

### **Bryant Planning Commission Meeting**

Boswell Municipal Complex - City Hall Court Room

210 SW 3rd Street

YouTube: <a href="https://www.youtube.com/c/bryantarkansas">https://www.youtube.com/c/bryantarkansas</a>

**Date:** September 08, 2025 - **Time:** 6:00 PM

#### Call to Order

### **Approval of Minutes**

- 1. Planning Commission Meeting Minutes 8/11/2025
  - · 2025-08-11 Planning Commission Minutes.pdf

#### **Presentations and Announcements**

- 2. Water and Wastewater Rate Analysis Presentation
  - · 2025 09 02 Bryant Rate Study Committee Presentation.pdf

### **DRC Report**

3. FSBC - New Site Additions - 604 Reynolds - Changes to Outfall of Retention Pond

Hope Consulting - Requesting Approval for changes to the retention pond outfall - APPROVED, Contingent upon small comments being worked out with city engineer

- 0912-DRN-03.pdf
- · 0912-DRN-04.pdf
- 4. State Farm 515 N Reynolds Road Site Plan Changes

Richardson Engineering - Requesting Approval for modification to previously approved Site Plan - APPROVED

- 0956-DRN-04.pdf
- 0956-PLN-05.pdf
- 5. New Beginnings HWy 5 and Midland Rd Site Plan

PLE - Requesting Site Plan Approval - APPROVED

- <u>0977-PLN-03.pdf</u>
- 0977-DRN-03.pdf
- 0977-SLC-01.pdf
- 6. 20 Tanglewood Dr Conditional Use Permit Additional Square Footage for Addition to Accessory Structure

David Harris - Requesting Approval of Conditional Use Permit - RECOMMENDED APPROVAL

### **Public Hearing**

7. 20 Tanglewood Dr - Conditional Use Permit - Additional Square Footage for Addition to Accessory Structure

David Harris - Requesting Approval of Conditional Use Permit

- 0983-PUB-01.pdf
- 0983-PLN-01.pdf0983-APP-01.pdf

### **Old Business**

**New Business** 

**Adjournments** 



### **Bryant Planning Commission Meeting Minutes**

Monday, August 11, 2025 Boswell Municipal Complex – City Hall Courtroom 6:00 PM

#### **Agenda**

#### **CALL TO ORDER**

- Chairman Lance Penfield calls the meeting to order.
- Commissioners Present: Statton, Hooten, Penfield, Johnson, Thompson, Edwards, Erwin, Speed
- Commissioners Absent: None

#### **ANNOUNCEMENTS**

Ted Taylor, Directory of Planning & Development, reported that the City of Bryant is in contract negotiations with Crafton Tull for the Comprehensive Growth Plan. Once initiated, a steering committee will be formed.

Ted Taylor also announced that Public Works is developing its Capital Improvement Plan and will present the Water/Wastewater Master Plan at the next Planning Commission Meeting on September 8.

#### **APPROVAL OF MINUTES**

1. Planning Commission Meeting Minutes 7/14/2025

Motion to Approve Minutes made by Commissioner Statton, Seconded by Commissioner Edwards. Voice Vote, 8 Yays, 0 Nays, 0 Absent

Vice-Chairman Hooten read the DRC Report.

#### **DRC REPORT**

2. Creekside Addition Phase 2 - Replat - Lot 15 and Tract E

GarNat Engineering - Requesting Recommendation for Approval of Replat 
RECOMMENDED APPROVAL, Contingent upon remaining comments being addressed.

#### 3. The Shoppes at Dogwood Springs - Commercial Plat

Richardson Engineering - Requesting Recommendation for Approval of Commercial Plat - RECOMMENDED APPROVAL

### 4. Sky Blue Duplexes Subdivision - Final Plat

Hope Consulting - Requesting Recommendation for Final Plat Approval - RECOMMENDED APPROVAL, Contingent upon remaining comments being addressed.

### **5. Bryant Schools - ALE Addition -** 1200 S Reynolds Road

Josh Minton - Requesting Approval for Site Plan Addition - APPROVED

#### 6. Good Day Farms - 3205 HWY 5 - Site Plan

Regan Ethridge - Requesting Site Plan Approval - APPROVED, Contingent upon completing the remaining comments.

### 7. Kinfolk Acres - 22000 I-30 - Sign Permit

Ace Sign Company - Requesting Sign Permit Approval - STAFF APPROVED

#### 8. Wine Night - 6221 Hwy 5 - Sign Permit

Amy Clark - Requesting Sign Permit Approval - STAFF APPROVED

#### 9. FCPS - 212 McClanahan Dr - Sign Permit

Lumatech - Requesting Sign Permit Approval - STAFF APPROVED

#### 10. Childcare Network - 2168 N Prickett - Sign Permit

Pinnacle Signs - Requesting Sign Permit approval for freestanding monument sign. The two facade signs in the application meet the code and have been approved by staff. - APPROVED, contingent upon remaining 7.5ft from edge of sign foundation to waterline.

#### 11. Goodwill - 5095 Hwy 5 - Sign Permit

Ace Sign Company - Requesting Sign Permit Approval - APPROVED, contingent upon remaining 7.5ft from edge of sign foundation to waterline.

### 12. Attorney's Title Group - 3125 Hwy 5, STE 3 - Sign Permit

Condray Signs - Requesting Sign Permit Approval - STAFF APPROVED

#### 13. Gen Wealth Financial - 4756 Bryant Parkway - Sign Permit

Ace Sign Company - Requesting Sign Permit Approval - STAFF APPROVED

#### **OLD BUSINESS**

None

#### **NEW BUSINESS**

#### 14. Creekside Addition Phase 2 - Replat - Lot 15 and Tract E

GarNat Engineering - Requesting Approval for Replat

After discussion on the item, Chairman Penfield called for a roll call vote to approve. 8 Yays, 0 Nays, 0 Absent.

#### 15. The Shoppes at Dogwood Springs - Commercial Plat

Richardson Engineering - Requesting Approval for Commercial Plat

After discussion on the item, Chairman Penfield called for a roll call vote to approve. 7 Yays, 0 Nays, 1 Abstained, 0 Absent.

#### 16. Sky Blue Duplexes Subdivision - Final Plat

Hope Consulting - Requesting Final Plat Approval

After discussion on the item, Chairman Penfield called for a roll call vote to approve. 8 Yays, 0 Nays, 0 Absent.

### **17. REQUEST TO ADD: Blessings Addition Subdivision -** Replat of Lots 2, 3, 4 into Lots 1A and 1B

PLE - Requesting Approval for Replat

Motion to add agenda item, Blessings Addition Subdivision, made by Commissioner Statton, Seconded by Commissioner Speed. Voice Vote, 8 Yays, 0 Nays, 0 Absent

After discussion on the item, Chairman Penfield called for a roll call vote to approve, subject to the correction of "Lots 1A and 1B" to "Lots 2R and 3R". 8 Yays, 0 Nays, 0 Absent.

18.

#### **ADJOURNMENT**

Motion to	Adjourn me	ade by V	'ice-Chair	rman Hoot	en, seconde	d by Con	nmissioner
Edwards.	Voice Vote,	8 Yays,	0 Nays,	0 Absent.	The meeting	was ad	journed.

Chairman, Lance Penfield	Date	
Secretary, Rehecca Kidder	Date	



2025 WATER AND WASTEWATER
RATE STUDY
WATER ADVISORY COMMITTEE PRESENTATION

September 2025



Updated: August 25 2025



### **AGENDA**



- Background on Rates
- Customers and Volumes
- Current and Forecast Cost of Service
- Initial Rate Plan Scenarios
- Summary





# Facts about Water and Wastewater Service in the 21<sup>st</sup> Century



- Average utility has been increasing rates 5-6% per year, a trend that is expected to continue
- American Water Works Association (AWWA) forecasts that water and wastewater rates across the U.S. will **triple** over the next 15 years
- Rate adjustments are primarily due to reasons beyond a utility's direct control – inflation, necessary Capital Improvement Plans, wholesale costs, and other indirect expenses
- 30-40% of utilities charge rates that do not cover their costs

# CURRENT RATE STRUCTURE | EFFECTIVE JAN 2025



WATER RATE STRUCTURE	
Base Charge by Meter Size (includes 2,000 Gal for City customers)	RES and NON-RES
5/8"	\$14.53
1"	21.80
1 1/2"	36.33
2"	72.65
3"	116.24
4"	217.96
6" and Above	726.53

WW RATE STRUCTURE			
MIN Charge (includes 2,000 Gal)	RES and NON-RES	SALEM SEWER**	QUAIL RIDGE**
All Meter Sizes	\$20.70	\$41.40	\$41.40

WW RATE STRUCTURE			
Volume Rate per 100 Gal	RES and NON-RES	SALEM SEWER	QUAIL RIDGE
All Gallons	\$1.104	\$1.104	\$1.104

WATER RATE STRUCTURE						
Volume Rate per 100 Gal	RES and NON-RES	COB PARKS	WOOD HILLS			
All Gal	\$0.698	\$0.2166*	\$0.2166*			

WW RATE STRUCTURE – SPECIAL RATE					
Volume Rate per 1 Gal SALINE COUNTY LANDFILL					
Volume rate per 1 Gal	\$0.0575				

<sup>\*</sup>same rate as CAW

<sup>\*\*</sup>OCL sewer customers pay 2x times inside base charge

# SYSTEM INFRASTRUCTURE FEE | EFFECTIVE JAN 2025



SYSTEM INFRASTRUCTURE FEE				
Based on Water Meter Size	ALL SEWER CUSTOMERS			
5/8"	\$15.75			
1"	52.50			
1 1/2"	105.00			
2"	168.00			
3"	336.00			
4"	530.25			
6" and Above	1060.50			

System Infrastructure Fee was adopted in 2023 and is assessed to ALL sewer accounts

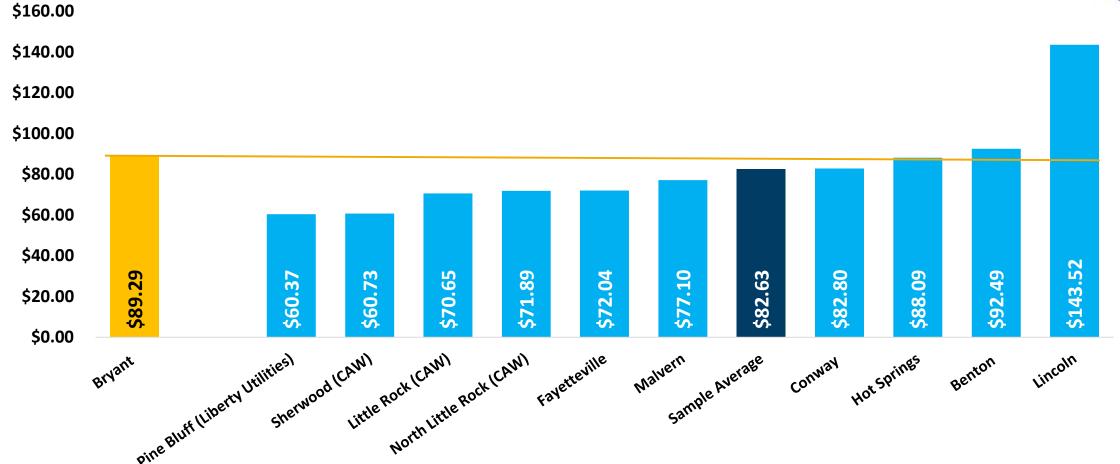
The fee is used for repayment of sewer or water system bonds and loans

The fee is charged in addition to all other water and sewer rates and charges

The fee is set to automatically increase by 5% each year

## **CURRENT MONTHLY CHARGES | 5KGAL WATER & WW**





NOTE: Does not include wastewater infrastructure fee

<sup>\*</sup>Rates as of May 2025
Average RES water use: **4,470** Gal/month



# NUMBER OF ACCOUNTS | TEST YEAR 2025

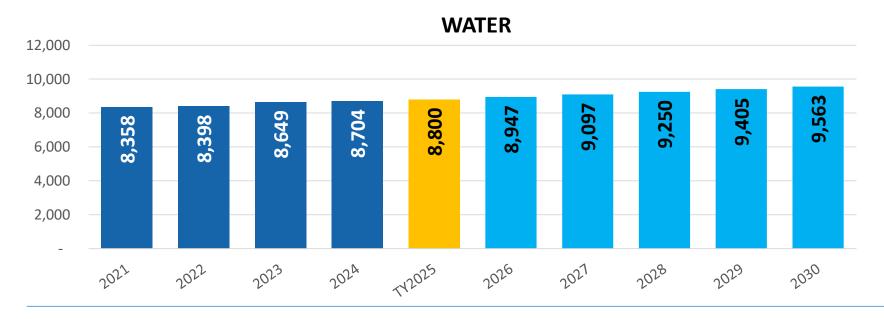


WATER Customer Accounts		WASTEWATER Customer Accounts		
Residential & Non-Residential	8,376	Residential & Non-Residential	7,894	
	,		,	
Sprinkler	308	Salem Metered Sew er	1,414	
Multy-Family	99	Salem Sew er	701	
Wholesale (COB Parks & Rec)	7	Quail Ridge	46	
Woodland Hills*	1	Drain Water (County Landfield)	1	
No Charge	9			
Total Accounts	8,800	Total Accounts	10,056	

<sup>\* 1</sup> Master meter serves 529 connections

### **ACCOUNT FORECAST | WATER AND WASTEWATER**







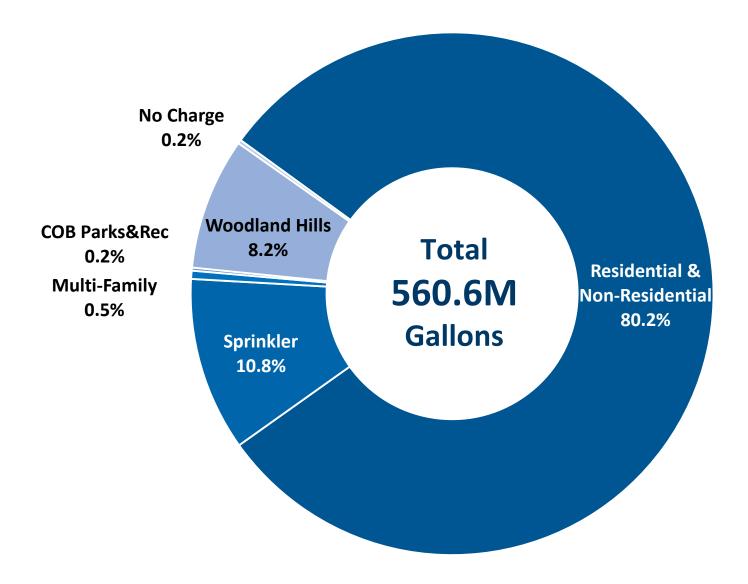
Project team is forecasting 1.7% annual water account growth rate – 158 new accounts per year

Wastewater accounts are growing faster as Bryant expands sewer services to the County

Average wastewater growth rate is 2.0% -- 213 accounts per year

### TEST YEAR | WATER CONSUMPTION BY RATE CLASS





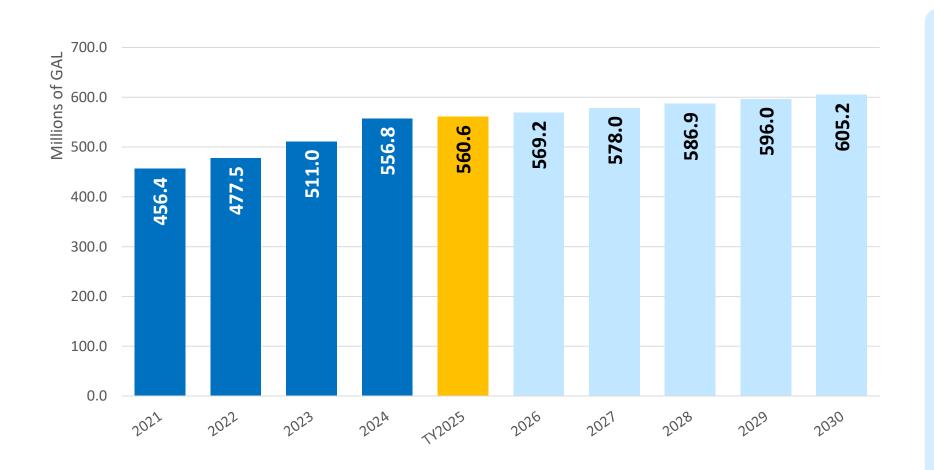
Residential and Non-Residential customer class comprises a clear majority of consumption and accounts within the City

We are not forecasting any significant change to the consumption by class makeup

Average Monthly Residential Consumption per Account = **4,470** gallons

### CONSUMPTION FORECAST | WATER





Water consumption is forecast to increase by 1.55% per year

Actual water use may vary considerably with weather patterns. The model is based on the overall trend



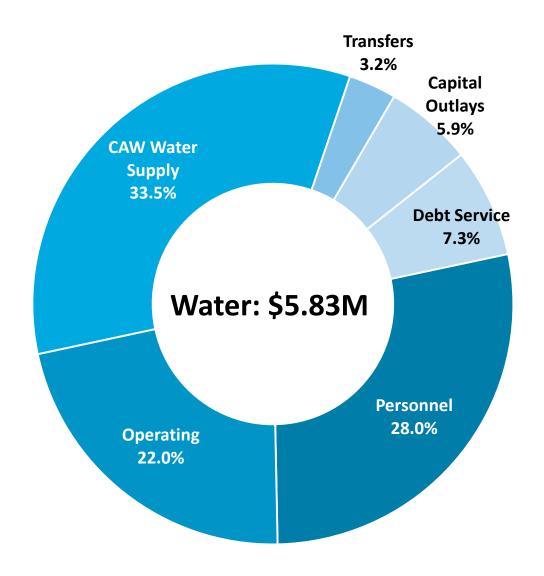
### KEY ASSUMPTIONS DRIVING RATE PLAN



- Most operating expenses increase at 3% per year; certain expenses increase at a higher rate (e.g. insurance, fuel, chemicals, etc.)
- 1 FTE is added to water utility and 1 FTE to WW utility each year for the next 5 years
- Identified near- and mid-term Water CIP (2025-2030): \$61.80 million
- CIP primarily funded through long-term debt: 20-years, 4% int.
- 100% of system infrastructure fee revenue is used for debt payments

### **TEST YEAR 2025 COST OF SERVICE**

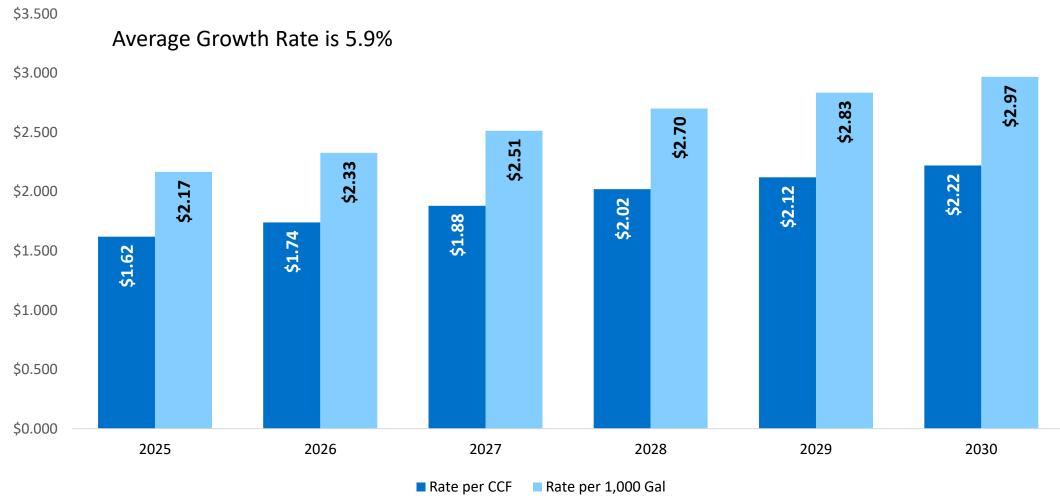






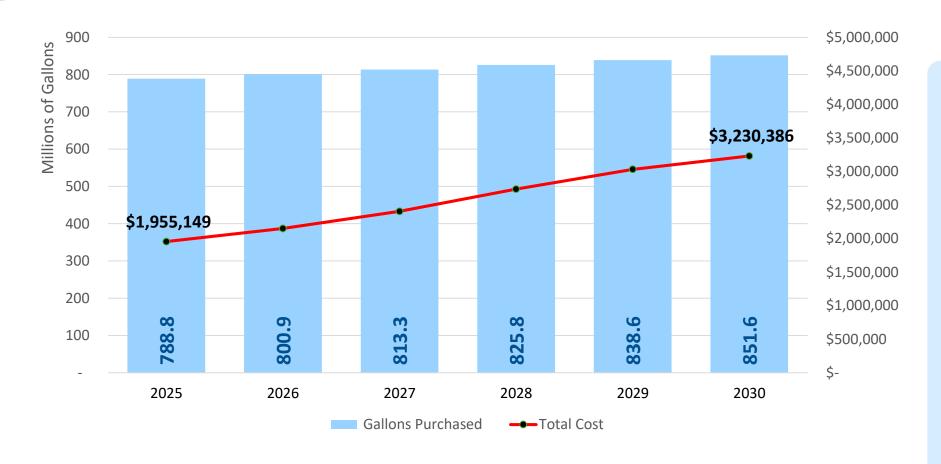
### **CENTRAL ARKANSAS WATER RATE FORECAST**





### **CAW FORECAST WATER COSTS**





CAW forecast water costs are increasing at a higher pace than purchased volumes due to a combination of CAW rate and CAW infrastructure fee increases

Volume Growth: 1.6%

CAW Rate Increase: 5.9%

CAW Infrastructure Fee Increase: 22.8%

CAW Watershed Protection Fee Increase: 0.0%

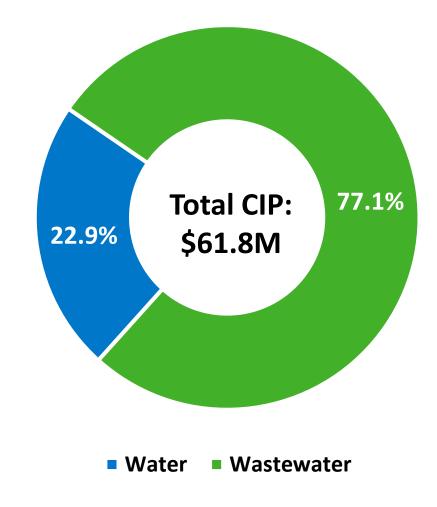
**CAW Total Water Costs Increase: 8.8%** 

# PROJECTED CAPITAL IMPROVEMENT PLAN (FY2025-2030)



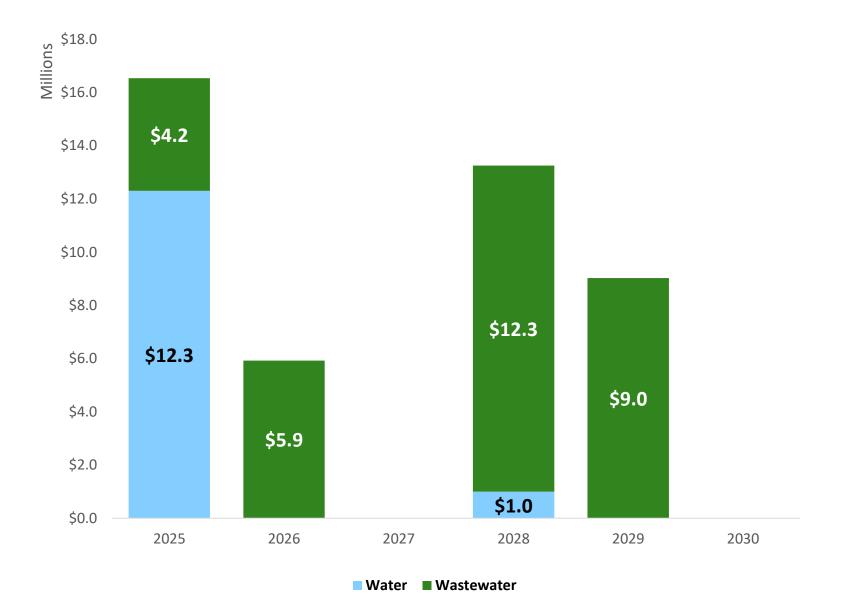
WATER PROJECTS	
NEAR TERM (2025 2029)	
1.5M Gallon Tank @ N. Reynolds / High School	\$ 11,000,000
12" extension Boon Rd	1,300,000
System Transmission, Springhill, I-30 to Hwy 5N	1,000,000
Bryant Pkwy I-30 to Johnswood	740,000
Fireflow Improvemnet Project N. Reynolds Rd at Rogers Rd.Crossig	40,000
Woody Dr to Steeplechase Cir	80,000
Total	14,160,000

WASTEWATER PROJECTS			
NEAR TERM (2025 2029)			
Disinfection / Contact Basin / Dissolved Oxygen Basin Improvements	\$	4,230,000	
Headworks & Grit Removal Improvements		5,922,000	
Activated Sludge Process Improvements		12,250,000	
Clarification Improvements / WAS / RAS		9,024,000	
BR-04 Lift Station LS-05 Upgrade		8,625,000	
Lift Station LS-05 Parallel Force Main		7,618,000	
Total		47,669,000	
TOTAL CIP	\$	61,829,000	



### FORECAST DEBT ISSUES





Water Debt: \$13,300,000 WW Debt: \$31,426,000

Total Debt: \$44,726,000

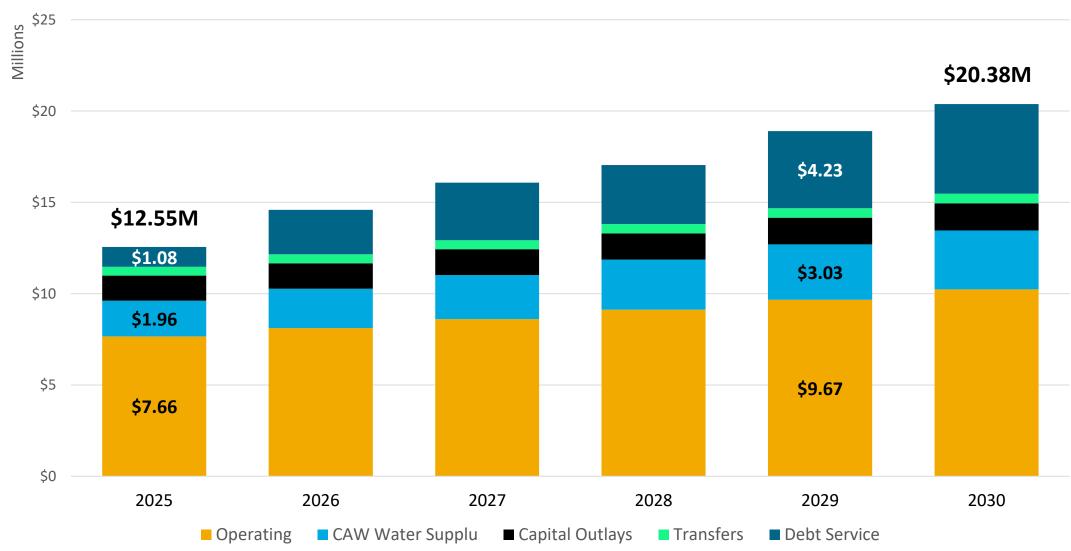
### **FORECAST DEBT SERVICE PAYMENTS**





### FORECAST WATER & WASTEWATER COST OF SERVICE







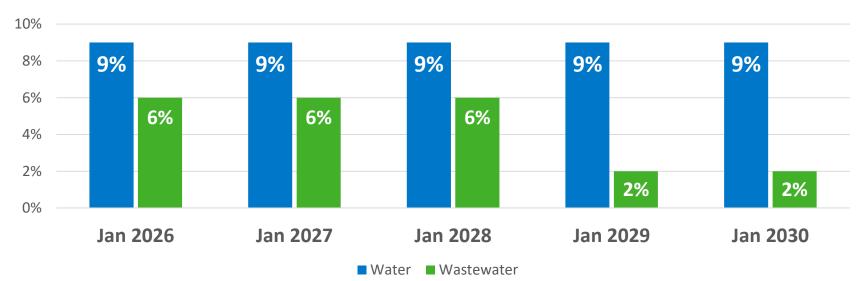
### RATE PROPOSAL | OVERVIEW



### **Recommended rate adjustments for next 5 years:**

- Annual Rate Adjustments in January of each year
- No change in the water and wastewater rate structure
- Uniform percentage adjustments for base volume charges
- Higher increases for water

### **Recommended Rate Increases**



The rate plan is designed to fund all known aspects of the water and wastewater utility based on the existing market conditions and assumptions.

# RATE PROPOSAL | WATER



				Effective		
	Current	Jan-26	Jan-27	Jan-28	Jan-29	Jan-30
WATER						_
Residential and Non Residential						
Monthly Minimum Charge						
5/8"	\$ 14.53	\$ 15.84	\$ 17.26	\$ 18.82	\$ 20.51	\$ 22.36
1"	21.80	23.76	25.90	28.23	30.77	33.54
1 1/2"	36.33	39.60	43.16	47.05	51.28	55.90
2"	72.65	79.19	86.32	94.08	102.55	111.78
3"	116.24	126.70	138.10	150.53	164.08	178.85
4"	217.96	237.58	258.96	282.26	307.67	335.36
6"	726.53	791.92	863.19	940.88	1,025.56	1,117.86
Volume Rate Per 100 Gal						
2,000 Above	0.698	0.761	0.829	0.904	0.985	1.074

# RATE PROPOSAL | WASTEWATER



		Effective Effective											
<u> </u>		(	Current		Jan-26		Jan-27		Jan-28		Jan-29		Jan-30
WASTEWATER													_
Residential & Non-Residen	tial Inside		00.70		04.04	Φ	00.00	Φ	04.05	Φ	05.45	Φ	05.05
Monthly Minimum Charge		\$	20.70	\$	21.94	\$	23.26	Ф	24.65	\$	25.15	\$	25.65
Volume Rate/100 Gal (2,000-	Above)		1.104		1.170		1.240		1.315		1.341		1.368
Salem/Quail Ridge													
Monthly Minimum Charge		\$	41.40	\$	43.88	\$	46.52	\$	49.31	\$	50.29	\$	51.30
Volume Rate/100 Gal			1.104		1.170		1.240		1.315		1.341		1.368
Drain Water (County Landfi	eld)												
Volume Rate/per Gallon			0.0575		0.0610		0.0646		0.0685		0.0699		0.0713
<b>WW Infrastructure Monthly</b>													
(in addition to mthly chgs)	5/8''	\$	15.75	\$	10.00	\$	10.50	\$	11.03	\$	11.58	\$	12.16
	1"		52.50		55.13		57.88		60.78		63.81		67.00
	1 1/2"		105.00		110.25		115.76		121.55		127.63		134.01
	2"		168.00		176.40		185.22		194.48		204.21		214.42
	3"		336.00		352.80		370.44		388.96		408.41		428.83
	4" 6"		530.25		556.76		584.60		613.83		644.52		676.75
	6"		1,060.50		1,113.53		1,169.20		1,227.66		1,289.04		1,353.50
	8''		1,060.50		1,113.53		1,169.20		1,227.66		1,289.04		1,353.50

### IMPACT OF RATE PLAN ON COMBINED MONTHLY CHARGES



		Current	Jan-26	Jan-27	Jan-28	Jan-29	Jan-30
Residential Monthly Charges 5/8"							
2,000 Water	2,000 WW	\$ 50.98	\$ 47.78 \$	51.02	\$ 54.50 \$	57.23 \$	60.16
	Increase \$		(3.20)	3.24	3.47	2.74	2.93
	Increase %		-6.3%	6.8%	6.8%	5.0%	5.1%
5,000 Water	5,000 WW	105.04	105.71	113.11	121.06	127.03	133.42
	Increase \$		0.67	7.40	7.95	5.97	6.39
	Increase %		0.6%	7.0%	7.0%	4.9%	5.0%
10,000 Water	10,000 WW	195.14	202.26	216.60	232.00	243.35	255.52
	Increase \$		7.12	14.34	15.40	11.35	12.17
	Increase %		3.7%	7.1%	7.1%	4.9%	5.0%
Commercial	Monthly Charges 2"						
25,000 Water	25,000 WW	\$ 675.81	\$ 721.67 \$	770.84	\$ 823.55 \$	866.99 \$	913.50
	Increase \$		45.86	49.16	52.71	43.44	46.51
	Increase %		6.8%	6.8%	6.8%	5.3%	5.4%



### BENEFITS OF THE PROPOSED RATE PLAN



- The proposed rate plan enables the City to fully fund all water and wastewater costs and CIP over the next five years
- Will enable the Utility Fund to operate selfsufficiently with no need for subsidies from fund balance
- Enables the City to provide safe drinking water and effectively treat wastewater continually for forecast period

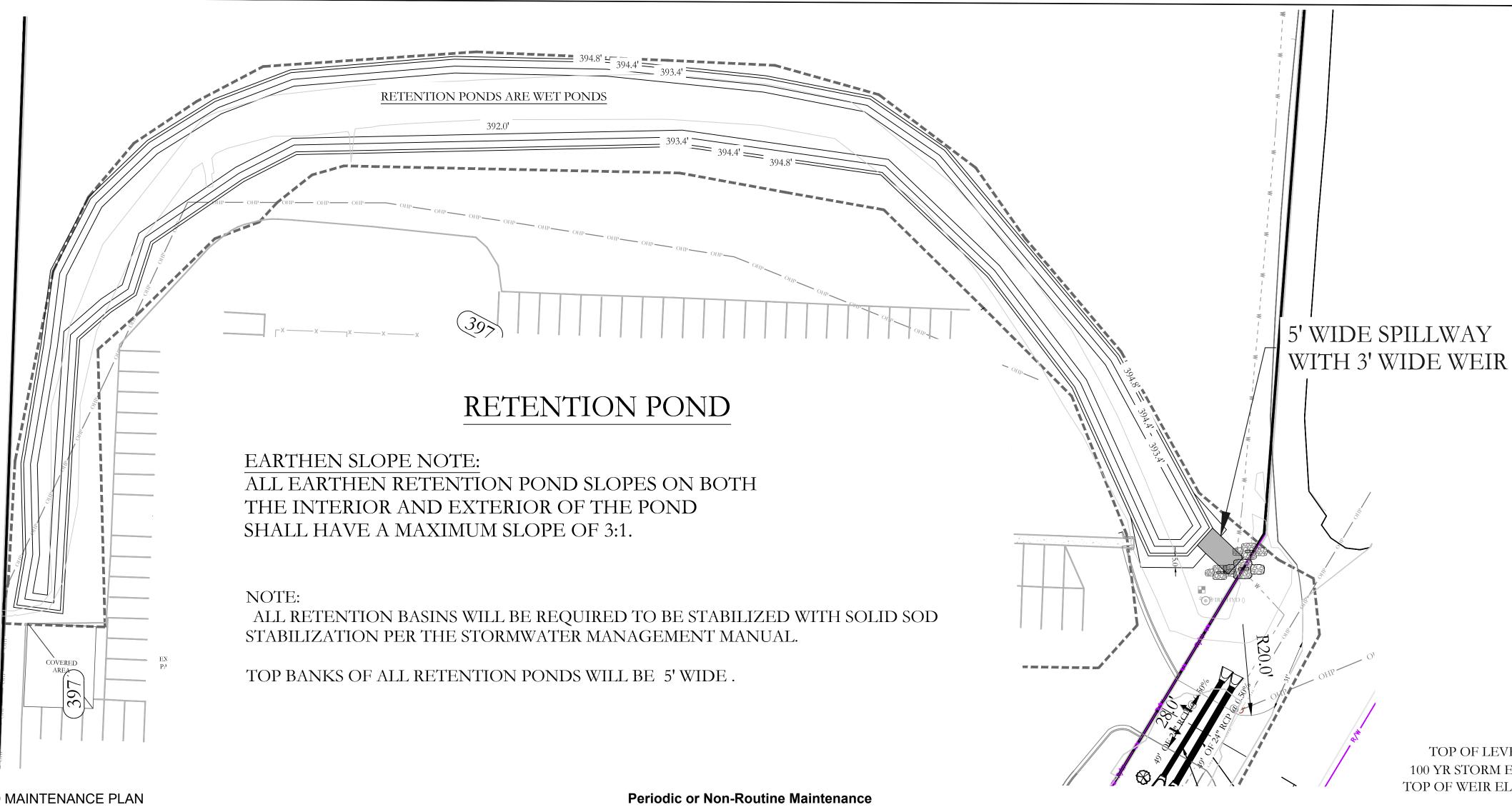




### **Disclosure**

Willdan Financial Services ("Willdan") is registered as a "municipal advisor" pursuant to Section 15B of the Securities Exchange Act and rules and regulations adopted by the United States Securities and Exchange Commission ("SEC") and the Municipal Securities Rulemaking Board ("MSRB"). The MSRB has made available on its website (www.msrb.org) a municipal advisory client brochure that describes the protections that may be provided by MSRB rules and how to file a complaint with the appropriate regulatory authority. As part of its SEC registration Willdan is required to disclose to the SEC information regarding criminal actions, regulatory actions, investigations, terminations, judgments, liens, civil judicial actions, customer complaints, arbitrations and civil litigation involving Willdan. Pursuant to MSRB Rule G-42, Willdan is required to disclose any legal or disciplinary event that is material to Client's evaluation of Willdan or the integrity of its management or advisory personnel. Willdan has determined that no such event exists. Copies of Willdan's filings with the United States Securities and Exchange Commission can currently be found by accessing the SEC's EDGAR system Company Search Page which is currently available at: https://www.sec.gov/edgar/searchedgar/companysearch.html and searching for either Willdan Financial Services or for our CIK number which is 0001782739.

For the avoidance of doubt and without limiting the foregoing, in connection with any revenue projections, cash-flow analyses, feasibility studies and/or other analyses Willdan may provide the municipality with respect to financial, economic or other matters relating to a prospective, new or existing issuance of municipal securities of the municipality, (A) any such projections, studies and analyses shall be based upon assumptions, opinions or views (including, without limitation, any assumptions related to revenue growth) established by the municipality, in conjunction with such of its municipal, financial, legal and other advisers as it deems appropriate; and (B) under no circumstances shall Willdan be asked to provide, nor shall it provide, any advice or recommendations or subjective assumptions, opinions or views with respect to the actual or proposed structure, terms, timing, pricing or other similar matters with respect to any municipal financial products or municipal securities issuances, unless formally engaged to provide such information.



### **Background**

The Retention pond is located on the north-east of the property. It is designed to temporarily detain storm water to meet water quantity criteria before discharging off the property.

### **Routine Maintenance:**

The property owner will maintain the drainage easements. Routine maintenance will include but not be limited to: -Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.

-The outlet pipe from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.

-Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.

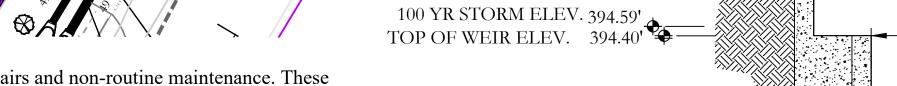
-Inspect the pond and outlet pipe for non-routine maintenance need.

The routine inspection of the ponds areas and discharge pipes will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

-Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.

-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.

-Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.



TOP OF LEVEE = 394.80' + -

393.40' +---

→ 3' WIDE → WEIR WEIR END VIEW

► 5' WIDE CONCRETE -

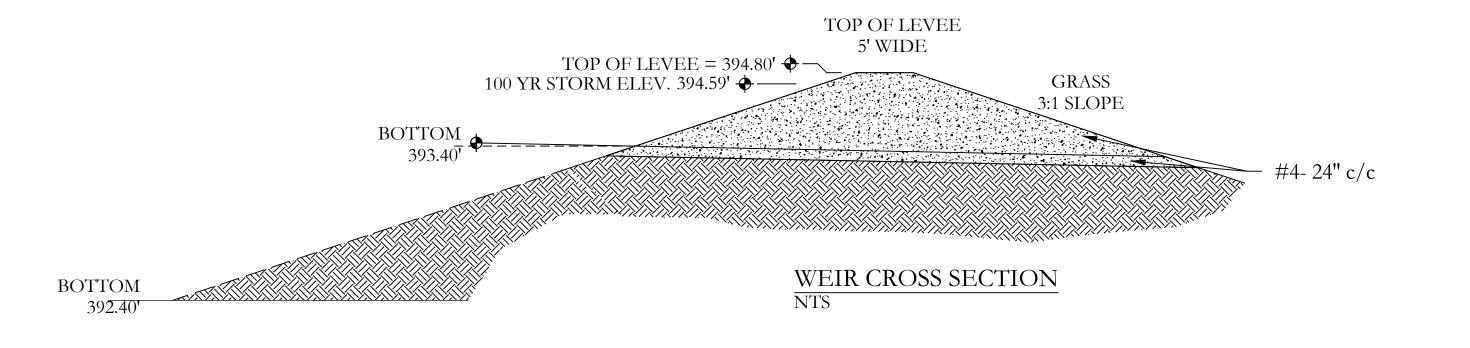
SPILLWAY

VICINITY MAP:

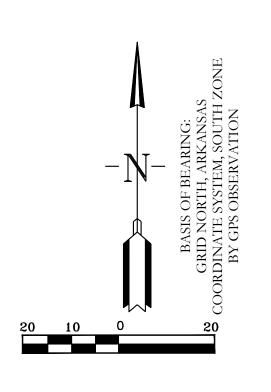
PROJECT LOCATION

BRYANT, AR

-Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.









129 N. Main Street, Benton, Arkansas 72015

#4- 24" c/c

FOR USE AND BENEFIT OF: FIRST SOUTHERN BAPTIST CHURCH OF BRYANT

FSCB EXPANSION & REMODEL PHASE 1 RETENTION POND PLAN AND DETAILS 604 S REYNOLDS ROAD BRYANT, SALINE COUNTY, ARKANSAS

7												
DATE:	05-16-202	C.A.D.	BY:			DRAWING NUMBER:						
REVISED:	EVISED:				BY:		] 24.0260					
SHEET:	HEET: C-6.0			Ξ:			24-0260					
500	01S	14	4W	0	34	310	62	1664				

RETENTION POND

# First Southern Baptist Church of Bryant 604 S REYNOLDS ROAD, BRYANT, AR 72022 DRAINAGE REPORT

FOR
City of Bryant, Saline County, AR

September 2024

Owner & Developer: Peter Cunningham.

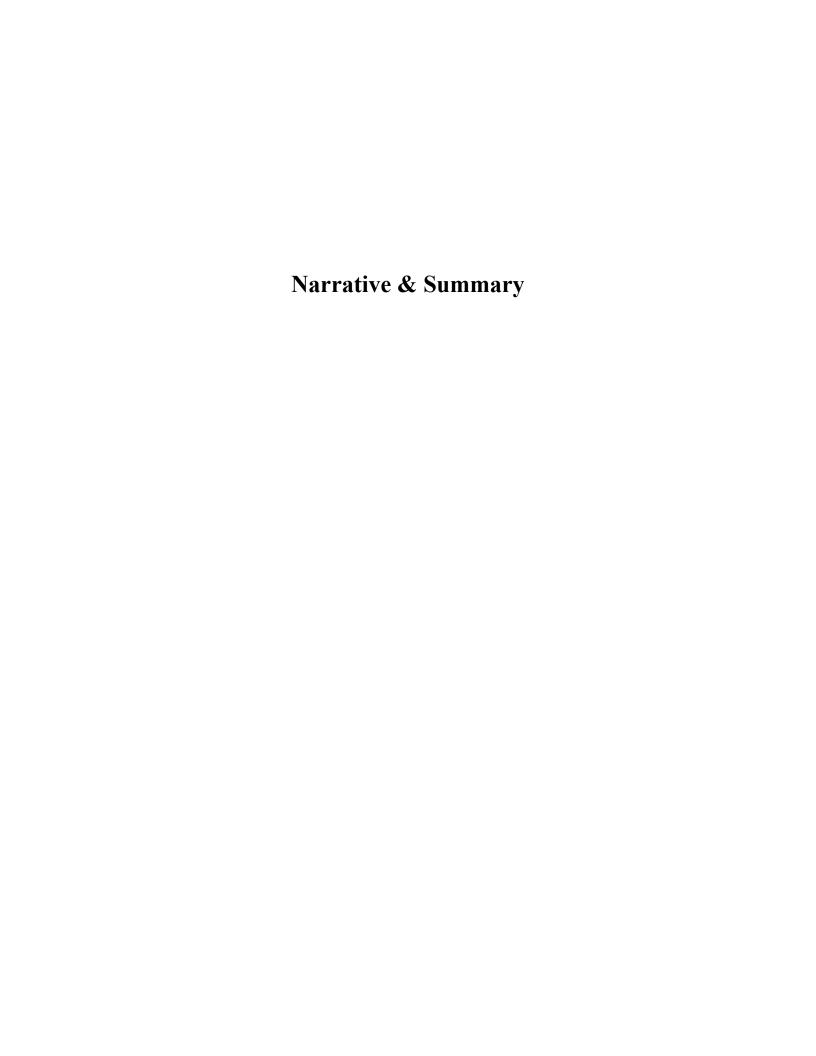
By:



# TABLE OF CONTENTS

## ITEM DESCRIPTION

- 1. Narrative & Summary
- 2. Hydrograph Report



### **PROJECT TITLE**

First Southern Baptist Church of Bryant

### PROJECT PROPERTY OWNER

Peter Cunningham

### PROJECT LOCATION

604 S Reynolds Road, Bryant, AR

### PROJECT DESCRIPTION

The proposed development is on South Reynolds Road, Bryant, AR. Total development site area is 7.58 acres.

### **DRAINAGE ANALYSIS**

On Site Drainage- Rational method was used to determine the existing and proposed flows from proposed site. There will be one retention pond to detain water from this development. Detailed drainage calculations considering the future expected development have been conducted to determine the required detention pond and culvert dimensions. Summary of the calculations are below:

### **Retention Pond**

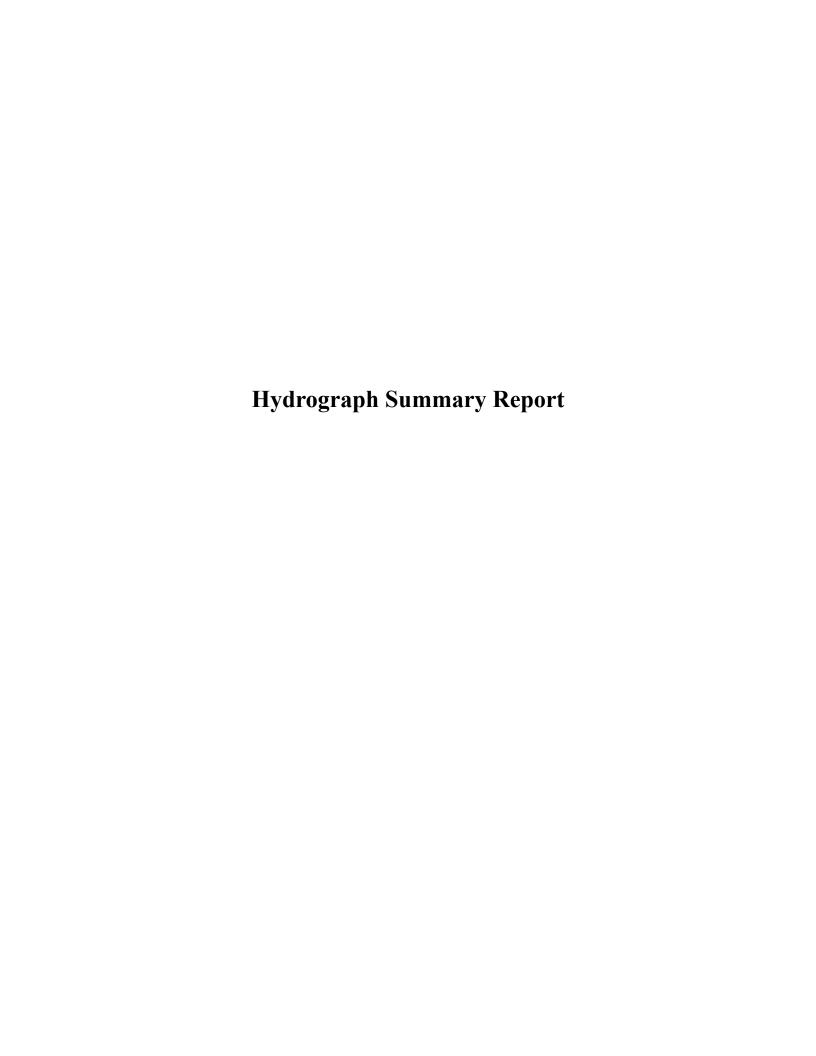
- Pond is situated on the north-east side of the property.
- Pre-development area 7.36 acres.
- Post-development area 7.34 acres.
- Pre-development runoff cumulative coefficient 0.65.
- Post-development runoff cumulative coefficient 0.72
- Pond has a bottom area of 16,570 sqft with bottom elevation of 393.4'.
- A 5' wide spillway with a 3' wide weir outlet structure.

### Peak flows for Pre and post development phase of onsite area have been tabulated below-

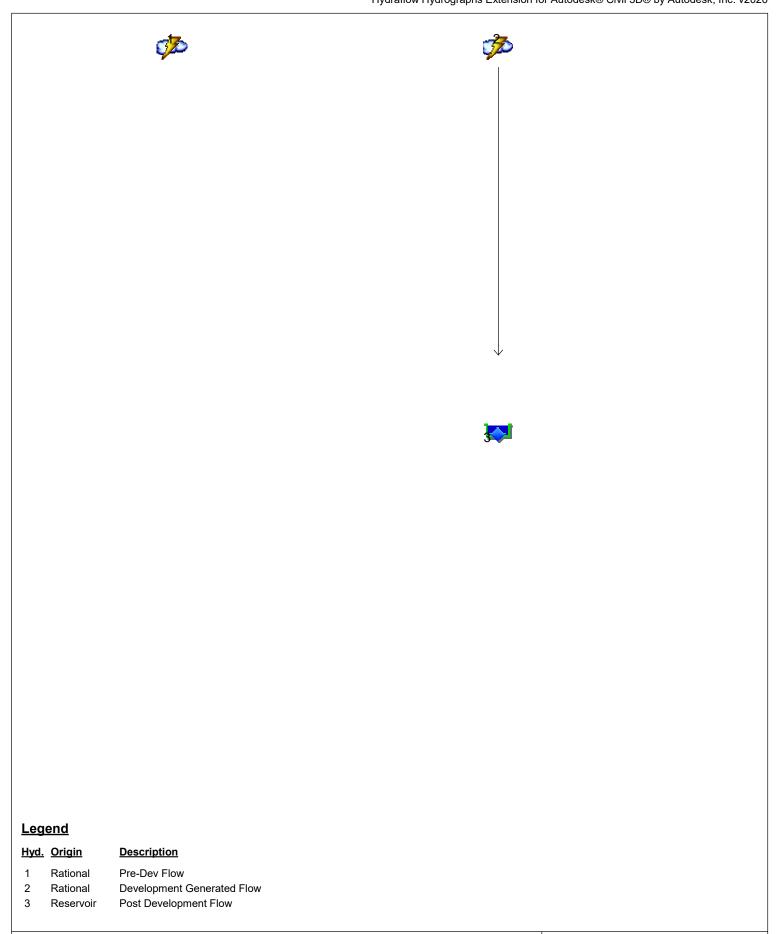
Period of	Pre-development	Post-dev. Without	Post-dev. With detention
time		detention	
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	18.69	22.67	5.733
5-Year	20.65	25.15	6.587
10-Year	24.35	29.23	8.068
25-Year	27.93	33.44	9.693
50-Year	31.84	38.07	11.94
100-Year	33.86	40.40	13.17

## **CONCLUSION**

From the onsite drainage calculation, it is seen that there is decrease in flow for all storm events due to the proposed retention pond.



# **Watershed Model Schematic**



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

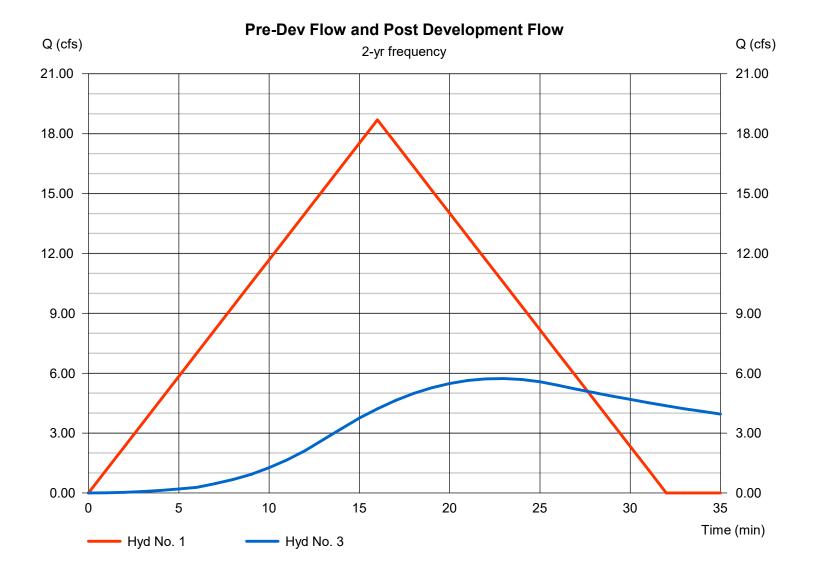
Hyd. No. 1

Pre-Dev Flow

Hydrograph type = Rational Peak discharge = 18.69 cfs Time to peak = 16 min Hyd. Volume = 17,943 cuft Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 5.73 cfs
Time to peak = 23 min
Hyd. Volume = 17,672 cuft



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

Hyd. No. 1

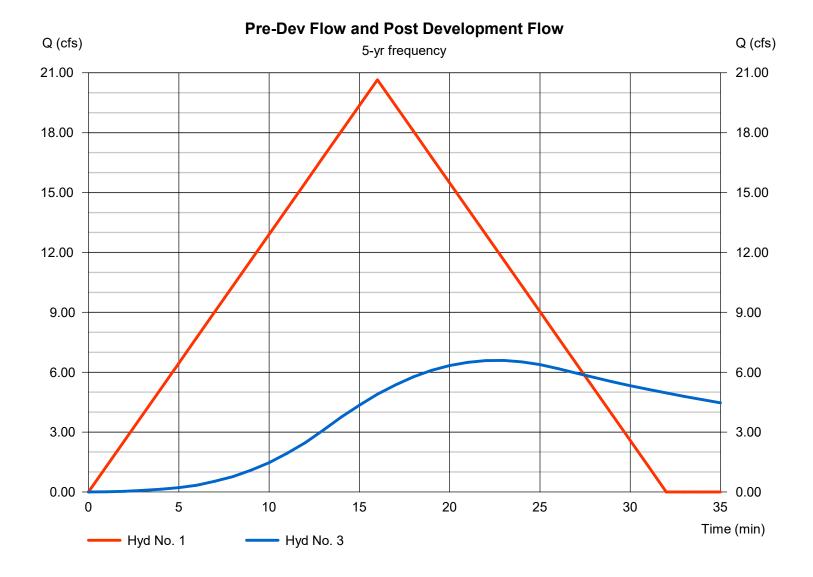
Pre-Dev Flow

Hydrograph type = Rational
Peak discharge = 20.65 cfs
Time to peak = 16 min
Hyd. Volume = 19,826 cuft

Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 6.59 cfs
Time to peak = 23 min
Hyd. Volume = 19,608 cuft



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

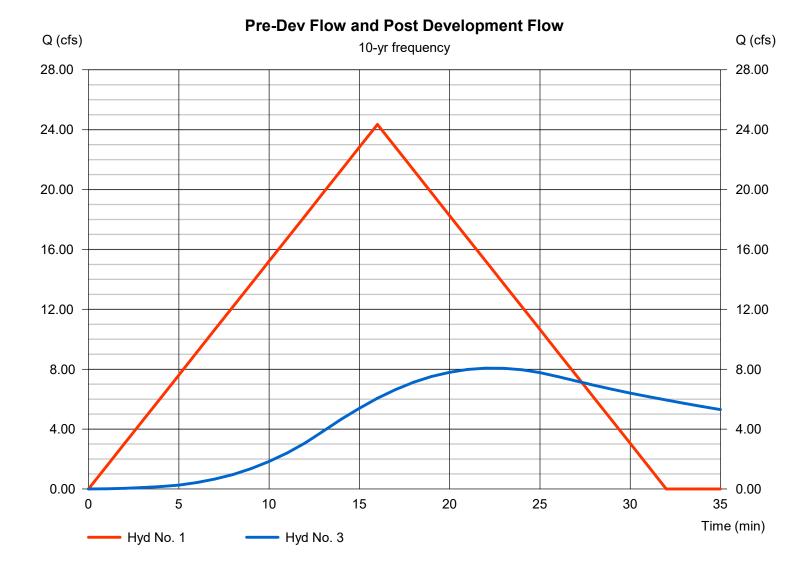
Hyd. No. 1

Pre-Dev Flow

Hydrograph type = Rational Peak discharge = 24.35 cfs Time to peak = 16 min Hyd. Volume = 23,373 cuft Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 8.07 cfs
Time to peak = 22 min
Hyd. Volume = 22,791 cuft



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

Hyd. No. 1

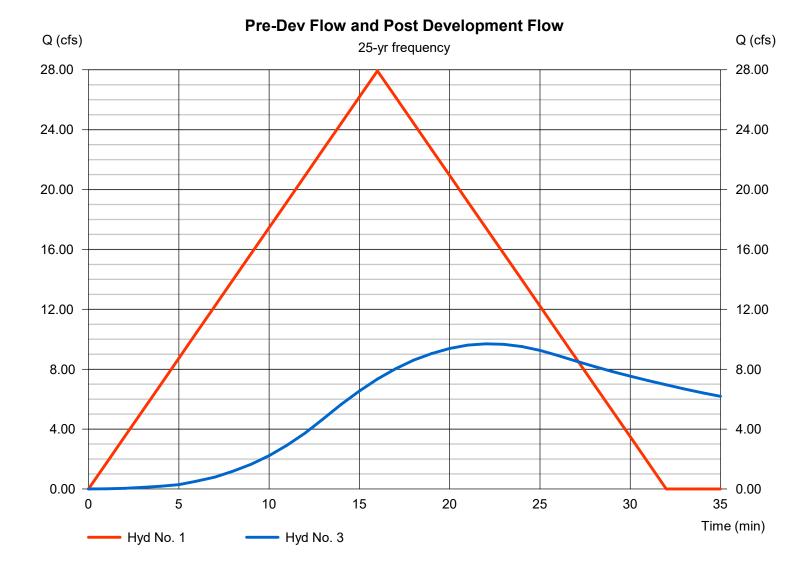
Pre-Dev Flow

Hydrograph type = Rational Peak discharge = 27.93 cfs Time to peak = 16 min Hyd. Volume = 26,812 cuft

## Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 9.69 cfs
Time to peak = 22 min
Hyd. Volume = 26,080 cuft



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

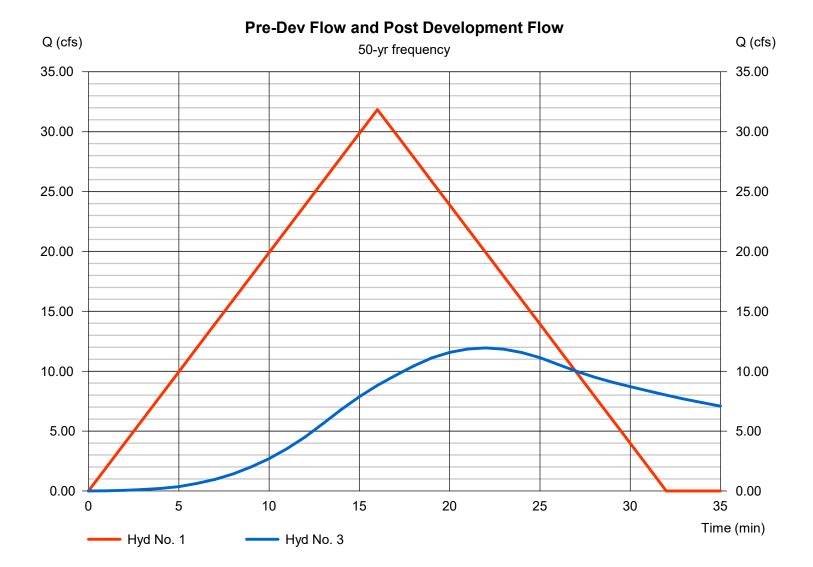
Hyd. No. 1

Pre-Dev Flow

Hydrograph type = Rational Peak discharge = 31.84 cfs Time to peak = 16 min Hyd. Volume = 30,570 cuft Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 11.94 cfs
Time to peak = 22 min
Hyd. Volume = 29,692 cuft



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

Hyd. No. 1

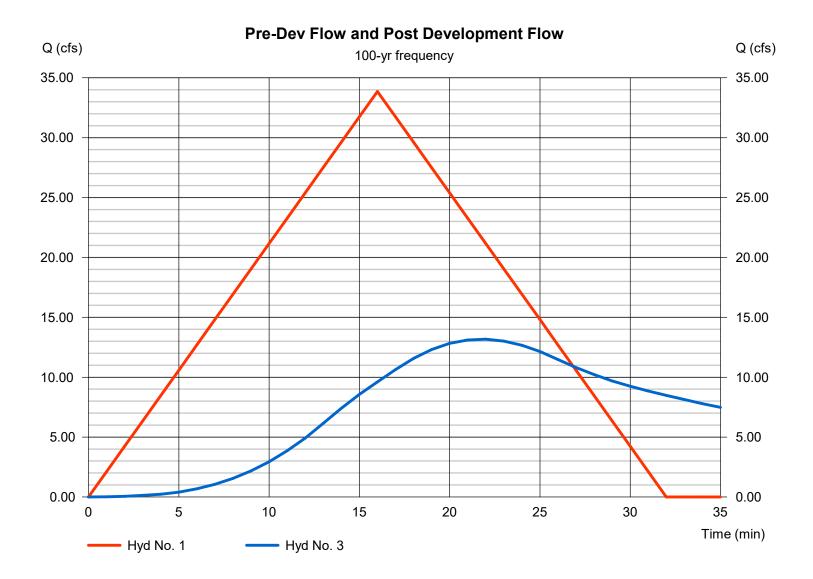
Pre-Dev Flow

Hydrograph type = Rational
Peak discharge = 33.86 cfs
Time to peak = 16 min
Hyd. Volume = 32,504 cuft

Hyd. No. 3

Post Development Flow

Hydrograph type = Reservoir
Peak discharge = 13.17 cfs
Time to peak = 22 min
Hyd. Volume = 31,502 cuft



# **Pond Report**

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

Thursday, 08 / 7 / 2025

### Pond No. 1 - Retention Pond

### **Pond Data**

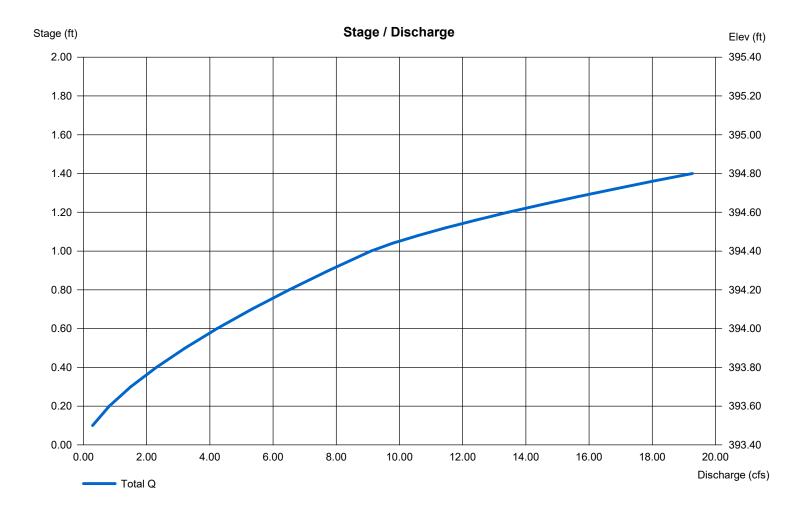
Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 393.40 ft

### Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	393.40	16,570	0	0
1.00	394.40	21,182	18,827	18,827
1.40	394.80	23,045	8,842	27,669

### **Culvert / Orifice Structures Weir Structures** [A] [B] [C] [PrfRsr] [A] [B] [C] [D] 0.00 0.00 Rise (in) Inactive Inactive Inactive Inactive = 3.00 5.00 Crest Len (ft) 394.40 = 8.00 8.00 0.00 0.00 Crest El. (ft) 0.00 Span (in) = 393.400.00 = 1 0 0 Weir Coeff. 3.33 3.33 No. Barrels 1 = 3.033.33 Invert El. (ft) = 393.40393.40 0.00 0.00 Weir Type = Rect Rect = 25.00 25.00 0.00 0.00 No Length (ft) Multi-Stage = No No No = 0.520.52 0.00 Slope (%) n/a N-Value = .013 .013 .013 n/a = 0.000 (by Contour) Orifice Coeff. = 0.600.60 0.60 0.60 Exfil.(in/hr) Multi-Stage = n/aNo No No 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).



	(cfs)	interval (min)	Peak (min)	volume (cuft)	hyd(s)	elevation (ft)	strge used (cuft)	Hydrograph Description
Rational	18.69	1	16	17,943				Pre-Dev Flow
Rational	22.67	1	13	17,679				Development Generated Flow
Reservoir	22.67 5.733	1 1	13 23	17,679 17,672	2	394.13	13,831	Development Flow  Post Development Flow

łyd. lo.	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	20.65	1	16	19,826				Pre-Dev Flow
2	Rational	25.15	1	13	19,614				Development Generated Flow
2 3	Rational	25.15 6.587	1 1	13 23	19,614 19,608	2	394.21	15,185	Development Generated Flow  Post Development Flow
	ND 8-7-2025.								

lyd. lo.	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	24.35	1	16	23,373				Pre-Dev Flow
2	Rational	29.23	1	13	22,797				Development Generated Flow
33	Reservoir	8.068	1	22	22,791	2	394.32	17,379	Post Development Flow
	ND 8-7-2025	(ID)M			Poture	Period: 10 `	Vear	Thursday	08 / 7 / 2025

lyd. Io.	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	27.93	1	16	26,812				Pre-Dev Flow
2	Rational	33.44	1	13	26,086				Development Generated Flow
2 3	Reservoir	33.44 9.693	1 1	13 22	26,086 26,080	2	394.44	19,606	Development Flow  Post Development Flow
	ND 8-7-2025.				Return F				08 / 7 / 2025

lyd. 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	31.84	1	16	30,570				Pre-Dev Flow
2	Rational	38.07	1	13	29,698				Development Generated Flow
2 3	Rational	38.07	1	13 22	29,698 29,692	2	394.54	21,917	Development Generated Flow Post Development Flow

lyd. lo.	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	33.86	1	16	32,504				Pre-Dev Flow
2	Rational	40.40	1	13	31,509				Development Generated Flow
3	Reservoir	13.17	1	22	31,502	2	394.59	23,012	Post Development Flow

# **Drainage Report**

For

**Jamey South Parking Lot** 

**Bryant, Saline County, Arkansas** 



August 14, 2025

Prepared by:

RICHARDSON ENGINEERING, PLLC

325 W. South St. Benton, AR 72015 501-315-7225

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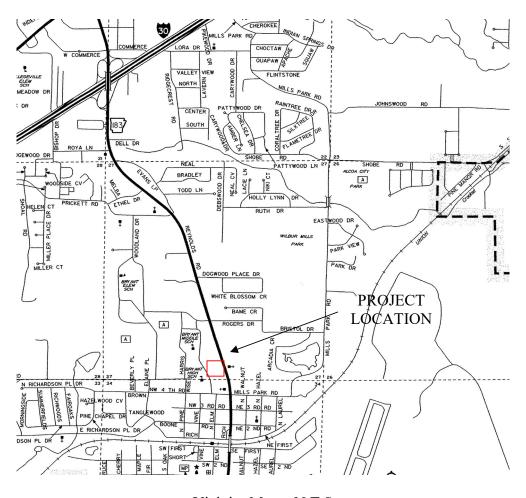
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### **Project Owner Information**

Jamey South 515 N Reynolds Road Bryant, AR 72022

### **Project Location and Description**

The project is located on West side of N Reynolds Road, part of the Southwest Quater of the Southeast Quarter, Section 27, Township 1-S, Range 14-W, Saline County, Arkansas.



Vicinity Map - N.T.S

This project is a proposed Commercial Development for a parking lot, located in the City of Bryant, Saline County.

### Site Drainage

### Pre-Development

The pre-developed runoff for the site flows to the west. The pre-development runoff condition consists of a mix of a small commercial development as well as a portion of undeveloped wooded property.

### Post-Development

The site drainage starts on the East side of the project and flows to the West. The drainage is sheet flows across the proposed driving surface. The storm water is discharged off the parking lot to the west and sheet flows across a grass buffer/filter area. The post-development runoff conditions changed from developed/undeveloped to commercial development.

### **Runoff Summary**

Basin Design Point

Development Drainage Study Area = 0.56 Ac Existing Condition runoff Coefficient: C = 0.61

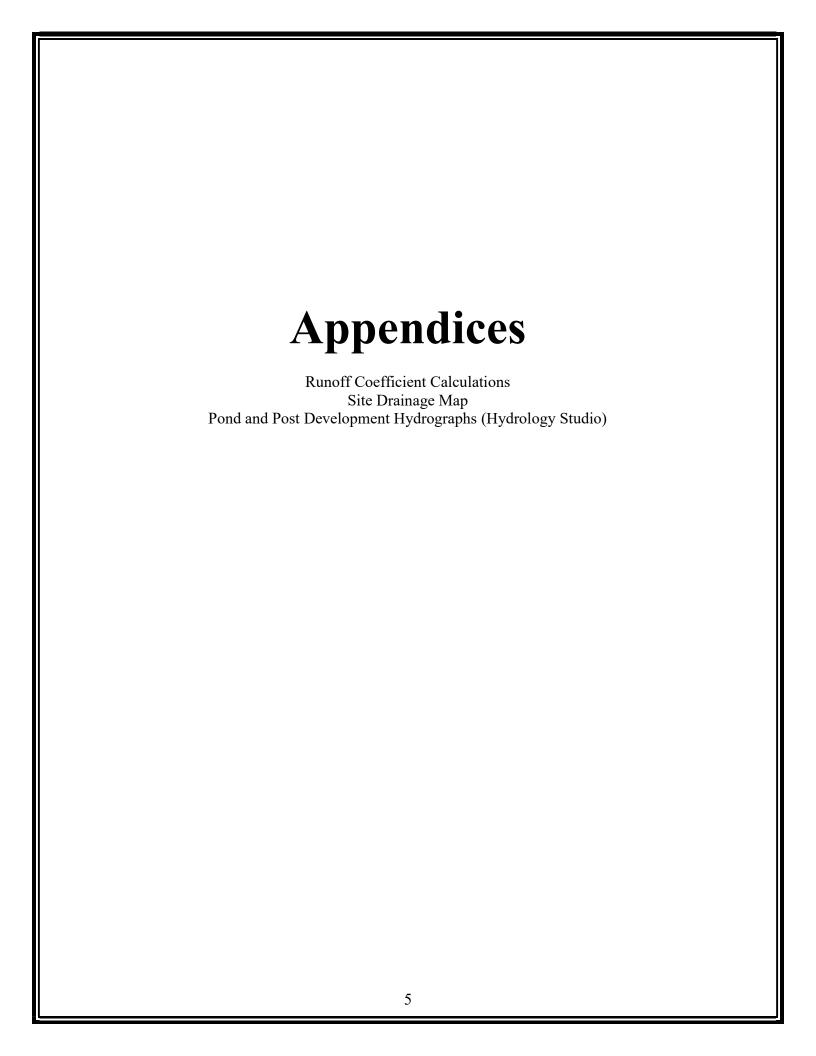
Proposed runoff Coefficient: C = 0.75

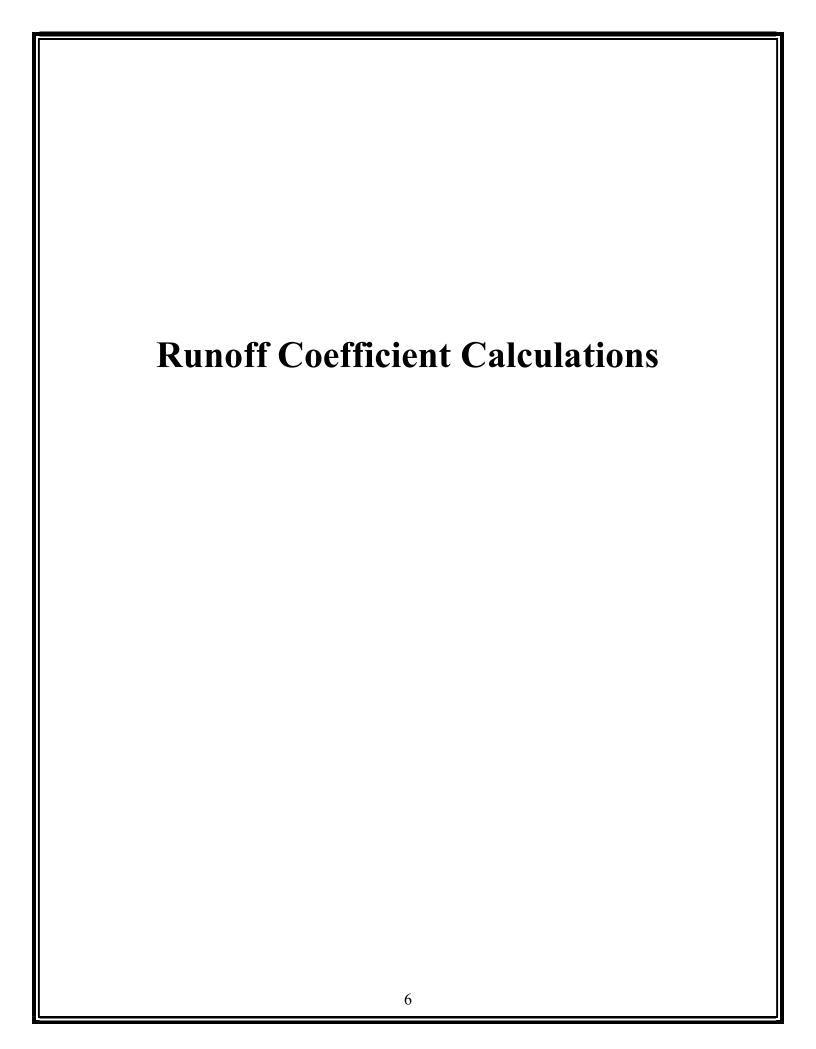
Tc Undeveloped = 9 Minutes (TR55 Method)
Tc Developed = 8 Minutes (TR55 Method)
Detention Basin Required Volume: 586 CF

Design Storm	Pre-Development Flow Rate (cfs)	Post-Development Flow Rate (cfs)
) ve	1.61	2.09
2-yr 10-yr	2.15	2.79
25-yr	2.47	3.21
50-yr	2.71	3.51
100-yr	2.94	3.81

### **Recommendations/Summary**

The proposed drainage improvements include a grass buffer/filter area on the West side of the project. The proposed development slightly increases the peak flow leaving the site, but it is not considered to be significant.



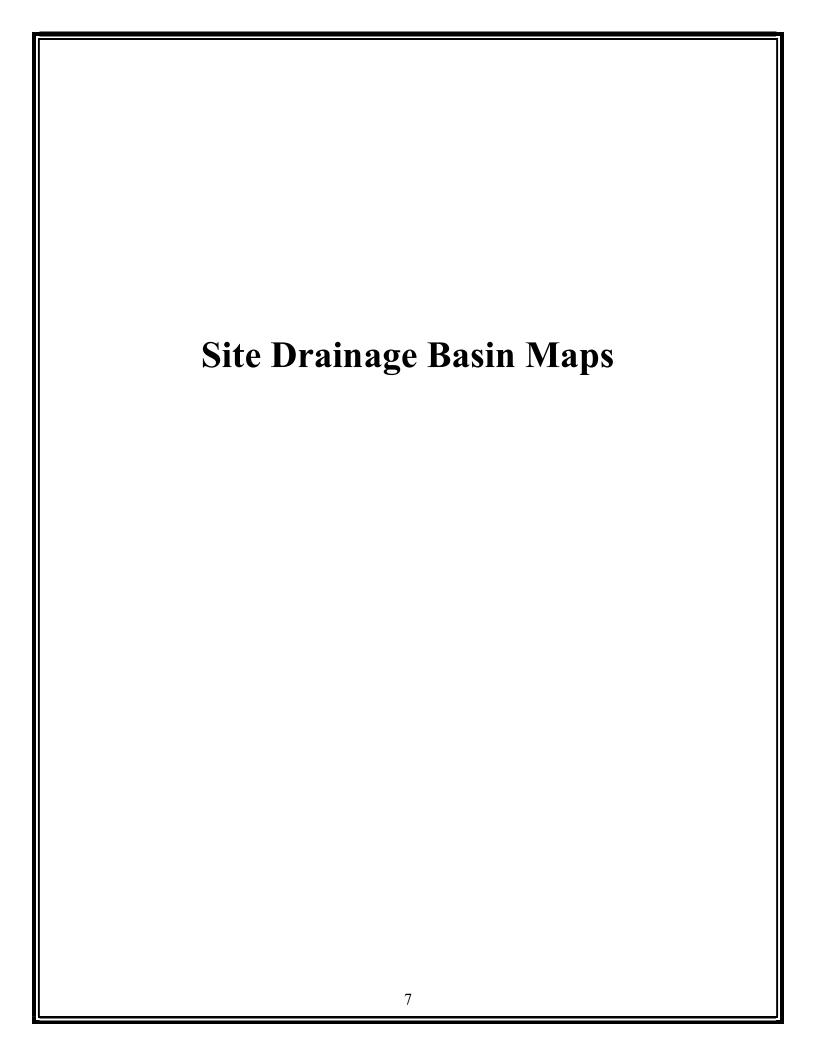


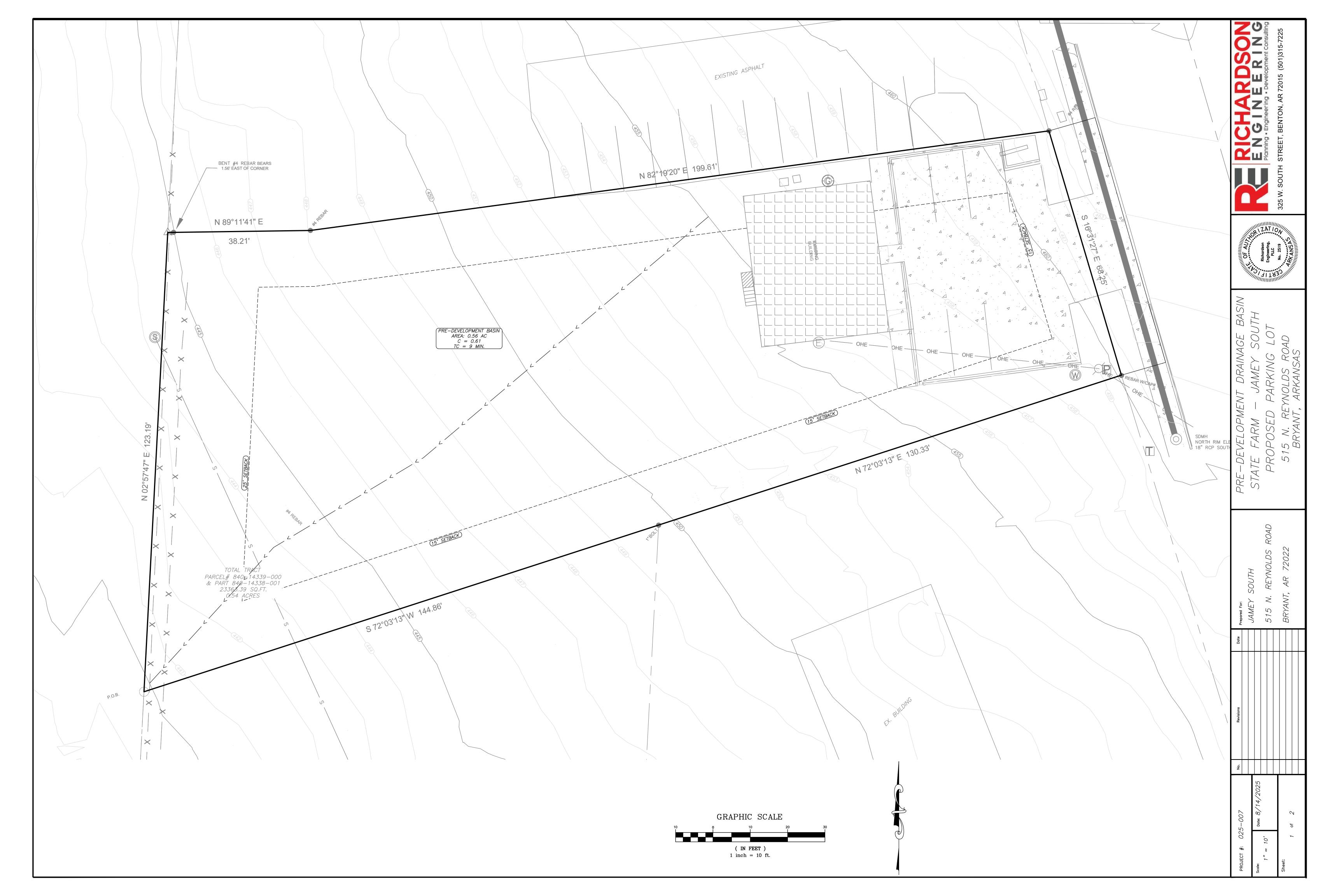


325 West South Street Benton, AR 72015 (501) 315-7225

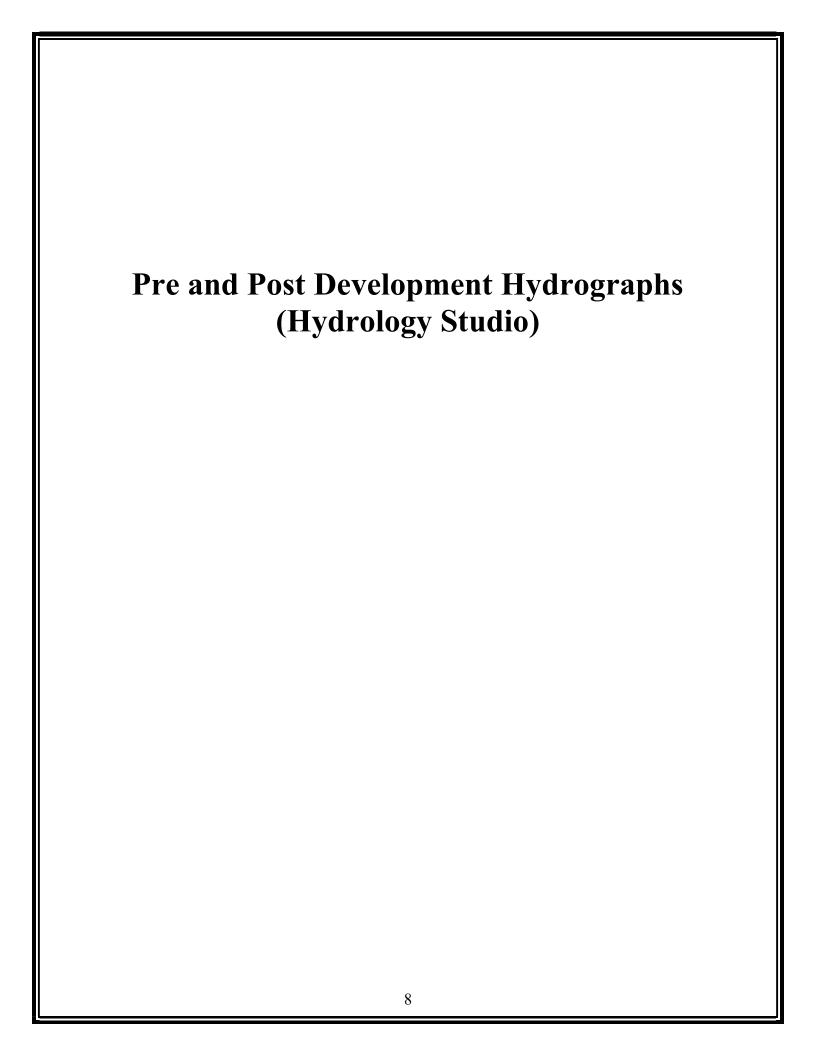
(1/1)

PROJECT 025-007	DRAINACE	CALCULATIONS	DATE_08/13/2>25
Existing L			
DEVELOPED:	0.16	C= 0.95	
UN DEVE GRED	! 0.40	C-0.47	AUG 2-74
CE (0.16	)(0.95) +	(0.40)(0.47)	
	0.5	·6	
P03T - D6V 5			
Developed:	0.33	C= 0.95	
VNDEVERPED!	0.23	C = 0.45 (A)	6 7-7% Was ( Sandy Soll )
Z = CO 33		(0.23)(0.45)	• 0.75









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-		
	Pre-Dev Basin	Post-Dev Basin

# Hydrograph by Return Period

08-14-2025 Hydrology Studio v 3.0.0.27 Peak Outflow (cfs) Hyd. Hydrograph Hydrograph No. Name Type 3-yr 10-yr 100-yr 1-yr 2-yr 5-yr 25-yr 50-yr 1 Rational Pre-Dev Basin 1.608 2.154 2.474 2.705 2.938 2 Rational Post-Dev Basin 2.085 2.792 3.207 3.506 3.809

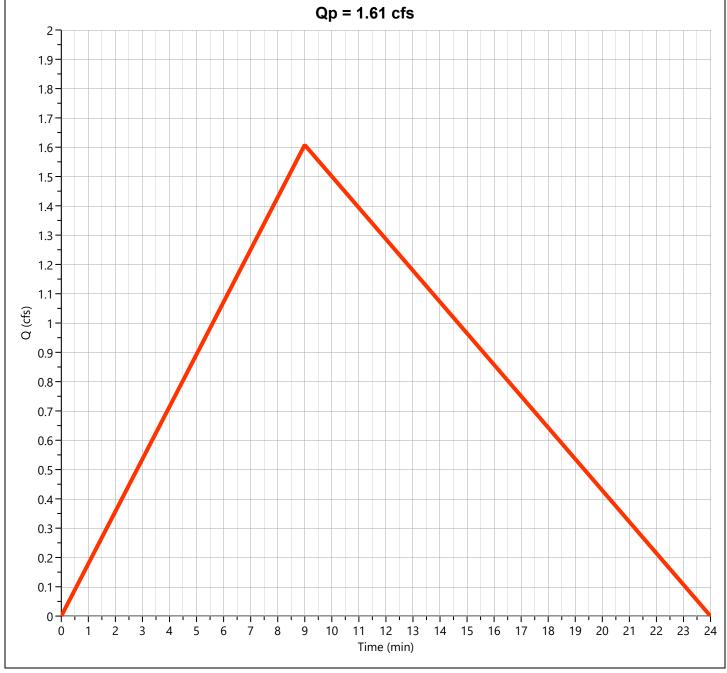
# Hydrograph 2-yr Summary

ology Stu <b>yd.</b>	Hydrograph	Hydrograph	Peak Flow	Time to	Hydrograph	Inflow	Maximum	Maximur
о.	Туре	Name	Flow (cfs)	Peak (hrs)	Volume (cuft)	Hyd(s)	Elevation (ft)	Storage (cuft)
1	Rational	Pre-Dev Basin	1.608	0.15	1,159			
2	Rational	Post-Dev Basin	2.085	0.13	1,336			

Hydrology Studio v 3.0.0.27 08-14-2025

# Pre-Dev Basin Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 1.608 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Runoff Volume	= 1,159 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.61
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 9.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 4.71 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	s = 1/1.67



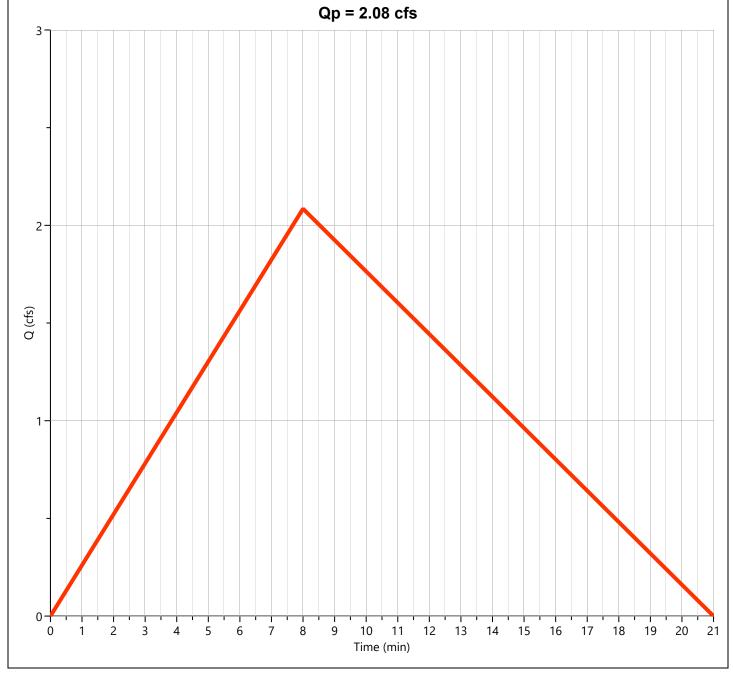
### Pre-Dev Basin Rational

Hyd. No. 1

Dogorintion	Segments			
Description	Α	В	С	Tc (min)
Sheet Flow				
Description				
Manning's n	0.300	0.013	0.013	
Flow Length (ft)	100			
2-yr, 24-hr Precip. (in)	4.36	2.28	2.28	
Land Slope (%)	7.7			
Travel Time (min)	8.52	0.00	0.00	8.52
Shallow Concentrated Flow				
Flow Length (ft)	95			
Watercourse Slope (%)	7.60	0.00	0.00	
Surface Description	Unpaved	Paved	Paved	
Average Velocity (ft/s)	4.45			
Travel Time (min)	0.36	0.00	0.00	0.36
Channel Flow				
X-sectional Flow Area (sqft)				
Wetted Perimeter (ft)				
Channel Slope (%)				
Manning's n	0.013	0.013	0.013	
Velocity (ft/s)				
Flow Length (ft)				
Travel Time (min)	0.00	0.00	0.00	0.00
Total Travel Time				9 min

# Post-Dev Basin Hyd. No. 2

-			
Hydrograph Type	= Rational	Peak Flow	= 2.085 cfs
Storm Frequency	= 2-yr	Time to Peak	= 0.13 hrs
Time Interval	= 1 min	Runoff Volume	= 1,336 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.75
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 4.96 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	s = 1/1.67



### Post-Dev Basin Rational

Hyd. No. 2

Description		Segments		
Description	Α	В	С	Tc (min)
Sheet Flow				
Description				
Manning's n	0.410	0.013	0.013	
Flow Length (ft)	72			
2-yr, 24-hr Precip. (in)	4.36	2.28	2.28	
Land Slope (%)	8.8			
Travel Time (min)	7.98	0.00	0.00	7.98
Shallow Concentrated Flow				
Flow Length (ft)				
Watercourse Slope (%)	0.00	0.00	0.00	
Surface Description	Paved	Paved	Paved	
Average Velocity (ft/s)				
Travel Time (min)	0.00	0.00	0.00	0.00
Channel Flow				
X-sectional Flow Area (sqft)				
Wetted Perimeter (ft)				
Channel Slope (%)				
Manning's n	0.013	0.013	0.013	
Velocity (ft/s)				
Flow Length (ft)				
Travel Time (min)	0.00	0.00	0.00	0.00
T. (.1.T				
Total Travel Time				8 min

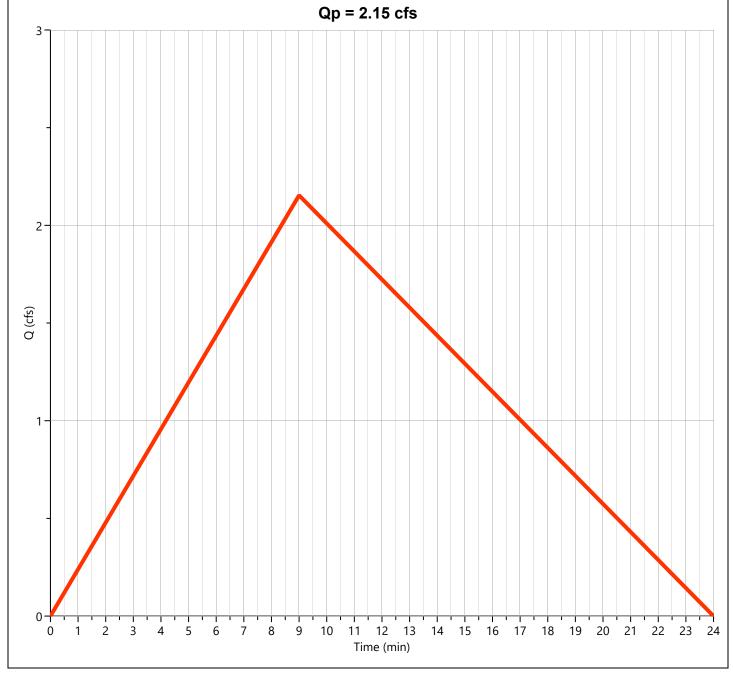
# Hydrograph 10-yr Summary

Hydrology Studio v 3.0.0.27

08-14-2025 Hydrograph Volume (cuft) Maximum Peak Time to Inflow Maximum Hyd. Hydrograph Hydrograph Storage (cuft) Flow Peak Hyd(s) Elevation No. Name Type (cfs) (hrs) (ft) 1 Rational Pre-Dev Basin 2.154 0.15 1,552 2 Rational Post-Dev Basin 2.792 0.13 1,789

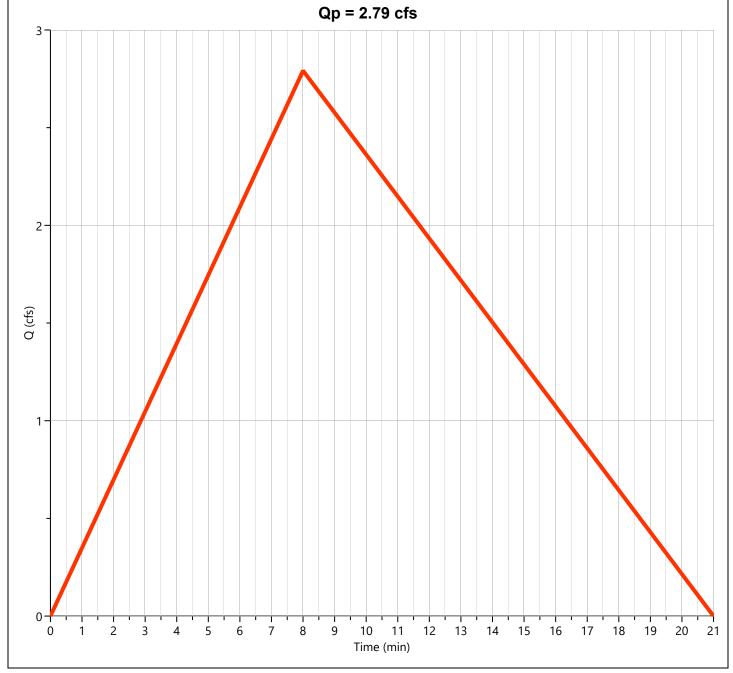
# Pre-Dev Basin Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.154 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Runoff Volume	= 1,552 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.61
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 9.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 6.30 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	s = 1/1.67



# Post-Dev Basin Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 2.792 cfs
Storm Frequency	= 10-yr	Time to Peak	= 0.13 hrs
Time Interval	= 1 min	Runoff Volume	= 1,789 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.75
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 6.65 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factor	s = 1/1.67



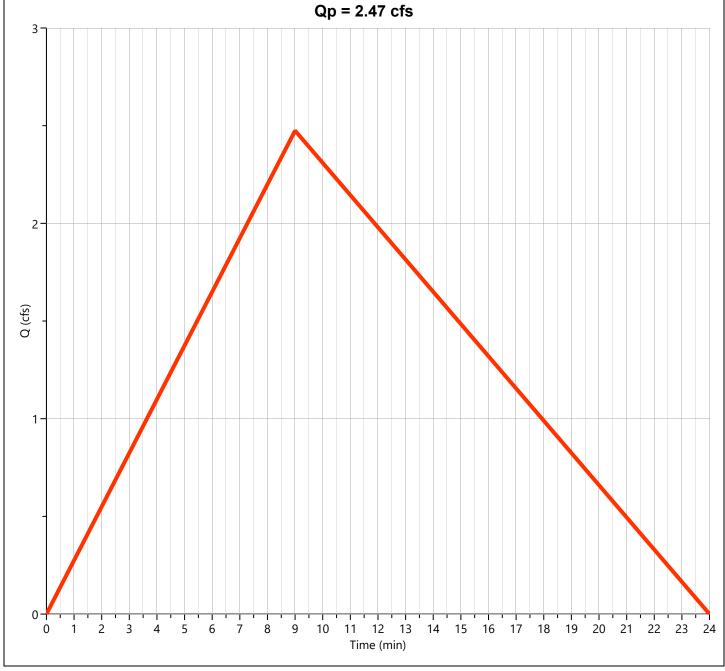
# Hydrograph 25-yr Summary

Hydrology Studio v 3.0.0.27

08-14-2025 Hydrograph Volume (cuft) Maximum Peak Time to Inflow Maximum Hyd. Hydrograph Hydrograph Storage (cuft) Flow Peak Hyd(s) Elevation No. Name Type (cfs) (hrs) (ft) 1 Rational Pre-Dev Basin 2.474 0.15 1,784 2 Rational Post-Dev Basin 3.207 0.13 2,055

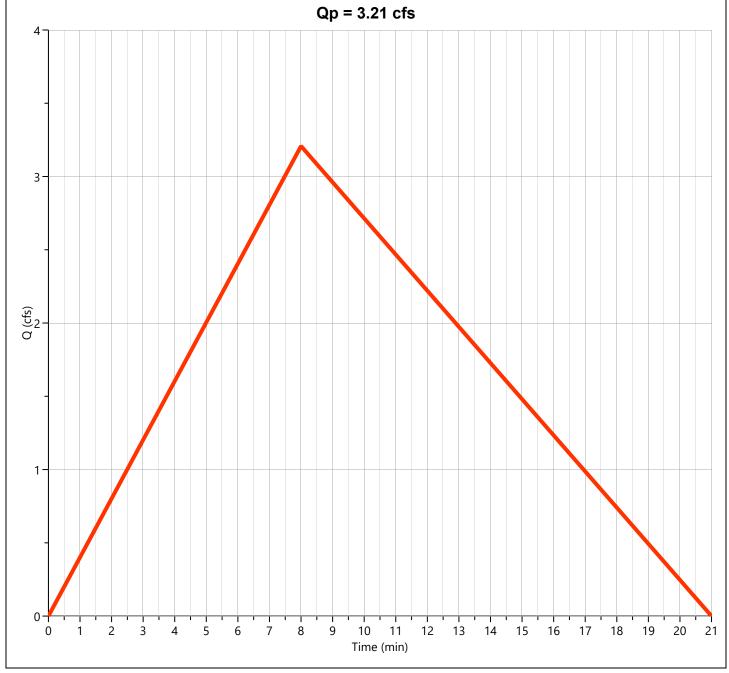
# Pre-Dev Basin Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.474 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Runoff Volume	= 1,784 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.61
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 9.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 7.24 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factor	rs = 1/1.67



# Post-Dev Basin Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 3.207 cfs
Storm Frequency	= 25-yr	Time to Peak	= 0.13 hrs
Time Interval	= 1 min	Runoff Volume	= 2,055 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.75
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 7.64 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	s = 1/1.67



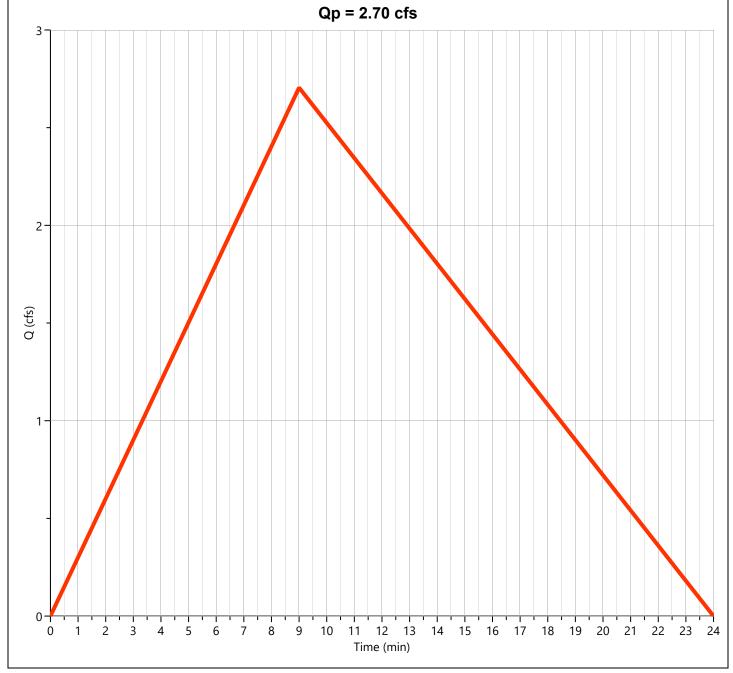
08-14-2025

# Hydrograph 50-yr Summary Hydrology Studio v 3.0.0.27

ydrology St	udio v 3.0.0.27	1					T	00-14-20
Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	Rational	Pre-Dev Basin	2.705	0.15	1,950			
2	Rational	Post-Dev Basin	3.506	0.13	2,246			

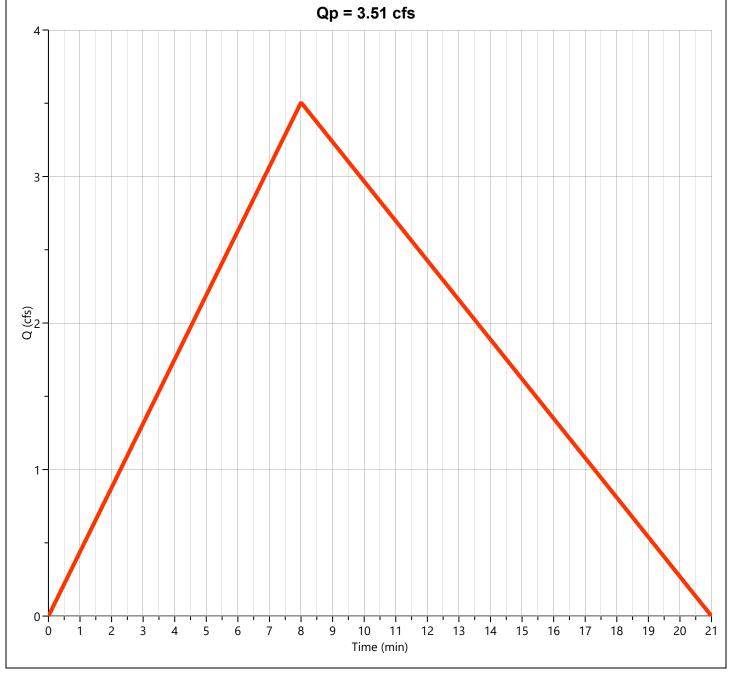
# Pre-Dev Basin Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.705 cfs
Storm Frequency	= 50-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Runoff Volume	= 1,950 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.61
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 9.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 7.92 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factor	rs = 1/1.67



# Post-Dev Basin Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 3.506 cfs
Storm Frequency	= 50-yr	Time to Peak	= 0.13 hrs
Time Interval	= 1 min	Runoff Volume	= 2,246 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.75
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 8.35 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factor	s = 1/1.67

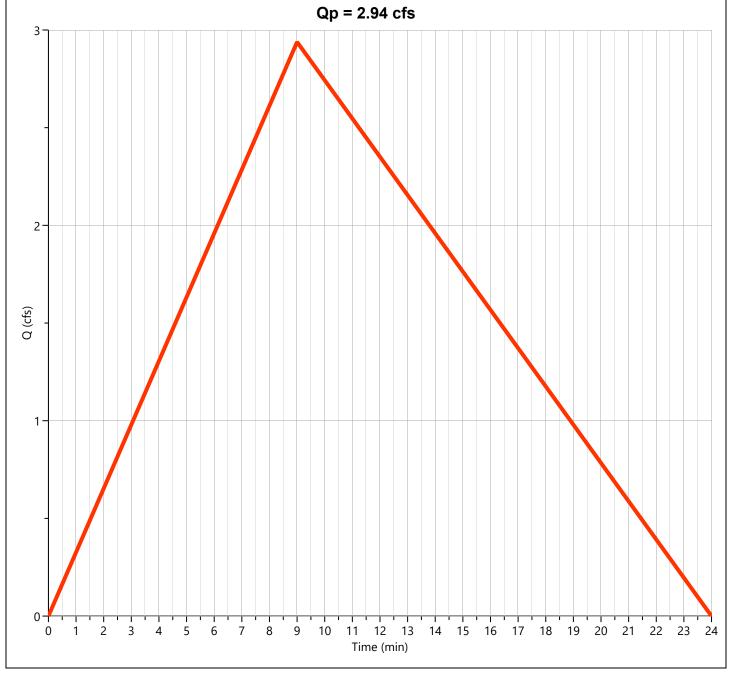


# Hydrograph 100-yr Summary

08-14-2025 Hydrology Studio v 3.0.0.27 Hydrograph Volume (cuft) Maximum Peak Time to Inflow Maximum Hyd. Hydrograph Hydrograph Storage (cuft) Flow Peak Hyd(s) Elevation No. Name Type (cfs) (hrs) (ft) 1 Rational Pre-Dev Basin 2.938 0.15 2,118 2 Rational Post-Dev Basin 3.809 0.13 2,441

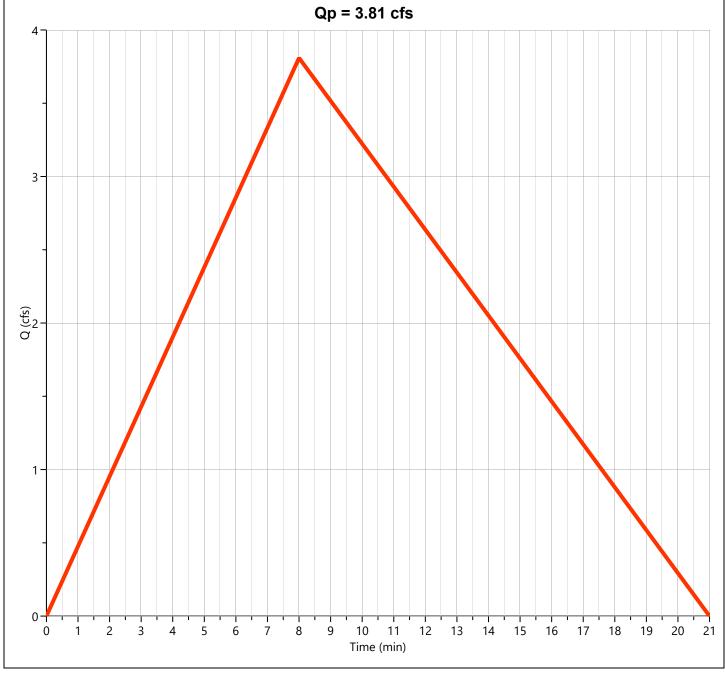
# Pre-Dev Basin Hyd. No. 1

Hydrograph Type	= Rational	Peak Flow	= 2.938 cfs
Storm Frequency	= 100-yr	Time to Peak	= 0.15 hrs
Time Interval	= 1 min	Runoff Volume	= 2,118 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.61
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 9.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 8.60 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factors	s = 1/1.67



# Post-Dev Basin Hyd. No. 2

Hydrograph Type	= Rational	Peak Flow	= 3.809 cfs
Storm Frequency	= 100-yr	Time to Peak	= 0.13 hrs
Time Interval	= 1 min	Runoff Volume	= 2,441 cuft
Drainage Area	= 0.56 ac	Runoff Coeff.	= 0.75
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.0 min
IDF Curve	= City of Bryant IDF Curve.idf	Intensity	= 9.07 in/hr
Freq. Corr. Factor	= 1.00	Asc/Rec Limb Factor	rs = 1/1.67



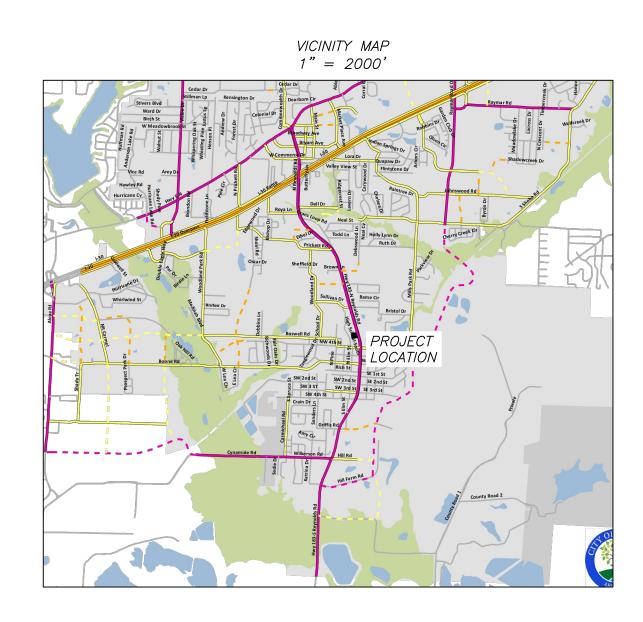
# DETAILED PLANS:

# STATE FARM - JAMEY SOUTH PROPOSED PARKING LOT

515 N. REYNOLDS ROAD BRYANT, ARKANSAS

PRE-CONSTRUCTION COPY -

PLANS FOR BIDDING PURPOSES.
QUANTITIES TO BE VERIFIED PRIOR
TO CONSTRUCTION. CONTRACTOR
TO VERIFY GRADES WITH ENGINEER
PRIOR TO CONSTRUCTION.



Prepared By:



4/22/2025 REV: 8/13/2025

# PREPARED FOR:

JAMEY SOUTH
515 N. REYNOLDS ROAD
BRYANT, AR 72022



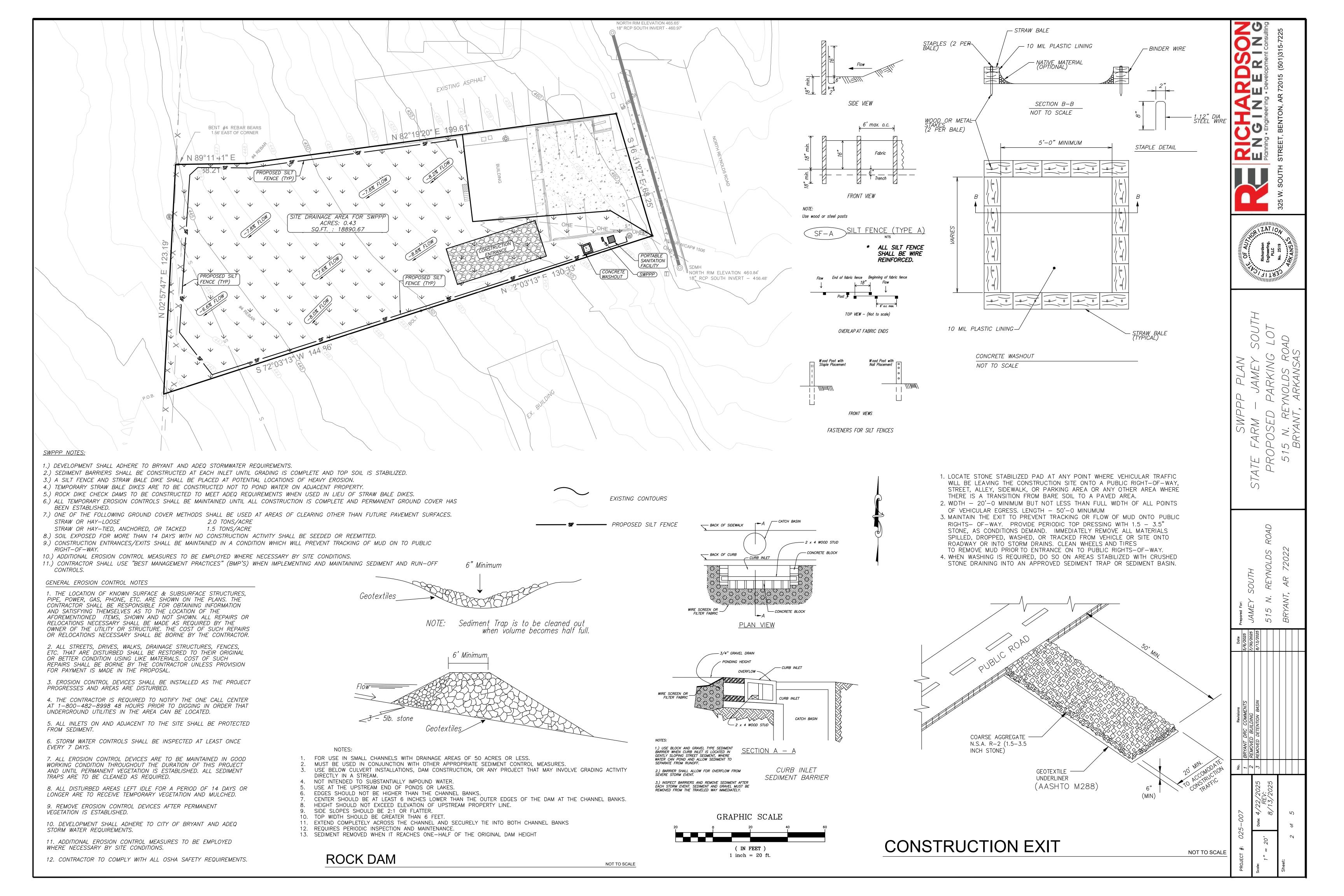
BRYANT DRC COMMENTS

REMOVED DETENTION BASIN

8/13/2025

REMOVED BUILDING

INDEX OF SHEETS	
COVER SHEET	1
SWPPP	2
DEMOLITION PLAN	3
SITE/LANDSCAPE PLAN	4
GRADING PLAN	5



STORMWATER POLLUTION PREVENTION PLAN.

CONSTRUCTION OR TIE-INS.

AFOREMENTIONED ITEMS, SHOWN AND NOT SHOWN.

J. THE APPROXIMATE LOCATION OF KNOWN SURFACE AND SUBSURFACE STRUCTURES,

CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF THE

K. CONTRACTOR TO ADHERE TO CURRENT OSHA REGULATIONS, INCLUDING EXCAVATION &

L. CONTRACTOR SHALL CONTACT THE CITY OF BRYANT STREET DEPARTMENT IN REGARD TO

MAINTENANCE OF TRAFFIC PRIOR TO COMMENCEMENT OF WORK WITHIN STREET RIGHT OF

M. CONTRACTOR SHALL CONTACT CITY OF BRYANT PRIOR TO COMMENCEMENT OF UTILITY

PIPES, POWER, GAS, PHONE, ETC. ARE SHOWN ON THE DESIGN DRAWINGS. THE

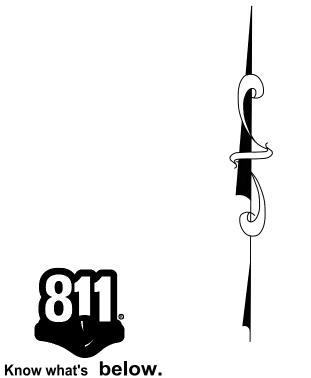
**DEMO NOTES:** 

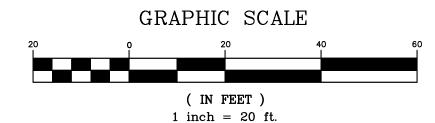
SANITARY SEWER: BRYANT SEWER DEPARTMENT 1019 S.W. 2ND ST. BRYANT, AR 72022 501-943-0469

BRYANT WATER DEPARTMENT 210 S.W. 3RD ST. BRYANT, AR 72022 501-943-0441

**ENTERGY** 425 W. CAPITAL AVE. LITTLE ROCK, AR 72201 1-800-368-3749

NATURAL GAS: SUMMIT UTILITIES 400 WEST CAPITOL #600 LITTLE ROCK, ARKANSAS 888-498-0409





Call before you dig.

Legend Property Boundary — — — — — — Surveyed lines

— Road Right of Way — FO —— FO —— FO —— Fiber Optic Line — Road Center line — Wire / Chainlink Fence – Sanitary Sewer Main — Sanitary Sewer Service

— Water Service Line ——— Water Main — UGE — UGE — Underground Electric — Overhead Powerline — Gas Main

----- SF -----

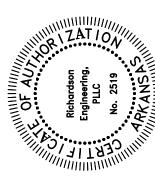
∅ Utility Pole

Gas Meter

(O) Sewer Stubup

<u>UTILITIES:</u>

E R I N G



5

 $\langle \rangle$ 

5 51

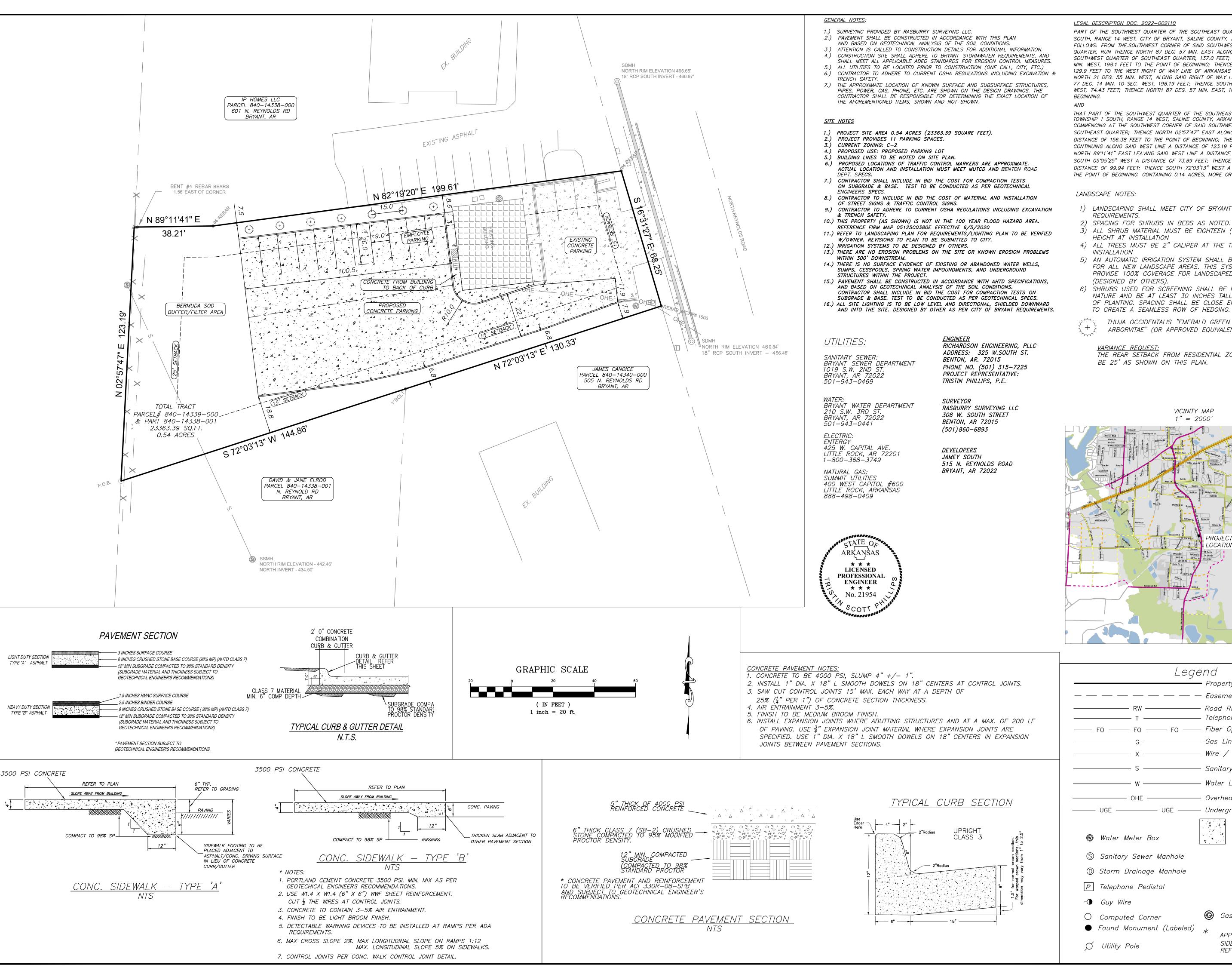
---- Silt Fence

 Found Monument (Labeled) S Existing Sewer Mnahole

© Existing Storm Box

Existing Fire Hydrant

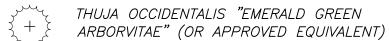
-**①** Guy Wire



PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER, SECTION 27, TOWNSHIP SOUTH, RANGE 14 WEST, CITY OF BRYANT, SALINE COUNTY, ARKANSAS, AND DESCL'IBED AS FOLLOWS: FROM THE.SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER OF SOUTHEAST QUARTER, RUN THENCE NORTH 87 DEG, 57 MIN. EAST ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF SOUTHEAST QUARTER, 137.0 FEET; THENCE NORTH 00 DEG. 41 MIN. WEST, 198.1 FEET TO THE POINT OF BEGINNING; THENCE NORTH 66 DEG. 45 MIN, EAS 129.9 FEET TO THE WEST RIGHT OF WAY LINE OF ARKANSAS STATE HIGHWAY #183; THENCE NORTH 21 DEG. 55 MIN. WEST, ALONG SAID RIGHT OF WAY LINE, 68.3 FEET; THENCE SOUTH 77 DEG. 14 MIN. 10 SEC. WEST, 198.19 FEET; THENCE SOUTH 00 DEG. 23 MIN. 30 SEC. WEST, 74.43 FEET; THENCE NORTH 87 DEG. 57 MIN. EAST, 100.0 FEET TO THE POINT OF

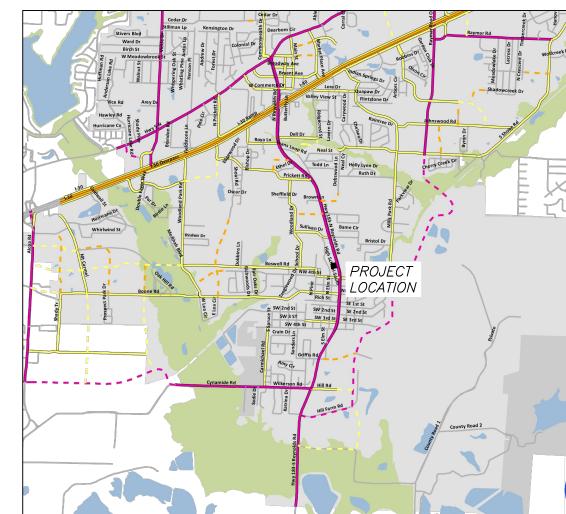
THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 27, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER; THENCE NORTH 02°57'47" EAST ALONG THE WEST LINE THEREOF A DISTANCE OF 156.38 FEET TO THE POINT OF BEGINNING; THENCE NORTH 02\*57'47" EAST CONTINUING ALONG SAID WEST LINE A DISTANCE OF 123.19 FEET; THENCE NORTH 89"11'41" EAST LEAVING SAID WEST LINE A DISTANCE OF 38.21 FEET; THENCE SOUTH 05'05'25" WEST A DISTANCE OF 73.89 FEET; THENCE SOUTH 86'56'40" EAST A DISTANCE OF 99.94 FEET; THENCE SOUTH 72°03'13" WEST A DISTANCE OF 144.86 FEET TO THE POINT OF BEGINNING. CONTAINING 0.14 ACRES, MORE OR LESS.

- 1) LANDSCAPING SHALL MEET CITY OF BRYANT LANDSCAPING
- 2) SPACING FOR SHRUBS IN BEDS AS NOTED.
- 3) ALL SHRUB MATERIAL MUST BE EIGHTEEN (18) INCHES IN
- 4) ALL TREES MUST BE 2" CALIPER AT THE TIME OF
- 5) AN AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED FOR ALL NEW LANDSCAPE AREAS. THIS SYSTEM WILL PROVIDE 100% COVERAGE FOR LANDSCAPED AREAS
- 6) SHRUBS USED FOR SCREENING SHALL BE EVERGREEN IN NATURE AND BE AT LEAST 30 INCHES TALL AT THE TIME OF PLANTING. SPACING SHALL BE CLOSE ENOUGH SO AS



<u>VARIANCE REQUEST:</u>
THE REAR SETBACK FROM RESIDENTIAL ZONING

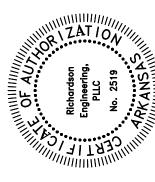
#### VICINITY MAP 1" = 2000'



Legend Property Boundary — — — — Easement/BSL (Labeled) Road Right of Way — FO —— Fiber Optic Line - Wire / Chainlink Fence Sanitary Sewer Overhead Electric UGE — Underground Powerline PROPOSED CONCRETE

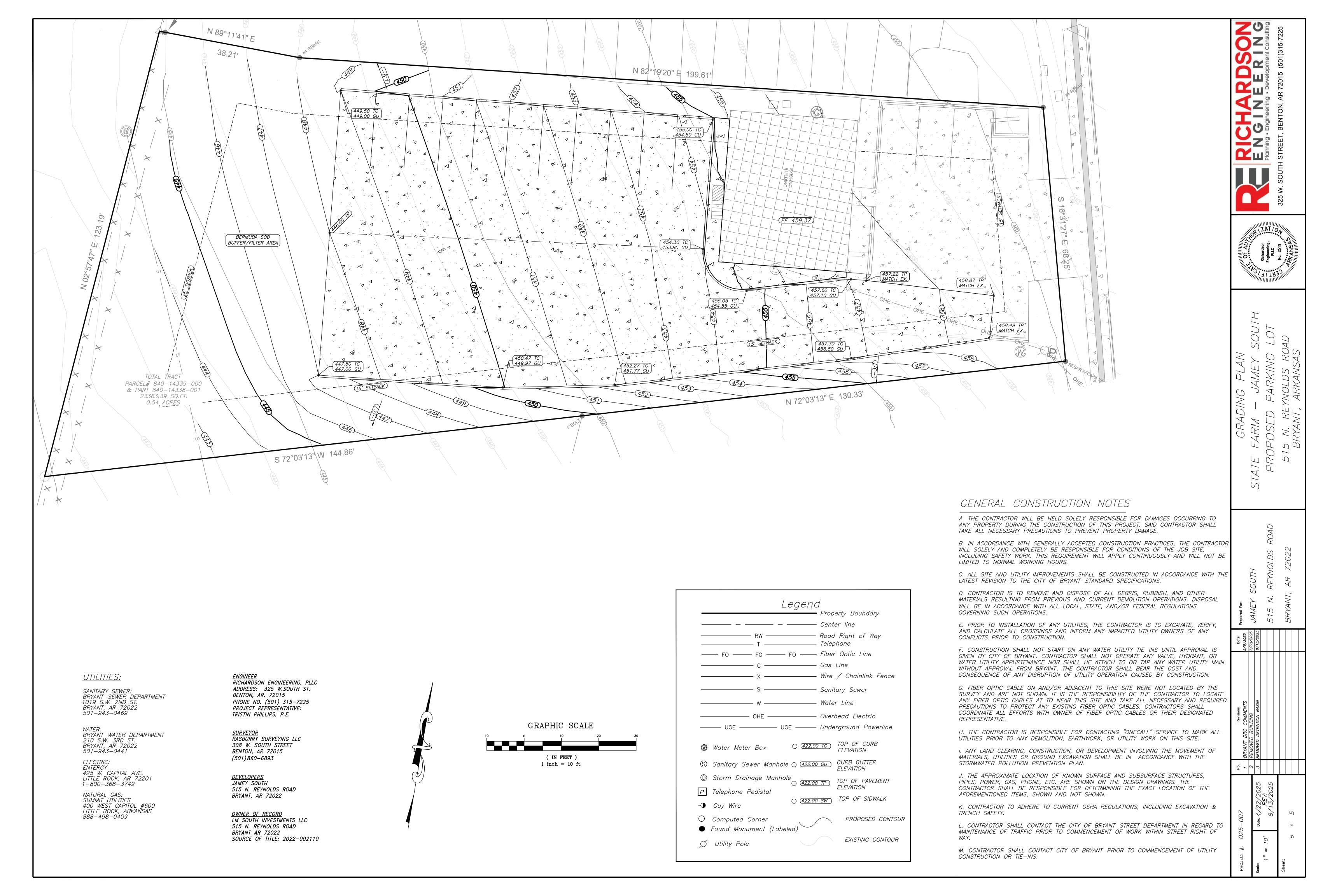
APPROVED ADA SIDEWALK RAMP. REFER TO NOTES.

(G) Gas Meter



 $\mathcal{O}$ 

5 51



		<b>(D)</b>	CTODM DDAIN MANUOLE			
<b>©</b>	GAS METER		STORM DRAIN MANHOLE			CAST CAST ACCULANT
	WATER METER	C/0	SEWER CLEANOUT			ASPHALT
-•	GUY WIRE	N	NORTH		. 7.	· a
0	POWER/UTILITY POLE	S	SOUTH	4	4	CONCRETE
	TELEPHONE PEDESTAL	E	EAST			
<u>(S)</u>	SEWER MANHOLE	W	WEST			
wv 	WATER VALVE	(M)	AS MEASURED		•	SET 1/2" REBAR w/ CAP #1853
X	FIRE HYDRANT	(D)	PER DEED		•	SET COTTON-PICKER SPINDLE
<u></u>	SIGNS	(R)	RECORDED		$\bigcirc$	FOUND MONUMENT (DESC. NOTED)
-&-	LIGHT POLE	R/W	RIGHT-OF-WAY		Δ	COMPUTED CORNER (NOT SET)
<b>(</b> T)	TELEPHONE MANHOLE	L.A.	LANDSCAPED AREA			CORRESPONDS TO DRAWING NOTE
_	- SANITARY SEWER LINE	CR4	CAPPED 1/2" REBAR			CONTROL ON DO TO DIVINING NOTE
— – w – – —	- WATER LINE	CONC.	CONCRETE			
	■ STORM SEWER PIPE	P.O.C.	POINT OF COMMENCEMEN	NT		
	- ROADWAY CENTERLINE	P.O.B.	POINT OF BEGINNING			
	- UTILITY EASEMENT	CMP	CORRUGATED METAL PIPE	<b>=</b>		
	- BUILDING SETBACK LINE	RCP	REINFORCED CONCRETE F	PIPE		
— — RW — — —	- ROADWAY RIGHT-OF-WAY	ESMT	EASEMENT			
— · — OHE — · —	- OVERHEAD ELECTRIC LINES	HDPE	HIGH DENSITY POLYETHYL	LENE		
— — — ugt — — —	- UNDERGROUND TELEPHONE	SUBD	SUBDIVISION			
G	- UNDERGROUND GAS	FDC	FIRE DEPARTMENT CONNE	ECTION		
— · — F.O. — · —	- UNDERGROUND FIBER OPTIC	CPS P5	COTTON PICKER SPINDLE 5/8" PIPE			

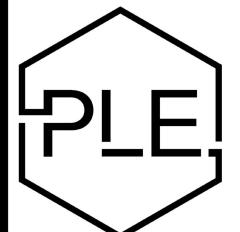
# NEW BEGINNINGS

# HIGHWAY 5

Sheet List Table				
Sheet Title				
COVER SHEET				
OVERALL SITE PLAN				
ENLARGED SITE PLAN				
SITE DETAILS				
GRADING PLAN				
ENLARGED GRADING PLAN				
UTILITY PLAN				
UTILITY PROFILES				
UTILITY DETAILS I				
UTILITY DETAILS II				
PRE-DEV DRAINAGE				
POST-DEV DRAINAGE				
LANDSCAPE PLAN				
SWPPP				

BRYANT, AR





#### OCCURRING TO ANY PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT. SAID CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT PROPERTY DAMAGE.

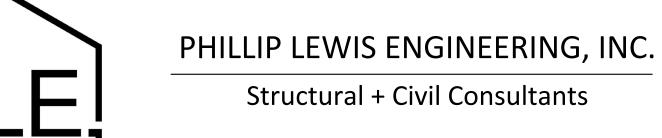
GENERAL CONSTRUCTION NOTES

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

A. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR DAMAGES

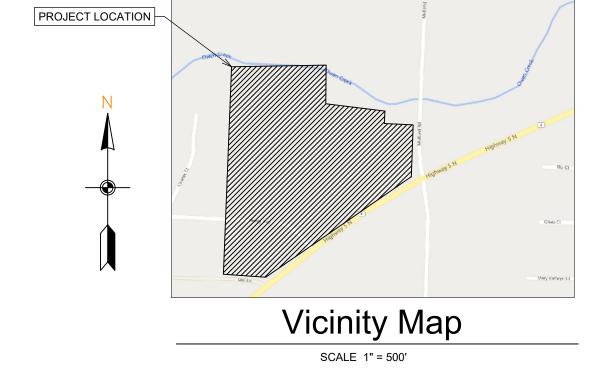
- C. THE DUTY OF THE LOCAL UTILITY PROVIDER TO CONDUCT CONSTRUCTION INSPECTION REVIEWS OF THE CONTRACTOR'S PERFORMANCE IS NOT AN INSPECTION OR REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.
- D. ALL WATER AND SEWER IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISION TO THE LOCAL PROVIDER'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.
- 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 THE LOCAL UTILITY PROVIDER. 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "ONECALL" SERVICE TO MARK ALL UTILITIES PRIOR TO ANY DEMOLITION, EARTHWORK, OR UTILITY WORK ON THIS SITE.



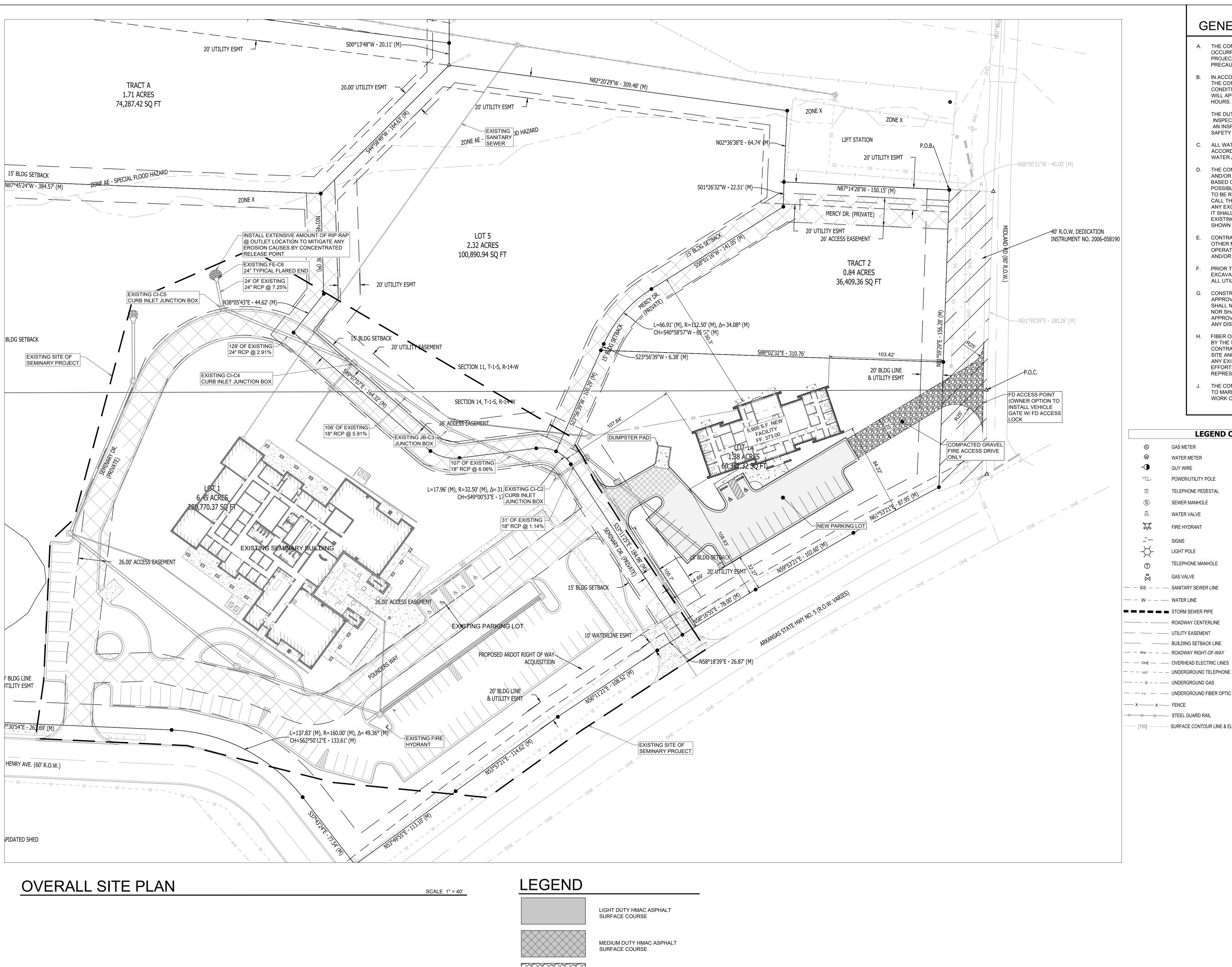


23620 Interstate 30 | Bryant, Arkansas PH: 501-350-9840

PHILLIP LEWIS ENGINEERING, INC.







MEDIUM DUTY HMAC ASPHALT

SURFACE COURSE

# **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

ENGINEERING,

LEWIS

PHILLIP

REVISION:

THE DUTY OF BRYANT 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.

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### LEGEND OF SYMBOLS & ABBREVIATIONS

	LEGEND OF SYMBOLS & ABBREVIATIONS									
©	GAS METER	<b>(</b>	STORM DRAIN MANHOLE							
<b>@</b>	WATER METER	C/0	SEWER CLEANOUT							
-0	GUY WIRE	N	NORTH							
Q	POWER/UTILITY POLE	S	SOUTH							
Ī	TELEPHONE PEDESTAL	Е	EAST							
<u>(S)</u>	SEWER MANHOLE	W	WEST							
wv ⊠	WATER VALVE	(M)	AS MEASURED	•	SET 1/2" REBAR w/ CAP #1853					
*	FIRE HYDRANT	(D)	PER DEED	•	SET COTTON-PICKER SPINDLI					
, - -	SIGNS	(R)	RECORDED	$\circ$	FOUND MONUMENT (DESC. NO					
<del>-</del> >	LIGHT POLE	R/W	RIGHT-OF-WAY	Δ	COMPUTED CORNER (NOT SE					
(T)	TELEPHONE MANHOLE	L.A.	LANDSCAPED AREA							
ov ⊠	GAS VALVE	CR4	CAPPED 1/2" REBAR							
	<ul> <li>SANITARY SEWER LINE</li> </ul>	CONC.	CONCRETE							
W	— WATER LINE	P.O.C.	POINT OF COMMENCEMENT							
 <b>-</b>	STORM SEWER PIPE	P.O.B.	POINT OF BEGINNING							
	ROADWAY CENTERLINE	CMP	CORRUGATED METAL PIPE							
	<ul><li>UTILITY EASEMENT</li></ul>	RCP	REINFORCED CONCRETE PIPE							

HIGH DENSITY POLYETHYLENE

FIRE DEPARTMENT CONNECTION COTTON PICKER SPINDLE

1/2" REBAR SURVEY NAIL TELEPHONE PULL BOX

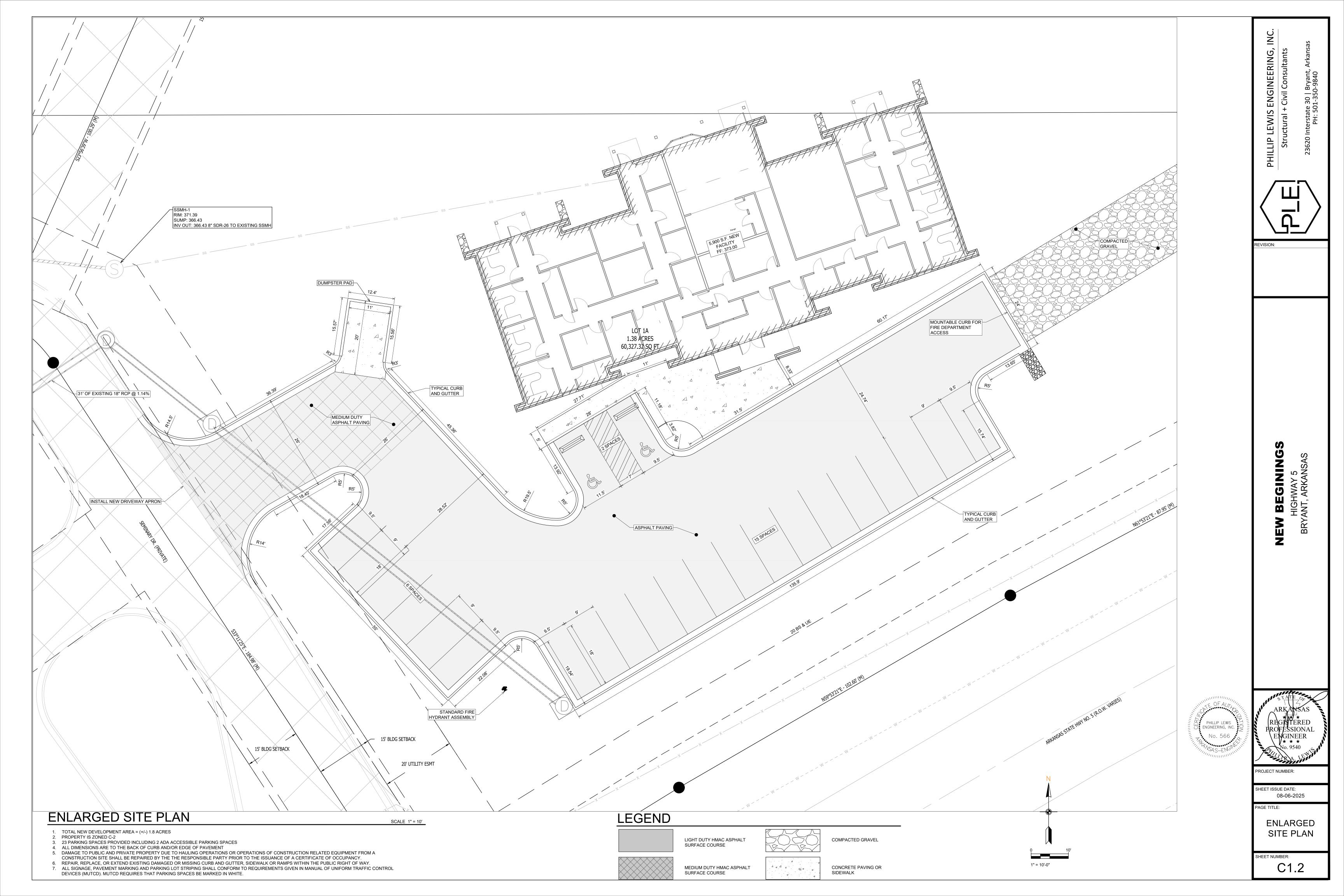
- [100] ----- SURFACE CONTOUR LINE & ELEVATION

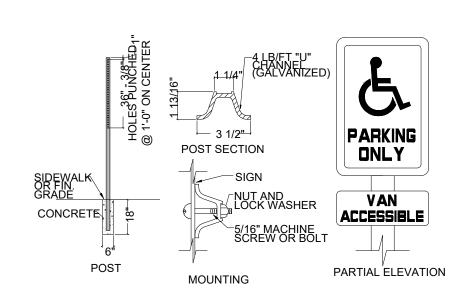
OVERALL SITE PLAN

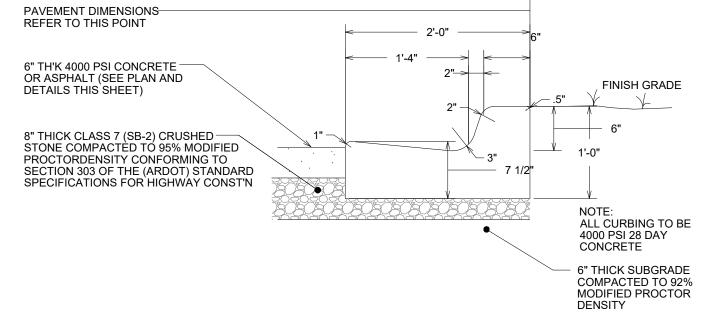
SHEET NUMBER:

SHEET ISSUE DATE: 08-06-2025

C1.1



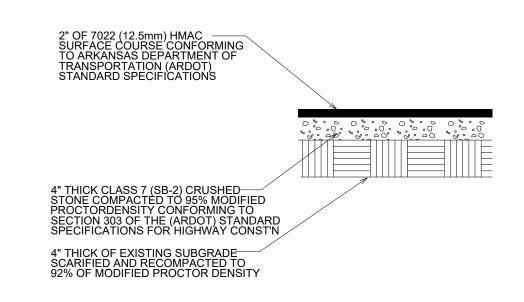


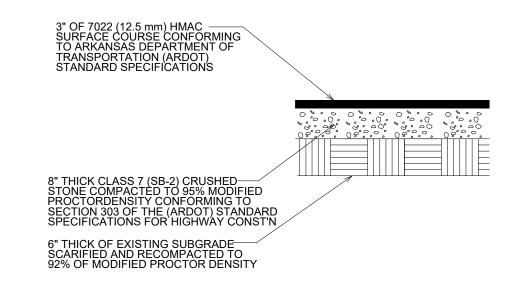


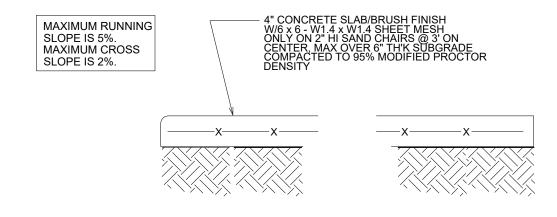




NOT TO SCALE



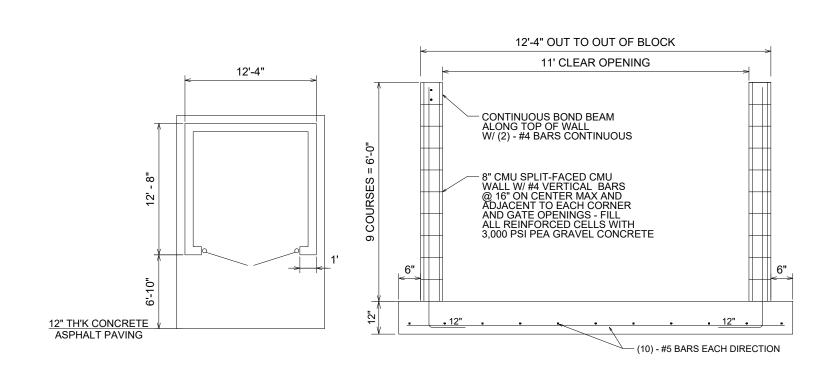






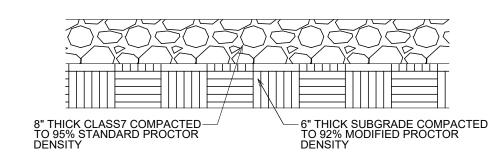


CONCRETE WALK SECTION NOT TO SCALE NOTE: ALL SIDEWALK JOINTS TO BE STEEL TROWELED. ALL JOINT EDGES AND SHALL BE SPACED AT 5 FEET ON CENTER MAXIMUM IN ALL DIRECTIONS AND SHALLBE STEEL TROWELED ON A RADIUS NOT TO EXCEED ONE-HALF INCH.

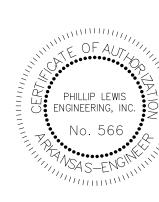


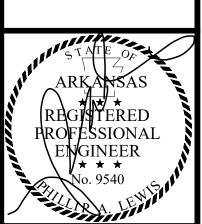


NOT TO SCALE



COMPACTED GRAVEL PAVEMENT SECTION NOT TO SCALE





LEWIS ENGINEERING,

PHILLIP

REVISION:

NGS

NEW

IEW BEGININ HIGHWAY 5 BRYANT, ARKANS,

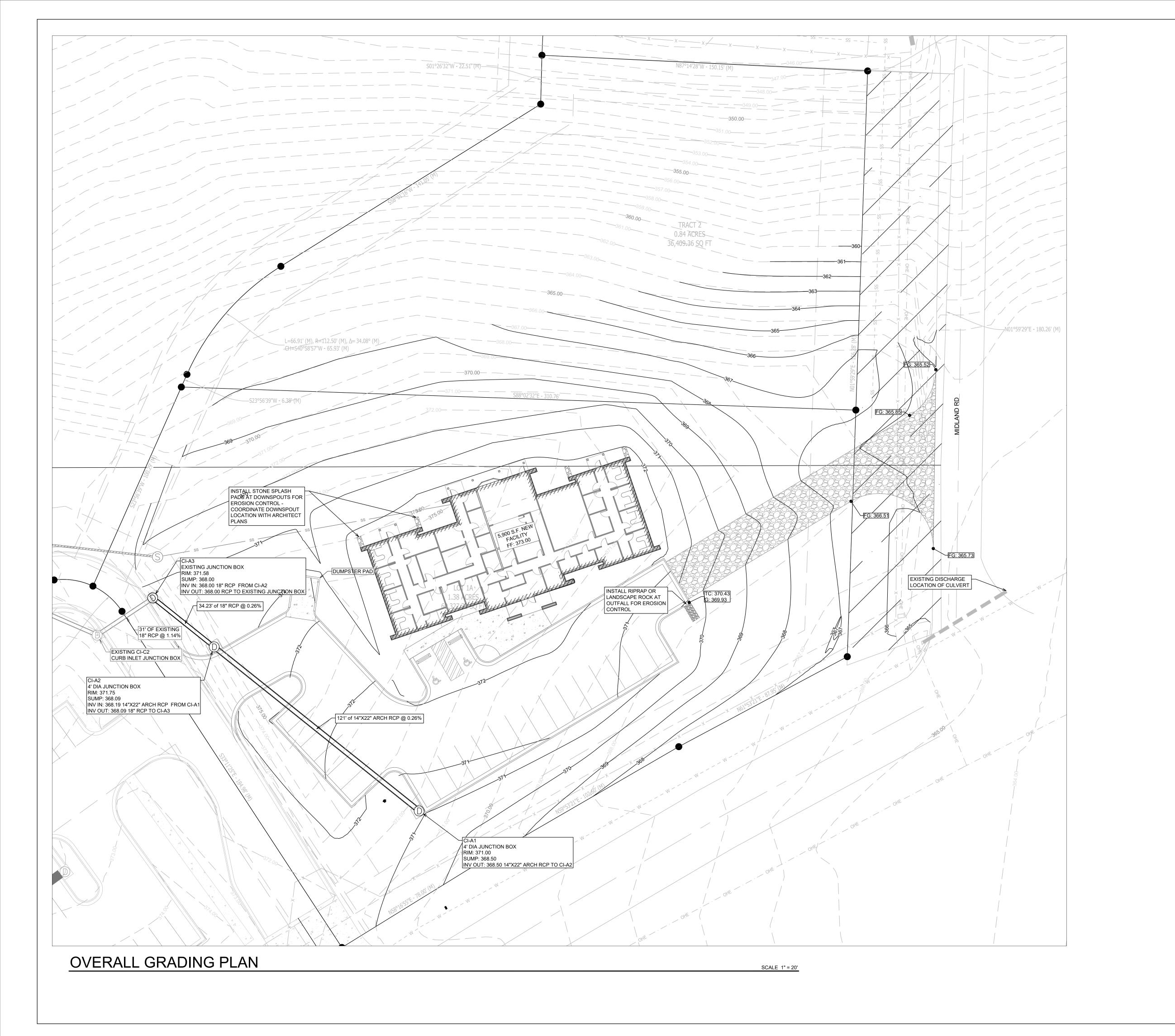
SHEET ISSUE DATE: 08-06-2025

SITE

SHEET NUMBER:

**DETAILS** 

C1.3



NEW

P LEWIS ENGINEERING, I ructural + Civil Consultants

PHILLIP

PROJECT NUMBER:

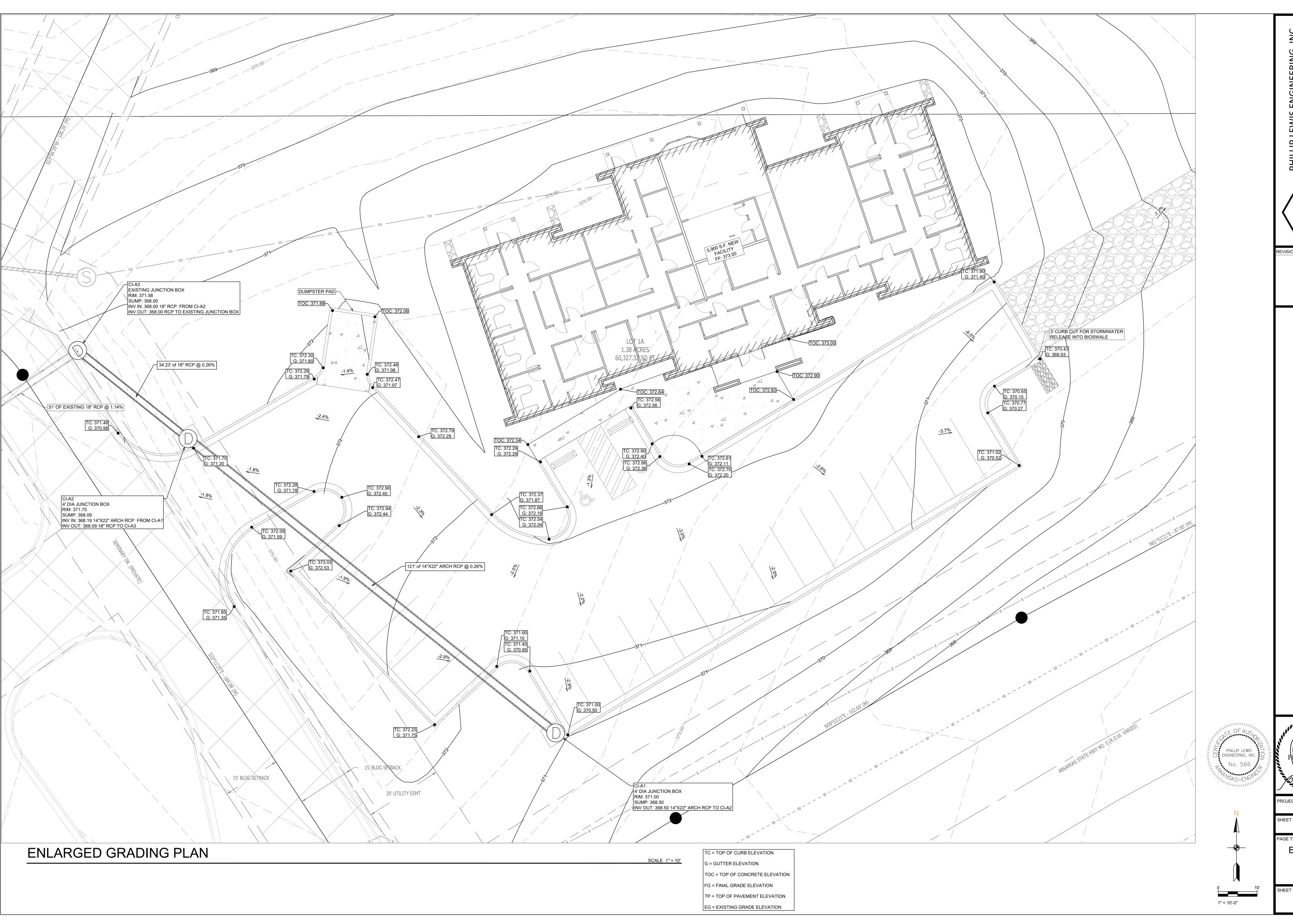
SHEET ISSUE DATE:

08-06-2025

GRADING PLAN

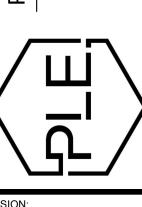
SHEET NUMBER:

1" = 20'-0"



> LEWIS ENGINEERING, I

PHILLIP



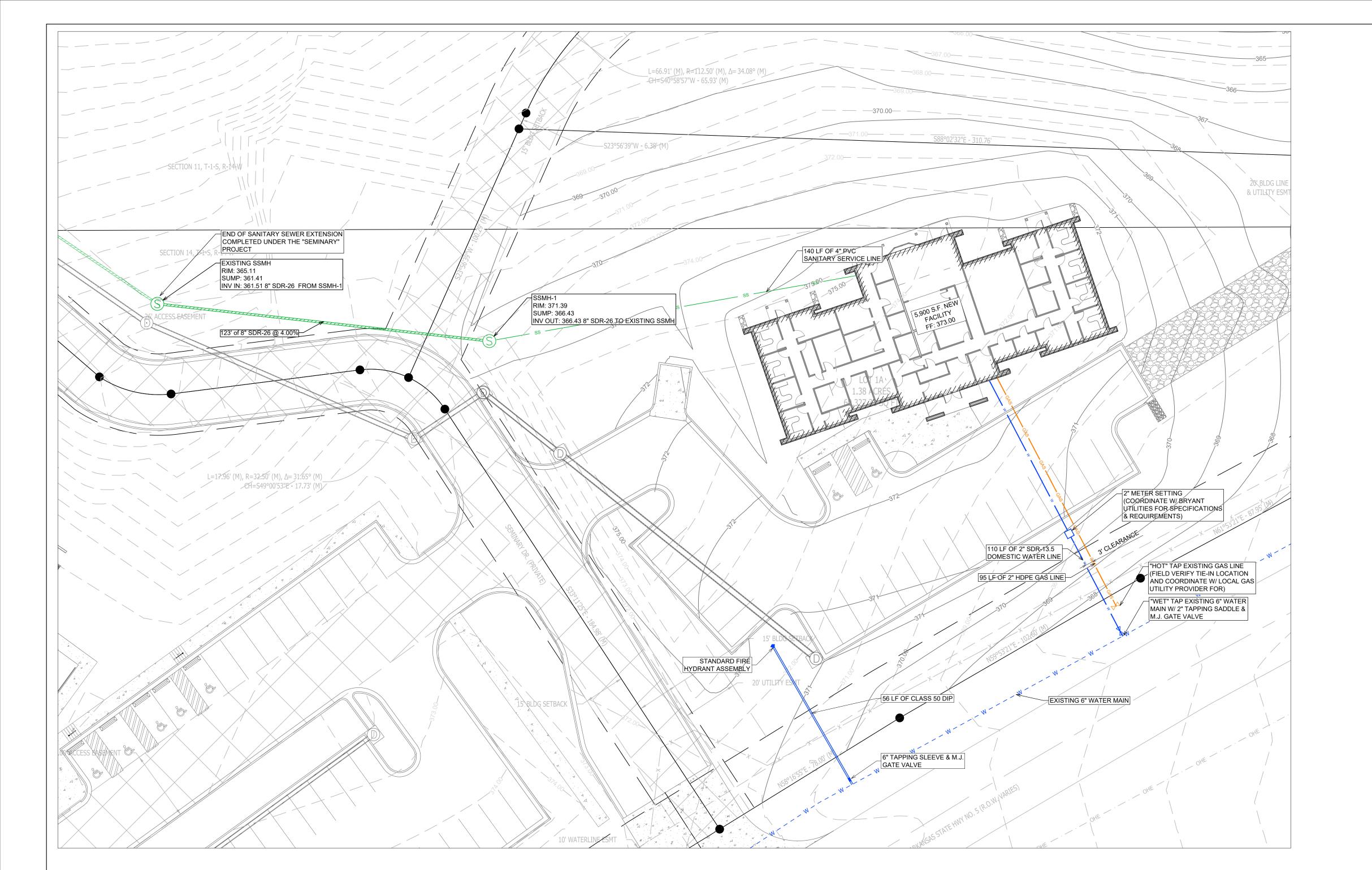
IEW BEGININ HIGHWAY 5 BRYANT, ARKANS, NEW

PROJECT NUMBER:

SHEET ISSUE DATE: 08-06-2025

**ENLARGED** GRADING PLAN

SHEET NUMBER:

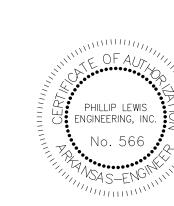


# **GENERAL CONSTRUCTION NOTES**

- 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

THE DUTY OF BRYANT TO CONDUCT CONSTRUCTION INSPECTION REVIEWS OF THE CONTRACTOR'S PERFORMANCE IS NOT AN INSPECTION OR REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S

- C. 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.
- 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.
- CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH, AND AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
- EXCAVATE, VERIFY AND CALCULATE ALL CROSSINGS AND INFORM ANY AND ALL UTILITIES OF ANY CONFLICTS PRIOR TO CONSTRUCTION.
- G. CONSTRUCTION SHALL NOT START ON ANY WATER UTILITY TIE-INS UNTIL APPROVAL IS GIVEN BY BRYANT WATER. 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.
- H. 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.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "ONECALL" SERVICE TO MARK ALL UTILITIES PRIOR TO ANY DEMOLITION, EARTHWORK, OR UTILITY WORK ON THIS SITE.



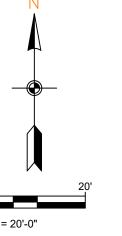
Know what's **below. Call** before you dig.

IEW BEGININ HIGHWAY 5 BRYANT, ARKANS,

08-06-2025

UTILITY PLAN

SHEET NUMBER: C1.6



UTILITY PLAN

SCALE 1" = 20'

ENGINEERING, + Civil Consultants

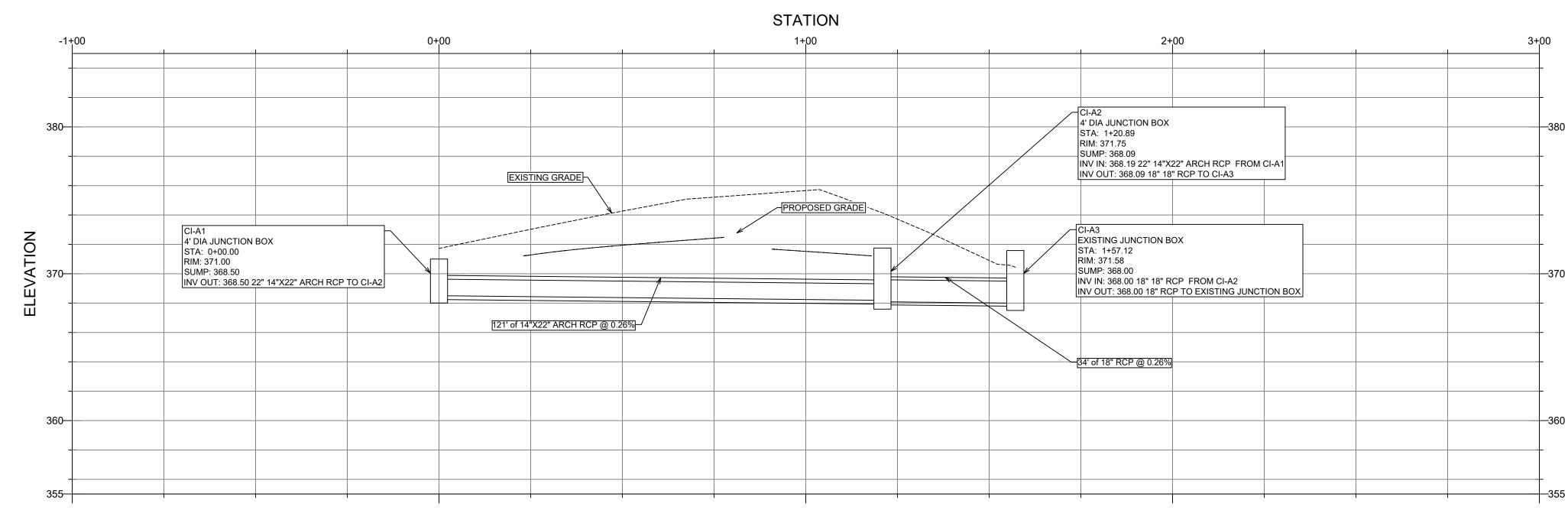
LEWIS

PHILLIP

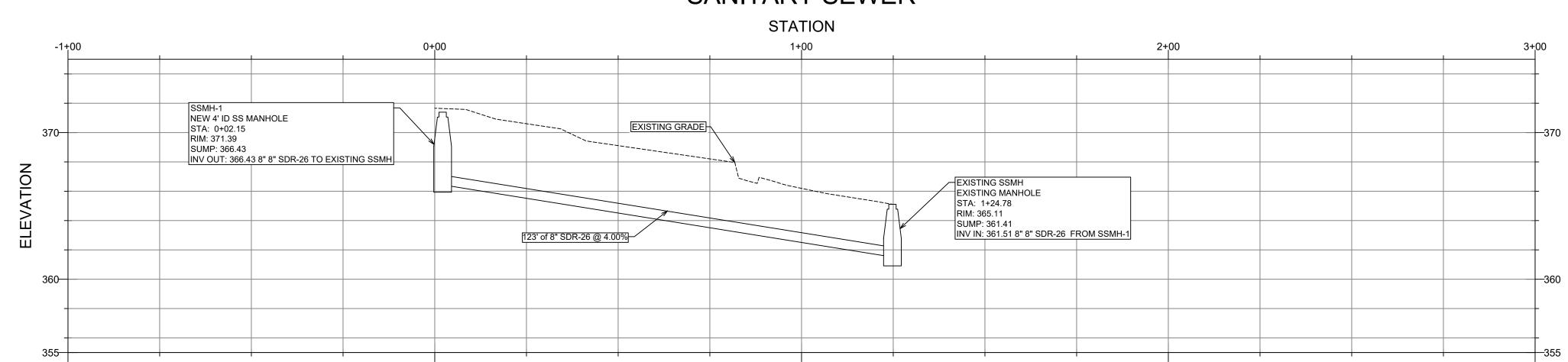
REVISION:

- SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.
- D. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION
- OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE
- PRIOR TO INSTALLATION OF ANY UTILITIES, THE CONTRACTOR IS TO

# STORM SEWER



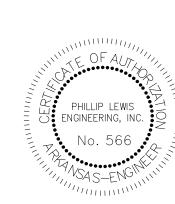
# SANITARY SEWER

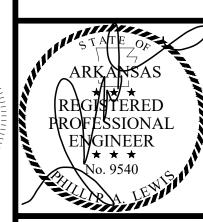




NGS

PHILLIP LEWIS ENGINEERING, INC.
Structural + Civil Consultants



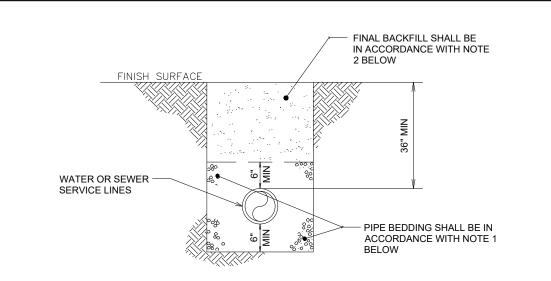


SHEET ISSUE DATE:

C1.7

UTILITY PROFILES

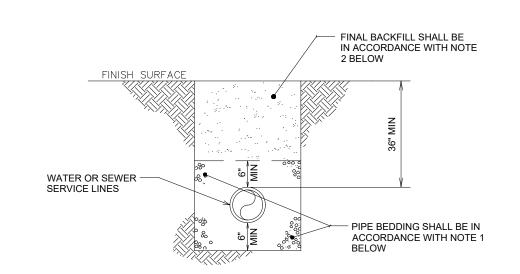
SHEET NUMBER: C1.7



GAS LINE BEDDING DETAIL

NOT TO SCALE

NOT TO SCALE



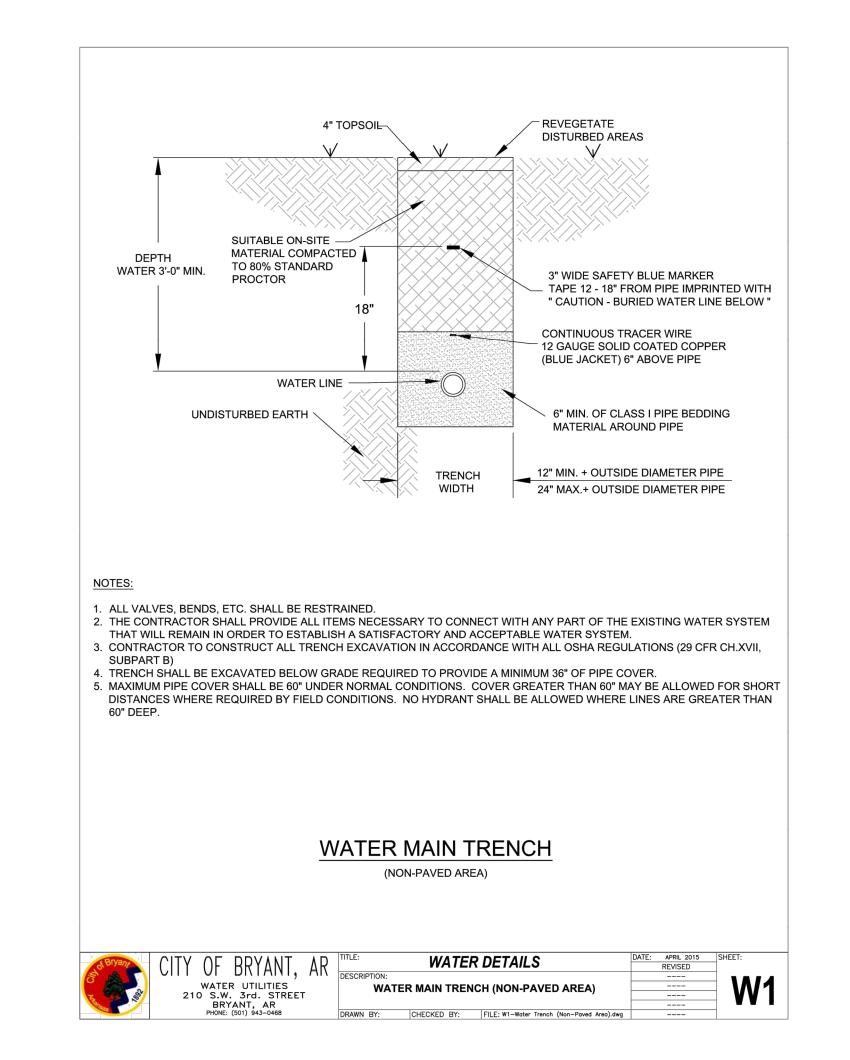
WATER AND SEWER LINES BEDDING DETAIL

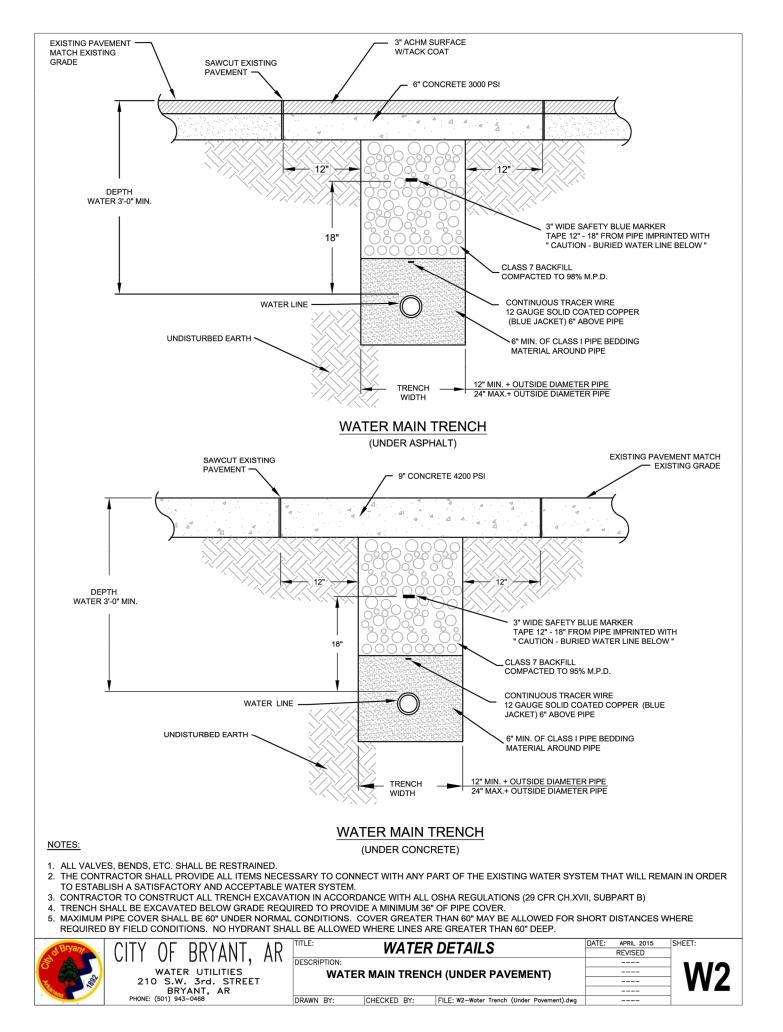
PLUG AT END OF LINE

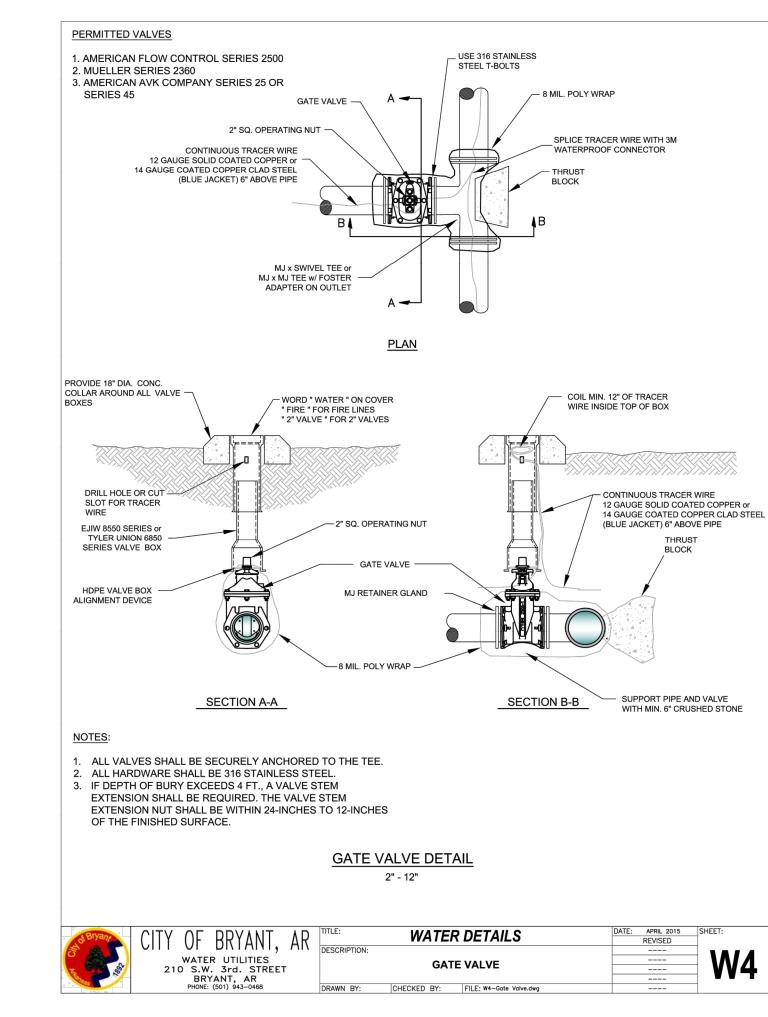
— 4" REMOVABLE THREADED EXISTING GRADE -2' SQ. X 4" THK. CONCRETE SLAB (IF NOT IN PAV'T.) -4" CAST IRON OR DUCTILE IRON PIPE GRAVITY SEWER -FLOW

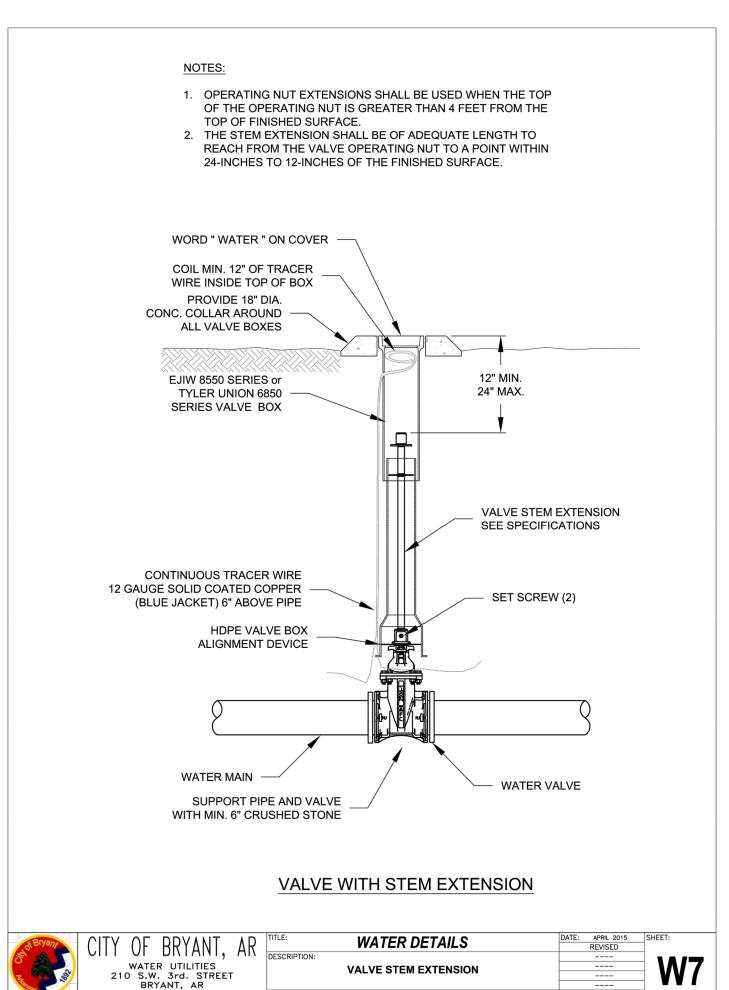
THROUGH FLOW CLEANOUT

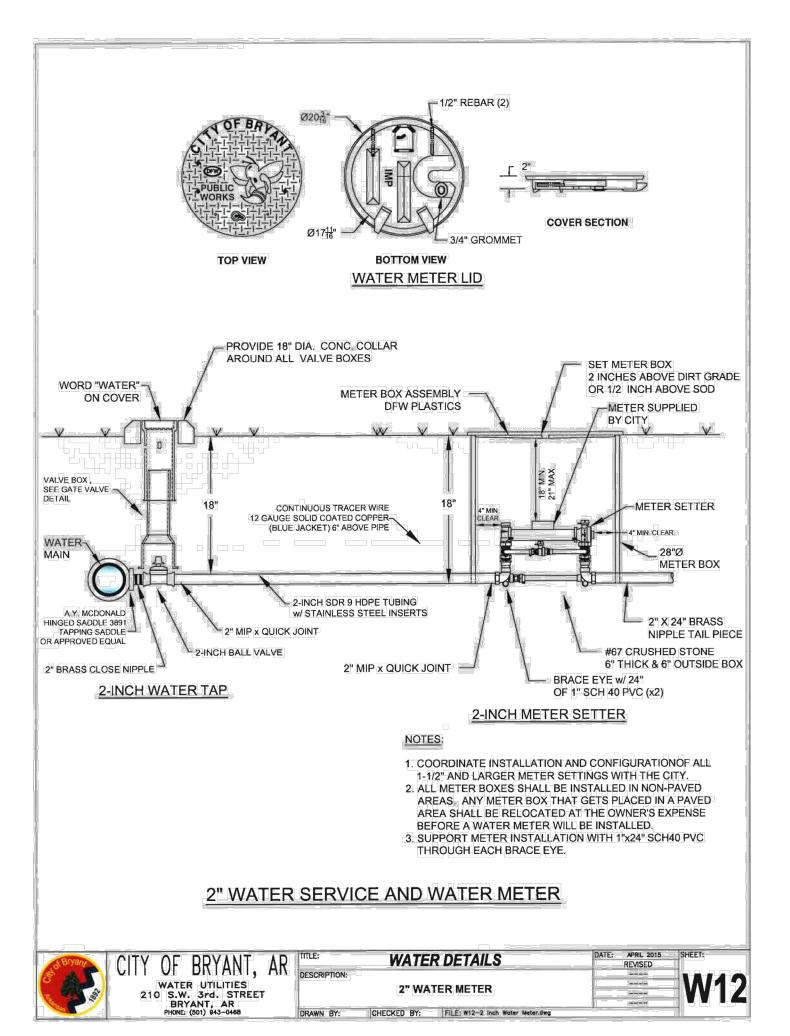
SANITARY WYE

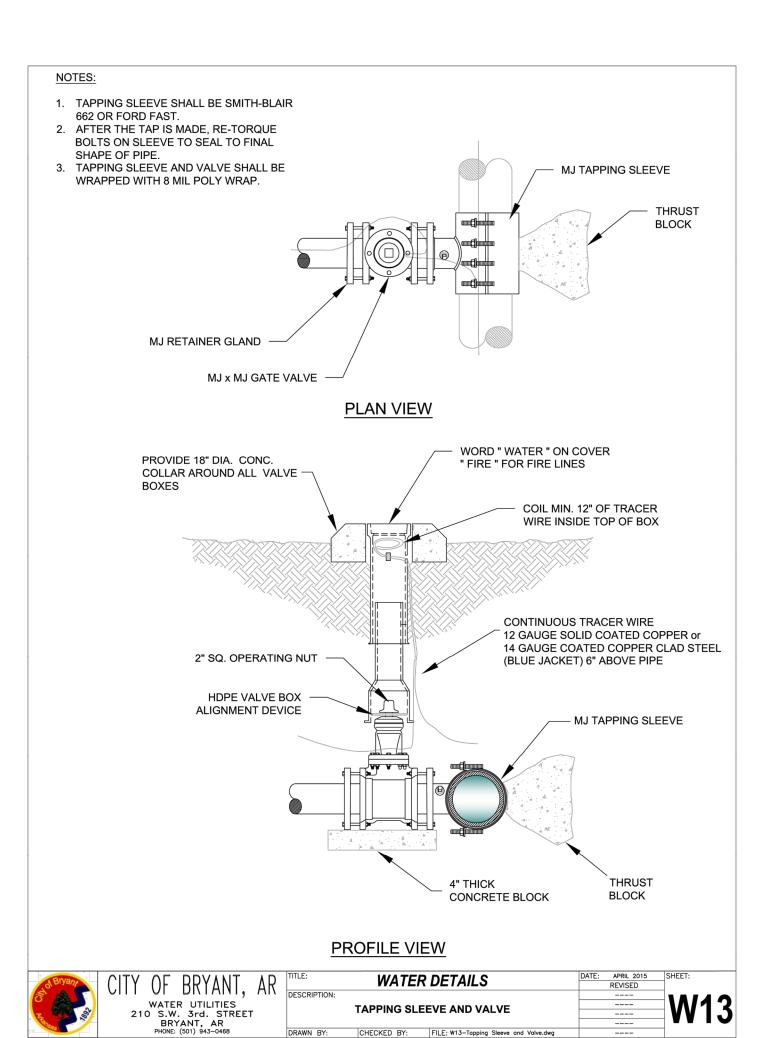


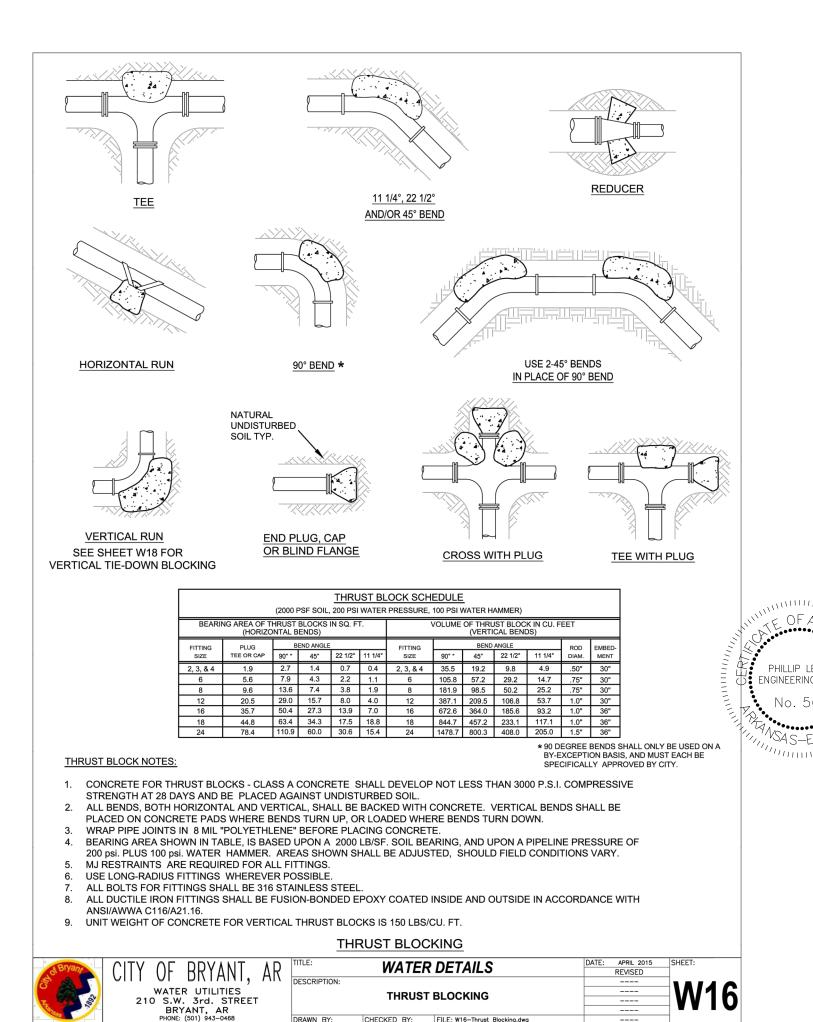


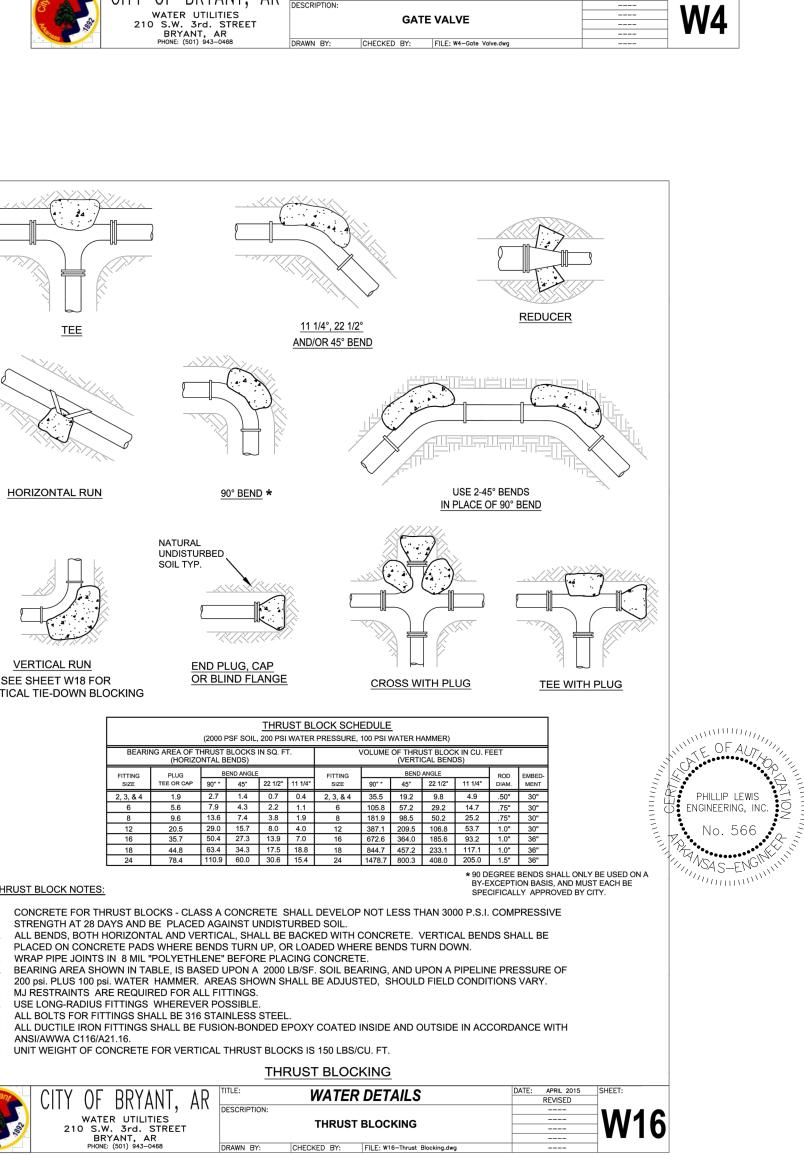












ENGINEERING, LEWIS

HILLIP

REVISION:

ROJECT NUMBER:

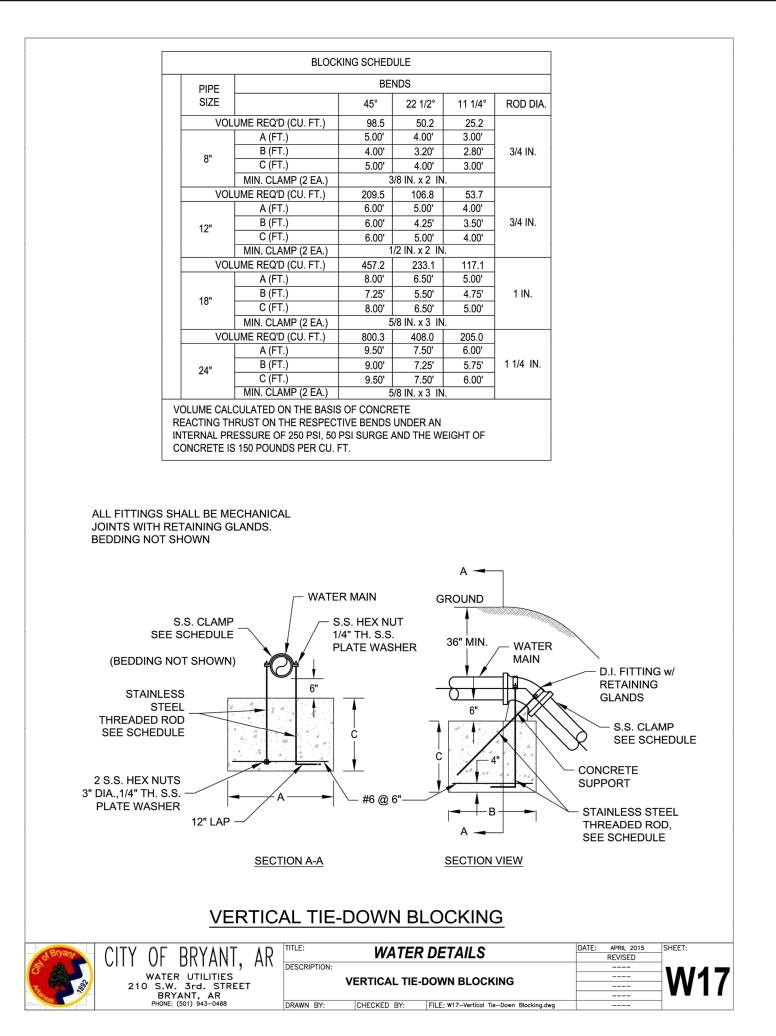
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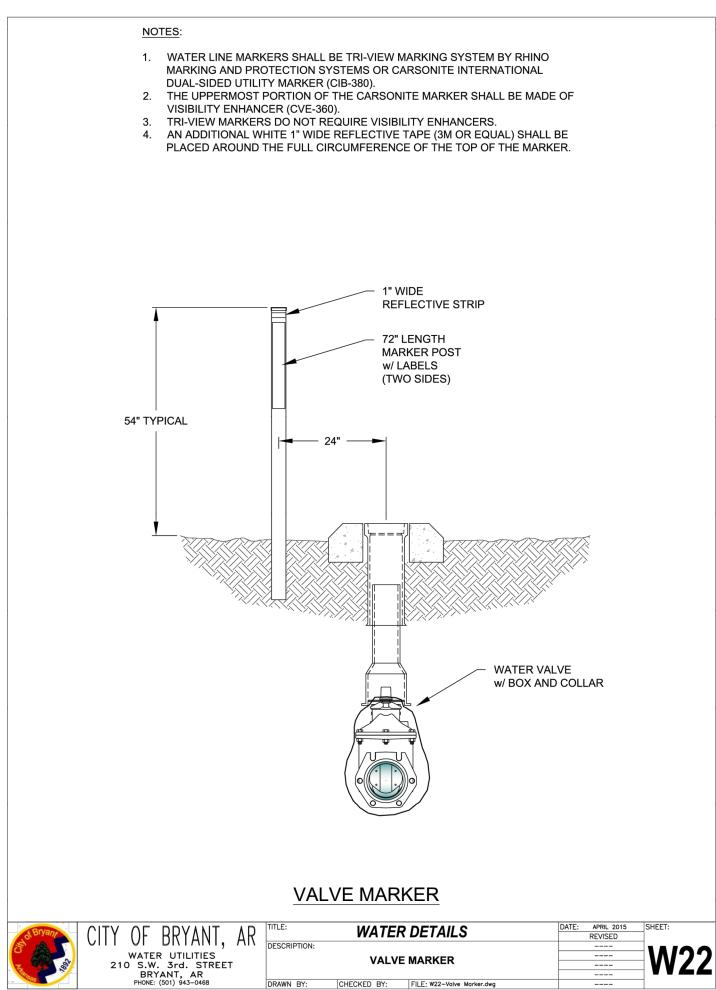
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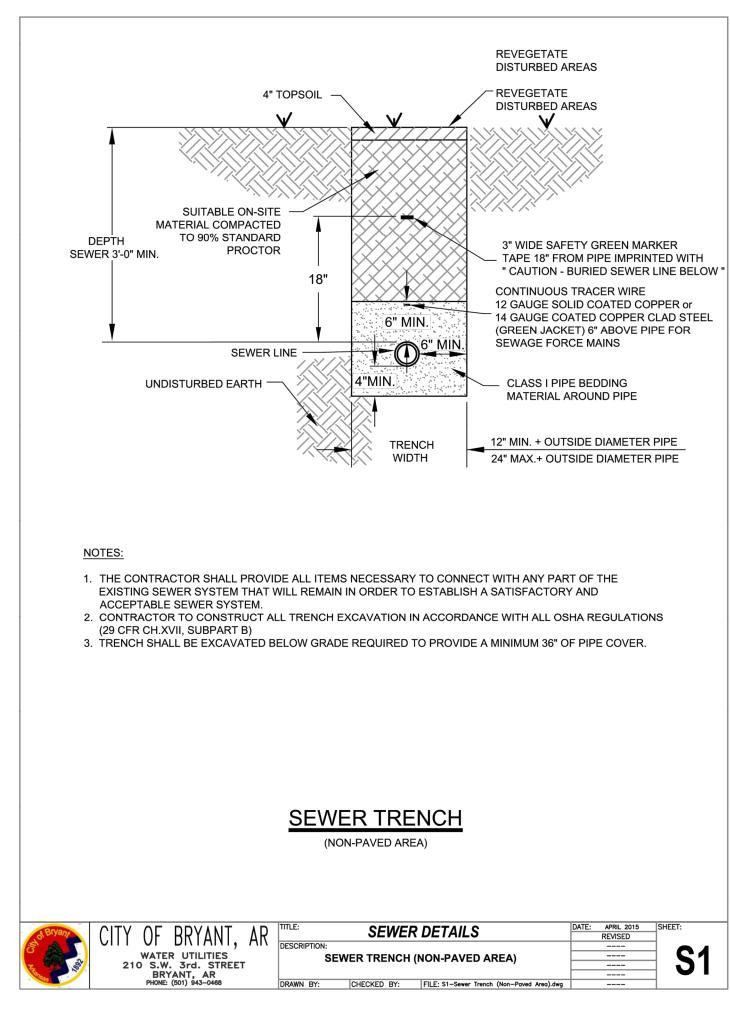
DETAILS I

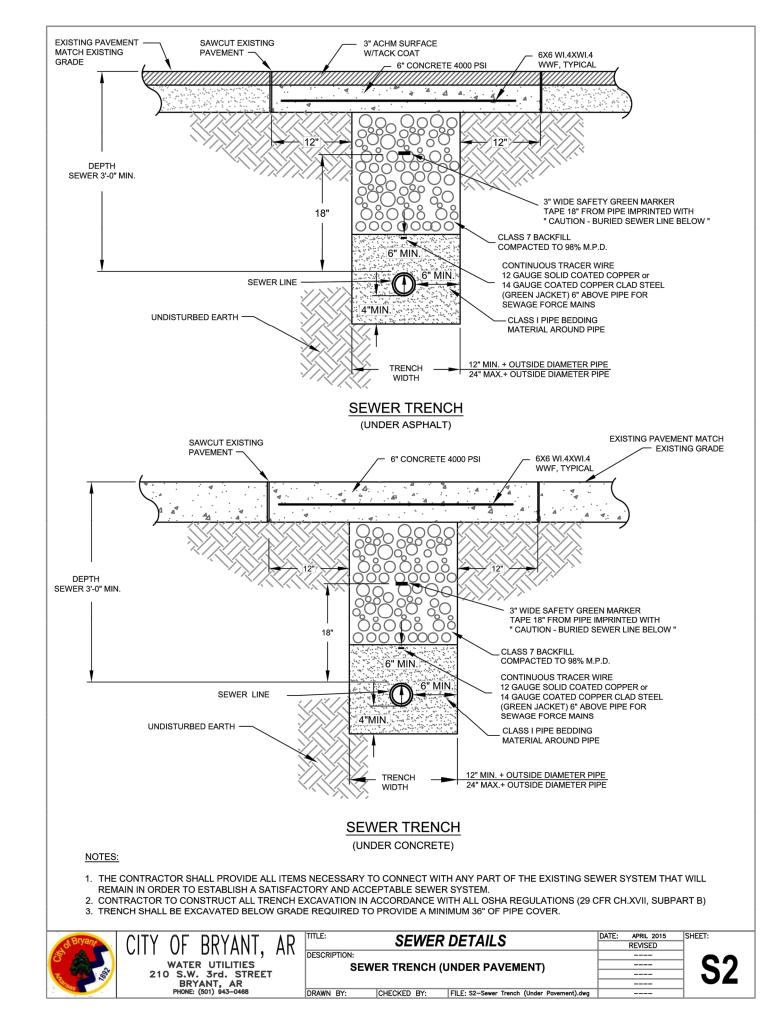
UTILITY

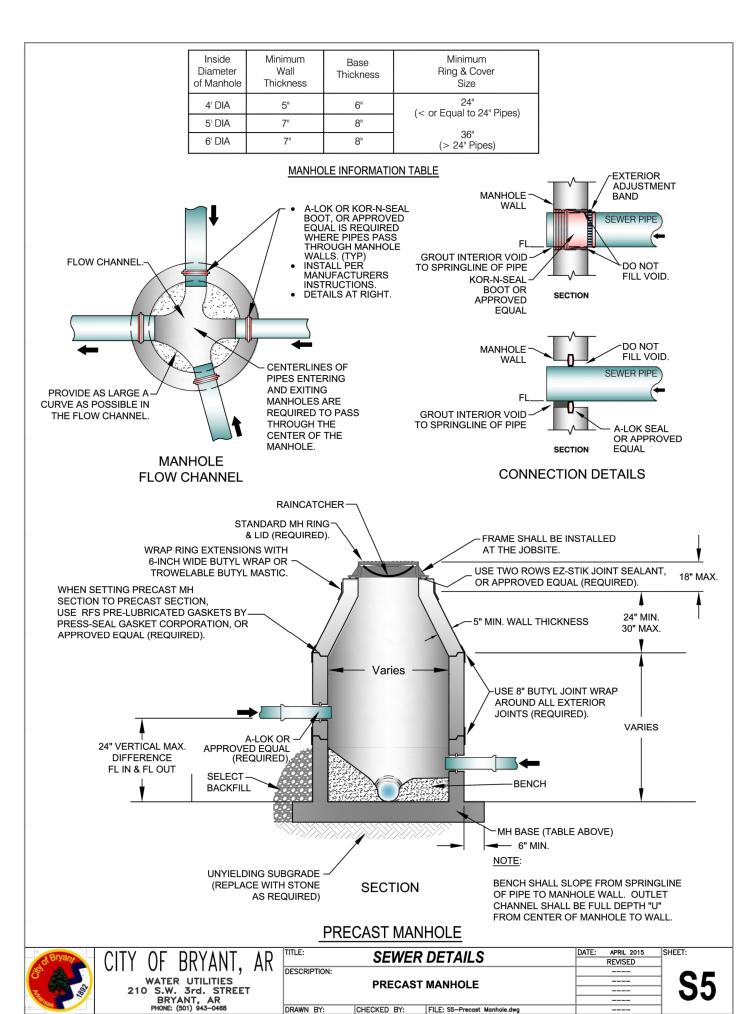
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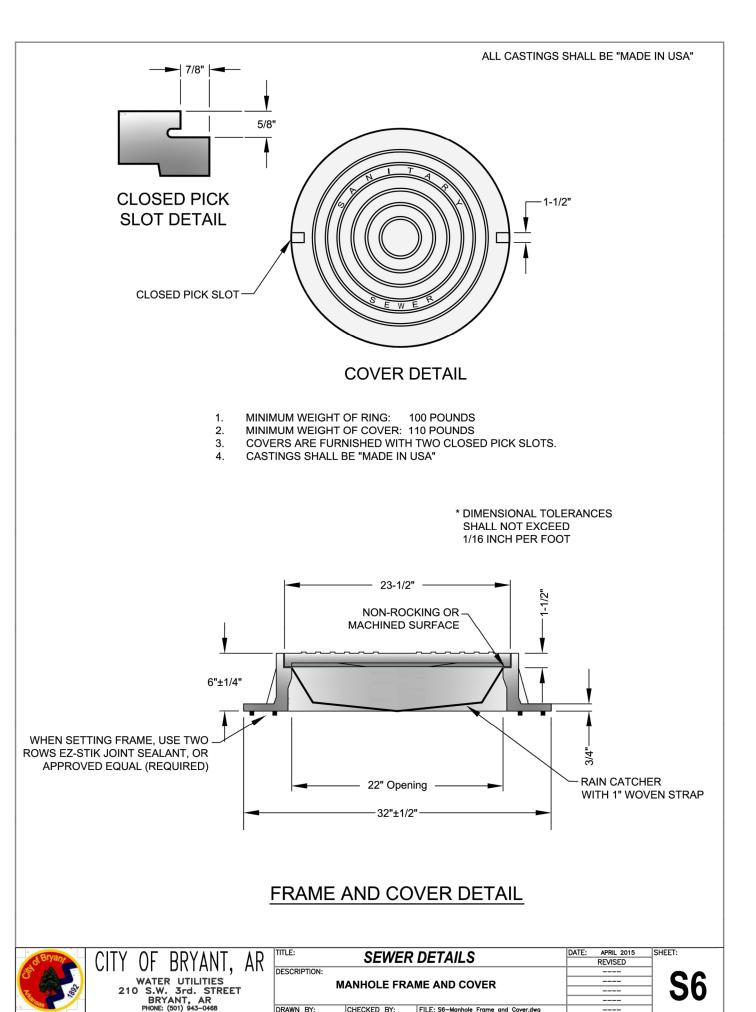


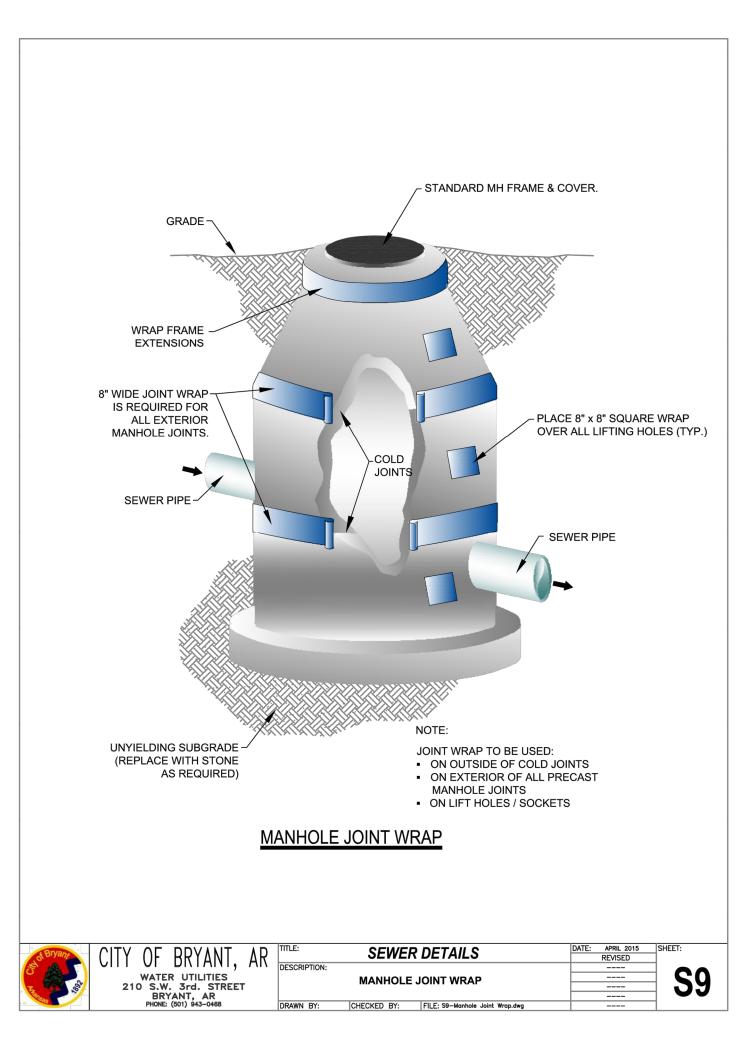


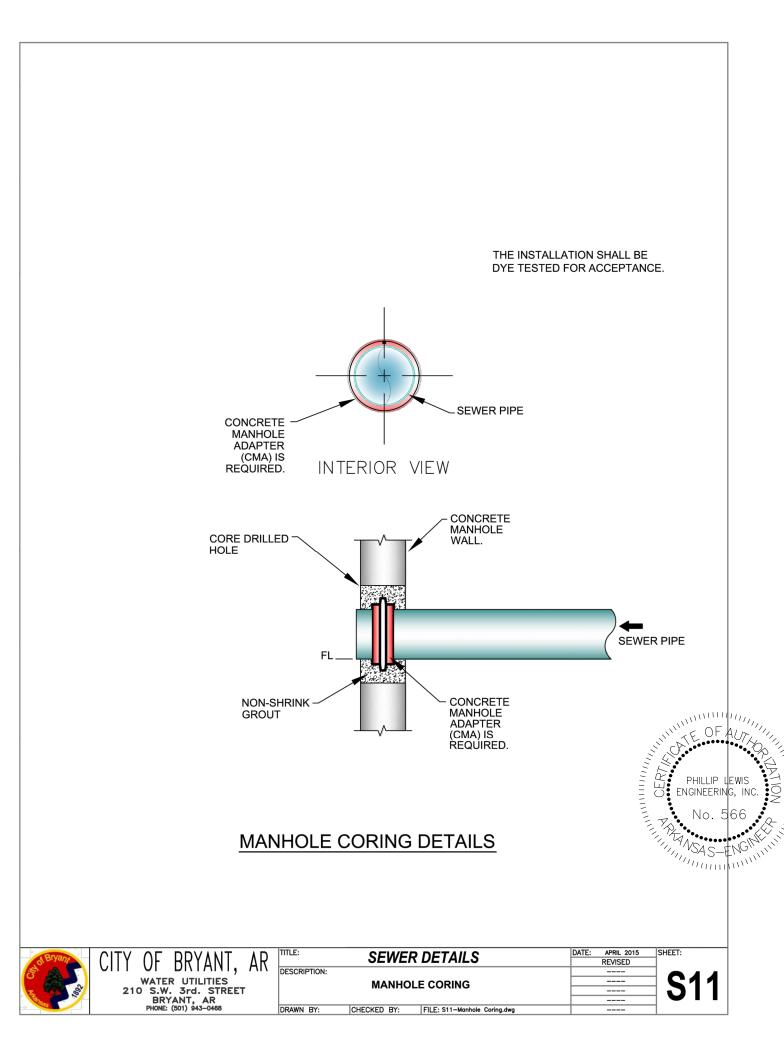


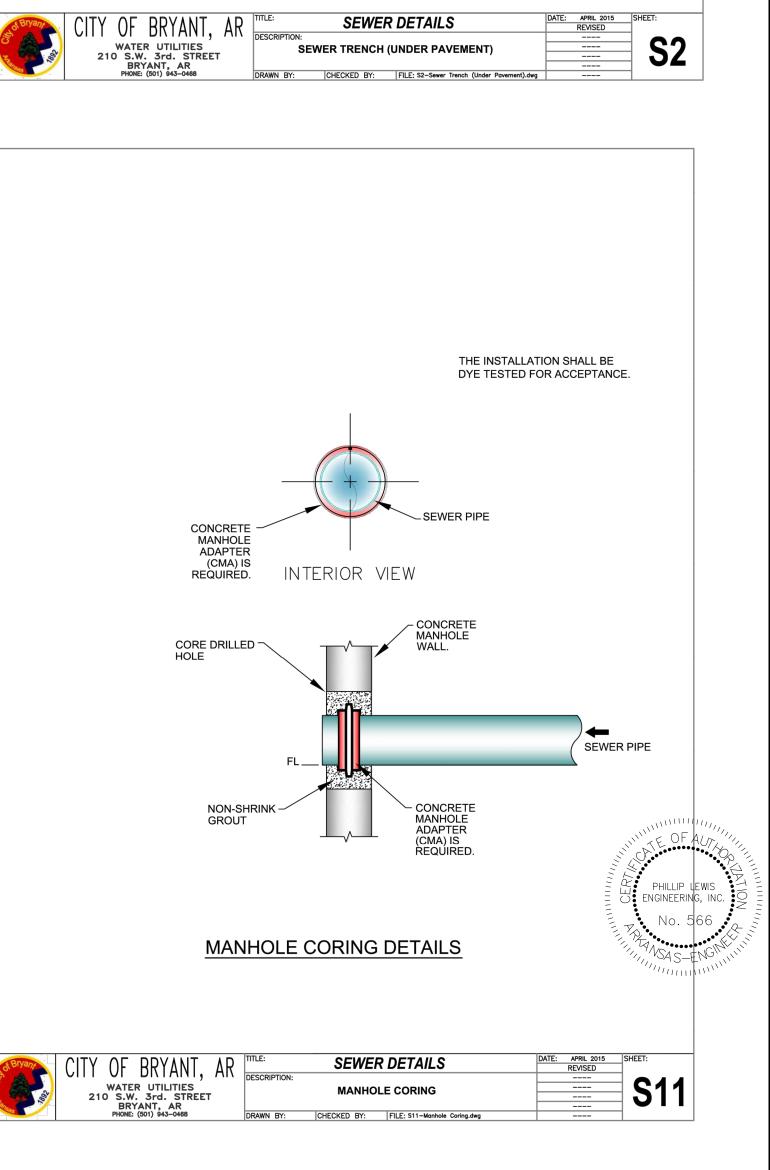


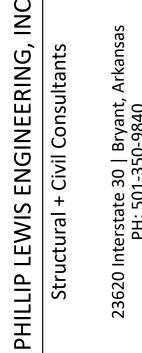


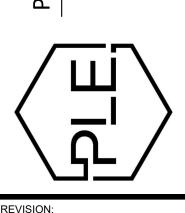












BEGINII HIGHWAY 5 ANT, ARKANS NEW

PROJECT NUMBER:

SHEET ISSUE DATE: 08-06-2025

> UTILITY **DETAILS I**

SHEET NUMBER: C1.9



PHILLIP LEWIS ENGINEERING,
Structural + Civil Consultants

ARKANSAS

REGISTERED

PROFESSIONAL

ENGINEER

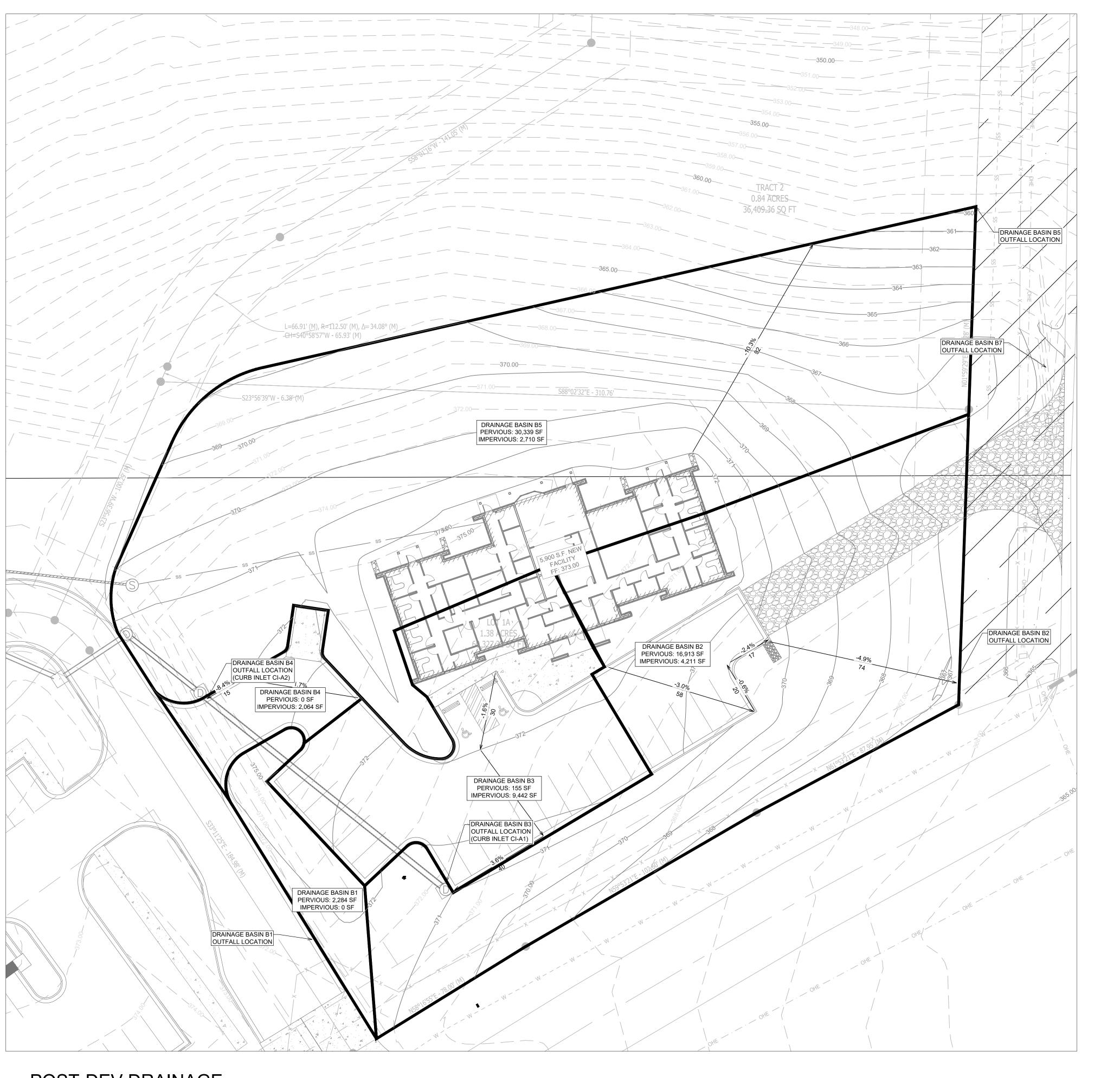
No. 9540

PROJECT NUMBER:

SHEET ISSUE DATE: 08-06-2025

PRE-DEV
DRAINAGE

C1.10



POST-DEV DRAINAGE SCALE 1" = 20'



1" = 10'-0"

IEW BEGININ HIGHWAY 5 BRYANT, ARKANS,

NEW

PHILLIP LEWIS ENGINEERING,
Structural + Civil Consultants

PROJECT NUMBER:

SHEET ISSUE DATE:

08-06-2025

POST-DEV DRAINAGE

SHEET NUMBER: C1.11



SCALE 1" = 60'

# GENERAL CONSTRUCTION NOTES

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ENGINEERING,

LEWIS

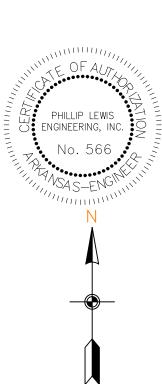
PHILLIP

REVISION:

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		Pl	ANT SCH	IEDULE		
PLANT TYPE	SYMBOL	CODE	QTY	COMMON SPECIES	SCIENTIFIC NAME	CAL / SIZE
TREES		WO	6	WILLOW OAK	QUERCUS PHELLOS	MIN. 3" DIAMETER @ BASE AND 12' TALL
SHRUBS	$\Diamond$	BW	40	DWARF NANDINA	N. DOMESTICA "HARBOUR DWARF"	3 GAL
GROUND COVER		so	25,587 SF	BERMUDA SOD		
	\(\psi\) \(\	GS	24,140 SF	GRASS SEED		
			1,828 SF	LANDSCAPE BEDDING (TBD BY OWNER)		



08-06-2025

LANDSCAPE PLAN

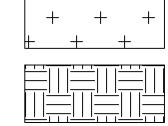
SHEET NUMBER:

LANDSCAPED AREAS TO BE AMENDED WITH 4" OF TOPSOIL, SCARIFY SOIL 3" PRIOR TO APPLICATION. ALL TOP SOIL SHALL BE PLACED IN COORDINATION WITH GRADING AND DRAINAGE PLANS TO ENSURE THAT THE GRADING AND DRAINAGE DESIGN FOR THE SITE IS MAINTAINED AFTER BEING SODDED OR SEEDED. EXISTING SOIL FROM THE SITE CAN BE STOCK PILED AND REUSED AS LONG AS IT IS OF QUALITY THAT ENCOURAGES ADEQUATE GROWTH OF PLANTING MATERIAL. THE CONTRACTOR IS RESPONSIBLE FOR ANY SOIL TESTING THAT MAY BE REQUIRED.

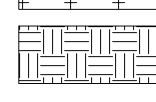
2. LANDSCAPE PLAN REPRESENTS RECOMMENDED SPECIES, SIZES, & LOCATIONS. OWNER SHALL CHANGE THE ITEMS TO EQUAL OR GREATER VALUE.

DISTURBED AREA: 85,405 AC.

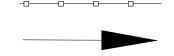
# LEGEND



DISTURBED AREA

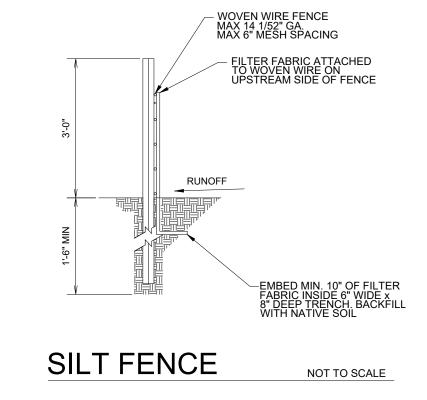


UNDISTURBED AREA



DRAINAGE DIRECTION

SEDIMENT FENCE WITH WIRE BACKING



# NOTES AND SPECIFICATIONS:

 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.
 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

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.

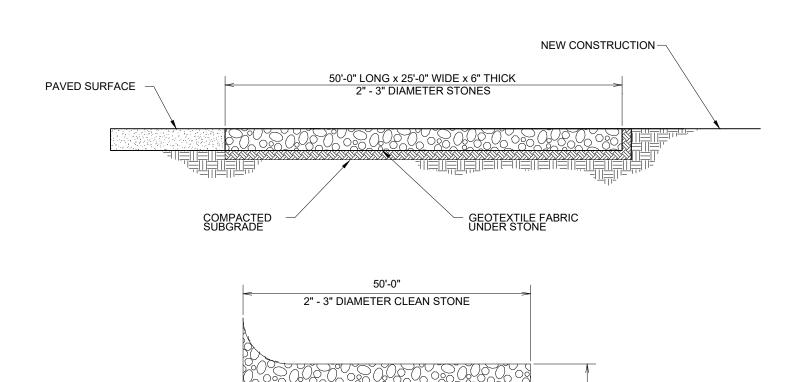
6. WHERE TWO POSTS MEET TO JOIN FENCE SECTIONS, THE TOPS OF THE

POSTS SHALL BE SECURED TOGETHER WITH WIRE. 7. THE FENCE SHALL BE CONSTRUCTED ALONG THE CONTOUR AS MUCH AS 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 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

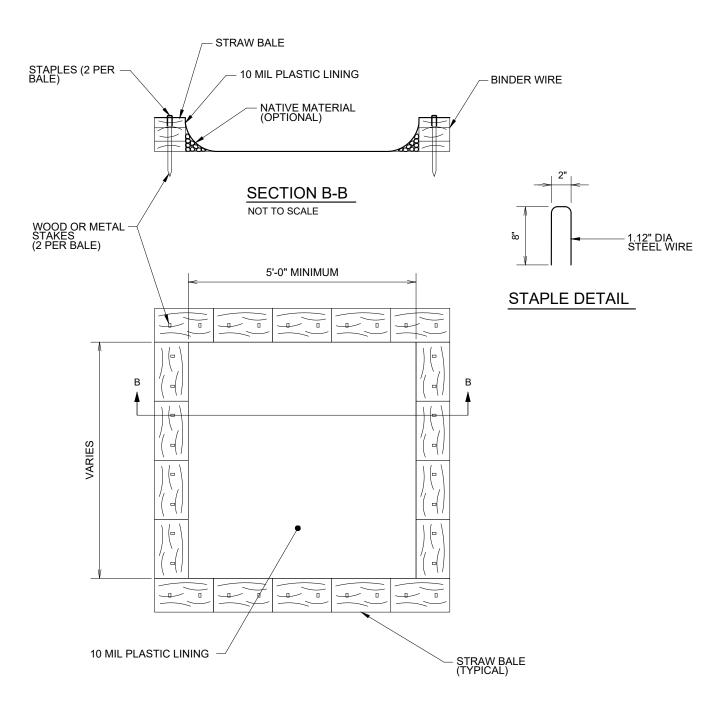
# NOTES (GENERAL):

- 1. SEE EROSION CONTROL DETAILS IN SWPPP FOR EROSION CONTROL FACILITIES. 2. SEE SWPPP FOR INSTALLATION, MAINTENANCE, INSPECTION, AND RECORD KEEPING REQUIREMENTS.
- CONTRACTOR SHALL SHOW EROSION CONTROL MEASURE ON SITE MAP.
- 4. EROSION AND SEDIMENT CONTROL STRUCTURES TO MEET SWPPP DETAILS APPENDIX D
- 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.
- FINAL SLOPE WILL BE SAME DIRECTION AS EXISTING SLOPE.
   TEMPORARY STABILIZATION PRACTICES WILL NOT BE REQUIRED. WORK WILL BE CONTINUOUS AND DISTURBED
- AREA REVEGITATED IN A TIMELY MANNER. SEE SWPPP FOR SEEDING MIXES. 9. PERMANENT STABILIZATION OF ALL DISTURBED AREAS ARE TO BE SEEDED, FERTILIZED, WATERED AND COVERED WITH STRAW
- UNLESS OTHERWISE NOTED ON PLANS TO BE HYDROSEEDED. 10. CONTRACTOR TO SHOW CONCRETE WASH OUT SUMP, ENTRANCE/EXIT PAD AND OTHER CONTROLS AS REQUIRED/NEEDED AS SWPPP SITE MAP IS UPDATED THROUGHOUT THE DURATION OF THE PROJECT.
- 11. STOCKPILING OF CONSTRUCTION SPOIL MATERIAL AT PARTICULAR LOCATIONS SHALL ONLY BE ALLOWED FOR A LIMITED TIME PERIOD, NOT TO EXCEED (6) MONTHS. PRIOR TO A FINAL INSPECTION OF THE GRADING PERMIT, THE FOLLOWING STANDARDS SHALL BE ACHIEVED FOR
  - a) DEVELOPMENT AND GRADING WITHIN THE DISTURBED AREA IS COMPLETE AND MATCHES PLANS AS APPROVED BY THE PLANNING
  - COMMISSION, AND b) THE DISTURBED SOIL AREA IS OBSERVED TO HAVE 80% GRASS COVERAGE AND 100% STABILITY, AND
  - c) NO SLOPES STEEPER THAN A 3:1 PITCH UNLESS OTHERWISE APPROVED IN WRITING BY THE DIRECTOR OF ENGINEERING, AND d) NOTICE OF VIOLATIONS ISSUED HAVE ALL CORRECTIVE ACTIONS APPROVED WITH AN INSPECTION REPORT SIGNED BY A REPRESENTATIVE
  - OF THE DIRECTOR OF ENGINEERING, AND e) ALL HEAVY EQUIPMENT, STOCKPILES, AND CONSTRUCTION SITE MATERIALS HAVE BEEN REMOVED FROM THE CONSTRUCTION SITE.



# **CONSTRUCTION ENTRANCE**

NOT TO SCALE



**CONCRETE WASHOUT** 

NOT TO SCALE



1" = 60'-0"

PROJECT NUMBER:

ENGINEERING,

PHILLIP

08-06-2025 SWPPP

SHEET NUMBER:

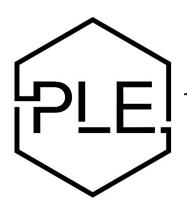
# NEW BEGINNINGS DRAINAGE REPORT

Date: 08-07-2025

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

# **Table of Contents**

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# **CERTIFICATION**

I hereby state that this Drainage Analysis 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.

Phillip A. Lewis, PE.

DATE: 08-07-2024

#### **DESCRIPTION OF PROPERTY**

The proposed project is for the construction of a new pregnancy center located along Highway 5, directly adjacent to the current ongoing seminary project. The proposed development is a 5,900 sq. ft. building and parking lot.

The intent of this drainage analysis is to adequately size the storm sewer system and summarize pre and post runoff conditions.

The existing ground coverage for the entire development drainage basin consists of natural vegetation (2%-7% slope), hydrologic soil group B/C.

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.



PROJECT LOCATION MAP

#### 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 storm runoff 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, Runoff Coefficient table (Bryant Stormwater Management & Drainage Manual, Table 400-2) and the pipe and inlet structure sizes were determined by the 25-year storm event.

## PROPOSED DRAINAGE SYSTEM

This development is designed to capture the majority of runoff within the parking lot curb and gutter. A portion of the site will discharge into a standard storm sewer system, releasing into the existing adjacent storm sewer. Other portions of the new development will either be captured by gutter/downspouts or curb/gutter and released to vegetated greenspace surrounding the project. These release points are similar to the pre-development conditions of this site.

The storm sewer system will consist of standard concrete curb inlets. These inlets were sized based on their independent drainage basin flow rate and the slope that the inlets will be placed at. The New Beginnings storm sewer system will tie-into the Bryant Seminary existing storm sewer system. The stormwater will ultimately be discharged to the north side of the property into the floodplain.

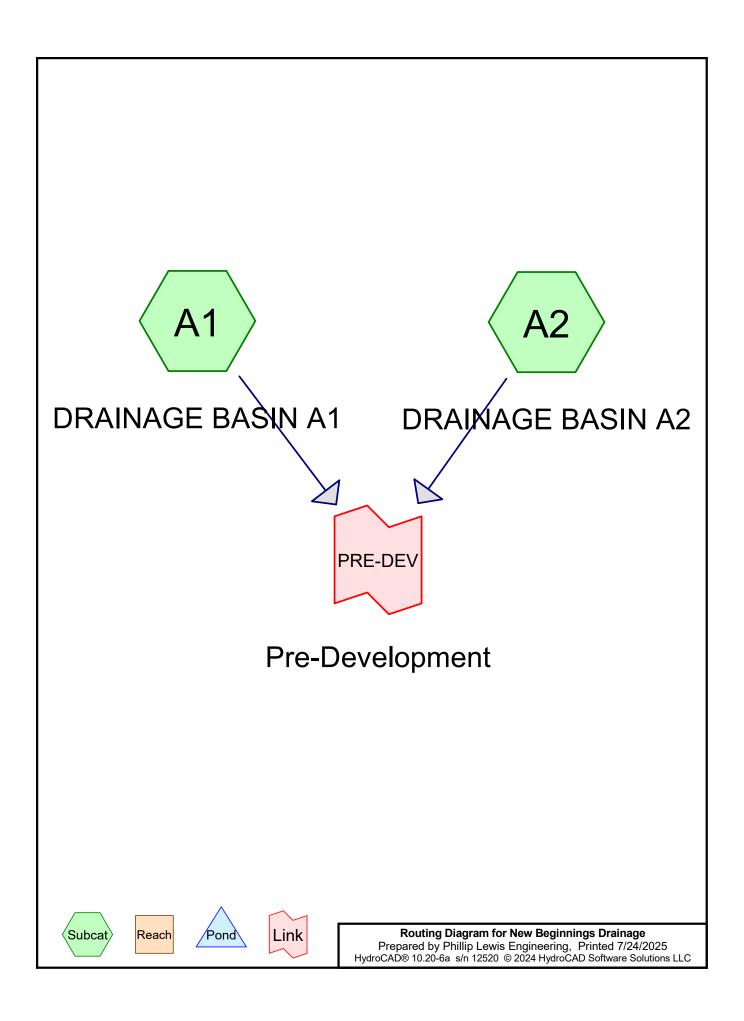
Overall Pre-development and Post-development runoff/discharge rates are compared below:

Storm Event	Pre-development Discharge (cfs)	Post-development Discharge (cfs) Without Detention
2-yr	1.51	4.38
10-yr	2.02	5.86
25-yr	2.33	6.82
50-yr	2.56	7.41
100-yr	2.77	8.04

Hydraulic grade elevations for the inlets are shown below:

Inlet	Peak Elevation (25-yr Storm Event)
CI – A1	369.08'
CI – A2	368.89'

PRE DEVELOPMENT HYDROGRAPHS



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#### **Summary for Subcatchment A1: DRAINAGE BASIN A1**

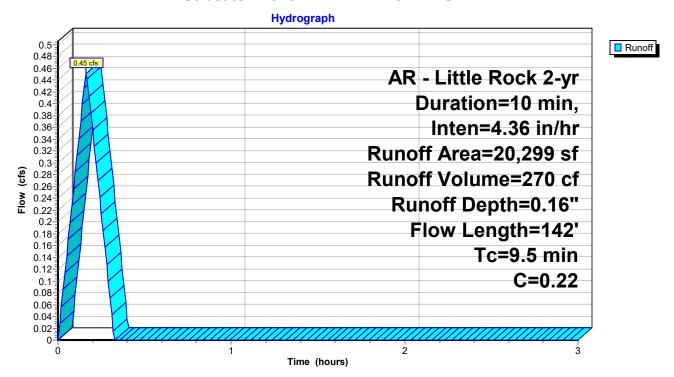
Runoff = 0.45 cfs @ 0.16 hrs, Volume= 270 cf, Depth= 0.16"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		20,299	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		20,299		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	9.2	100	0.0430	0.18	,	Sheet Flow, Overland Sheet flow
	0.3	42	0.1410	2.63		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	9.5	142	Total	·		

#### Subcatchment A1: DRAINAGE BASIN A1



## Summary for Subcatchment A2: DRAINAGE BASIN A2

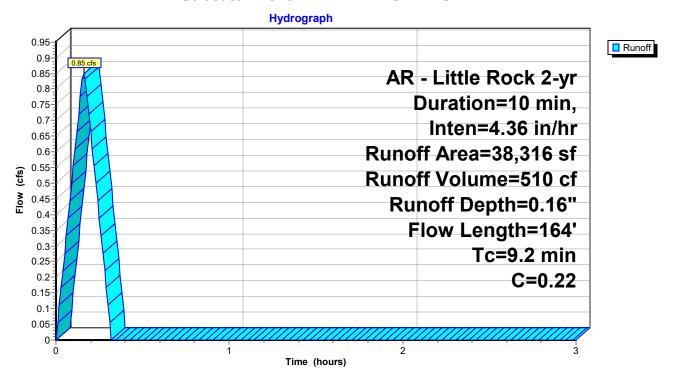
Runoff = 0.85 cfs @ 0.16 hrs, Volume= 510 cf, Depth= 0.16"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		38,316	0.22	Sandy Soil	2-7% per r	manual (undeveloped)
		38,316		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	8.3	100	0.0560	0.20	, ,	Sheet Flow, Overland Sheet flow
	0.9	64	0.0320	1.25		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	92	164	Total	·		

#### Subcatchment A2: DRAINAGE BASIN A2



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## **Summary for Link PRE-DEV: Pre-Development**

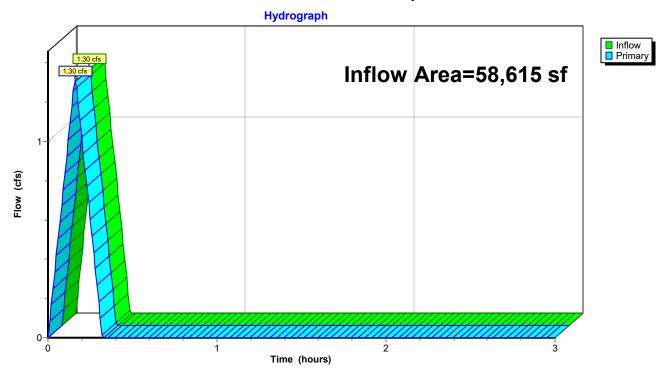
Inflow Area = 58,615 sf, 0.00% Impervious, Inflow Depth = 0.16" for 2-yr event

Inflow = 1.30 cfs @ 0.16 hrs, Volume= 780 cf

Primary = 1.30 cfs @ 0.16 hrs, Volume= 780 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-Development**



#### **Summary for Subcatchment A1: DRAINAGE BASIN A1**

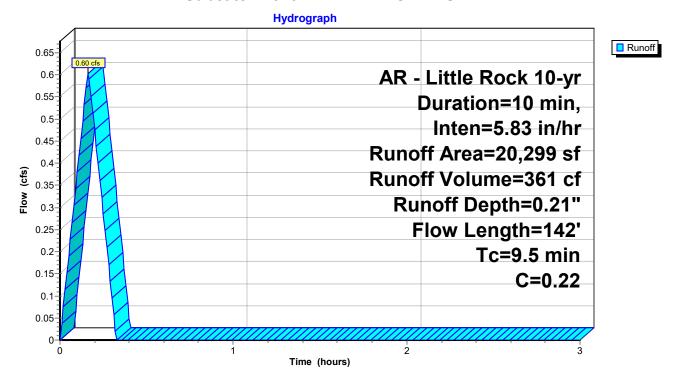
Runoff = 0.60 cfs @ 0.16 hrs, Volume= 361 cf, Depth= 0.21"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		20,299	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		20,299		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	9.2	100	0.0430	0.18	,	Sheet Flow, Overland Sheet flow
	0.3	42	0.1410	2.63		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	9.5	142	Total	·		

#### Subcatchment A1: DRAINAGE BASIN A1



#### Summary for Subcatchment A2: DRAINAGE BASIN A2

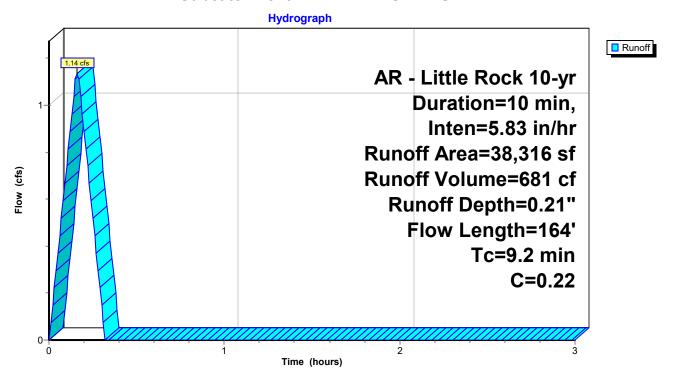
Runoff = 1.14 cfs @ 0.16 hrs, Volume= 681 cf, Depth= 0.21"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		38,316	0.22	Sandy Soil	2-7% per r	manual (undeveloped)
		38,316		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	8.3	100	0.0560	0.20	, ,	Sheet Flow, Overland Sheet flow
	0.9	64	0.0320	1.25		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	92	164	Total	·		

#### Subcatchment A2: DRAINAGE BASIN A2



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## **Summary for Link PRE-DEV: Pre-Development**

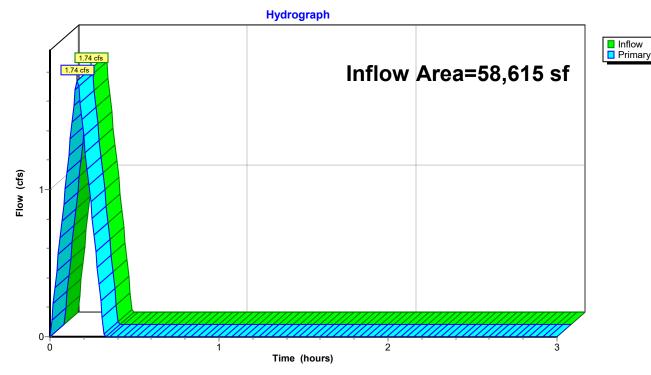
Inflow Area = 58,615 sf, 0.00% Impervious, Inflow Depth = 0.21" for 10-yr event

Inflow = 1.74 cfs @ 0.16 hrs, Volume= 1,043 cf

Primary = 1.74 cfs @ 0.16 hrs, Volume= 1,043 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-Development**



#### **Summary for Subcatchment A1: DRAINAGE BASIN A1**

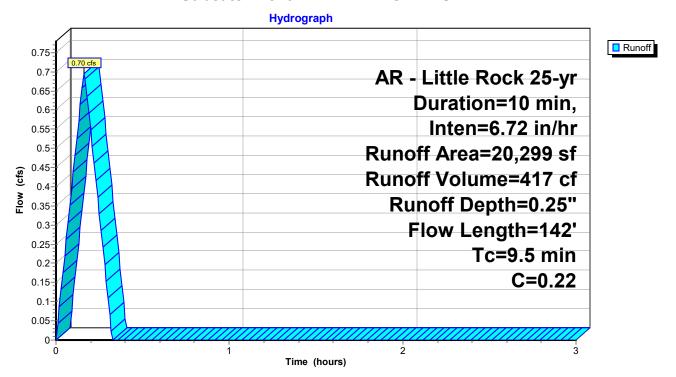
Runoff = 0.70 cfs @ 0.16 hrs, Volume= 417 cf, Depth= 0.25"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	า	
Ī		20,299	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
_		20,299		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description
_	9.2	100	0.0430	0.18	, ,	Sheet Flow, Overland Sheet flow
	0.3	42	0.1410	2.63		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	9.5	142	Total			<u> </u>

#### Subcatchment A1: DRAINAGE BASIN A1



#### Summary for Subcatchment A2: DRAINAGE BASIN A2

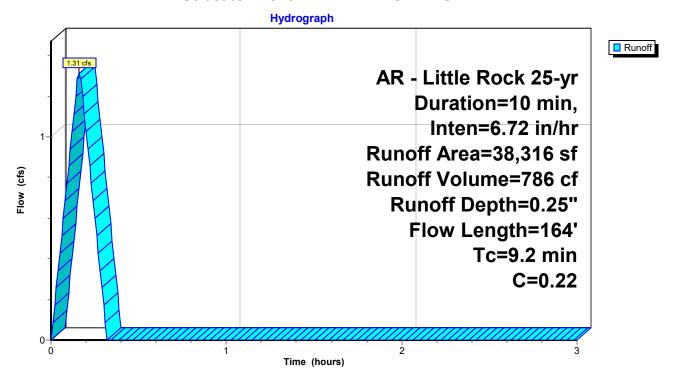
Runoff = 1.31 cfs @ 0.16 hrs, Volume= 786 cf, Depth= 0.25"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		38,316	0.22	Sandy Soil	2-7% per r	manual (undeveloped)
		38,316		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	8.3	100	0.0560	0.20	, ,	Sheet Flow, Overland Sheet flow
	0.9	64	0.0320	1.25		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	92	164	Total	·		

#### Subcatchment A2: DRAINAGE BASIN A2



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## **Summary for Link PRE-DEV: Pre-Development**

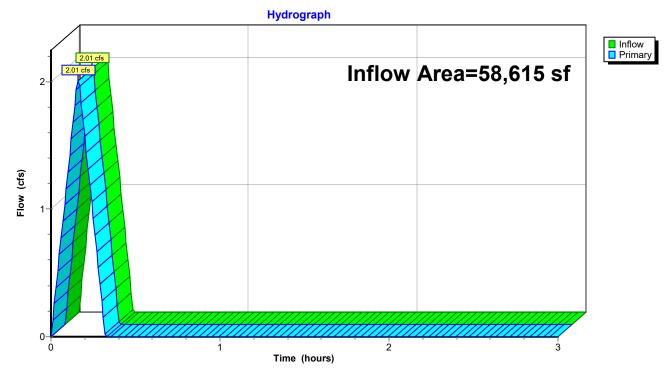
Inflow Area = 58,615 sf, 0.00% Impervious, Inflow Depth = 0.25" for 25-yr event

Inflow = 2.01 cfs @ 0.16 hrs, Volume= 1,203 cf

Primary = 2.01 cfs @ 0.16 hrs, Volume= 1,203 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-Development**



## Summary for Subcatchment A1: DRAINAGE BASIN A1

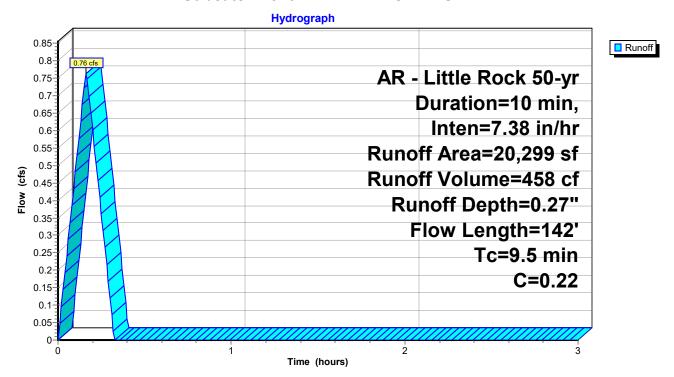
Runoff = 0.76 cfs @ 0.16 hrs, Volume= 458 cf, Depth= 0.27"

Routed to Link PRE-DEV: Pre-Development

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 50-yr Duration=10 min, Inten=7.38 in/hr

	Α	rea (sf)	С	Description	1	
_		20,299	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		20,299		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	9.2	100	0.0430	0.18	,	Sheet Flow, Overland Sheet flow
	0.3	42	0.1410	2.63		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	9.5	142	Total	·		

#### Subcatchment A1: DRAINAGE BASIN A1



#### Summary for Subcatchment A2: DRAINAGE BASIN A2

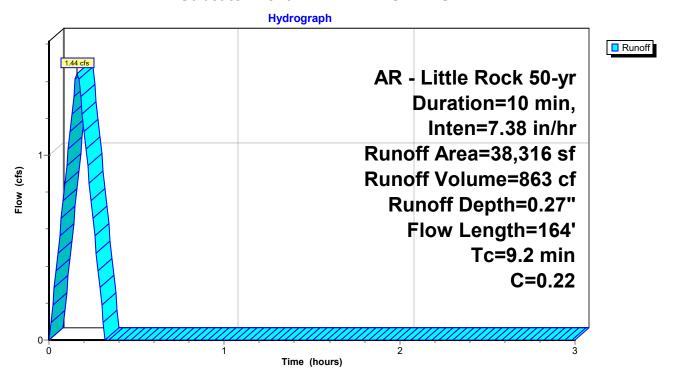
Runoff = 1.44 cfs @ 0.16 hrs, Volume= 863 cf, Depth= 0.27"

Routed to Link PRE-DEV: Pre-Development

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 50-yr Duration=10 min, Inten=7.38 in/hr

	Α	rea (sf)	С	Description	1	
		38,316	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		38,316		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description
-	8.3	100	0.0560	,	(010)	Sheet Flow, Overland Sheet flow
	0.9	64	0.0320	1.25		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	92	164	Total			

#### Subcatchment A2: DRAINAGE BASIN A2



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#### **Summary for Link PRE-DEV: Pre-Development**

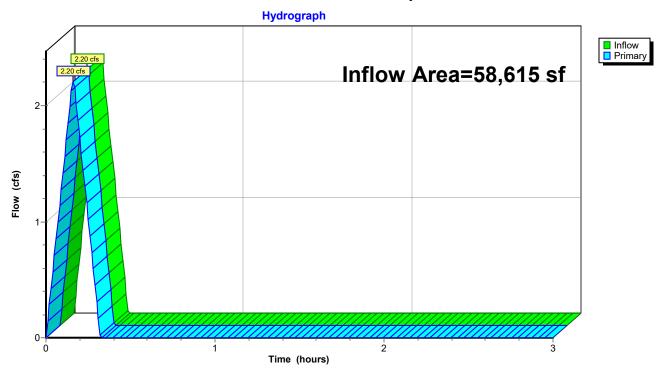
Inflow Area = 58,615 sf, 0.00% Impervious, Inflow Depth = 0.27" for 50-yr event

Inflow = 2.20 cfs @ 0.16 hrs, Volume= 1,321 cf

Primary = 2.20 cfs @ 0.16 hrs, Volume= 1,321 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-Development**



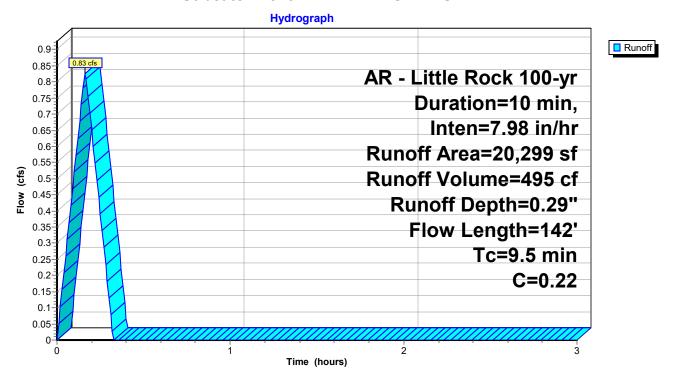
#### **Summary for Subcatchment A1: DRAINAGE BASIN A1**

Runoff = 0.83 cfs @ 0.16 hrs, Volume= 495 cf, Depth= 0.29" Routed to Link PRE-DEV : Pre-Development

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

	Α	rea (sf)	С	Description	1	
_		20,299	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		20,299		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
-	9.2	100	0.0430	0.18	,	Sheet Flow, Overland Sheet flow
	0.3	42	0.1410	2.63		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	9.5	142	Total	·		

#### Subcatchment A1: DRAINAGE BASIN A1



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## Summary for Subcatchment A2: DRAINAGE BASIN A2

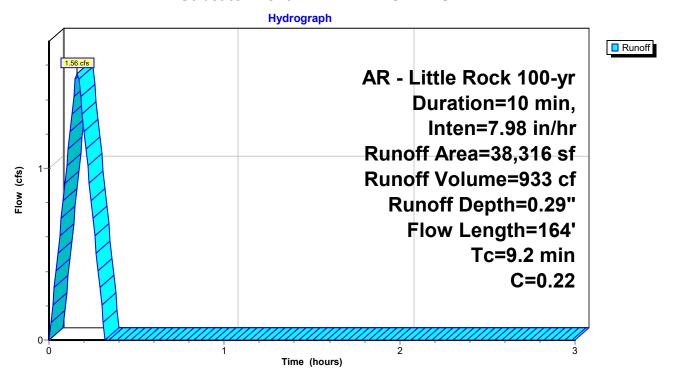
Runoff = 1.56 cfs @ 0.16 hrs, Volume= 933 cf, Depth= 0.29"

Routed to Link PRE-DEV: Pre-Development

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

	Α	rea (sf)	С	Description	1	
		38,316	0.22	Sandy Soil	2-7% per r	nanual (undeveloped)
		38,316		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description
-	8.3	100	0.0560	,	(010)	Sheet Flow, Overland Sheet flow
	0.9	64	0.0320	1.25		Grass: Dense n= 0.240 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated Flow Short Grass Pasture Kv= 7.0 fps
	92	164	Total			

#### Subcatchment A2: DRAINAGE BASIN A2



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## **Summary for Link PRE-DEV: Pre-Development**

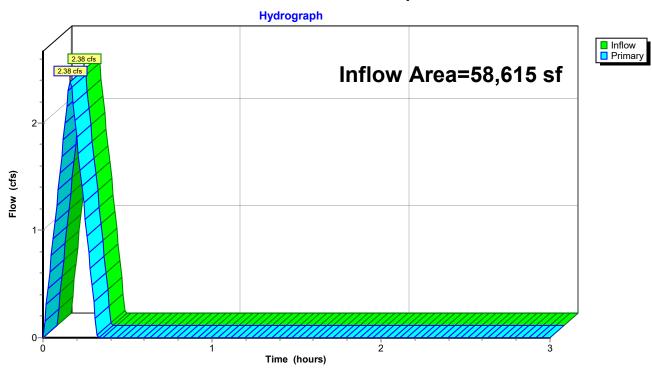
Inflow Area = 58,615 sf, 0.00% Impervious, Inflow Depth = 0.29" for 100-yr event

Inflow = 2.38 cfs @ 0.16 hrs, Volume= 1,428 cf

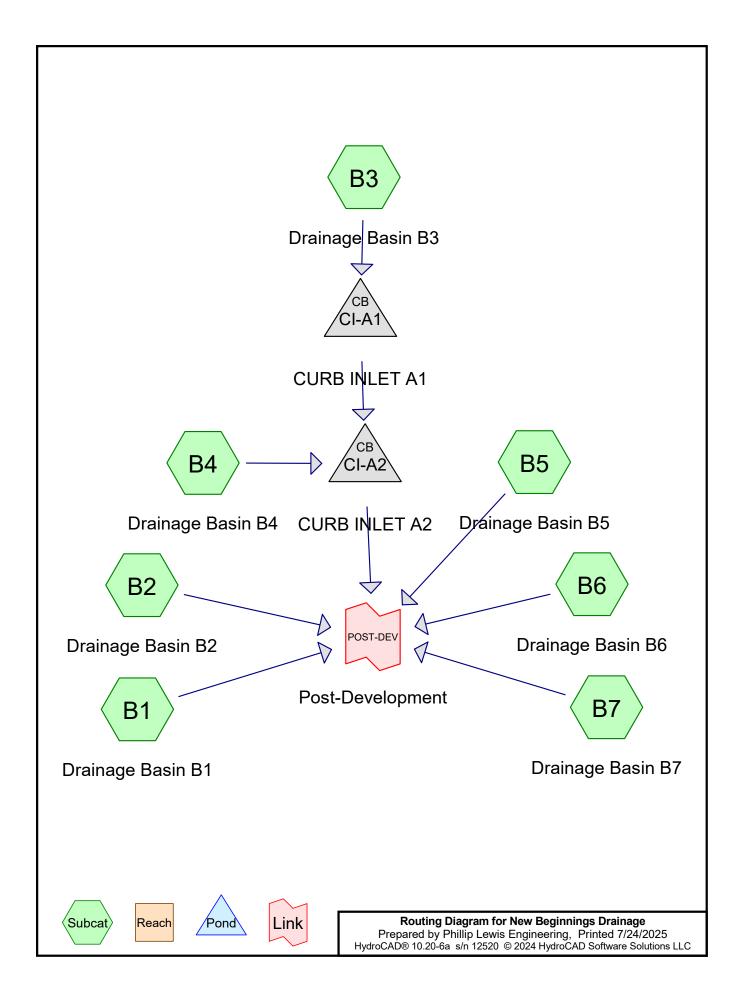
Primary = 2.38 cfs @ 0.16 hrs, Volume= 1,428 cf, Atten= 0%, Lag= 0.0 min

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

## **Link PRE-DEV: Pre-Development**



**POST DEVELOPMENT HYDROGRAPHS** 



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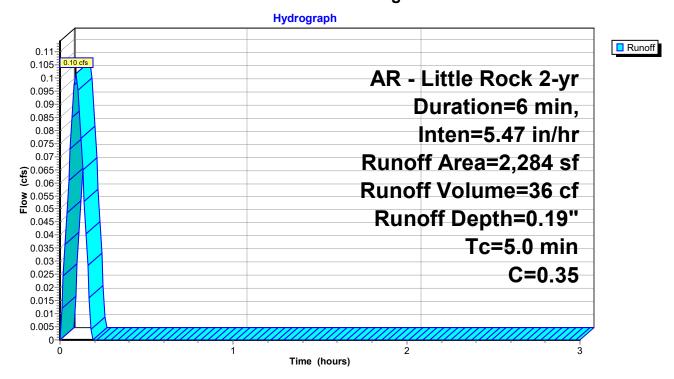
#### **Summary for Subcatchment B1: Drainage Basin B1**

Runoff = 0.10 cfs @ 0.09 hrs, Volume= 36 cf, Depth= 0.19" Routed to Link POST-DEV : Post-Development

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=6 min, Inten=5.47 in/hr

A	rea (sf)	С	Description	1				
	2,284	0.35	Sandy Soil	2-7% per r	manual			
	0	0.92	Paved Area	Paved Areas				
	2,284	0.35	Weighted A	Weighted Average				
	2,284		100.00% P	ervious Are	ea			
Tc	Length	Slope	<ul><li>Velocity</li></ul>	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
5.0					Direct Entry, Minimum Adjustment			

## Subcatchment B1: Drainage Basin B1



## **New Beginnings Drainage**

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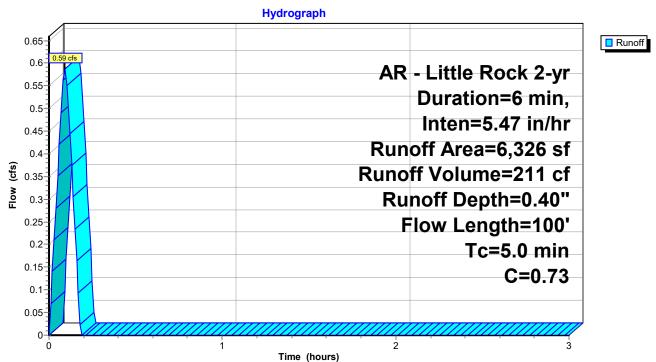
#### **Summary for Subcatchment B2: Drainage Basin B2**

Runoff = 0.59 cfs @ 0.09 hrs, Volume= 211 cf, Depth= 0.40" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=5.47 in/hr

A	rea (sf)	С	Description	1	
	2,115	0.35	Sandy Soil	2-7% per r	manual
	4,211	0.92	Paved Area	as	
	6,326	0.73	Weighted A	Average	
	6,326		100.00% P	ervious Are	ea
Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	42	0.1667	3.09		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
4.3					Direct Entry, Minimum Adjustment
5.0	100	Total			

#### Subcatchment B2: Drainage Basin B2



## **New Beginnings Drainage**

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#### **Summary for Subcatchment B3: Drainage Basin B3**

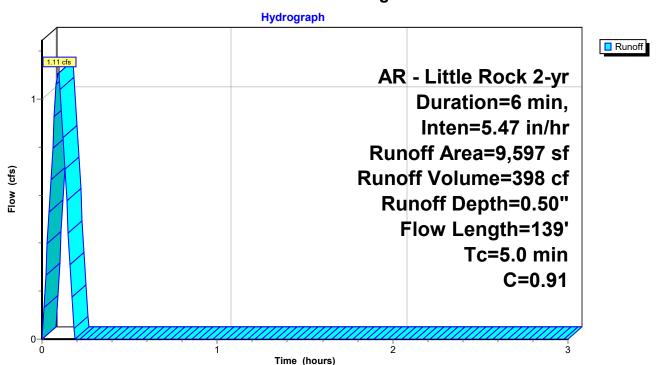
Runoff = 1.11 cfs @ 0.09 hrs, Volume= 398 cf, Depth= 0.50"

Routed to Pond CI-A1: CURB INLET 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=6 min, Inten=5.47 in/hr

_	Α	rea (sf)	С	Description	า	
		155	0.35	Sandy Soil	2-7% per r	manual
		9,442	0.92	Paved Area	as	
_		9,597	0.91	Weighted /	Average	
		9,597		100.00% P	ervious Are	ea
	Тс	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.2	28	0.1667	2.85		Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.4	30	0.0160	1.13		Sheet Flow, Asphalt Sheet Flow
						Smooth surfaces n= 0.011 P2= 4.20"
	0.4	41	0.0520	1.93		Sheet Flow, Asphalt Sheet Flow
						Smooth surfaces n= 0.011 P2= 4.20"
	0.2	40	0.0360	3.85		Shallow Concentrated Flow, Gutter Flow
						Paved Kv= 20.3 fps
_	3.8					Direct Entry, Minimum Adjustment
	5.0	139	Total			

#### Subcatchment B3: Drainage Basin B3



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#### Summary for Subcatchment B4: Drainage Basin B4

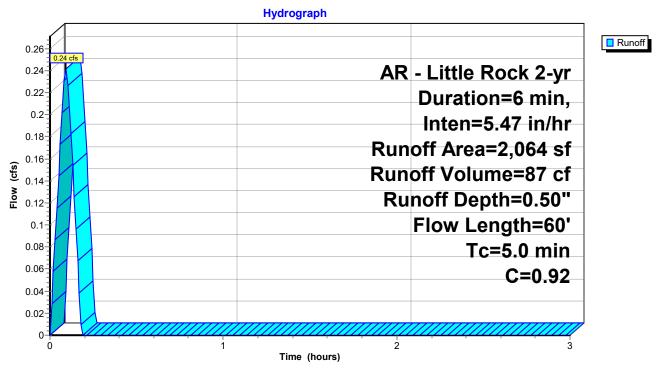
Runoff = 0.24 cfs @ 0.09 hrs, Volume= 87 cf, Depth= 0.50"

Routed to Pond CI-A2: CURB INLET 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=6 min, Inten=5.47 in/hr

	Area (sf)	С	Description	1					
	0	0.35	Sandy Soil	andy Soil 2-7% per manual					
	2,064	0.92	Paved Area	as ·					
	2,064	0.92	Weighted A	Average					
	2,064		100.00% P	ervious Are	ea				
To	c Length	Slope	Velocity	Capacity	Description				
(min	) (feet)	(ft/ft)	(ft/sec)	(cfs)					
0.6	6 45	0.0170	1.26		Sheet Flow, Asphalt Sheet Flow				
					Smooth surfaces n= 0.011 P2= 4.20"				
0.0	) 15	0.0840	5.88		Shallow Concentrated Flow, Gutter Flow				
					Paved Kv= 20.3 fps				
4.4	1				Direct Entry, Minimum Adjustment				
5.0	60	Total							

#### Subcatchment B4: Drainage Basin B4



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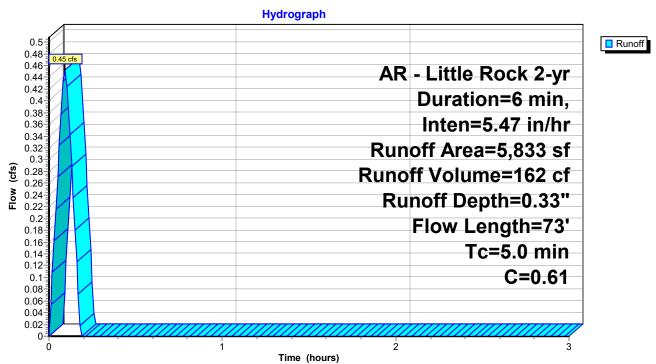
#### Summary for Subcatchment B5: Drainage Basin B5

Runoff = 0.45 cfs @ 0.09 hrs, Volume= 162 cf, Depth= 0.33" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=5.47 in/hr

_	Α	rea (sf)	С	Description	1					
		3,123	0.35	Sandy Soil	Sandy Soil 2-7% per manual					
_		2,710	0.92	Paved Area	as					
		5,833	0.61	Weighted A	Average					
		5,833		100.00% P	ervious Are	ea				
	Тс	Length	Slope	•	Capacity	Description				
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
	0.1	18	0.1667	2.61		Sheet Flow, Rooftop				
						Smooth surfaces n= 0.011 P2= 4.20"				
	0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated				
						Short Grass Pasture Kv= 7.0 fps				
	4.5					Direct Entry, Minimum Adjustment				
	5.0	73	Total	•						

#### Subcatchment B5: Drainage Basin B5



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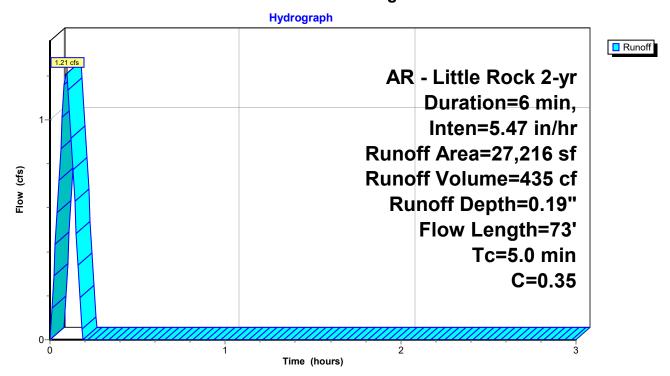
#### **Summary for Subcatchment B6: Drainage Basin B6**

Runoff = 1.21 cfs @ 0.09 hrs, Volume= 435 cf, Depth= 0.19" Routed to Link POST-DEV : Post-Development

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=6 min, Inten=5.47 in/hr

	Α	rea (sf)	С	Description	]	
		27,216	0.35	Sandy Soil	2-7% per r	manual
		27,216		100.00% Pervious Area		
	Tc (min)	Length (feet)	Slope (ft/ft)	•	Capacity (cfs)	Description
_	0.1	18	0.1667	2.61	, ,	Sheet Flow, Rooftop
	0.4	55	0.0860	2.05		Smooth surfaces n= 0.011 P2= 4.20" <b>Shallow Concentrated Flow, Overland Concentrated</b> Short Grass Pasture Kv= 7.0 fps
	4.5					Direct Entry, Minimum Adjustment
	5.0	73	Total			

#### Subcatchment B6: Drainage Basin B6



#### **New Beginnings Drainage**

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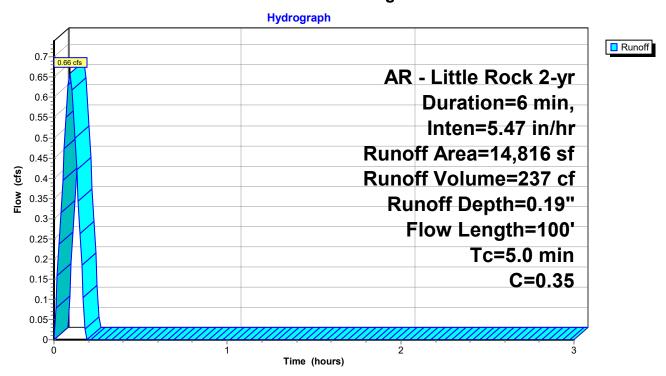
#### Summary for Subcatchment B7: Drainage Basin B7

Runoff = 0.66 cfs @ 0.09 hrs, Volume= 237 cf, Depth= 0.19" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=5.47 in/hr

Α	rea (sf)	С	Description	1	
	14,816	0.35	Sandy Soil	2-7% per r	manual
	14,816		100.00% P	ervious Are	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	42	0.1667	3.09		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
4.3					Direct Entry, Minimum Adjustment
5.0	100	Total			

#### Subcatchment B7: Drainage Basin B7



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#### **Summary for Pond CI-A1: CURB INLET A1**

Inflow Area = 9,597 sf, 0.00% Impervious, Inflow Depth = 0.50" for 2-yr event

Inflow = 1.11 cfs @ 0.09 hrs, Volume= 398 cf

Outflow = 1.11 cfs @ 0.09 hrs, Volume= 398 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.11 cfs @ 0.09 hrs, Volume= 398 cf

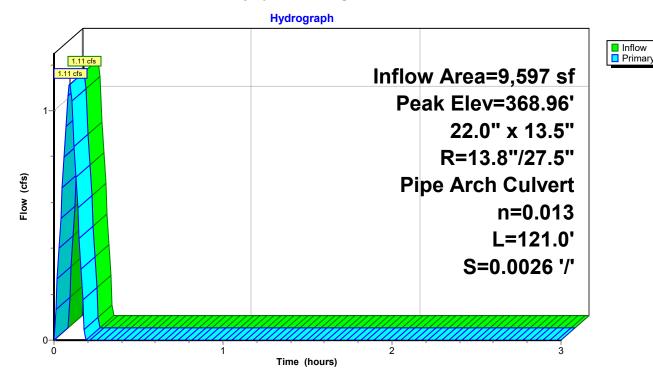
Routed to Pond CI-A2: CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.96' @ 0.09 hrs

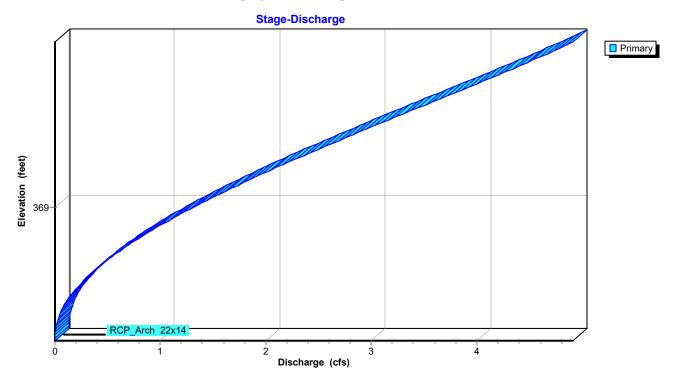
Device	Routing	Invert	Outlet Devices
#1	Primary	368.50'	22.0" W x 13.5" H, R=13.8"/27.5" Pipe Arch RCP_Arch 22x14 L= 121.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.50' / 368.19' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.65 sf

Primary OutFlow Max=1.11 cfs @ 0.09 hrs HW=368.96' (Free Discharge) 1=RCP\_Arch 22x14 (Barrel Controls 1.11 cfs @ 2.30 fps)

#### Pond CI-A1: CURB INLET A1



#### **Pond CI-A1: CURB INLET A1**



## Stage-Area-Storage for Pond CI-A1: CURB INLET A1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
368.50	Ó	369.02	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	0	369.06	0	369.58	0
368.55	0	369.07	0	369.59	0
368.56	0	369.08	0	369.60	0
368.57	0 0	369.09	0	369.61 369.62	0 0
368.58 368.59	0	369.10 369.11	0 0	309.02	U
368.60	0	369.12	0		
368.61	0	369.13	Ö		
368.62	Ō	369.14	0		
368.63	0	369.15	0		
368.64	0	369.16	0		
368.65	0	369.17	0		
368.66	0	369.18	0		
368.67	0	369.19	0		
368.68	0	369.20	0		
368.69 368.70	0 0	369.21 369.22	0 0		
368.71	0	369.23	0		
368.72	0	369.24	0		
368.73	Ö	369.25	Ö		
368.74	0	369.26	0		
368.75	0	369.27	0		
368.76	0	369.28	0		
368.77	0	369.29	0		
368.78	0	369.30	0		
368.79	0 0	369.31	0		
368.80 368.81	0	369.32 369.33	0		
368.82	0	369.34	0		
368.83	Ö	369.35	Ö		
368.84	0	369.36	0		
368.85	0	369.37	0		
368.86	0	369.38	0		
368.87	0	369.39	0		
368.88	0	369.40	0		
368.89 368.90	0 0	369.41 369.42	0		
368.91	0	369.42 369.43	0		
368.92	0	369.44	0		
368.93	Ö	369.45	ő		
368.94	0	369.46	0		
368.95	0	369.47	0		
368.96	0	369.48	0		
368.97	0	369.49	0		
368.98	0	369.50	0		
368.99 369.00	0 0	369.51 369.52	0		
369.01	0	369.52 369.53	0		
223.0.	3	330.00	Ĭ		

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#### **Summary for Pond CI-A2: CURB INLET A2**

Inflow Area = 11,661 sf, 0.00% Impervious, Inflow Depth = 0.50" for 2-yr event

Inflow = 1.35 cfs @ 0.09 hrs, Volume= 485 cf

Outflow = 1.35 cfs @ 0.09 hrs, Volume= 485 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.35 cfs @ 0.09 hrs, Volume= 485 cf

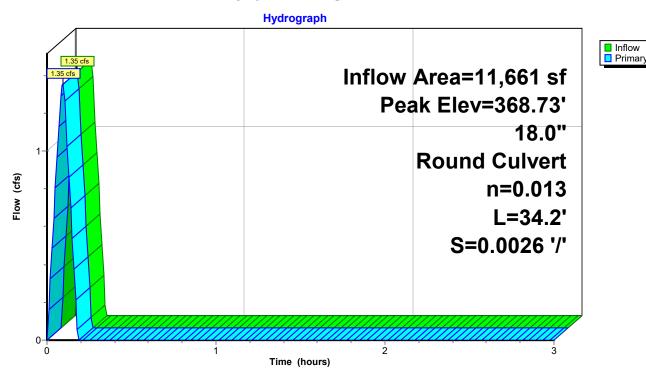
Routed to Link POST-DEV: Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.73' @ 0.09 hrs

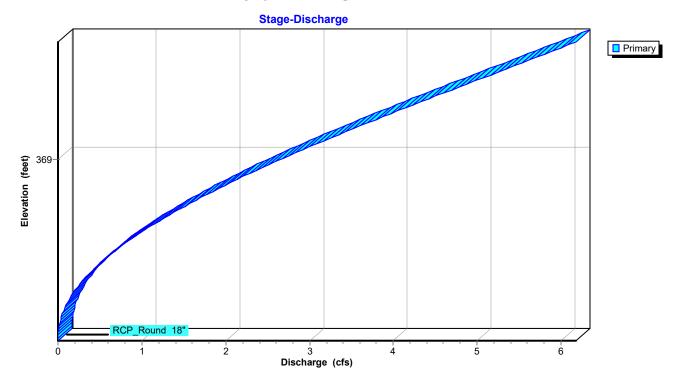
Device	Routing	Invert	Outlet Devices					
#1	Primary	368.09'	18.0" Round RCP_Round 18"					
			= 34.2' RCP, rounded edge headwall, Ke= 0.100					
			Inlet / Outlet Invert= 368.09' / 368.00' S= 0.0026 '/' Cc= 0.900					
			n= 0.013, Flow Area= 1.77 sf					

Primary OutFlow Max=1.35 cfs @ 0.09 hrs HW=368.73' (Free Discharge) 1=RCP\_Round 18" (Barrel Controls 1.35 cfs @ 2.78 fps)

#### Pond CI-A2: CURB INLET A2



#### Pond CI-A2: CURB INLET A2



## Stage-Area-Storage for Pond CI-A2: CURB INLET A2

Elevation	Storage	Elevation	Storage	Elevation	Storage
(feet)	(cubic-feet)	(feet)	(cubic-feet)	(feet)	(cubic-feet)
368.09	0	368.61	0	369.13	0
368.10	0	368.62	0	369.14	0
368.11	0	368.63	0	369.15	0
368.12	0	368.64	0	369.16	0
368.13	0	368.65	0	369.17	0
368.14	0	368.66	0	369.18	0
368.15	0	368.67	0	369.19	0
368.16	0	368.68	0	369.20	0
368.17	0	368.69	0	369.21	0
368.18	0	368.70	0	369.22	0
368.19	0	368.71	0	369.23	0
368.20	0	368.72	0	369.24	0
368.21	0 0	368.73	0	369.25	0
368.22 368.23	0	368.74 368.75	0	369.26 369.27	0 0
368.24	0	368.76	0	369.28	0
368.25	0	368.77	0	369.26	0
368.26	0	368.78	0	369.30	0
368.27	0	368.79	0	369.31	0
368.28	0	368.80	0	369.32	0
368.29	0	368.81	0	369.33	0
368.30	0	368.82	0	369.34	0
368.31	0	368.83	0	369.35	0
368.32	0	368.84	0	369.36	0
368.33	0	368.85	0	369.37	0
368.34	0	368.86	0	369.38	Ö
368.35	Ö	368.87	Ö	369.39	Ö
368.36	Ö	368.88	Ő	369.40	0
368.37	Ö	368.89	Ö	369.41	Ő
368.38	0	368.90	0	369.42	0
368.39	0	368.91	0	369.43	0
368.40	0	368.92	0	369.44	0
368.41	0	368.93	0	369.45	0
368.42	0	368.94	0	369.46	0
368.43	0	368.95	0	369.47	0
368.44	0	368.96	0	369.48	0
368.45	0	368.97	0	369.49	0
368.46	0	368.98	0	369.50	0
368.47	0	368.99	0	369.51	0
368.48	0	369.00	0	369.52	0
368.49	0	369.01	0	369.53	0
368.50	0	369.02	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	0	369.06	0	369.58	0
368.55	0	369.07	0	369.59	0
368.56	0	369.08	0		
368.57	0	369.09	0		
368.58	0	369.10	0		
368.59	0 0	369.11 369.12	0 0		
368.60	U	309.1Z	U		
		1	l l	l	

# New Beginnings Drainage Prepared by Phillip Lewis Engineering

AR - Little Rock 2-yr Duration=6 min, Inten=5.47 in/hr
Printed 7/24/2025

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## **Summary for Link POST-DEV: Post-Development**

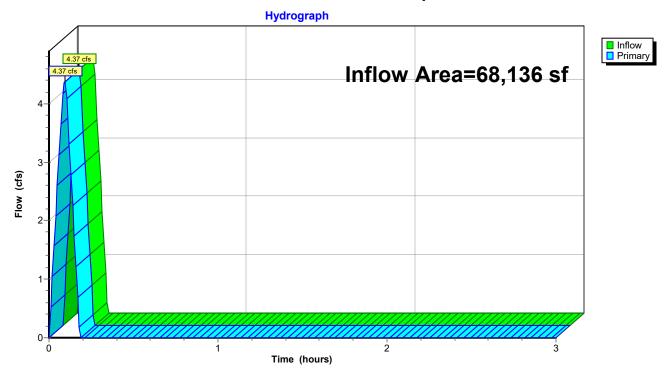
Inflow Area = 68,136 sf, 0.00% Impervious, Inflow Depth = 0.28" for 2-yr event

Inflow = 4.37 cfs @ 0.09 hrs, Volume= 1,566 cf

Primary = 4.37 cfs @ 0.09 hrs, Volume= 1,566 cf, Atten= 0%, Lag= 0.0 min

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

## **Link POST-DEV: Post-Development**



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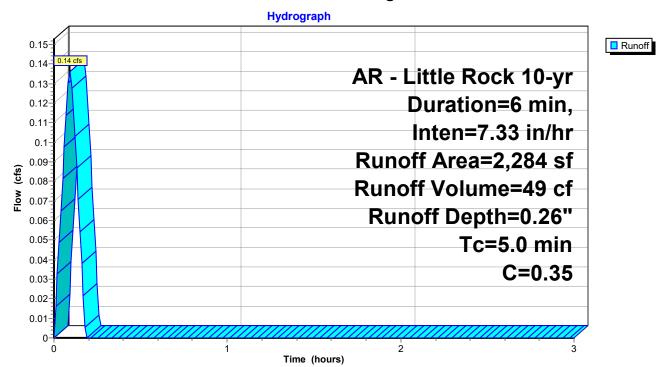
#### **Summary for Subcatchment B1: Drainage Basin B1**

Runoff = 0.14 cfs @ 0.09 hrs, Volume= 49 cf, Depth= 0.26" Routed to Link POST-DEV : Post-Development

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=6 min, Inten=7.33 in/hr

A	rea (sf)	С	Description						
	2,284	0.35	Sandy Soil	Sandy Soil 2-7% per manual					
	0	0.92	Paved Area	Paved Areas					
	2,284	0.35	Weighted A	Veighted Average					
	2,284		100.00% P	ervious Are	ea				
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
5.0	•	•			Direct Entry, Minimum Adjustment				

#### Subcatchment B1: Drainage Basin B1



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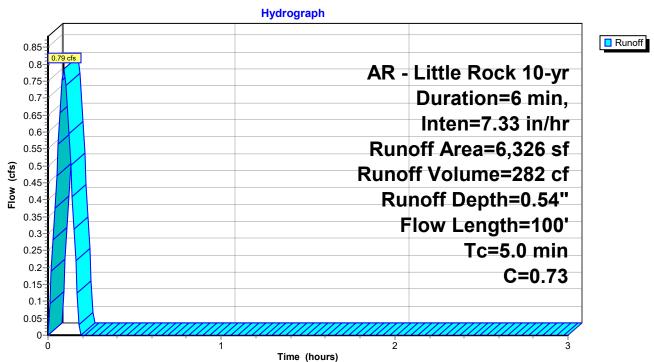
#### **Summary for Subcatchment B2: Drainage Basin B2**

Runoff = 0.79 cfs @ 0.09 hrs, Volume= 282 cf, Depth= 0.54" Routed to Link POST-DEV : Post-Development

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=6 min, Inten=7.33 in/hr

A	rea (sf)	С	Description	1	
	2,115	0.35	Sandy Soil	2-7% per r	manual
	4,211	0.92	Paved Area	as	
	6,326	0.73	Weighted A	Average	
	6,326		100.00% P	ervious Are	<del>e</del> a
Тс	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	•	(cfs)	Description
				(CIS)	
0.2	42	0.1667	3.09		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
4.3					Direct Entry, Minimum Adjustment
5.0	100	Total			

## Subcatchment B2: Drainage Basin B2



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## **Summary for Subcatchment B3: Drainage Basin B3**

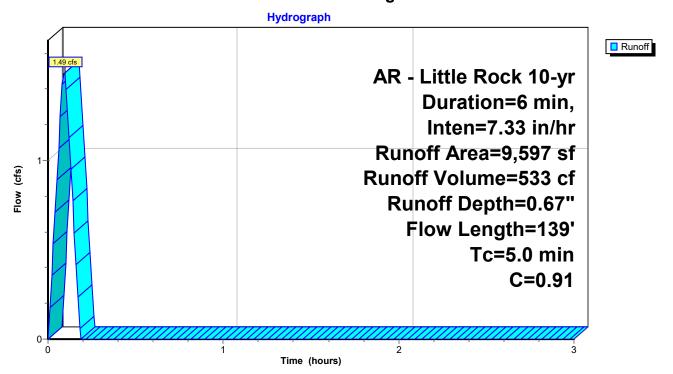
Runoff = 1.49 cfs @ 0.10 hrs, Volume= 533 cf, Depth= 0.67"

Routed to Pond CI-A1: CURB INLET 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=6 min, Inten=7.33 in/hr

A	rea (sf)	С	Description	1	
	155	0.35	Sandy Soil	2-7% per r	manual
	9,442	0.92	Paved Area	as	
	9,597	0.91	Weighted A	Average	
	9,597		100.00% P	ervious Are	<del>e</del> a
_				_	
Tc	Length	Slope	•	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	28	0.1667	2.85		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	30	0.0160	1.13		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	41	0.0520	1.93		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.2	40	0.0360	3.85		Shallow Concentrated Flow, Gutter Flow
					Paved Kv= 20.3 fps
3.8					Direct Entry, Minimum Adjustment
5.0	139	Total			

#### Subcatchment B3: Drainage Basin B3



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## **Summary for Subcatchment B4: Drainage Basin B4**

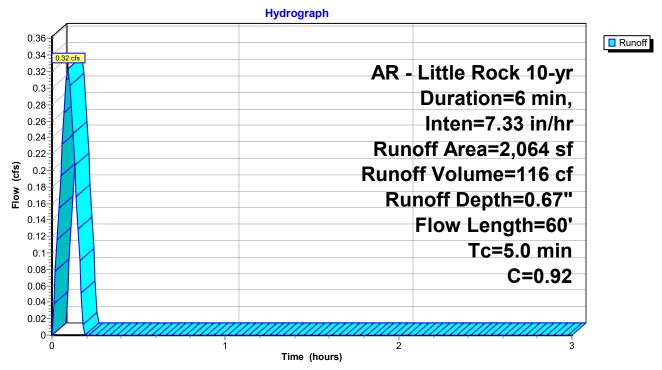
Runoff = 0.32 cfs @ 0.09 hrs, Volume= 116 cf, Depth= 0.67"

Routed to Pond CI-A2: CURB INLET 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=6 min, Inten=7.33 in/hr

 Aı	rea (sf)	С	Description	Description						
	0	0.35	Sandy Soil	andy Soil 2-7% per manual						
	2,064	0.92	Paved Area	as						
	2,064	0.92	Weighted A	Average						
	2,064		100.00% P	ervious Are	ea					
Тс	Length	Slope	Velocity	Capacity	Description					
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
0.6	45	0.0170	1.26		Sheet Flow, Asphalt Sheet Flow					
					Smooth surfaces n= 0.011 P2= 4.20"					
0.0	15	0.0840	5.88		Shallow Concentrated Flow, Gutter Flow					
					Paved Kv= 20.3 fps					
 4.4					Direct Entry, Minimum Adjustment					
5.0	60	Total								

## Subcatchment B4: Drainage Basin B4



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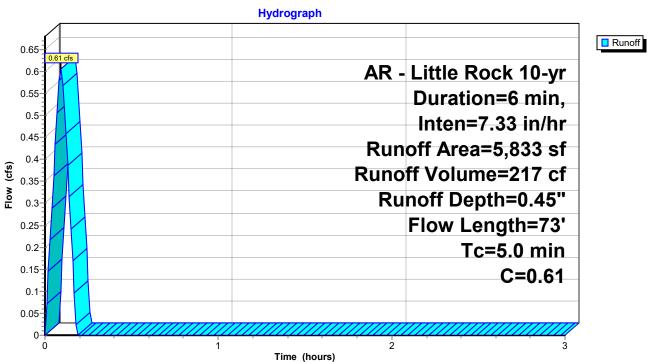
## **Summary for Subcatchment B5: Drainage Basin B5**

Runoff = 0.61 cfs @ 0.09 hrs, Volume= 217 cf, Depth= 0.45" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=7.33 in/hr

	Area (sf)	С	Description					
	3,123	0.35	Sandy Soil	2-7% per r	manual			
	2,710	0.92	Paved Area	as				
	5,833	0.61	Weighted A	Average				
	5,833		100.00% P	ervious Are	ea			
Tc	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.1	18	0.1667	2.61		Sheet Flow, Rooftop			
					Smooth surfaces n= 0.011 P2= 4.20"			
0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated			
					Short Grass Pasture Kv= 7.0 fps			
4.5					Direct Entry, Minimum Adjustment			
5.0	73	Total						

## Subcatchment B5: Drainage Basin B5



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#### **Summary for Subcatchment B6: Drainage Basin B6**

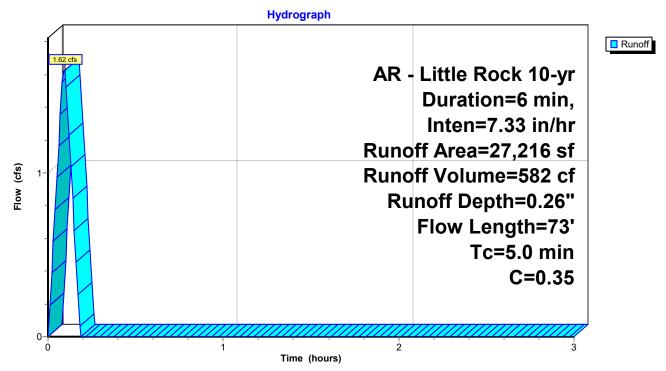
Runoff = 1.62 cfs @ 0.09 hrs, Volume= 582 cf, Depth= 0.26"

Routed to Link POST-DEV: Post-Development

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=6 min, Inten=7.33 in/hr

 Α	rea (sf)	С	Description	1			
27,216 0.35 Sandy Soil 2-7% per manual							
	27,216		100.00% P	ervious Are	ea		
Tc (min)	Length (feet)	Slope (ft/ft)	•	Capacity (cfs)	Description		
0.1	18	0.1667	2.61	, ,	Sheet Flow, Rooftop		
0.4	55	0.0860	2.05		Smooth surfaces n= 0.011 P2= 4.20"  Shallow Concentrated Flow, Overland Concentrated		
0.4	00	0.0000	2.00		Short Grass Pasture Kv= 7.0 fps		
4.5					Direct Entry, Minimum Adjustment		
5.0	73	Total					

### Subcatchment B6: Drainage Basin B6



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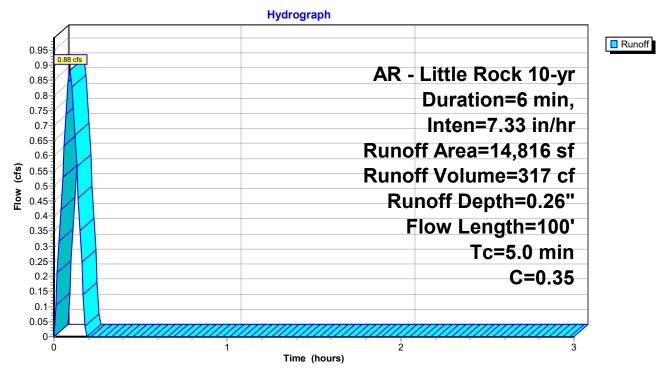
## **Summary for Subcatchment B7: Drainage Basin B7**

Runoff = 0.88 cfs @ 0.09 hrs, Volume= 317 cf, Depth= 0.26" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=7.33 in/hr

Α	rea (sf)	С	Description	1			
14,816  0.35  Sandy Soil 2-7% per manual							
	14,816		100.00% P	ervious Are	ea		
Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description		
0.2	42	0.1667	3.09		Sheet Flow, Rooftop		
					Smooth surfaces n= 0.011 P2= 4.20"		
0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow		
4.3					Smooth surfaces n= 0.011 P2= 4.20"  Direct Entry, Minimum Adjustment		
5.0	100	Total					

### Subcatchment B7: Drainage Basin B7



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## **Summary for Pond CI-A1: CURB INLET A1**

Inflow Area = 9,597 sf, 0.00% Impervious, Inflow Depth = 0.67" for 10-yr event

Inflow = 1.49 cfs @ 0.10 hrs, Volume= 533 cf

Outflow = 1.49 cfs @ 0.09 hrs, Volume= 533 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.49 cfs @ 0.09 hrs, Volume= 533 cf

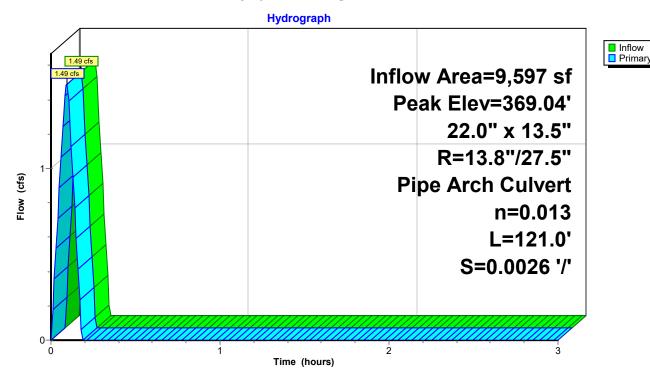
Routed to Pond CI-A2: CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 369.04' @ 0.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	368.50'	22.0" W x 13.5" H, R=13.8"/27.5" Pipe Arch RCP_Arch 22x14 L= 121.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.50' / 368.19' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.65 sf

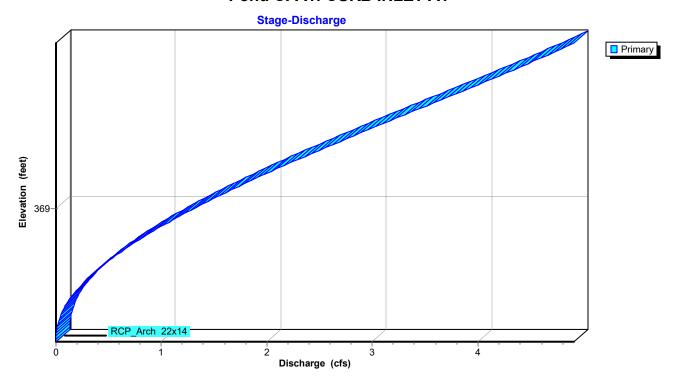
Primary OutFlow Max=1.48 cfs @ 0.09 hrs HW=369.04' (Free Discharge) 1=RCP\_Arch 22x14 (Barrel Controls 1.48 cfs @ 2.53 fps)

#### Pond CI-A1: CURB INLET A1



New Beginnings Drainage AR - Little Rock 10-yr Departed by Phillip Lewis Engineering
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## **Pond CI-A1: CURB INLET A1**



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## Stage-Area-Storage for Pond CI-A1: CURB INLET A1

368.50	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
388.51       0       369.03       0       369.55       0         368.52       0       369.04       0       369.56       0         368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.09       0       369.61       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       369.16       0         368.64       0       369.17       0       368.66       0       369.18       0         368.67       0       369.20       0       368.71       0       369.22       0         368.71       0	368.50				369.54	
368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.58       0         368.55       0       369.07       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.61       0         368.59       0       369.11       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       368.64       0       369.17       0         368.64       0       369.17       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.21       0       368.67       0       369.22       0       368.70       0       369.22       0       368.71	368.51	0	369.03	0	369.55	
388.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.11       0       369.61       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       369.62       0         368.63       0       369.15       0       369.12       0         368.63       0       369.16       0       368.63       0       369.16       0       368.66       0       369.17       0       368.66       0       369.19       0       368.66       0       369.19       0       368.67       0       369.21       0       368.70       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.73       0       369.25       0       368.75	368.52		369.04	0	369.56	
388.55       0       369.08       0       369.60       0         368.56       0       369.09       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.10       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       0       368.63       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.67       0       369.20       0       368.67       0       369.20       0       368.67       0       369.21       0       368.71       0       369.23       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27						
388.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       368.63       0       369.16       0         368.63       0       369.16       0       368.61       0       369.16       0         368.64       0       369.16       0       369.17       0       368.66       0       369.19       0         368.67       0       369.19       0       368.68       0       369.20       0       368.71       0       369.21       0       368.71       0       369.22       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.27						
388.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       368.61       0       369.13       0         368.61       0       369.14       0       368.63       0       369.15       0       368.63       0       369.15       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.19       0       368.67       0       369.19       0       368.67       0       369.19       0       368.67       0       369.20       0       368.69       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.72       0       368.72       0       369.25       0       368.74       0       369.25       0       368.74       0       369.26       0       368.76       0       369.27       0       368.76       0       369.36       0						
368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       0       368.61       0       369.13       0       368.61       0       368.62       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.66       0       369.20       0       0       368.66       0       369.21       0       368.70       0       369.22       0       368.70       0       369.22       0       368.70       0       369.22       0       368.71       0       369.22       0       368.71       0       369.22       0       368.71       0       369.25       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.29       0       368.76       0       369.29       0       368.87       0       369.33       0       368.81						
368.59       0       369.11       0         368.60       0       369.12       0         368.61       0       369.13       0         368.63       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.76       0       369.30       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.60       0       369.12       0         368.61       0       369.13       0         368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.18       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.24       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.77       0       369.32       0         368.78       0       369.31       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td>309.02</td> <td>U</td>					309.02	U
368.61       0       369.13       0         368.62       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.23       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.31       0         368.80       0       369.32       0         368.81       0       369.34       0         368.82       0       369.34       0         368.83       0       369.36       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.36       0         368.84       0       369.36       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.63       0       369.16       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.29       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.38       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.34       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.89       0       369.41       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.39       0         368.86       0       369.39       0         368.87       0       369.39       0 <td>368.64</td> <td></td> <td>369.16</td> <td>0</td> <td></td> <td></td>	368.64		369.16	0		
368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.25       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.38       0         368.86       0       369.38       0         368.87       0       369.34       0         368.88       0       369.40       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.89       0       369.40       0         368.90       0       369.42       0         368.91       0       369.43       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.89       0       369.40       0         368.89       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.30       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.36       0         368.86       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.45       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.79       0       369.31       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.45       0         368.94       0       369.45       0         368.95       0       369.48       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.44       0         368.95       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.42       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.47       0         368.95       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.42       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0 <td></td> <td>0</td> <td>369.27</td> <td>0</td> <td></td> <td></td>		0	369.27	0		
368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.49       0         368.99       0       369.50       0         369.90       0       369.51       0 <td>368.76</td> <td></td> <td>369.28</td> <td>0</td> <td></td> <td></td>	368.76		369.28	0		
368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.44       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.41       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.45       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0			369.37			
368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.97     0     369.49     0       368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0			369.47			
368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0				-		
368.99 0 369.51 0 369.00 0 369.52 0						
369.00 0 369.52 0						
000.01						
	000.01	3	000.00	9		

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## **Summary for Pond CI-A2: CURB INLET A2**

Inflow Area = 11,661 sf, 0.00% Impervious, Inflow Depth = 0.67" for 10-yr event

Inflow = 1.81 cfs @ 0.09 hrs, Volume= 649 cf

Outflow = 1.81 cfs @ 0.09 hrs, Volume= 649 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.81 cfs @ 0.09 hrs, Volume= 649 cf

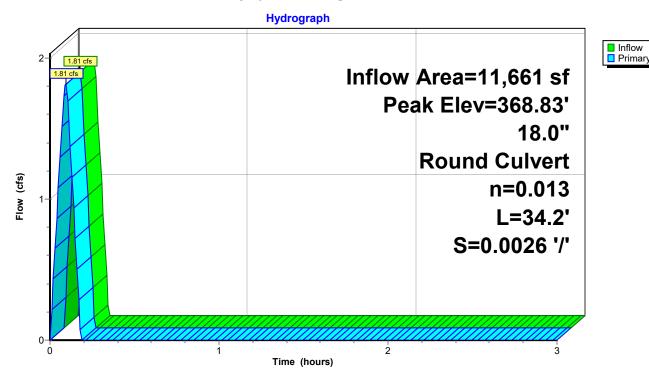
Routed to Link POST-DEV: Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.83' @ 0.09 hrs

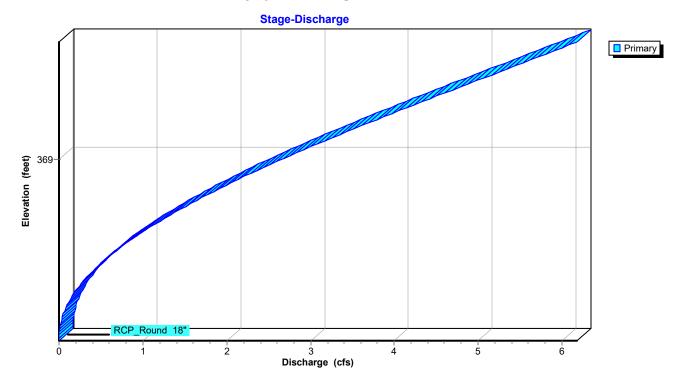
Device	Routing	Invert	Outlet Devices
#1	Primary	368.09'	18.0" Round RCP_Round 18" L= 34.2' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.09' / 368.00' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.80 cfs @ 0.09 hrs HW=368.83' (Free Discharge) 1=RCP\_Round 18" (Barrel Controls 1.80 cfs @ 3.03 fps)

#### Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Stage-Area-Storage for Pond CI-A2: CURB INLET A2

Elevation	Storage	Elevation	Storage	Elevation	Storage
(feet)	(cubic-feet)	(feet)	(cubic-feet)	(feet)	(cubic-feet)
368.09	0	368.61	0	369.13	0
368.10	0	368.62	0	369.14	0
368.11	0	368.63	0	369.15	0
368.12	0	368.64	0	369.16	0
368.13	0	368.65	0	369.17	0
368.14	0	368.66	0	369.18	0
368.15	0	368.67	0	369.19	0
368.16 368.17	0 0	368.68 368.69	0 0	369.20 369.21	0 0
368.18	0	368.70	0	369.22	0
368.19	0	368.71	0	369.23	0
368.20	0	368.72	0	369.24	0
368.21	0	368.73	Ö	369.25	0
368.22	Ö	368.74	Ö	369.26	0
368.23	Ö	368.75	Ö	369.27	Ő
368.24	0	368.76	0	369.28	0
368.25	0	368.77	0	369.29	0
368.26	0	368.78	0	369.30	0
368.27	0	368.79	0	369.31	0
368.28	0	368.80	0	369.32	0
368.29	0	368.81	0	369.33	0
368.30	0	368.82	0	369.34	0
368.31	0	368.83	0	369.35	0
368.32	0	368.84	0	369.36	0
368.33	0	368.85	0	369.37	0
368.34	0	368.86	0	369.38	0
368.35	0	368.87	0	369.39	0
368.36 368.37	0 0	368.88	0 0	369.40 369.41	0 0
368.38	0	368.89 368.90	0	369.42	0
368.39	0	368.91	0	369.42	0
368.40	0	368.92	0	369.44	0
368.41	Ö	368.93	ő	369.45	Ö
368.42	Ö	368.94	Ö	369.46	Ő
368.43	0	368.95	0	369.47	0
368.44	0	368.96	0	369.48	0
368.45	0	368.97	0	369.49	0
368.46	0	368.98	0	369.50	0
368.47	0	368.99	0	369.51	0
368.48	0	369.00	0	369.52	0
368.49	0	369.01	0	369.53	0
368.50	0	369.02	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54 368.55	0 0	369.06 369.07	0 0	369.58 369.59	0
368.56	0	369.08	0	309.39	U
368.57	0	369.08	0		
368.58	0	369.10	0		
368.59	Ö	369.11	Ö		
368.60	Ö	369.12	Ö		

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## **Summary for Link POST-DEV: Post-Development**

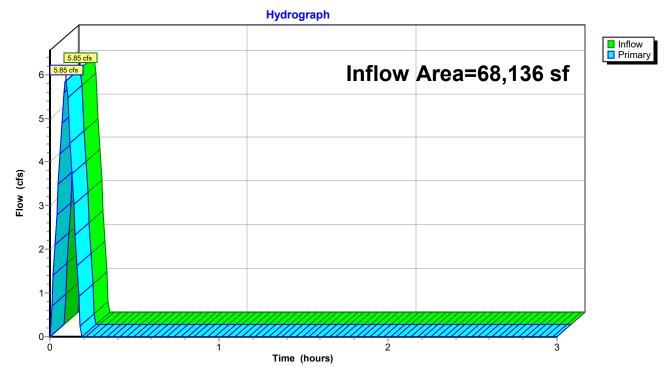
Inflow Area = 68,136 sf, 0.00% Impervious, Inflow Depth = 0.37" for 10-yr event

Inflow = 5.85 cfs @ 0.09 hrs, Volume= 2,096 cf

Primary = 5.85 cfs @ 0.09 hrs, Volume= 2,096 cf, Atten= 0%, Lag= 0.0 min

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

## **Link POST-DEV: Post-Development**



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## **Summary for Subcatchment B1: Drainage Basin B1**

Runoff = 0.16 cfs @ 0.09 hrs, Volume= Routed to Link POST-DEV : Post-Development

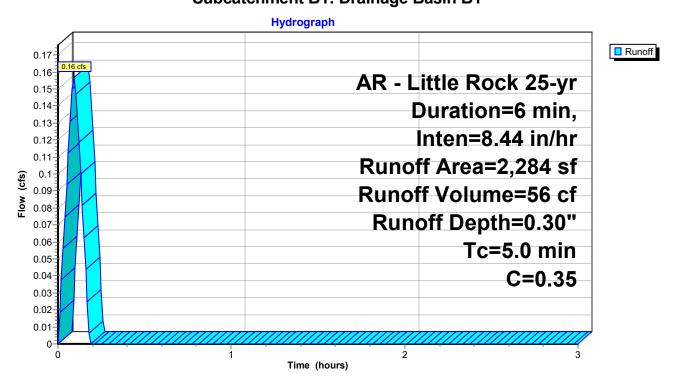
56 cf, Depth= 0.30"

Dunoff by Pational mathed Disa/Fall-1 0/1 0 yTa Tir

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=6 min, Inten=8.44 in/hr

Aı	rea (sf)	С	Description	Description					
	2,284	0.35	Sandy Soil 2-7% per manual						
	0	0.92	Paved Area	Paved Areas					
	2,284	0.35	Weighted A	Weighted Average					
	2,284		100.00% P	ervious Are	ea				
_				_					
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
5.0					Direct Entry, Minimum Adjustment				
	Tc (min)	2,284 2,284 Tc Length (min) (feet)	2,284 0.35 0 0.92 2,284 0.35 2,284 Tc Length Slope (min) (feet) (ft/ft)	2,284 0.35 Sandy Soil	2,284 0.35 Sandy Soil 2-7% per r 0 0.92 Paved Areas  2,284 0.35 Weighted Average 2,284 100.00% Pervious Are  Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs)				

# Subcatchment B1: Drainage Basin B1



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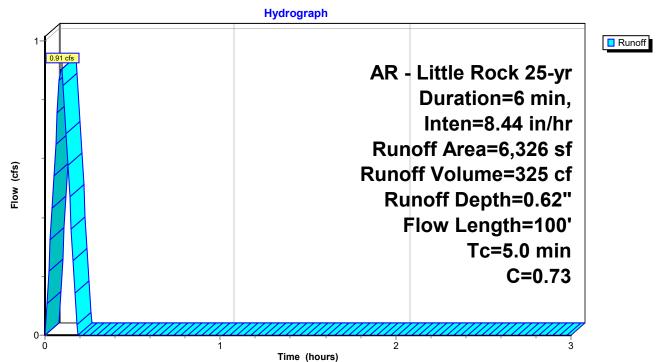
## Summary for Subcatchment B2: Drainage Basin B2

Runoff = 0.91 cfs @ 0.09 hrs, Volume= 325 cf, Depth= 0.62" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=8.44 in/hr

	Area	ı (sf)	С	Description	1	
	2	,115	0.35	Sandy Soil	2-7% per r	manual
	4	,211	0.92	Paved Area	as	
	6	,326	0.73	Weighted A	Average	
	6	,326		100.00% P	ervious Are	ea
-	Tc Le	ength	Slope	Velocity	Capacity	Description
(mi	n)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0	.2	42	0.1667	3.09		Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
0	.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
						Smooth surfaces n= 0.011 P2= 4.20"
4	.3					Direct Entry, Minimum Adjustment
5	.0	100	Total			

## Subcatchment B2: Drainage Basin B2



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#### **Summary for Subcatchment B3: Drainage Basin B3**

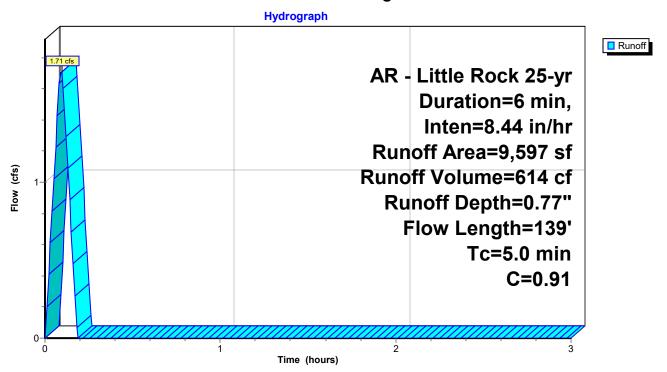
Runoff = 1.71 cfs @ 0.09 hrs, Volume= 614 cf, Depth= 0.77"

Routed to Pond CI-A1: CURB INLET 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=6 min, Inten=8.44 in/hr

A	rea (sf)	С	Description	1	
	155	0.35	Sandy Soil	2-7% per r	manual
	9,442	0.92	Paved Area	as	
	9,597	0.91	Weighted A	Average	
	9,597		100.00% P	ervious Are	<del>e</del> a
_					
Tc	Length	Slope		Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	28	0.1667	2.85		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	30	0.0160	1.13		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	41	0.0520	1.93		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.2	40	0.0360	3.85		Shallow Concentrated Flow, Gutter Flow
					Paved Kv= 20.3 fps
3.8					Direct Entry, Minimum Adjustment
5.0	139	Total			

#### Subcatchment B3: Drainage Basin B3



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## **Summary for Subcatchment B4: Drainage Basin B4**

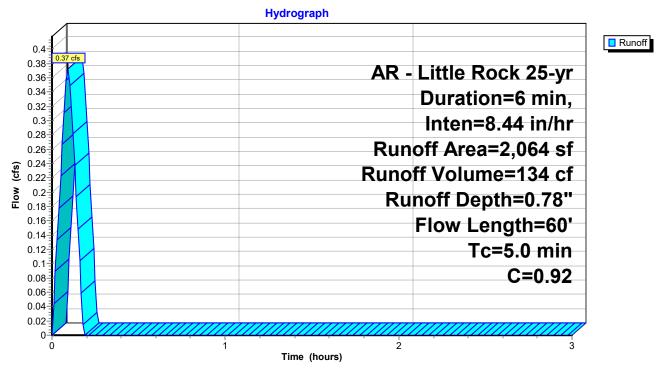
Runoff = 0.37 cfs @ 0.09 hrs, Volume= 134 cf, Depth= 0.78"

Routed to Pond CI-A2: CURB INLET 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=6 min, Inten=8.44 in/hr

	Area (sf)	С	Description	1	
	0	0.35	Sandy Soil	2-7% per r	manual
	2,064	0.92	Paved Area	as ·	
	2,064	0.92	Weighted A	Average	
	2,064		100.00% P	ervious Are	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.6	45	0.0170	1.26		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.0	15	0.0840	5.88		Shallow Concentrated Flow, Gutter Flow
					Paved Kv= 20.3 fps
4.4					Direct Entry, Minimum Adjustment
5.0	60	Total			

## Subcatchment B4: Drainage Basin B4



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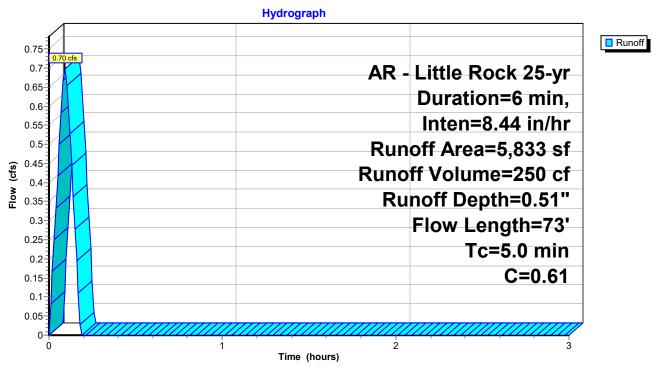
## Summary for Subcatchment B5: Drainage Basin B5

Runoff = 0.70 cfs @ 0.09 hrs, Volume= 250 cf, Depth= 0.51" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=8.44 in/hr

A	rea (sf)	С	Description	า	
	3,123	0.35	Sandy Soil	2-7% per r	manual
	2,710	0.92	Paved Area	as	
	5,833	0.61	Weighted A	Average	
	5,833		100.00% P	ervious Are	ea
Тс	Length	Slope		Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.1	18	0.1667	2.61		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated
					Short Grass Pasture Kv= 7.0 fps
4.5					Direct Entry, Minimum Adjustment
5.0	73	Total			

## Subcatchment B5: Drainage Basin B5



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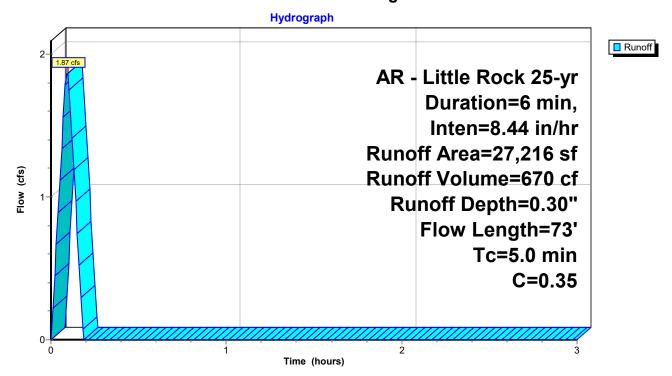
#### **Summary for Subcatchment B6: Drainage Basin B6**

Runoff = 1.87 cfs @ 0.09 hrs, Volume= 670 cf, Depth= 0.30" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=8.44 in/hr

	Α	rea (sf)	С	Description	1	
		27,216	0.35	Sandy Soil	2-7% per r	manual
		27,216		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	•	Capacity (cfs)	Description
	0.1	18	0.1667	2.61	, ,	Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated
	4.5					Short Grass Pasture Kv= 7.0 fps  Direct Entry, Minimum Adjustment
-	5.0	73	Total			Direct Entry, minimum Adjustinent

### Subcatchment B6: Drainage Basin B6



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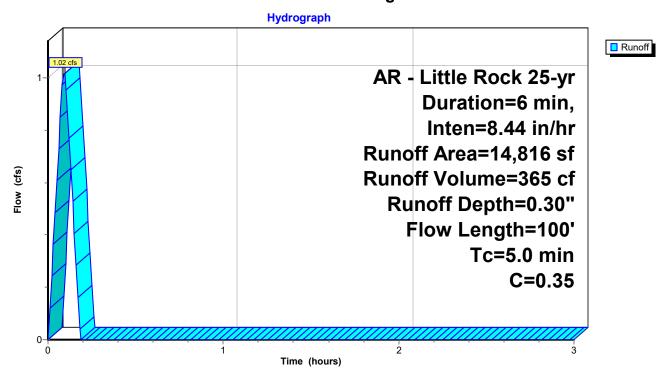
#### **Summary for Subcatchment B7: Drainage Basin B7**

Runoff = 1.02 cfs @ 0.09 hrs, Volume= 365 cf, Depth= 0.30" Routed to Link POST-DEV : Post-Development

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=6 min, Inten=8.44 in/hr

	Α	rea (sf)	С	Description	1	
		14,816	0.35	Sandy Soil	2-7% per r	manual
		14,816		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description
	0.2	42	0.1667	3.09	, ,	Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
	12					Smooth surfaces n= 0.011 P2= 4.20"
_	4.3					Direct Entry, Minimum Adjustment
	5.0	100	Total			

### Subcatchment B7: Drainage Basin B7



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## **Summary for Pond CI-A1: CURB INLET A1**

Inflow Area = 9,597 sf, 0.00% Impervious, Inflow Depth = 0.77" for 25-yr event

Inflow = 1.71 cfs @ 0.09 hrs, Volume= 614 cf

Outflow = 1.73 cfs @ 0.10 hrs, Volume= 614 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.73 cfs @ 0.10 hrs, Volume= 614 cf

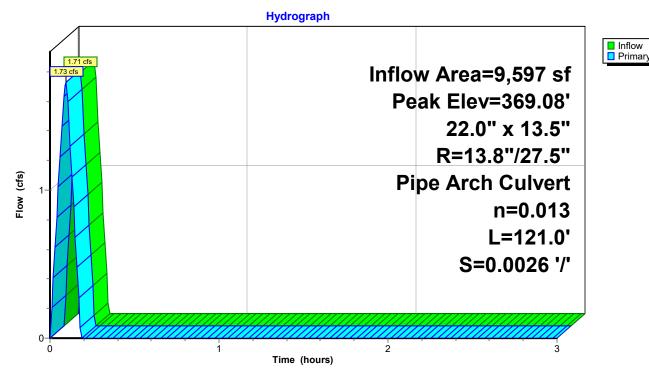
Routed to Pond CI-A2: CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 369.08' @ 0.09 hrs

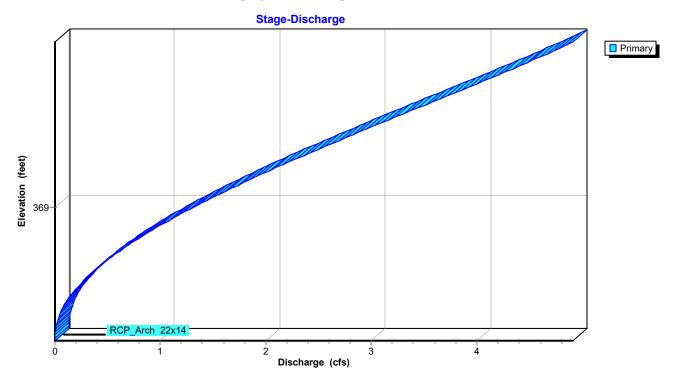
Device	Routing	Invert	Outlet Devices
#1	Primary	368.50'	22.0" W x 13.5" H, R=13.8"/27.5" Pipe Arch RCP_Arch 22x14 L= 121.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.50' / 368.19' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.65 sf

Primary OutFlow Max=1.71 cfs @ 0.10 hrs HW=369.08' (Free Discharge) 1=RCP\_Arch 22x14 (Barrel Controls 1.71 cfs @ 2.64 fps)

#### Pond CI-A1: CURB INLET A1



## **Pond CI-A1: CURB INLET A1**



# Stage-Area-Storage for Pond CI-A1: CURB INLET A1

368.50	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
388.51       0       369.03       0       369.55       0         368.52       0       369.04       0       369.56       0         368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.09       0       369.61       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       369.16       0         368.64       0       369.17       0       368.66       0       369.18       0         368.67       0       369.20       0       368.71       0       369.22       0         368.71       0	368.50				369.54	
368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.58       0         368.55       0       369.07       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.61       0         368.59       0       369.11       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       368.64       0       369.17       0         368.64       0       369.17       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.21       0       368.67       0       369.22       0       368.70       0       369.22       0       368.71	368.51	0	369.03	0	369.55	
388.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.11       0       369.61       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       369.62       0         368.63       0       369.15       0       369.12       0         368.63       0       369.16       0       368.63       0       369.16       0       368.66       0       369.17       0       368.66       0       369.19       0       368.66       0       369.19       0       368.67       0       369.21       0       368.70       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.73       0       369.25       0       368.75	368.52		369.04	0	369.56	
388.55       0       369.08       0       369.60       0         368.56       0       369.09       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.10       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       0       368.63       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.67       0       369.20       0       368.67       0       369.20       0       368.67       0       369.21       0       368.71       0       369.23       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27						
388.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       368.63       0       369.16       0         368.63       0       369.16       0       368.61       0       369.16       0         368.64       0       369.16       0       369.17       0       368.66       0       369.19       0         368.67       0       369.19       0       368.68       0       369.20       0       368.71       0       369.21       0       368.71       0       369.22       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.27						
388.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       368.61       0       369.13       0         368.61       0       369.14       0       368.63       0       369.15       0       368.63       0       369.15       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.19       0       368.67       0       369.19       0       368.67       0       369.19       0       368.67       0       369.20       0       368.69       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.72       0       368.72       0       369.25       0       368.74       0       369.25       0       368.74       0       369.26       0       368.76       0       369.27       0       368.76       0       369.36       0						
368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       0       368.61       0       369.13       0       368.61       0       368.62       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.66       0       369.20       0       0       368.66       0       369.21       0       368.70       0       369.22       0       368.70       0       369.22       0       368.70       0       369.22       0       368.71       0       369.22       0       368.71       0       369.22       0       368.71       0       369.25       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.29       0       368.76       0       369.29       0       368.87       0       369.33       0       368.81						
368.59       0       369.11       0         368.60       0       369.12       0         368.61       0       369.13       0         368.63       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.76       0       369.30       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.60       0       369.12       0         368.61       0       369.13       0         368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.18       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.24       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.77       0       369.32       0         368.78       0       369.31       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td>309.02</td> <td>U</td>					309.02	U
368.61       0       369.13       0         368.62       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.23       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.31       0         368.80       0       369.32       0         368.81       0       369.34       0         368.82       0       369.34       0         368.83       0       369.36       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.36       0         368.84       0       369.36       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.63       0       369.16       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.29       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.38       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.34       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.89       0       369.41       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.39       0         368.86       0       369.39       0         368.87       0       369.39       0 <td>368.64</td> <td></td> <td>369.16</td> <td>0</td> <td></td> <td></td>	368.64		369.16	0		
368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.25       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.38       0         368.86       0       369.38       0         368.87       0       369.34       0         368.88       0       369.40       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.89       0       369.40       0         368.90       0       369.42       0         368.91       0       369.43       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.89       0       369.40       0         368.89       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.30       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.36       0         368.86       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.45       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.79       0       369.31       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.45       0         368.94       0       369.45       0         368.95       0       369.48       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.44       0         368.95       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.42       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.47       0         368.95       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.42       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0 <td></td> <td>0</td> <td>369.27</td> <td>0</td> <td></td> <td></td>		0	369.27	0		
368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.49       0         368.99       0       369.50       0         369.90       0       369.51       0 <td>368.76</td> <td></td> <td>369.28</td> <td>0</td> <td></td> <td></td>	368.76		369.28	0		
368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.44       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.41       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.45       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0			369.37			
368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.97     0     369.49     0       368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0			369.47			
368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0				-		
368.99 0 369.51 0 369.00 0 369.52 0						
369.00 0 369.52 0						
000.01						
	000.01	3	000.00	9		

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#### **Summary for Pond CI-A2: CURB INLET A2**

Inflow Area = 11,661 sf, 0.00% Impervious, Inflow Depth = 0.77" for 25-yr event

Inflow = 2.11 cfs @ 0.10 hrs, Volume= 748 cf

Outflow = 2.11 cfs @ 0.10 hrs, Volume= 748 cf, Atten= 0%, Lag= 0.0 min

Primary = 2.11 cfs @ 0.10 hrs, Volume= 748 cf

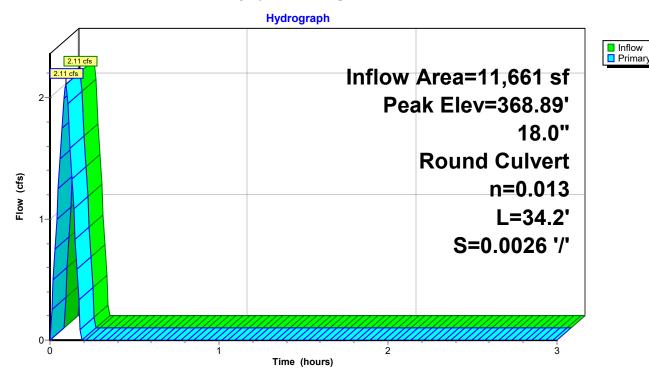
Routed to Link POST-DEV: Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.89' @ 0.09 hrs

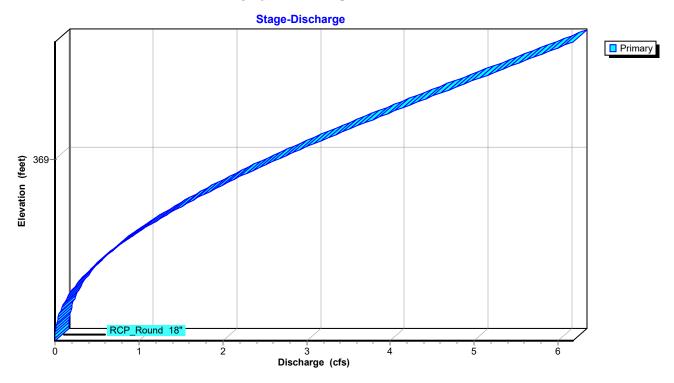
Device	Routing	Invert	Outlet Devices
#1	Primary	368.09'	18.0" Round RCP_Round 18"
			L= 34.2' RCP, rounded edge headwall, Ke= 0.100
			Inlet / Outlet Invert= 368.09' / 368.00' S= 0.0026 '/' Cc= 0.900
			n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.08 cfs @ 0.10 hrs HW=368.89' (Free Discharge) 1=RCP\_Round 18" (Barrel Controls 2.08 cfs @ 3.16 fps)

#### Pond CI-A2: CURB INLET A2



## Pond CI-A2: CURB INLET A2



## Stage-Area-Storage for Pond CI-A2: CURB INLET A2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
368.09	Ó	368.61	Ó	369.13	0
368.10	0	368.62	0	369.14	0
368.11	0	368.63	0	369.15	0
368.12	0	368.64	0	369.16	0
368.13	0	368.65	0	369.17	0
368.14	0	368.66	0	369.18	0
368.15	0	368.67	0	369.19	0
368.16	0	368.68	0	369.20	0
368.17	0 0	368.69	0 0	369.21 369.22	0
368.18 368.19	0	368.70 368.71	0	369.22	0
368.20	0	368.72	0	369.24	0
368.21	Ö	368.73	ő	369.25	ő
368.22	0	368.74	0	369.26	0
368.23	0	368.75	0	369.27	0
368.24	0	368.76	0	369.28	0
368.25	0	368.77	0	369.29	0
368.26	0	368.78	0	369.30	0
368.27	0	368.79	0	369.31	0
368.28	0	368.80	0	369.32	0
368.29 368.30	0 0	368.81 368.82	0 0	369.33 369.34	0
368.31	0	368.83	0	369.35	0
368.32	0	368.84	0	369.36	0
368.33	Ö	368.85	Ő	369.37	Ö
368.34	0	368.86	0	369.38	0
368.35	0	368.87	0	369.39	0
368.36	0	368.88	0	369.40	0
368.37	0	368.89	0	369.41	0
368.38	0	368.90	0	369.42	0
368.39	0	368.91	0	369.43	0
368.40 368.41	0 0	368.92 368.93	0 0	369.44 369.45	0
368.42	0	368.94	0	369.46	0
368.43	Ö	368.95	Ö	369.47	Ő
368.44	Ö	368.96	Ö	369.48	Ö
368.45	0	368.97	0	369.49	0
368.46	0	368.98	0	369.50	0
368.47	0	368.99	0	369.51	0
368.48	0	369.00	0	369.52	0
368.49	0	369.01	0	369.53	0
368.50 368.51	0 0	369.02 369.03	0 0	369.54 369.55	0
368.52	0	369.03	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	Ö	369.06	Ö	369.58	0
368.55	Ö	369.07	Ő	369.59	0
368.56	0	369.08	0		
368.57	0	369.09	0		
368.58	0	369.10	0		
368.59	0	369.11	0		
368.60	0	369.12	0		
		1		1	

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## **Summary for Link POST-DEV: Post-Development**

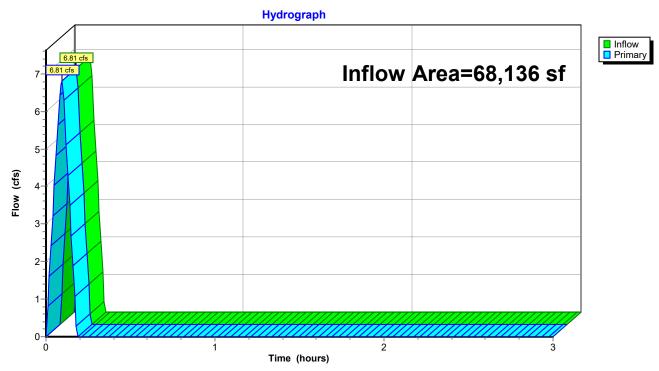
Inflow Area = 68,136 sf, 0.00% Impervious, Inflow Depth = 0.43" for 25-yr event

Inflow = 6.81 cfs @ 0.09 hrs, Volume= 2,414 cf

Primary = 6.81 cfs @ 0.09 hrs, Volume= 2,414 cf, Atten= 0%, Lag= 0.0 min

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

## **Link POST-DEV: Post-Development**



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## **Summary for Subcatchment B1: Drainage Basin B1**

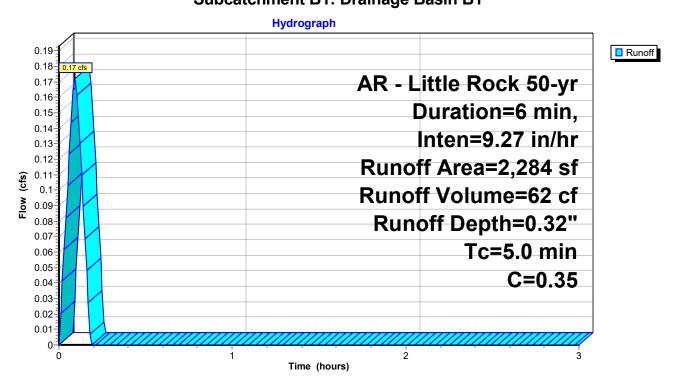
Runoff = 0.17 cfs @ 0.09 hrs, Volume= 62 cf, Depth= 0.32"

Routed to Link POST-DEV : Post-Development

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 50-yr Duration=6 min, Inten=9.27 in/hr

Aı	rea (sf)	С	Description						
	2,284	0.35	Sandy Soil	Sandy Soil 2-7% per manual					
	0	0.92	Paved Area	· ·					
	2,284	0.35	Weighted A	Veighted Average					
	2,284		100.00% P	100.00% Pervious Area					
_				_					
Tc	Length	Slope	Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
5.0					Direct Entry, Minimum Adjustment				
	Tc (min)	2,284 2,284 Tc Length (min) (feet)	2,284 0.35 0 0.92 2,284 0.35 2,284 Tc Length Slope (min) (feet) (ft/ft)	2,284 0.35 Sandy Soil	2,284 0.35 Sandy Soil 2-7% per r 0 0.92 Paved Areas  2,284 0.35 Weighted Average 2,284 100.00% Pervious Are  Tc Length Slope Velocity Capacity (min) (feet) (ft/ft) (ft/sec) (cfs)				

# Subcatchment B1: Drainage Basin B1



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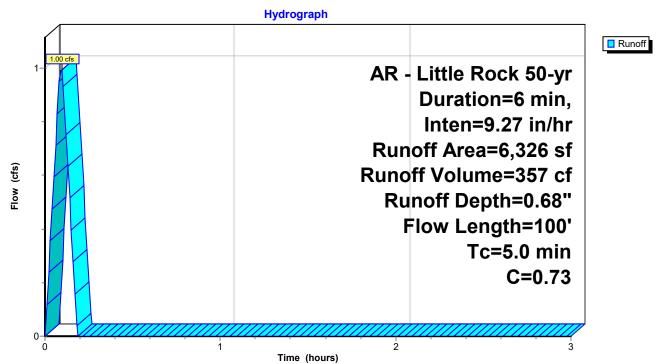
## Summary for Subcatchment B2: Drainage Basin B2

Runoff = 1.00 cfs @ 0.09 hrs, Volume= 357 cf, Depth= 0.68" Routed to Link POST-DEV: Post-Development

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 50-yr Duration=6 min, Inten=9.27 in/hr

_	Α	rea (sf)	С	Description	1	
		2,115	0.35	Sandy Soil	2-7% per r	manual
_		4,211	0.92	Paved Area	as	
		6,326	0.73	Weighted A	Average	
		6,326		100.00% P	ervious Are	ea
	Тс	Length	Slope	•	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.2	42	0.1667	3.09		Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
						Smooth surfaces n= 0.011 P2= 4.20"
	4.3					Direct Entry, Minimum Adjustment
	5.0	100	Total	•	•	

## Subcatchment B2: Drainage Basin B2



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## **Summary for Subcatchment B3: Drainage Basin B3**

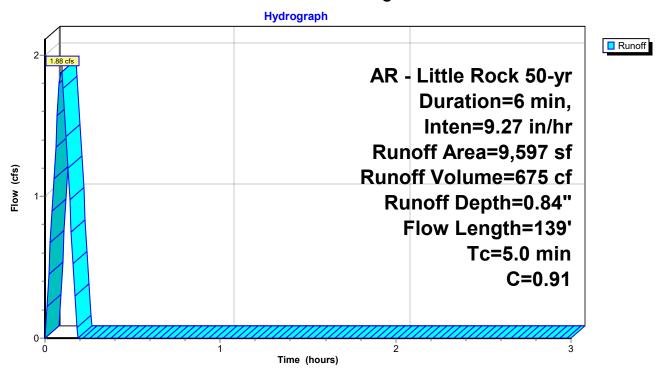
Runoff = 1.88 cfs @ 0.09 hrs, Volume= 675 cf, Depth= 0.84"

Routed to Pond CI-A1: CURB INLET 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 50-yr Duration=6 min, Inten=9.27 in/hr

A	rea (sf)	С	Description	1	
	155	0.35	Sandy Soil	2-7% per r	manual
	9,442	0.92	Paved Area	as	
	9,597	0.91	Weighted A	Average	
	9,597		100.00% P	ervious Are	ea
_					
Tc	3	Slope		Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	28	0.1667	2.85		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	30	0.0160	1.13		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	41	0.0520	1.93		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.2	40	0.0360	3.85		Shallow Concentrated Flow, Gutter Flow
					Paved Kv= 20.3 fps
3.8					Direct Entry, Minimum Adjustment
5.0	139	Total			

#### Subcatchment B3: Drainage Basin B3



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#### **Summary for Subcatchment B4: Drainage Basin B4**

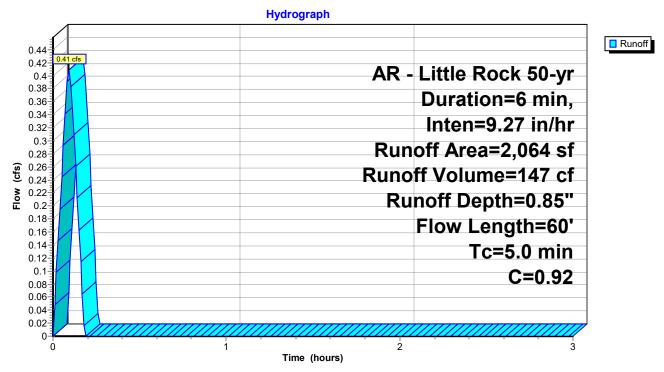
Runoff = 0.41 cfs @ 0.09 hrs, Volume= 147 cf, Depth= 0.85"

Routed to Pond CI-A2: CURB INLET 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 50-yr Duration=6 min, Inten=9.27 in/hr

 Aı	rea (sf)	С	Description					
	0	0.35	Sandy Soil	2-7% per r	manual			
	2,064	0.92	Paved Area	as				
	2,064	0.92	Weighted A	Average				
	2,064		100.00% P	ervious Are	ea			
Тс	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
0.6	45	0.0170	1.26		Sheet Flow, Asphalt Sheet Flow			
					Smooth surfaces n= 0.011 P2= 4.20"			
0.0	15	0.0840	5.88		Shallow Concentrated Flow, Gutter Flow			
					Paved Kv= 20.3 fps			
 4.4					Direct Entry, Minimum Adjustment			
5.0	60	Total						

### Subcatchment B4: Drainage Basin B4



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## **Summary for Subcatchment B5: Drainage Basin B5**

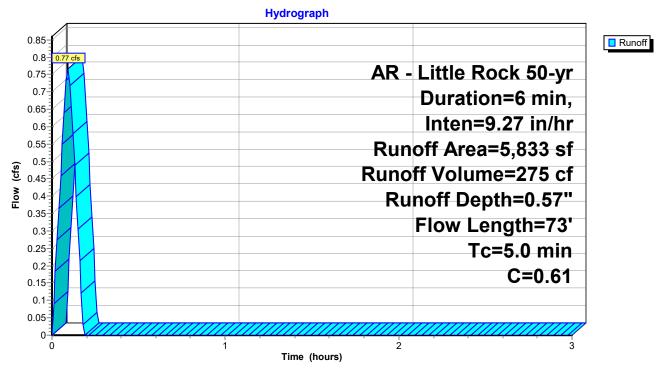
Runoff = 0.77 cfs @ 0.09 hrs, Volume= 275 cf, Depth= 0.57"

Routed to Link POST-DEV: Post-Development

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 50-yr Duration=6 min, Inten=9.27 in/hr

	Area (sf)	С	Description	1	
	3,123	0.35	Sandy Soil	2-7% per r	manual
	2,710	0.92	Paved Area	as	
	5,833	0.61	Weighted A	Average	
	5,833		100.00% P	ervious Are	ea
Tc	Length	Slope	Velocity	Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.1	18	0.1667	2.61		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated
					Short Grass Pasture Kv= 7.0 fps
4.5					Direct Entry, Minimum Adjustment
5.0	73	Total			

## Subcatchment B5: Drainage Basin B5



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## Summary for Subcatchment B6: Drainage Basin B6

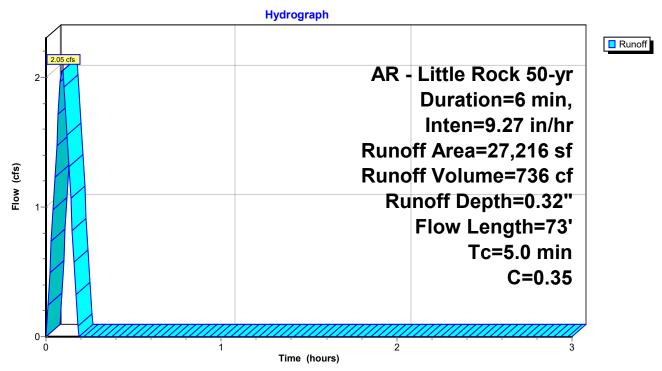
Runoff = 2.05 cfs @ 0.09 hrs, Volume= 736 cf, Depth= 0.32"

Routed to Link POST-DEV: Post-Development

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 50-yr Duration=6 min, Inten=9.27 in/hr

	Α	rea (sf)	С	Description	1	
	27,216 0.35 Sandy Soil 2-7% per n					manual
	27,216 1			100.00% Pervious Area		
	Tc (min)	Length (feet)	Slope (ft/ft)	•	Capacity (cfs)	Description
	0.1	18	0.1667	2.61	, ,	Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated
	4.5					Short Grass Pasture Kv= 7.0 fps  Direct Entry, Minimum Adjustment
_	5.0	73	Total			Direct Entry, minimum Adjustinent

### Subcatchment B6: Drainage Basin B6



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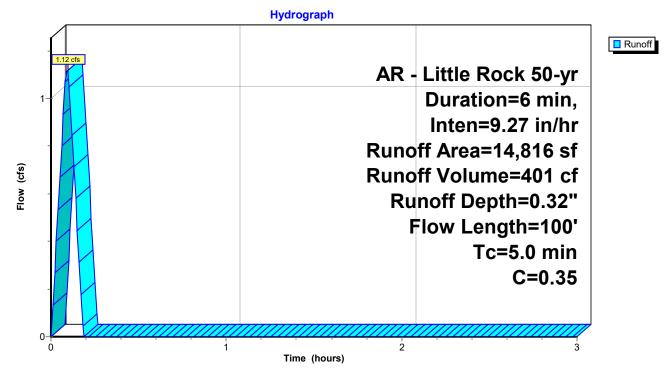
## **Summary for Subcatchment B7: Drainage Basin B7**

Runoff = 1.12 cfs @ 0.09 hrs, Volume= 401 cf, Depth= 0.32" Routed to Link POST-DEV : Post-Development

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 50-yr Duration=6 min, Inten=9.27 in/hr

_	Α	rea (sf)	С	Description	1	
		14,816	0.35	Sandy Soil	2-7% per r	manual
	14,816 100.00% Perviou				ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	•	Capacity (cfs)	Description
-	0.2	42	0.1667	3.09	, ,	Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
	4.0					Smooth surfaces n= 0.011 P2= 4.20"
_	4.3					Direct Entry, Minimum Adjustment
	5.0	100	Total			

### Subcatchment B7: Drainage Basin B7



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## **Summary for Pond CI-A1: CURB INLET A1**

Inflow Area = 9,597 sf, 0.00% Impervious, Inflow Depth = 0.84" for 50-yr event

Inflow = 1.88 cfs @ 0.09 hrs, Volume= 675 cf

Outflow = 1.88 cfs @ 0.09 hrs, Volume= 675 cf, Atten= 0%, Lag= 0.0 min

Primary = 1.88 cfs @ 0.09 hrs, Volume= 675 cf

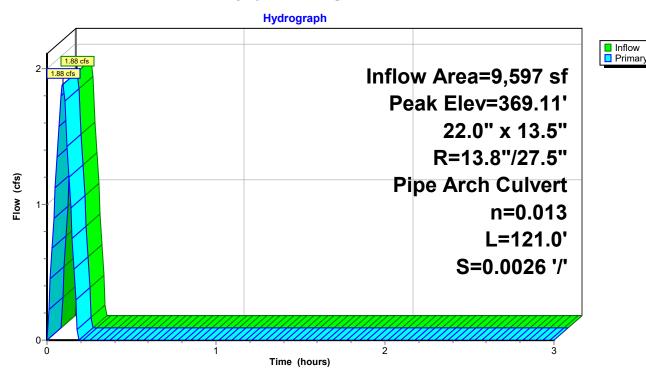
Routed to Pond CI-A2: CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 369.11' @ 0.09 hrs

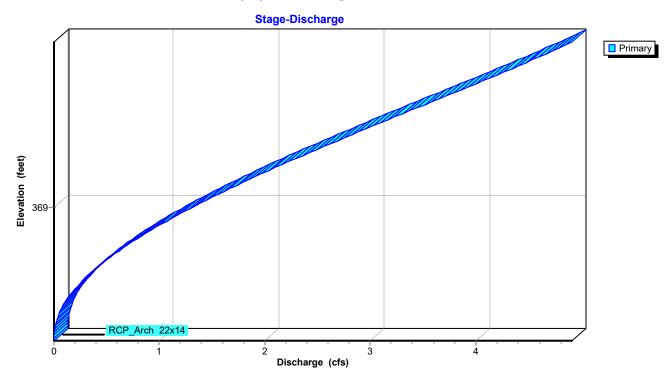
Device	Routing	Invert	Outlet Devices
#1	Primary	368.50'	22.0" W x 13.5" H, R=13.8"/27.5" Pipe Arch RCP_Arch 22x14 L= 121.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.50' / 368.19' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.65 sf

Primary OutFlow Max=1.87 cfs @ 0.09 hrs HW=369.11' (Free Discharge) 1=RCP\_Arch 22x14 (Barrel Controls 1.87 cfs @ 2.72 fps)

#### Pond CI-A1: CURB INLET A1



#### **Pond CI-A1: CURB INLET A1**



## Stage-Area-Storage for Pond CI-A1: CURB INLET A1

368.50	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
388.51       0       369.03       0       369.55       0         368.52       0       369.04       0       369.56       0         368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.09       0       369.61       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       369.16       0         368.64       0       369.17       0       368.66       0       369.18       0         368.67       0       369.20       0       368.71       0       369.22       0         368.71       0	368.50				369.54	
368.53       0       369.05       0       369.57       0         368.54       0       369.06       0       369.58       0         368.55       0       369.07       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.61       0         368.59       0       369.11       0       369.62       0         368.60       0       369.11       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       368.64       0       369.17       0         368.64       0       369.17       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.21       0       368.67       0       369.22       0       368.70       0       369.22       0       368.71	368.51	0	369.03	0	369.55	
388.54       0       369.06       0       369.59       0         368.55       0       369.08       0       369.59       0         368.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.11       0       369.61       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       369.62       0         368.63       0       369.15       0       369.12       0         368.63       0       369.16       0       368.63       0       369.16       0       368.66       0       369.17       0       368.66       0       369.19       0       368.66       0       369.19       0       368.67       0       369.21       0       368.70       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.73       0       369.25       0       368.75	368.52		369.04	0	369.56	
388.55       0       369.08       0       369.60       0         368.56       0       369.09       0       369.60       0         368.57       0       369.09       0       369.61       0         368.59       0       369.10       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.12       0       369.62       0         368.62       0       369.13       0       369.62       0         368.63       0       369.15       0       0       368.63       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.67       0       369.20       0       368.67       0       369.20       0       368.67       0       369.21       0       368.71       0       369.22       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27						
388.56       0       369.08       0       369.60       0         368.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       369.62       0         368.61       0       369.13       0       369.62       0         368.62       0       369.14       0       368.63       0       369.16       0         368.63       0       369.16       0       368.61       0       369.16       0         368.64       0       369.16       0       369.17       0       368.66       0       369.19       0         368.67       0       369.19       0       368.68       0       369.20       0       368.71       0       369.21       0       368.71       0       369.22       0       368.71       0       369.23       0       368.72       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.27						
388.57       0       369.09       0       369.61       0         368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       368.61       0       369.13       0         368.61       0       369.14       0       368.63       0       369.15       0       368.63       0       369.15       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.17       0       368.66       0       369.19       0       368.67       0       369.19       0       368.67       0       369.19       0       368.67       0       369.20       0       368.69       0       369.21       0       368.70       0       369.22       0       368.71       0       369.22       0       368.72       0       368.72       0       369.25       0       368.74       0       369.25       0       368.74       0       369.26       0       368.76       0       369.27       0       368.76       0       369.32       0						
368.58       0       369.10       0       369.62       0         368.59       0       369.11       0       369.62       0         368.60       0       369.12       0       0       368.61       0       369.13       0       368.61       0       368.62       0       369.15       0       0       368.64       0       369.16       0       368.65       0       369.16       0       368.65       0       369.17       0       368.66       0       369.18       0       368.67       0       369.19       0       368.66       0       369.20       0       0       368.66       0       369.21       0       368.70       0       369.22       0       368.70       0       369.22       0       368.70       0       369.22       0       368.71       0       369.22       0       368.71       0       369.22       0       368.71       0       369.25       0       368.73       0       369.25       0       368.74       0       369.27       0       368.76       0       369.29       0       368.76       0       369.29       0       368.87       0       369.33       0       368.81						
368.59       0       369.11       0         368.60       0       369.12       0         368.61       0       369.13       0         368.63       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.76       0       369.30       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.60       0       369.12       0         368.61       0       369.13       0         368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.18       0         368.66       0       369.19       0         368.67       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.24       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.29       0         368.77       0       369.32       0         368.78       0       369.31       0         368.79       0       369.31       0         368.80       0       369.34       0         368.81       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td>309.02</td> <td>U</td>					309.02	U
368.61       0       369.13       0         368.62       0       369.14       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.19       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.23       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.31       0         368.80       0       369.32       0         368.81       0       369.34       0         368.82       0       369.34       0         368.83       0       369.35       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.62       0       369.15       0         368.63       0       369.15       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.36       0         368.84       0       369.36       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.63       0       369.16       0         368.64       0       369.16       0         368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.29       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.38       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.65       0       369.17       0         368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.70       0       369.21       0         368.71       0       369.22       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.26       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.39       0         368.86       0       369.39       0         368.89       0       369.41       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.66       0       369.18       0         368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.25       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.39       0         368.86       0       369.39       0         368.87       0       369.39       0 <td>368.64</td> <td></td> <td>369.16</td> <td>0</td> <td></td> <td></td>	368.64		369.16	0		
368.67       0       369.19       0         368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.25       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.38       0         368.86       0       369.38       0         368.87       0       369.34       0         368.88       0       369.40       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.68       0       369.20       0         368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.78       0       369.29       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.89       0       369.40       0         368.90       0       369.42       0         368.91       0       369.43       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.69       0       369.21       0         368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.28       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.81       0       369.32       0         368.82       0       369.33       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.89       0       369.40       0         368.89       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.70       0       369.22       0         368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.30       0         368.78       0       369.30       0         368.80       0       369.31       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.36       0         368.86       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.71       0       369.23       0         368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.89       0       369.31       0         368.80       0       369.32       0         368.81       0       369.32       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.35       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.89       0       369.40       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.45       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.72       0       369.24       0         368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.79       0       369.31       0         368.80       0       369.31       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.45       0         368.94       0       369.45       0         368.95       0       369.48       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.73       0       369.25       0         368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.94       0       369.44       0         368.95       0       369.46       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.74       0       369.26       0         368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.42       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.47       0         368.95       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.75       0       369.27       0         368.76       0       369.28       0         368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.39       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.77       0       369.29       0         368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.42       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.47       0         368.98       0       369.49       0         368.98       0       369.50       0 <td></td> <td>0</td> <td>369.27</td> <td>0</td> <td></td> <td></td>		0	369.27	0		
368.78       0       369.30       0         368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.90       0       369.41       0         368.91       0       369.42       0         368.92       0       369.44       0         368.93       0       369.46       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.49       0         368.99       0       369.50       0         369.90       0       369.51       0 <td>368.76</td> <td></td> <td>369.28</td> <td>0</td> <td></td> <td></td>	368.76		369.28	0		
368.79       0       369.31       0         368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.44       0         368.94       0       369.46       0         368.95       0       369.48       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
368.80       0       369.32       0         368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.99       0       369.41       0         368.91       0       369.42       0         368.92       0       369.43       0         368.93       0       369.44       0         368.94       0       369.45       0         368.95       0       369.46       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.81       0       369.33       0         368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.45       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.82       0       369.34       0         368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.83       0       369.35       0         368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.84       0       369.36       0         368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.85       0       369.37       0         368.86       0       369.38       0         368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.87       0       369.39       0         368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0			369.37			
368.88       0       369.40       0         368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.89       0       369.41       0         368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.90       0       369.42       0         368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.91       0       369.43       0         368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.92       0       369.44       0         368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.93       0       369.45       0         368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.94       0       369.46       0         368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.95       0       369.47       0         368.96       0       369.48       0         368.97       0       369.49       0         368.98       0       369.50       0         368.99       0       369.51       0         369.00       0       369.52       0						
368.97     0     369.49     0       368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0			369.47			
368.98     0     369.50     0       368.99     0     369.51     0       369.00     0     369.52     0				-		
368.99 0 369.51 0 369.00 0 369.52 0						
369.00 0 369.52 0						
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	000.01	3	000.00	9		

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#### **Summary for Pond CI-A2: CURB INLET A2**

Inflow Area = 11,661 sf, 0.00% Impervious, Inflow Depth = 0.85" for 50-yr event

Inflow = 2.29 cfs @ 0.09 hrs, Volume= 821 cf

Outflow = 2.29 cfs @ 0.09 hrs, Volume= 821 cf, Atten= 0%, Lag= 0.0 min

Primary = 2.29 cfs @ 0.09 hrs, Volume= 821 cf

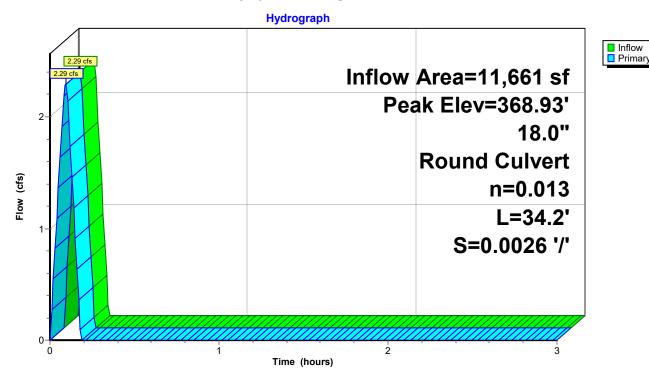
Routed to Link POST-DEV: Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.93' @ 0.09 hrs

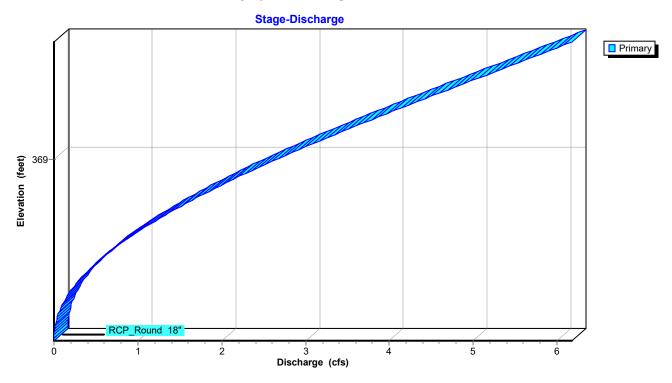
Device	Routing	Invert	Outlet Devices
#1	Primary		18.0" Round RCP_Round 18" L= 34.2' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.09' / 368.00' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.28 cfs @ 0.09 hrs HW=368.93' (Free Discharge) 1=RCP\_Round 18" (Barrel Controls 2.28 cfs @ 3.24 fps)

#### Pond CI-A2: CURB INLET A2



#### Pond CI-A2: CURB INLET A2



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## Stage-Area-Storage for Pond CI-A2: CURB INLET A2

Elevation	Storage	Elevation	Storage	Elevation	Storage
(feet)	(cubic-feet)	(feet)	(cubic-feet)	(feet)	(cubic-feet)
368.09	0	368.61	0	369.13	0
368.10	0	368.62	0	369.14	0
368.11	0	368.63	0	369.15	0
368.12	0	368.64	0	369.16	0
368.13	0	368.65	0	369.17	0
368.14	0	368.66	0	369.18	0
368.15	0	368.67	0	369.19	0
368.16	0	368.68	0	369.20	0
368.17	0	368.69	0	369.21	0
368.18	0	368.70	0	369.22	0
368.19	0	368.71	0	369.23	0
368.20	0	368.72	0	369.24	0
368.21	0	368.73	0	369.25	0
368.22 368.23	0 0	368.74 368.75	0	369.26 369.27	0 0
368.24	0		0		0
368.25	0	368.76 368.77	0	369.28 369.29	0
368.26	0	368.78	0	369.29	0
368.27	0	368.79	0	369.31	0
368.28	0	368.80	0	369.32	0
368.29	0	368.81	0	369.33	0
368.30	0	368.82	0	369.34	0
368.31	0	368.83	0	369.35	0
368.32	0	368.84	0	369.36	0
368.33	0	368.85	0	369.37	0
368.34	0	368.86	0	369.38	0
368.35	0	368.87	0	369.39	0
368.36	0	368.88	Ö	369.40	0
368.37	Ö	368.89	Ö	369.41	Ö
368.38	Ö	368.90	Ö	369.42	0
368.39	Ő	368.91	ő	369.43	Ö
368.40	Ö	368.92	Ö	369.44	0
368.41	Ö	368.93	Ö	369.45	Ő
368.42	0	368.94	0	369.46	0
368.43	0	368.95	0	369.47	0
368.44	0	368.96	0	369.48	0
368.45	0	368.97	0	369.49	0
368.46	0	368.98	0	369.50	0
368.47	0	368.99	0	369.51	0
368.48	0	369.00	0	369.52	0
368.49	0	369.01	0	369.53	0
368.50	0	369.02	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	0	369.06	0	369.58	0
368.55	0	369.07	0	369.59	0
368.56	0	369.08	0		
368.57	0	369.09	0		
368.58	0	369.10	0		
368.59	0	369.11	0		
368.60	0	369.12	0		

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#### **Summary for Link POST-DEV: Post-Development**

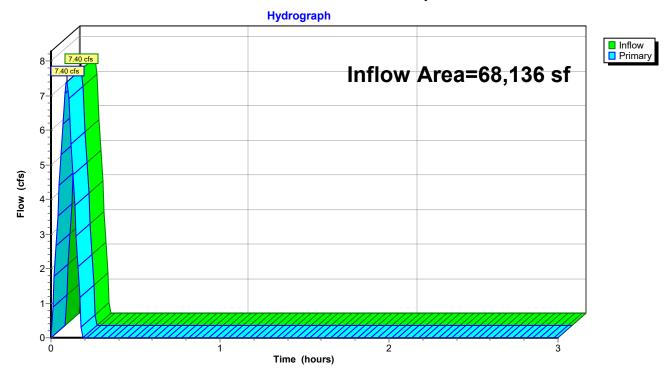
Inflow Area = 68,136 sf, 0.00% Impervious, Inflow Depth = 0.47" for 50-yr event

Inflow = 7.40 cfs @ 0.09 hrs, Volume= 2,651 cf

Primary = 7.40 cfs @ 0.09 hrs, Volume= 2,651 cf, Atten= 0%, Lag= 0.0 min

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

#### **Link POST-DEV: Post-Development**



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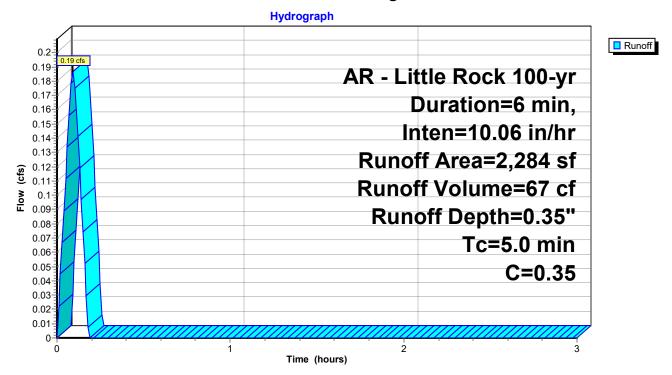
#### **Summary for Subcatchment B1: Drainage Basin B1**

Runoff = 0.19 cfs @ 0.09 hrs, Volume= 67 cf, Depth= 0.35" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=10.06 in/hr

A	rea (sf)	С	Description	1					
	2,284	0.35	Sandy Soil	andy Soil 2-7% per manual					
	0	0.92	Paved Area	aved Areas					
	2,284	0.35	Weighted A	/eighted Average					
	2,284		100.00% P	ervious Are	ea				
_				_					
Tc	Length	Slope	· Velocity	Capacity	Description				
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)					
5.0					Direct Entry, Minimum Adjustment				

#### Subcatchment B1: Drainage Basin B1



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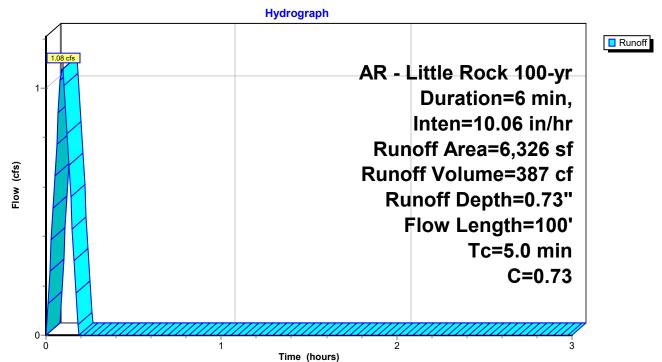
#### **Summary for Subcatchment B2: Drainage Basin B2**

Runoff = 1.08 cfs @ 0.09 hrs, Volume= 387 cf, Depth= 0.73" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=10.06 in/hr

	rea (sf)	С	Description	1	
	2,115	0.35	Sandy Soil	2-7% per r	manual
	4,211	0.92	Paved Area	as	
	6,326	0.73	Weighted A	Average	
	6,326		100.00% P	ervious Are	ea
Tc	Length	Slope		Capacity	Description
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	42	0.1667	3.09		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
4.3					Direct Entry, Minimum Adjustment
5.0	100	Total			

#### Subcatchment B2: Drainage Basin B2



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#### **Summary for Subcatchment B3: Drainage Basin B3**

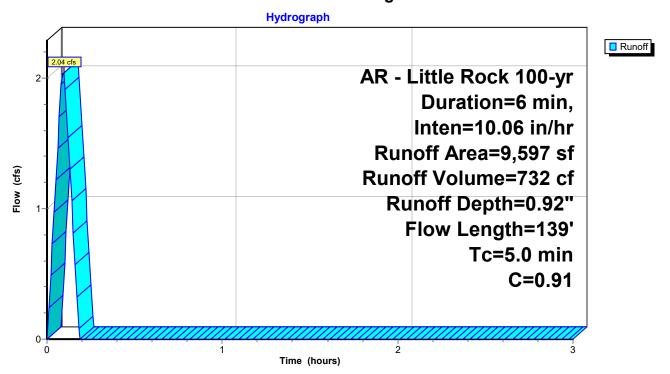
Runoff = 2.04 cfs @ 0.09 hrs, Volume= 732 cf, Depth= 0.92"

Routed to Pond CI-A1: CURB INLET 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=6 min, Inten=10.06 in/hr

A	rea (sf)	С	Description	1	
	155	0.35	Sandy Soil	2-7% per r	manual
	9,442	0.92	Paved Area	as	
	9,597	0.91	Weighted A	Average	
	9,597		100.00% P	ervious Are	<del>e</del> a
_				_	
Tc	Length	Slope	•	Capacity	Description
(min)_	(feet)	(ft/ft)	(ft/sec)	(cfs)	
0.2	28	0.1667	2.85		Sheet Flow, Rooftop
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	30	0.0160	1.13		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.4	41	0.0520	1.93		Sheet Flow, Asphalt Sheet Flow
					Smooth surfaces n= 0.011 P2= 4.20"
0.2	40	0.0360	3.85		Shallow Concentrated Flow, Gutter Flow
					Paved Kv= 20.3 fps
3.8					Direct Entry, Minimum Adjustment
5.0	139	Total			

#### Subcatchment B3: Drainage Basin B3



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#### **Summary for Subcatchment B4: Drainage Basin B4**

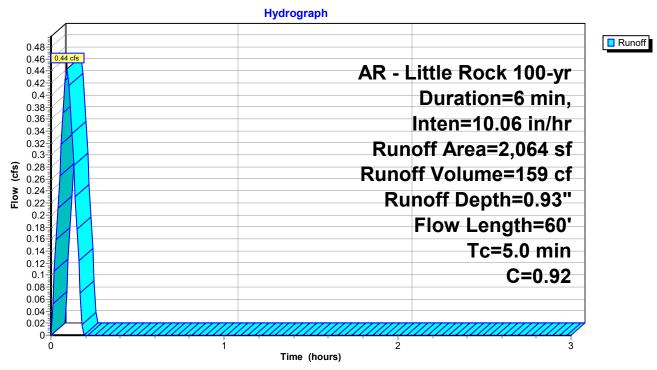
Runoff 0.44 cfs @ 0.09 hrs, Volume= 159 cf, Depth= 0.93"

Routed to Pond CI-A2: CURB INLET 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=6 min, Inten=10.06 in/hr

_	Aı	rea (sf)	С	Description	1	
		0	0.35	Sandy Soil	2-7% per r	manual
		2,064	0.92	Paved Area	as	
		2,064	0.92	Weighted A	Average	
		2,064		100.00% P	ervious Are	ea
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.6	45	0.0170	1.26		Sheet Flow, Asphalt Sheet Flow
						Smooth surfaces n= 0.011 P2= 4.20"
	0.0	15	0.0840	5.88		Shallow Concentrated Flow, Gutter Flow
						Paved Kv= 20.3 fps
	4.4					Direct Entry, Minimum Adjustment
	5.0	60	Total			

#### Subcatchment B4: Drainage Basin B4



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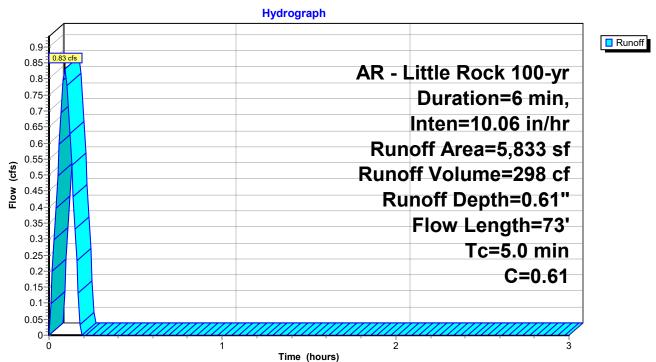
#### **Summary for Subcatchment B5: Drainage Basin B5**

Runoff = 0.83 cfs @ 0.09 hrs, Volume= 298 cf, Depth= 0.61" Routed to Link POST-DEV: Post-Development

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=6 min, Inten=10.06 in/hr

_	Aı	rea (sf)	С	Description	1	
		3,123	0.35	Sandy Soil	2-7% per r	manual
_		2,710	0.92	Paved Area	as	
		5,833	0.61	Weighted A	Average	
		5,833		100.00% P	ervious Are	ea ea
	_					
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	0.1	18	0.1667	2.61		Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated
						Short Grass Pasture Kv= 7.0 fps
	4.5					Direct Entry, Minimum Adjustment
	5.0	73	Total			

#### Subcatchment B5: Drainage Basin B5



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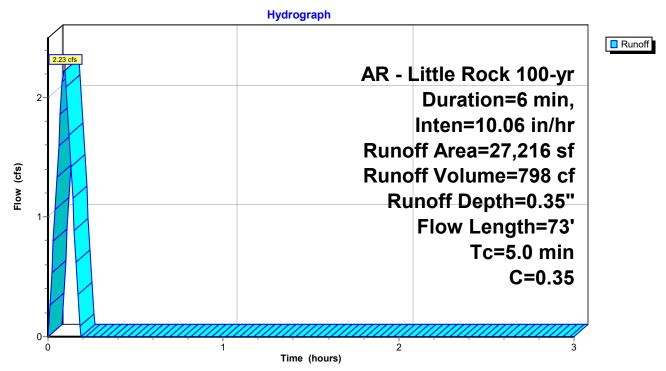
#### **Summary for Subcatchment B6: Drainage Basin B6**

798 cf, Depth= 0.35" Runoff 2.23 cfs @ 0.09 hrs, Volume= Routed to Link POST-DEV: Post-Development

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=6 min, Inten=10.06 in/hr

_	Α	rea (sf)	С	Description	1		
		27,216	0.35	Sandy Soil	2-7% per r	manual	
		27,216		100.00% Pervious Area			
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description	
	0.1	18	0.1667	2.61	, ,	Sheet Flow, Rooftop	
						Smooth surfaces n= 0.011 P2= 4.20"	
	0.4	55	0.0860	2.05		Shallow Concentrated Flow, Overland Concentrated	
	4.5					Short Grass Pasture Kv= 7.0 fps	
_	4.5					Direct Entry, Minimum Adjustment	
	5.0	73	Total				

#### Subcatchment B6: Drainage Basin B6



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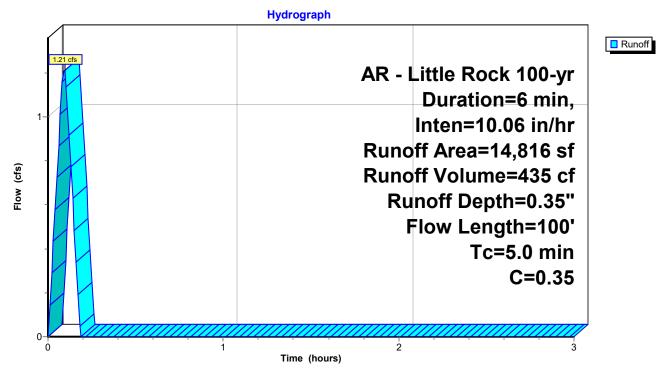
#### **Summary for Subcatchment B7: Drainage Basin B7**

435 cf, Depth= 0.35" Runoff 1.21 cfs @ 0.09 hrs, Volume= Routed to Link POST-DEV: Post-Development

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=6 min, Inten=10.06 in/hr

	Α	rea (sf)	С	Description	1	
		14,816	0.35	Sandy Soil	2-7% per r	manual
		14,816		100.00% P	ervious Are	ea
	Tc (min)	Length (feet)	Slope (ft/ft)	,	Capacity (cfs)	Description
	0.2	42	0.1667	3.09	, ,	Sheet Flow, Rooftop
						Smooth surfaces n= 0.011 P2= 4.20"
	0.5	58	0.0500	2.04		Sheet Flow, Asphalt Sheet Flow
	12					Smooth surfaces n= 0.011 P2= 4.20"
_	4.3					Direct Entry, Minimum Adjustment
	5.0	100	Total			

#### Subcatchment B7: Drainage Basin B7



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#### **Summary for Pond CI-A1: CURB INLET A1**

Inflow Area = 9,597 sf, 0.00% Impervious, Inflow Depth = 0.92" for 100-yr event

Inflow = 2.04 cfs @ 0.09 hrs, Volume= 732 cf

Outflow = 2.04 cfs @ 0.09 hrs, Volume= 732 cf, Atten= 0%, Lag= 0.0 min

Primary = 2.04 cfs @ 0.09 hrs, Volume= 732 cf

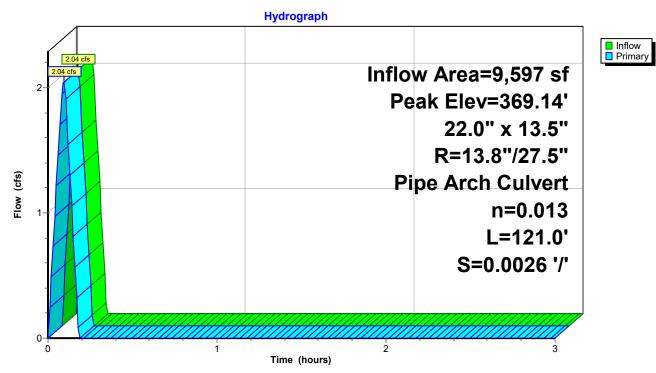
Routed to Pond CI-A2: CURB INLET A2

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 369.14' @ 0.09 hrs

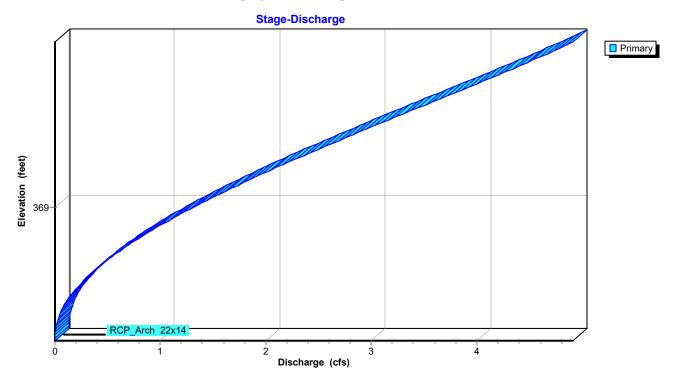
Device	Routing	Invert	Outlet Devices
	Primary	368.50'	22.0" W x 13.5" H, R=13.8"/27.5" Pipe Arch RCP_Arch 22x14 L= 121.0' RCP, rounded edge headwall, Ke= 0.100 Inlet / Outlet Invert= 368.50' / 368.19' S= 0.0026 '/' Cc= 0.900 n= 0.013, Flow Area= 1.65 sf

Primary OutFlow Max=2.03 cfs @ 0.09 hrs HW=369.14' (Free Discharge) 1=RCP\_Arch 22x14 (Barrel Controls 2.03 cfs @ 2.79 fps)

#### Pond CI-A1: CURB INLET A1



#### **Pond CI-A1: CURB INLET A1**



## Stage-Area-Storage for Pond CI-A1: CURB INLET A1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
368.50	<del></del>				
	0	369.02	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	0	369.06	0	369.58	0
368.55	0	369.07	0	369.59	0
368.56	0	369.08	0	369.60	0
368.57	0	369.09	0	369.61	0
368.58	0	369.10	0	369.62	0
368.59	0	369.11	0		
368.60	0	369.12	0		
368.61	0	369.13	0		
368.62	0	369.14	0		
368.63	0	369.15	0		
368.64	0	369.16	0		
368.65	0	369.17	0		
368.66	0	369.18	0		
368.67	0	369.19	0		
368.68	0	369.20	0		
368.69	0	369.21	0		
368.70	0	369.22	0		
368.71	0	369.23	0		
368.72	0	369.24	0		
368.73	0	369.25	0		
368.74	0	369.26	0		
368.75	0	369.27	0		
368.76	0	369.28	0		
368.77	0	369.29	0		
368.78	0	369.30	0		
368.79	0	369.31	0		
368.80	0	369.32	0		
368.81	0	369.33	0		
368.82	0	369.34	0		
368.83	0	369.35	0		
368.84	0	369.36	0		
368.85	0	369.37	0		
368.86	0	369.38	0		
368.87 368.88	0	369.39 369.40	0		
368.89	0	369.40 369.41	0 0		
368.90	0				
368.91	0	369.42 369.43	0		
368.92	0	369.43 369.44	0		
368.93	0	369.45	0		
368.94	0	369.46	0		
368.95	0	369.47	0		
368.96	0	369.48	0		
368.97	0	369.49	0		
368.98	0	369.50	0		
368.99	0	369.51	0		
369.00	0	369.52	0		
369.01	0	369.53	0		
	3	550.00	ı		
		•	•		

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#### **Summary for Pond CI-A2: CURB INLET A2**

Inflow Area = 11,661 sf, 0.00% Impervious, Inflow Depth = 0.92" for 100-yr event

Inflow = 2.49 cfs @ 0.09 hrs, Volume= 891 cf

Outflow = 2.49 cfs @ 0.09 hrs, Volume= 891 cf, Atten= 0%, Lag= 0.0 min

Primary = 2.49 cfs @ 0.09 hrs, Volume= 891 cf

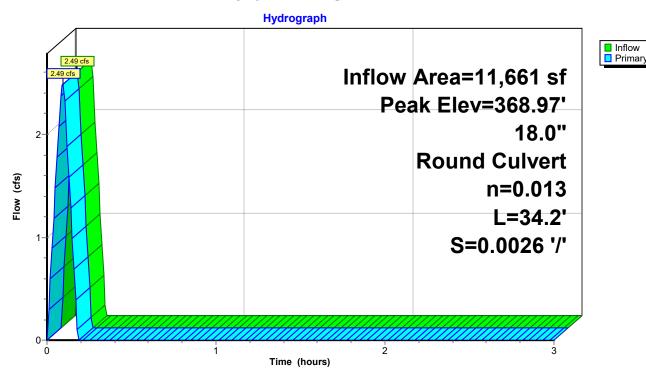
Routed to Link POST-DEV: Post-Development

Routing by Stor-Ind method, Time Span= 0.00-3.00 hrs, dt= 0.01 hrs Peak Elev= 368.97' @ 0.09 hrs

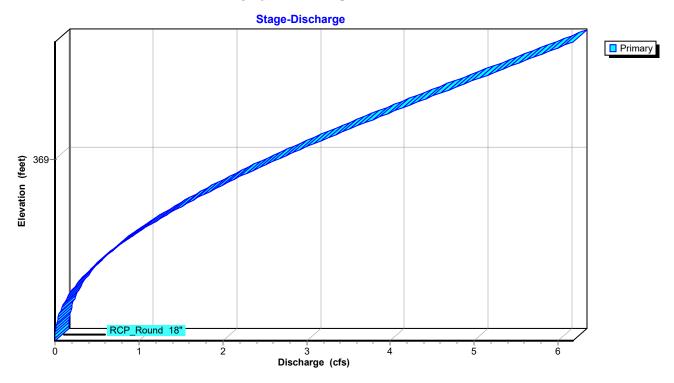
Device	Routing	Invert	Outlet Devices
#1	Primary	368.09'	18.0" Round RCP_Round 18"
			L= 34.2' RCP, rounded edge headwall, Ke= 0.100
			Inlet / Outlet Invert= 368.09' / 368.00' S= 0.0026 '/' Cc= 0.900
			n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.47 cfs @ 0.09 hrs HW=368.97' (Free Discharge) 1=RCP\_Round 18" (Barrel Controls 2.47 cfs @ 3.32 fps)

#### Pond CI-A2: CURB INLET A2



#### Pond CI-A2: CURB INLET A2



#### Stage-Area-Storage for Pond CI-A2: CURB INLET A2

	<u> </u>		<u> </u>		-
Elevation	Storage	Elevation	Storage	Elevation	Storage
(feet)	(cubic-feet)	(feet)	(cubic-feet)	(feet)	(cubic-feet)
368.09	0	368.61	0	369.13	0
368.10	0	368.62	0	369.14	0
368.11	0	368.63	0	369.15	0
368.12	0	368.64	0	369.16	0
368.13	0	368.65	0	369.17	0
368.14	0	368.66	0	369.18	0
368.15	0	368.67	0	369.19	0
368.16	0	368.68	0	369.20	0
368.17	0	368.69	0	369.21	0
368.18	0	368.70	0	369.22	0
368.19	0	368.71	0	369.23	0
368.20	0	368.72	0	369.24	0
368.21	0	368.73	0	369.25	0
368.22	0	368.74	0	369.26	0
368.23	0	368.75	0	369.27	0
368.24	0	368.76	0	369.28	0
368.25	0	368.77	0	369.29	0
368.26	0	368.78	0	369.30	0
368.27	0	368.79	0	369.31	0
368.28	0	368.80	0	369.32	0
368.29	0	368.81	0	369.33	0
368.30	0	368.82	0	369.34	0
368.31	0	368.83	0	369.35	0
368.32	0	368.84	0	369.36	0
368.33	0	368.85	0	369.37	0
368.34	0	368.86	0	369.38	0
368.35	0	368.87	0	369.39	0
368.36	0	368.88	0	369.40	0
368.37	0	368.89	0	369.41	0
368.38	0	368.90	0	369.42	0
368.39	0	368.91	0	369.43	0
368.40	0	368.92	0	369.44	0
368.41	0	368.93	0	369.45	0
368.42	0	368.94	0	369.46	0
368.43	0	368.95	0	369.47 369.48	0
368.44 368.45	0 0	368.96	0		0 0
368.46	0	368.97 368.98	0	369.49 369.50	0
368.47	0	368.99	0	369.51	0
368.48	0	369.00	0	369.52	0
368.49	0	369.00	0	369.52 369.53	0
368.50	0	369.01	0	369.54	0
368.51	0	369.03	0	369.55	0
368.52	0	369.04	0	369.56	0
368.53	0	369.05	0	369.57	0
368.54	0	369.06	0	369.58	0
368.55	0	369.06	0	369.59	0
368.56	0	369.08	0	309.59	O
368.57	0	369.08	0		
368.58	0	369.10	0		
368.59	0	369.11	0		
368.60	0	369.12	0		
300.00	•	300.12	9		
		l			

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#### **Summary for Link POST-DEV: Post-Development**

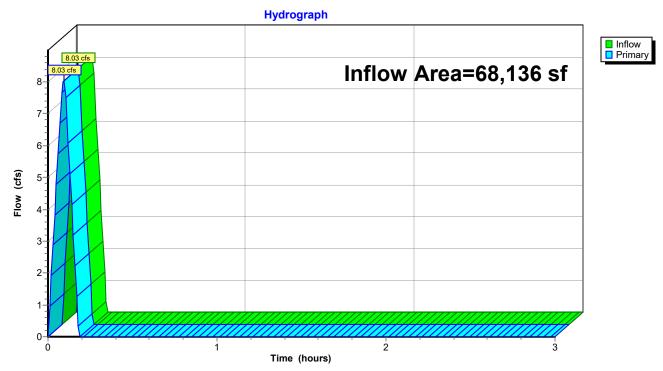
Inflow Area = 68,136 sf, 0.00% Impervious, Inflow Depth = 0.51" for 100-yr event

Inflow = 8.03 cfs @ 0.09 hrs, Volume= 2,876 cf

Primary = 8.03 cfs @ 0.09 hrs, Volume= 2,876 cf, Atten= 0%, Lag= 0.0 min

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

#### **Link POST-DEV: Post-Development**



**STORM SEWER SIZING** 

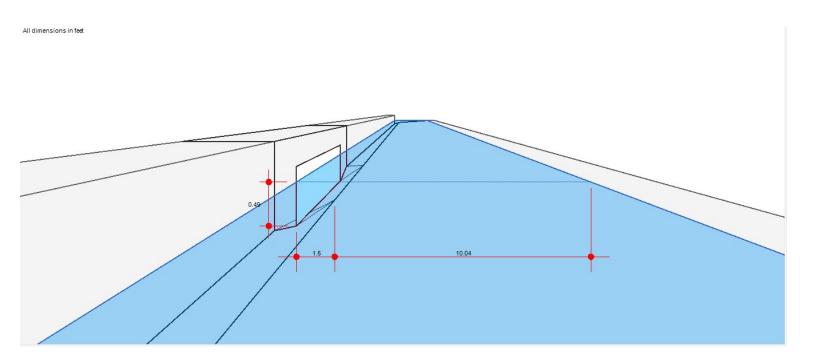
# **Inlet Report**

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

Wednesday, Jul 23 2025

## **CI-A1 (25 YEAR)**

Curb Inlet		Calculations	
Location	= Sag	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 1.71
Throat Height (in)	= 4.00		
Grate Area (sqft)	= -0-	Highlighted	
Grate Width (ft)	= -0-	Q Total (cfs)	= 1.71
Grate Length (ft)	= -0-	Q Capt (cfs)	= 1.71
		Q Bypass (cfs)	= -0-
Gutter		Depth at Inlet (in)	= 5.90
Slope, Sw (ft/ft)	= 0.083	Efficiency (%)	= 100
Slope, Sx (ft/ft)	= 0.020	Gutter Spread (ft)	= 11.54
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= -0-
Gutter Width (ft)	= 1.50	Bypass Spread (ft)	= -0-
Gutter Slope (%)	= -0-	Bypass Depth (in)	= -0-
Gutter n-value	= -0-		



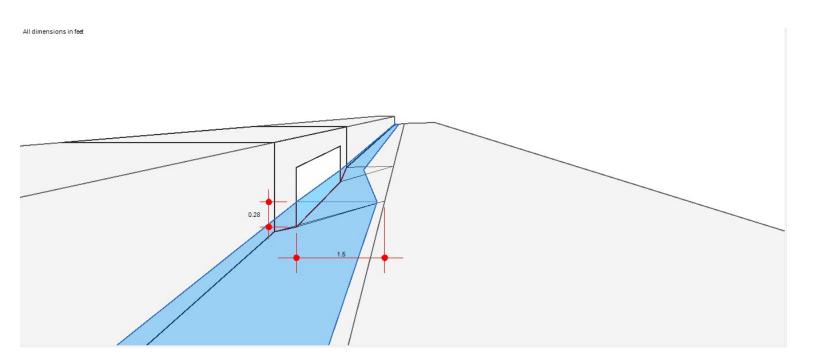
# **Inlet Report**

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

Wednesday, Jul 23 2025

## **CI-A2 (25 YEAR)**

Curb Inlet		Calculations	
Location	= On grade	Compute by:	Known Q
Curb Length (ft)	= 4.00	Q (cfs)	= 0.37
Throat Height (in)	= 4.00		
Grate Area (sqft)	= -0-	Highlighted	
Grate Width (ft)	= -0-	Q Total (cfs)	= 0.37
Grate Length (ft)	= -0-	Q Capt (cfs)	= 0.32
		Q Bypass (cfs)	= 0.05
Gutter		Depth at Inlet (in)	= 3.36
Slope, Sw (ft/ft)	= 0.083	Efficiency (%)	= 86
Slope, Sx (ft/ft)	= 0.020	Gutter Spread (ft)	= 1.37
Local Depr (in)	= 2.00	Gutter Vel (ft/s)	= 4.75
Gutter Width (ft)	= 1.50	Bypass Spread (ft)	= 0.65
Gutter Slope (%)	= 8.40	Bypass Depth (in)	= 0.65
Gutter n-value	= 0.016		

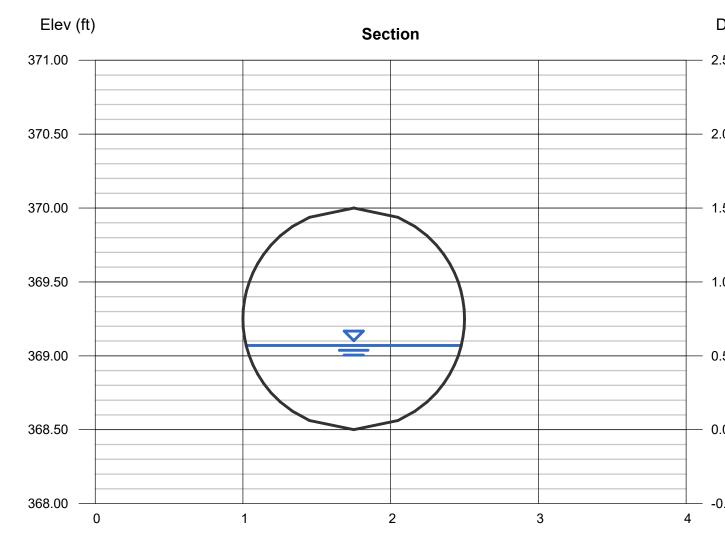


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Wednesday, Jul 23 2025

## Pipe A1 (25 YEAR)

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.57
		Q (cfs)	= 1.730
		Area (sqft)	= 0.62
Invert Elev (ft)	= 368.50	Velocity (ft/s)	= 2.80
Slope (%)	= 0.26	Wetted Perim (ft)	= 1.99
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.50
		Top Width (ft)	= 1.46
Calculations		EGL (ft)	= 0.69
Compute by:	Known Q		
Known Q (cfs)	= 1.73		



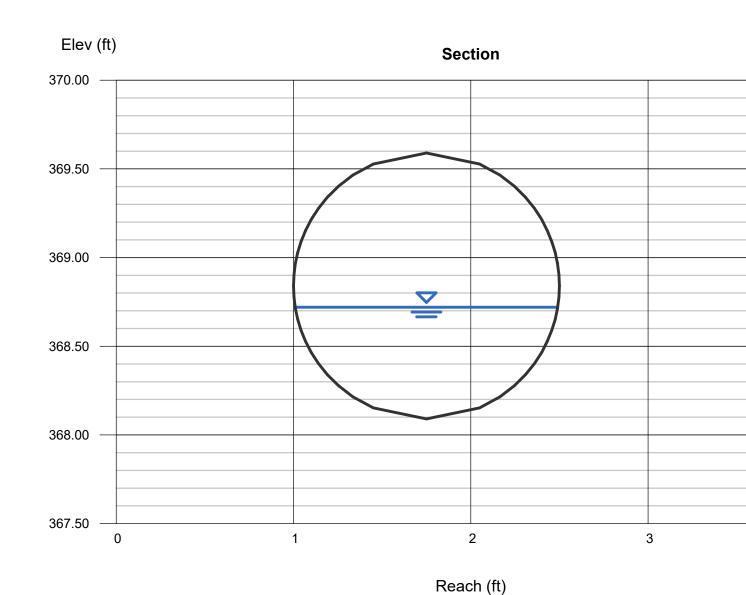
Reach (ft)

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

Wednesday, Jul 23 2025

## Pipe A2 (25 YEAR)

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.63
		Q (cfs)	= 2.110
		Area (sqft)	= 0.71
Invert Elev (ft)	= 368.09	Velocity (ft/s)	= 2.97
Slope (%)	= 0.26	Wetted Perim (ft)	= 2.12
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.55
		Top Width (ft)	= 1.48
Calculations		EGL (ft)	= 0.77
Compute by:	Known Q	. ,	
Known Q (cfs)	= 2.11		

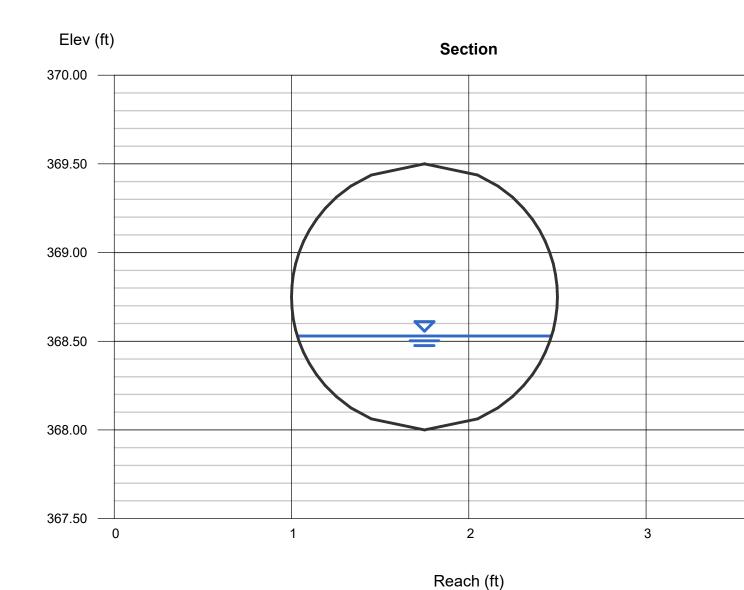


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## **Existing Pipe C1 (25 YEAR)**

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.53
		Q (cfs)	= 3.240
		Area (sqft)	= 0.56
Invert Elev (ft)	= 368.00	Velocity (ft/s)	= 5.78
Slope (%)	= 1.14	Wetted Perim (ft)	= 1.91
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.69
		Top Width (ft)	= 1.43
Calculations		EGL (ft)	= 1.05
Compute by:	Known Q		
Known Q (cfs)	= 3.24		

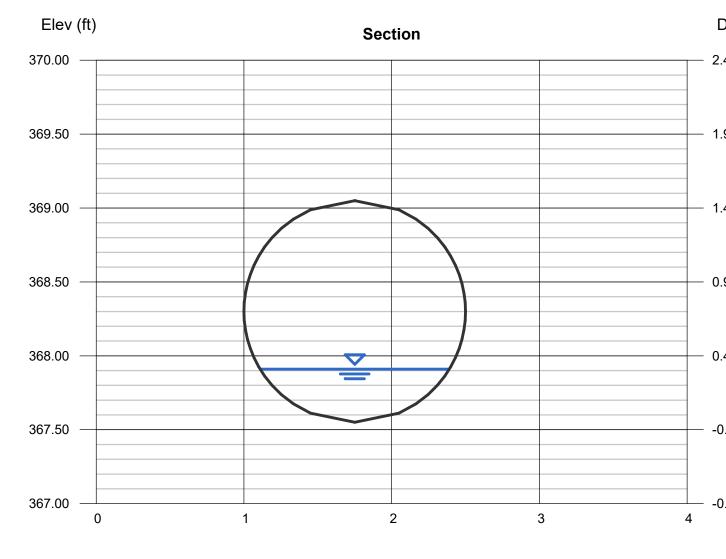


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# Existing Pipe C2 (25 YEAR)

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.36
		Q (cfs)	= 3.390
		Area (sqft)	= 0.33
Invert Elev (ft)	= 367.55	Velocity (ft/s)	= 10.37
Slope (%)	= 6.06	Wetted Perim (ft)	= 1.54
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.71
		Top Width (ft)	= 1.28
Calculations		EGL (ft)	= 2.03
Compute by:	Known Q		
Known Q (cfs)	= 3.39		



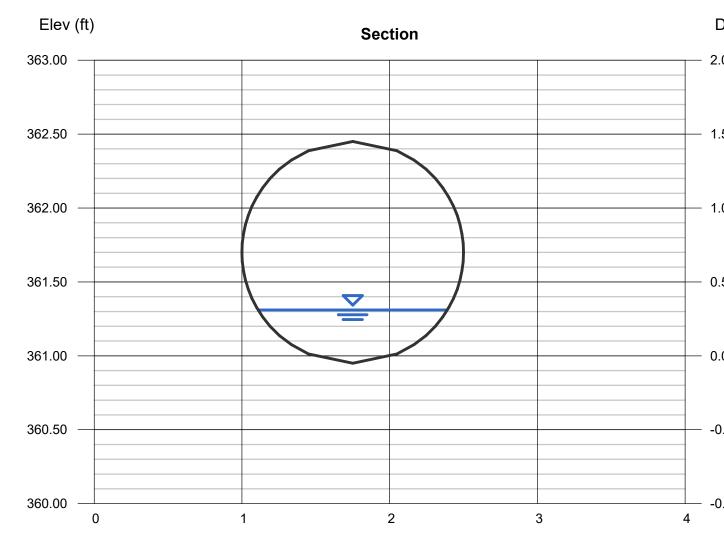
Reach (ft)

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Wednesday, Jul 23 2025

## **Existing Pipe C3 (25 YEAR)**

Circular		Highlighted	
Diameter (ft)	= 1.50	Depth (ft)	= 0.36
		Q (cfs)	= 3.390
		Area (sqft)	= 0.33
Invert Elev (ft)	= 360.95	Velocity (ft/s)	= 10.37
Slope (%)	= 5.91	Wetted Perim (ft)	= 1.54
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.71
		Top Width (ft)	= 1.28
Calculations		EGL (ft)	= 2.03
Compute by:	Known Q		
Known Q (cfs)	= 3.39		



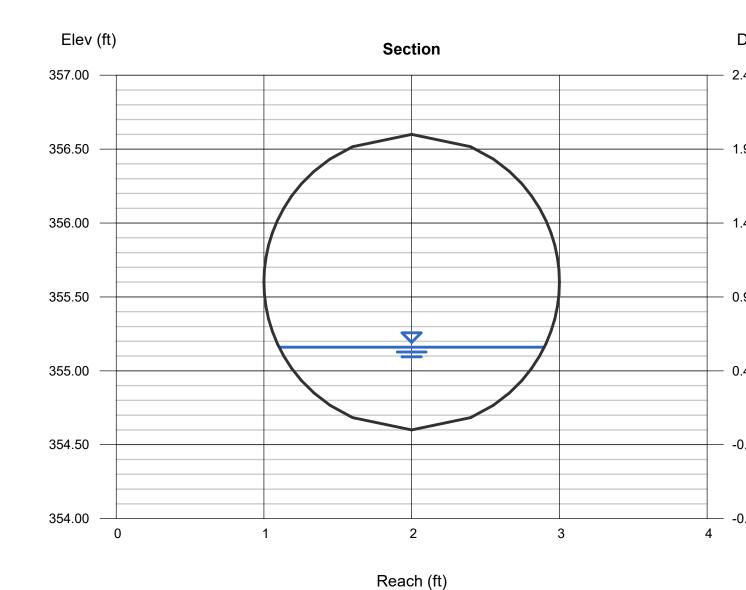
Reach (ft)

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

Wednesday, Jul 23 2025

## **Existing Pipe C4 (25 YEAR)**

Circular		Highlighted	
Diameter (ft)	= 2.00	Depth (ft)	= 0.56
		Q (cfs)	= 7.210
		Area (sqft)	= 0.73
Invert Elev (ft)	= 354.60	Velocity (ft/s)	= 9.91
Slope (%)	= 2.91	Wetted Perim (ft)	= 2.24
N-Value	= 0.012	Crit Depth, Yc (ft)	= 0.95
		Top Width (ft)	= 1.80
Calculations		EGL (ft)	= 2.09
Compute by:	Known Q		
Known Q (cfs)	= 7.21		

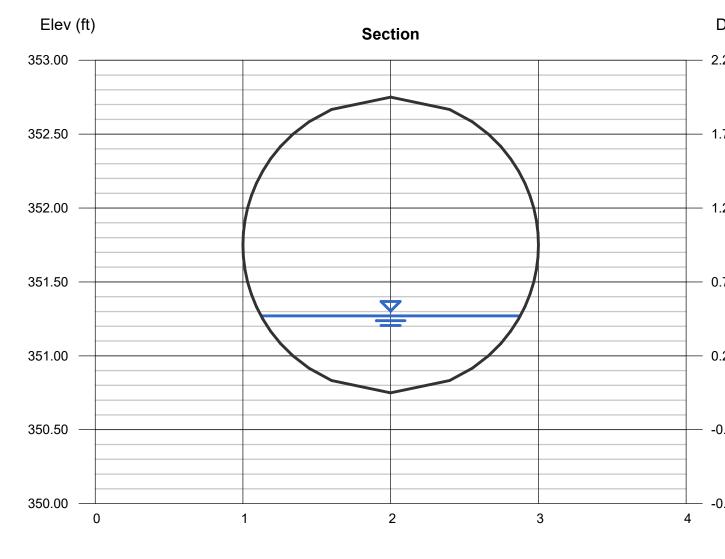


Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc.

Wednesday, Jul 23 2025

# Existing Pipe C5 (25 YEAR)

Circular		Highlighted	
Diameter (ft)	= 2.00	Depth (ft)	= 0.52
		Q (cfs)	= 9.590
		Area (sqft)	= 0.66
Invert Elev (ft)	= 350.75	Velocity (ft/s)	= 14.61
Slope (%)	= 7.25	Wetted Perim (ft)	= 2.15
N-Value	= 0.012	Crit Depth, Yc (ft)	= 1.11
		Top Width (ft)	= 1.76
Calculations		EGL (ft)	= 3.84
Compute by:	Known Q		
Known Q (cfs)	= 9.59		



Reach (ft)

**DRAINAGE BASIN MAPS** 



PHILLIP LEWIS ENGINEERING,
Structural + Civil Consultants

ARKANSAS

REGISTERED
PROFESSIONAL
ENGINEER
No. 9540

PROJECT NUMBER

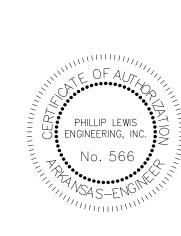
SHEET ISSUE DATE: 08-06-2025

PRE-DEV
DRAINAGE

C1.10



POST-DEV DRAINAGE SCALE 1" = 20'



1" = 10'-0"

IEW BEGININ HIGHWAY 5 BRYANT, ARKANS,

NEW

PROJECT NUMBER:

PHILLIP LEWIS ENGINEERING,
Structural + Civil Consultants

SHEET ISSUE DATE: 08-06-2025

DRAINAGE

POST-DEV

SHEET NUMBER: C1.11 **SOIL CLASSIFICATION MAPS** 



NRCS

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Saline County, Arkansas



# **Preface**

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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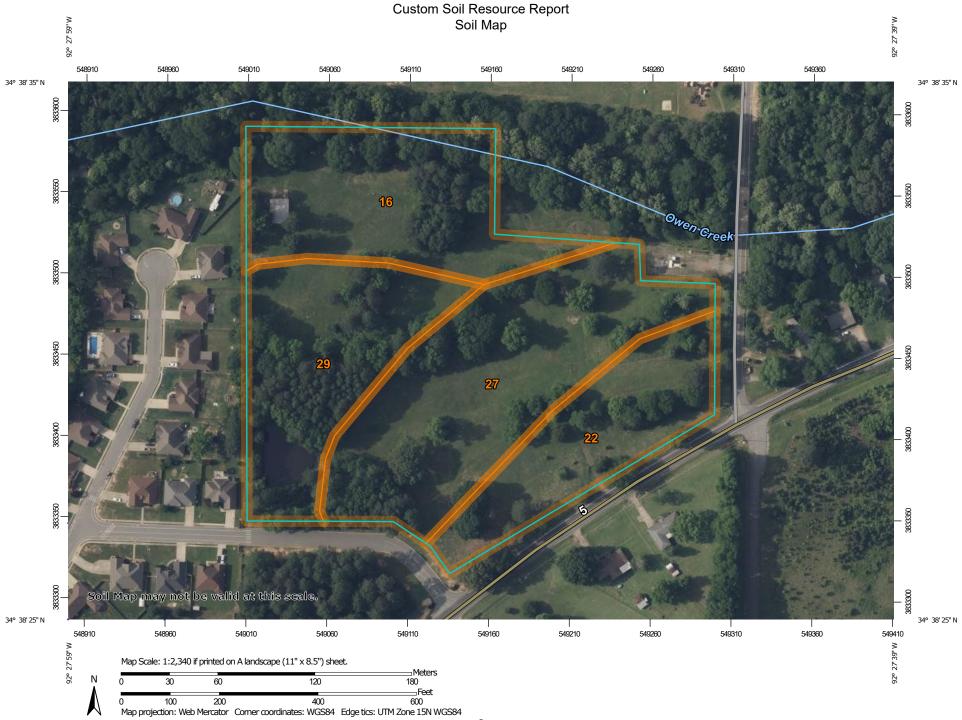
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# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

#### **Special Point Features**

Blowout (o)

Borrow Pit

Clay Spot

**Closed Depression** 

Gravel Pit

Gravelly Spot

Landfill Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features

#### **Water Features**

Streams and Canals

#### Transportation

---

Rails

Interstate Highways

**US Routes** 



Major Roads



Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saline County, Arkansas Survey Area Data: Version 20, Sep 12, 2023

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: May 1, 2022—May 29. 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
16	Ouachita silt loam, 0 to 1 percent slopes, frequently flooded	3.6	25.0%		
22	Savannah fine sandy loam, 3 to 8 percent slopes	2.5	17.8%		
27	Smithdale loamy sand, 8 to 12 percent slopes	4.9	34.4%		
29	Tiak silt loam, 3 to 8 percent slopes		22.9%		
Totals for Area of Interest		14.2	100.0%		

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Saline County, Arkansas

## 16—Ouachita silt loam, 0 to 1 percent slopes, frequently flooded

#### **Map Unit Setting**

National map unit symbol: 30g3t

Elevation: 120 to 250 feet

Mean annual precipitation: 48 to 64 inches
Mean annual air temperature: 52 to 75 degrees F

Frost-free period: 225 to 290 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Ouachita, frequently flooded, brief duration, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### Description of Ouachita, Frequently Flooded, Brief Duration

#### Setting

Landform: Flood plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear Parent material: Loamy alluvium

## **Typical profile**

A - 0 to 4 inches: silt loam
Bw - 4 to 42 inches: silt loam

2C - 42 to 80 inches: very fine sandy loam

#### Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Frequent Frequency of ponding: None

Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm) Available water supply, 0 to 60 inches: High (about 10.3 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: C

Ecological site: F133BY017TX - Loamy Bottomland

Hydric soil rating: No

#### **Minor Components**

#### Ouachita, frequently flooded, long duration

Percent of map unit: 5 percent Landform: Flood plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F133BY017TX - Loamy Bottomland

Hydric soil rating: Yes

#### Aquents, frequently flooded

Percent of map unit: 5 percent

Landform: Depressions

Landform position (three-dimensional): Dip

Down-slope shape: Concave Across-slope shape: Convex

Ecological site: F133BY012TX - Wet Terrace

Hydric soil rating: Yes

#### Una, frequently flooded

Percent of map unit: 3 percent

Landform: Flood plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F133BY018TX - Clayey Bottomland

Hydric soil rating: Yes

#### Guyton, frequently flooded

Percent of map unit: 2 percent

Landform: Flood plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: F133BY017TX - Loamy Bottomland

Hydric soil rating: Yes

## 22—Savannah fine sandy loam, 3 to 8 percent slopes

#### Map Unit Setting

National map unit symbol: 2tzrt

Elevation: 50 to 250 feet

Mean annual precipitation: 38 to 61 inches
Mean annual air temperature: 52 to 73 degrees F

Frost-free period: 220 to 260 days

Farmland classification: Farmland of statewide importance

#### **Map Unit Composition**

Savannah and similar soils: 95 percent

*Minor components:* 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Savannah**

#### Setting

Landform: Interfluves

Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Loamy marine deposits

#### Typical profile

Ap - 0 to 9 inches: fine sandy loam

Bt - 9 to 24 inches: loam
Btx - 24 to 59 inches: loam
BC - 59 to 72 inches: sandy loam

#### Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 16 to 32 inches to fragipan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20

to 0.57 in/hr)

Depth to water table: About 16 to 30 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.5 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F133BY005TX - Loamy Upland

Hydric soil rating: No

#### **Minor Components**

#### **Amy**

Percent of map unit: 5 percent Landform: Stream terraces

Landform position (three-dimensional): Tread

Down-slope shape: Concave Across-slope shape: Linear

Ecological site: F133BY017TX - Loamy Bottomland

Hydric soil rating: Yes

## 27—Smithdale loamy sand, 8 to 12 percent slopes

#### **Map Unit Setting**

National map unit symbol: m06n

Elevation: 70 to 620 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**

Smithdale and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Smithdale**

#### Setting

Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear

Parent material: Loamy marine deposits

#### **Typical profile**

A - 0 to 6 inches: loamy sand BA - 6 to 15 inches: fine sandy loam Bt1 - 15 to 26 inches: sandy clay loam Bt2 - 26 to 102 inches: fine sandy loam BC - 102 to 123 inches: loamy fine sand

#### **Properties and qualities**

Slope: 8 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: F133BY005TX - Loamy Upland

Hydric soil rating: No

#### 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

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**FEMA FLOOD INSURANCE RATE MAP** 

# National Flood Hazard Layer FIRMette

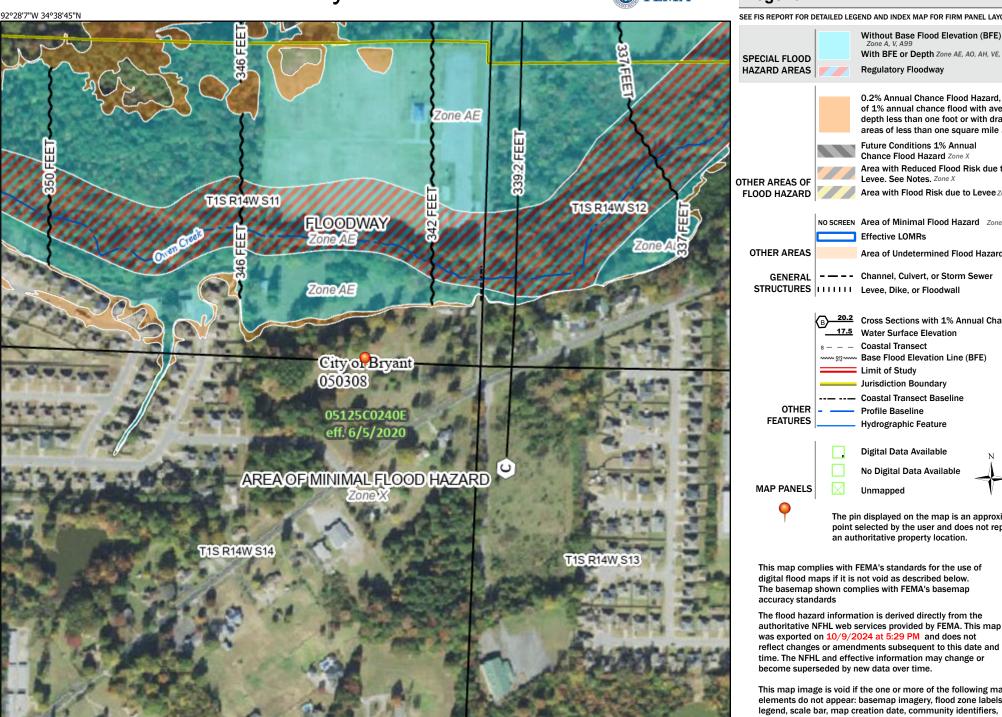
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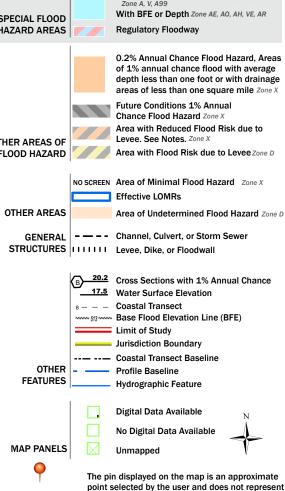


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#### Legend

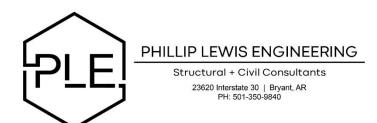
SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/9/2024 at 5:29 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.



#### **New Beginnings – Soil Loss Calculations**

July 24, 2025

#### **Soil Loss Calculations without Controls**

E (Soil Loss) = (R)(K)(LS)(C)(P) = (300)(0.43)(1.37)(0.45)(1) = 79.53 Tons/Acre/Year

R = 300 (Rainfall Factor)

K = 0.43 (Soil Type (Ap))

LS = 1.37 (10% slope for 100ft)

C = 0.45 (No Canopy)

P = 1 (No conservation Practice)

#### **Soil Loss Calculations with Controls**

E (Soil Loss) = (R)(K)(LS)(C)(P) = (300)(0.43)(1.37)(0.12)(0.6) = 12.72 Tons/Acre/Year

R = 300 (Rainfall Factor)

K = 0.43 (Soil Type (Ap))

LS = 1.37 (10% slope for 100ft)

C = 0.12 (2 tons/acre Loose Straw or Hay)

P = 0.6 (Silt Fence)

Article 2. Anticipated revenues shall be established at \$10,00 outages today with a fund 3506-7010 State Grants.

Article 3. It is deemed necessary for the smooth operation of Saline County Government that this ordinance be approved.

DATE: JULY 21, 2025. APPROVED: MATT BRUMLEY, SALINE **COUNTY JUDGE** 

This publication paid for by the Saline County's Judge Financial Mgt. Dept. and cost \$98.10.

#### Legal Notices

**EMERGENCY ORDINANCE NO. 2025 - 11** BE IT ORDAINED BY THE QUORUM COURT OF SALINE COUNTY, STATE OF ARKANSAS, AN ORDINANCE TO BE ENTITLED: AN ORDINANCE TO ESTABLISH A SUB-FUND OF COUNTY GENER-AL TO BE CALLED THE SUT GENERAL FUND; AND TO DECLARE

Article 1. Affirmation. It comes before this Court that there is a need to establish a fund on the books of the county as a sub fund of the County General Fund No. 1000 to track the revenues, expenditures and/or appropriated transfers of additional SUT funds as received by the county from the State of Arkansas. This Court recognizes and affirms the need for such a fund to property account for and control all such revenues received and expenditures made in compliance with all applicable

Article 2. Establishment of Fund. There is hereby created on the books of the Saline County Treasurer and the books of the Saline County Clerk or Comptroller a fund to be known as the SUT General Fund with a fund number of 1801 as assigned by Arkansas Legislative Audit. The revenue code for revenues received in such fund will be assigned in accordance with the County Financial Management System Manual revised by Legislative Audit in October 2022.

Article 3. Operation of Fund. The SUT General Fund is subject to all the normal county budgeting, appropriation and expenditure regula-tions of Arkansas Code Annotated, Title 14 and the County Financial Management System. As a sub fund of the County General Fund any balance in the fund is considered accruable to County General and is part of the general fund balance in aggregate as defined in A.C.A. 14-15-805(3). Any revenue received is unrestricted county revenue and may be expended for any legal county expense

Article 4. Emergency Clause. It is found by this Court that the revenue related to such fund makes it necessary to establish the SUT General Fund, a sub fund of County General in order to be able to properly track the revenue, appropriated expenditures and/or appropriated transfers. Therefore, an emergency is declared to exist and this ordinance shall be in full force and effect from the date of passage and ap-

Dated: JULY 21, 2025 APPROVED: MATT BRUMLEY, SALINE

This publication paid for by the Saline County Judge's Financial Mgt. Dept. and cost \$148.20.

**Business & Service Directory** 

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#### NOTICE OF PUBLIC HEARING

A public hearing will be held by City of Bryant, AR Planning Commission on Monday, Sept. 8, 2025 at 6:00 P.M. at the Bryant City Office Complex, 210 Southwest 33rd Street, for the purpose of public comment on the application for David Harris to obtain a Conditional existing building with a zone at the site of 20 Tanglewood Dr. A legal description of this property can be obtained by contacting the ment at 501-943-0488.

#### Legal Notices

#### LEGAL NOTICE? REQUEST FOR QUALIFICATIONS (RFQ)? Saline County- Airport Engineer

Saline County is requesting Statements of Qualifications from qualified firms to provide professional engineering services for The Saline County Regional Municipal Airport, located in Saline County, AR.

Interested parties may obtain the full RFQ documents and instructions by visiting www.salinecounty.org.

CONSIDERED AT NO. 63PR-25-359-IV IN THE CIRCUIT COURT OF SALINE COUNTY ARKANSAS, PROBATE DIVISION. THE PLANNING

IN THE MATTER OF THE ESTATE OF ROBERT EARL BAL-SEPTEMBER 2, 2025. LENTINE, DECEASED.

FOR INFORMA- Last known address of decedent: 708 Sheffield Drive, Bryant, AR TION, CALL (501) 72022. Date of Death: June 3, 2025.

> A Petition for Appointment of Administrator was admitted to probate on July 9, 2025, and the undersigned, Terry Yazz, has been appointed Administrator thereunder. A contest of the probate of the estate can be effected only by filing a petition within the time provided

section in today's classifieds. You will All persons having claims against the estate must exhibit them, duly find unconditional verified, to the undersigned within six (6) months from the date of the love there FREE! Furry & Free!! first publication of this notice, or they shall be forever barred and precluded from any benefit in the estate.

This notice first published the 22nd day of July 2025.

Terry Yazza, Administrator

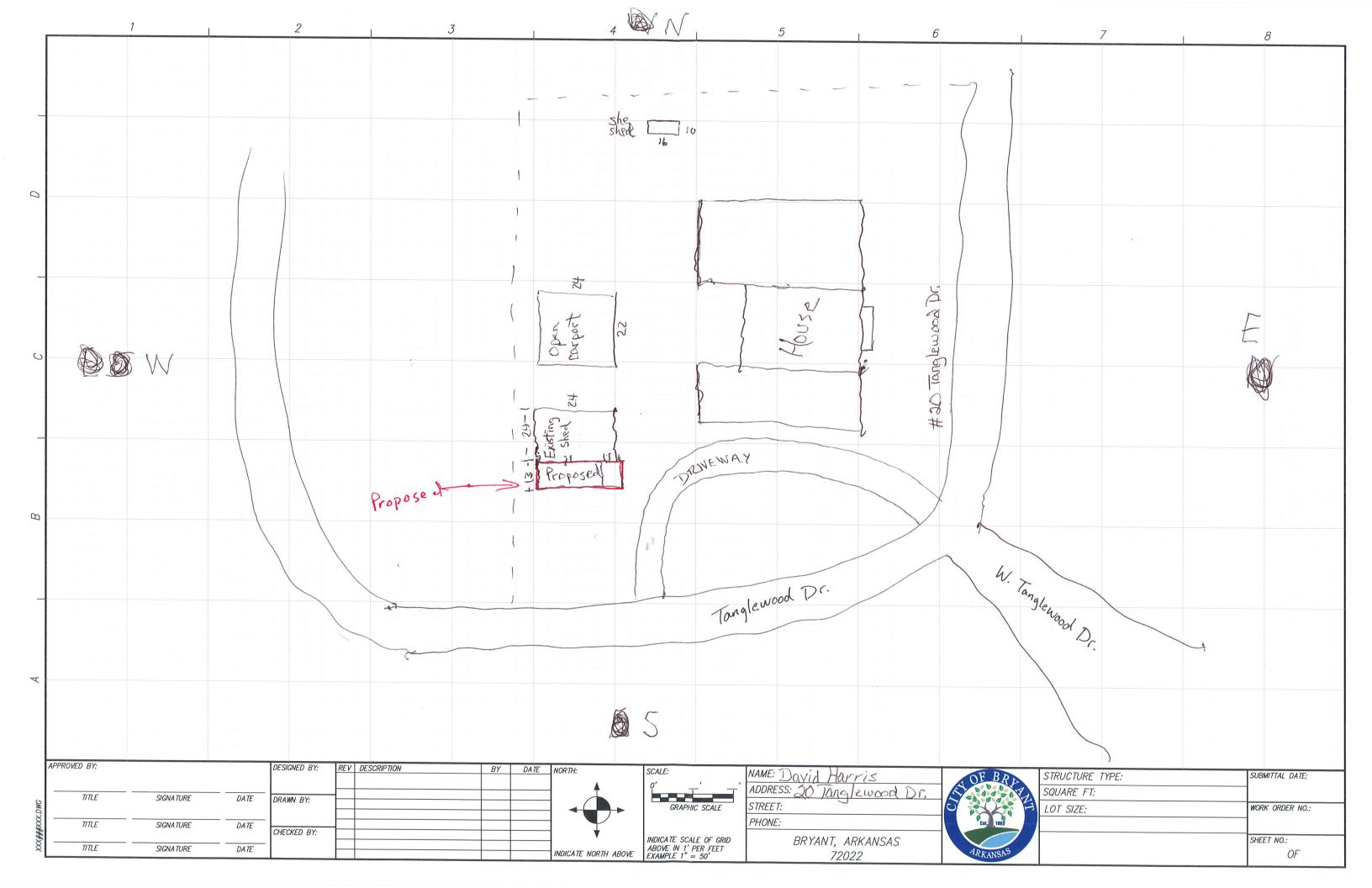
Colin C. Heaton Heaton & Harris LLP Attorneys at Law Hot Springs, AR 71902-0111

#### **Legal Notices**

**EMERGENCY ORDINANCE NO. 2025 – 10** Use for the purpose of adding a side shed to BE IT ORDAINED BY THE QUORUM COURT OF SALINE COUNTY, STATE OF ARKANSAS, AN ORDINANCE TO BE EN-TITLED: AN ORDINANCE TO ESTABLISH A SPECIAL REVEN UE FUND TO BE CALLED THE PASSPORT ACCEPTANCE FACIL Bryant Planning and Development Depart- ITY FUND; AND TO DECLARE AN EMERGENCY.

Article 1. Affirmation. It comes before this Court that there is a need to establish a special revenue fund on the books of the county to track the revenues, expenditures and/or appropriated transfers of passport fees collected by a County office that has been authorized as a pass port acceptance facility. This Court recognizes and affirms the need for such a fund to properly account for and control all such revenues received and expenditures made in compliance with all applicable laws and guidance by from the State of Arkansas.

Article 2. Establishment of Fund. There is hereby created on the books of the Saline County Treasurer and the books of the Saline County Comptroller and Financial Management Department a special revenue fund to be known as the Passport Acceptance Facility Fund with a fund number of 3049 as assigned by the Saline County Quorum Court The revenue code for the collections from passport fees received wil continue to be "Passport Application Fees - Revenue Code 7617." Article 3. Operation of Fund. The Passport Acceptance Facility Fund is





# Conditional Use Permit Application

Applicants are advised to read the Conditional Use Permit section of Bryant Zoning Code prior to completing and signing this form. The Zoning Code is available at <a href="https://www.cityofbryant.com">www.cityofbryant.com</a> under the Planning and Community Development tab.

Date: 7-28-25	
Applicant or Designee:	Project Location:
Name David Harris Address 20 langlewood Dr	Property Address 20 Tanglewood Dr
Phone 501.860.8907 Email: drdavidharris@hatmail, com	Parcel Number $840 - 09528 - 000$ Zoning Classification $R - F$
Property Owner (If different from Applicant)	
Name	
Phone	
Address	
Email Address	
Additional Information:	
Subdivision Lot and Block Number or Legal Descri	ription (Attach Legal Description to Application)
Lot 20 - Tanglewood Acre	s. Lotis .88ac in size
Current Use of Property Primary Res	idence
Description of Conditional Use Request / Propos Side Shed to existing buildi	sed Use of Property (Attach any necessary drawings or images) $13' \times 24'$

# **Application Checklist**

#### **Requirements for Submission**

Letter stating request of Conditional Use and reasoning for request
Completed Conditional Use Permit Application
Submit Conditional Use Permit Application Fee (\$125)
Submit Copy of completed Public Notice [Attachment 1]
รายการแบบสามารถเกาะเป็นเป็น เป็น เป็นที่เดิมเป็นสามารถให้เป็น เป็น เป็น เป็น เป็น เป็น เป็น เป็น
Submit one (1) copy of the Development Plan (Site Plan) showing:
<ul> <li>Location, size, and use of buildings/signs/land or improvements</li> </ul>
2.11

- Location, size, and arrangement of driveways and parking. Ingress/Egress
- Existing topography and proposed grading
- Proposed and existing lighting
- Proposed landscaping and screening
- · Use of adjacent properties
- Scale, North Arrow, Vicinity Map
- Additional information that may be requested by the administrative official due to unique conditions of the site.
- ☐ Public Notice Requirements: **NOTE: Failure to provide notice in the following manners** shall require delay of the public hearing until notice has been properly made.
  - Publication: Public Notice shall be published at least one (1) time fifteen (15)
    days prior to the public hearing at which the variance will be heard. A copy of
    the public notice is provided on last page of application. [Attachment 1] Once
    published, the proof of publication must be provided to the Planning and
    Development office.
  - Posting of Property: The city shall provide a sign to post on the property involved for the fifteen (15) consecutive days leading up to the public hearing.
     One (1) sign is required for every two hundred (200) feet of street frontage.

Once the application is received, the material will be reviewed to make sure all the required information is provided. The applicant will be notified if additional information is required. The application will then go before the Development and Review Committee (DRC) for a recommendation to the Planning Commission. A public hearing will be held at this meeting for comments on the Conditional Use. After the public hearing, the Planning Commission will make a decision on the use.

READ CAREFULLY BEFORE SIGNING
do hereby certify that all information contained within this application is
true and correct. I further certify that the owner of the property authorizes this proposed application. I understand that I must
comply with all City Codes and that it is my responsibility to obtain all necessary permits required.

David Harris 20 Tanglewood Dr Bryant, AR 72022

City of Bryant Planning and Development 210 SW 3<sup>rd</sup> Street Bryant, AR 72022

July 30, 2025

# Greetings:

The purpose of this request for a conditional use permit is to be allowed to add a side shed to an existing building for storage and personal use.

Thank you for your consideration.