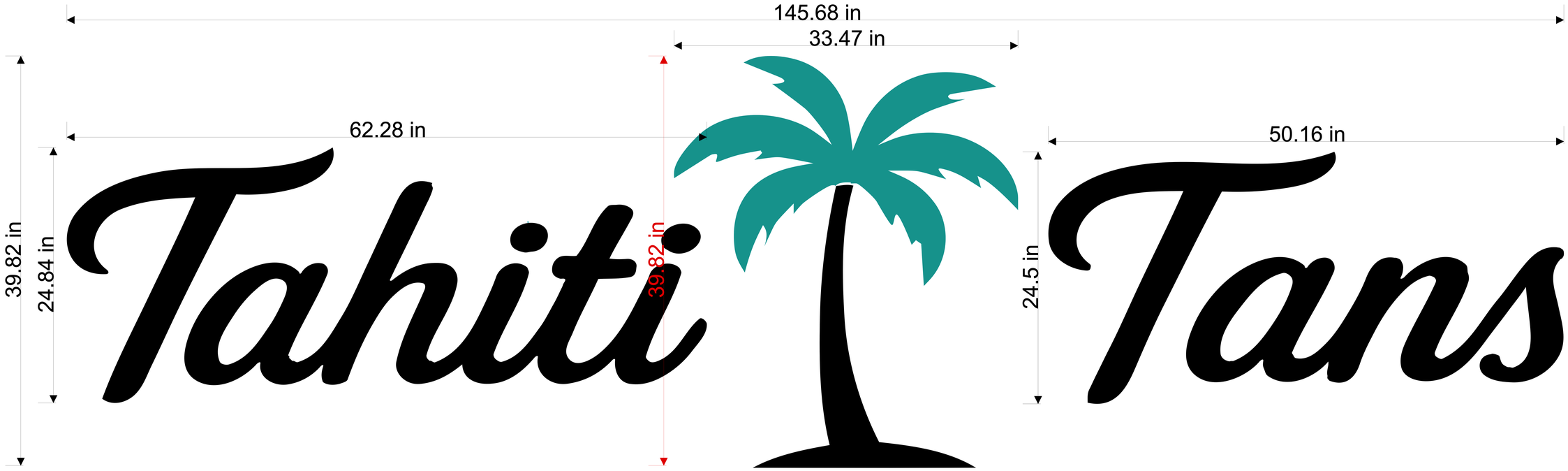
SIGN TYPE
___ Pole ___ Monument
___ Wall
✓ Other (type) Brick
Total sq. ft. 50
Aggregate Surface Area (total all signs) 50

Height of sign from lot surface: Bottom 8ft Top 13ft

READ CAREFULLY BEFORE SIGNING

I, Jacob Knoedl, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand that no sign may be placed in any public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Applicant's Signature — Date 11/25/2025 — Sign Administrator(or Designee) Approval — Date


145.68 in
33.47 in
62.28 in
50.16 in
39.82 in
24.84 in
39.82 in
24.5 in
Tahiti
Tans


Tahiti
Tans

Tahiti Tans

Use table below to enter information regarding each sign for approval. Please use each letter to reference each sign rendering in packet.

SIGN	**Type** (Façade, Pole, Monument, other)	**Dimensions** (Height, Length, Width)	**Sqft** (Measurement standards found on Pg.7 of Sign Code)	**Façade Width** (Linear Ft of building façade where wall sign is being installed)	**Height** To Top	To Bottom
A	façade	39" x 145"	36 Sq. ft.	30'	N/A	N/A
B						
C						
D						
E						
F						

Replace old letters with new letters.

City of Bryant, Arkansas
Code Enforcement, Permits and Inspections
312 Roya Lane
Bryant, Ar 72022
501-943-0943

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Site plan showing placement of sign and any existing signs on the property. A rendering of sign showing correct dimensions of all signs are required with application. Additional documentation may be required by Sign Administrator.

Date: 11/25/25

Note: Electrical permits may be Required, Please contact the Permits Office at 501-943-0943 for more information.

SIGN CO. OR SIGN OWNER
Name Jiffy Lube 3812
Address 1900 N Reynolds Rd
City, State, Zip Bryant AR
Phone 501-517-4922
Alternate Phone

PROPERTY OWNER
Name ~~AMG LLC~~ Rocky River Rock LLC
Address 10761 Noel St
City, State, Zip Los Alamitos CA 90720
Phone 562-394-3496
Alternate Phone

GENERAL DETAILS
Name of Business Jiffy Lube 3812 Bryant
Address/Location of sign 1900 N. Reynolds Rd
Sign dimensions (height, length, width) TBD

SIGN TYPE
✓ Pole ___ Monument
___ Wall
___ Other (type)
Total sq. ft.

Zoning Classification
Aggregate Surface Area (total all signs)

Height of sign from lot surface: Bottom TBD Top

READ CAREFULLY BEFORE SIGNING

I. _____, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand that no sign may be placed in any public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Applicant's Signature Tenant — Date 11-25-25 — Sign Administrator(or Designee) Approval — Date

We are obtaining sign Co. name + data from Landlords.

City of Bryant, Arkansas
Code Enforcement, Permits and Inspections
312 Roya Lane
Bryant, Ar 72022
501-943-0943

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Site plan showing placement of sign and any existing signs on the property. A rendering of sign showing correct dimensions of all signs are required with application. Additional documentation may be required by Sign Administrator.

Date: 11.25.2025

Note: Electrical permits may be Required, Please contact the Permits Office at 501-943-0943 for more information.

SIGN CO. OR SIGN OWNER
Name Chris Coffman
Elliott Electrical, Inc.
Address 22095 I-30 S, Bldg 300
City, State, Zip Bryant, AR 72022
Phone 501-315-7539
Alternate Phone 501-517-5827

PROPERTY OWNER
Name Bart Ferguson
Address 1100 Ferguson Drive
City, State, Zip Benton, AR 72015
Phone 501 840-2282
Alternate Phone

GENERAL DETAILS
Name of Business Elliott Electrical, Inc.
Address/Location of sign 22095 I-30 S, Bldg 300
Sign dimensions (height, length, width) 36"T x 144"W
Depth. 20"
Zoning Classification
Height of sign from lot surface: Bottom 12' Top 15'

SIGN TYPE
___ Pole ___ Monument
✓ Wall
___ Other (type)
Total sq. ft. 360 sq ft
Aggregate Surface Area (total all signs) 1500 sq ft

READ CAREFULLY BEFORE SIGNING

I. Chris Coffman, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand that no sign may be placed in any public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Chris Coffman — 11.25.25

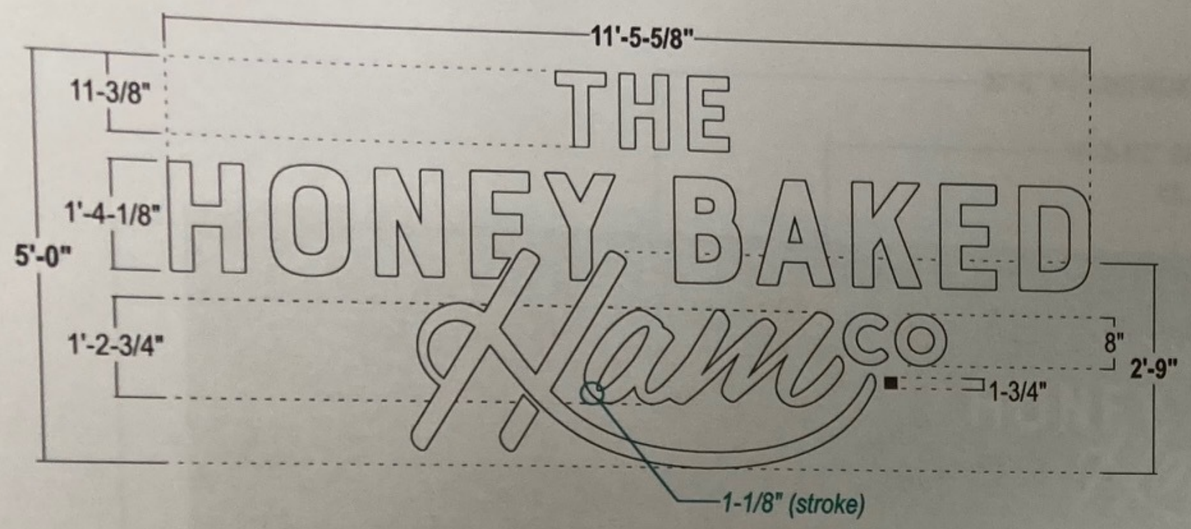
Applicant's Signature — Date — Sign Administrator(or Designee) Approval — Date

E01 FACE LIT CHANNEL LETTERS

Scale: 1/2" = 1'-0"

HBH-CL-SW-33

57.4 square feet



FACES: 3/16" #7328 White acrylic faces

TRIMCAP: 1" White Jewelite trimcap

RETURNS: 5" deep .040 alum returns - Insides pre-painted White; Outsides painted Iron Mountain

BACKS: .063 alum. backs - pre-painted White

ILLUM.: White LEDs as required by manufacturer;
Remote Power Supplies

®: .080 alum. panel - Painted to match wall; Panel to have surface applied die-cut vinyl;
Panel drilled & tapped to accept studs for flush mounting;
All penetrations filled with silicone

WALL MAT.: Signband wall material is EIFS

INSTALL: Thru bolted using all thread into blocking as required;
12" standard length of threaded rod will be supplied unless otherwise noted;
3/8" threaded rod into blocking or Stratus approved equivalent;
Compression sleeves required to avoid crushing wall & achieve max tensioning
Compression sleeves required to avoid crushing wall & achieve max tensioning

QUANTITY: **(1) ONE CHANNEL LETTERS SET REQUIRED FOR FRONT ELEVATION**

ALL SIGNS TO COMPLY WITH UL 48 AND WILL BE MARKED AS SUCH WITH APPROPRIATE LABORATORY LABELS.

THIS SIGN IS INTENDED TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 600 OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER APPLICABLE LOCAL CODES. THIS INCLUDES PROPER GROUNDING AND BONDING OF THE SIGN.

THE LOCATION OF THE DISCONNECT SWITCH AFTER INSTALLATION SHALL COMPLY WITH ARTICLE 600.6(A) (1) OF THE NATIONAL ELECTRIC CODE.

COLOR PALETTE

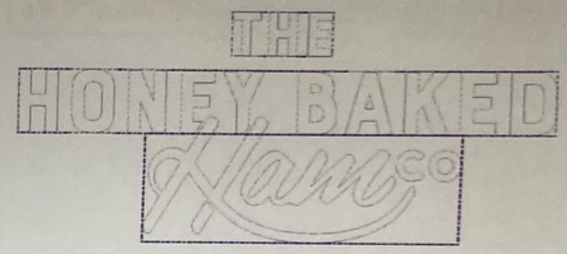
White
3M 7725-10 White

WALL COLOR:
SW 7567 Natural Tan
-TBD

BM 2134-30 Iron Mountain

Paint finish to be satin unless otherwise specified



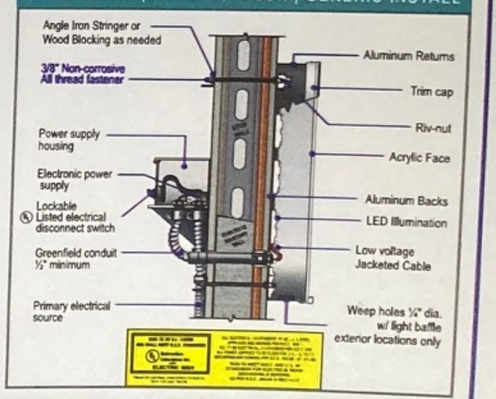


ALTERNATE BOXED SQUARE FOOTAGE: 33.9 Sq.ft

NIGHT VIEW



FACE LIT LED | REMOTE, FLUSH | GENERIC INSTALL



Stratus
onestratus.com
888.503.1569

CLIENT: THE HONEY BAKED Ham CO

ADDRESS: 3213 MAIN STREET STE 2
BROADWAY CROSSING
BRYANT, AR 72022

PAGE NO.: 4

ORDER NUMBER: 1245621

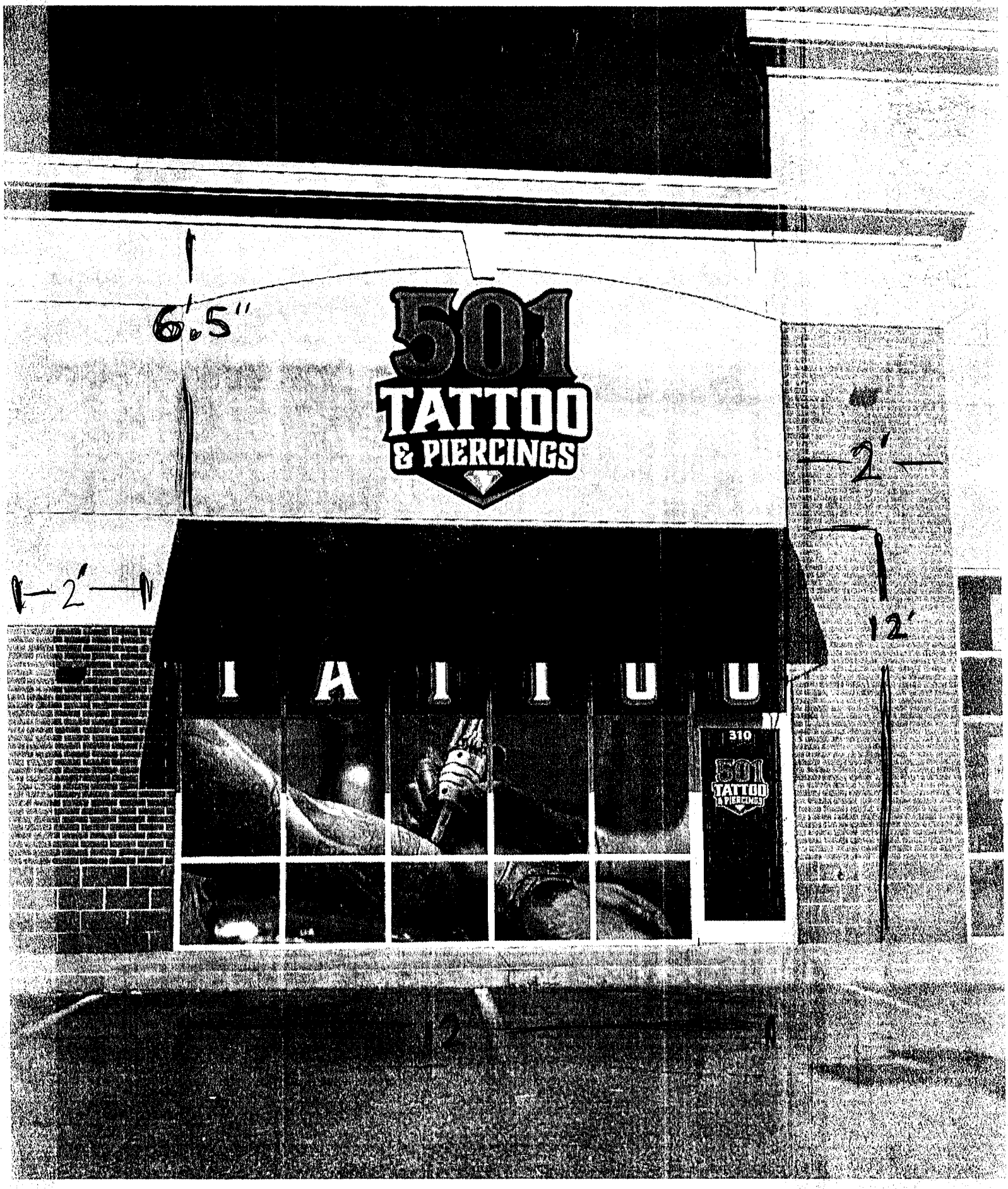
SITE NUMBER: 1218

PROJECT NUMBER: 79782

PROJECT MANAGER: ROBYN PHILLIPS

ELECTRONIC FILE NAME: G:\ACCOUNTS\H\HONEYBAKED HAM\2025\AR\1218_Bryant R2

Rev #	Req #	Date/Artist	Description	Rev #	Req #	Date/Artist	Description
Original	554434	09/23 /25 Z-SA					
Rev 1	556180	10/03/25 Z-MH	Removed option A				
Rev 2	558358	10/15/25 Z-SA	Updated sign				


6'.5"
501
TATTOO
& PIERCINGS
2'
2'
12'
I A I I U U
310
501
TATTOO
& PIERCINGS
12'

City of Bryant, Arkansas
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Date: 12-15-25

Note: Electrical permits may be Required, Please contact the Permits Office at 501-943-0943 for more information.

SIGN CO. OR SIGN OWNER
Name Rod's Signs, LLC
Address 111 Dogwood PL DR
City, State, Zip Bryant AR 72022
Phone 501-351-4077
Alternate Phone Ø

PROPERTY OWNER
Name 501 TATTOO
Address 5311 Hwy 5 N #310
City, State, Zip Bryant, AR
Phone 501-445-5626
Alternate Phone Ø

GENERAL DETAILS
Name of Business 501 TATTOO ~~#310~~
Address/Location of sign 5311 Hwy 5 N #310
Sign dimensions (height, length, width) 70" x 60

SIGN TYPE
___ Pole ___ Monument
✓ Wall
___ Other (type) HALO/lighted
Total sq. ft. _____

Zoning Classification _____ Aggregate Surface Area (total all signs) _____

Height of sign from lot surface: Bottom 13' Top 18.5'

READ CAREFULLY BEFORE SIGNING

I, Rodney Bellofatto, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand that no sign may be placed in any public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Applicant's Signature _____ Date 12-15-25 Sign Administrator(or Designee) Approval _____ Date _____