Bryant Development and Review Committee Meeting

Boswell Municipal Complex - City Hall Conference Room

210 SW 3rd Street

Date: February 01, 2024 - **Time:** 9:00 AM

Call to Order

Old Business

New Business

1. AR Storage Center - I-30 Storage - 253000 I-30

Hope Consulting - Requesting Recommendation for Site Plan Approval

- 0768-PLN-04.pdf
- 0768-PLT-01.pdf
- 0768-DRN-04.pdf

2. Elrod Law Firm - 400 N Reynolds Road - Sign Permit

Ace Sign Company - Requesting Sign Permit Approval

- 0833-APP-01.pdf

3. Nelson Property Hilldale Road - Floodplain Issues

Hope Consulting - Requesting Discussion and Approval of Floodplain Permit

- Elevation Certificate Signed_Nelson Garcia.pdf
- CITY OF BRYANT BUILDING DEPARTMENT - floodplain permit (2)_20130207120647524 5.pdf
- 23-1298 Elevation Certificate Form.pdf
- 23-1298 boundary moved house to 150.pdf

Staff Approved

4. Sandy's Nails and Spa - 3411 Main Street Ste 4 - Sign Permit

Requesting Sign Permit Approval - STAFF APPROVED

- 0834-APP-01.pdf

5. Boutiques and Suites - 107 Progress Way - Sign Permit

L. Graphics - Requesting Sign Permit Approval - STAFF APPROVED

- 0835-APP-01.pdf

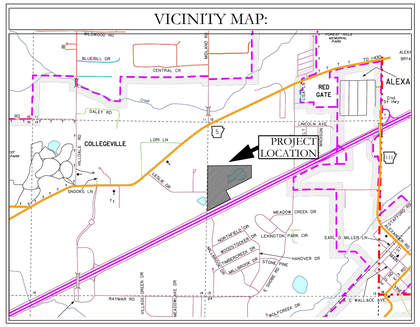
Permit Report

Adjournments

CONSTRUCTION PLANS
ARKANSAS STORAGE CENTER

BRYANT, AR

VICINITY MAP:



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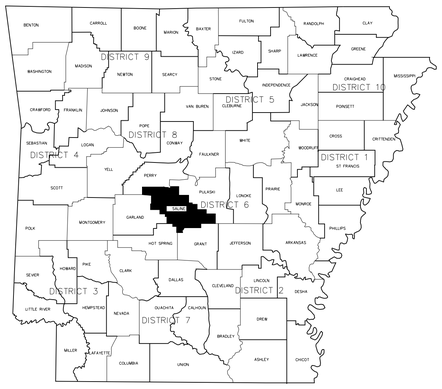

PREPARED BY:

HOPE CONSULTING
ENGINEERS - SURVEYORS

129 North Main St,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

CIVIL ENGINEER
HOPE CONSULTING INC
129 NORTH MAIN STREET
BENTON, AR 72015

DRAWING INDEX

SHEET NO.	TITLE
	PRELIMINARY PLOT
C-1.0	SITE PLAN
C-2.0	ROAD PLAN & PROFILE
C-2.1	FENCE DETAILS
C-3.0	UTILITY PLAN
C-3.1	UTILITY SPECS
C-4.0	GRADING PLAN
C-5.0	DRAINAGE PLAN
C-5.1	DRAINAGE PLAN & PROFILE
C-5.2	DRAINAGE PLAN & PROFILE
C-5.3	DRAINAGE PLAN & PROFILE
C-5.4	RETENTION PLAN
C-5.5	PRE-DEV CALCULATIONS
C-5.6	POST-DEV CALCULATIONS
C-5.7	POST-DEV CALCULATIONS
C-6.0	LANDSCAPE PLAN
C-7.0	EROSION CONTROL PLAN

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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01/24/2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	23-0024
SHEET:		SCALE:	

K:\LAND PROJECTS-2004\SUBDIVISIONS\2023\23-0800 STUART FINLEY\PLOTTED\23-0024 CIVIL DWG\FINAL PROJECT\23-0800 - ARKANSAS STORAGE CENTER - FINAL (01-24-2024).DWG

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

SW 1/4 SW 1/4 SECTION 12 T-1-S R-14-W

ARKANSAS STATE HIGWAY NO. 5 (APPARENT 60' R/W)

MIDLAND ROAD

FND. 1/2" REBAR, NW CORNER, LOT 77, EAST RIDGE SUBD., PH1

GAP IN TITLE LINES OF SUBJECT PROPERTY AND EAST RIDGE SUBDIVISION, PHASE 1

COMPUTED LOCATION FROM EAST RIDGE SUBDIVISION NE CORNER, NE1/4, NE1/4, SEC. 14, T-1-S, R-14-W

FND. 2" PIPE

N66°25'13"E 152.88'

N66°31'07"E 164.56'

N65°24'25"E 115.83'

25' BUILDING SETBACK LINE

WEST LINE, EAST RIDGE SUBDIVISION, PHASE 1

INT. OF EAST LINE, NE1/4, NE1/4, AND SOUTH R/W OF ARK. HWY. 5 FND. 1/2" REBAR (PS 1664)

N2°11'32"E 149.59'

SE 1/4 SE 1/4 SECTION 11 T-1-S R-14-W

N63°29'03"E 139.43'

EXISTING DWELLING

S02°13'34"W 386.25'

10' BUILDING SETBACK LINE

N88°16'25"W 53.10'

FND. 1/2" REBAR P.L.S. 1664

N59°48'07"E 258.04'

FND. 5/8" REBAR (PS 128)

FND. 1" PIPE NW CORNER, LOT 68, EAST RIDGE SUBD., PH1 (BEARS S6°35'26"E 14.32')

FND. 1" PIPE (BEARS N62°53'12"W 12.96')

EAST LINE, NE1/4, NE1/4

FND. 1/2" REBAR P.L.S. 1664

N56°17'39"E 187.00'

GAP AREA 0.19 AC 8201.7 SF

N2°11'32"E 390.00'

FND. 1/2" REBAR P.L.S. 1664

HENRY AVE.

N52°36'30"E 269.91'

25' BUILDING SETBACK LINE

WEST LINE, EAST RIDGE SUBDIVISION, PHASE 1

N52°34'41"E 14.32'

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR P.L.S. 1664

EAST RIDGE SUBDIVISION PHASE I ZONING R-1

EXISTING PRIVATE ACCESS ROAD

NE 1/4 NE 1/4 SECTION 14 T-1-S R-14-W

FND. 1/2" REBAR P.L.S. 1664

NW 1/4 NW 1/4 SECTION 12 T-1-S R-14-W

LOT 3
18.82 ACRES
819894 Sq. Ft.

10' BUILDING SETBACK LINE

N2°43'40"E 673.83'

PRIVATE ACCESS RD

N2°11'32"E 547.38'

S02°43'40"W 1045.67'

N32°51'44"W 436.06'

10' BUILDING SETBACK LINE

ONE LIFE CHURCH INC 840-11660-040 ZONING C-2

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR P.L.S. 1467

N41°42'20"W 211.36'

FND. 1/2" REBAR P.L.S. 568

FND. 1/2" REBAR P.L.S. 568

FND. 1/2" REBAR P.L.S. 1664

N68°44'33"E 334.66'

96.88'

94.55'

N88°05'03"W 115.16'

N88°43'01"W 138.08'

N88°04'08"W 191.43'

S88°04'08"E 145.03'

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR

S2°43'40"W 371.84'

N02°11'32"E 245.95'

EXISTING GRAVEL

EXISTING ASPHALT DRIVE

LOT 2
3.95 ACRES
171998 Sq. Ft.

COMPUTED LOCATION FROM EAST RIDGE SUBDIVISION SE CORNER, NE1/4, NE1/4, SEC. 14, T-1-S, R-14-W

FND. 5/8" REBAR P.L.S. 0128

EAST RIDGE SUBDIVISION PHASE I ZONING R-1

N88°49'30"W 448.64'

EXISTING DWELLING

S87°51'51"E 267.64'

S89°05'22"E 297.60'

S89°16'26"E 291.29'

FND. AXLE

189.88'

S68°25'37"W 490.93'

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

TENNISON ALFRED A III & TONYA N 840-11660-500 ZONING R-E

SE 1/4 NE 1/4 SECTION 14 T-1-S R-14-W

28.63'

X 20.00'

25.00'

PROPOSED 20' INGRESS/EGRESS EASEMENT

PARCEL NO. 840-11660-450 ZONING R-E

POND

SW 1/4 NW 1/4 SECTION 13 T-1-S R-14-W

LOT 1
24.23 ACRES
1055487 Sq. Ft.

N02°24'48"E 1324.05'

N02°24'48"E 1134.17'

75' BUILDING SETBACK LINE

EXISTING TREE BUFFER

CITY OF BRYANT 20' UTILITY EASEMENT BOOK 98, 6876

25' BUILDING SETBACK LINE

S65°09'57"W 848.81'

ZONING C-3 PARCEL NO. 840-11640-241

ZONING C-3 PARCEL NO. 840-11640-236

N2°21'59"E 367.80'

84.33'

ZONING C-3 PARCEL NO. 840-11640-240

S24°50'41"E 327.00'

AIR EASEMENT

N65°10'33"E 680.63'

CITY OF BRYANT 25' SEWER EASEMENT

25.00'

20.00'

20' WATER LINE EASEMENT

FND. 1/2" REBAR

PARCEL NO. 840-11660-400

PROPOSED 20' INGRESS/EGRESS EASEMENT

75' BUILDING SETBACK LINE

AIR EASEMENT

BILLBOARD SIGN EASEMENT

27.50'

20.00'

25.00'

S65°09'57"W 711.59'

CENTERLINE I-30 SERVICE ROAD (INTERSTATE 30)

POINT OF BEGINNING
FND. 5/8" REBAR ACCEPTED AS SW CORNER, SW1/4, NW1/4, SEC. 13, T1S, R14W

S00°11'32"W 50.01'

PARCEL NO. 840-11676-000 ZONING C-3

FND. 5/8" REBAR P.L.S. 0128

FND. 1/2" REBAR (BEARS N70°21'E 0.41')

N88°43'09"W 67.64'

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

100' 50' 0 100'

REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF ARKANSAS NO. 1762 — SIGNATURE — JONATHAN L. HOPE

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — NO. 20876 — KAZI TAMZIDUL ISLAM

By affixing my seal and signature, I Jonathan L. Hope PLS No, 1762, hereby certify that this drawing correctly depicts a survey compiled under my supervision.

NOTE: This survey was based on legal descriptions and title work furnished by others and does not represent a title search.

No portion of the property described hereon lies within the 100 year floodplain, according to the Federal Insurance Rate Map, panel #05125C0365e, Dated: 06/05/2020 .

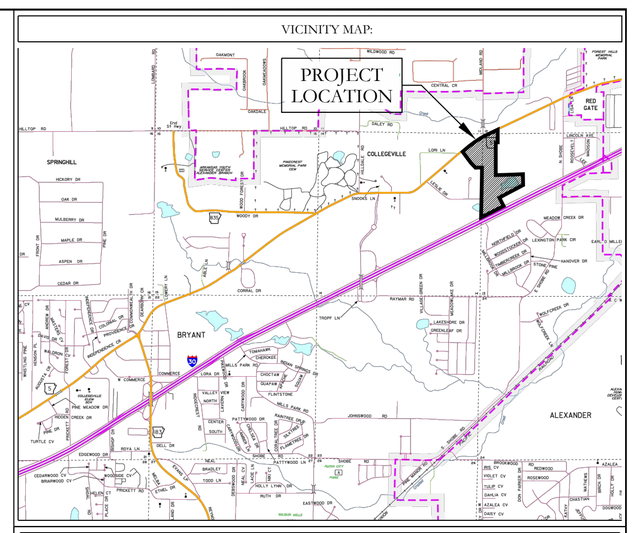
LEGEND
- Computed point
- Found monument
- Set Iron Pipe
(M) - Measured
(R) - Record
(D) - Deed

OVERALL BOUNDARY PROPERTY DESCRIPTION FROM SURVEY

A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 12; A PART OF THE NORTHWEST QUARTER (NW1/4) OF THE NORTHWEST QUARTER (NW1/4) AND THE SOUTHWEST QUARTER (SW1/4) OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 13; AND A PART OF THE NORTHEAST QUARTER (NE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 14; ALL IN TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 5/8" REBAR ACCEPTED AS THE SOUTHWEST CORNER OF SAID SW1/4, NW1/4, SECTION 13;
THENCE ALONG THE WEST LINE THEREOF NORTH 02°24'48" EAST, A DISTANCE OF 1,324.05 FEET, TO THE NORTHWEST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG THE WEST LINE OF SAID NW1/4, NW1/4 OF SECTION 13 NORTH 02°11'32" EAST, A DISTANCE OF 245.95 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE LEAVING SAID WEST LINE NORTH 88°04'08" WEST, A DISTANCE OF 191.43 FEET, TO A 1/2" REBAR AND CAP (PS 1467);
THENCE NORTH 41°42'20" WEST, A DISTANCE OF 211.36 FEET, TO A 1/2" REBAR AND CAP (PS 1467);
THENCE NORTH 32°51'44" WEST, A DISTANCE OF 436.06 FEET, TO A 1/2" REBAR AND CAP (PS 1467) TO THE SOUTHERLY RIGHT-OF-WAY OF ARKANSAS HIGHWAY 5;
THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING EIGHT CALLS: NORTH 52°34'41" EAST, A DISTANCE OF 14.32 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 52°36'30" EAST, A DISTANCE OF 269.91 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 56°17'39" EAST, A DISTANCE OF 187.00 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 59°48'07" EAST, A DISTANCE OF 258.04 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 63°29'03" EAST, A DISTANCE OF 139.43 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 65°24'25" EAST, A DISTANCE OF 115.83 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 66°31'07" EAST, A DISTANCE OF 164.56 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 66°25'13" EAST, A DISTANCE OF 152.88 FEET, TO A 1/2" REBAR AND CAP (PS 1664) BEING THE NORTHEAST CORNER OF LANDS DESCRIBED IN WARRANTY DED DATED MARCH 30, 1963 AND FILED IN SALINE COUNTY DEED RECORD BOOK 112 AT PAGE 404;
THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY OF HIGHWAY 5 ALONG THE EAST LINE OF SAID LANDS DESCRIBED IN SAID WARRANTY DEED SOUTH 02°13'34" WEST, A DISTANCE OF 386.25 FEET, TO A 1/2" REBAR AND CAP (PS 1664) AT THE SOUTHEAST CORNER OF SAID LANDS DESCRIBED IN SAID WARRANTY DEED;
THENCE NORTH 88°16'25" WEST, A DISTANCE OF 53.10 FEET, TO A 5/8" REBAR AND CAP (PS 128) ON THE EAST LINE OF LANDS DESCRIBED IN WARRANTY DEED DATED SEPTEMBER 21, 1951 AND FILED IN SALINE COUNTY DEED RECORD BOOK 64 AT PAGE 45;
THENCE SOUTH 02°43'40" WEST, A DISTANCE OF 1,045.67 FEET, TO A 5/8" REBAR AND CAP (PS 128) ON THE NORTH LINE OF SAID SW1/4, NW1/4 OF SECTION 13; SAID POINT BEING SOUTH 88°49'30" WEST, A DISTANCE OF 448.64 FEET FROM THE NORTHWEST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE SOUTH 87°51'51" EAST, A DISTANCE OF 267.64 FEET, TO A POINT SHOWN ON THE SOUTH LINE OF EAST RIDGE SUBDIVISION, PHASE 1, AS FILED AS SALINE COUNTY DOCUMENT 2007-061442;
THENCE ALONG SAID SOUTH LINE SOUTH 89°05'22" EAST, A DISTANCE OF 297.60 FEET, TO A POINT SHOWN ON SAID SOUTH LINE OF EAST RIDGE SUBDIVISION, PHASE 1;
THENCE ALONG SAID SOUTH LINE SOUTH 89°16'26" EAST, A DISTANCE OF 291.29 FEET, TO AN AXLE AT THE NORTHEAST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG THE EAST LINE THEREOF SOUTH 02°21'59" WEST, A DISTANCE OF 344.99 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE LEAVING SAID EAST LINE SOUTH 65°09'57" WEST, A DISTANCE OF 848.81 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE SOUTH 24°50'41" EAST, A DISTANCE OF 327.00 FEET, TO A 1/2" REBAR ON THE NORTHERLY RIGHT-OF-WAY OF U.S. INTERSTATE 30;
THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY SOUTH 65°09'57" WEST, A DISTANCE OF 711.59 FEET, TO A 5/8" REBAR AND CAP (PS 128) AT THE INTERSECTION OF SAID NORTHERLY RIGHT-OF-WAY AND THE SOUTH LINE OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG SAID SOUTH LINE NORTH 88°43'09" WEST, A DISTANCE OF 67.64 FEET, TO A THE POINT OF BEGINNING; CONTAINING 47.00 ACRES (2,047,380.21 SQUARE FEET), MORE OR LESS.

VICINITY MAP:



CERTIFICATIONS:

OWNER:
Name: ARKANSAS STORAGE XIV, LLC
Address: PO BOX 10
BRYANT, AR 72022

DEVELOPER:
Name: ARKANSAS STORAGE XIV, LLC
Address: PO BOX 10
BRYANT, AR 72022

CERTIFICATE OF OWNER:

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.

Source of Title: 2023-015797, 2023-015796, 2023-010005, 2023-017298

Date of Execution _____ Name: _____

CERTIFICATE OF PRELIMINARY SURVEYING ACCURACY:

I, Jonathan L. Hope, hereby certify that this proposed preliminary plat correctly represents a survey completed by me, or under my supervision on _____, 2023; that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source Title; and that all monuments which were found or placed on the property are correctly described and located..

Date of Execution

Signed: _____
Jonathan L. Hope
Registered Professional
Land Surveyor No. 1762 Arkansas

CERTIFICATE OF PRELIMINARY ENGINEERING ACCURACY:

I, Kazi Tamzidul Islam, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type and material are correctly shown; and that all requirements of the City of Bryant Subdivision Rules and Regulations have been fully complied with.

Date of Execution

Kazi Tamzidual Islam
Registered Professional
Engineer, No. 20876 Arkansas

CERTIFICATE OF PRELIMINARY PLAT APPROVAL:

All requirements of the City of Bryant Subdivision Rules and Regulations relative to the preparation and submittal of a Preliminary Plat having been fulfilled, approval of this plat is hereby granted, subject of further provisions of said Rules and Regulations.

Date of Execution

Signed: _____
Rick Johnson, Chairman
Bryant Planning Commission

PROPERTY SPECIFICATIONS:

OWNER: ARKANSAS STORAGE XIV, LLC, PO BOX 10, BRYANT, AR 72022

DEVELOPER/: SUBDIVIDER: ARKANSAS STORAGE XIV, LLC, PO BOX 10, BRYANT, AR 72022

ENGINEERS: HOPE CONSULTING INC., 129 N. MAIN STREET, BENTON, AR 72015

NAME OF SUBDIVISION:

ZONING CLASSIFICATION: C-2

SOURCE OF TITLE: SALINE COUNTY DOCUMENT 2023-015797, 2023-015796, 2023-010005, 2023-017298

NUMBER OF LOTS: 3

SOURCE OF WATER: CITY OF BRYANT
SOURCE OF SEWER: CITY OF BRYANT
SOURCE OF ELECTRIC: FIRST ELECTRIC COOP
SOURCE OF GAS: CENTERPOINT ENERGY

BUILDING SETBACKS:
FRONT - AS SHOWN
REAR - OR AS SHOWN
SIDE - OR AS SHOWN

EASEMENTS: UTILITY & DRAINAGE (D.E. & U.E.)
FRONT - AS SHOWN
REAR - AS SHOWN
SIDE - AS SHOWN

LOT CORNERS: SET 1/2" REBAR WITH CAP

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FOR USE AND BENEFIT OF:

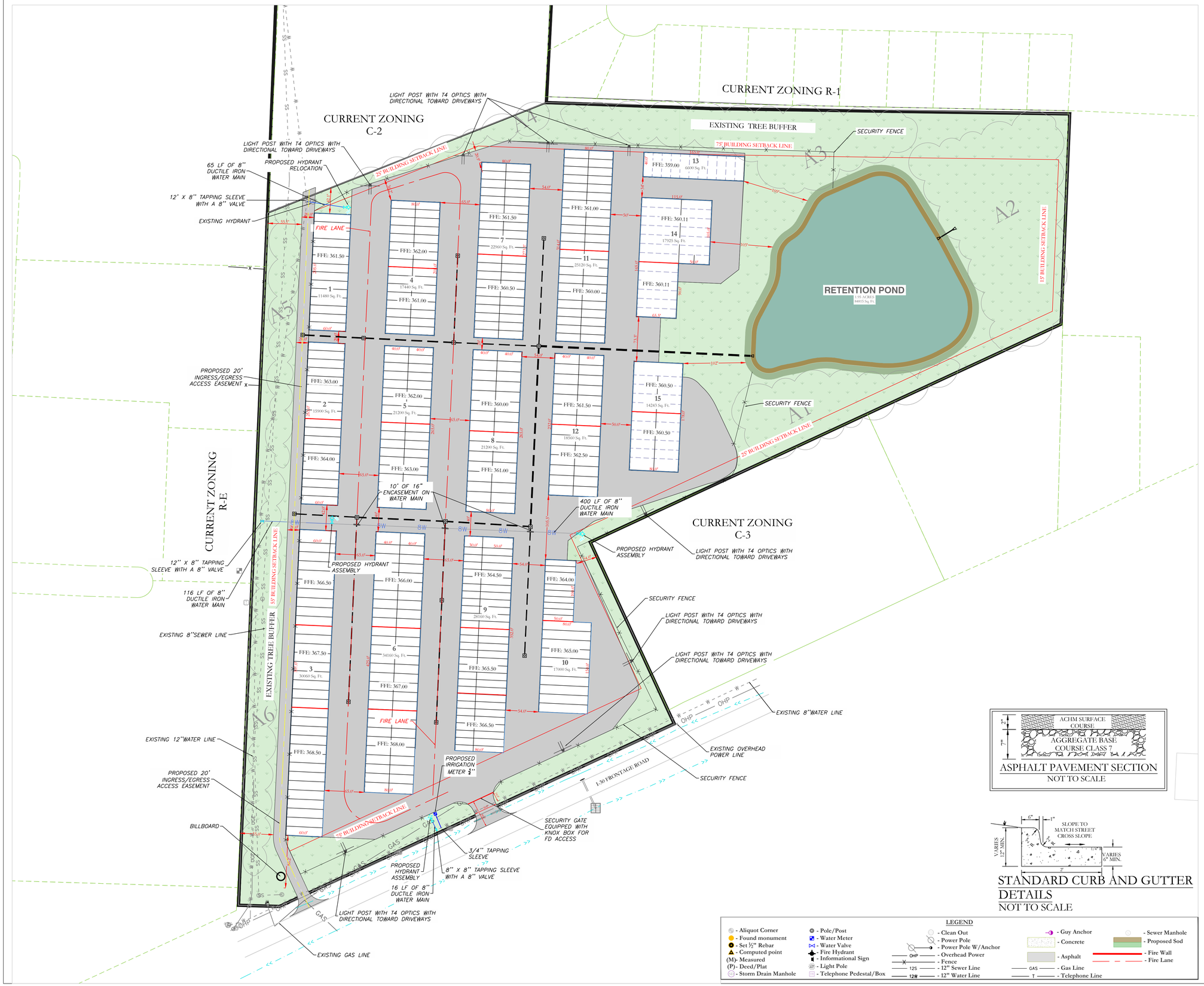
ARKANSAS STORAGE XIV, LLC

PRELIMINARY PLAT
FINLEY BUSINESS PARK
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.

DATE: 01/19/2024	C.A.D. BY: B.JOHNSON	DRAWING NUMBER: 22-0800	
REVISED:	CHECKED BY:		
SHEET:	SCALE: 1" = 100'		

500	01S	14W	0	14	110	62	1762
500	01S	14W	0	13	400	62	1762

K:\Land Projects\2044 Subdivisions\2022\22-0800 Stuart Finley 5 Duebes\22-0800-Preliminary Plat-01-11-2023 recover.dwg

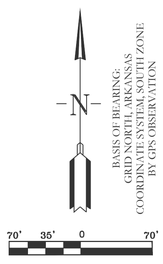


SITE DATA	
TOTAL SITE AREA	24.26 ACRES
TOTAL DEVELOPMENT AREA	14.79 ACRES
GROSS BUILDING AREA	TOTAL BUILDING AREA 303,129 SF
BUILDING HEIGHTS	20'
BUILDING COVERAGE PERCENTAGE	303,129/1056967.51=0.29=29.0%
BUSINESS TYPE	MINI STORAGE

NOTES:

1. ALL FIRE LINE WILL BE PRIVATE.
2. NO SEWER SERVICE IS PROPOSED.
3. GATE POST MUST BE CONSTRUCTED NO CLOSER THAN 7.5' OF UTILITY LINES.

CIVIL ENGINEER
HOPE CONSULTING INC
129 N. MAIN STREET
BENTON, AR 72015
CONTACT: KAZI TAMZIDUL ISLAM
PHONE: 504-315-2626
EMAIL: kazi@hopeconsulting.com



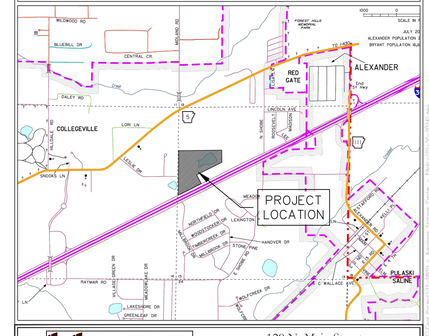
ASPHALT PAVEMENT SECTION
NOT TO SCALE

STANDARD CURB AND GUTTER DETAILS
NOT TO SCALE

LEGEND

- Aliquot Corner
- Found monument
- Set ½" Rebar
- Computed point
- (M)- Measured
- (P) - Deed/Plat
- Storm Drain Manhole
- Pole/Post
- Water Meter
- Water Valve
- Fire Hydrant
- Informational Sign
- Light Pole
- Telephone Pedestal/Box
- Clean Out
- Power Pole
- Power Pole W/Anchor
- Overhead Power
- Fence
- 12S - 12" Sewer Line
- 12W - 12" Water Line
- Guy Anchor
- Concrete
- Asphalt
- Gas Line
- Telephone Line
- Sewer Manhole
- Proposed Sod
- Fire Wall
- Fire Lane

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

SITE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:	DRAWING NUMBER:	
REVISED:	CHECKED BY:	22-0800	
SHEET: C-1.0	SCALE: 1" = 70'		

500	01S	14W	0	21	300	62	1762

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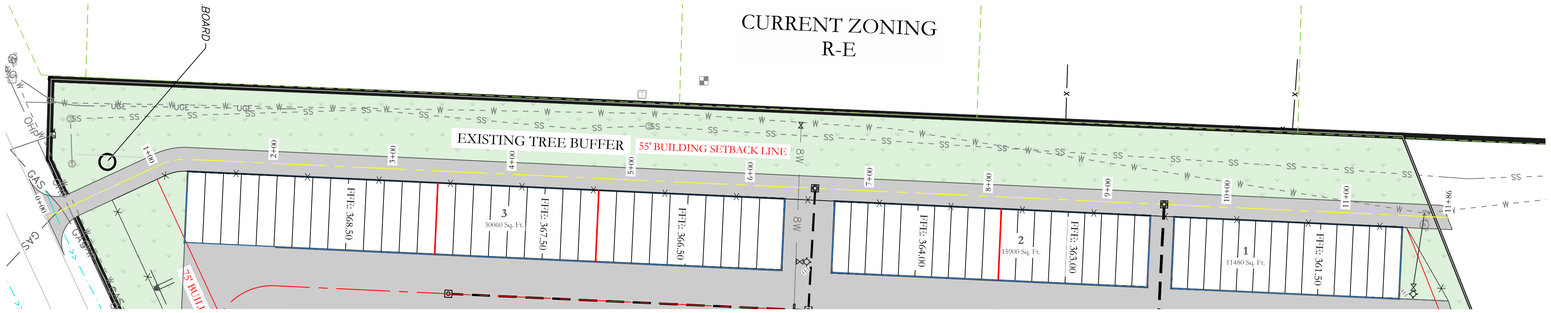
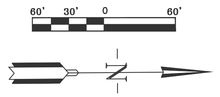
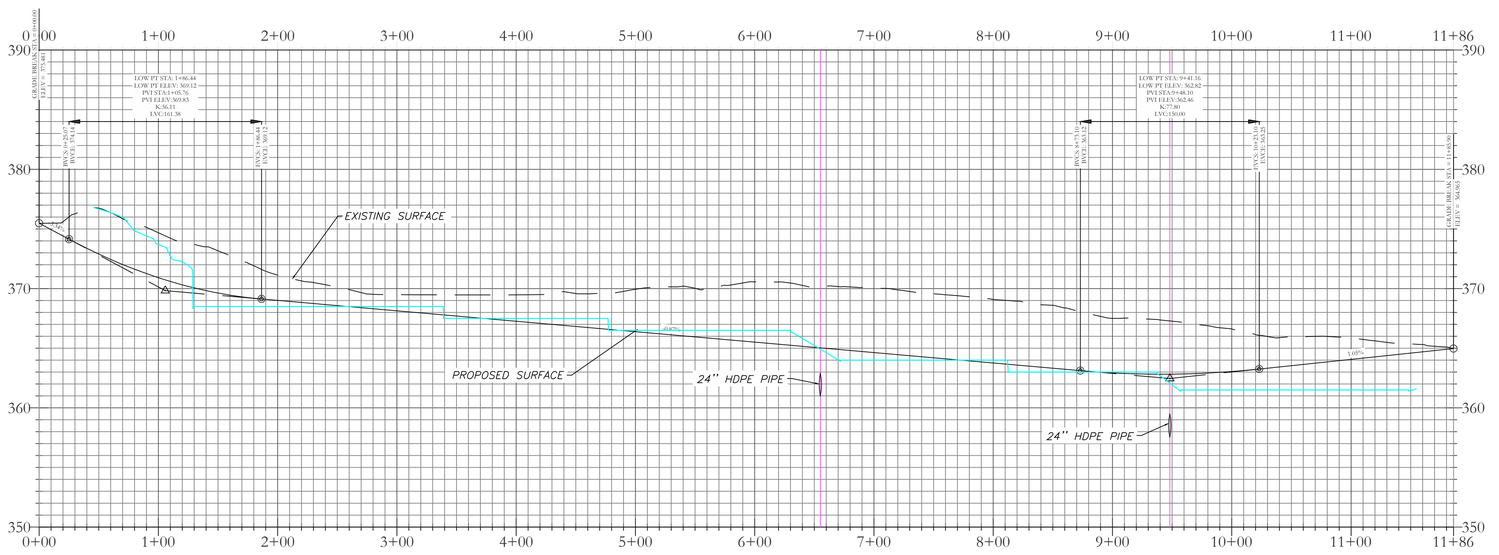
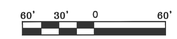




BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

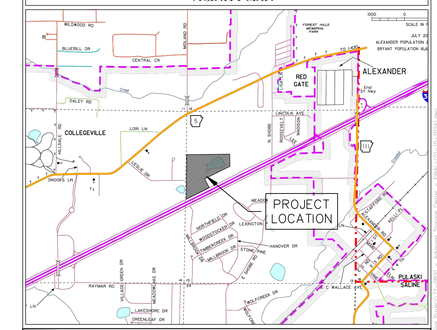
Private Road #2 PROFILE





CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



HOPE CONSULTING
ENGINEERS - SURVEYORS
129 N. Main Street,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

PRIVATE ROAD PLAN & PROFILE

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-2.0	SCALE: 1" = 60'		

500	01S	14W	0	21	300	62	1762

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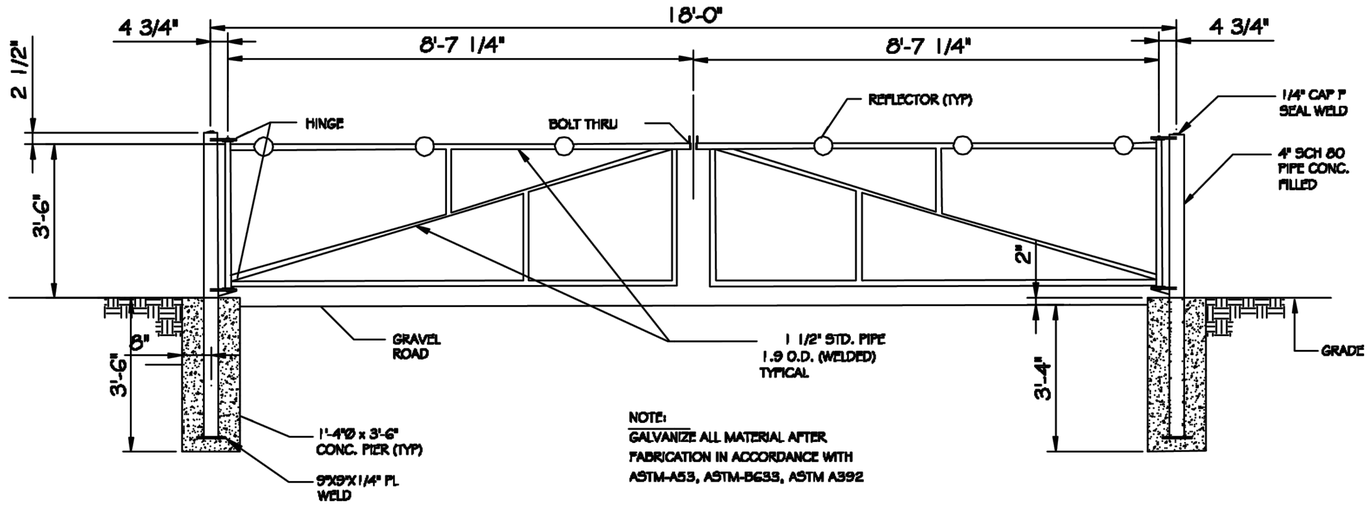
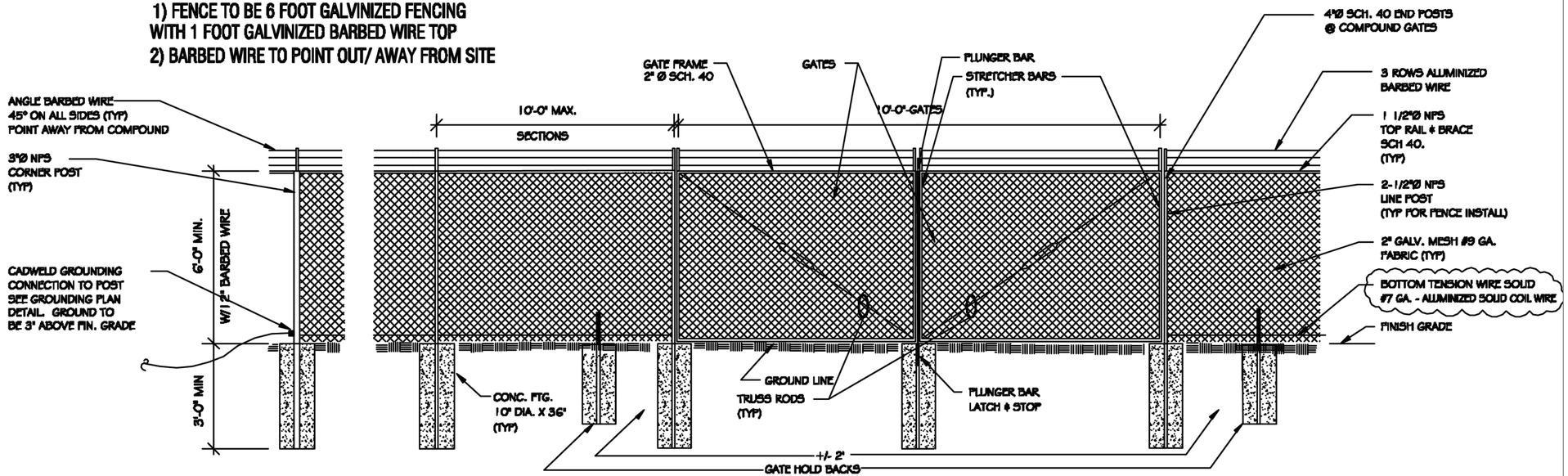


ROAD ACCESS GATE

NO SCALE

NOTES

1) FENCE TO BE 6 FOOT GALVINIZED FENCING WITH 1 FOOT GALVINIZED BARBED WIRE TOP
2) BARBED WIRE TO POINT OUT/ AWAY FROM SITE



TYPICAL FENCE SECTION

NO SCALE

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FOR USE AND BENEFIT OF:
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ARKANSAS STORAGE CENTER
FENCE DETAILS
BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-2.1	SCALE:		

500	01S	14W	0	21	300	62	1762

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

EXISTING TREE BUFFER

LIGHT POST WITH T4 OPTICS WITH DIRECTIONAL TOWARD DRIVEWAYS

SECURITY FENCE

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUILDING SETBACK LINE

65 LF OF 8" DUCTILE IRON WATER MAIN

PROPOSED HYDRANT RELOCATION

12' X 8" TAPPING SLEEVE WITH A 8" VALVE

EXISTING HYDRANT

FIRE LANE

PROPOSED 20' INGRESS/EGRESS ACCESS EASEMENT

10' OF 16" ENCASEMENT ON WATER MAIN

400 LF OF 8" DUCTILE IRON WATER MAIN

PROPOSED HYDRANT ASSEMBLY

12" X 8" TAPPING SLEEVE WITH A 8" VALVE

116 LF OF 8" DUCTILE IRON WATER MAIN

EXISTING 8"SEWER LINE

EXISTING 12"WATER LINE

BILLBOARD

PROPOSED IRRIGATION METER ¾"

3/4" TAPPING SLEEVE

8" X 8" TAPPING SLEEVE WITH A 8" VALVE

16 LF OF 8" DUCTILE IRON WATER MAIN

EXISTING GAS LINE

EXISTING 8"WATER LINE

EXISTING OVERHEAD POWER LINE

I-30 FRONTAGE ROAD

SECURITY GATE EQUIPPED WITH KNOX BOX FOR FD ACCESS

RETENTION POND
1.95 ACRES
84815 Sq. Ft.

1 — 11480 Sq. Ft. — FFE: 361.50
2 — 15900 Sq. Ft. — FFE: 363.00 / FFE: 364.00
3 — 30060 Sq. Ft. — FFE: 367.50 / FFE: 368.50
4 — 17440 Sq. Ft. — FFE: 362.00 / FFE: 361.00
5 — 21200 Sq. Ft. — FFE: 362.00 / FFE: 363.00
6 — 34160 Sq. Ft. — FFE: 366.00 / FFE: 367.00 / FFE: 368.00
7 — 22960 Sq. Ft. — FFE: 361.50 / FFE: 360.50
8 — 21200 Sq. Ft. — FFE: 360.00 / FFE: 361.00
9 — 28160 Sq. Ft. — FFE: 364.50 / FFE: 365.50 / FFE: 366.50
10 — 17000 Sq. Ft. — FFE: 365.00
11 — 25120 Sq. Ft. — FFE: 361.00 / FFE: 360.00
12 — 18360 Sq. Ft. — FFE: 361.50 / FFE: 362.50
13 — 6600 Sq. Ft. — FFE: 359.00
14 — 17925 Sq. Ft. — FFE: 360.11 / FFE: 360.11
15 — 14243 Sq. Ft. — FFE: 360.50 / FFE: 360.50

NOTES:

1. ALL FIRE LINE WILL BE PRIVATE.
2. NO SEWER SERVICE IS PROPOSED.
3. GATE POST MUST BE CONSTRUCTED NO CLOSER THAN 7.5' OF UTILITY LINES.

WATER UTILITY NOTES:

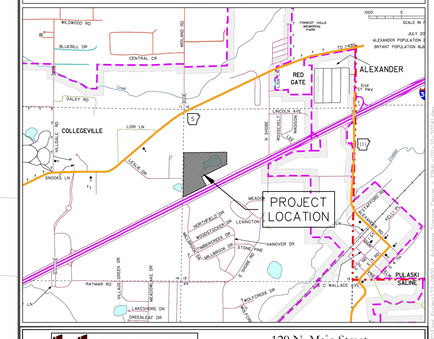
1. ALL NEW 8-INCH WATER MAINS TO BE DUCTILE IRON.
2. ALL WATER INSTALLATION TO BE IN ACCORDANCE WITH THE CITY OF BRYANT "STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF WATER LINES AND SEWER LINES, 2015 EDITION".
3. WATER LINES UNDER CULVERTS, CREEKS, CONCRETE CHANNELS, RETAINING WALLS, OR OTHER DIFFICULT AND /OR DANGEROUS TO MAINTAIN AREAS SHALL BE ENCASED IN A SMOOTH STEEL ENCASEMENT PIPE. THE STEEL ENCASEMENT SHALL EXTEND FIVE FEET EITHER SIDE OF THE AREA.
4. EACH WATER SERVICE METER MUST HAVE ITS OWN SERVICE LINE CONNECTION TO THE MAIN (INCLUDES DOUBLE METERS DISPLAYED AS ONE SERVICE LINE ON THE PLAT.
5. CASING SPACERS: SHALL BE STAINLESS STEEL, CASCADE MODEL CCS AS MANUFACTURED BY CASCADE WATER MFG. CO., OR APPROVED EQUAL.

HOPE CONSULTING, INC. No. 1931 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

70' 35' 0 70'

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

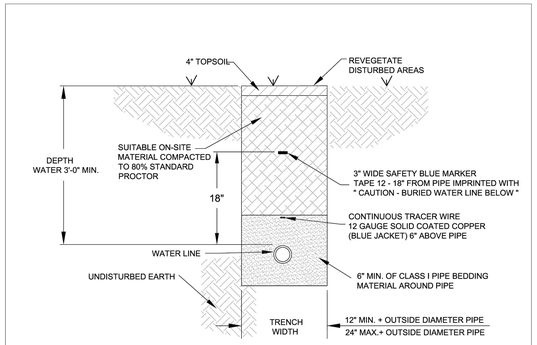
ARKANSAS STORAGE CENTER

UTILITY PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-3.0	SCALE: 1" = 70'	

500	01S	14W	0	21	300	62	1762



NOTES:

1. ALL VALVES, BENDS, ETC. SHALL BE RESTRAINED.
2. THE CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY TO CONNECT WITH ANY PART OF THE EXISTING WATER SYSTEM THAT WILL REMAIN IN ORDER TO ESTABLISH A SATISFACTORY AND ACCEPTABLE WATER SYSTEM.
3. CONTRACTOR TO CONSTRUCT ALL TRENCH EXCAVATION IN ACCORDANCE WITH ALL OSHA REGULATIONS (29 CFR CH.XVII, SUBPART B)
4. TRENCH SHALL BE EXCAVATED BELOW GRADE REQUIRED TO PROVIDE A MINIMUM 36" OF PIPE COVER.
5. MAXIMUM PIPE COVER SHALL BE 60" UNDER NORMAL CONDITIONS. COVER GREATER THAN 60" MAY BE ALLOWED FOR SHORT DISTANCES WHERE REQUIRED BY FIELD CONDITIONS. NO HYDRANT SHALL BE ALLOWED WHERE LINES ARE GREATER THAN 60" DEEP.

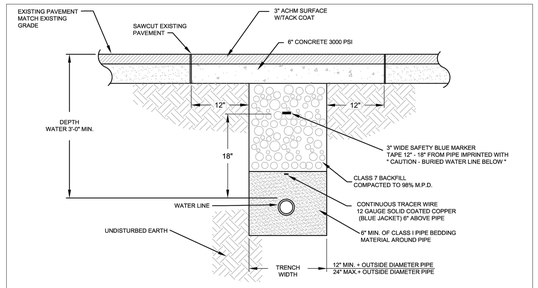
WATER MAIN TRENCH

(NON-PAVED AREA)

4/16/2015 11:47:53 AM

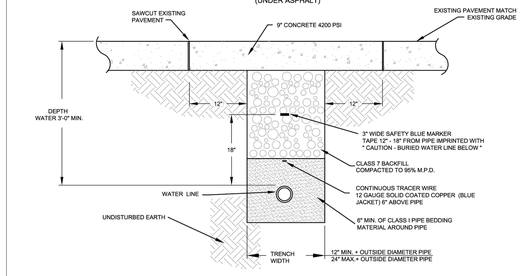
CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	WATER MAIN TRENCH (NON-PAVED AREA)	REVISED ---- ---- ---- ----	W1
DRAWN BY:	CHECKED BY:	FILE: W1-Water Trench (Non-Paved Area).dwg	----



WATER MAIN TRENCH

(UNDER ASPHALT)



NOTES:

1. ALL VALVES, BENDS, ETC. SHALL BE RESTRAINED.
2. THE CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY TO CONNECT WITH ANY PART OF THE EXISTING WATER SYSTEM THAT WILL REMAIN IN ORDER TO ESTABLISH A SATISFACTORY AND ACCEPTABLE WATER SYSTEM.
3. CONTRACTOR TO CONSTRUCT ALL TRENCH EXCAVATION IN ACCORDANCE WITH ALL OSHA REGULATIONS (29 CFR CH.XVII, SUBPART B)
4. TRENCH SHALL BE EXCAVATED BELOW GRADE REQUIRED TO PROVIDE A MINIMUM 36" OF PIPE COVER.
5. MAXIMUM PIPE COVER SHALL BE 60" UNDER NORMAL CONDITIONS. COVER GREATER THAN 60" MAY BE ALLOWED FOR SHORT DISTANCES WHERE REQUIRED BY FIELD CONDITIONS. NO HYDRANT SHALL BE ALLOWED WHERE LINES ARE GREATER THAN 60" DEEP.

WATER MAIN TRENCH

(UNDER CONCRETE)

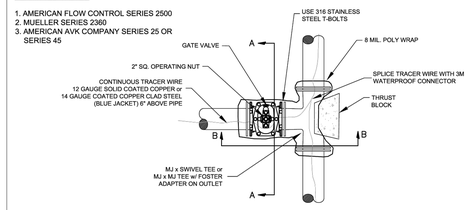
4/16/2015 11:47:59 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

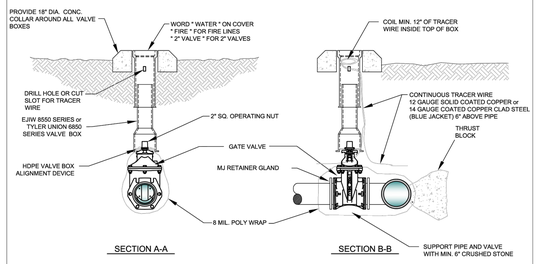
TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	WATER MAIN TRENCH (UNDER PAVEMENT)	REVISED ---- ---- ---- ----	W2
DRAWN BY:	CHECKED BY:	FILE: W2-Water Trench (Under Pavement).dwg	----

PERMITTED VALVES

1. AMERICAN FLOW CONTROL SERIES 2500
2. MUELLER SERIES 2360
3. AMERICAN AVK COMPANY SERIES 25 OR SERIES 45



PLAN



NOTES:

1. ALL VALVES SHALL BE SECURELY ANCHORED TO THE TEE.
2. ALL HARDWARE SHALL BE 316 STAINLESS STEEL.
3. IF DEPTH OF BURY EXCEEDS 4 FT., A VALVE STEM EXTENSION SHALL BE REQUIRED. THE VALVE STEM EXTENSION NUT SHALL BE WITHIN 24-INCHES TO 12-INCHES OF THE FINISHED SURFACE.

GATE VALVE DETAIL

2" - 12"

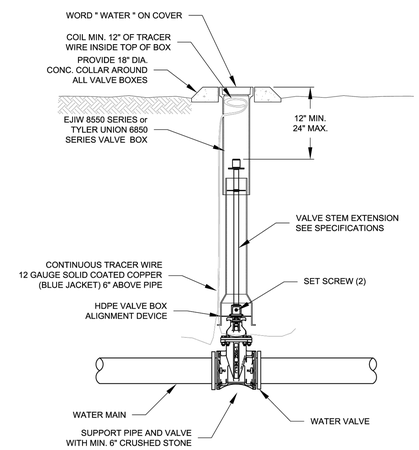
4/16/2015 11:47:53 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	GATE VALVE	REVISED ---- ---- ---- ----	W4
DRAWN BY:	CHECKED BY:	FILE: W4-Gate Valve.dwg	----

NOTES:

1. OPERATING NUT EXTENSIONS SHALL BE USED WHEN THE TOP OF THE OPERATING NUT IS GREATER THAN 4 FEET FROM THE TOP OF FINISHED SURFACE.
2. THE STEM EXTENSION SHALL BE OF ADEQUATE LENGTH TO REACH FROM THE VALVE OPERATING NUT TO A POINT WITHIN 24-INCHES TO 12-INCHES OF THE FINISHED SURFACE.

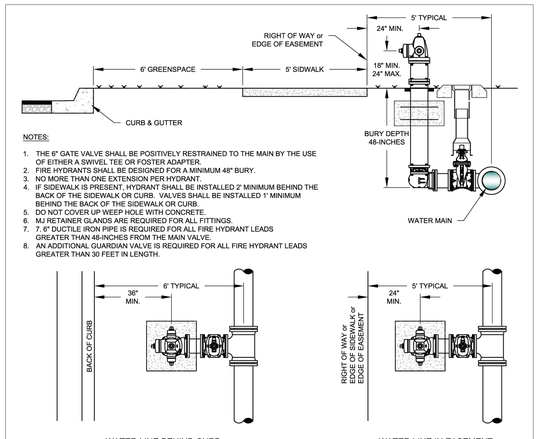


VALVE WITH STEM EXTENSION

4/16/2015 11:47:58 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	VALVE STEM EXTENSION	REVISED ---- ---- ---- ----	W7
DRAWN BY:	CHECKED BY:	FILE: W7-Valve Stem Extension.dwg	----

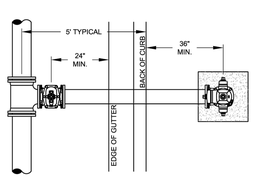


NOTES:

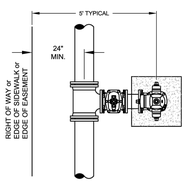
1. THE 6" GATE VALVE SHALL BE POSITIVELY RESTRAINED TO THE MAIN BY THE USE OF EITHER A SWIVEL TEE OR FOSTER ADAPTER.
2. FIRE HYDRANTS SHALL BE DESIGNED FOR A MINIMUM 48" BURY.
3. NO MORE THAN ONE EXTENSION PER HYDRANT.
4. IF SIDEWALK IS PRESENT, HYDRANT SHALL BE INSTALLED 2' MINIMUM BEHIND THE BACK OF THE SIDEWALK OR CURB. VALVES SHALL BE INSTALLED 1' MINIMUM BEHIND THE BACK OF THE SIDEWALK OR CURB.
5. DO NOT COVER UP WEEP HOLE WITH CONCRETE.
6. MJ RETAINER GLANDS ARE REQUIRED FOR ALL FITTINGS.
7. 7. 6" DUCTILE IRON PIPE IS REQUIRED FOR ALL FIRE HYDRANT LEADS GREATER THAN 48-INCHES FROM THE MAIN VALVE.
8. AN ADDITIONAL GUARDIAN VALVE IS REQUIRED FOR ALL FIRE HYDRANT LEADS GREATER THAN 30 FEET IN LENGTH.

WATER LINE BEHIND CURB
INSIDE ROW

WATER LINE IN EASEMENT
OUTSIDE ROW



WATER LINE IN STREET
INSIDE ROW



WATER LINE IN EASEMENT
OUTSIDE ROW

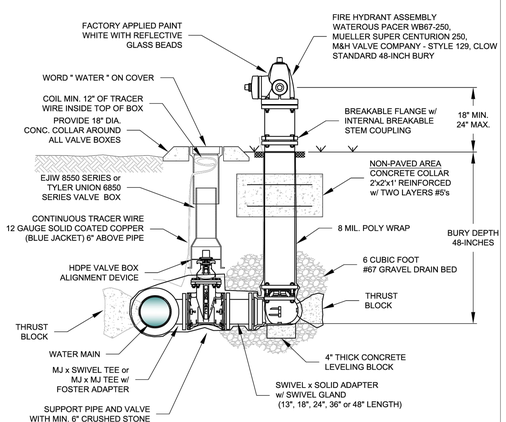
4/16/2015 11:48:00 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	FIRE HYDRANT PLACEMENT	REVISED ---- ---- ---- ----	W9
DRAWN BY:	CHECKED BY:	FILE: W9-Fire Hydrant Placement.dwg	----

NOTES:

1. THE 6" GATE VALVE SHALL BE POSITIVELY RESTRAINED TO THE MAIN BY THE USE OF EITHER A SWIVEL TEE OR FOSTER ADAPTER.
2. FIRE HYDRANTS SHALL BE DESIGNED FOR A MINIMUM 48" BURY.
3. BURY LINE OF HYDRANT SHALL BE NO LESS THAN THE PROPOSED FINISHED ELEVATION OF BACK OF CURB, OR SIDEWALK, WHICHEVER IS GREATER.
4. NO MORE THAN ONE EXTENSION PER HYDRANT.
5. IF SIDEWALK IS PRESENT, HYDRANT SHALL BE INSTALLED 2' MINIMUM BEHIND THE BACK OF THE SIDEWALK OR CURB. VALVES SHALL BE INSTALLED 1' MINIMUM BEHIND THE BACK OF THE SIDEWALK OR CURB.
6. DO NOT COVER UP WEEP HOLE WITH CONCRETE.
7. MJ RETAINER GLANDS ARE REQUIRED FOR ALL FITTINGS.
8. 7. 6" DUCTILE IRON PIPE IS REQUIRED FOR ALL FIRE HYDRANT LEADS GREATER THAN 48-INCHES FROM THE MAIN VALVE.
9. AN ADDITIONAL GUARDIAN VALVE IS REQUIRED FOR ALL FIRE HYDRANT LEADS GREATER THAN 30 FEET IN LENGTH.



FIRE HYDRANT & VALVE CONNECTION

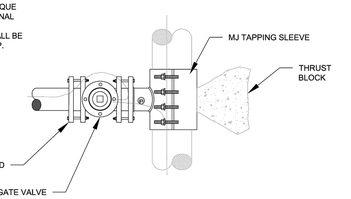
4/16/2015 11:48:04 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

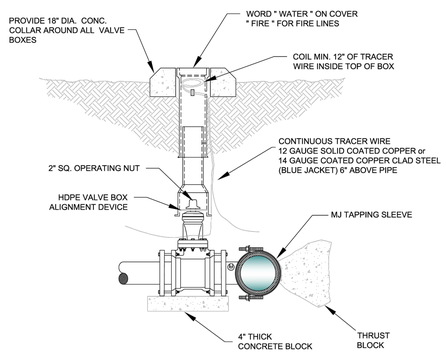
TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	FIRE HYDRANT AND VALVE CONNECTION	REVISED ---- ---- ---- ----	W8
DRAWN BY:	CHECKED BY:	FILE: W8-Fire Hydrant and Valve.dwg	----

NOTES:

1. TAPPING SLEEVE SHALL BE SMITH-BLAIR 662 OR FORD FAST.
2. AFTER THE TAP IS MADE, RE-TORQUE BOLTS ON SLEEVE TO SEAL TO FINAL SHAPE OF PIPE.
3. TAPPING SLEEVE AND VALVE SHALL BE WRAPPED WITH 8 MIL POLY WRAP.



PLAN VIEW



PROFILE VIEW

4/16/2015 11:48:08 AM

CITY OF BRYANT, AR
WATER UTILITIES
210 S.W. 3rd. STREET
BRYANT, AR
PHONE: (501) 943-0468

TITLE:	WATER DETAILS	DATE: APRIL 2015	SHEET:
DESCRIPTION:	TAPPING SLEEVE AND VALVE	REVISED ---- ---- ---- ----	W13
DRAWN BY:	CHECKED BY:	FILE: W13-Tapping Sleeve and Valve.dwg	----

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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

UTILITY SPECS

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:		CHECKED BY:		22-0800
SHEET:	C-3.1	SCALE:		

500	01S	14W	0	21	300	62	1762

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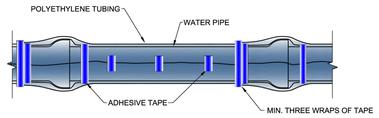
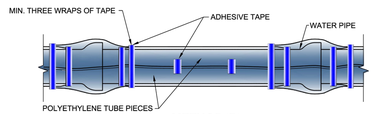


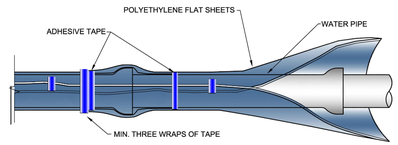
METHOD 'A'

METHOD 'A' USES ONE LENGTH OF POLYETHYLENE TUBE, OVERLAPPED AT THE JOINTS A MINIMUM OF 2 FEET.



METHOD 'B'

METHOD 'B' USES SEPARATE PIECES OF POLYETHYLENE TUBE FOR THE BARREL OF THE PIPE AND THE JOINTS. SHORT PIECES SHALL BE APPROXIMATELY 6" LONG AND OVERLAP BARREL SECTION BY A MINIMUM OF 2 FEET.



METHOD 'C'

METHOD 'C' - USED FOR PIPE-SHAPED AND ODD- SHAPED APPURTENANCES SUCH AS BENDS, REDUCERS, OFFSETS, VALVES, TEES, ETC.

ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE POLY WRAPPED.

THE ANSI/AWWA C105/A21.5 STANDARD OUTLINES THREE METHODS OF INSTALLING POLYETHYLENE ENCASEMENT/ SLEEVING.

CITY OF BRYANT, AR WATER UTILITIES 210 S.W. 3rd. STREET BRYANT, AR PHONE: (501) 943-0466	TITLE: **WATER DETAILS**	DATE: APRIL 2015 / REVISED	SHEET: **W14**
	DESCRIPTION: **POLYETHYLENE PROTECTION MATERIAL**	----	
	DRAWN BY: / CHECKED BY: / FILE: W14--Poly Wrap.dwg	----	

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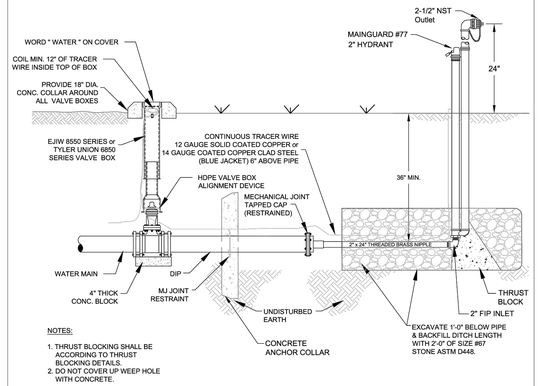


NOTES:

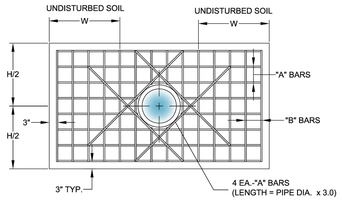
1. THRUST BLOCKING SHALL BE ACCORDING TO THRUST BLOCKING DETAILS.
2. DO NOT COVER UP WEEP HOLE WITH CONCRETE.

BLOW-OFF ASSEMBLY

CITY OF BRYANT, AR WATER UTILITIES 210 S.W. 3rd. STREET BRYANT, AR PHONE: (501) 943-0466	TITLE: **WATER DETAILS**	DATE: APRIL 2015 / REVISED	SHEET: **W19**
	DESCRIPTION: **BLOW-OFF ASSEMBLY**	----	
	DRAWN BY: / CHECKED BY: / FILE: W19--Blow-off Assembly.dwg	----	

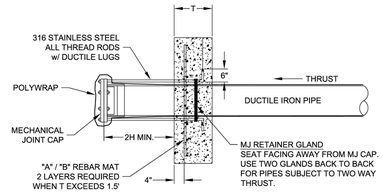
4/26/2023 11:47:58 AM

ANCHOR COLLAR SCHEDULE					
PIPE SIZE	MINIMUM DIMENSIONS			REINFORCING BARS	
	W	H	T	"A" BARS	"B" BARS
6"	1.5'	2.0'	1.0'	#6 @ 6"	#6 @ 6"
8"	2.0'	2.5'	1.0'	#6 @ 6"	#6 @ 6"
12"	2.5'	4.0'	1.5'	#6 @ 6"	#6 @ 6"
16"	3.5'	5.0'	1.5'	#6 @ 6"	#6 @ 6"
20"	5.0'	5.5'	2.0'	#6 @ 6"	#6 @ 6"
24"	6.5'	6.0'	2.0'	#7 @ 6"	#7 @ 10"



NOTES:

1. DESIGN PRESSURE IS 200 PSI PLUS 100 PSI SURGE AND 2,000 PSI SOIL BEARING.
2. ALL DIMENSIONS ARE MINIMUM REQUIREMENTS. ACTUAL FIELD CONDITIONS MAY REQUIRE LARGER DIMENSIONS.
3. ALL RETAINER GLANDS SHALL BE MEGA-LUG BY EBAA IRON.

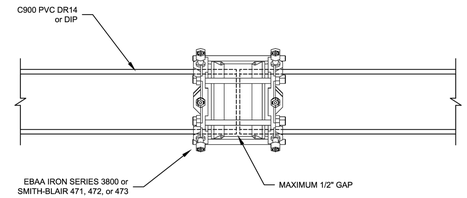


CITY OF BRYANT, AR WATER UTILITIES 210 S.W. 3rd. STREET BRYANT, AR PHONE: (501) 943-0466	TITLE: **WATER DETAILS**	DATE: APRIL 2015 / REVISED	SHEET: **W18**
	DESCRIPTION: **ANCHOR COLLAR**	----	
	DRAWN BY: / CHECKED BY: / FILE: W18--Anchor Collar.dwg	----	

4/26/2023 11:47:18 AM

NOTE:

RESTRAINED COUPLINGS SHALL BE USED WHEN JOINING TWO CUT PIECES OF PIPE, GENERALLY WHEN CUTTING IN VALVES AND TEES.



RESTRAINED COUPLING

CITY OF BRYANT, AR WATER UTILITIES 210 S.W. 3rd. STREET BRYANT, AR PHONE: (501) 943-0466	TITLE: **WATER DETAILS**	DATE: APRIL 2015 / REVISED	SHEET: **W26**
	DESCRIPTION: **RESTRAINED COUPLING**	----	
	DRAWN BY: / CHECKED BY: / FILE: W26--Restrained Coupling.dwg	----	

4/26/2023 11:47:53 AM

City of Bryant - Water System Material Specifications - Short Form

Water System Material	City of Bryant Specification
PVC Pipe - Less than 4"	SDR-13.5
PVC Pipe - 4" through 8"	SDR-14 or C900
Ductile Iron Pipe - 10" and larger	250 PSI Pressure Class
Joint Restraint	Megalug Series 1100 by EBAA
Tracer Wire Splice Caps	Carsonite Model LCTSI508
Tracer Wire Splice Poles	Carsonite Model CTP307201
Marking Tape	Terra Tape "Extra Stretch" Rhino Marking and Protection Systems Harris Industries, Inc.
Water Line Marker Signs	Carsonite International
Gate Valves	Mueller Series 2360 American Flow Control Series 2500 Clow Corporation
Valve Boxes	East Jordan Iron Works 8550 Series Mueller Tyler Union 6850 Series
Butterfly Valves	Pratt HP250II Dezurik BAW
Tapping Sleeves	Smith-Blair 662 Style FAST by Ford Meter Box Company
Fire Hydrants	M&H Valve Company - Style 129 Mueller Super Centurion 250 American Flow Control 5-1/4" Waterous Pacer WB67-250 Clow
Blow-Off Hydrants	Mainguard No. 77
Air Relief Valves (1" & 2")	A.R.I. Model D-040
Air Relief Valves (3" to 10")	A.R.I. Model D-060-C HF
Combination Air Valve (2" & larger)	A.R.I. D-050
Meter Box	DFW Plastics Polymer Body
Meter Box Lid	DFW Plastics Polymer Lid - Bryant
Meter Setter	A.Y. McDonald NL 726-207WX2D 33
Tapping Saddle	A.Y. McDonald Hinged Saddle 3891 Romac 101 NS
Corp Stop	A.Y. McDonald NL Plug Style 74701-22 Ford FB1000-4-Q-NL Mueller B25008N
Service Tubing	SDR 9 HDPE Tubing

C. Brass for meter materials shall be manufactured by Ford Meter Box Company, Inc. or Mueller Company. Equivalent cross referencing for corporation stops and meter setters shall be permitted as approved by the City of Bryant. Materials for standard meter sets 5/8", 1", 1-1/2", and 2" are as follows:

Single Meter Set

main diameter x 1" saddle	Romac 101NS
	A.Y. McDonald Hinged Saddle 3891
1" corporation	Ford FB1000-4-Q-NL
	Mueller B25008N
1" SDR 9 HDPE pipe w/ inserts	
5/8" x 3/4" x 12" meter yolk	Ford VB72-12W-44-43-SQ-NL
	Mueller 238B2567-R--93N
	A.Y. McDonald NL 726-207WX2D 33
1/2" x 16" SCH 40 PVC brace	
3/4" SDR 9 tail piece w/ insert, 4' long	
18" diameter x 18" deep polymer meter box	DFW Plastics DFW1818TEX-AF1EQA MINET BRY
18" solid black polymer meter lid	DFW Plastics, w/ Bryant logo

Double Meter Set

main diameter x 1" saddle	Romac 101NS
	A.Y. McDonald Hinged Saddle 3891
1" corporation stop	Ford FB1000-4-Q-NL
	Mueller B25008N
	A.Y. McDonald NL Plug Style 74701-22
1" SDR 9 HDPE pipe w/ inserts	
1" x 7.5" x 3/4" U branch	Ford U48-43-7.5-Q-NL
	Ford multipurpose end C31-23-NL (x2)
	Mueller H15363N (1" compression inlet)
	Mueller end connection H14222N (x2)
5/8" x 3/4" x 12" meter yolk	Ford VB72-12W-14-33-Q-NL
	Mueller 238B2567-RN
	A.Y. McDonald NL 726-207WX2D 33
1/2" x 16" SCH"40 PVC brace	
3/4" SDR 9 tail piece w/ insert, 4' long	
24" diameter x 18" deep polymer meter box	DFW Plastics DFW 2418F-AF1EQA MINET BRY
20" solid black polymer meter lid	DFW Plastics, w/ Bryant logo

HOPE CONSULTING
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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

UTILITY SPECS

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER: 22-0800
REVISED:		CHECKED BY:	
SHEET:	C-3.2	SCALE:	

500	01S	14W	0	21	300	62	1762

Hope Consulting - Arkansas Storage Center - Bryant, AR - 22-0800.dwg 4/26/2023 11:47:53 AM

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

EXISTING TREE BUFFER

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

5' BUILDING SETBACK LINE

RETENTION POND
1.95 ACRES
84853 Sq. Ft.

1 — 11480 Sq. Ft. — FFE: 361.50
2 — 15900 Sq. Ft. — FFE: 363.00 / FFE: 364.00
3 — 30060 Sq. Ft. — FFE: 367.50 / FFE: 368.50
4 — 17440 Sq. Ft. — FFE: 362.00 / FFE: 361.00
5 — 21200 Sq. Ft. — FFE: 362.00 / FFE: 363.00
6 — 34160 Sq. Ft. — FFE: 366.00 / FFE: 367.00 / FFE: 368.00
7 — 22960 Sq. Ft. — FFE: 361.50 / FFE: 360.50
8 — 21200 Sq. Ft. — FFE: 360.00 / FFE: 361.00
9 — 28160 Sq. Ft. — FFE: 364.50 / FFE: 365.50 / FFE: 366.50
10 — 17000 Sq. Ft. — FFE: 364.00 / FFE: 365.00
11 — 25120 Sq. Ft. — FFE: 361.00 / FFE: 360.00
12 — 18560 Sq. Ft. — FFE: 361.50 / FFE: 362.50
13 — 6600 Sq. Ft. — FFE: 359.00
14 — 17925 Sq. Ft. — FFE: 360.11 / FFE: 360.11
15 — 14243 Sq. Ft. — FFE: 360.50 / FFE: 360.50

11+86
11+00
10+00
9+00
8+00
7+00
6+00
5+00
4+00
3+00
2+00
1+00
0+00

BILLBOARD

I-30 FRONTAGE ROAD

LEGEND

EXISTING CONTOUR LINE — 363 —
PROPOSED CONTOUR LINE — 363 —
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

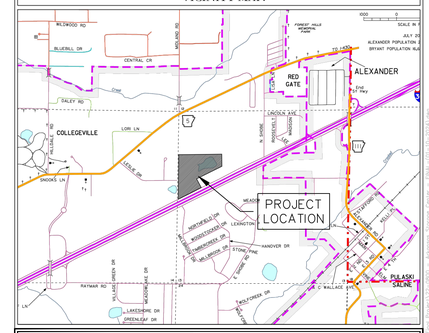
N

BASIS OF BEARING:
GRID NORTH ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

70' 35' 0 70'

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

GRADING PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-4.0	SCALE: 1" = 70'		

500	01S	14W	0	21	300	62	1762

CURRENT ZONING R-1

CURRENT ZONING C-2

CURRENT ZONING R-E

CURRENT ZONING C-3

EXISTING TREE BUFFER

25' BUILDING SETBACK LINE

15' BUILDING SETBACK LINE

55' BUFFER

EXISTING TREE BUFFER

TOP OF LEVEE

10' WIDE LEVEE

SPILLWAY ELEV. 355.30'
SPILLWAY (5' WIDE)

RIP-RAP

FLOW ELEV.= 353.5'

20' OF 18" RCP @ 0.50%

RETENTION POND
1.55 ACRES
68015 Sq. Ft.

FLOW ELEV.= 351.4'

FFE: 359.00
13
6600 Sq. Ft.

FFE: 361.00
FFE: 361.50
12
18560 Sq. Ft.
FFE: 362.50

FFE: 360.11
14
17925 Sq. Ft.
FFE: 360.11

FFE: 360.50
15
14243 Sq. Ft.
FFE: 360.50

FFE: 361.50
7
22960 Sq. Ft.
FFE: 360.50

FFE: 361.00
11
25120 Sq. Ft.
FFE: 360.00

FFE: 360.00
8
21200 Sq. Ft.
FFE: 361.00

FFE: 361.50
1
FFE: 362.00
4
17440 Sq. Ft.
FFE: 361.00

FFE: 363.00
2
15900 Sq. Ft.
FFE: 364.00

FFE: 362.00
5
21200 Sq. Ft.
FFE: 363.00

FFE: 366.00
6
34160 Sq. Ft.
FFE: 367.00

FFE: 365.50
9
28160 Sq. Ft.
FFE: 366.50

FFE: 364.00
10
17000 Sq. Ft.
FFE: 365.00

FFE: 366.50
FFE: 367.50
3
30000 Sq. Ft.
FFE: 368.50

FFE: 368.00

CB - (11)
STA:0+00.00 OFF:0.00
RIM:359.95
INV OUT:355.41 12"

CB - (10)
STA:0+00.00 OFF:0.00
RIM:360.09
INV OUT:355.50 18"

CB - (9)
STA:1+12.00 OFF:0.00
RIM:360.78
INV IN:355.87 24"
INV OUT:355.62 24"

CB - (13)
STA:3+02.23 OFF:-31.25L
RIM:362.82
INV OUT:357.24 24"

CB - (8)
STA:8+82.63 OFF:-0.03L
RIM:359.31
INV IN:353.75 30"
INV IN:353.86 24"
INV IN:354.62 18"
INV OUT:353.51 30"

CB - (19)
STA:2+59.50 OFF:0.00
RIM:359.50
INV IN:354.70 18"
INV IN:354.56 24"
INV OUT:354.56 24"

CB - (20)
STA:3+02.23 OFF:-0.05L
RIM:363.75
INV IN:359.99 18"
INV IN:359.49 24"
INV OUT:359.49 24"

CB - (18)
STA:3+02.23 OFF:-102.56L
RIM:365.90
INV OUT:361.66 24"

CB - (7)
STA:4+47.19 OFF:0.00
RIM:362.99
INV IN:358.00 24"
INV IN:358.50 18"
INV OUT:357.90 24"

CB - (17)
STA:2+00.00 OFF:0.00
RIM:364.00
INV IN:359.50 18"
INV OUT:359.50 18"

CB - (6)
STA:5+86.74 OFF:0.00
RIM:361.40
INV IN:356.40 24"
INV IN:356.40 18"
INV OUT:355.90 30"

CB - (5)
STA:0+00.00 OFF:0.00
RIM:364.00
INV OUT:360.50 18"

CB - (4)
STA:0+00.00 OFF:0.00
RIM:366.00
INV OUT:361.50 24"

CB - (3)
STA:2+00.00 OFF:0.00
RIM:366.78
INV OUT:361.50 18"

107' OF 24" HDPE @ 1.76%
148' OF 24" HDPE @ 0.89%
159' OF 24" HDPE @ 0.50%
142' OF 18" HDPE @ 0.50%
177' OF 18" HDPE @ 0.50%
347' OF 36" HDPE @ 0.51%
296' OF 30" HDPE @ 0.75%
102' OF 24" HDPE @ 1.53%
145' OF 24" HDPE @ 1.03%
140' OF 24" HDPE @ 1.07%
132' OF 18" HDPE @ 1.07%
30' OF 18" HDPE @ 0.50%
21' OF 18" HDPE @ 1.43%
200' OF 30" HDPE @ 1.00%

24" RCP PIPE
ELEV. 366.23'

18" HDPE PIPE
ELEV. 369.51'

GRATE INLET
ELEV. 368.25'
INVERT. 3.15'

I-30 FRONTAGE ROAD

BILLBOARD

LEGEND

PROPOSED CONTOUR LINE — 363 —
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

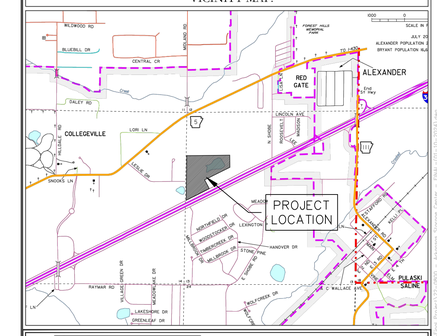
N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

70' 35' 0 70'

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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www.hopeconsulting.com

FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
DRAINAGE PLAN
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.0	SCALE: 1" = 70'	

500	01S	14W	0	21	300	62	1762

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EXISTING TREE BUFFER
55' BUFFER/ SETBACK LINE
FIRE LANE
EXISTING CONTOUR LINE
PROPOSED CONTOUR LINE
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE
FLOW ELEV.= 351.4'
23' BUILDING SETBACK LINE
A1
A2
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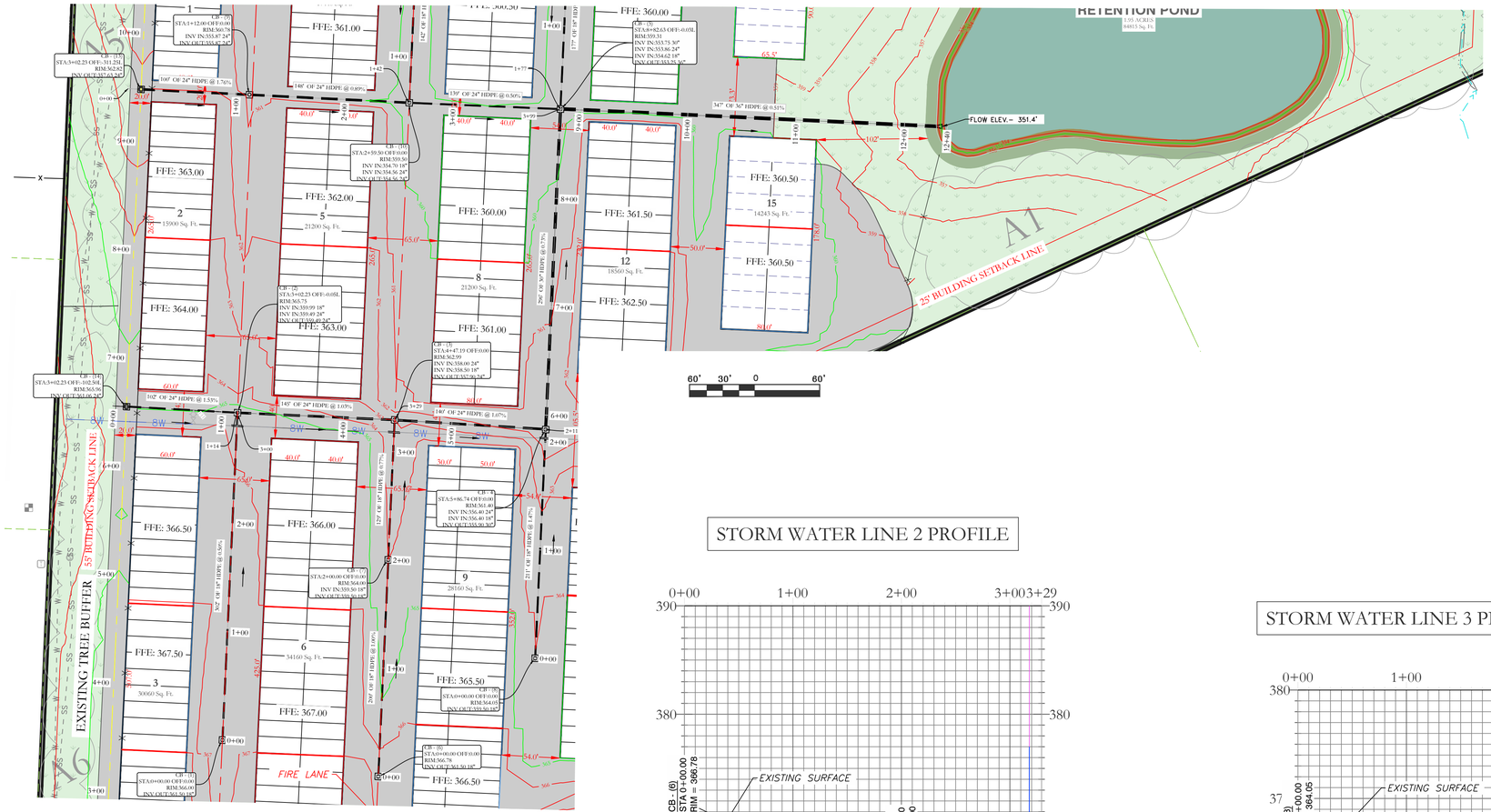
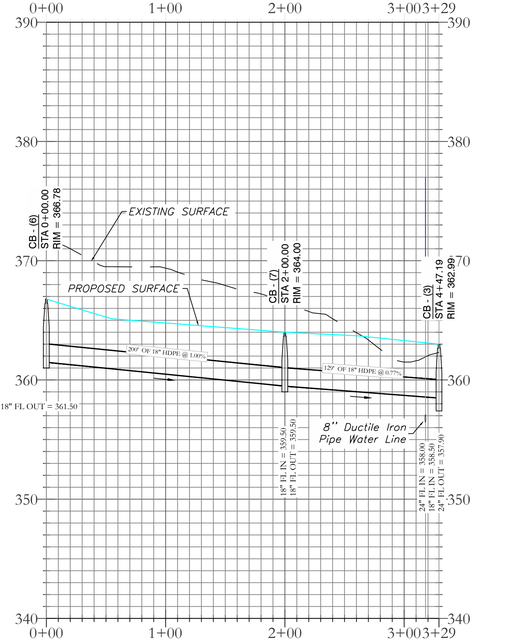
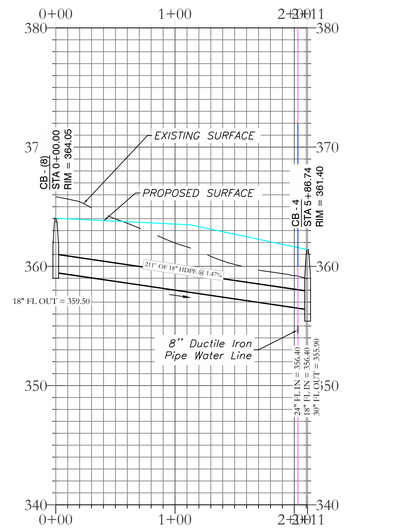


STORM WATER LINE 2 PROFILE

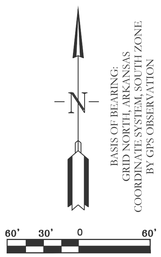


STORM WATER LINE 3 PROFILE



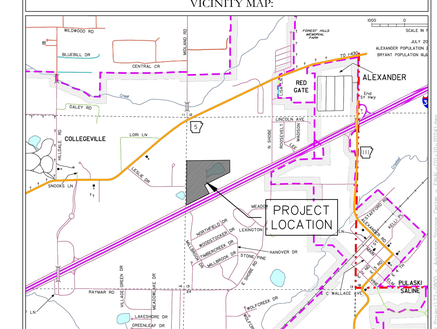
LEGEND

EXISTING CONTOUR LINE — — 363 — —
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE



CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

DRAINAGE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.2	SCALE:	

500	01S	14W	0	21	300	62	1762

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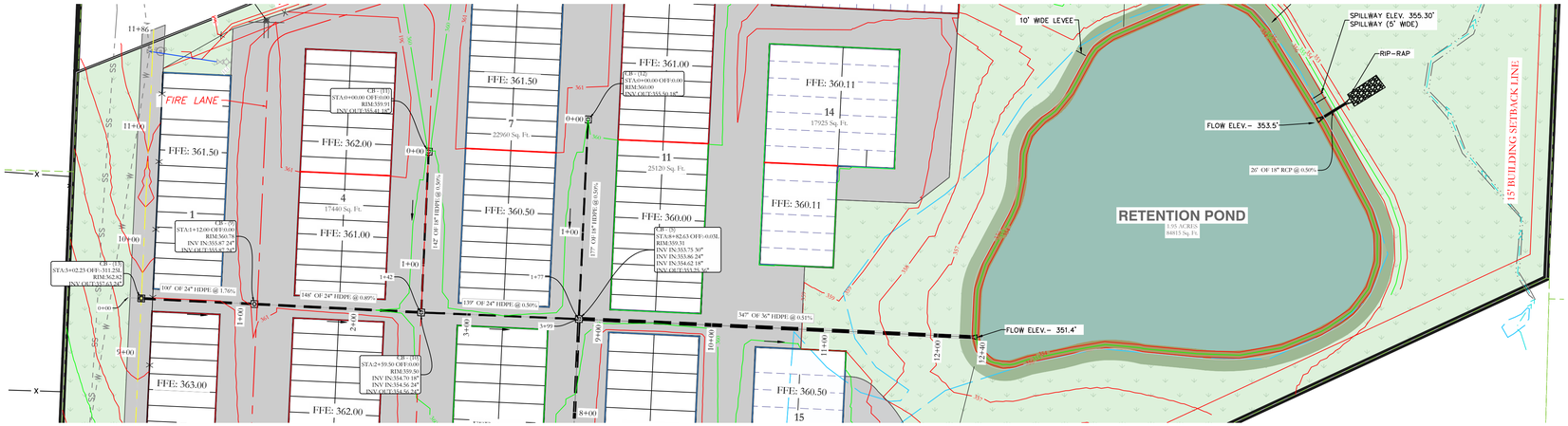


LEGEND

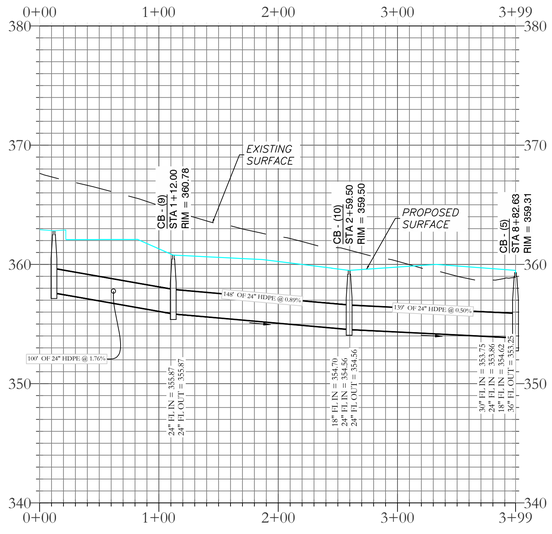
EXISTING CONTOUR LINE — 363

PROPOSED CONTOUR LINE — 363

PROPOSED HDPE STORM PIPE

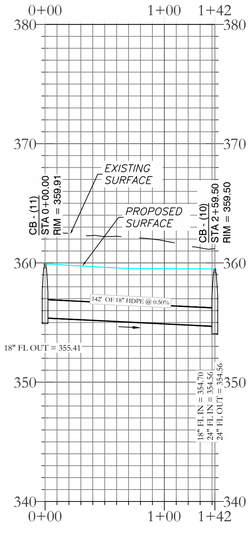
PROPOSED RCP STORM PIPE

STORM WATER LINE 4 PROFILE



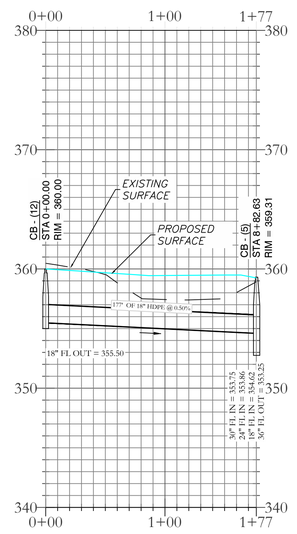
60' 30' 0 60'

STORM WATER LINE 5 PROFILE



60' 30' 0 60'

STORM WATER LINE 6 PROFILE



60' 30' 0 60'

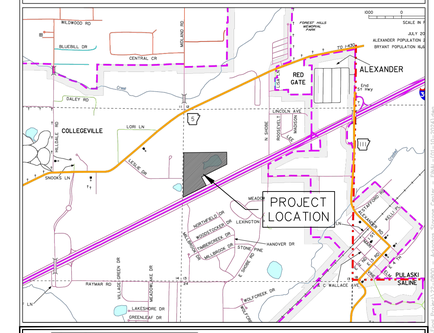
HOPE CONSULTING, INC. No. 1931 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

60' 30' 0 60'

VICINITY MAP:



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Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

FOR USE AND BENEFIT OF:

STUART FINLEY

ARKANSAS STORAGE CENTER

DRAINAGE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

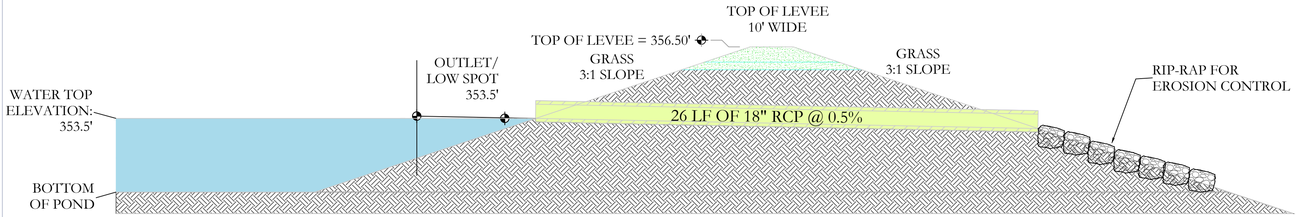
DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.3	SCALE:	

500	01S	14W	0	21	300	62	1762

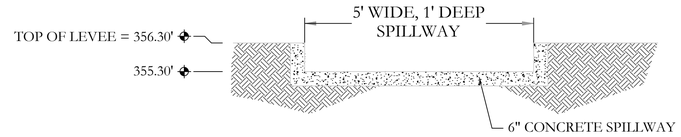
THESE PLANS ARE THE PROPERTY OF HOPE CONSULTING, INC. AND ARE NOT TO BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF HOPE CONSULTING, INC.

BASIS OF BEARINGS:
GRID NORTH ARKANSAS
COORDINATE SYSTEM (SOUTH ZONE)
BY GPS OBSERVATION

WET POND OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS



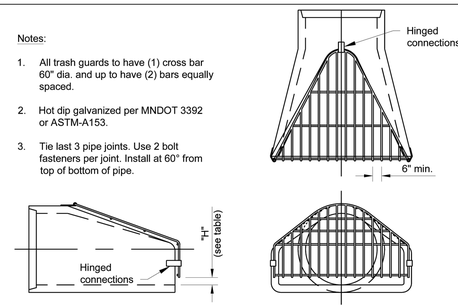
LEGEND

EXISTING CONTOUR LINE 363
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

FLARED END SECTION TRASH RACK
NTS

Notes:

1. All trash guards to have (1) cross bar 60" dia. and up to have (2) bars equally spaced.
2. Hot dip galvanized per MNDOT 3392 or ASTM-A153.
3. Tie last 3 pipe joints. Use 2 bolt fasteners per joint. Install at 60° from top of bottom of pipe.



BAR SIZES								
STANDARD DESIGN					HEAVY DESIGN			
	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE		PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
ROUND	12"-24"	3/4"	5/8"	5/8"	ROUND	12"-18"	3/4"	5/8"	3/4"
	27"-48"	7/8"	3/4"	3/4"		21"-42"	7/8"	3/4"	1"
	54"-90"	1 1/8"	1"	1"		48"-90"	1 1/8"	1"	1 1/4"
ARCH	22"-29"	3/4"	5/8"	5/8"	ARCH	22"	3/4"	5/8"	3/4"
	36"-59"	7/8"	3/4"	3/4"		29"-51"	7/8"	3/4"	1"
	65"-88"	1 1/8"	1"	1"		59"-88"	1 1/8"	1"	1 1/4"
BOLT LG. = PIPEWALL THICKNESS + 2 1/2"									

VALUES FOR "H"			
ROUND PIPE		ARCH PIPE	
PIPE SIZE	H	PIPE SIZE	H
12"	2 1/2"	22"-29"	4"
15"	3"	36"-44"	5"
18"-24"	4"	51"-55"	6"
27"-36"	5"	73"-88"	7"
42"-54"	6"		
60"-72"	7"		
78"-90"	8"		

DETENTION POND MAINTENANCE PLAN

Background
There will be one retention pond in this project.The retention pond is located at the North-East of the subject property. It is designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
The property owners association 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.

Periodic or Non-Routine Maintenance
The routine inspection of the pond area and discharge pipe 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.

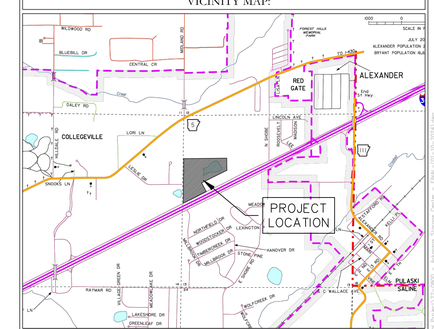
-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge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

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

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
RETENTION POND PLAN
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.4	SCALE:	

500	01S	14W	0	21	300	62	1762

THESE PLANS ARE THE PROPERTY OF HOPE CONSULTING, INC. AND ARE NOT TO BE USED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF HOPE CONSULTING, INC.

• Pre-Development time of Concentration

#22-0800
1/23/24

* (A-B) Overland Flow, toc:

$t_i = \frac{0.93[N]^{0.467}}{S^{0.5}}$

$t_i = \frac{0.93[0.4(58.4)]^{0.467}}{(0.047)^{0.5}}$

t_i = 16.7 min

- N = 0.40 (Pasture, average, grass cover)
- L = 58 ft
- S = 0.047

*(B-C) Shallow Concentrated Flow, toc:

- V_k unpaved = $16.1345(S)^{0.5}$
- V_k unpaved = $16.1345(0.021)^{0.5}$
- V_k unpaved = 2.34 ft/s
- $t_{sh} = \frac{L}{60(V_k)} = \frac{409\ ft}{60(2.34\ ft/s)}$

t_{sh} = 2.92 min

- L = 409 ft
- S = 0.021
- $V_{unp} = 16.1345(0.021)^{0.5}$
- V_{unp} = 2.34 ft/s

1/5

• Pre-Development time of Concentration

1/23/24

* (C-D) Open Channel Flow #1, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.36)^{2/3}(0.033)^{0.5}$
- V_c = 7.21 ft/s
- $T_t = \frac{L}{60(V)} = \frac{77\ ft}{60(7.21\ ft/s)}$
- t_t = 0.18 min

- n = 0.019
- L = 77 ft
- S = 0.033
- r = 0.36

* (D-E) Open Channel Flow #2, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.70)^{2/3}(0.030)^{1/2}$
- V_c = 10.72 ft/s
- $t_c = \frac{L}{60(V)} = \frac{208\ ft}{60(10.72\ ft/s)}$
- t_t = 0.32 min

- n = 0.019
- L = 208 ft
- S = 0.030
- r = 0.70

3/5

• Pre-Development time of Concentration

#22-0800
1/23/24

* Open Channel Flow #3, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.495)^{2/3}(0.020)^{1/2}$
- V_c = 6.53 ft/s
- $t_t = \frac{L}{(60)(V)} = \frac{172\ ft}{(60)(6.53\ ft/s)} = 0.44$ min

- n = 0.019
- L = 172 ft
- S = 0.020
- R = 0.45

*Open Channel Flow #4, toc

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.419)^{2/3}(0.010)^{1/2}$
- V_c = 4.84 ft/s
- $t_t = \frac{L}{60(V)} = \frac{361\ ft}{60(4.84\ ft/s)} = 1.24$ min

- n = 0.019
- L = 361 ft
- S = 0.010
- R = 0.419

∴ Pre-Dev. TOC = 16.7 min + 2.92 min + 0.18 min + 0.32 min + 0.44 min + 1.24 min

= 21.8 min

3/5

① Open Channel Cross Sectional Area #1:

#22-0800
1/23/24

B = 5 ft; 1.25 ft; 0.5 ft (y); t=?; b = 2.5 ft

- Area = (b + ty)(y) = (2.5 + (2.5)(0.5))(0.5) = 1.88 ft²
- R = A/P = 1.88 ft² / 5.19 ft = 0.36
- Wetted Perimeter (P) = b + 2yw; w = $(1+t^2)^{0.5}$; w = $(1+(2.5)^2)^{0.5}$; w = 2.69
- P = 2.5' + 2(0.5)(2.69); P = 5.19 ft
- y = 1.25 ft / t
- t = 1.25 ft / 0.5 ft
- t = 2.5

② Open Channel Flow Cross Sectional Area #2:

B = 10 ft; 2.5'; 0.97 ft (y); t=?; b = 5 ft

- Area = (b + ty)(y) = (5 + (2.58)(0.97))(0.97) = 7.28 ft²
- R = A/P = 7.28 ft² / 10.37 ft = 0.70
- Wetted Perimeter (P) = b + 2yw; w = $(1+t^2)^{0.5}$; w = $(1+(2.58)^2)^{0.5}$; w = 2.77
- P = 5 + 2(0.97')(2.77); P = 10.37 ft
- y = 2.5 ft
- t = 2.5 ft / 0.97
- t = 2.58 ft

4/5

③ Open Channel Flow Cross Sectional Area #3:

#22-0800
1/23/24

15 ft; 3.75'; 0.61 ft (y); t=?; 7.5 ft

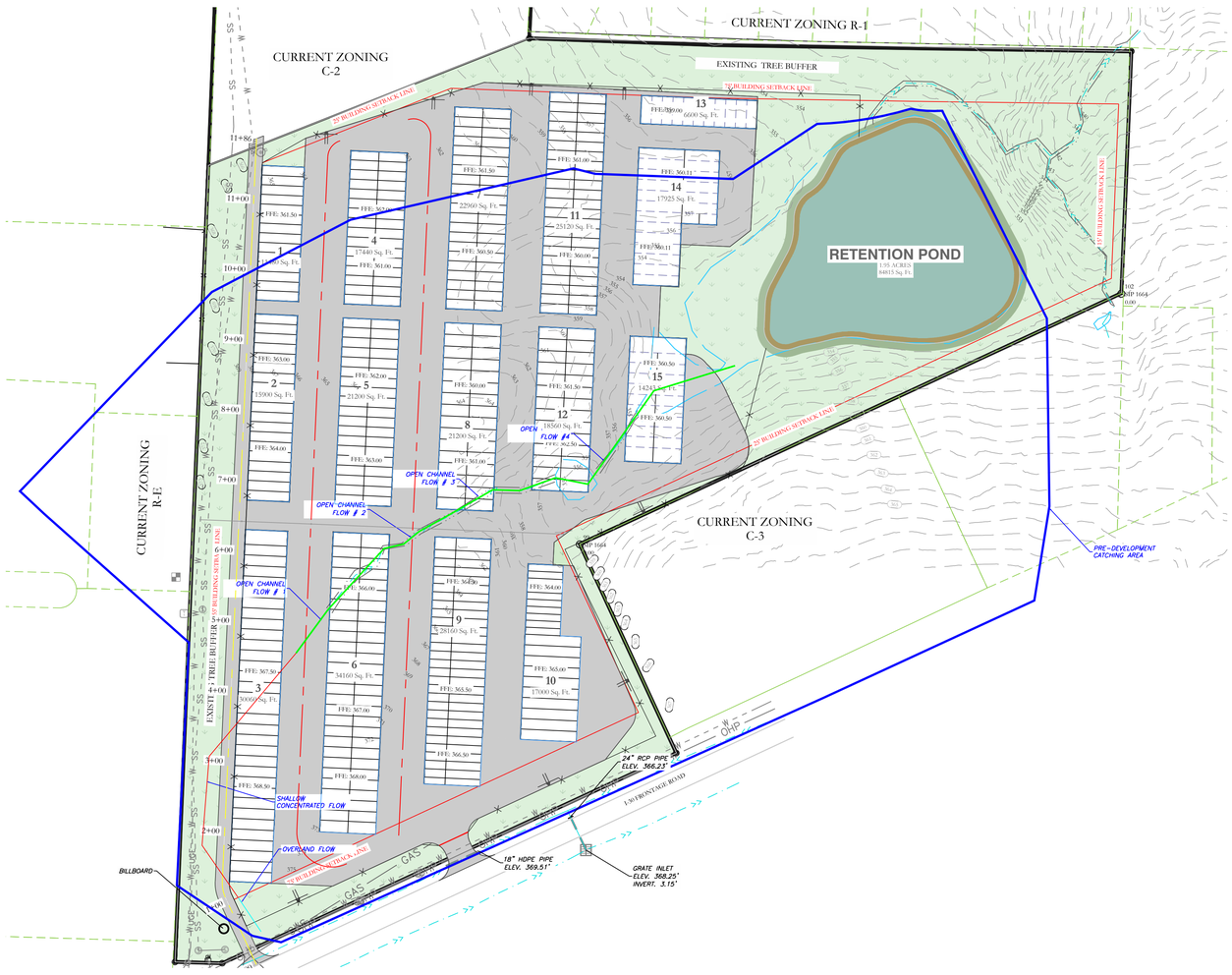
- Area = (b + ty)(y) = (7.5 + (6.2)(0.61))(0.61) = 6.88 ft²
- R = A/P = 6.88 ft² / 15.16 = 0.45
- Wetted Perimeter (P) = b + 2yw; w = $(1+t^2)^{0.5}$; w = $(1+(6.2)^2)^{0.5}$; w = 6.28
- P = 7.5 + 2(0.61)(6.28); P = 15.16 ft
- y = 3.75 ft / t
- t = 3.75 ft / 0.61 ft
- t = 6.2

④ Open channel Flow Cross Sectional Area #4

20 ft; 5 ft; 0.65 ft (y); t=?; 10 ft

- Area = (b + ty)(y) = (10 + (7.69)(0.65))(0.65) = 9.75 ft²
- R = A/P = 9.75 ft² / 20.08 ft = 0.49
- Wetted Perimeter: P = b + 2yw; w = $(1+t^2)^{0.5}$; w = $(1+(7.69)^2)^{0.5}$; w = 7.75
- P = 10 + 2(0.65)(7.75); P = 20.08 ft
- y = 5 ft / t
- t = 5 ft / 0.65 ft
- t = 7.69

1/5



Pre-Development Time of Concentration Summary

Reach	Description of Flow	n	Length (ft)	Slope (ft/ft)	Cross. Area (sqft)	Welted Perimeter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.4	58.40	0.047					16.68
B-C	Shallow Flow		409.00	0.021				2.34	2.92
C-D	Open Channel #1	0.019	77.00	0.033	1.88	5.19	0.36	7.21	0.18
D-E	Open Channel #2	0.019	208.00	0.030	7.28	10.37	0.70	10.72	0.32
E-F	Open Channel #3	0.019	172.00	0.020	6.88	15.16	0.45	6.53	0.44
F-G	Open Channel #4	0.019	361.00	0.010	9.75	20.08	0.49	4.84	1.24
							Total Time		21.77

Pre Development Drainage Calculations

Total Area, A= 26.06 ac
Impervious area (gravel)= 4.65 ac
Landscape (forest/woodland)= 21.4 ac

For 25 years,
Runoff Coefficient , C=0.50 (gravel)
=0.40(forest/woodland)
Composite Co-efficient,C = 0.42
Time of Concentration,t=21.8 min=22 min

For 100 years,
Runoff Coefficient , C=0.65 (gravel)
=0.47 (forest/woodland)
Composite Co-efficient,C =0.50
Time of Concentration,t=21.8min=22 min

LEGEND

EXISTING CONTOUR LINE — — 363 — —
PROPOSED CONTOUR LINE —— 363 ——
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

LEGEND

POST DEVELOPMENT AREA
PRE DEVELOPMENT AREA
CHANNELIZED FLOW TOC LENGTH
SHALLOW CONCENTRATED FLOW TOC LENGTH
OVERLAND FLOW TOC LENGTH

CERTIFICATE OF AUTHORIZATION — HOPE CONSULTING, INC. — No. 1931 — ARKANSAS

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

100' 50' 0 100'

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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
PRE-DEVELOPMENT CALCULATIONS
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	1-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.5	SCALE: 1" = 100'	

500 | 01S | 14W | 0 | 21 | 300 | 62 | 1762

· Post-Development time of Concentration

#22-0800
1/23/2024

*(A-B) Overland flow, toc:

$t_i = \frac{0.83\,[NL]^{0.467}}{S^{0.5}}$

$t_i = \frac{0.83\,[(0.02)(51.3)]^{0.467}}{(0.045)^{0.5}}$

$t_i = 3.96$ min

· W = 0.02 (smooth & Impervious surfaces)
· L = 51.3 ft
· S = 0.045

*(B-C) Shallow Concentrated Flow, toc:

$V_{paved} = 20.328(S)^{0.5}$

$V_{pav} = 20.328(0.02)^{0.5}$

$V_{pav} = 2.87$ ft/s

$t_i = \frac{L}{60(V)}$

$t_i = \frac{256\text{ ft}}{60(2.87\text{ ft/s})}$

$t_i = 1.48$ min

· L = 256 ft
· S = 0.02

WG 1/3

· Post-Development Time of Concentration

#22-0800
1/23/24

*(C-D) 18" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.38)^{2/3}(0.005)^{1/2}$

$V_c = 4.55$ ft/s

· $t_t = \frac{L}{60(V)} = \frac{302\text{ ft}}{60(4.55\text{ ft/s})} = 1.11$ min

· n = 0.012 HDPE Manning's
· L = 302 ft
· Diameter = 18" = 1.5'
· $R = \frac{D}{4} = \frac{1.5'}{4} = 0.38$
· S = 0.005

*(D-E) 24" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.50)^{2/3}(0.010)^{0.5}$

$V_c = 7.92$ ft/s

· $t_i = \frac{L}{60(V)} = \frac{145\text{ ft}}{60(7.92\text{ ft/s})} = 0.31$ min

· n = 0.012 HDPE Manning's
· L = 145 ft
· Diameter = 24" → 2'
· $R = \frac{D}{4} = \frac{2}{4} = 0.50$
· S = 0.010

*(E-F) 24" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.5)^{2/3}(0.011)^{1/2}$

$V_c = 8.18$ ft/s

· $t_i = \frac{L}{60(V)} = \frac{140\text{ ft}}{60(8.18\text{ ft/s})} = 0.29$ min

· n = 0.012
· L = 140 ft
· Diameter = 24" → 2'
· $R = \frac{D}{4} = \frac{2}{4} = 0.5$
· S = 0.011

WG 2/3

· Post-Development Time of Concentration

#22-0800
1/23/24

*(F-G) 30" HDPE Pipe Channeled Flow

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.63)^{2/3}(0.007)^{1/2}$

$V_c = 7.74$ ft/s

$t_t = \frac{L}{60(V)} = \frac{296\text{ ft}}{60(7.74\text{ ft/s})} = 0.64$ min

· n = 0.012 HDPE Manning's
· L = 296 ft
· Diameter = 30" → 2.5'
· $R = \frac{D}{4} \rightarrow \frac{2.5}{4} = 0.63$
· S = 0.007

*(G-H) HDPE Pipe Channeled Flow

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.75)^{2/3}(0.005)^{1/2}$

$V_c = 7.24$ ft/s

$t_t = \frac{L}{60(V)} = \frac{347\text{ ft}}{60(7.24\text{ ft/s})} = 0.80$ min

· n = 0.012 HDPE Manning's
· L = 347 ft
· Diameter = 36" = 3'
· $R = \frac{D}{4} = \frac{3}{4} = 0.75$
· S = 0.005

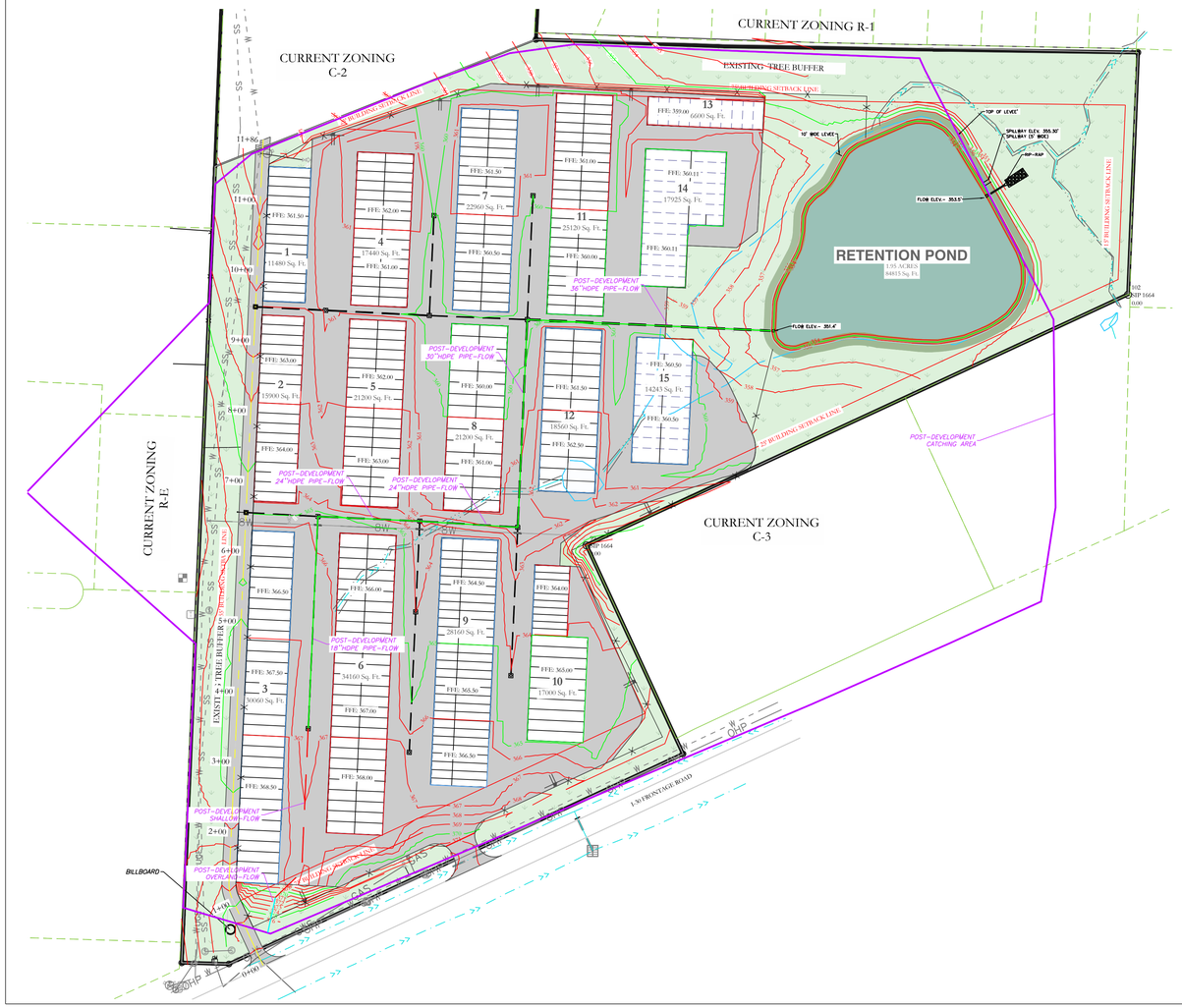
∴ Total TOC = 3.96 min + 1.48 min + 1.11 min + 0.31 min + 0.29 min + 0.64 min + 0.80 min

= 8.59 min

WG 3/3

Post-Development Time of Concentration Summary

Reach	Description of Flow	n	Length (ft)	Slope (ft/ft)	Diameter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.02	51.30	0.045				3.96
B-C	Shallow Flow		256.00	0.020			2.87	1.48
C-D	18" HDPE Pipe	0.012	302.00	0.005	1.50	0.38	4.55	1.11
D-E	24" HDPE Pipe	0.012	145.00	0.010	2.00	0.50	7.92	0.31
E-F	24" HDPE Pipe	0.012	140.00	0.011	2.00	0.50	8.18	0.29
F-G	30" HDPE Pipe	0.012	296.00	0.007	2.50	0.63	7.74	0.64
G-H	36" HDPE Pipe	0.012	347.00	0.005	3.00	0.75	7.24	0.80
							Total Time	**8.58**



Post Development Drainage Calculations

Total Area, A= 28.53 ac
Impervious area (gravel)= 4.65 ac
Landscape (forest/woodland)= 23.88 ac

For 25 years,
Runoff Coefficient , C=0.50 (gravel)
=0.88(asphalt)
Composite Co-efficient,C = 0.82
Time of Concentration,t=8.58 min=8.6 min

For 100 years,
Runoff Coefficient , C=0.65 (gravel)
=0.97 (asphalt)
Composite Co-efficient,C = 0.92
Time of Concentration,t=8.58min=8.6 min

LEGEND

EXISTING CONTOUR LINE — 363 —
PROPOSED CONTOUR LINE — 363 —
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

LEGEND

POST DEVELOPMENT AREA
PRE DEVELOPMENT AREA
CHANNELIZED FLOW TOC LENGTH
SHALLOW CONCENTRATED FLOW TOC LENGTH
OVERLAND FLOW TOC LENGTH

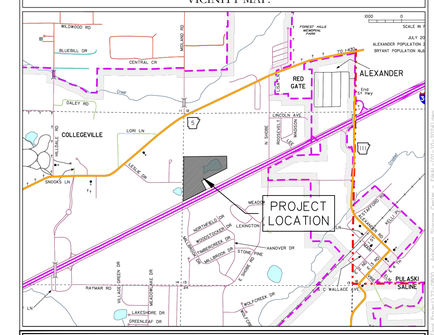
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

N

BASIS OF BEARINGS:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

100' 50' 0 100'

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

POST-DEVELOPMENT FLOW

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-5.6	SCALE: 1" = 100'		

500	01S	14W	0	21	300	62	1762

INLET SIZE CALCULATIONS:

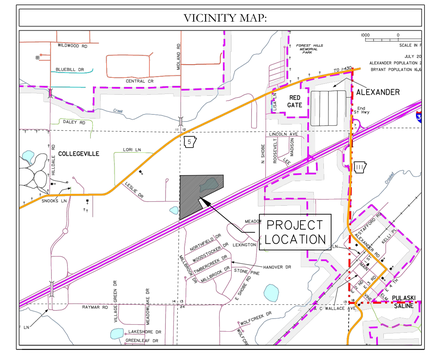
For 25 yr:

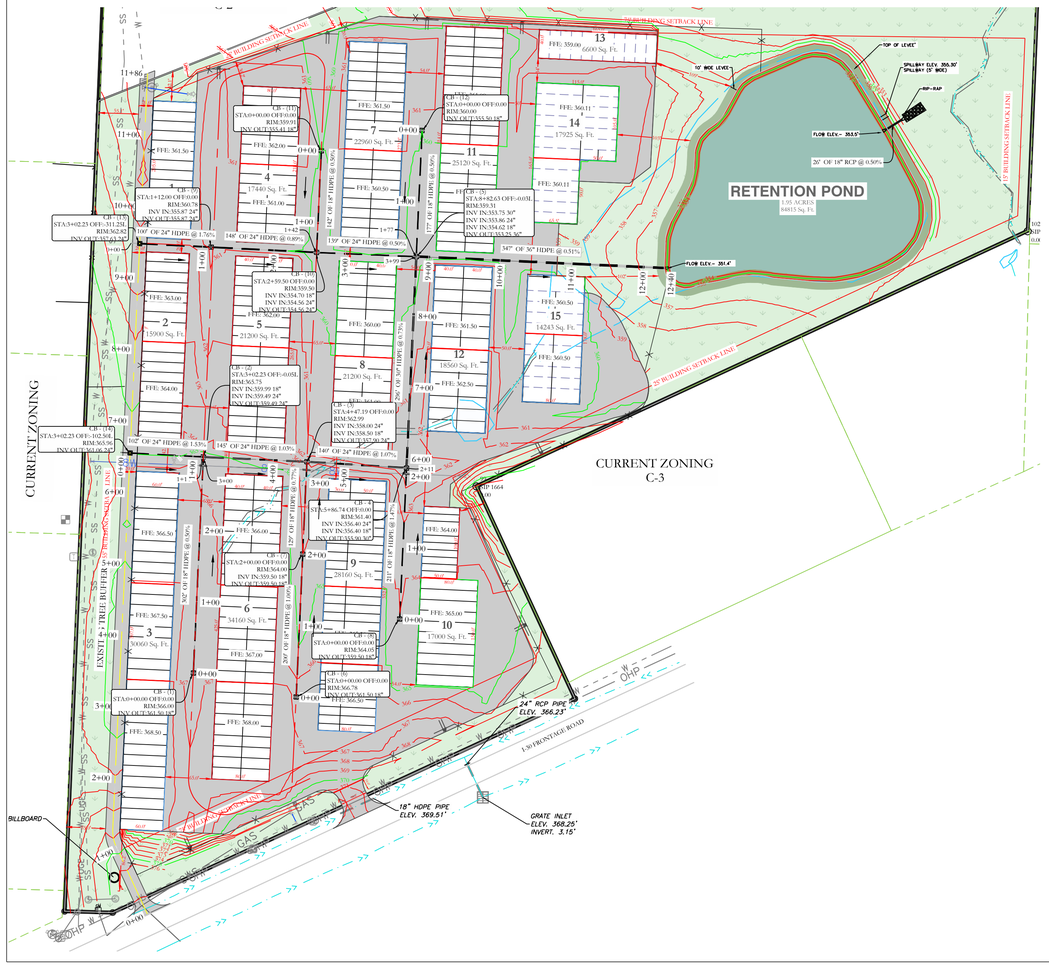
SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer	Inlet Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Max (Rim) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (inches)	Median Ditch Longitudinal Slope (ft/ft)	Median Ditch Bottom Width (ft)	Median Ditch Left Side Slope (V:H)	Median Ditch Right Side Slope (V:H)	Median Ditch Manning's Roughness	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Maximum Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
1	CB-(1)	1173461.18	2029030.25		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.00	4.50	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.13	0.13	0 00:00	0.00	0.00
2	CB-(10)	1173633.39	2029618.03		FHWA HEC-22 GENERIC	N/A	On Sag	1	354.56	359.50	4.94	354.56	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.63	0.13	0 00:00	0.00	0.00
3	CB-(11)	1173635.69	2029760.23		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.41	359.91	4.50	355.41	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.04	0.13	0 00:00	0.00	0.00
4	CB-(12)	1173780.89	2029788.60		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.50	360.00	4.50	355.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.13	0.13	0 00:00	0.00	0.00
5	CB-(13)	1173386.20	2029630.46		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.63	362.82	5.19	357.63	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	362.95	0.13	0 00:00	0.00	0.00
6	CB-(14)	1173372.72	2029337.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.06	365.96	4.91	361.06	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.50	366.10	0.14	0 00:00	0.00	0.00
7	CB-(2)	1173475.03	2029332.17		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.49	365.75	6.26	359.49	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	365.87	0.13	0 00:00	0.00	0.00
8	CB-(3)	1173619.88	2029325.53		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.90	362.99	5.09	357.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	363.11	0.13	0 00:00	0.00	0.00
9	CB-(4)	1173759.15	2029316.66		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.90	361.40	5.50	355.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	361.53	0.13	0 00:00	0.00	0.00
10	CB-(5)	1173772.77	2029612.26		FHWA HEC-22 GENERIC	N/A	On Sag	1	353.25	359.31	6.06	353.25	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.44	0.13	0 00:00	0.00	0.00
11	CB-(6)	1173604.77	2028996.64		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.78	5.28	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.90	0.13	0 00:00	0.00	0.00
12	CB-(7)	1173613.96	2029196.43		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.00	4.50	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.13	0.13	0 00:00	0.00	0.00
13	CB-(8)	1173749.43	2029105.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.05	4.55	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.17	0.13	0 00:00	0.00	0.00
14	CB-(9)	1173486.08	2029625.44		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.87	360.78	4.91	355.87	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.91	0.13	0 00:00	0.00	0.00

For 100 yr:

SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer	Inlet Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Max (Rim) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (inches)	Median Ditch Longitudinal Slope (ft/ft)	Median Ditch Bottom Width (ft)	Median Ditch Left Side Slope (V:H)	Median Ditch Right Side Slope (V:H)	Median Ditch Manning's Roughness	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Maximum Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
1	CB-(1)	1173461.18	2029030.25		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.00	4.50	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.13	0.13	0 00:00	0.00	0.00
2	CB-(10)	1173633.39	2029618.03		FHWA HEC-22 GENERIC	N/A	On Sag	1	354.56	359.50	4.94	354.56	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.63	0.13	0 00:00	0.00	0.00
3	CB-(11)	1173635.69	2029760.23		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.41	359.91	4.50	355.41	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.04	0.13	0 00:00	0.00	0.00
4	CB-(12)	1173780.89	2029788.60		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.50	360.00	4.50	355.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.13	0.13	0 00:00	0.00	0.00
5	CB-(13)	1173386.20	2029630.46		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.63	362.82	5.19	357.63	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	362.95	0.13	0 00:00	0.00	0.00
6	CB-(14)	1173372.72	2029337.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.06	365.96	4.91	361.06	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.50	366.10	0.14	0 00:00	0.00	0.00
7	CB-(2)	1173475.03	2029332.17		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.49	365.75	6.26	359.49	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	365.87	0.13	0 00:00	0.00	0.00
8	CB-(3)	1173619.88	2029325.53		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.90	362.99	5.09	357.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	363.11	0.13	0 00:00	0.00	0.00
9	CB-(4)	1173759.15	2029316.66		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.90	361.40	5.50	355.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	361.53	0.13	0 00:00	0.00	0.00
10	CB-(5)	1173772.77	2029612.26		FHWA HEC-22 GENERIC	N/A	On Sag	1	353.25	359.31	6.06	353.25	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.44	0.13	0 00:00	0.00	0.00
11	CB-(6)	1173604.77	2028996.64		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.78	5.28	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.90	0.13	0 00:00	0.00	0.00
12	CB-(7)	1173613.96	2029196.43		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.00	4.50	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.13	0.13	0 00:00	0.00	0.00
13	CB-(8)	1173749.43	2029105.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.05	4.55	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.17	0.13	0 00:00	0.00	0.00
14	CB-(9)	1173486.08	2029625.44		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.87	360.78	4.91	355.87	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.91	0.13	0 00:00	0.00	0.00

VICINITY MAP:





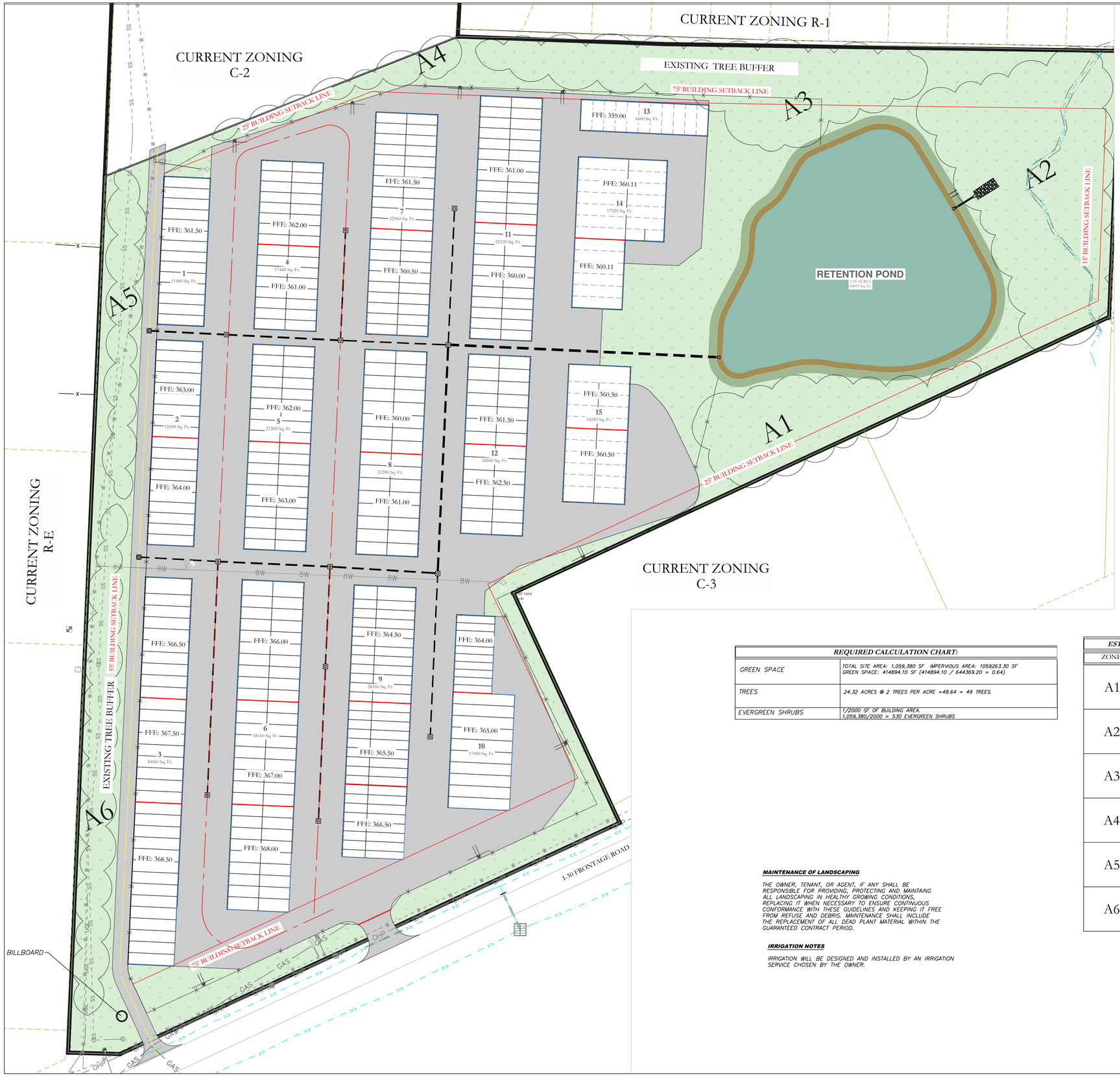
PIPE SIZE CALCULATIONS:

For 25 yr:

SN	Element ID	Description	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (inches)	Pipe Width (inches)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	Lengthening Factor	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow/ Design Flow Ratio	Max Depth / Flow Depth Ratio	Max Depth / Total Depth	Total Time Surcharged (min)	Max Flow Depth (ft)	Reported Condition
1	Pipe-(10)		CB-(5)	Out-1Pipe-(10)	346.75	353.25	0.00	351.47	0.00	1.78	0.5100	CIRCULAR	36.000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	51.84	0.00	0.00	0.00	0.00	0.00	Calculated
2	Pipe-(11)		CB-(6)	CB-(7)	200.00	361.50	0.00	359.50	0.00	2.00	1.0000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	11.38	0.00	0.00	0.00	0.00	0.00	Calculated
3	Pipe-(12)		CB-(7)	CB-(3)	129.24	359.50	0.00	358.50	0.60	1.00	0.7700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	10.01	0.00	0.00	0.00	0.00	0.00	Calculated
4	Pipe-(13)		CB-(8)	CB-(4)	211.13	359.50	0.00	356.40	0.50	3.10	1.4700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	13.79	0.00	0.00	0.00	0.00	0.00	Calculated
5	Pipe-(14)		CB-(9)	CB-(10)	147.50	355.87	0.00	354.56	0.00	1.31	0.8900	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	23.11	0.00	0.00	0.00	0.00	0.00	Calculated
6	Pipe-(15)		CB-(10)	CB-(5)	139.49	354.56	0.00	353.86	0.61	0.70	0.5000	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	17.33	0.00	0.00	0.00	0.00	0.00	Calculated
7	Pipe-(16)		CB-(11)	CB-(10)	142.34	355.41	0.00	354.70	0.14	0.71	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
8	Pipe-(17)		CB-(12)	CB-(5)	176.53	355.50	0.00	354.62	1.37	0.88	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
9	Pipe-(18)		CB-(14)	CB-(2)	102.45	361.06	0.00	359.49	0.00	1.57	1.5300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	30.31	0.00	0.00	0.00	0.00	0.00	Calculated
10	Pipe-(19)		CB-(13)	CB-(9)	100.00	357.63	0.00	355.87	0.00	1.76	1.7600	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	32.52	0.00	0.00	0.00	0.00	0.00	Calculated
11	Pipe-(6)		CB-(1)	CB-(2)	302.23	361.50	0.00	359.99	0.50	1.51	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
12	Pipe-(7)		CB-(2)	CB-(3)	145.01	359.49	0.00	358.00	0.10	1.49	1.0300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	24.83	0.00	0.00	0.00	0.00	0.00	Calculated
13	Pipe-(8)		CB-(3)	CB-(4)	139.55	357.90	0.00	356.40	0.50	1.50	1.0700	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	25.39	0.00	0.00	0.00	0.00	0.00	Calculated
14	Pipe-(9)		CB-(4)	CB-(5)	295.92	355.90	0.00	353.75	0.50	2.15	0.7300	CIRCULAR	30.000	30.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	37.89	0.00	0.00	0.00	0.00	0.00	Calculated

For 100 yr:

SN	Element ID	Description	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (inches)	Pipe Width (inches)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	Lengthening Factor	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow/ Design Flow Ratio	Max Depth / Flow Depth Ratio	Max Depth / Total Depth	Total Time Surcharged (min)	Max Flow Depth (ft)	Reported Condition
1	Pipe-(10)		CB-(5)	Out-1Pipe-(10)	346.75	353.25	0.00	351.47	0.00	1.78	0.5100	CIRCULAR	36.000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	51.84	0.00	0.00	0.00	0.00	0.00	Calculated
2	Pipe-(11)		CB-(6)	CB-(7)	200.00	361.50	0.00	359.50	0.00	2.00	1.0000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	11.38	0.00	0.00	0.00	0.00	0.00	Calculated
3	Pipe-(12)		CB-(7)	CB-(3)	129.24	359.50	0.00	358.50	0.60	1.00	0.7700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	10.01	0.00	0.00	0.00	0.00	0.00	Calculated
4	Pipe-(13)		CB-(8)	CB-(4)	211.13	359.50	0.00	356.40	0.50	3.10	1.4700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	13.79	0.00	0.00	0.00	0.00	0.00	Calculated
5	Pipe-(14)		CB-(9)	CB-(10)	147.50	355.87	0.00	354.56	0.00	1.31	0.8900	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	23.11	0.00	0.00	0.00	0.00	0.00	Calculated
6	Pipe-(15)		CB-(10)	CB-(5)	139.49	354.56	0.00	353.86	0.61	0.70	0.5000	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	17.33	0.00	0.00	0.00	0.00	0.00	Calculated
7	Pipe-(16)		CB-(11)	CB-(10)	142.34	355.41	0.00	354.70	0.14	0.71	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
8	Pipe-(17)		CB-(12)	CB-(5)	176.53	355.50	0.00	354.62	1.37	0.88	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
9	Pipe-(18)		CB-(14)	CB-(2)	102.45	361.06	0.00	359.49	0.00	1.57	1.5300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	30.31	0.00	0.00	0.00	0.00	0.00	Calculated
10	Pipe-(19)		CB-(13)	CB-(9)	100.00	357.63	0.00	355.87	0.00	1.76	1.7600	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	32.52	0.00	0.00	0.00	0.00	0.00	Calculated
11	Pipe-(6)		CB-(1)	CB-(2)	302.23	361.50	0.00	359.99	0.50	1.51	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
12	Pipe-(7)		CB-(2)	CB-(3)	145.01



REQUIRED CALCULATION CHART:	
GREEN SPACE	TOTAL SITE AREA: 1,059,380 SF IMPERVIOUS AREA: 1059263.30 SF GREEN SPACE: 414894.10 SF (414894.10 / 644369.20 = 0.64)
TREES	24.32 ACRES @ 2 TREES PER ACRE =48.64 = 49 TREES.
EVERGREEN SHRUBS	1/2000 SF OF BUILDING AREA. 1,059,380/2000 = 530 EVERGREEN SHRUBS

MAINTENANCE OF LANDSCAPING

THE OWNER, TENANT, OR AGENT, IF ANY SHALL BE RESPONSIBLE FOR PROVIDING, PROTECTING AND MAINTAINING ALL LANDSCAPING IN HEALTHY GROWING CONDITIONS, REPLACING IT WHEN NECESSARY TO ENSURE CONTINUOUS CONFORMANCE WITH THESE GUIDELINES AND KEEPING IT FREE FROM REFUSE AND DEBRIS. MAINTENANCE SHALL INCLUDE THE REPLACEMENT OF ALL DEAD PLANT MATERIAL WITHIN THE GUARANTEED CONTRACT PERIOD.

IRRIGATION NOTES

IRRIGATION WILL BE DESIGNED AND INSTALLED BY AN IRRIGATION SERVICE CHOSEN BY THE OWNER.

ESTIMATED EXISTING TREES ON SITE PER AREA			
ZONE	CONDITION	DENSITY	SIZE
A1	GOOD	THICK	24"-36" - 130
A2	GOOD	THICK	24"-36" -89
A3	MIXED	MODERATE	24"-36" - 45
A4	GOOD	SPARSE	24"-36" - 25
A5	GOOD	MODERATE	15"-30" -20
A6	GOOD	SPARSE	15"-30" - 40

CIVIL ENGINEER
HOPE CONSULTING INC
129 N. MAIN STREET
BENTON, AR 72015
CONTACT: KAZI TAMZIDUL ISLAM
PHONE: 504-315-2626
EMAIL: kazi@hopeconsulting.com

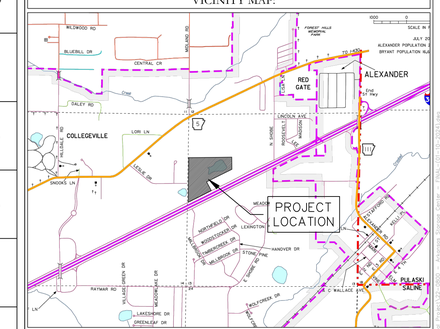
N

BASIS OF BEARING:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

60' 30' 0 60'

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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129 N. Main Street,
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www.hopeconsulting.com

FOR USE AND BENEFIT OF:
STUART FINLEY

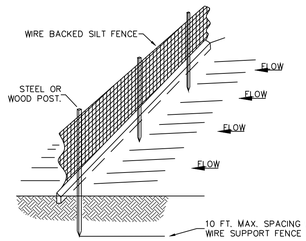
ARKANSAS STORAGE CENTER

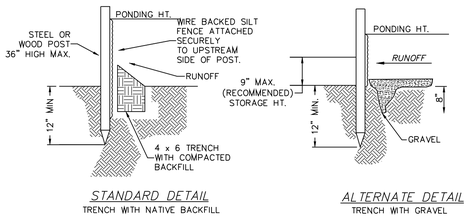
LANDSCAPE PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-6.0	SCALE: 1" = 60'	

500	01S	14W	0	21	300	62	1762





STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

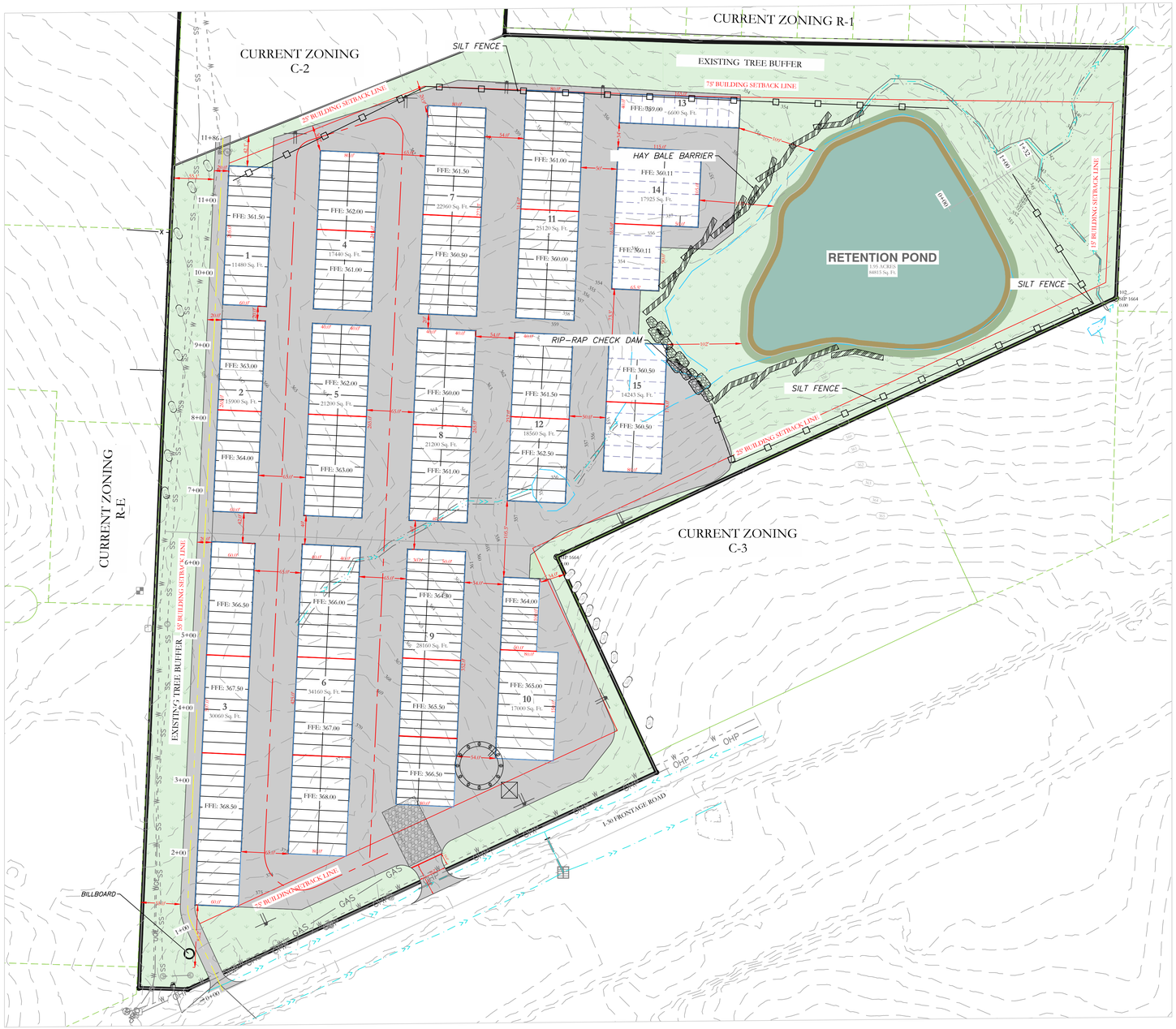
NOTE:
1.) INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

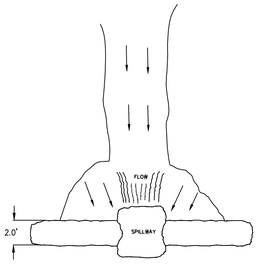
2.) REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

3.) SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

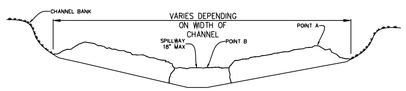
4.) USE ONLY WIRE BACKED SILT FENCE.

SILT FENCE





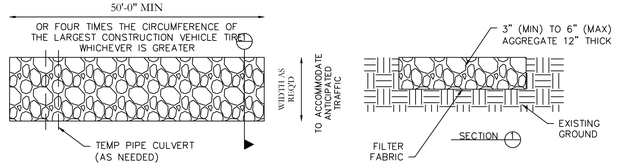
PLAN



VIEW LOOKING UPSTREAM

NOTES:
1.) POINT "A" MUST BE HIGHER THAN POINT "B" (SPILLWAY HEIGHT)
2.) PLACE RIP-RAP BARRIER PERPENDICULAR TO THE FLOW WITH TIGHT GROUPING. USE STRAW, ROCKS, OR FILTER FABRIC TO FILL ANY GAPS AND TAMP BACKFILL MATERIAL TO PREVENT EROSION OR FLOW AROUND THE DAM.
3.) SPILLWAY HEIGHT SHALL NOT EXEED 18"-24"
4.) INSPECT AFTER EACH SIGNIFICANT STORM, MAINTAIN AND REPAIR PROMPTLY.

RIP-RAP CHECK DAM



STABILIZED CONSTRUCTION ENTRANCE
N.T.S

EROSION CONTROL NOTES

SOD DETENTION AREA POST-CONSTRUCTION IS REQUIRED

MAXIMUM SLOPE OF 3H:1V ON DETENTION POND LEVEES

CONTRACTOR MUST HAVE INLET PROTECTION MEASURES INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF DRAINAGE INLETS/STRUCTURES IS COMPLETE. SEDIMENT BARRIERS SHALL BE MAINTAINED THROUGHOUT AND INSPECTED THROUGHOUT CONSTRUCTION PROCESS UNTIL PROJECT IS COMPLETE

RIP RAP SEDIMENT BARRIERS SHALL BE USED AT ALL STORMWATER DISCHARGE POINTS SHOWN ON PLANS ASAP

CONTRACTOR SHOULD WORK WITH ENGINEER TO ESTABLISH EFFECTIVE AND EFFICIENT PLAN TO PREVENT SEDIMENT RUNOFF BY DETERMINING WHERE SILT FENCING OR OTHER TYPES OF CONTROLS ARE NECESSARY

SOME EROSION CONTROL MEASURES, WIRE BACKED SILT FENCING, OR CHECK DAMS MAY NOT BE NECESSARY DURING INITIAL ROW CLEARING BUT MAY BE NEEDED ONCE LOT CLEARING AND COMMERCIAL BUILDING BEGINS

EXISTING VEGETATION WILL ONLY BE REMOVED INSIDE ROW AND WITHIN BUILDING FOOTPRINTS AS THEY ARE CONSTRUCTED. ADDITIONAL SILT FENCING WILL BE ADDED TO INDIVIDUAL LOTS AS COMMERCIAL CONSTRUCTION TAKES PLACE.

ERC LEGEND

SITE POSTING

DISTURBED AREA

CONC. WASHOUT DETENTION AREA

SILT FENCE

RIP RAP CHECK DAM

CONSTRUCTION ENTRANCE

BASIS OF BEARINGS: GRID NORTH AS COORDINATED WITH THE SYSTEM SOUTH ZONE BY GPS OBSERVATION

80' 40' 0 80'

CIVIL ENGINEER
HOPE CONSULTING INC
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BENTON, AR 72015
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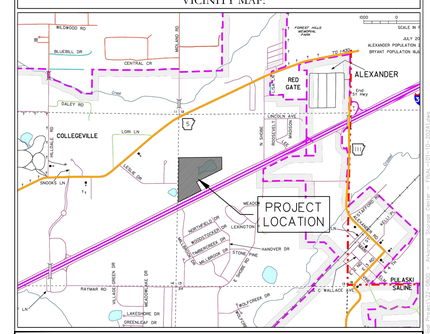
VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

EROSION CONTROL PLAN

BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-7.0	SCALE: 1" = 80'	

500	01S	14W	0	21	300	62	1762

THESE PLANS ARE THE PROPERTY OF HOPE CONSULTING AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PERMISSION OF HOPE CONSULTING

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

SW 1/4 SW 1/4 SECTION 12 T-1-S R-14-W

ARKANSAS STATE HIGWAY NO. 5 (APPARENT 60' R/W)

MIDLAND ROAD

FND. 1/2" REBAR, NW CORNER, LOT 77, EAST RIDGE SUBD., PH1

GAP IN TITLE LINES OF SUBJECT PROPERTY AND EAST RIDGE SUBDIVISION, PHASE 1

COMPUTED LOCATION FROM EAST RIDGE SUBDIVISION NE CORNER, NE1/4, NE1/4, SEC. 14, T-1-S, R-14-W

FND. 2" PIPE

N66°25'13"E 152.88'

N66°31'07"E 164.56'

N65°24'25"E 115.83'

25' BUILDING SETBACK LINE

WEST LINE, EAST RIDGE SUBDIVISION, PHASE 1

INT. OF EAST LINE, NE1/4, NE1/4, AND SOUTH R/W OF ARK. HWY. 5 FND. 1/2" REBAR (PS 1664)

N2°11'32"E 149.59'

SE 1/4 SE 1/4 SECTION 11 T-1-S R-14-W

N63°29'03"E 139.43'

EXISTING DWELLING

S02°13'34"W 386.25'

10' BUILDING SETBACK LINE

N88°16'25"W 53.10'

FND. 1/2" REBAR P.L.S. 1664

N59°48'07"E 258.04'

FND. 5/8" REBAR (PS 128)

FND. 1" PIPE NW CORNER, LOT 68, EAST RIDGE SUBD., PH1 (BEARS S6°35'26"E 14.32')

FND. 1" PIPE (BEARS N62°53'12"W 12.96')

EAST LINE, NE1/4, NE1/4

FND. 1/2" REBAR P.L.S. 1664

N56°17'39"E 187.00'

GAP AREA 0.19 AC 8201.7 SF

N2°11'32"E 390.00'

FND. 1/2" REBAR P.L.S. 1664

HENRY AVE.

N52°36'30"E 269.91'

25' BUILDING SETBACK LINE

WEST LINE, EAST RIDGE SUBDIVISION, PHASE 1

N52°34'41"E 14.32'

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR P.L.S. 1664

EAST RIDGE SUBDIVISION PHASE I ZONING R-1

EXISTING PRIVATE ACCESS ROAD

NE 1/4 NE 1/4 SECTION 14 T-1-S R-14-W

FND. 1/2" REBAR P.L.S. 1664

NW 1/4 NW 1/4 SECTION 12 T-1-S R-14-W

LOT 3
18.82 ACRES
819894 Sq. Ft.

10' BUILDING SETBACK LINE

N2°43'40"E 673.83'

PRIVATE ACCESS RD

N2°11'32"E 547.38'

S02°43'40"W 1045.67'

N32°51'44"W 436.06'

10' BUILDING SETBACK LINE

ONE LIFE CHURCH INC 840-11660-040 ZONING C-2

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR P.L.S. 1467

N41°42'20"W 211.36'

FND. 1/2" REBAR P.L.S. 568

FND. 1/2" REBAR P.L.S. 568

FND. 1/2" REBAR P.L.S. 1664

N68°44'33"E 334.66'

96.88'

94.55'

N88°05'03"W 115.16'

N88°43'01"W 138.08'

N88°04'08"W 191.43'

S88°04'08"E 145.03'

FND. 1/2" REBAR P.L.S. 1467

FND. 1/2" REBAR

S2°43'40"W 371.84'

N02°11'32"E 245.95'

EXISTING GRAVEL

EXISTING ASPHALT DRIVE

LOT 2
3.95 ACRES
171998 Sq. Ft.

COMPUTED LOCATION FROM EAST RIDGE SUBDIVISION SE CORNER, NE1/4, NE1/4, SEC. 14, T-1-S, R-14-W

FND. 5/8" REBAR P.L.S. 0128

EAST RIDGE SUBDIVISION PHASE I ZONING R-1

N88°49'30"W 448.64'

EXISTING DWELLING

S87°51'51"E 267.64'

S89°05'22"E 297.60'

S89°16'26"E 291.29'

FND. AXLE

189.88'

S68°25'37"W 490.93'

75' BUILDING SETBACK LINE

25' BUILDING SETBACK LINE

TENNISON ALFRED A III & TONYA N 840-11660-500 ZONING R-E

SE 1/4 NE 1/4 SECTION 14 T-1-S R-14-W

28.63'

X 20.00'

25.00'

PROPOSED 20' INGRESS/EGRESS EASEMENT

PARCEL NO. 840-11660-450 ZONING R-E

POND

SW 1/4 NW 1/4 SECTION 13 T-1-S R-14-W

LOT 1
24.23 ACRES
1055487 Sq. Ft.

N02°24'48"E 1324.05'

N02°24'48"E 1134.17'

75' BUILDING SETBACK LINE

EXISTING TREE BUFFER

CITY OF BRYANT 20' UTILITY EASEMENT BOOK 98, 6876

25' BUILDING SETBACK LINE

S65°09'57"W 848.81'

ZONING C-3 PARCEL NO. 840-11640-241

ZONING C-3 PARCEL NO. 840-11640-236

N2°21'59"E 367.80'

84.33'

ZONING C-3 PARCEL NO. 840-11640-240

S24°50'41"E 327.00'

AIR EASEMENT

N65°10'33"E 680.63'

CITY OF BRYANT 25' SEWER EASEMENT

25.00'

20.00'

20' WATER LINE EASEMENT

FND. 1/2" REBAR

PARCEL NO. 840-11660-400

PROPOSED 20' INGRESS/EGRESS EASEMENT

75' BUILDING SETBACK LINE

AIR EASEMENT

BILLBOARD SIGN EASEMENT

27.50'

20.00'

25.00'

S65°09'57"W 711.59'

CENTERLINE I-30 SERVICE ROAD (INTERSTATE 30)

POINT OF BEGINNING
FND. 5/8" REBAR ACCEPTED AS SW CORNER, SW1/4, NW1/4, SEC. 13, T1S, R14W

S00°11'32"W 50.01'

PARCEL NO. 840-11676-000 ZONING C-3

FND. 5/8" REBAR P.L.S. 0128

FND. 1/2" REBAR (BEARS N70°21'E 0.41')

N88°43'09"W 67.64'

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

100' 50' 0 100'

REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF ARKANSAS NO. 1762 — SIGNATURE — JONATHAN L. HOPE

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — NO. 20876 — KAZI TAMZIDUL ISLAM

By affixing my seal and signature, I Jonathan L. Hope PLS No, 1762, hereby certify that this drawing correctly depicts a survey compiled under my supervision.

NOTE: This survey was based on legal descriptions and title work furnished by others and does not represent a title search.

No portion of the property described hereon lies within the 100 year floodplain, according to the Federal Insurance Rate Map, panel #05125C0365e, Dated: 06/05/2020 .

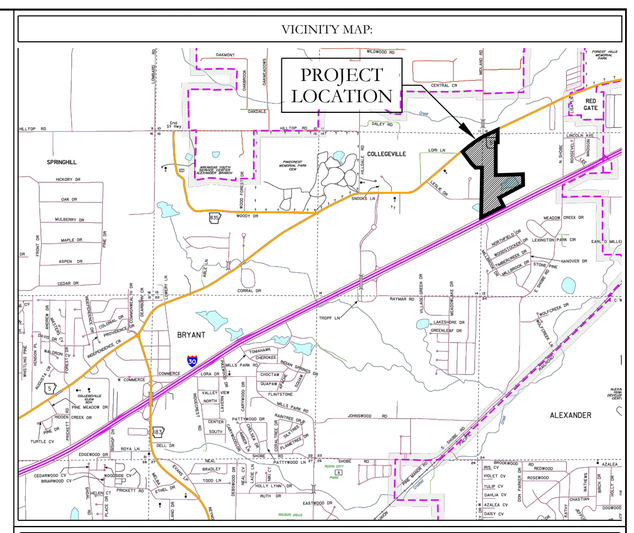
LEGEND
- Computed point
- Found monument
- Set Iron Pipe
(M) - Measured
(R) - Record
(D) - Deed

OVERALL BOUNDARY PROPERTY DESCRIPTION FROM SURVEY

A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHWEST QUARTER (SW1/4) OF SECTION 12; A PART OF THE NORTHWEST QUARTER (NW1/4) OF THE NORTHWEST QUARTER (NW1/4) AND THE SOUTHWEST QUARTER (SW1/4) OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 13; AND A PART OF THE NORTHEAST QUARTER (NE1/4) OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 14; ALL IN TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS; MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 5/8" REBAR ACCEPTED AS THE SOUTHWEST CORNER OF SAID SW1/4, NW1/4, SECTION 13;
THENCE ALONG THE WEST LINE THEREOF NORTH 02°24'48" EAST, A DISTANCE OF 1,324.05 FEET, TO THE NORTHWEST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG THE WEST LINE OF SAID NW1/4, NW1/4 OF SECTION 13 NORTH 02°11'32" EAST, A DISTANCE OF 245.95 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE LEAVING SAID WEST LINE NORTH 88°04'08" WEST, A DISTANCE OF 191.43 FEET, TO A 1/2" REBAR AND CAP (PS 1467);
THENCE NORTH 41°42'20" WEST, A DISTANCE OF 211.36 FEET, TO A 1/2" REBAR AND CAP (PS 1467);
THENCE NORTH 32°51'44" WEST, A DISTANCE OF 436.06 FEET, TO A 1/2" REBAR AND CAP (PS 1467) TO THE SOUTHERLY RIGHT-OF-WAY OF ARKANSAS HIGHWAY 5;
THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING EIGHT CALLS: NORTH 52°34'41" EAST, A DISTANCE OF 14.32 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 52°36'30" EAST, A DISTANCE OF 269.91 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 56°17'39" EAST, A DISTANCE OF 187.00 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 59°48'07" EAST, A DISTANCE OF 258.04 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 63°29'03" EAST, A DISTANCE OF 139.43 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 65°24'25" EAST, A DISTANCE OF 115.83 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 66°31'07" EAST, A DISTANCE OF 164.56 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE NORTH 66°25'13" EAST, A DISTANCE OF 152.88 FEET, TO A 1/2" REBAR AND CAP (PS 1664) BEING THE NORTHEAST CORNER OF LANDS DESCRIBED IN WARRANTY DED DATED MARCH 30, 1963 AND FILED IN SALINE COUNTY DEED RECORD BOOK 112 AT PAGE 404;
THENCE LEAVING SAID SOUTHERLY RIGHT-OF-WAY OF HIGHWAY 5 ALONG THE EAST LINE OF SAID LANDS DESCRIBED IN SAID WARRANTY DEED SOUTH 02°13'34" WEST, A DISTANCE OF 386.25 FEET, TO A 1/2" REBAR AND CAP (PS 1664) AT THE SOUTHEAST CORNER OF SAID LANDS DESCRIBED IN SAID WARRANTY DEED;
THENCE NORTH 88°16'25" WEST, A DISTANCE OF 53.10 FEET, TO A 5/8" REBAR AND CAP (PS 128) ON THE EAST LINE OF LANDS DESCRIBED IN WARRANTY DEED DATED SEPTEMBER 21, 1951 AND FILED IN SALINE COUNTY DEED RECORD BOOK 64 AT PAGE 45;
THENCE SOUTH 02°43'40" WEST, A DISTANCE OF 1,045.67 FEET, TO A 5/8" REBAR AND CAP (PS 128) ON THE NORTH LINE OF SAID SW1/4, NW1/4 OF SECTION 13; SAID POINT BEING SOUTH 88°49'30" WEST, A DISTANCE OF 448.64 FEET FROM THE NORTHWEST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE SOUTH 87°51'51" EAST, A DISTANCE OF 267.64 FEET, TO A POINT SHOWN ON THE SOUTH LINE OF EAST RIDGE SUBDIVISION, PHASE 1, AS FILED AS SALINE COUNTY DOCUMENT 2007-061442;
THENCE ALONG SAID SOUTH LINE SOUTH 89°05'22" EAST, A DISTANCE OF 297.60 FEET, TO A POINT SHOWN ON SAID SOUTH LINE OF EAST RIDGE SUBDIVISION, PHASE 1;
THENCE ALONG SAID SOUTH LINE SOUTH 89°16'26" EAST, A DISTANCE OF 291.29 FEET, TO AN AXLE AT THE NORTHEAST CORNER OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG THE EAST LINE THEREOF SOUTH 02°21'59" WEST, A DISTANCE OF 344.99 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE LEAVING SAID EAST LINE SOUTH 65°09'57" WEST, A DISTANCE OF 848.81 FEET, TO A 1/2" REBAR AND CAP (PS 1664);
THENCE SOUTH 24°50'41" EAST, A DISTANCE OF 327.00 FEET, TO A 1/2" REBAR ON THE NORTHERLY RIGHT-OF-WAY OF U.S. INTERSTATE 30;
THENCE ALONG SAID NORTHERLY RIGHT-OF-WAY SOUTH 65°09'57" WEST, A DISTANCE OF 711.59 FEET, TO A 5/8" REBAR AND CAP (PS 128) AT THE INTERSECTION OF SAID NORTHERLY RIGHT-OF-WAY AND THE SOUTH LINE OF SAID SW1/4, NW1/4 OF SECTION 13;
THENCE ALONG SAID SOUTH LINE NORTH 88°43'09" WEST, A DISTANCE OF 67.64 FEET, TO A THE POINT OF BEGINNING; CONTAINING 47.00 ACRES (2,047,380.21 SQUARE FEET), MORE OR LESS.

VICINITY MAP:



CERTIFICATIONS:

OWNER:
Name: ARKANSAS STORAGE XIV, LLC
Address: PO BOX 10
BRYANT, AR 72022

DEVELOPER:
Name: ARKANSAS STORAGE XIV, LLC
Address: PO BOX 10
BRYANT, AR 72022

CERTIFICATE OF OWNER:

We, the undersigned, owners of the real estate shown and described herein do hereby certify that we have laid off, platted and subdivided, and do hereby lay off, plat and subdivide said real estate in accordance with the within plat.

Source of Title: 2023-015797, 2023-015796, 2023-010005, 2023-017298

Date of Execution _____ Name: _____

CERTIFICATE OF PRELIMINARY SURVEYING ACCURACY:

I, Jonathan L. Hope, hereby certify that this proposed preliminary plat correctly represents a survey completed by me, or under my supervision on _____, 2023; that the boundary lines shown hereon correspond with the description in the deeds cited in the above Source Title; and that all monuments which were found or placed on the property are correctly described and located..

Date of Execution

Signed: _____
Jonathan L. Hope
Registered Professional
Land Surveyor No. 1762 Arkansas

CERTIFICATE OF PRELIMINARY ENGINEERING ACCURACY:

I, Kazi Tamzidul Islam, hereby certify that this plat correctly represents a survey and a plan made by me or under my supervision; that all monuments shown hereon actually exist and their location, size, type and material are correctly shown; and that all requirements of the City of Bryant Subdivision Rules and Regulations have been fully complied with.

Date of Execution

Kazi Tamzidual Islam
Registered Professional
Engineer, No. 20876 Arkansas

CERTIFICATE OF PRELIMINARY PLAT APPROVAL:

All requirements of the City of Bryant Subdivision Rules and Regulations relative to the preparation and submittal of a Preliminary Plat having been fulfilled, approval of this plat is hereby granted, subject of further provisions of said Rules and Regulations.

Date of Execution

Signed: _____
Rick Johnson, Chairman
Bryant Planning Commission

PROPERTY SPECIFICATIONS:

OWNER: ARKANSAS STORAGE XIV, LLC, PO BOX 10, BRYANT, AR 72022

DEVELOPER/: SUBDIVIDER: ARKANSAS STORAGE XIV, LLC, PO BOX 10, BRYANT, AR 72022

ENGINEERS: HOPE CONSULTING INC., 129 N. MAIN STREET, BENTON, AR 72015

NAME OF SUBDIVISION:

ZONING CLASSIFICATION: C-2

SOURCE OF TITLE: SALINE COUNTY DOCUMENT 2023-015797, 2023-015796, 2023-010005, 2023-017298

NUMBER OF LOTS: 3

SOURCE OF WATER: CITY OF BRYANT
SOURCE OF SEWER: CITY OF BRYANT
SOURCE OF ELECTRIC: FIRST ELECTRIC COOP
SOURCE OF GAS: CENTERPOINT ENERGY

BUILDING SETBACKS:
FRONT - AS SHOWN
REAR - OR AS SHOWN
SIDE - OR AS SHOWN

EASEMENTS: UTILITY & DRAINAGE (D.E. & U.E.)
FRONT - AS SHOWN
REAR - AS SHOWN
SIDE - AS SHOWN

LOT CORNERS: SET 1/2" REBAR WITH CAP

HOPE CONSULTING ENGINEERS - SURVEYORS
129 N. Main Street,
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

FOR USE AND BENEFIT OF:

ARKANSAS STORAGE XIV, LLC

PRELIMINARY PLAT
FINLEY BUSINESS PARK
A SUBDIVISION IN THE CITY OF BRYANT, SALINE COUNTY, ARKANSAS.

DATE: 01/19/2024	C.A.D. BY: B.JOHNSON	DRAWING NUMBER: 22-0800	
REVISED:	CHECKED BY:		
SHEET:	SCALE: 1" = 100'		

500	01S	14W	0	14	110	62	1762
500	01S	14W	0	13	400	62	1762

K:\Land Projects\2044 Subdivisions\2022\22-0800 Stuart Finley 5 Duebes\22-0800-Preliminary Plat-01-11-2023 recover.dwg

ARKANSAS STORAGE CENTER

BRYANT, AR

DRAINAGE REPORT

FOR
City of Bryant, Saline County, AR

January 2024

Owner & Developer: STUART FINLEY
Address: P.O Box 10, Bryant, AR. 72089

By:

HOPE
CONSULTING
ENGINEERS • SURVEYORS

PROJECT TITLE

ARKANSAS STORAGE CENTER

PROJECT PROPERTY OWNER

STUART FINLEY

PROJECT LOCATION

25300 I-30 North, Bryant, AR

PROJECT DESCRIPTION

The proposed self-storage facility development is located on High-way I-30 in the city of Bryant, Arkansas. The total development area is 24.31 acres.

DRAINAGE ANALYSIS

On Site Drainage- Rational method was used to determine the existing and proposed flows from proposed site. Detailed drainage calculations considering the future expected development have been conducted. Summary of the calculations are below:

Drainage Calculations for 100 yrs Return Period

- Pre-development total area: 26.06 acres.
    - Impervious area (gravel) = 4.65 ac
    - Landscape area (forest/woodland) = 21.4 ac
- Post-development area: 28.53 acres.
    - Impervious area (gravel) = 4.65 ac
    - Landscape area (forest/woodland) = 23.88 ac
- Pre-development composite runoff coefficient: 0.50
- Post-development composite runoff coefficient: 0.88
- Time of Concentration for Pre-development Area: 22 min
- Time of Concentration for Post-development Area: 8.6 min
- 5 ft wide rectangular weir
- Spillway elev. 255.30
- Pond top elev. 356.30
- 10 ft wide top of the levee
- One 18'' RCP with 0.5% slope is proposed for outflow culvert with an elevation of 353.5'

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

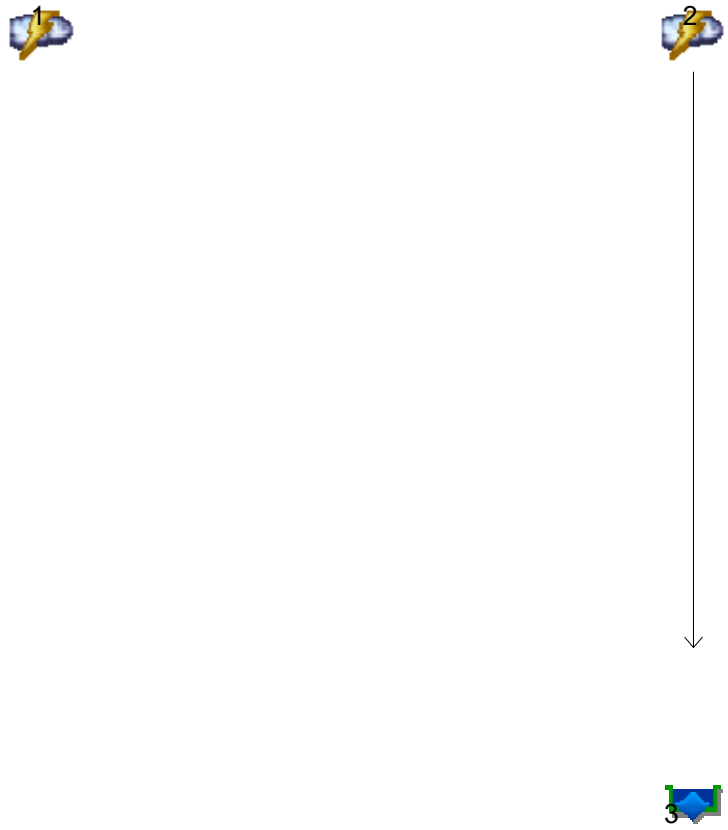
100- Years Storm Calculations

	Pre-Development	Post-Development without Retention	Post-Development with Retention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	36.44	120.57	2.976
5-Year	40.19	134.40	3.359
10-Year	48.37	154.40	3.830
25-Year	55.73	176.35	4.413
50-Year	63.54	200.38	5.378
100-Year	67.97	212.42	6.129
TOC	**22 min**	**8.6 min**	

CONCLUSION

The onsite drainage calculation for pre and post condition has been provided.

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	Rational	Pre-development
2	Rational	Post-Dev-No-Retention Pond
3	Reservoir	Post-Dev-RetentionPond

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	36.44	1	22	48,099	------	------	------	Pre-development
2	Rational	120.57	1	11	79,576	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	2.976	1	22	73,450	2	354.50	77,825	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	36.44 cfs
Storm frequency	=	2 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	48,099 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	3.330 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

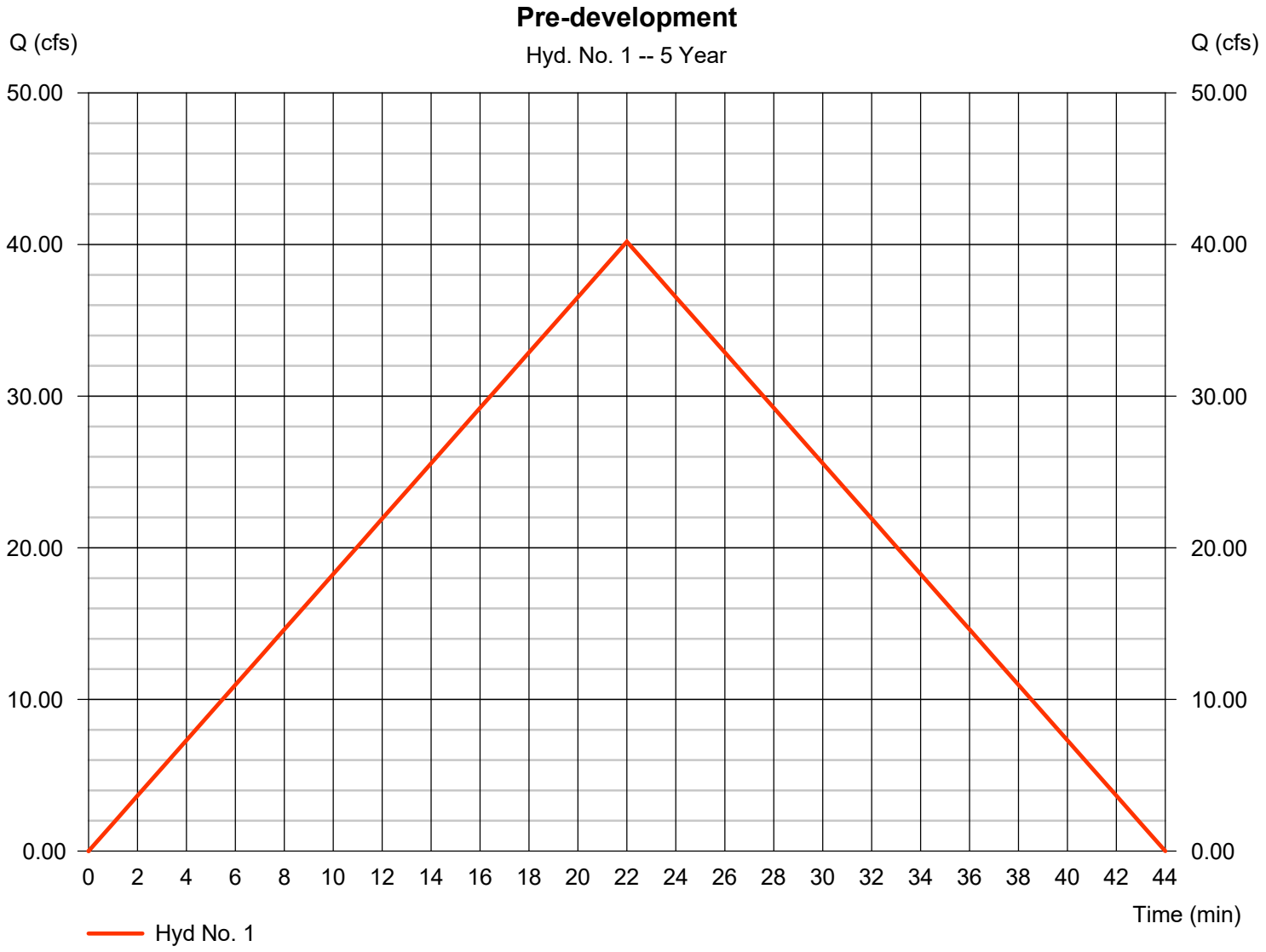
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	40.19	1	22	53,050	------	------	------	Pre-development
2	Rational	134.40	1	11	88,705	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	3.359	1	22	82,478	2	354.61	86,693	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	40.19 cfs
Storm frequency	=	5 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	53,050 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	3.673 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

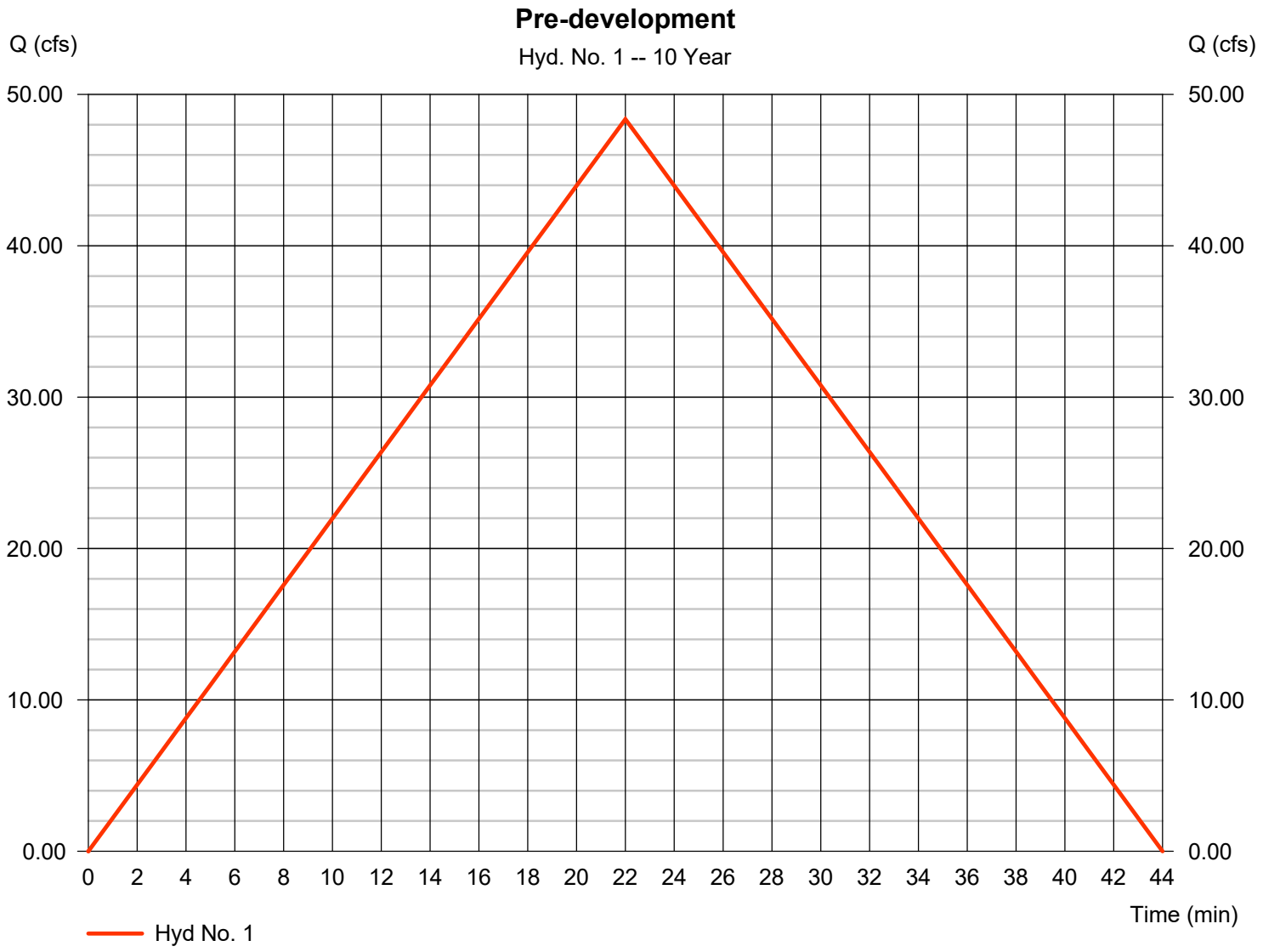
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	48.37	1	22	63,846	------	------	------	Pre-development
2	Rational	154.40	1	11	101,902	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	3.830	1	22	95,542	2	354.77	99,536	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	48.37 cfs
Storm frequency	=	10 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	63,846 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	4.421 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	55.73	1	22	73,563	------	------	------	Pre-development
2	Rational	176.35	1	11	116,393	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	4.143	1	22	109,897	2	354.94	113,699	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	55.73 cfs
Storm frequency	=	25 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	73,563 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	5.094 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

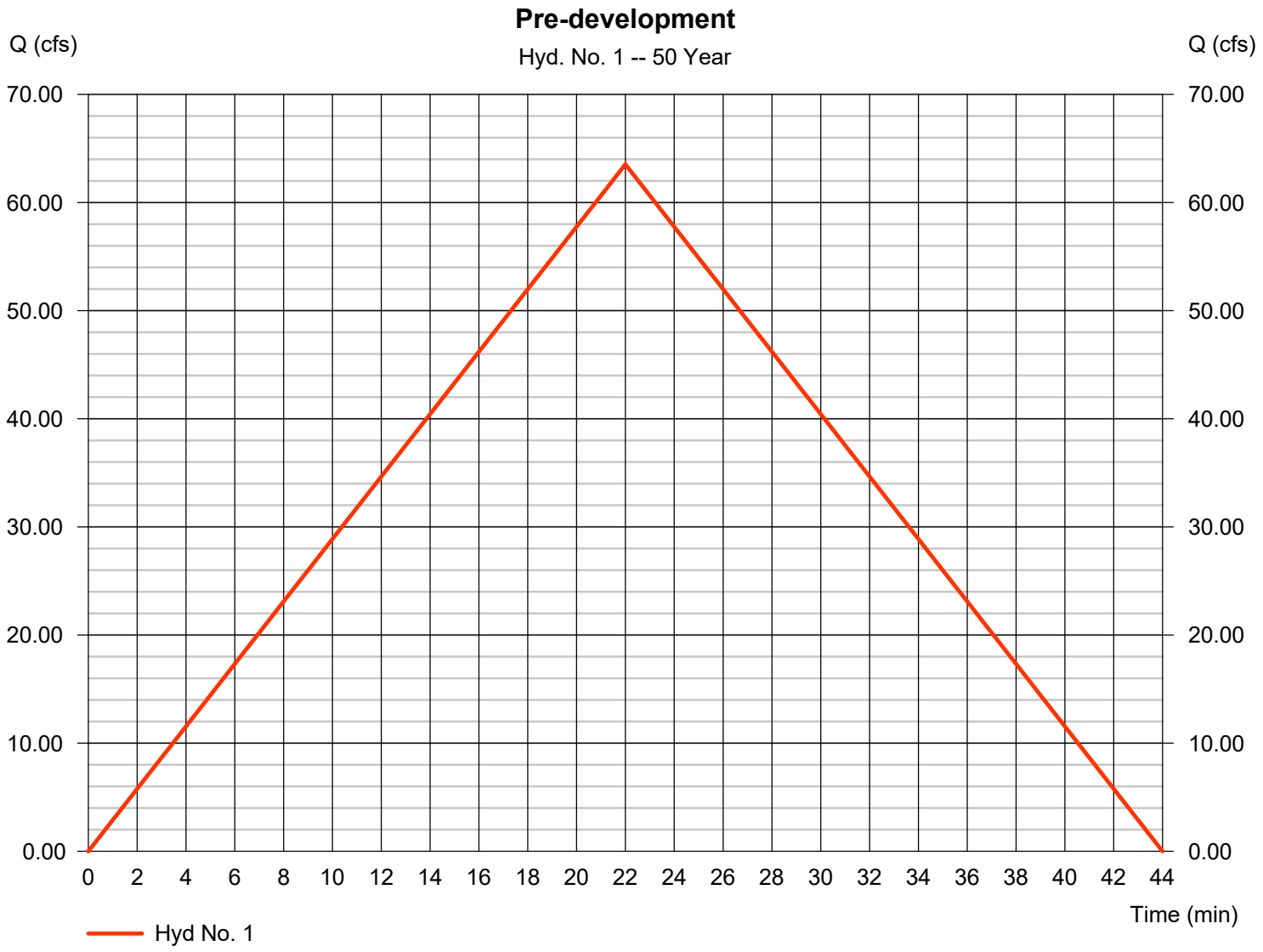
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	63.54	1	22	83,868	------	------	------	Pre-development
2	Rational	200.38	1	11	132,253	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	5.378	1	22	125,621	2	355.13	129,086	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	63.54 cfs
Storm frequency	=	50 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	83,868 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	5.807 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

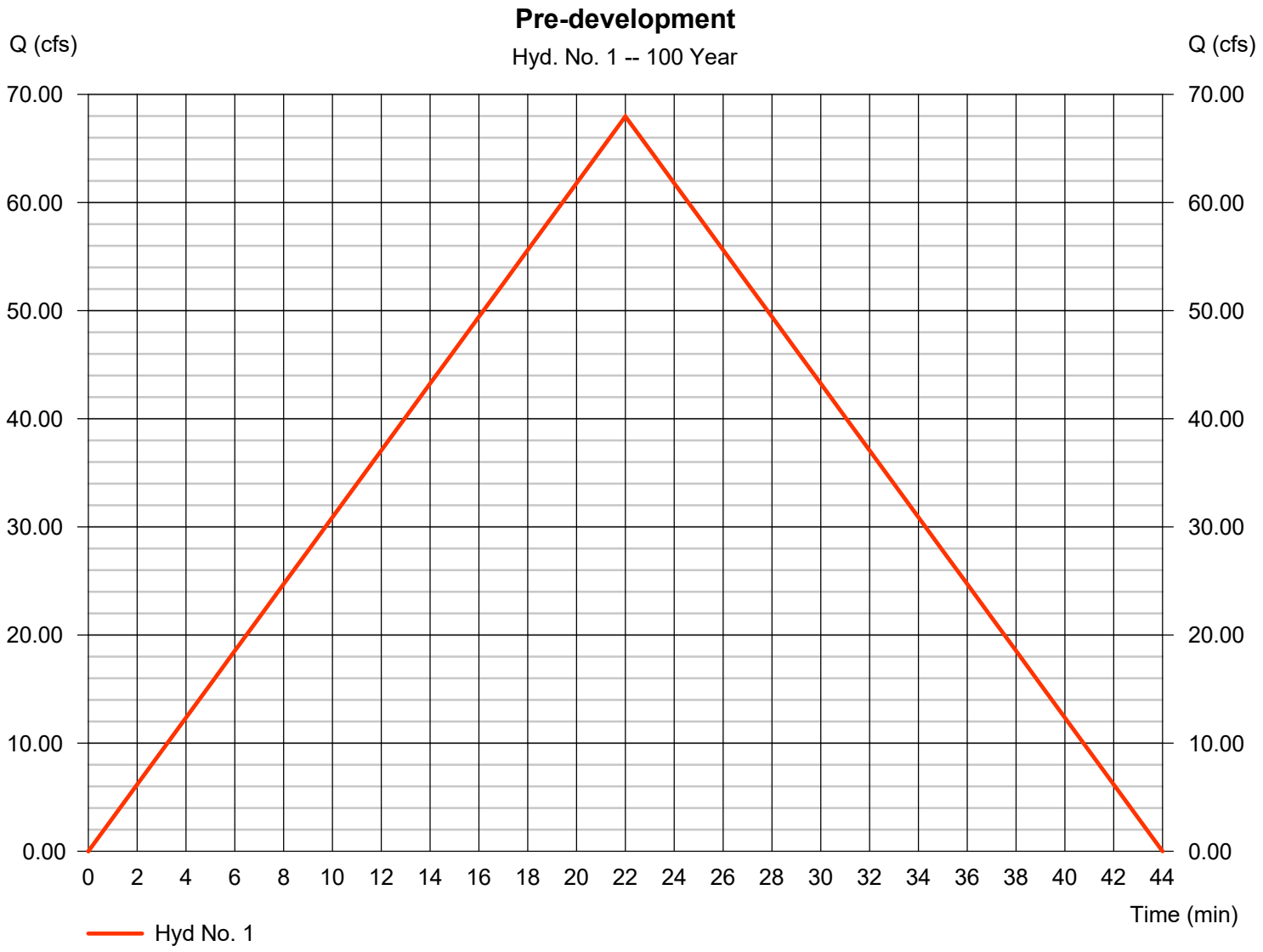
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	67.97	1	22	89,717	------	------	------	Pre-development
2	Rational	212.42	1	11	140,200	------	------	------	Post-Dev-No-Retention Pond
3	Reservoir	6.129	1	22	133,512	2	355.22	136,691	Post-Dev-RetentionPond

Hydrograph Report

Hyd. No. 1

Pre-development

Hydrograph type	=	Rational	Peak discharge	=	67.97 cfs
Storm frequency	=	100 yrs	Time to peak	=	22 min
Time interval	=	1 min	Hyd. volume	=	89,717 cuft
Drainage area	=	26.050 ac	Runoff coeff.	=	0.42
Intensity	=	6.212 in/hr	Tc by User	=	22.00 min
IDF Curve	=	Bryant 50.IDF	Asc/Rec limb fact	=	1/1



Multi-Hydrograph Plot

Hyd. No. 1

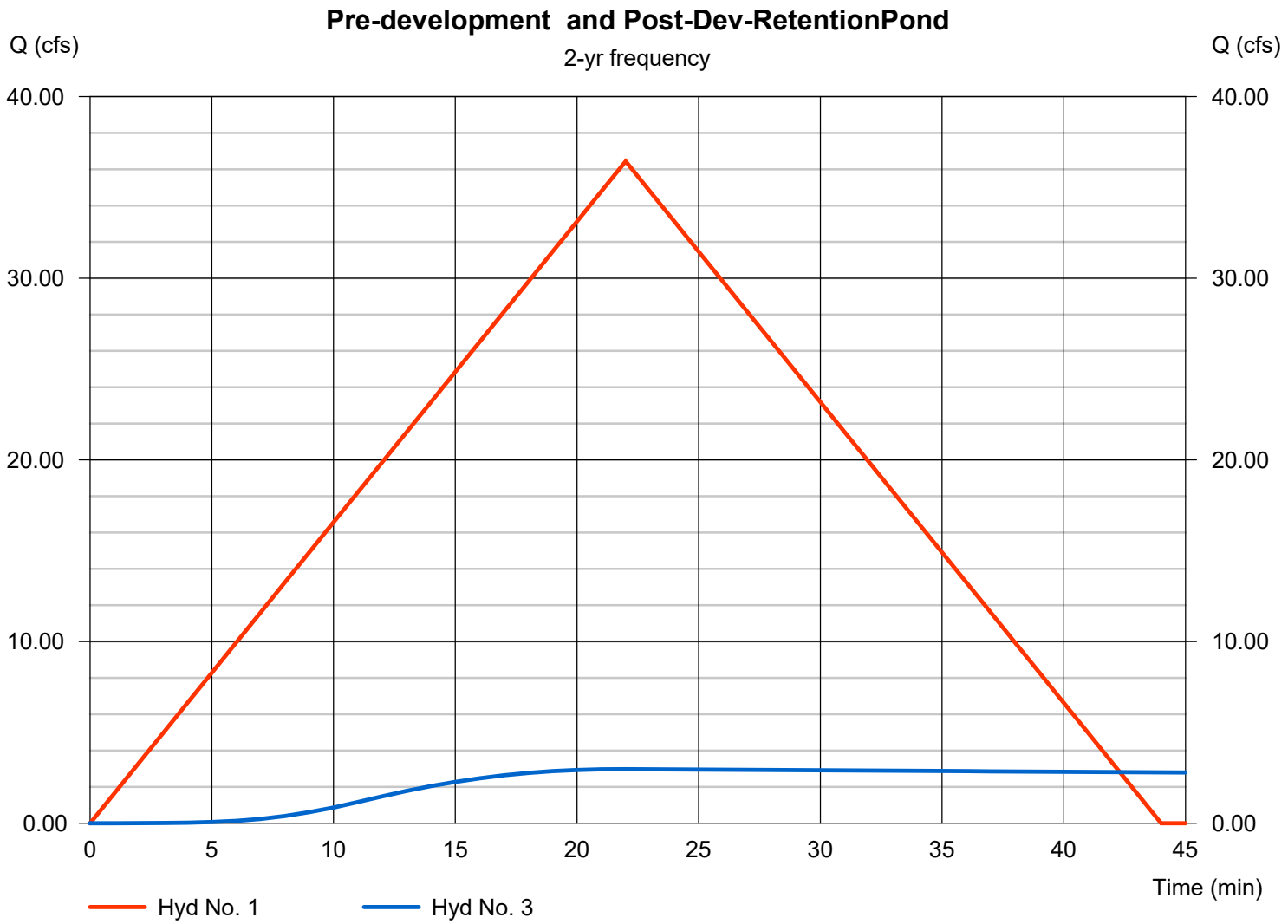
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	36.44 cfs
Time to peak	=	22 min
Hyd. Volume	=	48,099 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	2.98 cfs
Time to peak	=	22 min
Hyd. Volume	=	73,450 cuft



Multi-Hydrograph Plot

Hyd. No. 1

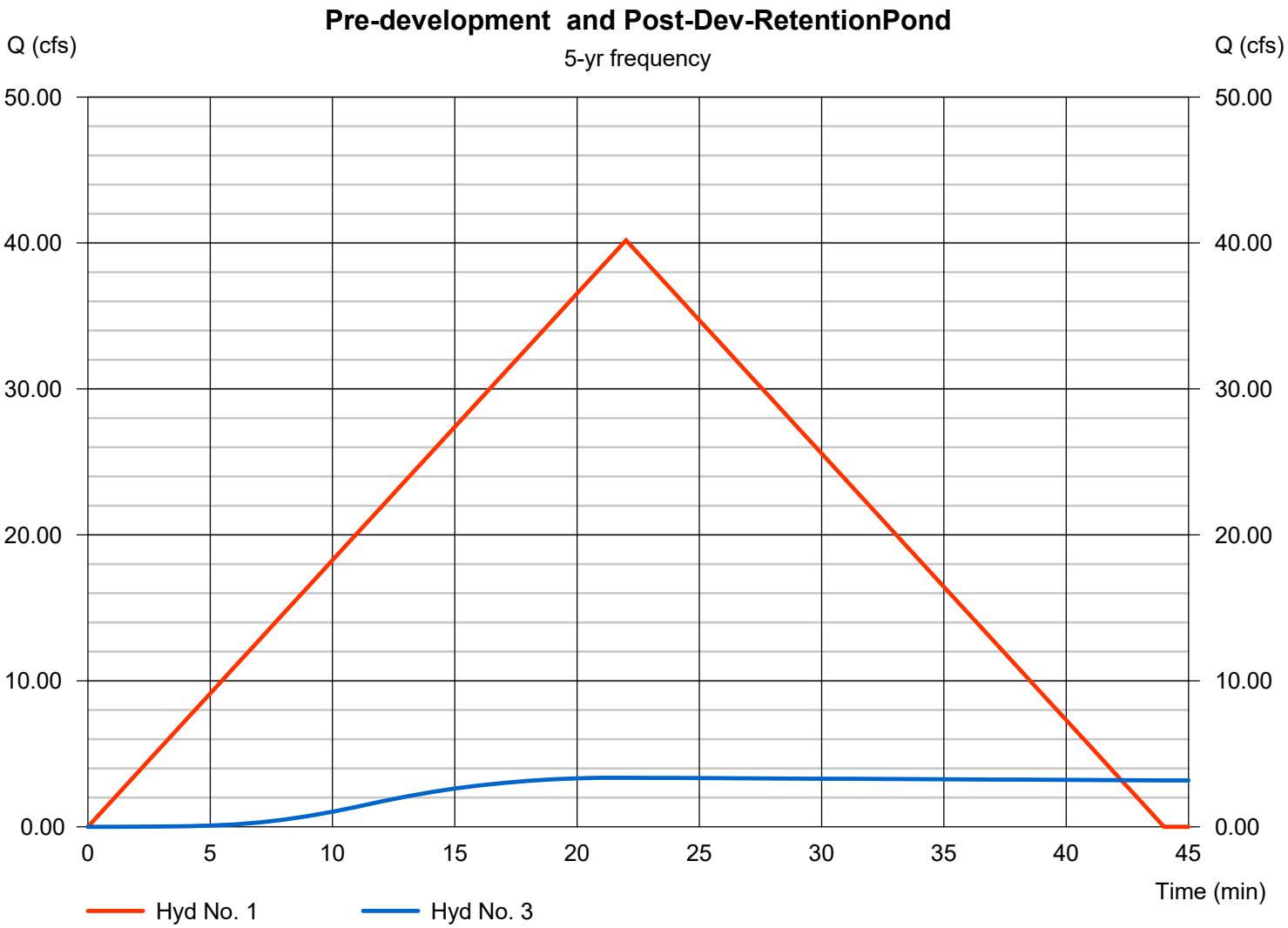
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	40.19 cfs
Time to peak	=	22 min
Hyd. Volume	=	53,050 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	3.36 cfs
Time to peak	=	22 min
Hyd. Volume	=	82,478 cuft



Multi-Hydrograph Plot

Hyd. No. 1

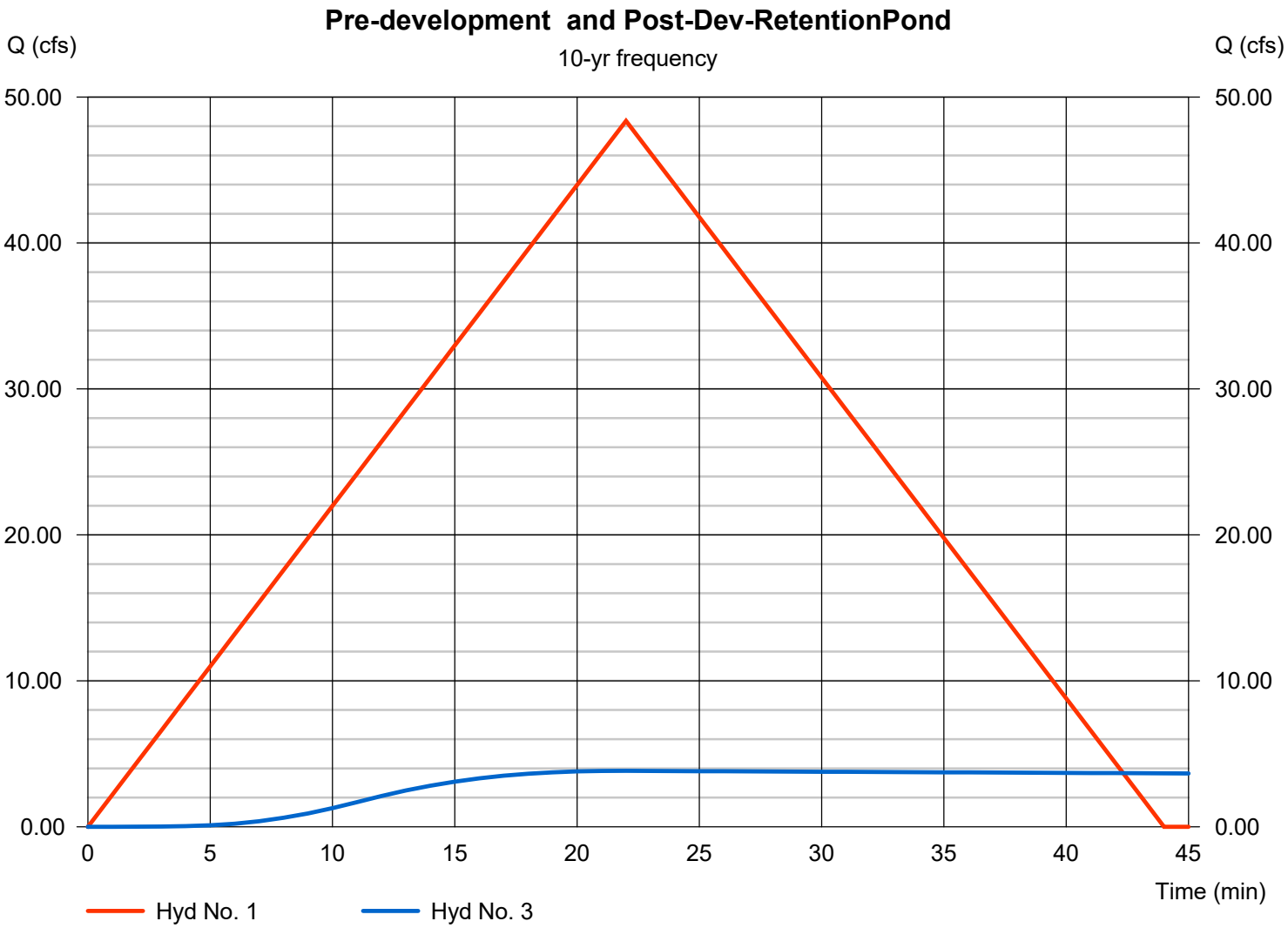
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	48.37 cfs
Time to peak	=	22 min
Hyd. Volume	=	63,846 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	3.83 cfs
Time to peak	=	22 min
Hyd. Volume	=	95,542 cuft



Multi-Hydrograph Plot

Hyd. No. 1

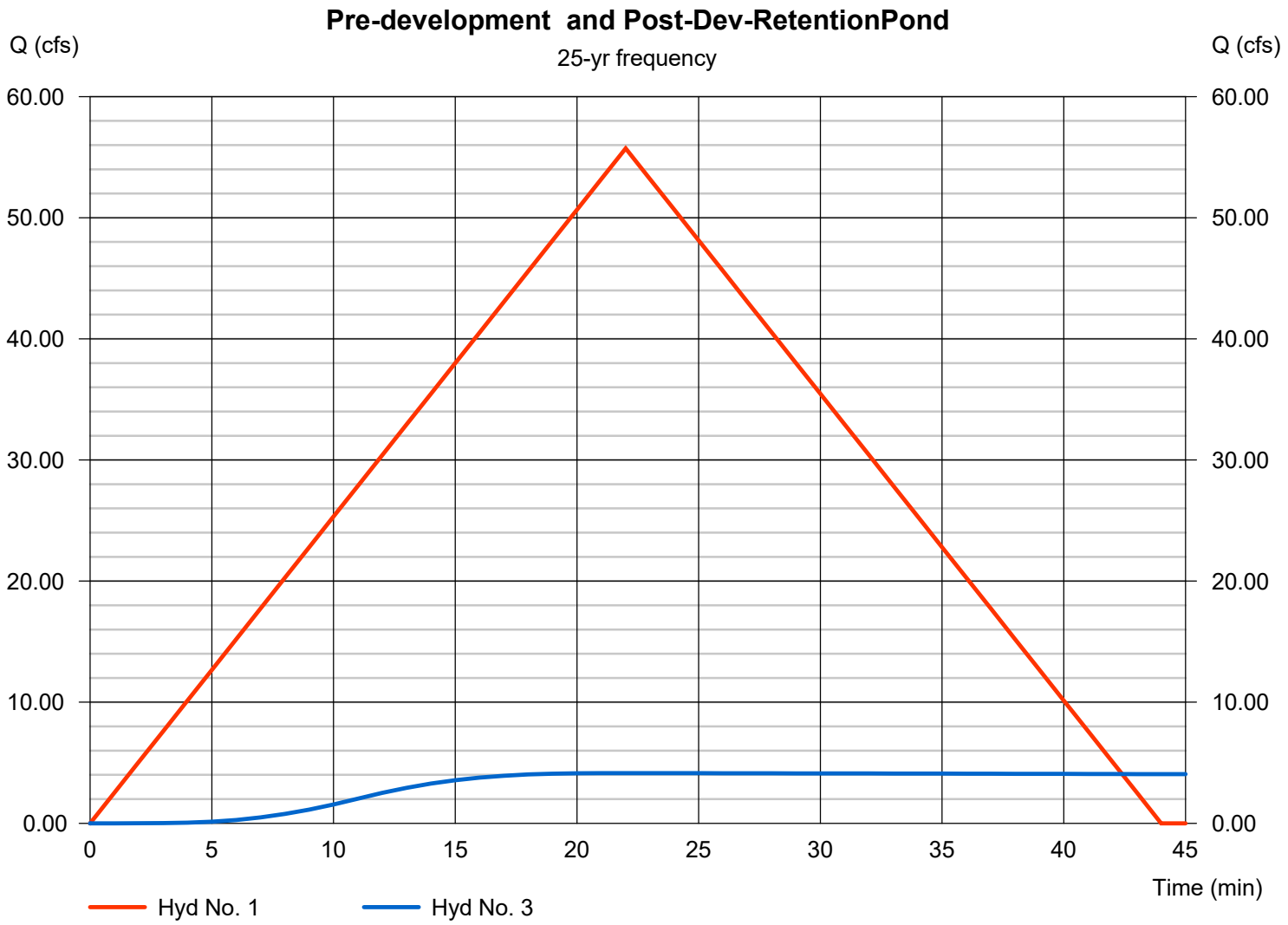
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	55.73 cfs
Time to peak	=	22 min
Hyd. Volume	=	73,563 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	4.14 cfs
Time to peak	=	22 min
Hyd. Volume	=	109,897 cuft



Multi-Hydrograph Plot

Hyd. No. 1

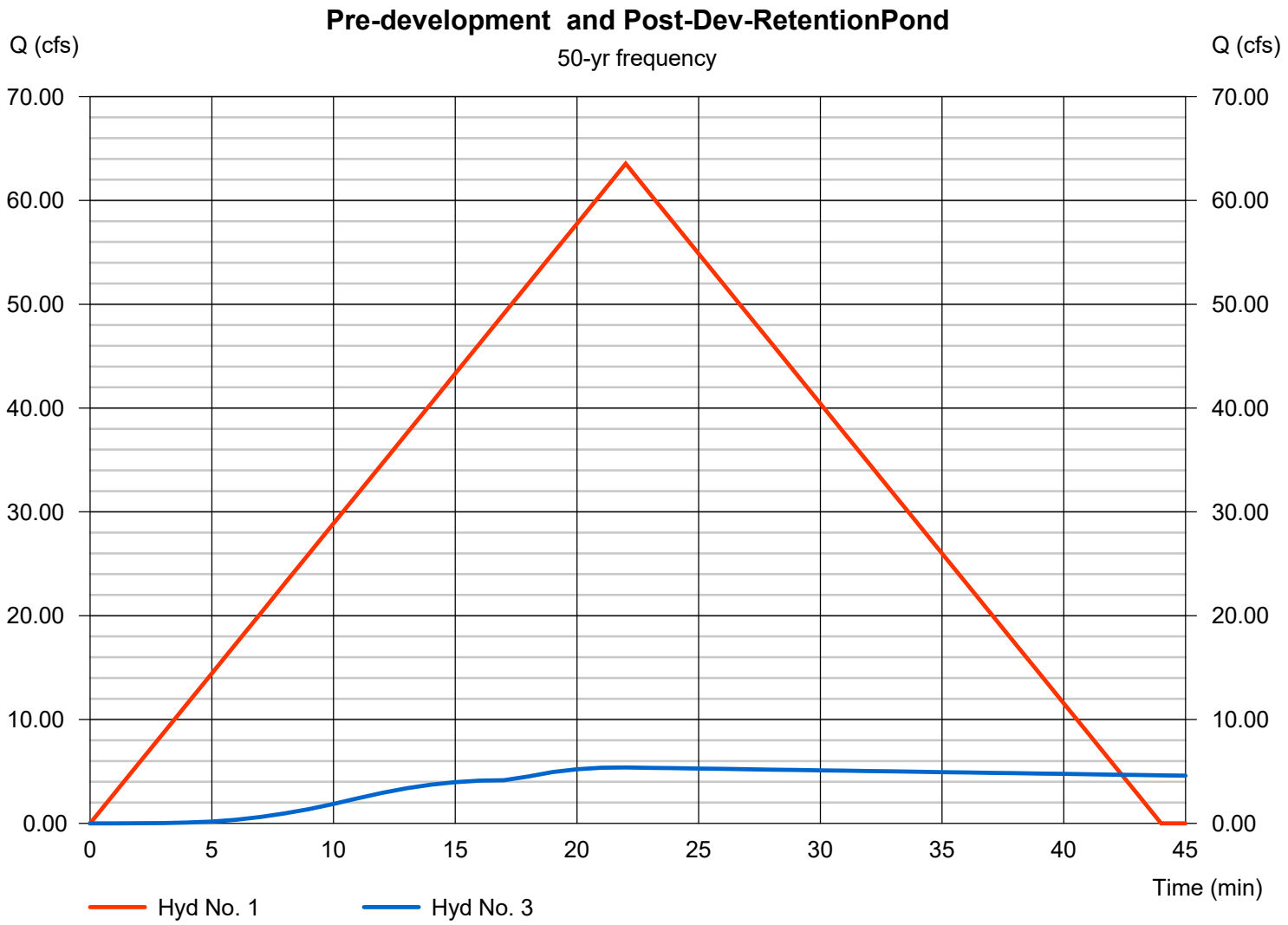
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	63.54 cfs
Time to peak	=	22 min
Hyd. Volume	=	83,868 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	5.38 cfs
Time to peak	=	22 min
Hyd. Volume	=	125,621 cuft



Multi-Hydrograph Plot

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No. 1

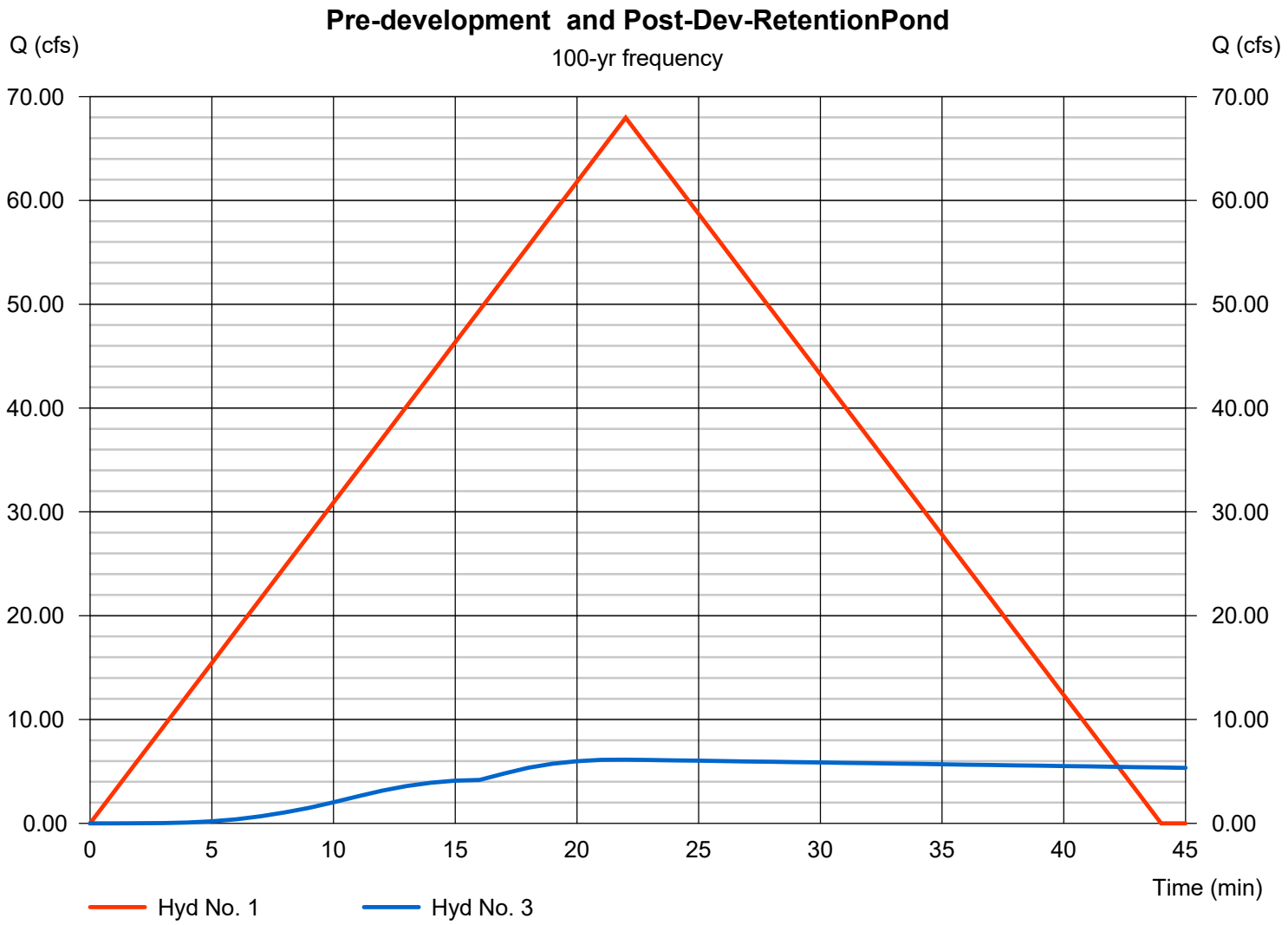
Pre-development

Hydrograph type	=	Rational
Peak discharge	=	67.97 cfs
Time to peak	=	22 min
Hyd. Volume	=	89,717 cuft

Hyd. No. 3

Post-Dev-RetentionPond

Hydrograph type	=	Reservoir
Peak discharge	=	6.13 cfs
Time to peak	=	22 min
Hyd. Volume	=	133,512 cuft



Pond Report

Pond No. 1 - <New Pond>

Pond Data

Trapezoid -Bottom L x W = 254.9 x 300.0 ft, Side slope = 3.00:1, Bottom elev. = 353.50 ft, Depth = 2.80 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	353.50	76,470	0	0
0.28	353.78	77,405	21,542	21,542
0.56	354.06	78,346	21,805	43,347
0.84	354.34	79,292	22,069	65,417
1.12	354.62	80,244	22,335	87,751
1.40	354.90	81,202	22,602	110,354
1.68	355.18	82,165	22,871	133,225
1.96	355.46	83,134	23,142	156,367
2.24	355.74	84,108	23,414	179,781
2.52	356.02	85,089	23,688	203,468
2.80	356.30	86,075	23,963	227,431

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 18.00	Inactive	Inactive	0.00
Span (in)	= 18.00	0.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 353.50	0.00	0.00	0.00
Length (ft)	= 26.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

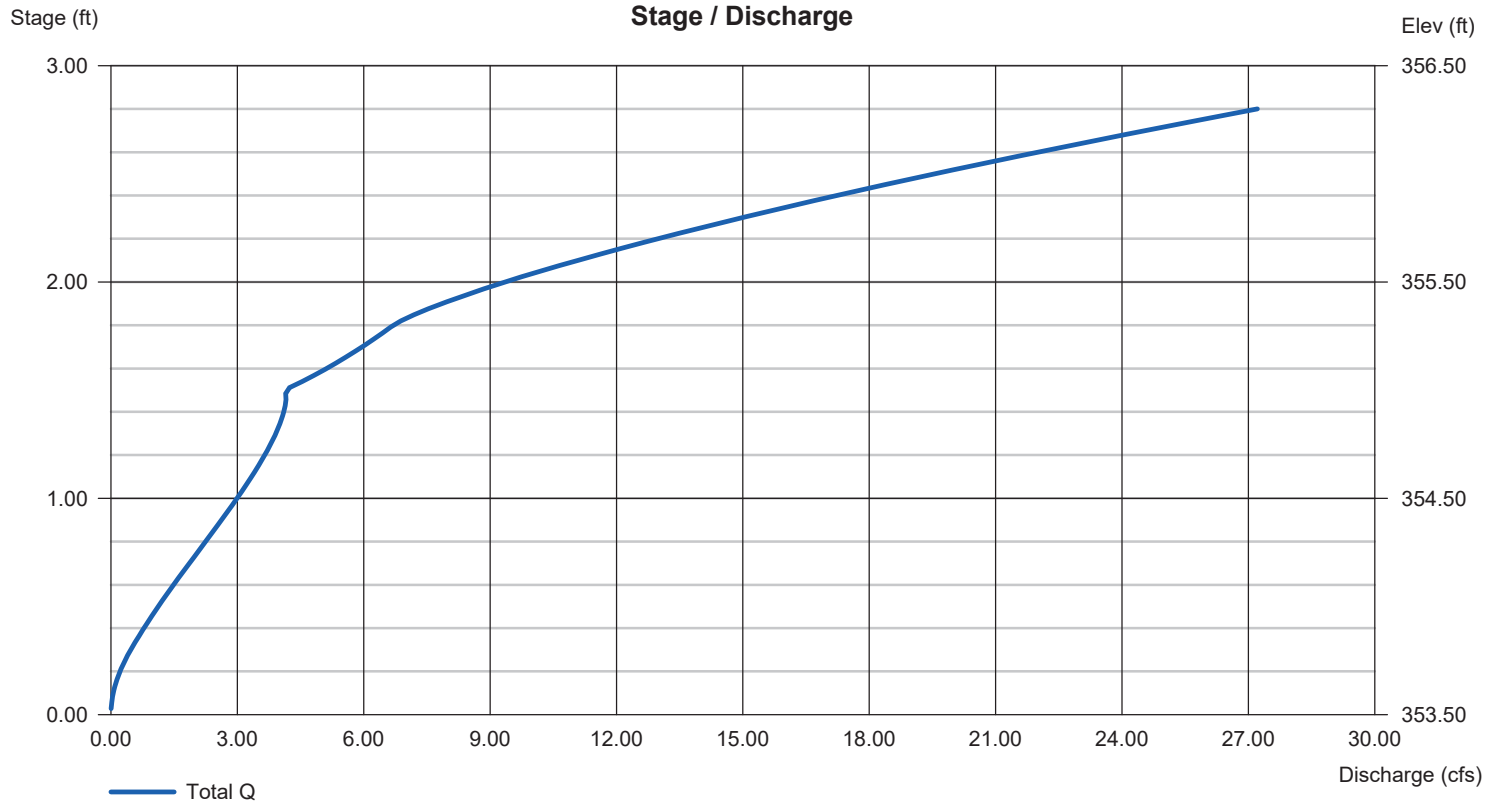
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.00	0.00	0.00	0.00
Crest El. (ft)	= 355.30	0.00	0.00	0.00
Weir Coeff.	= 3.09	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No

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

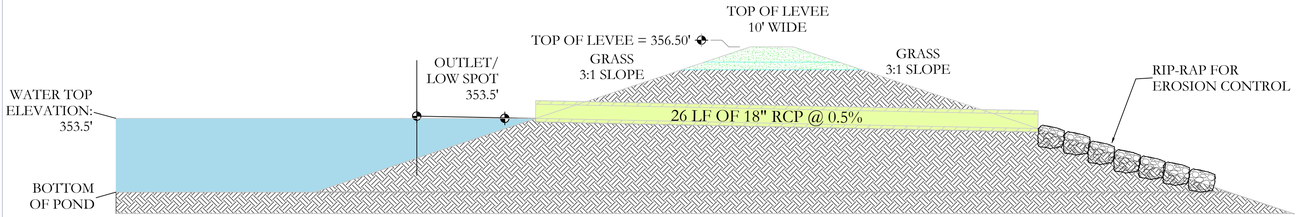
TW Elev. (ft) = 0.00

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

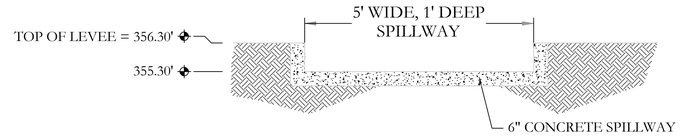


BASIS OF BEARINGS:
GRID NORTH ARKANSAS
COORDINATE SYSTEM (SOUTH ZONE)
BY GPS OBSERVATION

WET POND OUTLET SECTION
NTS



SPILLWAY END VIEW
NTS



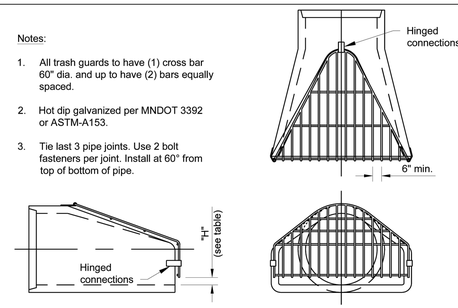
LEGEND

EXISTING CONTOUR LINE 363
PROPOSED CONTOUR LINE 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

FLARED END SECTION TRASH RACK
NTS

Notes:

1. All trash guards to have (1) cross bar 60" dia. and up to have (2) bars equally spaced.
2. Hot dip galvanized per MNDOT 3392 or ASTM-A153.
3. Tie last 3 pipe joints. Use 2 bolt fasteners per joint. Install at 60° from top of bottom of pipe.



BAR SIZES								
STANDARD DESIGN					HEAVY DESIGN			
	PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE		PIPE SIZE	HOLE DIA. REQ'D	BOLT DIA.	BAR SIZE
ROUND	12"-24"	3/4"	5/8"	5/8"	ROUND	12"-18"	3/4"	5/8"	3/4"
	27"-48"	7/8"	3/4"	3/4"		21"-42"	7/8"	3/4"	1"
	54"-90"	1 1/8"	1"	1"		48"-90"	1 1/8"	1"	1 1/4"
ARCH	22"-29"	3/4"	5/8"	5/8"	ARCH	22"	3/4"	5/8"	3/4"
	36"-59"	7/8"	3/4"	3/4"		29"-51"	7/8"	3/4"	1"
	65"-88"	1 1/8"	1"	1"		59"-88"	1 1/8"	1"	1 1/4"
BOLT LG. = PIPEWALL THICKNESS + 2 1/2"									

VALUES FOR "H"			
ROUND PIPE		ARCH PIPE	
PIPE SIZE	H	PIPE SIZE	H
12"	2 1/2"	22"-29"	4"
15"	3"	36"-44"	5"
18"-24"	4"	51"-55"	6"
27"-36"	5"	73"-88"	7"
42"-54"	6"		
60"-72"	7"		
78"-90"	8"		

DETENTION POND MAINTENANCE PLAN

Background
There will be one retention pond in this project.The retention pond is located at the North-East of the subject property. It is designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
The property owners association 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.

Periodic or Non-Routine Maintenance
The routine inspection of the pond area and discharge pipe 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.

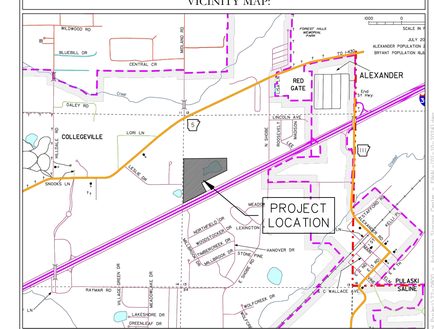
-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge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

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

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

VICINITY MAP:



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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
RETENTION POND PLAN
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	01-24-2023	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.4	SCALE:	

500	01S	14W	0	21	300	62	1762

THESE PLANS ARE THE PROPERTY OF HOPE CONSULTING, INC. AND ARE NOT TO BE USED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF HOPE CONSULTING, INC.

• Pre-Development time of Concentration

#22-0800
1/23/24

* (A-B) Overland Flow, toc:

$t_i = \frac{0.93[N]^{0.467}}{S^{0.5}}$

$t_i = \frac{0.93[0.4(58.4)]^{0.467}}{(0.047)^{0.5}}$

t_i = 16.7 min

- N = 0.40 (Pasture, average, grass cover)
- L = 58 ft
- S = 0.047

*(B-C) Shallow Concentrated Flow, toc:

- V_k unpaved = $16.1345(S)^{0.5}$
- V_k unpaved = $16.1345(0.021)^{0.5}$
- V_k unpaved = 2.34 ft/s
- $t_{sh} = \frac{L}{60(V_k)} = \frac{409\text{ ft}}{60(2.34\text{ ft/s})}$

t_{sh} = 2.92 min

- L = 409 ft
- S = 0.021
- $V_{unp} = 16.1345(0.021)^{0.5}$
- V_{unp} = 2.34 ft/s

1/5

• Pre-Development time of Concentration

1/23/24

* (C-D) Open Channel Flow #1, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.36)^{2/3}(0.033)^{0.5}$
- V_c = 7.21 ft/s
- $T_t = \frac{L}{60(V)} = \frac{77\text{ ft}}{60(7.21\text{ ft/s})}$
- t_c = 0.18 min

- n = 0.019
- L = 77 ft
- S = 0.033
- r = 0.36

* (D-E) Open Channel Flow #2, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.70)^{2/3}(0.030)^{1/2}$
- V_c = 10.72 ft/s
- $t_c = \frac{L}{60(V)} = \frac{208\text{ ft}}{60(10.72\text{ ft/s})}$
- t_c = 0.32 min

- n = 0.019
- L = 208 ft
- S = 0.030
- r = 0.70

3/5

• Pre-Development time of Concentration

#22-0800
1/23/24

* Open Channel Flow #3, toc:

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.495)^{2/3}(0.020)^{1/2}$
- V_c = 6.53 ft/s
- $t_c = \frac{L}{(60)(V)} = \frac{172\text{ ft}}{(60)(6.53\text{ ft/s})} = 0.44$ min

- n = 0.019
- L = 172 ft
- S = 0.020
- R = 0.45

*Open Channel Flow #4, toc

- $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$
- $V_c = \frac{1.49}{0.019}(0.49)^{2/3}(0.010)^{1/2}$
- V_c = 4.84 ft/s
- $t_c = \frac{L}{60(V)} = \frac{361\text{ ft}}{60(4.84\text{ ft/s})} = 1.24$ min

- n = 0.019
- L = 361 ft
- S = 0.010
- R = 0.49

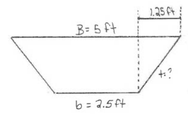
∴ Pre-Dev. TOC = 16.7 min + 2.92 min + 0.18 min + 0.32 min + 0.44 min + 1.24 min

= 21.8 min

3/5

① Open Channel Cross Sectional Area #1:

#22-0800
1/23/24



- Area = (b + ty)(y)
  = (2.5 + (2.5)(0.5))(0.5)
  = 1.88 ft²
- $R = \frac{A}{P} = \frac{1.88\text{ ft}^2}{5.19\text{ ft}} = 0.36$

$y = \frac{1.25\text{ ft}}{t}$

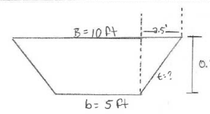
$t = \frac{1.25\text{ ft}}{0.5\text{ ft}}$

t = 2.5

- Wetted Perimeter (P) = b + 2yw
  $w = (1 + t^2)^{0.5}$
  $w = (1 + (2.5)^2)^{0.5}$
  w = 2.69
- P = 2.5' + 2(0.5')(2.69)

P = 5.19 ft

② Open Channel Flow Cross Sectional Area #2:



- Area = (b + ty)(y)
  = (5 + (2.58)(0.97))(0.97)
  = 7.28 ft²
- $R = \frac{A}{P} = \frac{7.28\text{ ft}^2}{10.37\text{ ft}} = 0.70$

y = 2.5 ft

$t = \frac{2.5\text{ ft}}{0.97}$

t = 2.58 ft

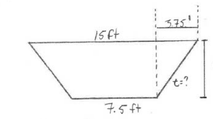
- Wetted Perimeter (P) = b + 2yw
  $w = (1 + t^2)^{0.5}$
  $w = (1 + (2.58)^2)^{0.5}$
  w = 2.77
- P = 5 + 2(0.97')(2.77)

P = 10.37 ft

4/5

③ Open Channel Flow Cross Sectional Area #3:

#22-0800
1/23/24



- Area = (b + ty)(y)
  = (7.5 + (6.2)(0.61))(0.61)
  = 6.88 ft²
- $R = \frac{A}{P} = \frac{6.88\text{ ft}^2}{15.16} = 0.45$

$y = \frac{3.75\text{ ft}}{t}$

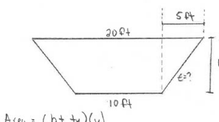
$t = \frac{3.75\text{ ft}}{0.61\text{ ft}}$

t = 6.2

- Wetted Perimeter (P) = b + 2yw
  $w = (1 + t^2)^{0.5}$
  $w = (1 + (6.2)^2)^{0.5}$
  w = 6.28
- P = 7.5 + 2(0.61)(6.28)

P = 15.16 ft

④ Open Channel Flow Cross Sectional Area #4



- Area = (b + ty)(y)
  = (10 + (7.69)(0.65))(0.65)
  = 9.75 ft²
- $R = \frac{A}{P} = \frac{9.75\text{ ft}^2}{20.08\text{ ft}} = 0.49$

V = 5 ft

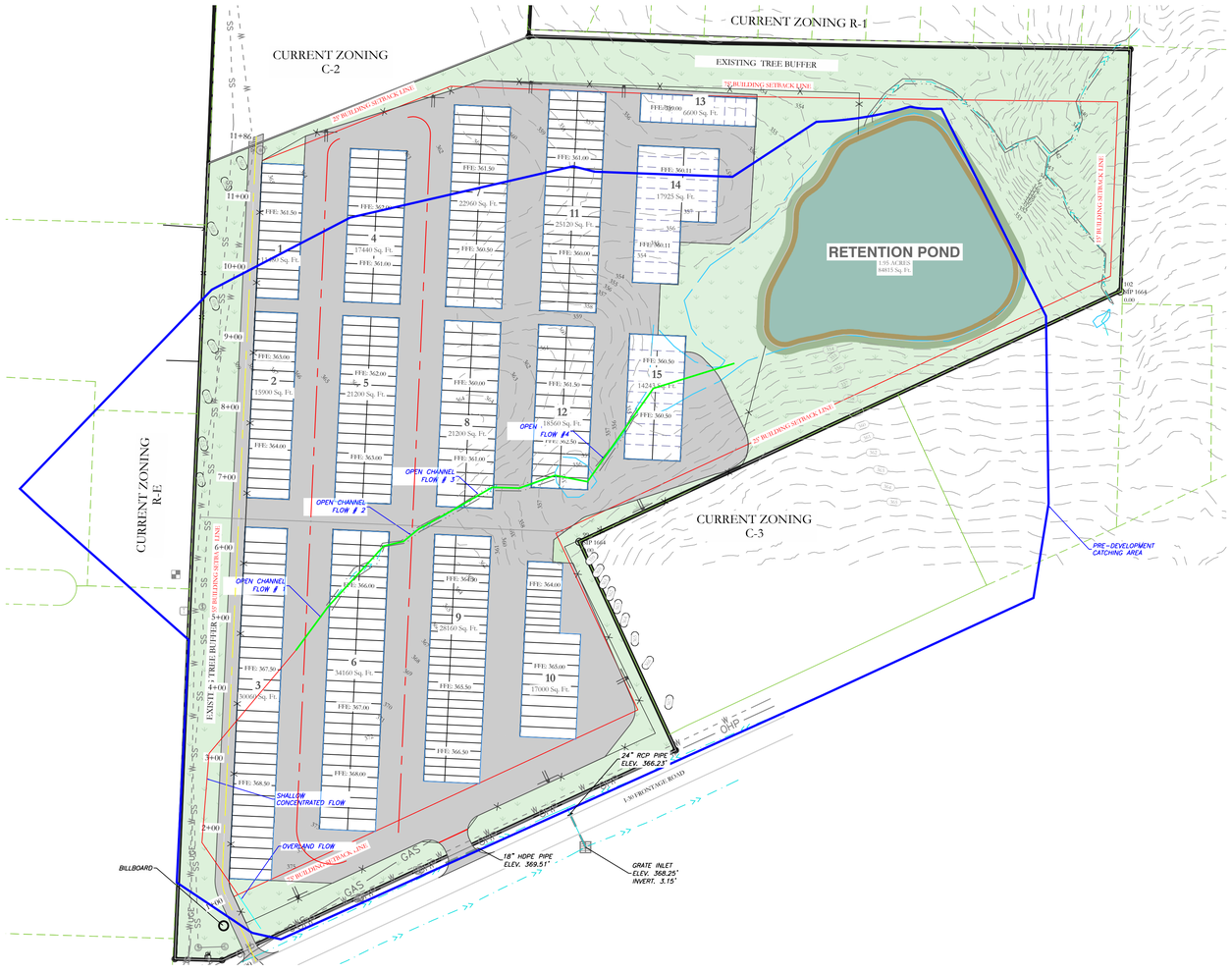
$t = \frac{5\text{ ft}}{0.65\text{ ft}}$

t = 7.69

- Wetted Perimeter: P = b + 2yw
  $w = (1 + t^2)^{0.5}$
  $w = (1 + (7.69)^2)^{0.5}$
  w = 7.75
- P = 10 + 2(0.65)(7.75)

P = 20.08 ft

1/5



Pre-Development Time of Concentration Summary									
Reach	Description of Flow	n	Length (ft)	Slope (ft/ft)	Cross. Area (sqft)	Welted Perimeter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.4	58.40	0.047					16.68
B-C	Shallow Flow		409.00	0.021				2.34	2.92
C-D	Open Channel #1	0.019	77.00	0.033	1.88	5.19	0.36	7.21	0.18
D-E	Open Channel #2	0.019	208.00	0.030	7.28	10.37	0.70	10.72	0.32
E-F	Open Channel #3	0.019	172.00	0.020	6.88	15.16	0.45	6.53	0.44
F-G	Open Channel #4	0.019	361.00	0.010	9.75	20.08	0.49	4.84	1.24
							Total Time		21.77

Pre Development Drainage Calculations

Total Area, A= 26.06 ac
Impervious area (gravel)= 4.65 ac
Landscape (forest/woodland)= 21.4 ac

For 25 years,
Runoff Coefficient , C=0.50 (gravel)
=0.40(forest/woodland)
Composite Co-efficient,C = 0.42
Time of Concentration,t=21.8 min=22 min

For 100 years,
Runoff Coefficient , C=0.65 (gravel)
=0.47 (forest/woodland)
Composite Co-efficient,C =0.50
Time of Concentration,t=21.8min=22 min

LEGEND

EXISTING CONTOUR LINE — 363
PROPOSED CONTOUR LINE — 363
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

LEGEND

POST DEVELOPMENT AREA
PRE DEVELOPMENT AREA
CHANNELIZED FLOW TOC LENGTH
SHALLOW CONCENTRATED FLOW TOC LENGTH
OVERLAND FLOW TOC LENGTH

CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

BASIS OF BEARING: GRID NORTH, ARKANSAS COORDINATE SYSTEM, SOUTH ZONE BY GPS OBSERVATION

N

100' 50' 0 100'

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FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER
PRE-DEVELOPMENT CALCULATIONS
BRYANT, SALINE COUNTY, ARKANSAS

DATE:	1-24-2024	C.A.D. BY:	DRAWING NUMBER:
REVISED:		CHECKED BY:	22-0800
SHEET:	C-5.5	SCALE: 1" = 100'	

500	01S	14W	0	21	300	62	1762

· Post-Development time of Concentration

#22-0800
1/23/2024

*(A-B) Overland flow, toc:

$t_i = \frac{0.83\,[NL]^{0.467}}{S^{0.5}}$

$t_i = \frac{0.83\,[(0.02)(51.3)]^{0.467}}{(0.045)^{0.5}}$

$t_i = 3.96$ min

· W = 0.02 (smooth & Impervious surfaces)
· L = 51.3 ft
· S = 0.045

*(B-C) Shallow Concentrated Flow, toc:

$V_{paved} = 20.328(S)^{0.5}$

$V_{pav} = 20.328(0.02)^{0.5}$

$V_{pav} = 2.87$ ft/s

$t_i = \frac{L}{60(V)}$

$t_i = \frac{256\text{ ft}}{60(2.87\text{ ft/s})}$

$t_i = 1.48$ min

· L = 256 ft
· S = 0.02

WG 1/3

· Post-Development Time of Concentration

#22-0800
1/23/24

*(C-D) 18" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.38)^{2/3}(0.005)^{1/2}$

$V_c = 4.55$ ft/s

· $t_t = \frac{L}{60(V)} = \frac{302\text{ ft}}{60(4.55\text{ ft/s})} = 1.11$ min

· n = 0.012 HDPE Manning's
· L = 302 ft
· Diameter = 18" = 1.5'
· $R = \frac{D}{4} = \frac{1.5'}{4} = 0.38$
· S = 0.005

*(D-E) 24" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.50)^{2/3}(0.010)^{0.5}$

$V_c = 7.92$ ft/s

· $t_i = \frac{L}{60(V)} = \frac{145\text{ ft}}{60(7.92\text{ ft/s})} = 0.31$ min

· n = 0.012 HDPE Manning's
· L = 145 ft
· Diameter = 24" → 2'
· $R = \frac{D}{4} = \frac{2}{4} = 0.50$
· S = 0.010

*(E-F) 24" HDPE Pipe Channeled Flow, toc:

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.5)^{2/3}(0.011)^{1/2}$

$V_c = 8.18$ ft/s

· $t_i = \frac{L}{60(V)} = \frac{140\text{ ft}}{60(8.18\text{ ft/s})} = 0.29$ min

· n = 0.012
· L = 140 ft
· Diameter = 24" → 2'
· $R = \frac{D}{4} = \frac{2}{4} = 0.5$
· S = 0.011

WG 2/3

· Post-Development Time of Concentration

#22-0800
1/23/24

*(F-G) 30" HDPE Pipe Channeled Flow

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.63)^{2/3}(0.007)^{1/2}$

$V_c = 7.74$ ft/s

$t_t = \frac{L}{60(V)} = \frac{296\text{ ft}}{60(7.74\text{ ft/s})} = 0.64$ min

· n = 0.012 HDPE Manning's
· L = 296 ft
· Diameter = 30" → 2.5'
· $R = \frac{D}{4} \rightarrow \frac{2.5}{4} = 0.63$
· S = 0.007

*(G-H) HDPE Pipe Channeled Flow

· $V_c = \frac{1.49}{n}(R)^{2/3}(S)^{1/2}$

$V_c = \frac{1.49}{0.012}(0.75)^{2/3}(0.005)^{1/2}$

$V_c = 7.24$ ft/s

$t_t = \frac{L}{60(V)} = \frac{347\text{ ft}}{60(7.24\text{ ft/s})} = 0.80$ min

· n = 0.012 HDPE Manning's
· L = 347 ft
· Diameter = 36" = 3'
· $R = \frac{D}{4} = \frac{3}{4} = 0.75$
· S = 0.005

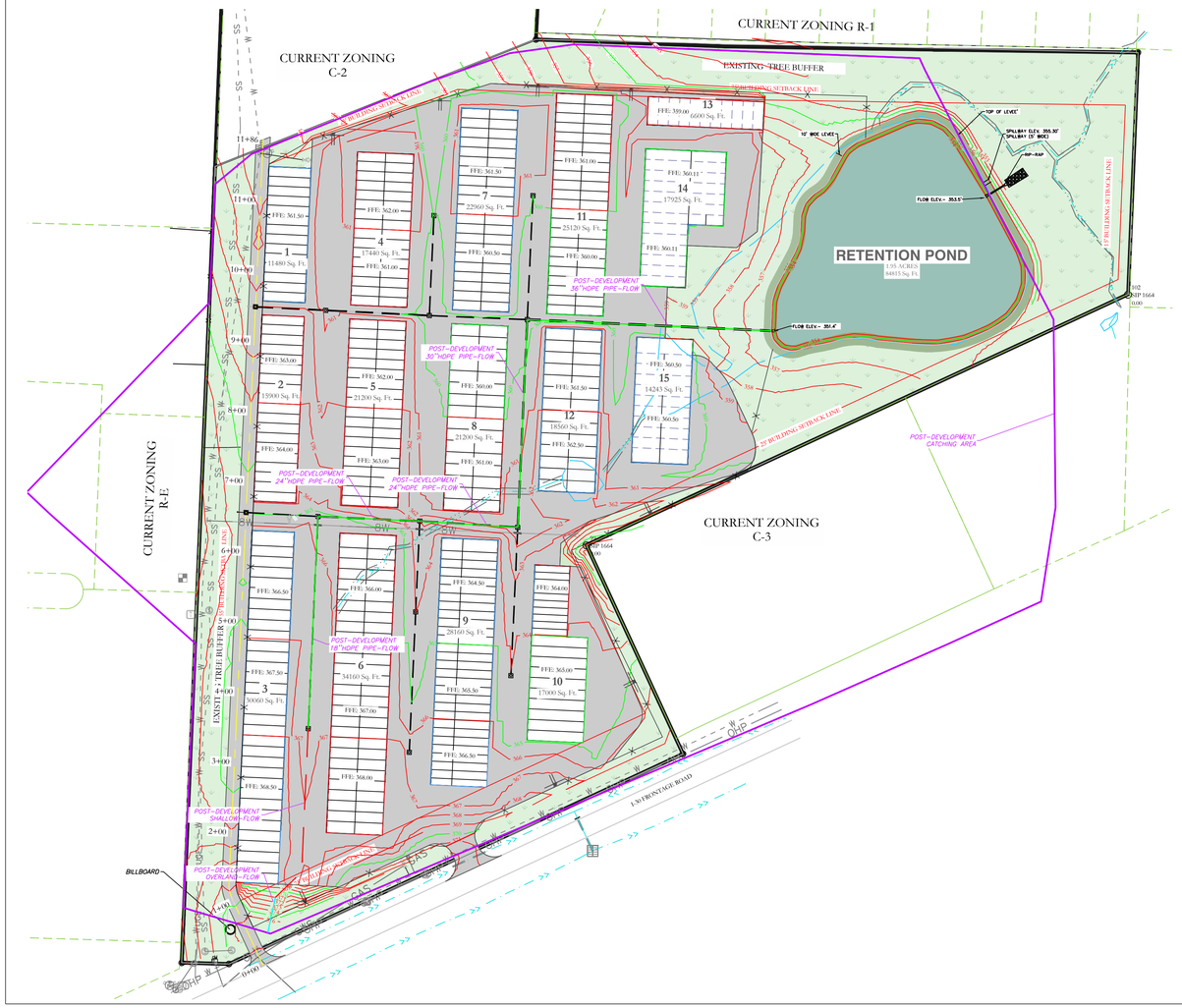
∴ Total TOC = 3.96 min + 1.48 min + 1.11 min + 0.31 min + 0.29 min + 0.64 min + 0.80 min

= 8.59 min

WG 3/3

Post-Development Time of Concentration Summary

Reach	Description of Flow	n	Length (ft)	Slope (ft/ft)	Diameter (ft)	Hydraulic Radius	Velocity (Ft/s)	Travel Time (min)
A-B	Overland	0.02	51.30	0.045				3.96
B-C	Shallow Flow		256.00	0.020			2.87	1.48
C-D	18" HDPE Pipe	0.012	302.00	0.005	1.50	0.38	4.55	1.11
D-E	24" HDPE Pipe	0.012	145.00	0.010	2.00	0.50	7.92	0.31
E-F	24" HDPE Pipe	0.012	140.00	0.011	2.00	0.50	8.18	0.29
F-G	30" HDPE Pipe	0.012	296.00	0.007	2.50	0.63	7.74	0.64
G-H	36" HDPE Pipe	0.012	347.00	0.005	3.00	0.75	7.24	0.80
							Total Time	**8.58**



Post Development Drainage Calculations

Total Area, A= 28.53 ac
Impervious area (gravel)= 4.65 ac
Landscape (forest/woodland)= 23.88 ac

For 25 years,
Runoff Coefficient , C=0.50 (gravel)
=0.88(asphalt)
Composite Co-efficient,C = 0.82
Time of Concentration,t=8.58 min=8.6 min

For 100 years,
Runoff Coefficient , C=0.65 (gravel)
=0.97 (asphalt)
Composite Co-efficient,C = 0.92
Time of Concentration,t=8.58min=8.6 min

LEGEND

EXISTING CONTOUR LINE — 363 —
PROPOSED CONTOUR LINE — 363 —
PROPOSED HDPE STORM PIPE
PROPOSED RCP STORM PIPE

LEGEND

POST DEVELOPMENT AREA
PRE DEVELOPMENT AREA
CHANNELIZED FLOW TOC LENGTH
SHALLOW CONCENTRATED FLOW TOC LENGTH
OVERLAND FLOW TOC LENGTH

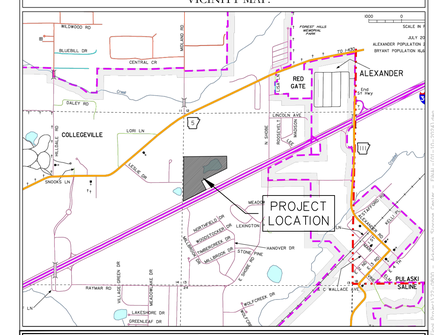
CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

N

BASIS OF BEARINGS:
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

100' 50' 0 100'

VICINITY MAP:



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PH. (501)315-2626
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www.hopeconsulting.com

FOR USE AND BENEFIT OF:
STUART FINLEY

ARKANSAS STORAGE CENTER

POST-DEVELOPMENT FLOW

BRYANT, SALINE COUNTY, ARKANSAS

DATE: 01-24-2024	C.A.D. BY:		DRAWING NUMBER:
REVISED:	CHECKED BY:		22-0800
SHEET: C-5.6	SCALE: 1" = 100'		

500	01S	14W	0	21	300	62	1762

INLET SIZE CALCULATIONS:

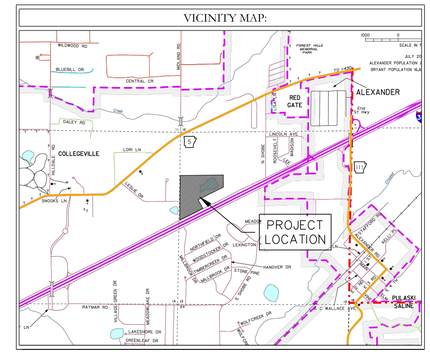
For 25 yr:

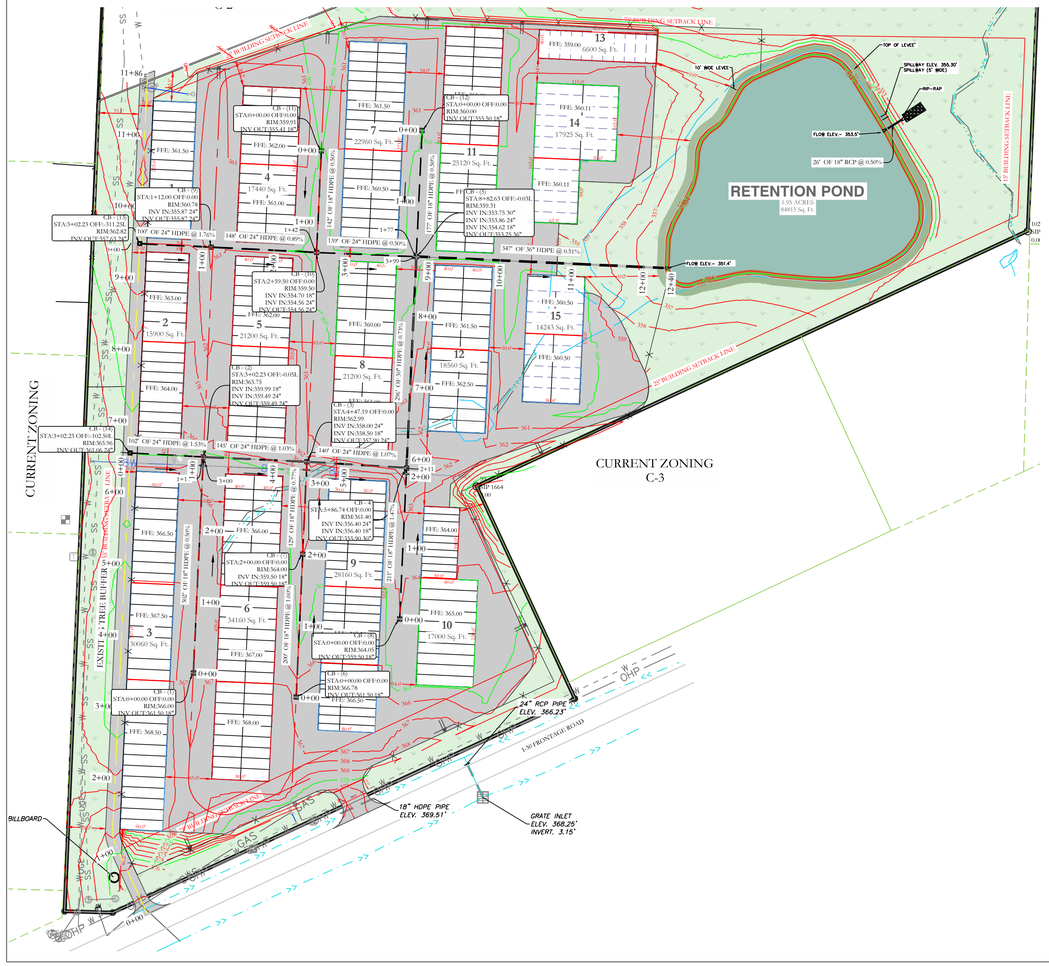
SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer	Inlet Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Max (Rim) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (inches)	Median Ditch Longitudinal Slope (ft/ft)	Median Ditch Bottom Width (ft)	Median Ditch Left Side Slope (V:H)	Median Ditch Right Side Slope (V:H)	Median Ditch Manning's Roughness	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Maximum Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
1	CB-(1)	1173461.18	2029030.25		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.00	4.50	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.13	0.13	0 00:00	0.00	0.00
2	CB-(10)	1173633.39	2029618.03		FHWA HEC-22 GENERIC	N/A	On Sag	1	354.56	359.50	4.94	354.56	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.63	0.13	0 00:00	0.00	0.00
3	CB-(11)	1173635.69	2029760.23		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.41	359.91	4.50	355.41	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.04	0.13	0 00:00	0.00	0.00
4	CB-(12)	1173780.89	2029788.60		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.50	360.00	4.50	355.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.13	0.13	0 00:00	0.00	0.00
5	CB-(13)	1173386.20	2029630.46		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.63	362.82	5.19	357.63	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	362.95	0.13	0 00:00	0.00	0.00
6	CB-(14)	1173372.72	2029337.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.06	365.96	4.91	361.06	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.50	366.10	0.14	0 00:00	0.00	0.00
7	CB-(2)	1173475.03	2029332.17		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.49	365.75	6.26	359.49	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	365.87	0.13	0 00:00	0.00	0.00
8	CB-(3)	1173619.88	2029325.53		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.90	362.99	5.09	357.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	363.11	0.13	0 00:00	0.00	0.00
9	CB-(4)	1173759.15	2029316.66		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.90	361.40	5.50	355.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	361.53	0.13	0 00:00	0.00	0.00
10	CB-(5)	1173772.77	2029612.26		FHWA HEC-22 GENERIC	N/A	On Sag	1	353.25	359.31	6.06	353.25	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.44	0.13	0 00:00	0.00	0.00
11	CB-(6)	1173604.77	2028996.64		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.78	5.28	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.90	0.13	0 00:00	0.00	0.00
12	CB-(7)	1173613.96	2029196.43		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.00	4.50	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.13	0.13	0 00:00	0.00	0.00
13	CB-(8)	1173749.43	2029105.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.05	4.55	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.17	0.13	0 00:00	0.00	0.00
14	CB-(9)	1173486.08	2029625.44		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.87	360.78	4.91	355.87	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.91	0.13	0 00:00	0.00	0.00

For 100 yr:

SN	Element ID	X Coordinate	Y Coordinate	Description	Inlet Manufacturer	Inlet Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation (ft)	Max (Rim) Elevation (ft)	Max (Rim) Offset (ft)	Initial Water Elevation (ft)	Initial Water Depth (ft)	Ponded Area (ft²)	Grate Clogging Factor (%)	Roadway Longitudinal Slope (ft/ft)	Roadway Cross Slope (ft/ft)	Roadway Manning's Roughness	Gutter Cross Slope (ft/ft)	Gutter Width (ft)	Gutter Depression (inches)	Median Ditch Longitudinal Slope (ft/ft)	Median Ditch Bottom Width (ft)	Median Ditch Left Side Slope (V:H)	Median Ditch Right Side Slope (V:H)	Median Ditch Manning's Roughness	Peak Flow (cfs)	Peak Lateral Inflow (cfs)	Peak Flow Intercepted by Inlet (cfs)	Peak Flow Bypassing Inlet (cfs)	Inlet Efficiency during Peak Flow (%)	Allowable Spread (ft)	Max Gutter Spread during Peak Flow (ft)	Max Gutter Water Elev. during Peak Flow (ft)	Max Gutter Water Depth during Peak Flow (ft)	Time of Maximum Depth Occurrence (days hh:mm)	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
1	CB-(1)	1173461.18	2029030.25		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.00	4.50	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.13	0.13	0 00:00	0.00	0.00
2	CB-(10)	1173633.39	2029618.03		FHWA HEC-22 GENERIC	N/A	On Sag	1	354.56	359.50	4.94	354.56	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.63	0.13	0 00:00	0.00	0.00
3	CB-(11)	1173635.69	2029760.23		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.41	359.91	4.50	355.41	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.04	0.13	0 00:00	0.00	0.00
4	CB-(12)	1173780.89	2029788.60		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.50	360.00	4.50	355.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.13	0.13	0 00:00	0.00	0.00
5	CB-(13)	1173386.20	2029630.46		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.63	362.82	5.19	357.63	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	362.95	0.13	0 00:00	0.00	0.00
6	CB-(14)	1173372.72	2029337.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.06	365.96	4.91	361.06	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.50	366.10	0.14	0 00:00	0.00	0.00
7	CB-(2)	1173475.03	2029332.17		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.49	365.75	6.26	359.49	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	365.87	0.13	0 00:00	0.00	0.00
8	CB-(3)	1173619.88	2029325.53		FHWA HEC-22 GENERIC	N/A	On Sag	1	357.90	362.99	5.09	357.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	363.11	0.13	0 00:00	0.00	0.00
9	CB-(4)	1173759.15	2029316.66		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.90	361.40	5.50	355.90	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	361.53	0.13	0 00:00	0.00	0.00
10	CB-(5)	1173772.77	2029612.26		FHWA HEC-22 GENERIC	N/A	On Sag	1	353.25	359.31	6.06	353.25	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	359.44	0.13	0 00:00	0.00	0.00
11	CB-(6)	1173604.77	2028996.64		FHWA HEC-22 GENERIC	N/A	On Sag	1	361.50	366.78	5.28	361.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	366.90	0.13	0 00:00	0.00	0.00
12	CB-(7)	1173613.96	2029196.43		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.00	4.50	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.13	0.13	0 00:00	0.00	0.00
13	CB-(8)	1173749.43	2029105.75		FHWA HEC-22 GENERIC	N/A	On Sag	1	359.50	364.05	4.55	359.50	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	364.17	0.13	0 00:00	0.00	0.00
14	CB-(9)	1173486.08	2029625.44		FHWA HEC-22 GENERIC	N/A	On Sag	1	355.87	360.78	4.91	355.87	0.00	0.00	0.00	N/A	0.0200	0.0160	0.0620	2.00	2.0000	45.0000	45.0000	64	64	45.0000	0.00	0.00	N/A	N/A	N/A	7.00	1.00	360.91	0.13	0 00:00	0.00	0.00

VICINITY MAP:





PIPE SIZE CALCULATIONS:

For 25 yr:

SN	Element ID	Description	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (inches)	Pipe Width (inches)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	Lengthening Factor	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow/ Design Flow Ratio	Max Depth / Flow Depth Ratio	Max Depth / Total Depth	Total Time Surcharged (min)	Max Flow Depth (ft)	Reported Condition
1	Pipe-(10)		CB-(5)	Out-1Pipe-(10)	346.75	353.25	0.00	351.47	0.00	1.78	0.5100	CIRCULAR	36.000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	51.84	0.00	0.00	0.00	0.00	0.00	Calculated
2	Pipe-(11)		CB-(6)	CB-(7)	200.00	361.50	0.00	359.50	0.00	2.00	1.0000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	11.38	0.00	0.00	0.00	0.00	0.00	Calculated
3	Pipe-(12)		CB-(7)	CB-(3)	129.24	359.50	0.00	358.50	0.60	1.00	0.7700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	10.01	0.00	0.00	0.00	0.00	0.00	Calculated
4	Pipe-(13)		CB-(8)	CB-(4)	211.13	359.50	0.00	356.40	0.50	3.10	1.4700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	13.79	0.00	0.00	0.00	0.00	0.00	Calculated
5	Pipe-(14)		CB-(9)	CB-(10)	147.50	355.87	0.00	354.56	0.00	1.31	0.8900	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	23.11	0.00	0.00	0.00	0.00	0.00	Calculated
6	Pipe-(15)		CB-(10)	CB-(5)	139.49	354.56	0.00	353.86	0.61	0.70	0.5000	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	17.33	0.00	0.00	0.00	0.00	0.00	Calculated
7	Pipe-(16)		CB-(11)	CB-(10)	142.34	355.41	0.00	354.70	0.14	0.71	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
8	Pipe-(17)		CB-(12)	CB-(5)	176.53	355.50	0.00	354.62	1.37	0.88	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
9	Pipe-(18)		CB-(14)	CB-(2)	102.45	361.06	0.00	359.49	0.00	1.57	1.5300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	30.31	0.00	0.00	0.00	0.00	0.00	Calculated
10	Pipe-(19)		CB-(13)	CB-(9)	100.00	357.63	0.00	355.87	0.00	1.76	1.7600	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	32.52	0.00	0.00	0.00	0.00	0.00	Calculated
11	Pipe-(6)		CB-(1)	CB-(2)	302.23	361.50	0.00	359.99	0.50	1.51	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
12	Pipe-(7)		CB-(2)	CB-(3)	145.01	359.49	0.00	358.00	0.10	1.49	1.0300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	24.83	0.00	0.00	0.00	0.00	0.00	Calculated
13	Pipe-(8)		CB-(3)	CB-(4)	139.55	357.90	0.00	356.40	0.50	1.50	1.0700	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	25.39	0.00	0.00	0.00	0.00	0.00	Calculated
14	Pipe-(9)		CB-(4)	CB-(5)	295.92	355.90	0.00	353.75	0.50	2.15	0.7300	CIRCULAR	30.000	30.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	37.89	0.00	0.00	0.00	0.00	0.00	Calculated

For 100 yr:

SN	Element ID	Description	From (Inlet) Node	To (Outlet) Node	Length (ft)	Inlet Invert Elevation (ft)	Inlet Invert Offset (ft)	Outlet Invert Elevation (ft)	Outlet Invert Offset (ft)	Total Drop (ft)	Average Slope (%)	Pipe Shape	Pipe Diameter or Height (inches)	Pipe Width (inches)	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow (cfs)	Flap Gate	Lengthening Factor	Peak Flow (cfs)	Time of Peak Flow Occurrence (days hh:mm)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow/ Design Flow Ratio	Max Depth / Flow Depth Ratio	Max Depth / Total Depth	Total Time Surcharged (min)	Max Flow Depth (ft)	Reported Condition
1	Pipe-(10)		CB-(5)	Out-1Pipe-(10)	346.75	353.25	0.00	351.47	0.00	1.78	0.5100	CIRCULAR	36.000	36.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	51.84	0.00	0.00	0.00	0.00	0.00	Calculated
2	Pipe-(11)		CB-(6)	CB-(7)	200.00	361.50	0.00	359.50	0.00	2.00	1.0000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	11.38	0.00	0.00	0.00	0.00	0.00	Calculated
3	Pipe-(12)		CB-(7)	CB-(3)	129.24	359.50	0.00	358.50	0.60	1.00	0.7700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	10.01	0.00	0.00	0.00	0.00	0.00	Calculated
4	Pipe-(13)		CB-(8)	CB-(4)	211.13	359.50	0.00	356.40	0.50	3.10	1.4700	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	13.79	0.00	0.00	0.00	0.00	0.00	Calculated
5	Pipe-(14)		CB-(9)	CB-(10)	147.50	355.87	0.00	354.56	0.00	1.31	0.8900	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	23.11	0.00	0.00	0.00	0.00	0.00	Calculated
6	Pipe-(15)		CB-(10)	CB-(5)	139.49	354.56	0.00	353.86	0.61	0.70	0.5000	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	17.33	0.00	0.00	0.00	0.00	0.00	Calculated
7	Pipe-(16)		CB-(11)	CB-(10)	142.34	355.41	0.00	354.70	0.14	0.71	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
8	Pipe-(17)		CB-(12)	CB-(5)	176.53	355.50	0.00	354.62	1.37	0.88	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
9	Pipe-(18)		CB-(14)	CB-(2)	102.45	361.06	0.00	359.49	0.00	1.57	1.5300	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	30.31	0.00	0.00	0.00	0.00	0.00	Calculated
10	Pipe-(19)		CB-(13)	CB-(9)	100.00	357.63	0.00	355.87	0.00	1.76	1.7600	CIRCULAR	24.000	24.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	32.52	0.00	0.00	0.00	0.00	0.00	Calculated
11	Pipe-(6)		CB-(1)	CB-(2)	302.23	361.50	0.00	359.99	0.50	1.51	0.5000	CIRCULAR	18.000	18.00	0.0120	0.5000	0.5000	0.0000	0.00	NO	1.00	0.00	0 00:00	0.00	0.00	8.05	0.00	0.00	0.00	0.00	0.00	Calculated
12	Pipe-(7)		CB-(2)	CB-(3)	145.01

THE ELROD FIRM

ACE SIGNS

PROPERTY BRAND/EXTENSION:
The Elrod Firm

PROPERTY LOCATION:
400 Reynolds Road Bryant, AR 72022

PROPERTY CODE:
TBD

DATE:
11/09/2023

SALES REP:
Dale Fisher

PREPARED BY:
Victoria Phan

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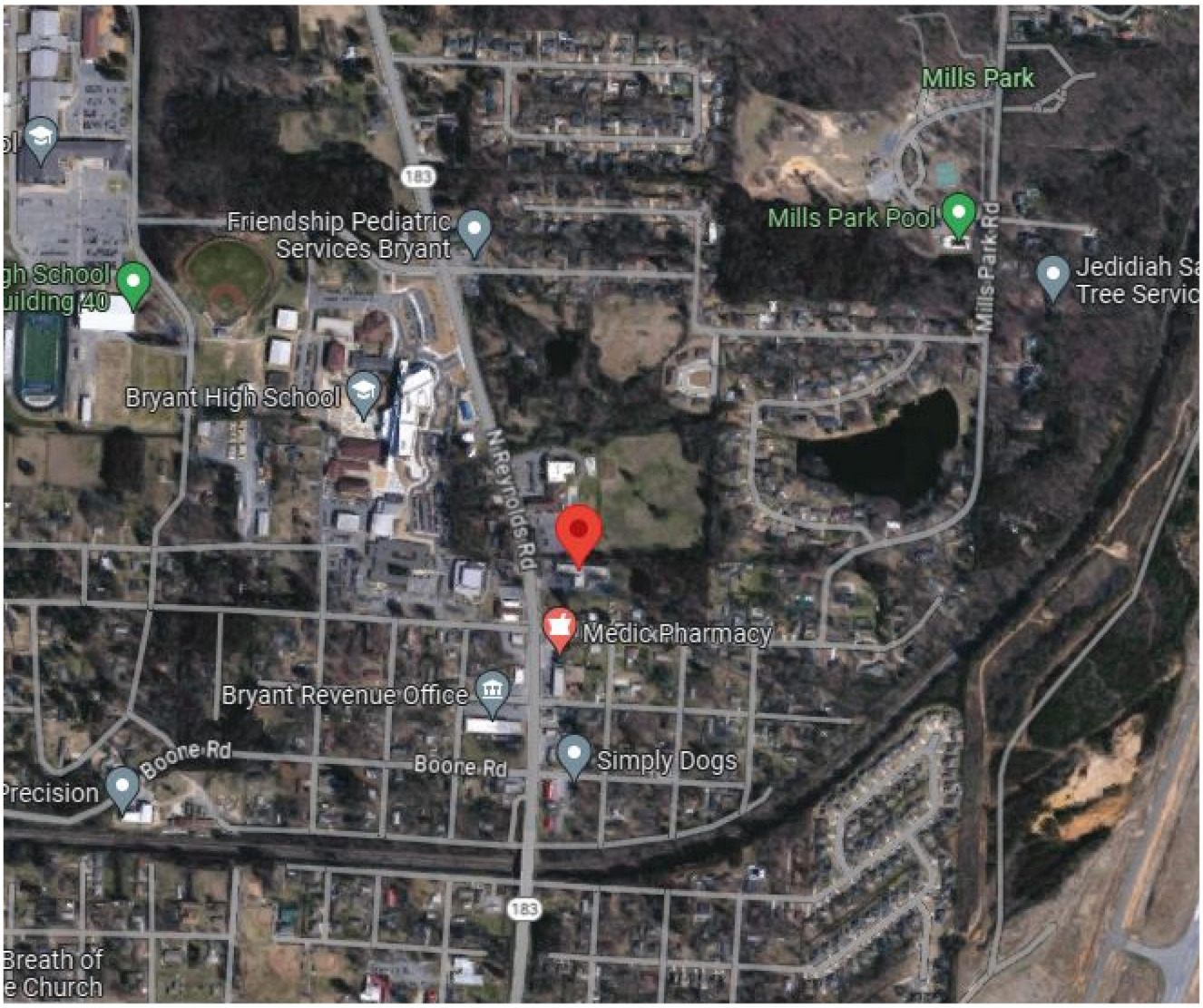
INITIALS: _____

LOCATION MAP



ACE SIGNS

PROPERTY BRAND/EXTENSION:	PROPERTY LOCATION:	PROPERTY CODE:
The Elrod Firm	400 Reynolds Road Bryant, AR 72022	TBD
DATE: 11/09/2023	**SALES REP:** Dale Fisher	**PREPARED BY:** Victoria Phan

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INITIALS: _____

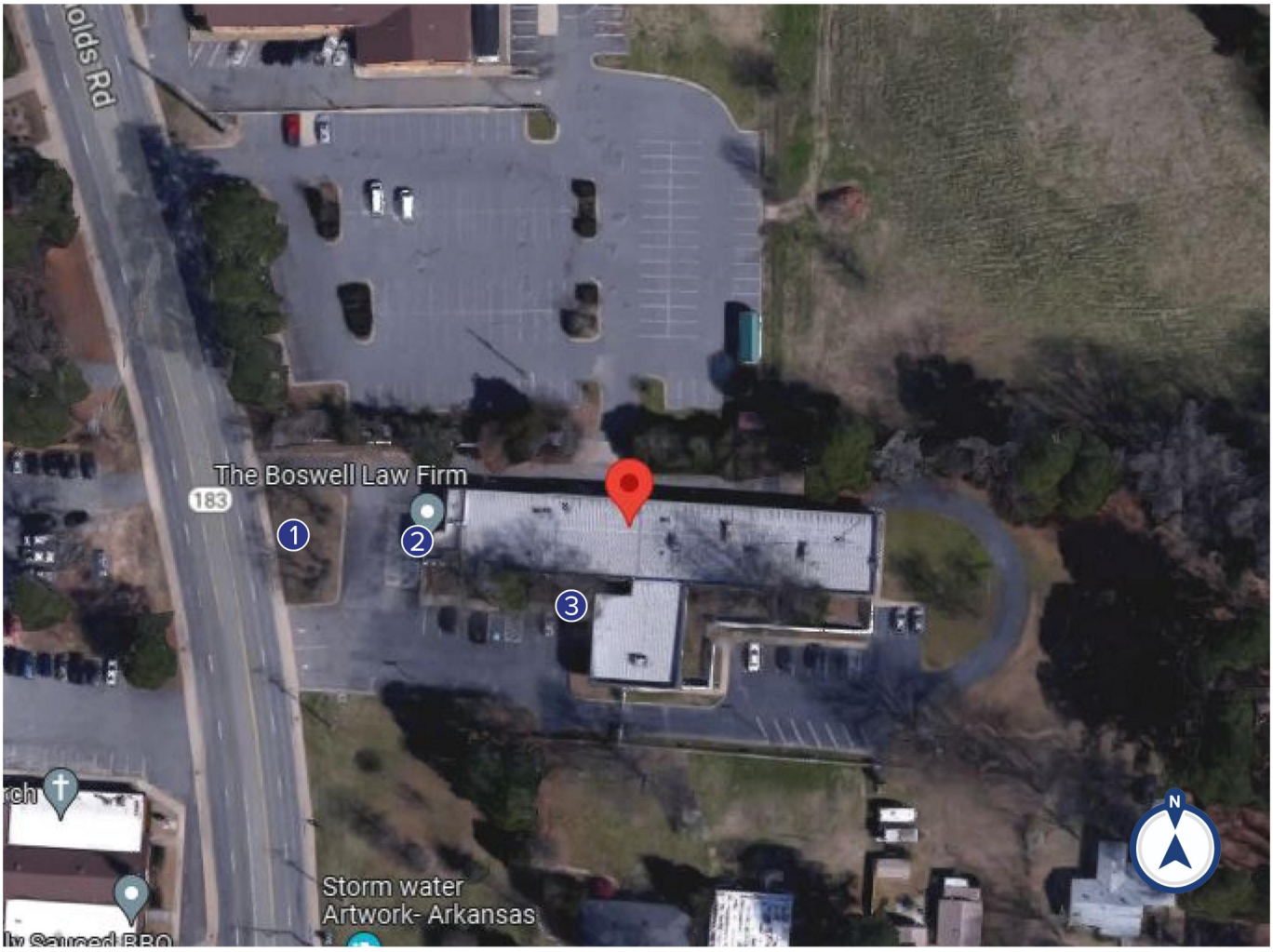
SITE PLAN

PROPOSED SIGNS:

1. MONUMENT
2. WALL CABINET
3. POST AND PANEL

EXISTING SIGNS:

1. NO SIGN
2. WALL CABINET
3. NO SIGN



ACE SIGNS

PROPERTY BRAND/EXTENSION:	PROPERTY LOCATION:	PROPERTY CODE:
The Elrod Firm	400 Reynolds Road Bryant, AR 72022	TBD

DATE:	SALES REP:	PREPARED BY:
11/09/2023	Dale Fisher	Victoria Phan

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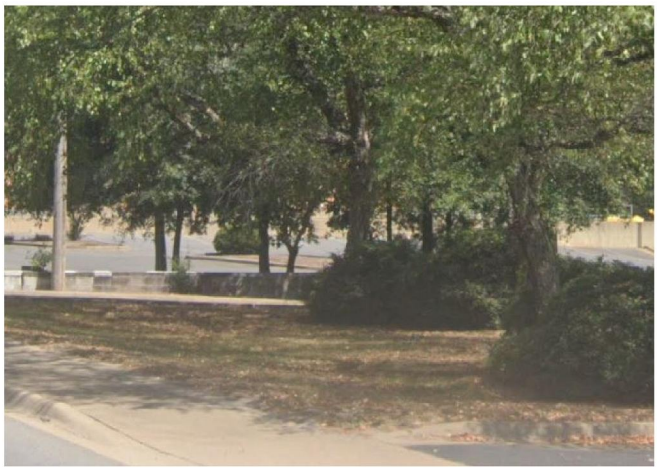
INITIALS: _____

1 MONUMENT

EXISTING



PROPOSED

RENDERINGS NOT TO SCALE

H10' x W8' custom monument

HEX #122940

HEX #F1BA53

TO BE DETERMINED

ACE SIGNS

PROPERTY BRAND/EXTENSION: The Elrod Firm

PROPERTY LOCATION: 400 Reynolds Road Bryant, AR 72022

PROPERTY CODE: TBD

DATE: 11/09/2023

SALES REP: Dale Fisher

PREPARED BY: Kayla Haydar

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INITIALS: _____

2 WALL SIGN

EXISTING

PROPOSED

RENDERINGS NOT TO SCALE

H2'-11" x W11' non-lit cabinet
H7 1/2" x W10' dimensional letters
Retainer: 4"

TO BE DETERMINED

METALLIC GOLD (TO BE DETERMINED)

ACE SIGNS

PROPERTY BRAND/EXTENSION: The Elrod Firm

PROPERTY LOCATION: 400 Reynolds Road Bryant, AR 72022

PROPERTY CODE: TBD

DATE: 11/20/2023

SALES REP: Dale Fisher

PREPARED BY: Victoria Phan

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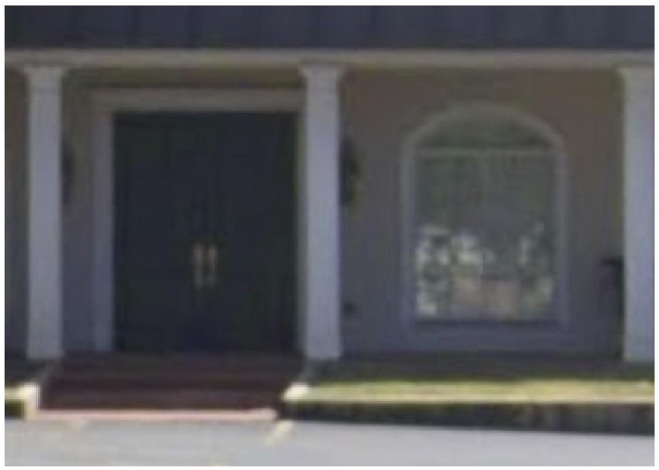
INITIALS: _____

3 POST AND PANEL

EXISTING



PROPOSED

RENDERINGS NOT TO SCALE

H1'-3" x W5' panel with applied graphics
(2) H4' posts

HEX #122940

HEX #F1BA53

BRONZE (TO BE DETERMINED)

ACE SIGNS

PROPERTY BRAND/EXTENSION: The Elrod Firm

PROPERTY LOCATION: 400 Reynolds Road Bryant, AR 72022

PROPERTY CODE: TBD

DATE: 11/20/2023

SALES REP: Dale Fisher

PREPARED BY: Victoria Phan

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INITIALS: _____

National Flood Insurance Program

Elevation Certificate

and Instructions

2023 EDITION

FEMA

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

ELEVATION CERTIFICATE AND INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

PRIVACY ACT STATEMENT

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of documenting compliance with National Flood Insurance Program (NFIP) floodplain management ordinances for new or substantially improved structures in designated Special Flood Hazard Areas. This form may also be used as an optional tool for a Letter of Map Amendment (LOMA), Conditional LOMA (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional LOMR-F (CLOMR-F), or for flood insurance rating purposes in any flood zone.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – *National Flood Insurance Program Files System of Records Notice* 79 Fed. Reg. 28747 (May 19, 2014) and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may impact the flood insurance premium through the NFIP. Information will only be released as permitted by law.

PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the NFIP. It can be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to inform the proper insurance premium, and to support a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F.

The Elevation Certificate is used to document floodplain management compliance for Post-Flood Insurance Rate Map (FIRM) buildings, which are buildings constructed after publication of the FIRM, located in flood Zones A1–A30, AE, AH, AO, A (with Base Flood Elevation (BFE)), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, and A99. It may also be used to provide elevation information for Pre-FIRM buildings or buildings in any flood zone.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. Lowest Adjacent Grade (LAG) elevations certified by a land surveyor, engineer, or architect, as authorized by state law, will be required if the certificate is used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. A LOMA, CLOMA, LOMR-F, or CLOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 application package, whichever is appropriate. If the certificate will only be completed to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request, there is an option to document the certified LAG elevation on the Elevation Form included in the MT-EZ and MT-1 application.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the BFE. A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

The expiration date on the form herein does not apply to certified and completed Elevation Certificates, as a completed Elevation Certificate does not expire, unless there is a physical change to the building that invalidates information in Section A Items A8 or A9, Section C, Section E, or Section H. In addition, this form is intended for the specific building referenced in Section A and is not invalidated by the transfer of building ownership.

Additional guidance can be found in FEMA Publication 467-1, *Floodplain Management Bulletin: Elevation Certificate.*

Form Instructions

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

A1. Building Owner's Name: Nelson Garcia

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale rd.

City: Bryant State: AR ZIP Code: 72002

A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number: parcel number 840-11633-621

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Residential

A5. Latitude/Longitude: Lat. 34.644458 N Long. 92.475516 W Horiz. Datum: ☐ NAD 1927 ☒ NAD 1983 ☐ WGS 84

A6. Attach at least two and when possible four clear color photographs (one for each side) of the building (see Form pages 7 and 8).

A7. Building Diagram Number: 1A

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s): 0.00 sq. ft.

b) Is there at least one permanent flood opening on two different sides of each enclosed area? ☐ Yes ☒ No ☐ N/A

c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A8.c: 0 sq. in.

e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): 0 sq. ft.

f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): 0 sq. ft.

A9. For a building with an attached garage:

a) Square footage of attached garage: 720.0 sq. ft.

b) Is there at least one permanent flood opening on two different sides of the attached garage? ☐ Yes ☒ No ☐ N/A

c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A9.c: 0.00 sq. in.

e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): 0 sq. ft.

f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): 720.0 sq. ft.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1.a. NFIP Community Name: Bryant, City of B1.b. NFIP Community Identification Number: 050308

B2. County Name: Saline B3. State: AR B4. Map/Panel No.: 05125C0240 B5. Suffix: E

B6. FIRM Index Date: June 5,2020 B7. FIRM Panel Effective/Revised Date: June 5,2020

B8. Flood Zone(s): AE B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): 364.5

B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9:
☐ FIS ☒ FIRM ☐ Community Determined ☐ Other:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: ☐ CBRS ☐ OPA

B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? ☐ Yes ☒ No

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.
Benchmark Utilized: ArDOT GPS Network Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.
☐ NGVD 1929 ☒ NAVD 1988 ☐ Other:

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used? ☐ Yes ☐ No
If Yes, describe the source of the conversion factor in the Section D Comments area.

		Check the measurement used:
a) Top of bottom floor (including basement, crawlspace, or enclosure floor):	366.5	☒ feet ☐ meters
b) Top of the next higher floor (see Instructions):	N/A	☐ feet ☐ meters
c) Bottom of the lowest horizontal structural member (see Instructions):	N/A	☐ feet ☐ meters
d) Attached garage (top of slab):	366.5	☒ feet ☐ meters
e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area):	366.5	☑ feet ☐ meters
f) Lowest Adjacent Grade (LAG) next to building: ☐ Natural ☒ Finished	365.5	☒ feet ☐ meters
g) Highest Adjacent Grade (HAG) next to building: ☐ Natural ☐ Finished	N/A	☐ feet ☐ meters
h) Finished LAG at lowest elevation of attached deck or stairs, including structural support:	N/A	☐ feet ☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☐ Yes ☒ No

☐ Check here if attachments and describe in the Comments area.

Certifier's Name: Kazi Islam, PE License Number:

Title: Civil Enginner, PE

Company Name: Hope Consulting

Address: 129 N Main St

City: Benton State: AR ZIP Code: 72019

Telephone: 501-315-2626 Ext.: Email: kazi@hopeconsulting.com

Signature: Kazi Islam Date: 12/11/2023

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20876
KAZI TAMZIDUL ISLAM
Kazi Islam 12-11-23
Place Seal Here

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.	**FOR INSURANCE COMPANY USE**
City: Bryant State: AR ZIP Code: 72002	Policy Number: _____
	Company NAIC Number: _____

SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

☐ Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____ Email: _____

Signature: _____ Date: _____

Comments:

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2.a. ☐ A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.

G2.b. ☐ A local official completed Section H for insurance purposes.

G3. ☐ In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.

G4. ☐ The following information (Items G5–G11) is provided for community floodplain management purposes.

G5. Permit Number: _____ G6. Date Permit Issued: _____

G7. Date Certificate of Compliance/Occupancy Issued: _____

G8. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G9.a. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum: _____

G9.b. Elevation of bottom of as-built lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G10.a. BFE (or depth in Zone AO) of flooding at the building site: _____ ☐ feet ☐ meters Datum: _____

G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G11. Variance issued? ☐ Yes ☐ No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. *I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.*

Local Official's Name: _____ Title: _____

NFIP Community Name: _____

Telephone: _____ Ext.: _____ Email: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H):

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.	**FOR INSURANCE COMPANY USE**
City: Bryant State: AR ZIP Code: 72002	Policy Number: _____
	Company NAIC Number: _____

SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). ***Reference the Foundation Type Diagrams (at the end of Section H Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.***

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) **For Building Diagrams 1A, 1B, 3, and 5–8.** Top of bottom floor (include above-grade floors only for buildings with crawlspaces or enclosure floors) is: _____ ☐ feet ☐ meters ☐ above the LAG

b) **For Building Diagrams 2A, 2B, 4, and 6–9.** Top of next higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is: _____ ☐ feet ☐ meters ☐ above the LAG

H2. Is **all** Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?

☐ Yes ☐ No

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. *The statements in Sections A, B, and H are correct to the best of my knowledge.* **Note:** If the local floodplain management official completed Section H, they should indicate in Item G2.b and sign Section G.

☐ Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____ Email: _____

Signature: _____ Date: _____

Comments:

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.:
Hilldale Rd

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo One

Photo One Caption:

Clear Photo One

Photo Two

Photo Two Caption:

Clear Photo Two

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo Three

Photo Three Caption:

Clear Photo Three

Photo Four

Photo Four Caption:

Clear Photo Four

CITY OF BRYANT

312 Roya Lane
Bryant, Ar 72022
501-943-0943

Special Flood Hazard Development Permit / Application

SECTION 1: GENERAL PROVISIONS (MUST BE READ AND SIGNED BY APPLICANT)

1. No work of any kind may start until a permit is issued.
2. The permit may be revoked if any false statements are made herein.
3. If revoked, all work must cease until permit is reissued.
4. Development shall not be used or occupied until Final Approval is issued.
5. The permit will expire if no work is commenced within 6 months of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
7. Applicant gives consent to Floodplain administrator or his/her representative to make reasonable inspections required to verify compliance.
8. For activities requiring site plan or plat approval the application is submitted to the City of Bryant Floodplain Administrator.
9. For activities involving single family or two family developments on a lot of record, Temporary uses, or demolition not requiring site plan approval, the application is Submitted to the City of Bryant Building Department.
10. For other activities the application is submitted to the City of Bryant Building Department.

SIGNED: _____ **DATE:** _____

SECTION 2: PROJECT INFORMATION (to be completed by applicant)

SITE INFORMATION (To avoid delay in processing the application: please provide enough information to easily identify the project location.

STREET ADDRESS Hilldale Rd., Bryant, AR 72002 Parcel# 840-11633-621

FEMA COMMUNITY NUMBER; 050308 **FIRM PANEL NUMBER** 05125C0240E

FIRM EFFECTIVE DATE; June 05,2020 **BASE FLOOD ELEVATION** 364.50

The permit application must be accompanied by a certified drawing sealed by a Professional Engineer or Professional Land Surveyor registered in the State of Arkansas that shows the location of all FEMA floodplain boundaries, existing structures, water bodies, adjacent roads, lot dimensions, surveyed locations of Base Flood Elevations, and proposed development.

A. Is Site Drawing Submitted With Application?

National Flood Insurance Program

Elevation Certificate

and Instructions

2023 EDITION

FEMA

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE AND INSTRUCTIONS

PAPERWORK REDUCTION ACT NOTICE

Public reporting burden for this data collection is estimated to average 3.75 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and submitting this form. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing the burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 500 C Street SW, Washington, DC 20742, Paperwork Reduction Project (1660-0008). **NOTE: Do not send your completed form to this address.**

PRIVACY ACT STATEMENT

Authority: Title 44 CFR § 61.7 and 61.8.

Principal Purpose(s): This information is being collected for the primary purpose of documenting compliance with National Flood Insurance Program (NFIP) floodplain management ordinances for new or substantially improved structures in designated Special Flood Hazard Areas. This form may also be used as an optional tool for a Letter of Map Amendment (LOMA), Conditional LOMA (CLOMA), Letter of Map Revision Based on Fill (LOMR-F), or Conditional LOMR-F (CLOMR-F), or for flood insurance rating purposes in any flood zone.

Routine Use(s): The information on this form may be disclosed as generally permitted under 5 U.S.C. § 552a(b) of the Privacy Act of 1974, as amended. This includes using this information as necessary and authorized by the routine uses published in DHS/ FEMA-003 – *National Flood Insurance Program Files System of Records Notice* 79 Fed. Reg. 28747 (May 19, 2014) and upon written request, written consent, by agreement, or as required by law.

Disclosure: The disclosure of information on this form is voluntary; however, failure to provide the information requested may impact the flood insurance premium through the NFIP. Information will only be released as permitted by law.

PURPOSE OF THE ELEVATION CERTIFICATE

The Elevation Certificate is an important administrative tool of the NFIP. It can be used to provide elevation information necessary to ensure compliance with community floodplain management ordinances, to inform the proper insurance premium, and to support a request for a LOMA, CLOMA, LOMR-F, or CLOMR-F.

The Elevation Certificate is used to document floodplain management compliance for Post-Flood Insurance Rate Map (FIRM) buildings, which are buildings constructed after publication of the FIRM, located in flood Zones A1–A30, AE, AH, AO, A (with Base Flood Elevation (BFE)), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, and A99. It may also be used to provide elevation information for Pre-FIRM buildings or buildings in any flood zone.

As part of the agreement for making flood insurance available in a community, the NFIP requires the community to adopt floodplain management regulations that specify minimum requirements for reducing flood losses. One such requirement is for the community to obtain the elevation of the lowest floor (including basement) of all new and substantially improved buildings, and maintain a record of such information. The Elevation Certificate provides a way for a community to document compliance with the community's floodplain management ordinance.

Use of this certificate does not provide a waiver of the flood insurance purchase requirement. Only a LOMA or LOMR-F from the Federal Emergency Management Agency (FEMA) can amend the FIRM and remove the federal mandate for a lending institution to require the purchase of flood insurance. However, the lending institution has the option of requiring flood insurance even if a LOMA/LOMR-F has been issued by FEMA. The Elevation Certificate may be used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. Lowest Adjacent Grade (LAG) elevations certified by a land surveyor, engineer, or architect, as authorized by state law, will be required if the certificate is used to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request. A LOMA, CLOMA, LOMR-F, or CLOMR-F request must be submitted with either a completed FEMA MT-EZ or MT-1 application package, whichever is appropriate. If the certificate will only be completed to support a LOMA, CLOMA, LOMR-F, or CLOMR-F request, there is an option to document the certified LAG elevation on the Elevation Form included in the MT-EZ and MT-1 application.

This certificate is used only to certify building elevations. A separate certificate is required for floodproofing. Under the NFIP, non-residential buildings can be floodproofed up to or above the BFE. A floodproofed building is a building that has been designed and constructed to be watertight (substantially impermeable to floodwaters) below the BFE. Floodproofing of residential buildings is not permitted under the NFIP unless FEMA has granted the community an exception for residential floodproofed basements. The community must adopt standards for design and construction of floodproofed basements before FEMA will grant a basement exception. For both floodproofed non-residential buildings and residential floodproofed basements in communities that have been granted an exception by FEMA, a floodproofing certificate is required.

The expiration date on the form herein does not apply to certified and completed Elevation Certificates, as a completed Elevation Certificate does not expire, unless there is a physical change to the building that invalidates information in Section A Items A8 or A9, Section C, Section E, or Section H. In addition, this form is intended for the specific building referenced in Section A and is not invalidated by the transfer of building ownership.

Additional guidance can be found in FEMA Publication 467-1, *Floodplain Management Bulletin: Elevation Certificate*.

Form Instructions

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB Control No. 1660-0008
Expiration Date: 06/30/2026

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

A1. Building Owner's Name: Nelson Garcia

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale rd.

City: Bryant State: AR ZIP Code: 72002

A3. Property Description (e.g., Lot and Block Numbers or Legal Description) and/or Tax Parcel Number: parcel number 840-11633-621

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.): Residential

A5. Latitude/Longitude: Lat. 34.644458 N Long. 92.475516 W Horiz. Datum: ☐ NAD 1927 ☒ NAD 1983 ☐ WGS 84

A6. Attach at least two and when possible four clear color photographs (one for each side) of the building (see Form pages 7 and 8).

A7. Building Diagram Number: 1A

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s): 0.00 sq. ft.

b) Is there at least one permanent flood opening on two different sides of each enclosed area? ☐ Yes ☒ No ☐ N/A

c) Enter number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A8.c: 0 sq. in.

e) Total rated area of engineered flood openings in A8.c (attach documentation – see Instructions): 0 sq. ft.

f) Sum of A8.d and A8.e rated area (if applicable – see Instructions): 0 sq. ft.

A9. For a building with an attached garage:

a) Square footage of attached garage: 720.0 sq. ft.

b) Is there at least one permanent flood opening on two different sides of the attached garage? ☐ Yes ☒ No ☐ N/A

c) Enter number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade:
Non-engineered flood openings: 0 Engineered flood openings: 0

d) Total net open area of non-engineered flood openings in A9.c: 0.00 sq. in.

e) Total rated area of engineered flood openings in A9.c (attach documentation – see Instructions): 0 sq. ft.

f) Sum of A9.d and A9.e rated area (if applicable – see Instructions): 720.0 sq. ft.

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1.a. NFIP Community Name: Bryant, City of B1.b. NFIP Community Identification Number: 050308

B2. County Name: Saline B3. State: AR B4. Map/Panel No.: 05125C0240 B5. Suffix: E

B6. FIRM Index Date: June 5,2020 B7. FIRM Panel Effective/Revised Date: June 5,2020

B8. Flood Zone(s): AE B9. Base Flood Elevation(s) (BFE) (Zone AO, use Base Flood Depth): 364.5

B10. Indicate the source of the BFE data or Base Flood Depth entered in Item B9:
☐ FIS ☒ FIRM ☐ Community Determined ☐ Other:

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: ☐ CBRS ☐ OPA

B13. Is the building located seaward of the Limit of Moderate Wave Action (LiMWA)? ☐ Yes ☒ No

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☒ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, AO, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO, A99. Complete Items C2.a–h below according to the Building Diagram specified in Item A7. In Puerto Rico only, enter meters.
Benchmark Utilized: ArDOT GPS Network Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.
☐ NGVD 1929 ☒ NAVD 1988 ☐ Other:

Datum used for building elevations must be the same as that used for the BFE. Conversion factor used? ☐ Yes ☐ No
If Yes, describe the source of the conversion factor in the Section D Comments area.

		Check the measurement used:
a) Top of bottom floor (including basement, crawlspace, or enclosure floor):	366.5	☒ feet ☐ meters
b) Top of the next higher floor (see Instructions):	N/A	☐ feet ☐ meters
c) Bottom of the lowest horizontal structural member (see Instructions):	N/A	☐ feet ☐ meters
d) Attached garage (top of slab):	366.5	☒ feet ☐ meters
e) Lowest elevation of Machinery and Equipment (M&E) servicing the building (describe type of M&E and location in Section D Comments area):	366.5	☑ feet ☐ meters
f) Lowest Adjacent Grade (LAG) next to building: ☐ Natural ☒ Finished	365.5	☒ feet ☐ meters
g) Highest Adjacent Grade (HAG) next to building: ☐ Natural ☐ Finished	N/A	☐ feet ☐ meters
h) Finished LAG at lowest elevation of attached deck or stairs, including structural support:	N/A	☐ feet ☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by state law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☐ Yes ☒ No

☐ Check here if attachments and describe in the Comments area.

Certifier's Name: Kazi Islam, PE License Number:

Title: Civil Enginner, PE

Company Name: Hope Consulting

Address: 129 N Main St

City: Benton State: AR ZIP Code: 72019

Telephone: 501-315-2626 Ext.: Email: kazi@hopeconsulting.com

Signature: Date: 12/11/2023

Place Seal Here

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including source of conversion factor in C2; type of equipment and location per C2.e; and description of any attachments):

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION E – BUILDING MEASUREMENT INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO, ZONE AR/AO, AND ZONE A (WITHOUT BFE)

For Zones AO, AR/AO, and A (without BFE), complete Items E1–E5. For Items E1–E4, use natural grade, if available. If the Certificate is intended to support a Letter of Map Change request, complete Sections A, B, and C. Check the measurement used. In Puerto Rico only, enter meters.

Building measurements are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☐ Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

E1. Provide measurements (C.2.a in applicable Building Diagram) for the following and check the appropriate boxes to show whether the measurement is above or below the natural HAG and the LAG.

a) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (C2.b in applicable Building Diagram) of the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is: _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge*

☐ Check here if attachments and describe in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Telephone: Ext.:_____ Email: _____

Signature: _____ Date: _____

Comments:

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION G – COMMUNITY INFORMATION (RECOMMENDED FOR COMMUNITY OFFICIAL COMPLETION)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Section A, B, C, E, G, or H of this Elevation Certificate. Complete the applicable item(s) and sign below when:

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by state law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2.a. ☐ A local official completed Section E for a building located in Zone A (without a BFE), Zone AO, or Zone AR/AO, or when item E5 is completed for a building located in Zone AO.

G2.b. ☐ A local official completed Section H for insurance purposes.

G3. ☐ In the Comments area of Section G, the local official describes specific corrections to the information in Sections A, B, E and H.

G4. ☐ The following information (Items G5–G11) is provided for community floodplain management purposes.

G5. Permit Number: _____ G6. Date Permit Issued: _____

G7. Date Certificate of Compliance/Occupancy Issued: _____

G8. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G9.a. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum: _____

G9.b. Elevation of bottom of as-built lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G10.a. BFE (or depth in Zone AO) of flooding at the building site: _____ ☐ feet ☐ meters Datum: _____

G10.b. Community's minimum elevation (or depth in Zone AO) requirement for the lowest floor or lowest horizontal structural member: _____ ☐ feet ☐ meters Datum: _____

G11. Variance issued? ☐ Yes ☐ No If yes, attach documentation and describe in the Comments area.

The local official who provides information in Section G must sign here. *I have completed the information in Section G and certify that it is correct to the best of my knowledge. If applicable, I have also provided specific corrections in the Comments area of this section.*

Local Official's Name: _____ Title: _____

NFIP Community Name: _____

Telephone: Ext.:_____ Email:_____

Address: _____

City: _____ State: _____ ZIP Code: _____

Signature: _____ Date: _____

Comments (including type of equipment and location, per C2.e; description of any attachments; and corrections to specific information in Sections A, B, D, E, or H):

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number: _____

Company NAIC Number: _____

SECTION H – BUILDING'S FIRST FLOOR HEIGHT INFORMATION FOR ALL ZONES (SURVEY NOT REQUIRED) (FOR INSURANCE PURPOSES ONLY)

The property owner, owner's authorized representative, or local floodplain management official may complete Section H for all flood zones to determine the building's first floor height for insurance purposes. Sections A, B, and I must also be completed. Enter heights to the nearest tenth of a foot (nearest tenth of a meter in Puerto Rico). ***Reference the Foundation Type Diagrams (at the end of Section H Instructions) and the appropriate Building Diagrams (at the end of Section I Instructions) to complete this section.***

H1. Provide the height of the top of the floor (as indicated in Foundation Type Diagrams) above the Lowest Adjacent Grade (LAG):

a) **For Building Diagrams 1A, 1B, 3, and 5–8.** Top of bottom floor (include above-grade floors only for buildings with crawlspaces or enclosure floors) is: _____ ☐ feet ☐ meters ☐ above the LAG

b) **For Building Diagrams 2A, 2B, 4, and 6–9.** Top of next higher floor (i.e., the floor above basement, crawlspace, or enclosure floor) is: _____ ☐ feet ☐ meters ☐ above the LAG

H2. Is **all** Machinery and Equipment servicing the building (as listed in Item H2 instructions) elevated to or above the floor indicated by the H2 arrow (shown in the Foundation Type Diagrams at end of Section H instructions) for the appropriate Building Diagram?

☐ Yes ☐ No

SECTION I – PROPERTY OWNER (OR OWNER'S AUTHORIZED REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and H must sign here. *The statements in Sections A, B, and H are correct to the best of my knowledge.* **Note:** If the local floodplain management official completed Section H, they should indicate in Item G2.b and sign Section G.

☐ Check here if attachments are provided (including required photos) and describe each attachment in the Comments area.

Property Owner or Owner's Authorized Representative Name: _____

Address: _____

City: _____ State: _____ ZIP Code: _____

Telephone: Ext.: _____ Email: _____

Signature: _____ Date: _____

Comments:

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

Instructions: Insert below at least two and when possible four photographs showing each side of the building (for example, may only be able to take front and back pictures of townhouses/rowhouses). Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." Photographs must show the foundation. When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo One

Photo One Caption:

Clear Photo One

Photo Two

Photo Two Caption:

Clear Photo Two

Form Instructions

ELEVATION CERTIFICATE

IMPORTANT: MUST FOLLOW THE INSTRUCTIONS ON INSTRUCTION PAGES 1-11

BUILDING PHOTOGRAPHS

Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.: Hilldale Rd.

City: Bryant State: AR ZIP Code: 72002

FOR INSURANCE COMPANY USE

Policy Number:

Company NAIC Number:

Insert the third and fourth photographs below. Identify all photographs with the date taken and "Front View," "Rear View," "Right Side View," or "Left Side View." When flood openings are present, include at least one close-up photograph of representative flood openings or vents, as indicated in Sections A8 and A9.

Photo Three

Photo Three Caption:

Clear Photo Three

Photo Four

Photo Four Caption:

Clear Photo Four

23-1298
Drawing No.

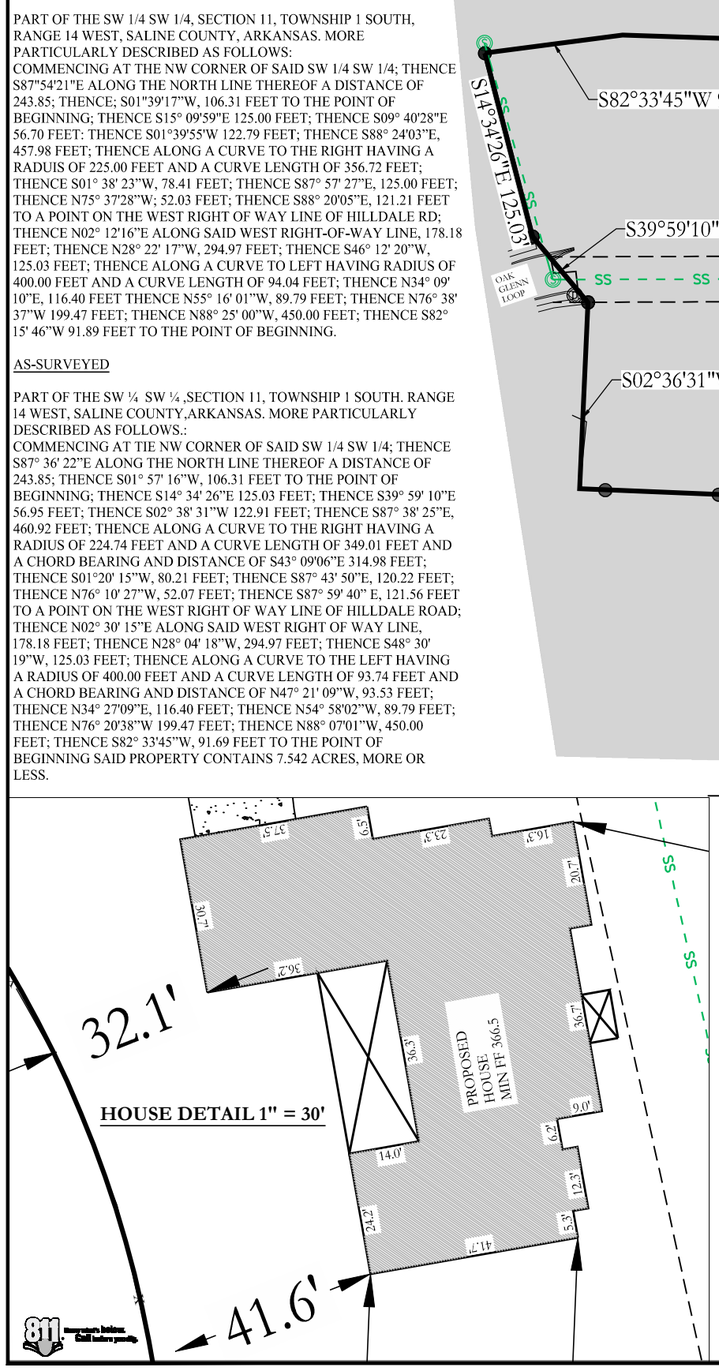
RECORD PROPERTY DESCRIPTION
SALINE COUNTY INSTRUMENT 2018-0122277

RECORDED LEGAL

PART OF THE SW 1/4 SW 1/4, SECTION 11, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SALINE COUNTY, ARKANSAS. MORE PARTICULARLY DESCRIBED AS FOLLOWS:
COMMENCING AT THE NW CORNER OF SAID SW 1/4 SW 1/4; THENCE S87°54'21"E ALONG THE NORTH LINE THEREOF A DISTANCE OF 243.85; THENCE; S01°39'17"W, 106.31 FEET TO THE POINT OF BEGINNING; THENCE S15° 09'59"E 125.00 FEET; THENCE S09° 40'28"E 56.70 FEET: THENCE S01°39'55'W 122.79 FEET; THENCE S88° 24'03"E, 457.98 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADUIS OF 225.00 FEET AND A CURVE LENGTH OF 356.72 FEET; THENCE S01° 38' 23"W, 78.41 FEET; THENCE S87° 57' 27"E, 125.00 FEET; THENCE N75° 37'28"W; 52.03 FEET; THENCE S88° 20'05"E, 121.21 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF HILLDALE RD; THENCE N02° 12'16"E ALONG SAID WEST RIGHT-OF-WAY LINE, 178.18 FEET; THENCE N28° 22' 17"W, 294.97 FEET; THENCE S46° 12' 20"W, 125.03 FEET; THENCE ALONG A CURVE TO LEFT HAVING RADIUS OF 400.00 FEET AND A CURVE LENGTH OF 94.04 FEET; THENCE N34° 09' 10"E, 116.40 FEET THENCE N55° 16' 01"W, 89.79 FEET; THENCE N76° 38' 37"W 199.47 FEET; THENCE N88° 25' 00"W, 450.00 FEET; THENCE S82° 15' 46"W 91.89 FEET TO THE POINT OF BEGINNING.

AS-SURVEYED

PART OF THE SW ¼ SW ¼ ,SECTION 11, TOWNSHIP 1 SOUTH. RANGE 14 WEST, SALINE COUNTY,ARKANSAS. MORE PARTICULARLY DESCRIBED AS FOLLOWS.:
COMMENCING AT TIE NW CORNER OF SAID SW 1/4 SW 1/4; THENCE S87° 36' 22"E ALONG THE NORTH LINE THEREOF A DISTANCE OF 243.85; THENCE S01° 57' 16"W, 106.31 FEET TO THE POINT OF BEGINNING; THENCE S14° 34' 26"E 125.03 FEET; THENCE S39° 59' 10"E 56.95 FEET; THENCE S02° 38' 31"W 122.91 FEET; THENCE S87° 38' 25"E, 460.92 FEET; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 224.74 FEET AND A CURVE LENGTH OF 349.01 FEET AND A CHORD BEARING AND DISTANCE OF S43° 09'06"E 314.98 FEET; THENCE S01°20' 15"W, 80.21 FEET; THENCE S87° 43' 50"E, 120.22 FEET; THENCE N76° 10' 27"W, 52.07 FEET; THENCE S87° 59' 40" E, 121.56 FEET TO A POINT ON THE WEST RIGHT OF WAY LINE OF HILLDALE ROAD; THENCE N02° 30' 15"E ALONG SAID WEST RIGHT OF WAY LINE, 178.18 FEET; THENCE N28° 04' 18"W, 294.97 FEET; THENCE S48° 30' 19"W, 125.03 FEET; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 400.00 FEET AND A CURVE LENGTH OF 93.74 FEET AND A CHORD BEARING AND DISTANCE OF N47° 21' 09"W, 93.53 FEET; THENCE N34° 27'09"E, 116.40 FEET; THENCE N54° 58'02"W, 89.79 FEET; THENCE N76° 20'38"W 199.47 FEET; THENCE N88° 07'01"W, 450.00 FEET; THENCE S82° 33'45"W, 91.69 FEET TO THE POINT OF BEGINNING SAID PROPERTY CONTAINS 7.542 ACRES, MORE OR LESS.



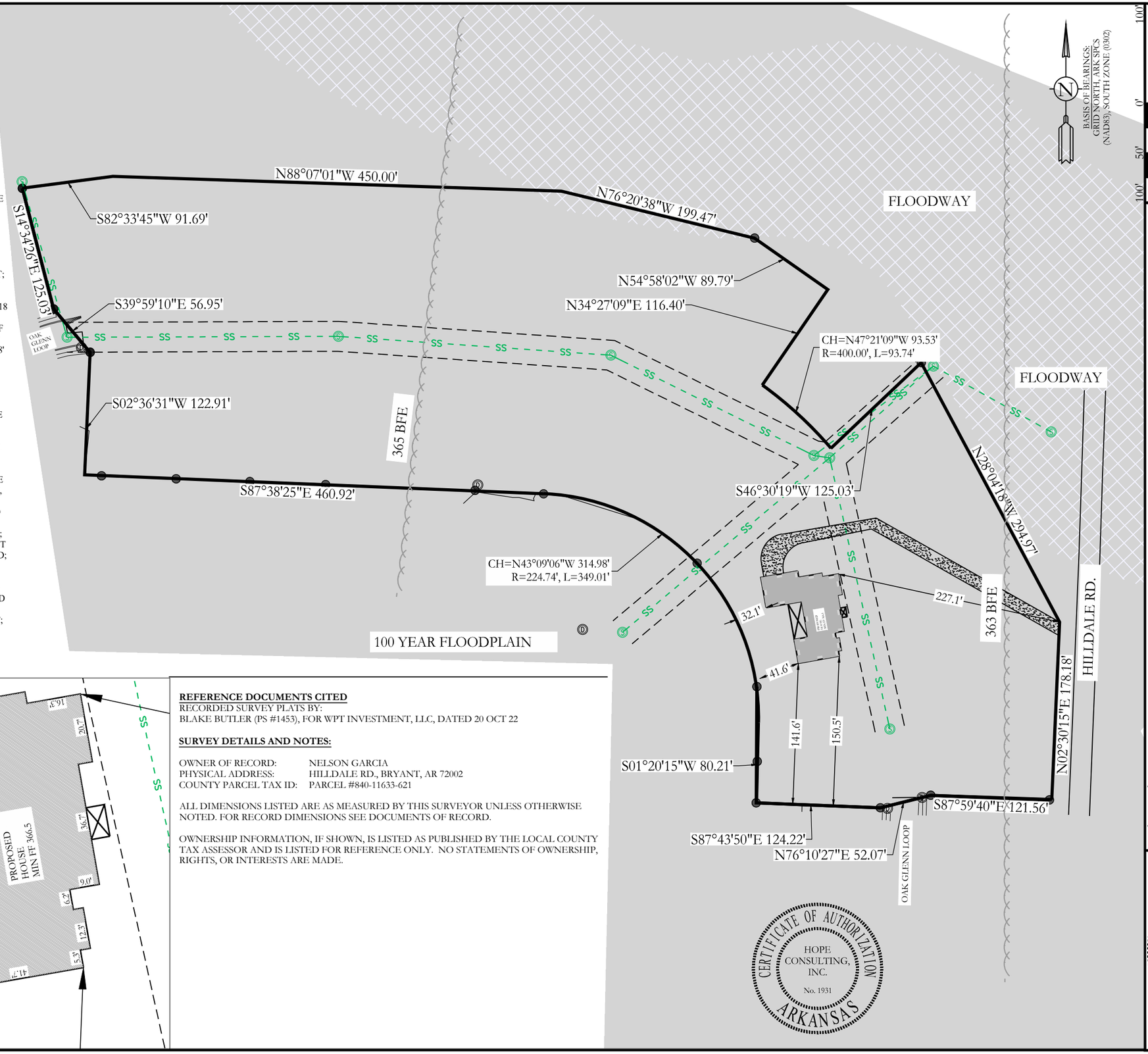
REFERENCE DOCUMENTS CITED
RECORDED SURVEY PLATS BY:
BLAKE BUTLER (PS #1453), FOR WPT INVESTMENT, LLC, DATED 20 OCT 22

SURVEY DETAILS AND NOTES:

OWNER OF RECORD: NELSON GARCIA
PHYSICAL ADDRESS: HILLDALE RD., BRYANT, AR 72002
COUNTY PARCEL TAX ID: PARCEL #840-11633-621

ALL DIMENSIONS LISTED ARE AS MEASURED BY THIS SURVEYOR UNLESS OTHERWISE NOTED. FOR RECORD DIMENSIONS SEE DOCUMENTS OF RECORD.

OWNERSHIP INFORMATION, IF SHOWN, IS LISTED AS PUBLISHED BY THE LOCAL COUNTY TAX ASSESSOR AND IS LISTED FOR REFERENCE ONLY. NO STATEMENTS OF OWNERSHIP, RIGHTS, OR INTERESTS ARE MADE.



CERTIFICATE OF AUTHORIZATION
HOPE CONSULTING, INC.
No. 1931
ARKANSAS

LEGEND
- Computed Point Location
- Found Monument
- Set 1/2" Rebar #1664
- (M) Measured by Surveyor
- (R/D/P) Record/Deed/Plat Measurements
- B.S.L. Building Setback Line Restriction
- U.E./D.E. Utility/Drainage Easement
- Fence Lines
- Centerlines
- Parcel Lines/Misc Lines

Drawn By: MD Checked:

GENERAL DISCLAIMER
This survey is for the exclusive use and benefit of parties shown hereon. Use or duplication of this document by any other parties is prohibited and voids said document.
This survey is based on public records and/or title investigations furnished by third parties. No independent search or investigation has been made by this firm for any records, public or private. Listed reference documents hereon were used and considered as a part of this survey; however other records, if any, could further affect this survey. No statement or guarantees of ownership, rights, or other interests are made by this survey plat.

FLOOD STATEMENT
All of the property described hereon lies within the 100 year flood plain, according to the Flood Insurance Rate Map, panel # 05125C0240F; dated: 06/05/2020

HOPE CONSULTING
ENGINEERS - SURVEYORS
For the Exclusive Use and Benefit of:
KEVIN BARRIENTOS
129 North Main Street
Benton, Arkansas 72015
office: (501) 315-2626
fax: (501) 315-0024
www.HopeConsulting.com

Address	Date				
HILLDALE RD.	10/27/23				
ALEXANDER, AR 72002		0			1664
500					

REGISTERED
STATE OF ARKANSAS
NO. 1762
SIGNATURE
JONATHAN L. HOPE
PROFESSIONAL LAND SURVEYOR

K:\Land Projects\2004 Surveys\2023\23-1298 PP & Flood Plain & Sewer Exhibit\Hilldale Road\SURVEY\4. DWG\23-1298 TOPO 11-27-23.dwg | Plotted: 12/15/2023 8:30 AM | ©2023 Hope Consulting, Inc.

City of Bryant, Arkansas
Community Development
210 SW 3rd Street Bryant, AR 72022
501-943-0943

SIGN PERMIT APPLICATION

Applicants are advised to read the Sign Ordinance prior to completing and signing this form. The Sign Ordinance is available at www.cityofbryant.com under the Planning and Community Development tab.

Note: Electrical Permits may be Required, Please contact the Community Development Office for more information.

Date: 1/22/24

Sign Co. or Sign Owner

Name JOE The Sign Guy
Address Existing Sign
City, State, Zip Photo Attached
Phone (501) 653-4444
Email Address N/A

Property Owner

Name Michelle Finney
Address P.O. BOX 435
City, State, Zip Bryant, AR 72089
Phone (501) 529-3282
Email Address N/A

GENERAL INFORMATION

Name of Business Sandy's Nails and Spa
Address/Location of sign 3411 Main St. Ste 4, Bryant, AR 72089
Zoning Classification C

Please use following page to provide details on the signs requesting approval. Along with information provided on this application, **a Site Plan showing placement of sign(s) and any existing sign(s) on the property is required** to be submitted. **Renderings of the sign(s) showing the correct dimensions is also required** to be submitted with the application. A thirty-five dollar ($35) per sign payment will be collected at the time of permit issuance. According to the Sign Ordinance a fee for and sign variance or special sign permit request shall be one hundred dollars ($100). Additional documentation may be required by Sign Administrator.

READ CAREFULLY BEFORE SIGNING

I Sandy Beeay, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand

that no sign may be placed in public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

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

SIGN	**Type** (Façade, Pole, Monument, other)	**Dimensions** (Height, Length, Width)	**Sqft** (Measured in whole as rectangle)	**Height of Sign** (Measured from lot surface)		Column for Admin Certifying Approval
				Top of Sign	Bottom of Sign	
A	Existing Façade	1'6" x 6'8" + 12" x 12" + 1'6" x 13'3"	39.5SF			
B						
C						
E						
F						
G						

Photo of Sign Attached, Requesting Permission to move From Suite 8 to Suite 4 on the Same Building.

Sandy's
NAILS & SPA

City of Bryant, Arkansas
Community Development
210 SW 3rd Street Bryant, AR 72022
501-943-0943

SIGN PERMIT APPLICATION

Applicants are advised to read the Sign Ordinance prior to completing and signing this form. The Sign Ordinance is available at www.cityofbryant.com under the Planning and Community Development tab.

Note: Electrical Permits may be Required, Please contact the Community Development Office for more information.

Date: 1/24/2024

Sign Co. or Sign Owner

Name L.Graphics
Address 701 N. Reynolds Rd
City, State, Zip Bryant, AR 72022
Phone (501) 653-4464
Alternate Phone 501-773-0544

Property Owner

Name Bart Furguson
Address 107 progress wy Ste 500
City, State, Zip Bryant, AR 72022
Phone (501) 840-2282
Alternate Phone _____

GENERAL INFORMATION

Name of Business BOUTIQUES & SUITES
Address/Location of sign 107 Progress wy Ste 500
Zoning Classification _____

Please use following page to provide details on the signs requesting approval. Along with information provided on this application, **a Site Plan showing placement of sign(s) and any existing sign(s) on the property is required** to be submitted. **Renderings of the sign(s) showing the correct dimensions is also required** to be submitted with the application. A thirty-five dollar ($35) per sign payment will be collected at the time of permit issuance. According to the Sign Ordinance a fee for and sign variance or special sign permit request shall be one hundred dollars ($100). Additional documentation may be required by Sign Administrator.

READ CAREFULLY BEFORE SIGNING

I Joe Lam, do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand

that no sign may be placed in public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

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

SIGN	**Type** (Façade, Pole, Monument, other)	**Dimensions** (Height, Length, Width)	**Sqft** (Measured in whole as rectangle)	**Height of Sign** (Measured from lot surface)		Column for Admin Certifying Approval
				Top of Sign	Bottom of Sign	
A	Channel letters	54" x 150"	56	13	17.6"	
B						
C						
E						
F						
G						

107 Progress wy ste. ~~507~~ 500