



August 13, 2025 Planning Commission Meeting Agenda

August 13, 2025 at 5:30 PM

598 Main Street, Bay St. Louis, MS 39520

Call to Order

Minutes Approval

1. Motion to approve the minutes of July 09, 2025.

Action Items

2. **BRELAND** – Application for variance to the Zoning Ordinance submitted by James and Lisa Breland. The applicant is requesting a variance of 2', resulting in a 3' setback to the side yard, and a variance of 2', resulting in a 3' setback to the rear yard, to construct an accessory structure. The property is located at 337 St. John Street. Parcel 149E-0-29-322.002, PT 80 2ND WARD BAY ST. LOUIS. The property is zoned R-2 Two Family District.
3. **GLUS** - Application for variance to the Zoning Ordinance submitted by Robert and Lisa Glus. The applicants want to construct a new residence at 230 Leonhard Avenue. They are requesting a variance of 10' resulting in a 15' setback to the front yard. The property is located at 230 Leonhard Avenue Parcel 144N-0-19-086.000; 13 BLK 5 LEONHARD S/D. The property is zoned R-1 Single Family District.
4. **EMO SQUARE LLC** – Application for special exception to the Zoning Ordinance submitted by EMO Square LLC. The applicant is requesting a special exception to allow boat storage and warehouse storage on property zoned C-3 Highway Commercial. The property is located at 707 Dunbar Avenue Parcel 149D-3-29-003.000 Legal Description 277C 1st Ward Bay St. Louis. The property is zoned C-3 Highway Commercial.
5. **FITZSIMMONS** – Application for special exception to the Zoning Ordinance submitted by Ryan Fitzsimmons. The applicant is requesting a special exception to construct a boat storage facility on property zoned C-3 Highway Commercial. The property is

located on the 3300 block of Longfellow Drive. Legal Description PT GUIDON TOULME CL 46-8-14, Parcel 138G-0-46-163.000. The property is zoning C-3 Highway Commercial.

- 6. JENNINGS** – Application for special exception to the Zoning Ordinance submitted by Michael and Kathy Jennings. The applicant is requesting a special exception to allow an accessory dwelling on a lot exceeding 15,000 square feet. The property is located at 131 Keller Street. Parcel 149L-0-30-200.000, 3RD WARD BAY ST. LOUIS LOT 60B. The property is zoned R-1 Single Family.
- 7. JENNINGS** – Application for variance to the Zoning Ordinance submitted by Michael and Kathy Jennings. The applicant is requesting a variance of 2', resulting in a 3' setback to the side yard, and a variance of 2', resulting in a 3' setback to the rear yard, to construct an accessory structure. In addition, the applicant is requesting a variance to allow the existing carport to be 3' from the new garage instead of the required 5', per Section 1002.3.F. The property is located at 131 Keller Street. Parcel 149L-0-30-200.000, 3RD WARD BAY ST. LOUIS LOT 60B. The property is zoned R-1 Single Family District.
- 8. ELKINS** – Application for variance to the Zoning Ordinance submitted by Andrew Elkins. The applicant is requesting a variance of 7', resulting in an 18' setback to the front yard, to construct a dwelling. The property is located at 1870 Blue Meadow Road. Parcel 136N-1-37-016.004, Lot 2 River View Subdivision Phase 2. The property is zoned R-1 Single Family District.
- 9. BARNETT** – Application for variance to the Zoning Ordinance submitted by Lynn Barnett. The applicant is requesting a variance of 2', resulting in a 3' setback to the side yard, to construct an accessory structure. The property is located at 231 Carre Court. Parcel 137R-0-44-018.001; 29 & 30 BLK 2 ST CHARLES SD. The property is zoned R-3 Multi Family District.
- 10. BELLAMARE DEVELOPMENT** – Application for minor Site Plan Review for a convenience store and filling station with an attached coffee shop submitted by

Bellamare Development. The property in question is located at 1083 HWY 90 and is identified on the Hancock County Land Rolls as Parcel No. 137F-2-26-009.000 (Legal Description: PT 88 J BOUQUIE CL (BUS) HWY 90) and Parcel No. 137F-2-26-010.000 (Legal Description: PT 89 J BOUQUIE CL 26-8-14). The property is zoned C-3 Highway Commercial District.

- 11. RAINES** – Request for appeal submitted by Will Raines. The applicant is appealing the denial of a tree removal permit. The property is located at 403 S. Necaize Avenue. Parcel 149M-1-29-051.000, 261 SECOND WARD BAY ST LOUIS.

Adjourn

- 12.** Motion to adjourn the meeting of August 13, 2025.



Planning Commission Meeting Minutes

July 09, 2025 at 5:30 PM

598 Main Street, Bay St. Louis, MS 39520

Call to Order

PRESENT

- Chairman Amy Doescher
- Commissioner Clark Breland
- Commissioner John Romano
- Commissioner Mikayla Brown

ABSENT

- Commissioner Chet LeBlanc
- Commissioner Dean Agee
- Commissioner MJ Krankey

Minutes Approval

1. Motion to approve the minutes of June 11, 2025.

Motion made by Commissioner Brown, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

Action Items

2. **JACKSON** – Application for special exception to the zoning ordinance submitted by Lorenzo and Jessica Jackson. The applicant is requesting a special exception to allow an accessory dwelling on a lot exceeding 15,000 square feet. The property is located at 947 Old Spanish Trail. Parcel 137K-2-36-009.000, PT FRACTIONAL SECTION 36. The property is zoned R-1 Single Family.

Motion to approve the application as presented.

Motion made by Commissioner Brown, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

3. **BAY ST. LOUIS HOMES & PROPERTIES, LLC** – Application for Sketch Plat Approval for Phase 2B of Shieldsboro Subdivision. Applicant is requesting to change the configuration of (3) three parcels of land into (70) seventy new parcels of land and (2) two detention areas. The sketch plat has indicated that the proposed subdivision will comply with the special use district standards which allow for single-family

dwelling on parcels with a minimum lot width of 70 feet, a front yard setback of 15 feet, side yard setbacks of 5 feet, rear yard setback of 10 feet, and a maximum lot coverage of 65%. The property in question is located in the general area of the Shieldsboro Subdivision, which lies along Old Spanish Trail between St. Charles Street and Spanish Aces Drive. Parcel 137R-0-44-051.000, Pt. 203, 4th Ward, Bay St. Louis, 79 AA38-63/66; Parcel 137R-0-44-050.000, Pt. 196, 4th Ward, Bay St. Louis; Parcel 137R-0-44-049.000, Pt. 166, 167 & 195, 4th Ward, Bay St. Louis. The property lies in an R-2, Two Family District and an R-3, Multi Family District, with a Special Use District overlay.

Malcom Jones spoke representing the application.

Motion to approve the application as presented.

Motion made by Commissioner Breland, Seconded by Commissioner Brown.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

- 4. **SMITH** - Application for variance to the zoning ordinance submitted by Dawn Smith. The applicant is wanting to reconfigure two parcels of land. Both parcels will not meet the required lot area and one will not meet required lot width. Parcel 1 will need a variance of 2,000 sq ft, resulting in 10,000 sq ft to the minimum lot area, and a variance of 25', resulting in a total of 75' to the minimum lot width. Parcel 2 will need a variance of 4,500 sq ft, resulting in 7,500 sq ft to the minimum lot area, and a variance of 25', resulting in a total of 75' to the minimum lot width. The property is located at 415 Thomas Street. Parcel 144M-0-19-247.000; PT 101 1ST WARD BAY ST LOUIS. Parcel 144M-0-19-248.000; 101F 1ST WARD B S L. The property is zoned R-1 Single-Family District.

Dawn Smith and Rodney Lacoste spoke representing the application.

Motion to approve the application as presented.

Motion made by Commissioner Breland, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

- 5. **RUST ENTERPRISES** – Application for Major Site Plan Review for a recreational vehicle park submitted by Rust Enterprises. The property in question is located at 10160 Chapman Road and is identified on the Hancock County Land Rolls as Parcel No. 138H-0-46-028.000 (Legal Description: PT GADON TOULME CLAIM PT SE 1/4 SEC 27-8S-14W). The property is a Special Use District.

Nick Gant spoke representing the application

Motion to approve the application as presented.

Motion made by Commissioner Brown, Seconded by Commissioner Breland.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

- 6. **MESEKE/GUNNING** - Application for variance to the Zoning Ordinance submitted by Phillip Meseke and Candice Gunning. The applicants are wanting to construct a new residence on the property. They are requesting a variance of 17'4" resulting in a 7'8" setback to the front yard and a variance of 6'1" resulting in a 13'11" setback to the rear yard. The property is located at 401 South Necaie Avenue. Parcel 149M-1-29-050.000; 260A 2ND WARD BAY ST LOUIS. The property is zoned R-1 Single Family District.

Philip Meseke spoke representing the application

Motion to approve the application as presented.

Motion made by Commissioner Brown, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

- 7. **CORBITTNICAUD LLC** – Application for a variance to the parking requirements of the Zoning Ordinance submitted by CORBITTNICAUD LLC. The applicant intends to construct a 4-unit boutique hotel. The Zoning Ordinance requires a minimum of 4 off-street parking spaces to accommodate the 4 sleeping rooms in the hotel. The applicant is requesting a variance to allow for no required on-premise parking, resulting in a variance of 4 parking spaces. The property is located at 105 North Beach Blvd, identified on the Hancock County Land Rolls as Parcel No. 149L-0-29-035.000, legal description 510 1ST WARD BAY ST. LOUIS, and Parcel No. 149L-0-29-036.000, legal description PT 512 1ST WARD BAY ST. LOUIS. The property is zoned C-1, Central Business District.

Merritt and Jordan Nicaud spoke representing the application

Barbara Petway spoke with concerns on limited parking

Motion to deny the application as presented.

Motion made by Commissioner Brown, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVE

- 8. **CORBITTNICAUD LLC**- Application for Site Plan Review for a Boutique Hotel submitted by CORBITTNICAUD LLC. The property in question is located at 105 North Beach Blvd is identified on the Hancock County Land Rolls as Parcel No. 149L-0-29-035.000 legal description as 510 1ST WARD BAY ST LOUIS and parcel

NO 149L-0-29-036.000 Legal District PT 512 1ST WARD BAY ST LOUIS. The property is zoned C-1, Central Business District.

Motion to table the application.

Motion made by Chairman Doescher, Seconded by Commissioner Breland.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVED

Adjourn

- 9. Motion to adjourn the meeting of July 9, 2025.

Motion made by Commissioner Breland, Seconded by Commissioner Romano.

Voting Yea: Chairman Doescher, Commissioner Breland, Commissioner Romano, Commissioner Brown

APPROVED

Amy Doescher, Chairman Date

Caitlin Bourgeois, Secretary Date

TO: Planning and Zoning Board
City of Bay St. Louis

RE: 337 St. John Street
Parcel 149E-0-29-322.002
PT 80 SECOND WARD BAY ST. LOUIS

HEARING DATE: August 13, 2025

I have reviewed the application for Variance to the Zoning Ordinance submitted by James and Lisa Breland. The property is located at 337 St. John Street and is zoned R-2, Two Family District. The zoning ordinance requires an accessory structure to maintain a 5' setback from both the side and rear property lines.

The applicants request a 2' variance to the rear yard and a 2' variance to the side yard accessory structure setback. If granted, the accessory structure would be located 3' from both the rear and side property lines.

Side Yard:

Required: 5'

Proposed Distance: 3'

Variance Requested: 2'

Rear Yard:

Required: 5'

Proposed Distance: 3'

Variance Requested: 2'

The administration recommends the deny of the variance.

- I have received several letters of support to approve this variance request
- Concerned it is just too close to property line

Sincerely,
Jeremy L. Burke

APPLICATION FOR VARIANCE TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: James + Lisa Breland

ADDRESS: 337 Saint John St.
Bay St. Louis, MS 39520

PHONE: 504-450-0241

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

~~PT. 80 2nd Ward Bay St. Louis~~

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

149E-0-29-322-002

PT 80 2nd Ward Bay St. Louis

2. Parcel number(s) as described in the Hancock County tax rolls:

149E-0-29-322-002

3. Present Zoning: R1

4. Present use of building/property: Residence

5. Application fee of \$²⁵⁰~~100~~ (Residential): \$250.00 #00542818

Application fee of \$²⁵⁰~~200~~ (Commercial): _____

Article XIII
1303 APPEALS, HEARING AND NOTICE

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

Article XIII
1305.3 VARIANCES

To recommend such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, literal enforcement of the provisions of this Ordinance will in an individual case result in unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice be done. Such variance may be granted in such case of unnecessary hardship upon a finding by the City Council that all of the following conditions exist:

- A. There are extraordinary and exceptional conditions which pertain to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures in the same district.
- B. The literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.
- C. Granting the variance requested will not confer upon the applicant any special privileges that are denied to other residents of the district in which the property is located.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the applicant.
- F. The existence of a nonconforming use of neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variance.
- G. The variance requested is the minimum variance that will make possible the legal use of the land, building, or structure.
- H. The variance is not a request to permit a use of land, building, or structure which is not permitted by right or by special exception in the district involved.

- I. Notice of public hearing shall be given as in Section 1305.2(A).
- J. The variance can't be transferred to a subsequent owner of the property, if the variance is unused.
- K. The grant of a variance shall expire if the variance has not been activated within six (6) months of final approval. "Activation" shall mean obtaining a building permit for the required or necessary construction. In addition, the activation shall not be effective unless the construction is completed within six (6) months of obtaining the building permit. On good cause shown, the Bay St. Louis City Council may extend the above stated time limits for up to a maximum of six (6) months.

Please submit the following documentation with your application:

- 1. What is the specific provision of the ordinance involved REAR + Side YARD Setback
- 2. The use for which a variance is sought Double Car Carport
requested set back variance from 5' to 2'
- 3. If request is for a setback variance, please answer the following:

_____ Front yard setback requirement
 _____ Proposed distance remaining to the property line
 _____ Total front yard setback variance needed

Requested 2'

5' Side yard setback requirement
2' Proposed distance remaining to the property line
3' Total side yard setback variance needed

(accessory structure)

Requested 2'

5' Rear yard setback requirement
2' Proposed distance remaining to the property line
3' Total rear yard setback variance needed

(accessory structure)

- 4. If request is for a variance other than setback, please answer the following:

_____ Required total square footage of lot
 _____ Proposed square footage of lot
 _____ Total square footage needed to lot

_____ Required minimum width of lot
 _____ Proposed minimum width of lot
 _____ Total variance to minimum lot width needed

_____ Required fence height
 _____ Proposed fence height
 _____ Total fence height variance needed

5. Other type(s) of variance needed:

6. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

7. Size of any building to be erected, and the location of the building upon the lot.

8. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

9. Is the property in question in a sub-division? N/A

10. If the property in question is within a sub-division, is there an existing covenant running with the land? N/A

11. If the answer to question 9 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County.

Book Number _____

Page Number _____

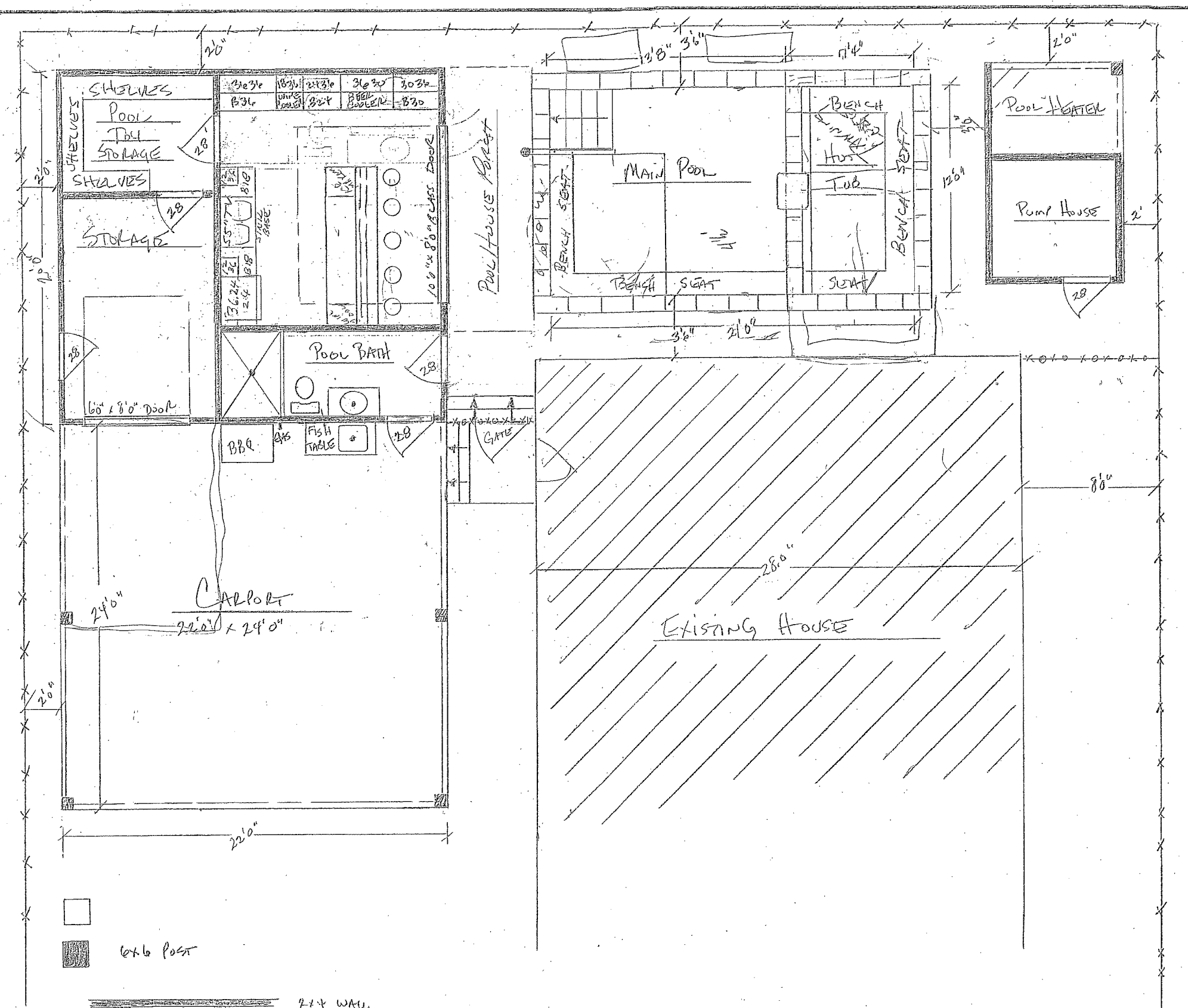
It is warranted in good faith by the owners whose name is signed hereto that all of the above facts are true and correct.


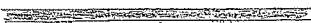

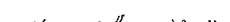
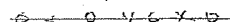
James M. Brudolph
Applicant's Signature


6/25/25
Date

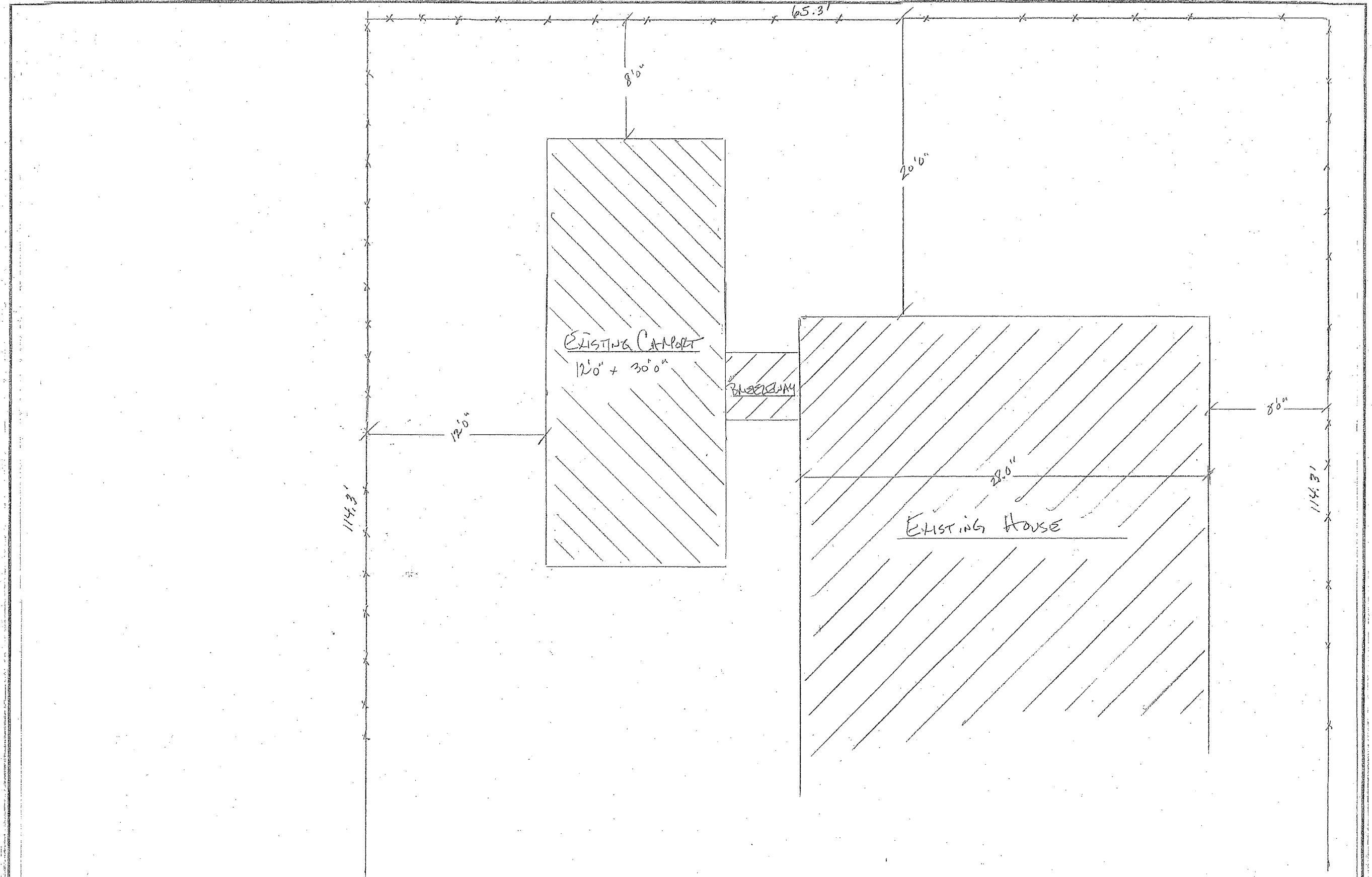
FOR OFFICE USE ONLY

Date of Application received: _____



-  6x6 Post
-  2x4 WALL
-  OPEN FRAME
-  6' WOODEN PICKET FENCE
-  WHITE METAL FENCE

MRT and Jim BELAND 337 ST. JOHN ST. BAY ST. LOUIS, MS 39520		
SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: 
DATE: 6-7-25		REVISED:
Lark Contracting Co. 226. 344-8936		
Plot Plan PROPOSED		DRAWING NUMBER



MR + MRS STEVE BAELEND 237 ST. JOHN ST. BAY ST. LOUIS, MS 39520		
SCALE: 1/4" = 1'	APPROVED BY:	DRAWN BY: <i>o</i>
DATE: 6-7-25		REVISED
COAK CONTRACTING Co. 228-344-8936		
PLOT PLAN EXISTING		DRAWING NUMBER

Dear Jeremy Burke -Director of Planning
& Bay St Louis Planning & Zoning Commission

Subject: Letter of Support for Zoning Variance at 337 Saint John St, Bay St Louis, MS 39520

I am writing to express my support for the zoning variance requested by James & Lisa Breland for the property located at 337 Saint John St, Bay St Louis, MS 39520. I am the owner of the neighboring property at 346 Main St. and have been informed about the proposed project. The Breland's property is directly behind our house on 346 Main St. Our properties back up to each other's.

The variance, which involves (a request to adjust the setback of 5 feet to 2.5 feet from the property line to allow for a garage addition and carport. It has been explained to me, and I have had the opportunity to review the plans and discuss the project with Mr.& Mrs. Breland. I believe the proposed changes are reasonable and will not negatively impact my property or the neighborhood's character. The Breland's also have subsurface drainage to ensure drainage to the front of their property.

I have no objections to the zoning variance and support the Breland's application. Please feel free to contact me at 228-323-1105 03 crothbsl@yahoo.com if you require further information.

Sincerely,

Chris Roth

346 Main St.

Bay St. Louis, MS

39520

Dear Jeremy Burke, -Director of Planning
& Bay St. Louis Planning & Zoning Commission

Subject: Letter of Support for Zoning Variance at 337 Saint John St, Bay St Louis, MS 39520

I am writing to express my support for the zoning variance requested by James & Lisa Breland for the property located at 337 Saint John St, Bay St Louis, MS 39520. I am the owner of the neighboring property at 343 Saint John St. and have been informed about the proposed project.

The variance, which involves (a request from setback of 5 feet to 2.5 feet from the property line to allow for a garage addition and carport. It has been explained to me, and I have had the opportunity to review the plans and discuss the project with Mr. & Mrs. Breland. I believe the proposed changes are reasonable and will not negatively impact my property or the neighborhood's character.

I have no objections to the zoning variance and support the Breland's application. Please feel free to contact me at 228-697-8929 or Msbiggs@hotmail.com If you require further information.

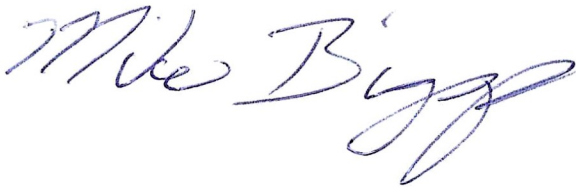
Sincerely,

Mike Biggs

343 Saint John St.

Bay St. Louis, MS

39520



Fwd: Support of Zoning Variance Request

1 message

Jeremy Burke <jburke@baystlouis-ms.gov>
To: Caitlin Bourgeois <cthompson@baystlouis-ms.gov>
Cc: Terrence Epton <Terry.Epton@outlook.com>, Amy Doescher <amydoescher@gmail.com>

Tue, Aug 12, 2025 at 8:55 AM

Caitlin,
Can you put this letter with the Breland application as "a letter of support"

----- Forwarded message -----

From: **Terry Epton** <Terry.Epton@outlook.com>
Date: Mon, Aug 11, 2025 at 8:27 PM
Subject: Support of Zoning Variance Request
To: JBurke@BayStLouis-MS.Gov <JBurke@baystlouis-ms.gov>
Cc: JimBreland@Yahoo.com <JimBreland@yahoo.com>, Sandra Epton <smepton@msn.com>

Dear Jeremy:

You will recall that we worked together on the plans for my home addition and renovation project not too long ago. Your help and guidance were greatly appreciated and I am now reaching out on behalf of my next-door neighbors, the Breland's who live at 337 Saint John Street. I am aware that Jim and Lisa have planned some changes that are similar to the project that my wife and I recently completed next door at 335 Saint John Street. I have seen the Zoning Variance request and have discussed the plans that have necessitated the request. As you know, the variance request involves an adjustment of the standard 5 foot set back to 2.5 feet.

I have had the chance to review the plans and know that the project involves the expansion of the garage and carport. Mr. & Mrs. Breland have discussed their plans with us and we are in support of the approval of the Zoning Variance. My wife and I find the proposed changes to be reasonable and that this will not negatively affect my property or the neighborhood's character.

I have no objections to the zoning variance and support the Breland's application. Jeremy, I plan to attend the meeting on Wednesday in support of my neighbor's project. If, in the meantime, you have any questions, or if I may be of some other assistance, please feel free to contact me at 504.382.8835 or Terry.Epton@Outlook.com...

Very Truly Yours,

Item # 2.

Terry

Terry Epton

335 Saint John St.

Bay Saint Louis, MS 39520

Mobile: +1.504.382.8835

Email: Terry.Epton@Outlook.com

--

Jeremy Burke

Zoning Administrator/Historic Preservation Commission Coordinator/Community Affairs
City of Bay St Louis
228-466-5516

TO: Planning and Zoning Commission
City of Bay St. Louis

RE: 230 Leonhard Avenue
Tax Parcel: 144N-0-19-086.000
13 BLK 5 LEONHARD S/D

HEARING DATE: August 13, 2025

I have reviewed the application for a Variance to the Zoning Ordinance submitted by Robert and Lisa Glus for the property located at 230 Leonhard Avenue, which is zoned R-1 Single Family District. The R-1 district requires a 25-foot front yard setback. The applicants are requesting a 15-foot front yard setback in order to construct a new residence.

Front Yard Setback:

Required: 25'

Proposed Distance of Front Yard: 15'

Variance Request: 10'

The administration recommends approving the variance request.

- The house is being moved closer to the front yard property line to save a protected live oak tree.

If I can further assist in this matter, please feel free to contact my office at 228-466-5516.

Jeremy L. Burke
Zoning Administrator

APPLICATION FOR VARIANCE TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: ROBERT AND LISA GLUS

ADDRESS: 230 50 PINE AVE
ALBION, PA 16401

PHONE: 330-770-7229 228-363-3006

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

230 LEONHARD AVE BAY SAINT LOUIS, MS
39520

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

13 BLK 5 LEONHARD 5/2

2. Parcel number(s) as described in the Hancock County tax rolls:

144N-0-19-086.000

3. Present Zoning: _____

4. Present use of building/property: VACANT

5. Application fee of ²⁵⁰~~\$100~~ (Residential): \$250.00

Application fee of ²⁵⁰~~\$200~~ (Commercial): _____

NOTE: REQUEST AUGUST 13, 2025 DATE FOR PLANNING + ZONING COMMISSION CONSIDERATION. CURRENTLY RESIDING IN ALBION, PA - WILL BE BACK IN BSL IN AUGUST. Thank you

Article XIII**1303 APPEALS, HEARING AND NOTICE**

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

Article XIII**1305.3 VARIANCES**

To recommend such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, literal enforcement of the provisions of this Ordinance will in an individual case result in unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice be done. Such variance may be granted in such case of unnecessary hardship upon a finding by the City Council that all of the following conditions exist:

- A. There are extraordinary and exceptional conditions which pertain to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures in the same district.
- B. The literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.
- C. Granting the variance requested will not confer upon the applicant any special privileges that are denied to other residents of the district in which the property is located.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the applicant.
- F. The existence of a nonconforming use of neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variance.
- G. The variance requested is the minimum variance that will make possible the legal use of the land, building, or structure.
- H. The variance is not a request to permit a use of land, building, or structure which is not permitted by right or by special exception in the district involved.

I. Notice of public hearing shall be given as in Section 1305.2(A).

J. The variance can't be transferred to a subsequent owner of the property, if the variance is unused.

K. The grant of a variance shall expire if the variance has not been activated within six (6) months of final approval. "Activation" shall mean obtaining a building permit for the required or necessary construction. In addition, the activation shall not be effective unless the construction is completed within six (6) months of obtaining the building permit. On good cause shown, the Bay St. Louis City Council may extend the above stated time limits for up to a maximum of six (6) months.

Please submit the following documentation with your application:

1. What is the specific provision of the ordinance involved FRONT YARD SETBACK
2. The use for which a variance is sought ORDINANCE REQUIRES FRONT YARD SET BACK OF 25'. REQUESTING A VARIANCE OF ONLY 15' DUE TO DRILLING AND LOCATION OF HOUSE PILINGS WILL DAMAGE ROOTS OF HISTORIC OAK TREE
3. If request is for a setback variance, please answer the following:

25' Front yard setback requirement
15' Proposed distance remaining to the property line
10' Total front yard setback variance needed

8' Side yard setback requirement
8' Proposed distance remaining to the property line
0 Total side yard setback variance needed

20' Rear yard setback requirement
20' Proposed distance remaining to the property line
0 Total rear yard setback variance needed

4. If request is for a variance other than setback, please answer the following:

N/A Required total square footage of lot
N/A Proposed square footage of lot
N/A Total square footage needed to lot

N/A Required minimum width of lot
N/A Proposed minimum width of lot
N/A Total variance to minimum lot width needed

N/A Required fence height
N/A Proposed fence height
N/A Total fence height variance needed

5. Other type(s) of variance needed: NONE

6. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

7. Size of any building to be erected, and the location of the building upon the lot.

8. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

9. Is the property in question in a sub-division? No

10. If the property in question is within a sub-division, is there an existing covenant running with the land? N/A

11. If the answer to question 9 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County.

N/A
Book Number _____ Page Number _____

It is warranted in good faith by the owners whose name is signed hereto that all of the above facts are true and correct.

Robert V. Gleis 14 May 2025
Lisa A. Gleis May 14, 2025
Applicant's Signature Date

FOR OFFICE USE ONLY

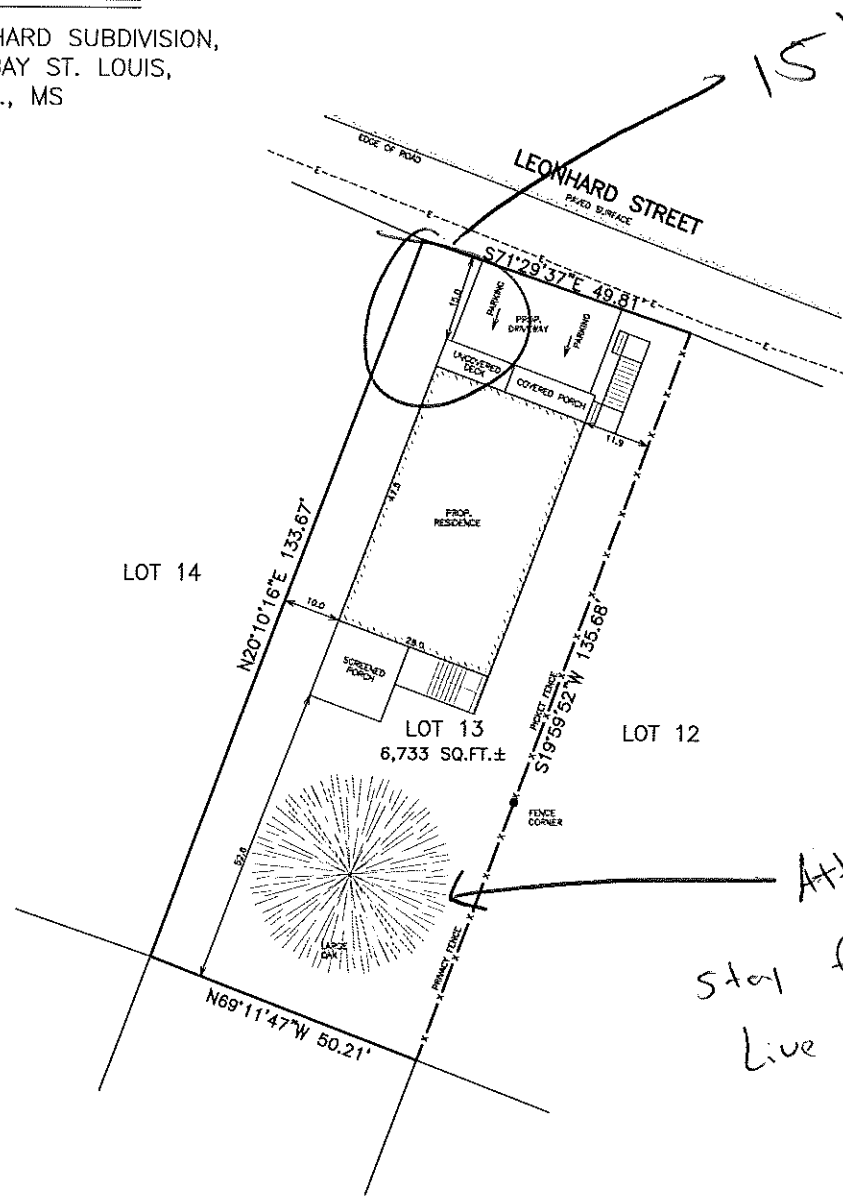
Date of Application received: _____



Plot Plan

LOT 13, BLOCK 5, LEONHARD SUBDIVISION,
1ST WARD, CITY OF BAY ST. LOUIS,
HANCOCK CO., MS

- NOTES:**
1. All work shall be performed in accordance with all applicable national, state, and local codes, regulations, and standards.
 2. It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
 3. Contractor shall insure competency of the building with all requirements.
 4. The contractor is responsible for adjusting and verifying of structural details and conditions to meet all local codes and to insure a quality and safe structure.
 5. All federal, state, and local codes, ordinances, regulations, etc. shall be considered as part of specifications for this building and that take preference over anything shown, described, or implied where there are variances.



Note:
Plot plan is drawn per survey done by AKS
SURVEYING, LLC, dated 09/16/21, PROJ# 21823

Plot Plan

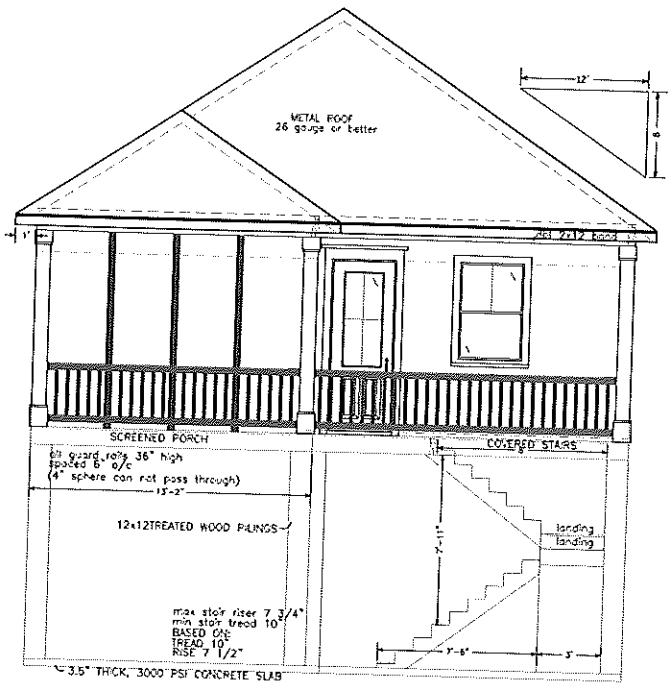
Scale:	1"=15'
W.O. #:	31725
Date:	REVISED 06/17/25
Drawn by:	TLP
Sheet:	P

Prepared For:
Bob & Lisa Glus
230 Leonhard Avenue
Bay St. Louis, MS

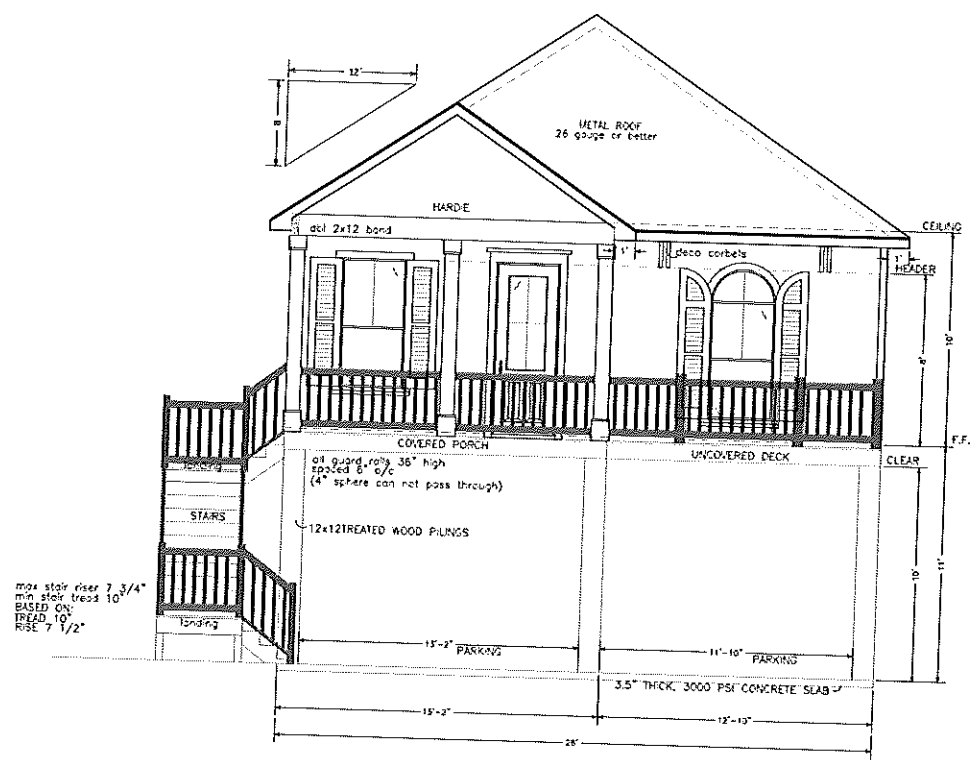
Techni-CAD Drafting Service
17121 Fenton-Bedeaux Road
Kiln, MS 39556
Ph: 228-326-4232 email: aroshamament@aol.com

NOTES:
 1. All work shall be performed in accordance with all applicable municipal, state, and local codes, regulations, and laws.
 2. It is the responsibility of the owner and/or general contractor to obtain all permits for the job before construction.
 3. Contractor shall insure compliance of the building with all the requirements.
 4. The contractor is responsible for securing the building at all times during and continuing to cover up their work until the work is fully and safe structure.
 5. All work shall be done in accordance with the building and safety codes of the jurisdiction for the building and shall be done in accordance with the building and safety codes of the jurisdiction for the building and safety codes of the jurisdiction.

NOTES: CITY OF BAY ST LOUIS, MS uses the 2018 International Building Code and is in a High Velocity Wind Zone requiring wind ratings of 130 mph sustained and 140 mph 3 SEC gusts.



REAR VIEW



STREET FRONT

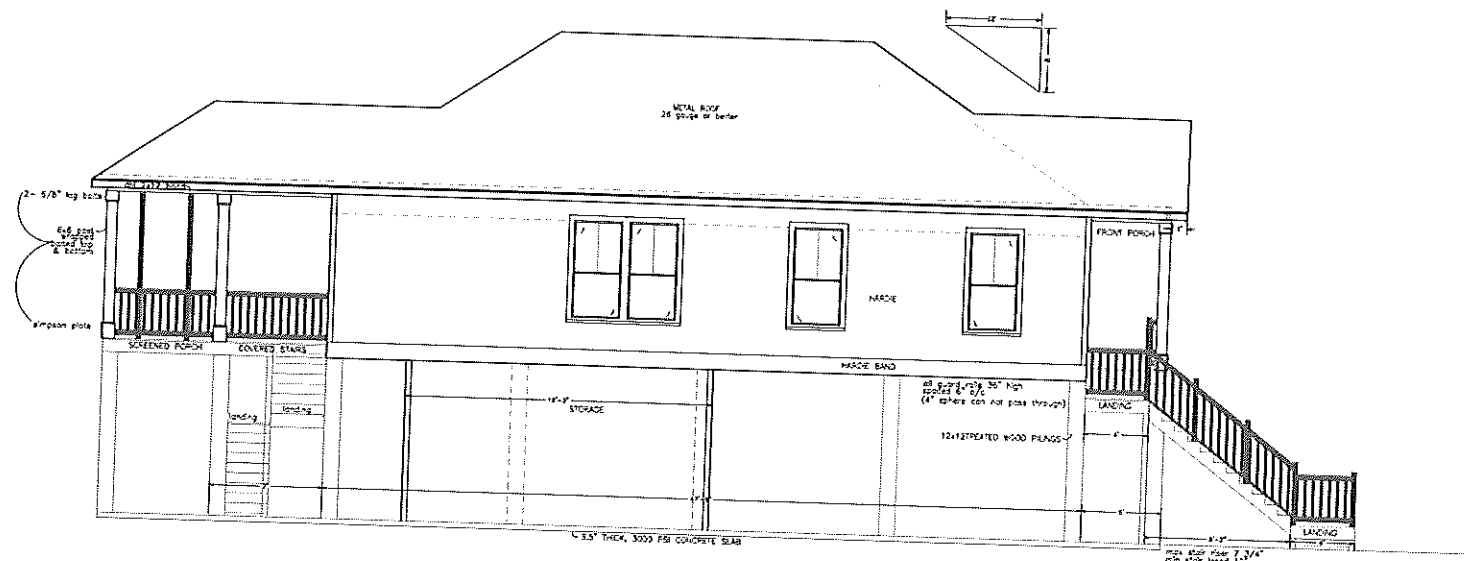
ELEVATIONS PLAN

Scale:
 1/4"=1'-0"
 W.O. #:
 31725
 Date:
 03/17/25
 Drawn by:
 TLP
 Sheet:
1

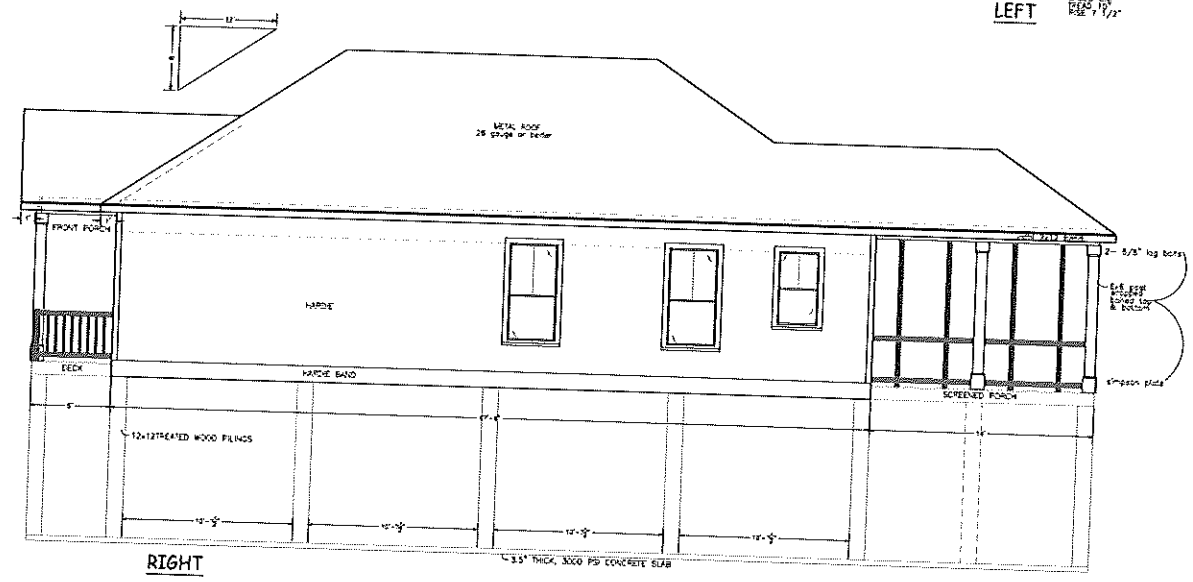
Prepared For:
 Bob & Lisa Gilus
 230 Leonhard Ave
 Bay St Louis, MS

Techni-CAD Drafting Service
 17121 Fenton Dedaux Rd
 Kiln, MS 39556
 Ph: 228-326-4232 email: atoshamoment@aol.com

- NOTES**
- All work shall be performed in accordance with all applicable national, state, and local codes, regulations, and ordinances.
 - It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
 - Contractor shall have responsibility of the building line of all establishments.
 - The architect is responsible for advising and verifying all structural details and ensuring to meet all local codes and to insure a quality and safe structure.
 - All masonry, steel, and wood framing materials, regardless of whether they are precast or cast-in-place concrete, shall be installed in strict accordance with the manufacturer's instructions, or printed where some are available.



LEFT



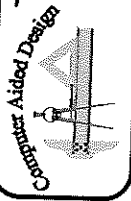
RIGHT

ELEVATIONS PLAN

Scale:
3/16"=1'-0"
W.O. #:
31725
Date:
03/17/25
Drawn by:
TLP
Sheet:
2

Prepared For:
Bob & Lisa Glus
230 Leonhard Ave
Bay St Louis, MS

Techni-CAD Drafting Service
17121 Fenton Dedaux Rd
Kiln, MS 39556
Ph: 228-326-4232 email: ctdrafting@sol.com



NOTES:
 1. All work shall be performed in accordance with all applicable national, state, and local codes, regulations, and ordinances.
 2. It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
 3. Contractor shall insure responsibility of the building and all the measurements.
 4. The architect is responsible for adjusting and updating all structural details and conditions to meet all local codes and to insure a quality and safe structure.
 5. All heavy work and load carrying members, including but not limited to, walls, columns, beams, joists, and girders shall be designed and detailed for the intended use and loading conditions. All steel members shall be protected from fire and corrosion.

FIRE CODE NOTES:
 ONE WINDOW IN EACH SLEEPING AREA MUST MEET FIRE CODE EGRESS 5.7 SQ FT CLEAR OPENING

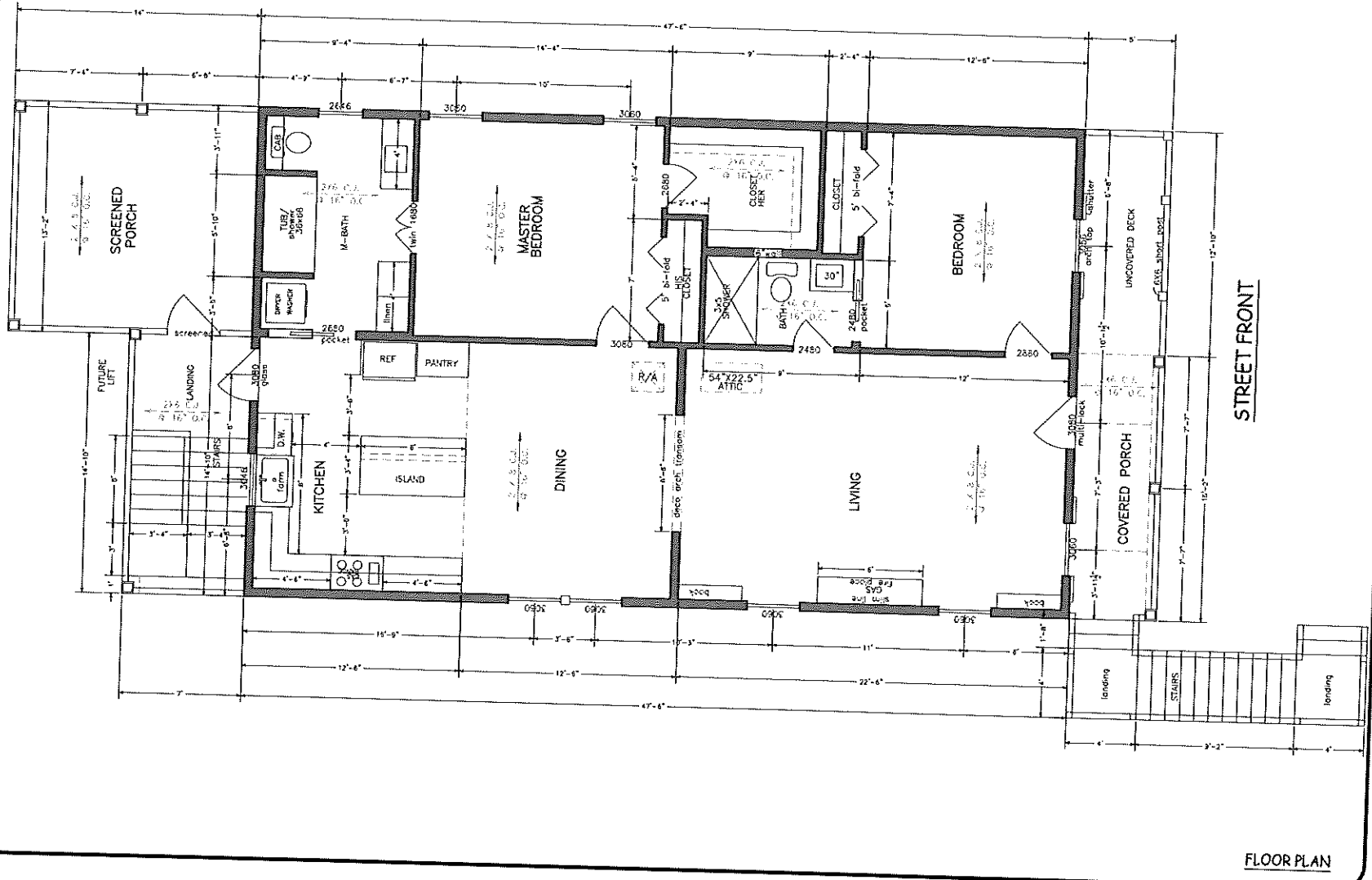
FLAMING NOTES:
 SIZE WALL FOR PENETRATION
 1. 1/2" PIPE - 6" WALL
 3" PIPE - 8" WALL

NOTES:
 Windows and doors with glass must be pressure rated to withstand 130 mph sustained winds with 3 second gusts of 140 mph.
 Glass in pressure rated windows must be large and windows which are accessible from the ground or porch areas must be protected with functional wind rated shutters or cut-to-fit storm panels marked for each window with installation hardware pre-installed.

SQUARE FOOTAGE

LIVING AREA	1330
FRONT PORCH	76
FRONT DECK	64
REAR PORCH	104
SCREENED	184
STORAGE	292

*ALL EXTERIOR WALLS 6"



Scale:
 1/4"=1'-0"
 W.O. #:
 31725
 Date:
 03/17/25
 Drawn by:
 TLP
 Sheet:
3

Prepared For:
 Bob & Lisa Glus
 230 Leonhard Ave
 Bay St Louis, MS

Techni-CAD Drafting Service
 17121 Fenton Dedeaux Rd
 Kiln, MS 39556
 Ph: 228-326-4232 email: attachment@aol.com

NOTES:
 1. All work shall be performed in accordance with all applicable national, state and local codes, regulations, and laws.
 2. It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
 3. Contractor shall have responsibility of the building with the requirements.
 4. The contractor is responsible for verifying and analyzing all structural details and providing to meet all load codes and to insure a quality and safe structure.
 5. All labor, tools, and material additions, including but not limited to, shall be provided as part of construction for the building and the contractor shall provide the necessary materials, including but not limited to, to insure a quality and safe structure.

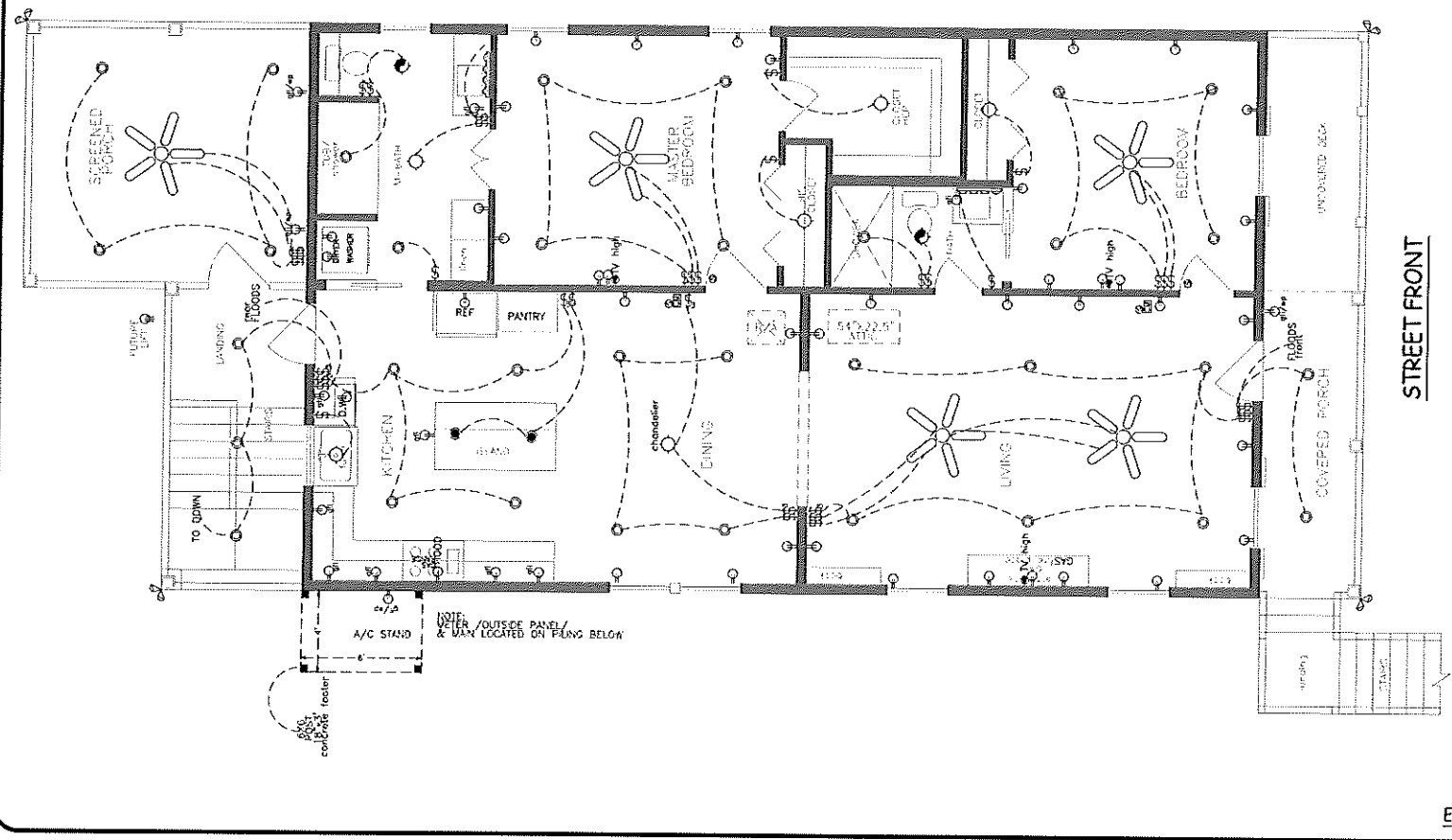
NOTES:
 Smoke Alarms shall be installed in the following locations:
 1. In each sleeping room.
 2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
 3. On each additional story of the dwelling, except crawl spaces, unhabitable attics, in dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice.

NOTES:
 - Bathroom receptacles— all 125-volt, single phase 15- and 20-ampere receptacles installed in bathrooms shall have ground fault circuit-interrupter protection for personnel.
 - garage & accessory building receptacles— all 125-volt, single phase, 15- or 20-ampere receptacles installed in garages and grade-level portions of unattached accessory buildings used for storage or work areas shall have ground fault circuit-interrupter protection for personnel.
 - outdoor receptacles— all 125-volt, single phase, 15- and 20-ampere receptacles installed outdoors shall have ground fault circuit-interrupter protection for personnel.
 - crawl space receptacles— where a crawl space is at or below grade level, all 125-volt, single phase, 15- and 20-ampere receptacles installed in such spaces shall have ground fault circuit-interrupter protection for personnel.
 - kitchen receptacles— all 125-volt, single phase 15- and 20-ampere receptacles that serve countertop surfaces shall have ground fault circuit-interrupter protection for personnel.
 - bar and sink receptacles— all 125-volt, single phase, 15- and 20-ampere receptacles that serve a countertop surface, and are located within 6 feet of the outside edge of a wet bar sink shall have ground fault circuit-interrupter protection for personnel.
 - bedroom outlets— all branch circuits that supply 125-volt, single phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit-interrupter listed to provide protection of the entire branch circuit.

ELECTRICAL LEGEND

	110 RECEPT
	220 RECEPT
	GROUND FAULT INT.
	WATER PROOF RECEPT
	CARBON MONOXIDE SMOKE DETECTOR
	SWITCH
	3 WAY SWITCH
	BATH VENT 1/2 LIGHT
	RECESSED LIGHT
	STANDARD LIGHT
	PENDANT LIGHTS
	SCENIC LIGHT
	CABLE
	FLOOD LIGHTS
	VANITY LIGHT
	CEILING FAN
	CORNER FAN
	INDIRECT LIGHTING
	FLUORESCENT LIGHT

ALL RECEPTACLES LOCATED BELOW 5'6" TO BE TAMPER RESISTANT UNLESS DEDICATED TO A SPECIFIC APPLIANCE



Scale:
 1/4"=1'-0"
 W.O. #:
 31725
 Date:
 03/17/25
 Drawn by:
 TLP
 Sheet:
 4

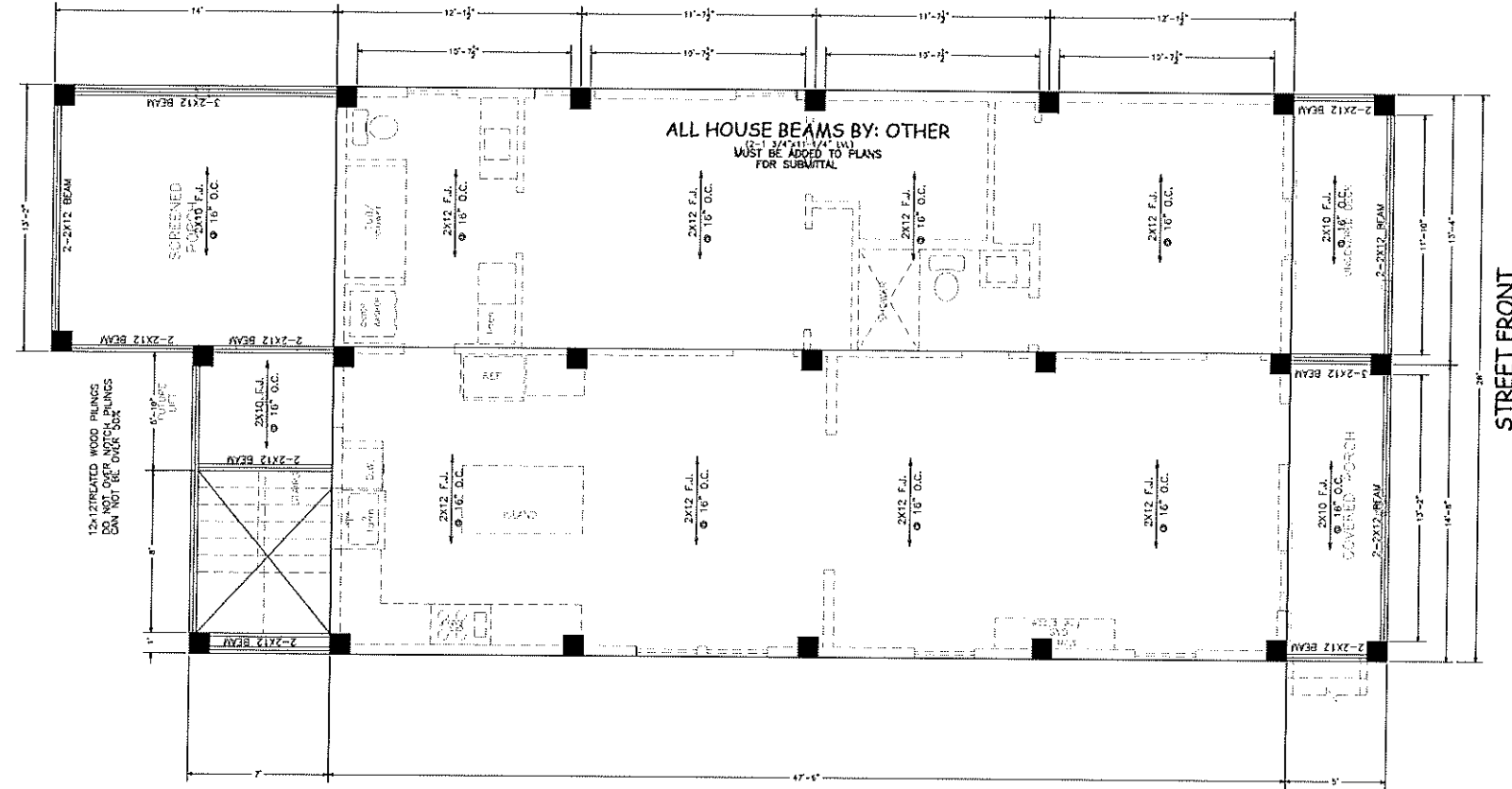
Prepared For:
 Bob & Lisa Glus
 230 Leonhard Ave
 Bay St Louis, MS

Techni-CAD Drafting Service
 17121 Fenton Dedaux Rd
 Kin, MS 39556
 Ph: 228-326-4232 email: ctdrafting@tel.com



NOTES:

1. All work shall be performed in accordance with all applicable national, state, and local codes, regulations, and FMVA/MS.
2. It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
3. Contractor shall insure compatibility of the building with all the requirements.
4. The contractor is responsible for adjusting and verifying all structural details and conditions to meet all local codes and to insure a quality and safe structure.
5. All federal, state, and local codes, ordinances, regulations, etc. shall be complied or part of specifications for the building and shall take precedence over anything shown, described, or implied where some are variance.



PILING PLAN

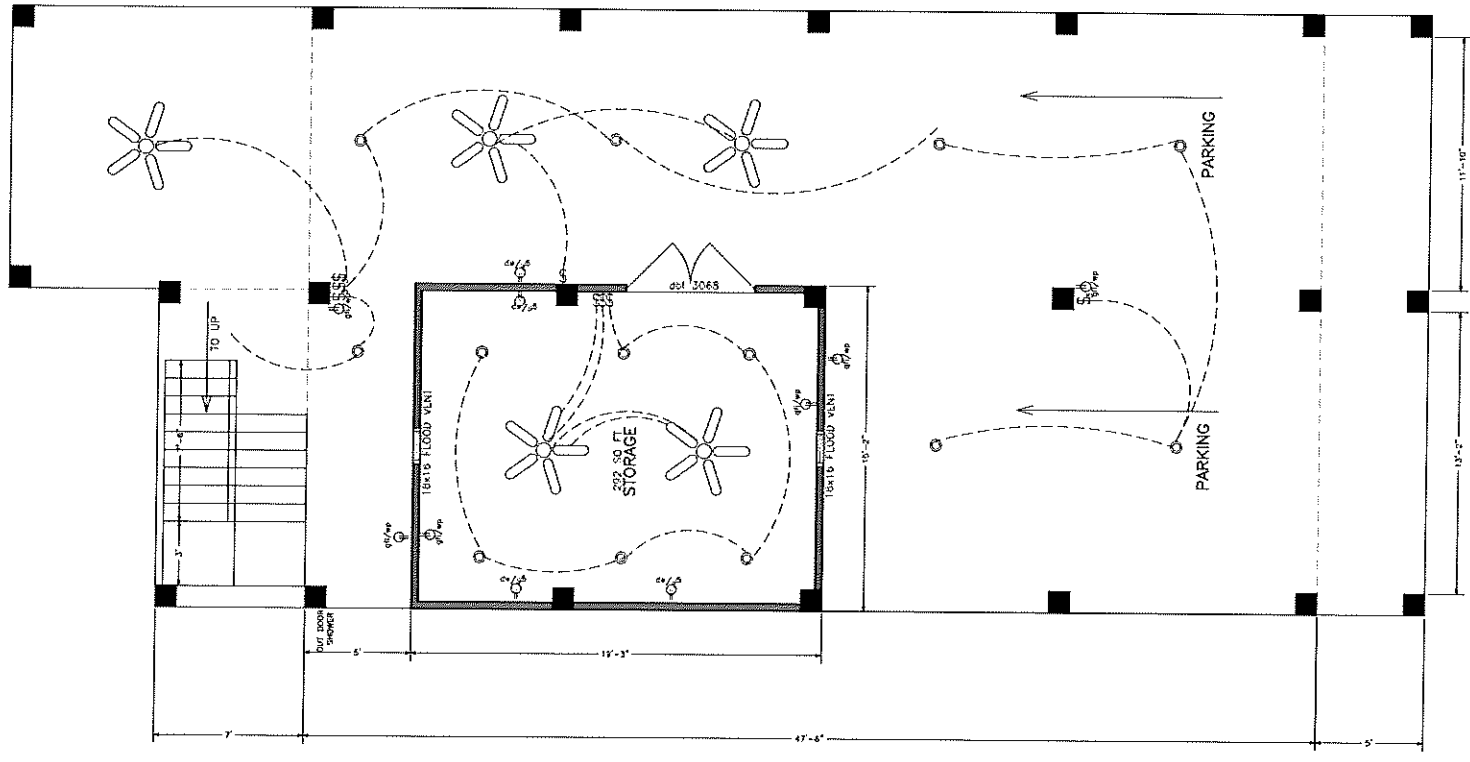
Scale:
1/4"=1'-0"
W.O. #:
31725
Date:
03/17/25
Drawn by:
TLP
Sheet:
5

Prepared For:
Bob & Lisa Glus
230 Leonhard Ave
Bay St Louis, MS

Techni-CAD Drafting Service
Computer Aided Design
17121 Fernton Dedaux Rd
Kiln, MS 39556
Ph: 228-326-4232 email: ctashamont@aol.com

NOTES:

1. All work shall be performed in accordance with all applicable national, state, and local codes, regulations, and industry standards.
2. It is the responsibility of the owner and/or general contractor to check all dimensions for the job before construction.
3. Contractor shall insure compatibility of the building with all site requirements.
4. The contractor is responsible for adjusting and verifying all structural details and conditions to meet all local codes and to insure in quality and safe structure.
5. All federal, state, and local codes, ordinances, regulations, etc. shall be complied as part of specifications for this building and shall take preference over anything shown, described, or implied where there are variance.



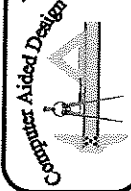
PILING PLAN

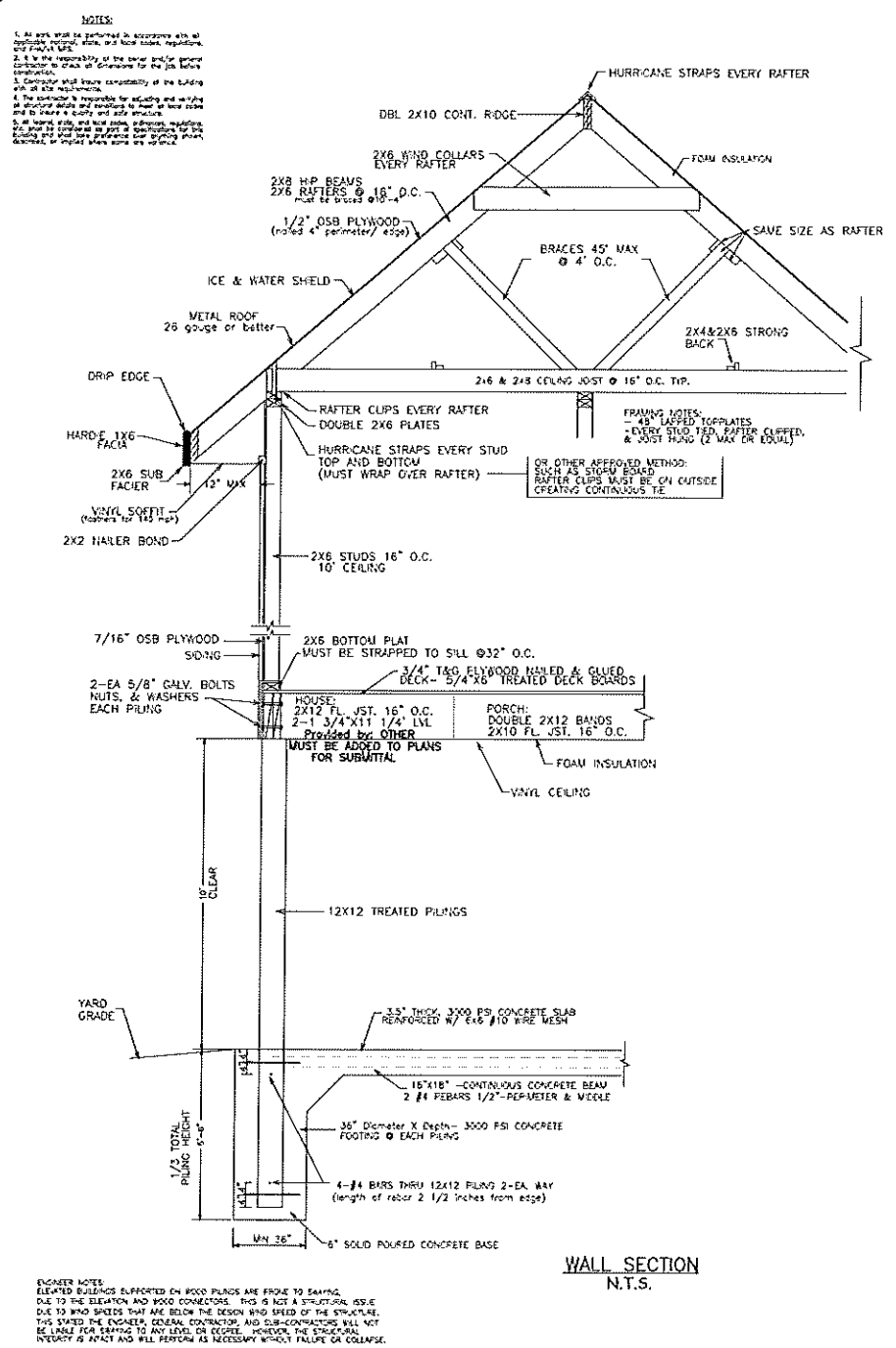
STREET FRONT

Scale:
1/4"=1'-0"
W.O. #:
31725
Date:
03/17/25
Drawn by:
TLP
Sheet:
6

Prepared For:
Bob & Lisa Gilus
230 Leonhard Ave
Bay St Louis, MS

Techni-CAD Drafting Service
17121 Ferron Dedeaux Rd
Kiln, MS 39556
Ph: 228-326-4232 email: arcshamament@aol.com



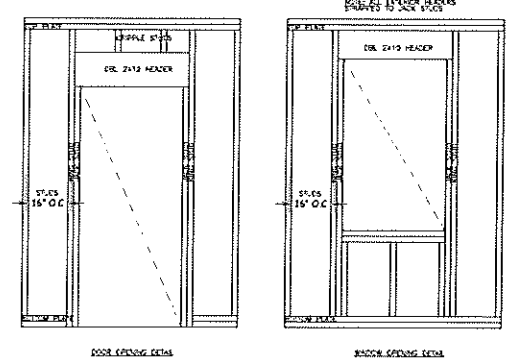
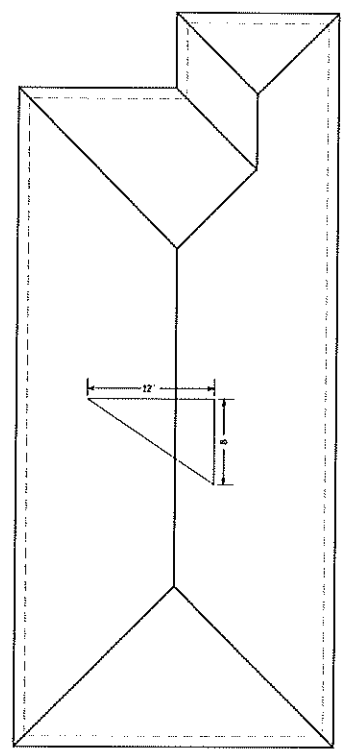


GENERAL ROOF NOTES:

ALL ROOFING SHINGLES— Are required to meet 130 mph sustained and 140 mph 3 second gust

METAL ROOFING— materials must be 26 gauge or better installed to manufacturer's specification to ensure wind ratings of 130 mph sustained and 140 mph 3 second gusts.

HURRICANE STRAPS— hot dipped galvanized or stainless steel straps are required on every stud; refer to 2012 IRC typical methods of anchorage & bracing for further details. Strap inspections are required prior to covering.



Scale:
1/4"=1'-0"

W.O. #:
31725

Date:
03/17/25

Drawn by:
TLP

Sheet:
7

Prepared For:
Bob & Lisa Glus
230 Leonhard Ave
Bay St Louis, MS

Techni-CAD Drafting Service
17121 Fenton Dedaux Rd
Kiln, MS 39556
Ph: 228-326-4232 email: atraashment@tcd.com

Computer Aided Design



Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Fwd: Glus application for Variance

1 message

Jeremy Burke <jburke@baystlouis-ms.gov>
To: Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Thu, Jul 31, 2025 at 10:16 AM

Add this email to Glus (230 Leonhard) P&Z application

----- Forwarded message -----

From: **Kate Lobrano** <treeregistry@gmail.com>
Date: Thu, Jul 31, 2025 at 10:12 AM
Subject: Glus application for Variance
To: jburke@baystlouis-ms.gov <jburke@baystlouis-ms.gov>

Jeremy

The Live Oak Registry is in favor of the variance request by the Glus family.

The lot at 230 Leonhard contains a registered live oak tree, AVA, which dates from 1819. This 206 year old tree is one of the older trees in the city and should be protected by granting the variance and by being fenced off during construction.

Anita Warner, chair
Live Oak Registry

Fwd: FW: FW: 230 Leonhard Variance Opposition

1 message

Jeremy Burke <jburke@baystlouis-ms.gov>
To: Caitlin Bourgeois <cthompson@baystlouis-ms.gov>
Cc: Burden Edmonds <bedmonds@beaubox.com>, Amy Doescher <amydoescher@gmail.com>

Caitlin, could you please add these letters of opposition to the packet for GLUS? It appears there are two letters of opposition in this email thread.

----- Forwarded message -----
From: **Burden Edmonds** <bedmonds@beaubox.com>
Date: Mon, Aug 11, 2025 at 11:05 AM
Subject: FW: FW: 230 Leonhard Variance Opposition
To: Jeremy Burke <jburke@baystlouis-ms.gov>

Jeremy,

I would like to submit/email my objection to this 15' setback variance, I think the 25' should be upheld. Upon conversing with a neighbor down the street, we feel that this could cause congestion value their input on this matter greatly.

Best,

Burden Edmonds
Beau Box Commercial Real Estate
Baton Rouge New Orleans Lafayette
225-931-9222 (cell)
504-525-4132 (direct)
504-525-1410 (office)
bedmonds@beaubox.com
www.beaubox.com

Beau Box Commercial Real Estate
Broker of Record, Beau J. Box
Licensed by the Louisiana Real Estate Commission,
The Mississippi Real Estate Commission, & The Alabama Real Estate Commission



CONFIDENTIALITY MESSAGE

Privileged:

This e-mail contains PRIVILEGED and CONFIDENTIAL information intended only for the use of the specific individual or entity named above. If you or your employer is not the intended recipient of this e-mail or an employee strictly prohibited. If you have received this transmission in error, please immediately delete the message.

From: Bing Stewart <Bing@commercetitle.com>
Sent: Thursday, August 7, 2025 9:16 AM
To: Burden Edmonds <bedmonds@beaubox.com>
Subject: FW: FW: 230 Leonhard Variance Help

See my wife's comments below. She is an architect.

NOTICE: PLEASE BE WARY OF FRAUDULENT WIRE INSTRUCTIONS

Email hacking and fraud to misdirect funds in real estate transactions are on the rise. To verify any wire instructions, please call and speak with a known, trusted and verified contact. Do not wire money based solely upon email instructions.

From: Cynthia Stewart <cinge58@gmail.com>
Sent: Wednesday, August 6, 2025 10:32 PM
To: Bing Stewart <Bing@commercetitle.com>
Subject: Re: FW: 230 Leonhard Variance Help

This should absolutely be fought! The house is 15' from property line, so it will always look like theirs a bunch of cars parked on the street. Even worse, the stairs come out into that 15'!

Cindy Stewart

On Wed, Aug 6, 2025 at 3:58 PM Bing Stewart <Bing@commercetitle.com> wrote:

FYI

Bing Stewart
ATTORNEY



COMMERCE
CLOSE WITH

DIRECT (225) 308-9477 | OFFICE (225) 769-8800
FAX (225) 769-6663 | Bing@commercetitle.com

NOTICE: PLEASE BE WARY OF FRAUDULENT WIRE INSTRUCTIONS

Email hacking and fraud to misdirect funds in real estate transactions are on the rise. To verify any wire instructions, please call and speak with a known, trusted and verified contact. Do not wire money based solely upon email instructions.

From: Burden Edmonds <bedmonds@beaubox.com>
Sent: Wednesday, August 6, 2025 3:34 PM
To: Bing Stewart <Bing@commercetitle.com>
Subject: 230 Leonhard Variance Help

Bing,

I wanted to get your thoughts with this. My neighbor to the right is planning on building and we just received notice of a variance that she wants to only have a 15' street setback untouched. Do you have any opinion on this? I don't want to be a bad neighbor and cause a scene but at the same time a 15' driveway would only allow 2 cars and I don't 20' setback. Thanks in advance for your thoughts with this.

Best,

Burden Edmonds

Beau Box Real Estate
225-931-9222

--
Jeremy Burke
Zoning Administrator/Historic Preservation Commission Coordinator/Community Affairs
City of Bay St Louis
228-466-5516

TO: Planning and Zoning Commission
City of Bay St. Louis

RE: 707 Dunbar Avenue
Parcel: 149D-3-29-003.000
Legal Description: 277C, 1st Ward, Bay St. Louis

HEARING DATE: August 13, 2025

I have reviewed the application for Special Exception submitted by EMO Square LLC. The property is located at 707 Dunbar Avenue and is zoned **C-3 Highway Commercial**.

Boat and warehouse storage are permitted uses by special exception in the C-3 Highway Commercial zoning district. The applicant is requesting the following:

- A special exception to allow boat storage and warehouse storage on the parcel.

The administration recommends denying the special exception request.

- EMO Square LLC previously applied for a variance and site plan approval for a similar project in 2023. However, no building permit was obtained within the specified time frame. As a result, both the site plan and variance approvals have lapsed.
- In April 2023, the Bay St. Louis Zoning Ordinance was amended, changing the status of mini storage/warehouse developments in the C-3 Highway Commercial District from a permitted use to a use allowed by special exception.
- If this applicant gets approved, the project will still need to go through the site plan approval process.
- The administration would like to see retail space on the site

If I can be of any further assistance in this matter, please feel free to contact my office at (228) 466-5516

APPLICATION FOR SPECIAL EXCEPTION TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: EMO Square, LLC

ADDRESS: 707 Dunbar Ave

Bay St Louis, MS

PHONE: (504) 616-5700

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

Same

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

277C 1st Ward, Bay St. Louis

2. Parcel number(s) as described in the Hancock County tax rolls:

149D-3-29-003.000

3. Present Zoning: C-3

4. Present use of building/property: Vacant

5. Application fee of \$²⁵⁰~~100~~ (Residential): _____

Application fee of \$²⁵⁰~~200~~ (Commercial): \$250⁰⁰

Please submit the following documentation with your application:

Article XIII
1303 APPEALS, HEARING AND NOTICE

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

1305.2 SPECIAL EXCEPTIONS

A special exception shall not be recommended unless:

1. The special exception shall be oriented and landscaped to produce a harmonious relationship of buildings and grounds to adjacent buildings and properties.
2. The special exception shall produce a total visual impression and environment which is consistent with the environment of the neighborhood.
3. The proposed use will not be detrimental to the use or development of adjacent properties or other neighborhood uses.
4. The proposed use will not be affected adversely by the existing uses.
5. The proposed use will be placed on a lot of sufficient size to satisfy the space requirements of said use.
6. The proposed use will not constitute a nuisance or hazard because of the number of persons who will attend or use such facility, vehicular movement, noise, or fume generation or type of physical activity.
7. Utilities and fire protection services with reference to the location and the use shall be available and adequate.

1. The use for which a Special Exception is sought _____

Open Air RV/Boat Storage + Closed Warehouse Storage

2. Grounds upon which it is claimed that the Special Exception shall be granted:

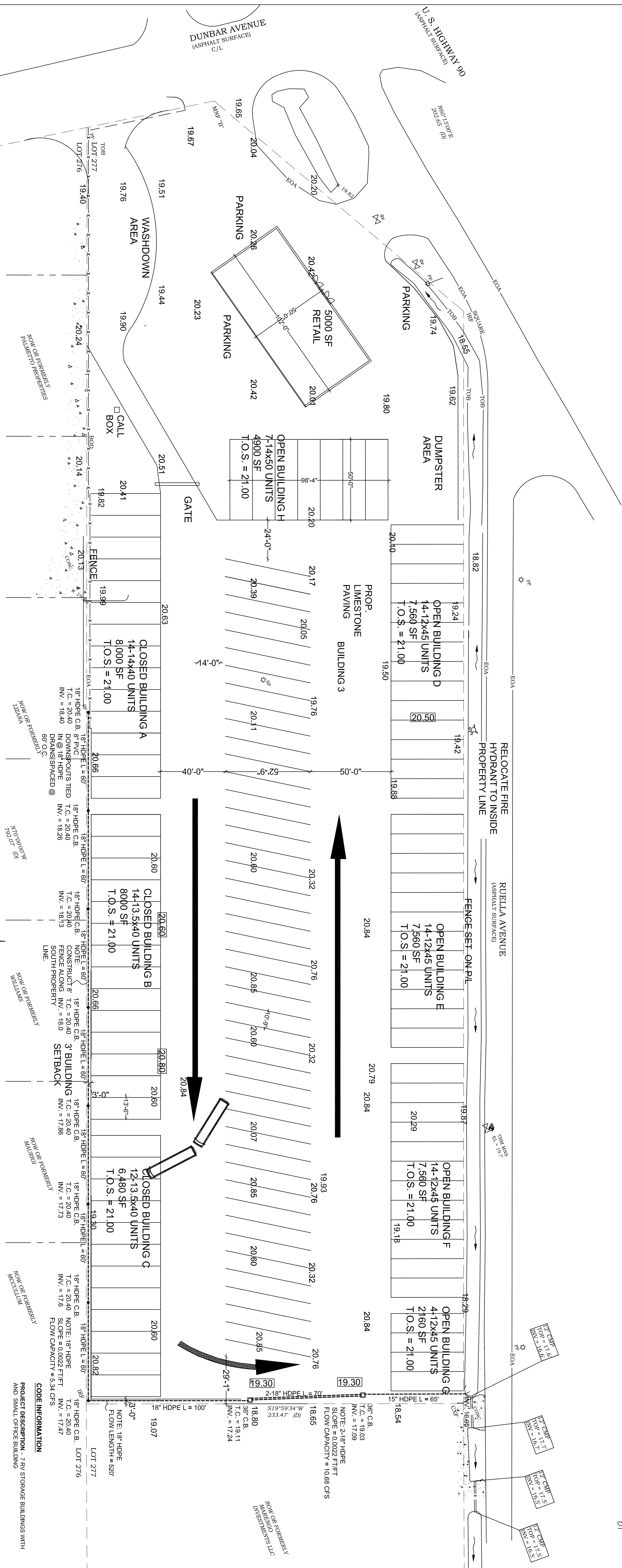
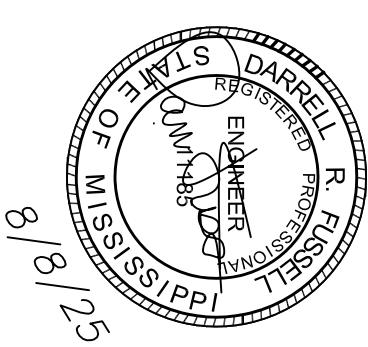
Previously Approved + new neighbor in re: storage

3. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

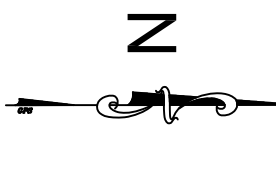
5. Size of building to be erected, and the location of the building upon the lot.

6. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

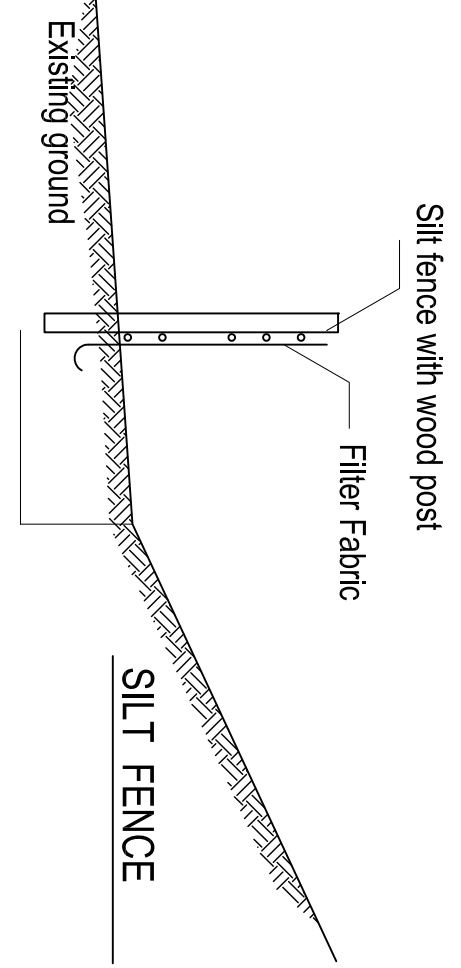
7. Is the property in question in a sub-division? No



SITE PLAN
SCALE: 1" = 30'-0"



- NOTES:**
1. Filter to be buried Approximately 6 inches into the ground.
 2. Fabric to be installed per manufacturer recommendations.
 3. Construct silt fence around perimeter of site. Maintain until work is complete and grass is established



- OUTDOORS LIGHTING NOTES**
1. LIGHTING SHALL BE 28 WATT LED FIXTURES MOUNTED ON THE BUILDING 13' ABOVE GRADE.
 2. THE LIGHTING SHALL PROVIDE TOTAL FOOTCANDLES MEASURED AT THREE FEET ABOVE GROUND LEVEL NOT EXCEED TWO FOOTCANDLES AT THE PROPERTY LINE.

- Mipulse Brand Surface Mount Fixture MP-SM28UT4-40B, or equal (5 TOTAL) mounted @ 13' above grade on photocell control

LEGEND

30.05	EXISTING GRADE
81.00	REQUIRED GRADE
- - -	DIRECTION OF FLOW
- - -	DRAIN PIPE
- - -	EXISTING CONCRETE

1. 3" 610 LIMESTONE OR CRUSHED CONCRETE
 2. EXISTING GRANULAR BASE (CONFIRMED BY OWNER) PARKING LOT SECTION
- NOT TO SCALE

- SITE NOTES**
1. PROVIDE ACCESSIBLE PARKING SPACE AS 21788.50 SHALL COMPLY WITH REQUIREMENTS OF THIS SECTION REGARDING CHANGES IN LEVEL, NOT MORE THAN 2" HEIGHT
 2. PROVIDE LEVEL LANDINGS OUTSIDE EXTERIOR DOORS THAT ARE WITHIN 2' OF THE INTERIOR FINISH FLOOR ELEVATION OF THE EXTERIOR DOOR. DESIGNER SHALL DESIGN AND EGRESS IN ACCORDANCE WITH NFPA 1017.2 AND IBC 1006, INCLUDING EXIT DISCHARGE (EXTENSION).

- DESIGN CRITERIA**
- 2018 INTERNATIONAL BUILDING CODE
 - 2018 INTERNATIONAL MECHANICAL CODE
 - 2021 INTERNATIONAL PLUMBING CODE
 - 2020 NATIONAL ELECTRICAL CODE
 - Wind loading - 2021 IBC, 157 MPH Vail, 121 W/m
 - Enclosed Building Exposure B (1609.4) Category II (1604.5) Wind Importance Factor = 1.0
 - Internal Pressure Coefficient = +1, -18
 - Building frame and system designed based on loads from ASCE 7-16
 - Floor dead load = 10 psf
 - Roof live loads = 20 psf
 - Design Load Bearing of Soils = 1500 PSF

PROJECT DESCRIPTION: 7-RV STORAGE BUILDINGS WITH AND SMALL OFFICE BUILDING

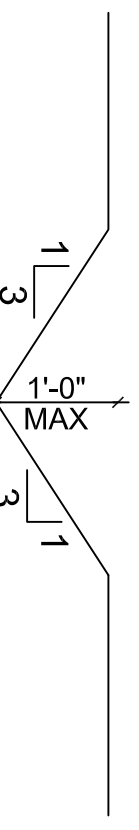
CODE INFORMATION

TYPE OF CONSTRUCTION: IIB UNPROTECTED, NO SPRINKLER SYSTEM

FIRE RESISTANCE RATING:

STRUCTURAL FRAME	0 HOURS
ROOF CONSTRUCTION	0 HOURS
EXTENSION WALLS	0 HOURS

SWALE SECTION
NOT TO SCALE



Issue	Description	Date
A	For review and comment	8-08-25

**STORAGE FACILITY
DUNBAR AVE.
BAY ST. LOUIS, MS.**

DARRELL FUSSELL, P.E.
CIVIL AND STRUCTURAL
ENGINEERING

PO BOX 881
Madisonville, LA 70447
Phone: 985-237-3908

C1

TO: Planning and Zoning Commission
City of Bay St. Louis

RE: 3300 Block of Longfellow Drive
Parcel: 138G-0-46-163.000
Legal Description: PT GUIDON TOULME CL 46-8-14

HEARING DATE: August 13, 2025

I have reviewed the application for Special Exception submitted by Ryan Fitzsimmons. The property is located on the 3300 block of Longfellow Drive and is zoned C-3 Highway Commercial.

Boat storage is a permitted use by special exception in the C-3 Highway Commercial district. The applicant is requesting the following:

- A special exception to construct a boat storage facility in C-3 Highway Commercial district

The administration recommends denying the special exception request.

- In April 2023, the Bay St. Louis Zoning Ordinance was amended, changing the status of mini storage and warehouse-type developments in the C-3 Highway Commercial District from a permitted use to a use allowed only by special exception.
- If this special exception is approved, the proposed development will still be required to site plan review

If I can be of any further assistance in this matter, please feel free to contact my office at (228) 466-5516.

Sincerely,
Jeremy L. Burke
Zoning Administrator

APPLICATION FOR SPECIAL EXCEPTION TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: <u>CURRENT: BOBINGER REALTY GROUP</u>	POTENTIAL: <u>RYAN FITZSIMMONS</u>
ADDRESS: <u>18183 Hwy 26 W, LUGDALE MS 39452</u>	<u>10048 Bayou View Dr E, BSL, 3952</u>

PHONE: _____ 504-957-7793

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

GARDEN TOULME CLAIM TOWNSHIP & SOUTH - RANGE 14 WEST

2. Parcel number(s) as described in the Hancock County tax rolls:

138G-0-46-163.000

3. Present Zoning: C-3

4. Present use of building/property: VACANT LAND

5. Application fee of ~~\$200~~²⁵⁰ (Residential): # 00543351

Application fee of ~~\$200~~²⁵⁰ (Commercial): \$250

Please submit the following documentation with your application:

Article XIII
1303 APPEALS, HEARING AND NOTICE

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

1305.2 SPECIAL EXCEPTIONS

A special exception shall not be recommended unless:

1. The special exception shall be oriented and landscaped to produce a harmonious relationship of buildings and grounds to adjacent buildings and properties.
2. The special exception shall produce a total visual impression and environment which is consistent with the environment of the neighborhood.
3. The proposed use will not be detrimental to the use or development of adjacent properties or other neighborhood uses.
4. The proposed use will not be affected adversely by the existing uses.
5. The proposed use will be placed on a lot of sufficient size to satisfy the space requirements of said use.
6. The proposed use will not constitute a nuisance or hazard because of the number of persons who will attend or use such facility, vehicular movement, noise, or fume generation or type of physical activity.
7. Utilities and fire protection services with reference to the location and the use shall be available and adequate.

1. The use for which a Special Exception is sought _____
OPEN AIR BOAT STORAGE

2. Grounds upon which it is claimed that the Special Exception shall be granted:

3. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

5. Size of building to be erected, and the location of the building upon the lot.

6. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

7. Is the property in question in a sub-division? NO

8. If the property in question is within a sub-division, is there an existing covenant running with the land? N/A

9. If the answer to question 8 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County. Book Number _____ Page Number _____

It is warranted in good faith by the owner whose name is signed hereto that all of the above facts are true and correct.



Applicant's Signature

 6/10/25
Date

FOR OFFICE USE ONLY

Date of Application received: _____

Dear Members of the Hancock County Planning and Zoning Board,

I hope this letter finds you well. I am writing to formally request a Special Exception to the zoning ordinance for a proposed open-air boat and RV storage facility on a 3.22-acre lot located at 3250 Longfellow Road in Bay St. Louis, MS, which is currently zoned C3.

Our vision for this facility includes a sturdy 12-gauge metal structure, designed to withstand local weather conditions, complete with a 20-year rust warranty. The structure will be securely set in footings that meet the required wind resistance standards. Each covered storage area will rest on a concrete slab, ensuring durability and ease of access.

In addition to the covered storage, our plan includes a significant area for open storage without a canopy, allowing for flexibility in accommodating various sizes of boats and RVs. We also intend to provide a small area for ice and vending services to enhance the convenience for our customers. The yard and driveways will be constructed with crushed stone to promote permeability, aligning with best practices for environmental sustainability.

We believe that this facility will not only meet the growing demand for boat and RV storage in our community but also contribute to the local economy by providing a valuable service to residents and visitors alike.

We appreciate your consideration of our request for a Special Exception and are eager to discuss this project further. Please feel free to contact me at 504-957-7793 or Ryan@fitzconstruct.com to arrange a meeting or to seek any additional information.

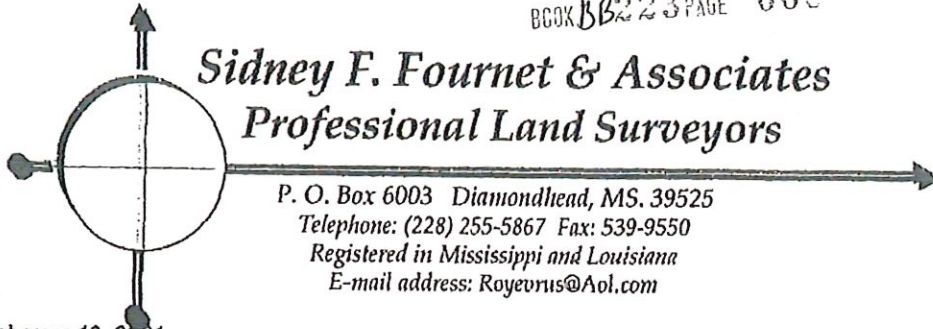
Thank you for your time and attention to this matter. We look forward to your positive response.

Sincerely,



Ryan Fitzsimmons

BOOK BB223 PAGE 660



February 19, 2001

***DEED DESCRIPTION (Attachment to Survey No. 01-6411)**

All that certain parcel of land situated in the **Gadon Toulme Claim**, Township 8 South, Range 14 West, County of Hancock, State of Mississippi, being more particularly described as follows:

COMMENCING at the intersection of the northerly right-of-way of Longfellow Road with the westerly right-of-way of Chapman Road; thence along said northerly right-of-way, North 89 degrees 29 minutes 55 seconds West (Astronomic) 200.00 feet to a found 1/2" rebar and the **POINT OF BEGINNING**; thence continuing along said right-of-way, North 89 degrees 29 minutes 55 seconds West 330.40 feet to the northerly right-of-way of Mississippi Highway No. 603; thence along said right-of-way, North 67 degrees 24 minutes 51 seconds West 211.77 feet to the center of Bayou Choctaw; thence along said center the following 4 courses:

- 1) North 47 degrees 54 minutes East 113.77 feet;
- 2) North 39 degrees 33 minutes East 66.00 feet;
- 3) North 01 degree 37 minutes West 94.00 feet;
- 4) North 18 degrees 12 minutes East 16.78 feet;

thence North 89 degrees 55 minutes 31 seconds East 411.57 feet to a found 1/2" rebar; thence along a fence, South 02 degrees 36 minutes 40 seconds West 322.16 feet to the **POINT OF BEGINNING**.

Containing 3.22 acres, more or less.

[Handwritten Signature]
 Sidney Fournet, Jr., P.L.S. No. 2571



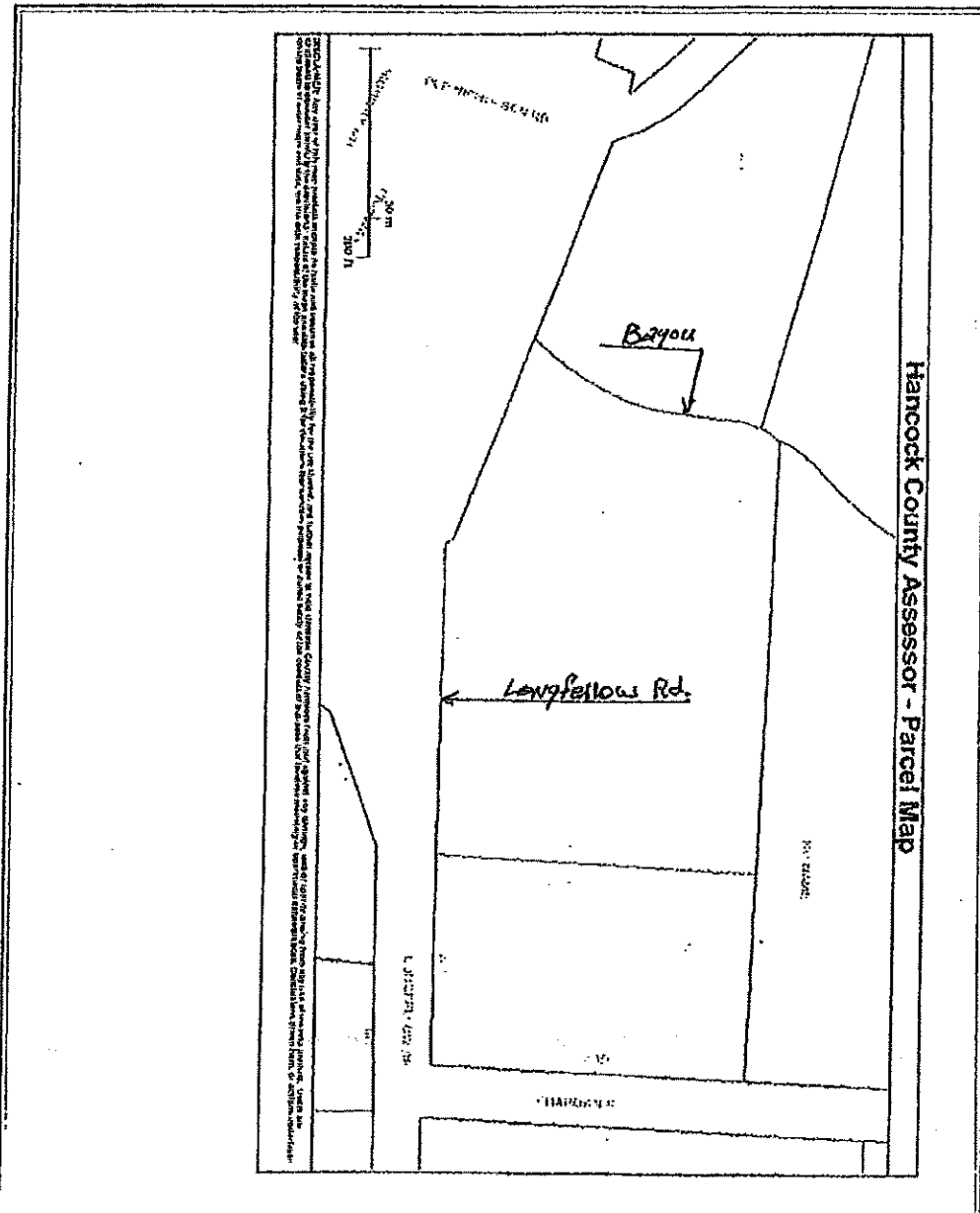
*This description and attached survey are subject to any rights, claims, reservations or encumbrances that an accurate title report may find.

01-6411dd

WILLIAM J BECKHAM
PLAT MAP

File No. BOBINGER
Case No.

Borrower	BUDDY BOBINGER				
Property Address	N/S LONGFELLOW RD				
City	BAY ST LOUIS	County	HANCOCK	State	MS
Zip Code					
Lender/Client	BUDDY BOBINGER		Address 893 WINTER ST. LUCEDALE, MS 39452		



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

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires March 31, 2012

Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION		For Insurance Company Use:
A1. Building Owner's Name	Boblinger	Policy Number
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	3250 Longfellow Road	Company NAIC Number
City Bay St. Louis State MS ZIP Code 39520		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) 1393-0-46-163.000 Section 40-6-14		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Residential</u>		
A5. Latitude/Longitude: Lat. <u>30-18-44</u> Long. <u>-89-23-03</u>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <u>g</u>		
A8. For a building with a crawlspace or enclosure(s):		
a) Square footage of crawlspace or enclosure(s)	<u>NA</u> sq ft	A9. For a building with an attached garage:
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade	<u>NA</u>	a) Square footage of attached garage
c) Total net area of flood openings in A8.b	<u>NA</u> sq in	b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		c) Total net area of flood openings in A9.b
		d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number	Hancock 285264		B2. County Name	Hancock	
B3. State	MS				
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AE, use base flood depth)
28045C-0342	D	10/16/2009	10/16/2009	AE	18'
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in item B9. <input type="checkbox"/> FIS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other (Describe) _____					
B11. Indicate elevation datum used for BFE in item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other (Describe) _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Data _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)	
C1. Building elevations are based on: <input checked="" type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input type="checkbox"/> Finished Construction *A new Elevation Certificate will be required when construction of the building is complete.	
C2. Elevations -- Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete items C2.a-h below according to the building diagram specified in item A7. Use the same datum as the BFE. Benchmark Utilized <u>E-190 Vertical Datum NAVD 1988</u> Conversion/Comments <u>NA</u>	
Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	<u>10.0</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
b) Top of the next higher floor	<u>NA</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
c) Bottom of the lowest horizontal structural member (V Zones only)	<u>NA</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
d) Attached garage (top of slab)	<u>NA</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	<u>10.0</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
f) Lowest adjacent (finished) grade next to building (LAG)	<u>9.0</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
g) Highest adjacent (finished) grade next to building (HAG)	<u>9.1</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	<u>9.0</u> <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only)

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION	
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by 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.	
<input checked="" type="checkbox"/> Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Certifier's Name	Sidney F. Fournel, Jr. License Number PS-2671
Title	Owner Company Name Sidney F. Fournel, Jr.
Address	94171 Bayou Drive City Diamondhead State MS ZIP Code 39525
Signature	Date 10/01/2010 Telephone (220) 265-5867

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

DS

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
A1. Building Owner's Name Bayside Landscaping		Policy Number:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Longfellow Road		Company NAIC Number:
City Bay St. Louis	State Mississippi	ZIP Code 39520
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax # 138G-0-46-163.000		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Non-Residential</u>		
A5. Latitude/Longitude: Lat. <u>30°18'43.9"</u> Long. <u>089°23'02.1"</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983		
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <u>5</u>		
A8. For a building with a crawlspace or enclosure(s):		
a) Square footage of crawlspace or enclosure(s) <u>N/A</u> sq ft		
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade <u>N/A</u>		
c) Total net area of flood openings in A8.b <u>N/A</u> sq in		
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
A9. For a building with an attached garage:		
a) Square footage of attached garage <u>N/A</u> sq ft		
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade <u>N/A</u>		
c) Total net area of flood openings in A9.b <u>N/A</u> sq in		
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number City of Bay St Louis 285251		B2. County Name Hancock		B3. State Mississippi	
B4. Map/Panel Number 28045C0342	B5. Suffix D	B6. FIRM Index Date 09-27-2019	B7. FIRM Panel Effective/ Revised Date 10-16-2009	B8. Flood Zone(s) AE	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 18

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:

 FIS Profile FIRM Community Determined Other/Source: _____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 NoDesignation Date: _____ CBRS OPA

ELEVATION CERTIFICATE

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Longfellow Road			Policy Number:
City Bay St. Louis	State Mississippi	ZIP Code 39520	Company NAIC Number

**SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED)
FOR ZONE AO AND ZONE A (WITHOUT BFE)**

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (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 (elevation C2.b in the diagrams) 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 REPRESENTATIVE) CERTIFICATION

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

Property Owner or Owner's Authorized Representative's Name _____

Address _____	City _____	State _____	ZIP Code _____
Signature _____	Date _____	Telephone _____	

Comments _____

Check here if attachments.

BUILDING PHOTOGRAPHS

ELEVATION CERTIFICATE

See Instructions for Item A6.

OMB No. 1660-0008

Expiration Date: November 30, 2022

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Longfellow Road			Policy Number:
City Bay St. Louis	State Mississippi	ZIP Code 39520	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.



Photo One

Photo One Caption Pre-construction photo

Clear Photo One

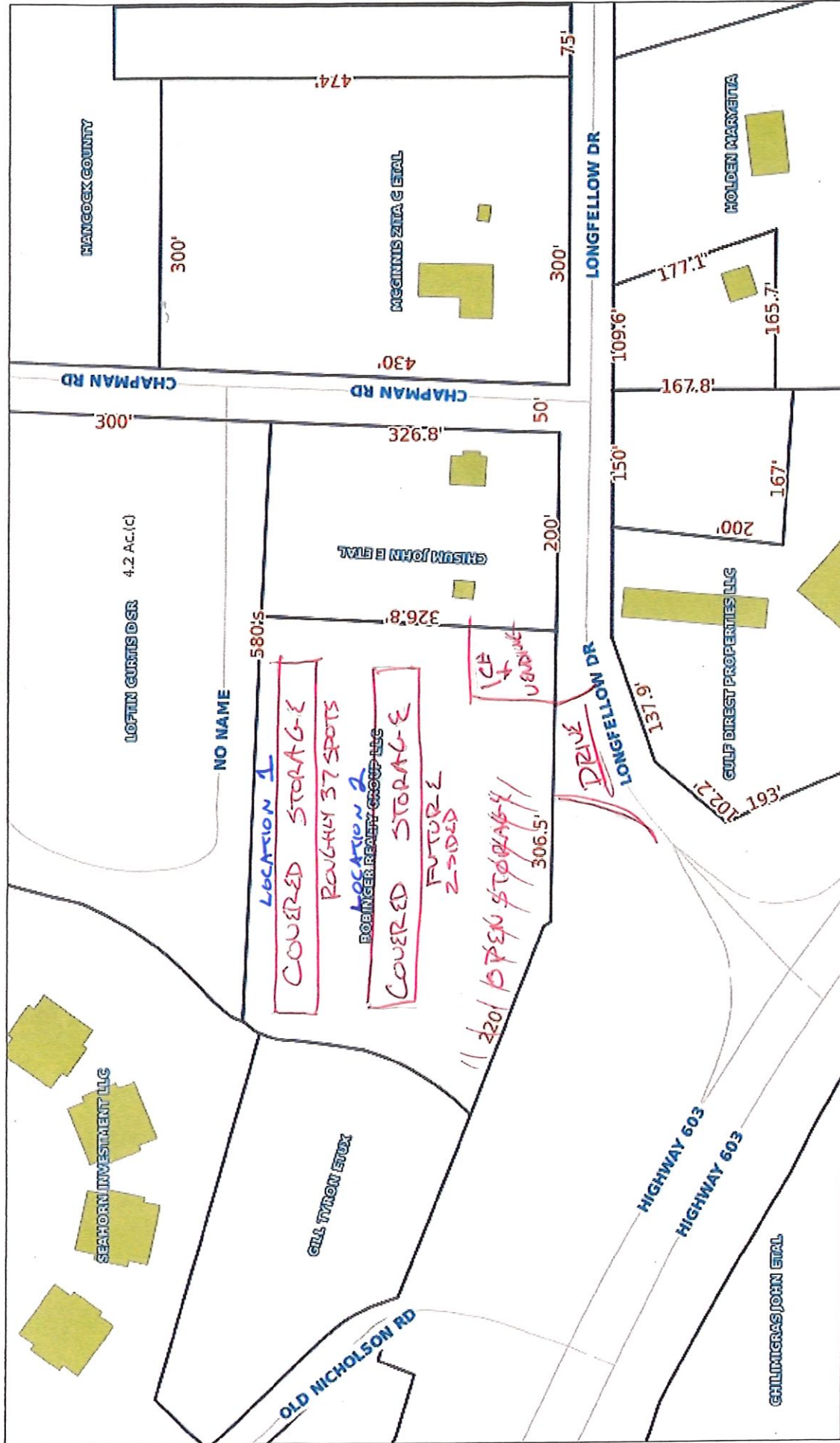
Photo Two

Photo Two

Photo Two Caption

Clear Photo Two

Geoportal Map



Item # 5.

LOCATION 1



Location 2



TO: Planning and Zoning Commission
City of Bay St. Louis

RE: 131 Keller Street
Parcel 149L-0-30-200.000
Lot 60B, 3rd Ward, Bay St. Louis

HEARING DATE: August 13, 2025

I have reviewed the application for Special Exception submitted by Michael and Kathy Jennings. The property is located at 131 Keller Street. It lies in an R-1 Single Family Residential District, where accessory dwellings are only allowed by special exception on parcels exceeding 15,000 square feet.

The applicant is requesting the following:

- A special exception to allow an accessory dwelling on the parcel.

The administration's recommendation is to approve the special exception.

- The applicants are going to convert the existing garage to an accessory dwelling
- The property meets the minimum lot size requirement of over 15,000 square feet
- Adequate space exists to accommodate parking for the accessory dwelling

Jeremy L Burke
Zoning Administrator

APPLICATION FOR SPECIAL EXCEPTION TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: MICHAEL & KATHY JENNINGS
ADDRESS: 318 W. FARREL ROAD
LAFAYETTE, LA 70508
PHONE: 337-412-1225

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE
131 KELLER STREET, BAY ST. LOUIS, MS 39520

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

2. Parcel number(s) as described in the Hancock County tax rolls:
149 L-0-30-200.000

3. Present Zoning: R1

4. Present use of building/property: SINGLE FAMILY RESIDENTIAL

5. Application fee of ~~\$100~~²⁵⁰ (Residential): \$250^w

Application fee of ~~\$200~~²⁵⁰ (Commercial):

Please submit the following documentation with your application:

**Article XIII
1303 APPEALS, HEARING AND NOTICE**

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

1305.2 SPECIAL EXCEPTIONS

A special exception shall not be recommended unless:

1. The special exception shall be oriented and landscaped to produce a harmonious relationship of buildings and grounds to adjacent buildings and properties.
2. The special exception shall produce a total visual impression and environment which is consistent with the environment of the neighborhood.
3. The proposed use will not be detrimental to the use or development of adjacent properties or other neighborhood uses.
4. The proposed use will not be affected adversely by the existing uses.
5. The proposed use will be placed on a lot of sufficient size to satisfy the space requirements of said use.
6. The proposed use will not constitute a nuisance or hazard because of the number of persons who will attend or use such facility, vehicular movement, noise, or fume generation or type of physical activity.
7. Utilities and fire protection services with reference to the location and the use shall be available and adequate.

1. The use for which a Special Exception is sought Construct accessory dwelling on parcel over 15,000 sq ft in R-1 district

2. Grounds upon which it is claimed that the Special Exception shall be granted:

3. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

5. Size of building to be erected, and the location of the building upon the lot.

6. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

7. Is the property in question in a sub-division? _____

8. If the property in question is within a sub-division, is there an existing covenant running with the land? _____

9. If the answer to question 8 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County. Book Number _____ Page Number _____

It is warranted in good faith by the owner whose name is signed hereto that all of the above facts are true and correct.


Applicant's Signature

6/23/2025
Date

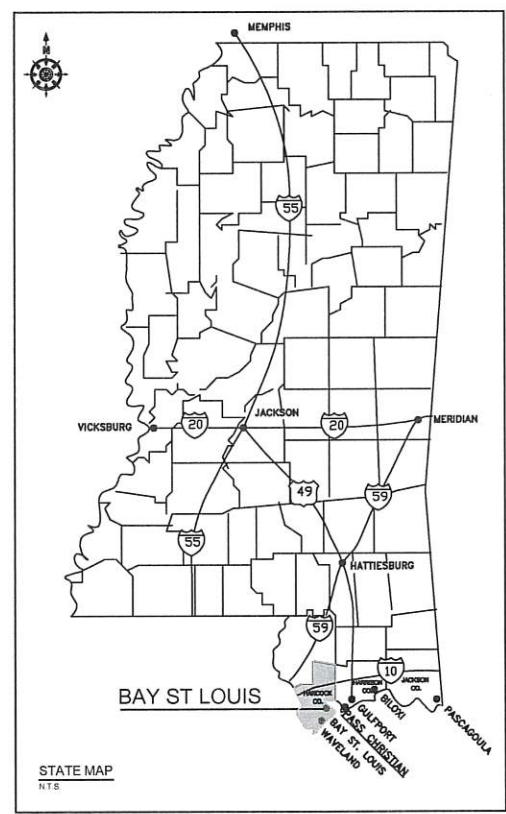
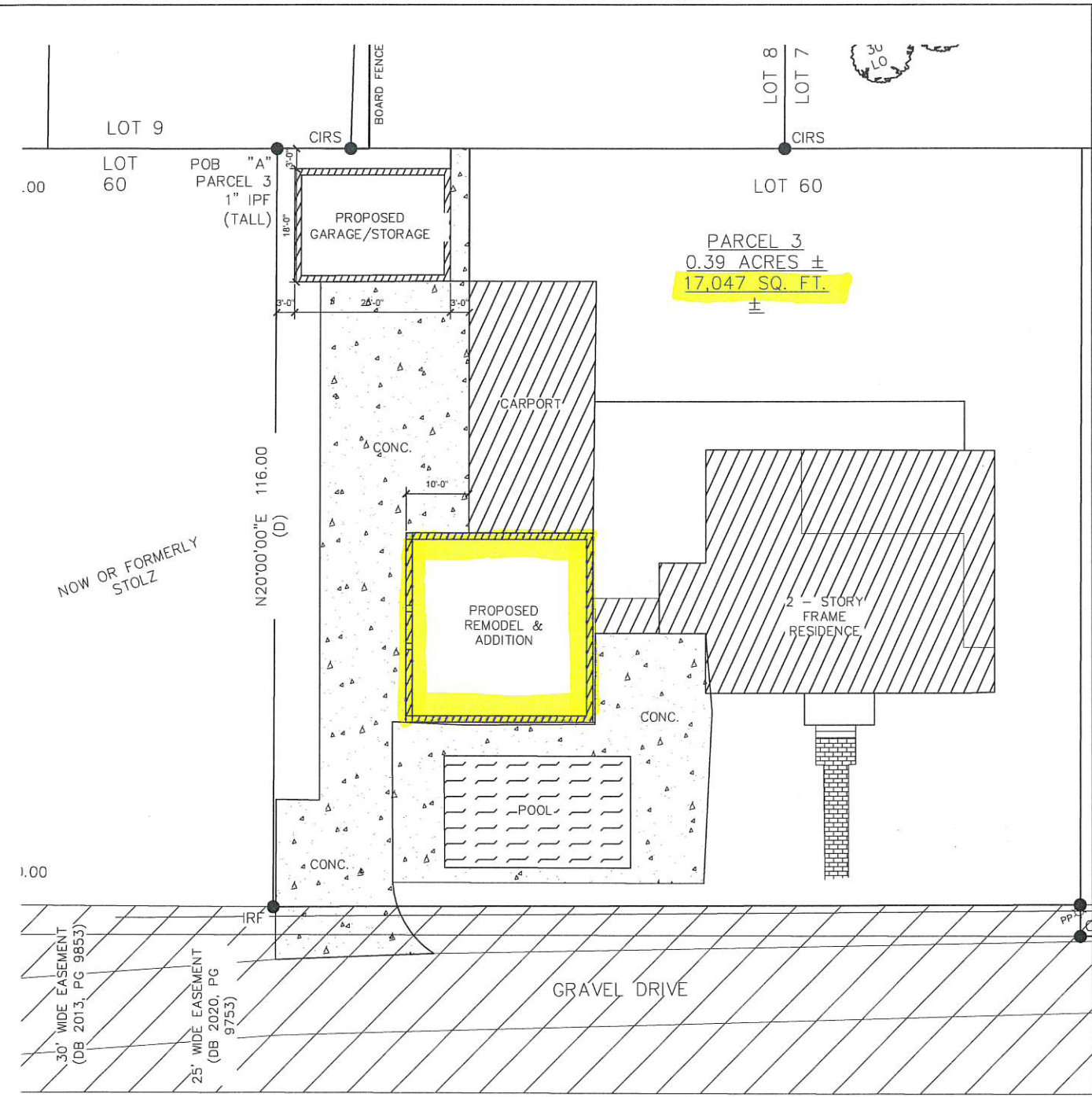
FOR OFFICE USE ONLY

Date of Application received: _____



PROPOSED NEW CONSTRUCTION FOR KATHY & MICHAEL JENNINGS RESIDENCE

131 KELLER ST.
BAY ST. LOUIS, MISSISSIPPI



INDEX

ARCHITECTURAL and CIVIL

- A0.1 COVER SHEET
- S1.1 FOUNDATION PLAN, NOTES AND DETAILS
- A1.1 GROUND FLOOR PLAN
- A1.2 SECOND FLOOR PLAN
- A1.3 ROOF PLAN
- A1.4 SCHEDULE & NOTES
- A2.1 EXTERIOR ELEVATIONS
- A2.2 EXTERIOR ELEVATIONS
- A5.1 SECTIONS @ STORAGE
- A5.2 SECTION @ POOL HOUSE

ELECTRICAL

- E-101 FLOOR PLAN ELECTRICAL

ARCHITECT
EDWARD H. WIKOFF, ARCHITECT, AIA PC
144 MAIN STREET
BAY ST. LOUIS, MISSISSIPPI 39520

A NEW BUILDING FOR:
JENNINGS RESIDENCE
 131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW

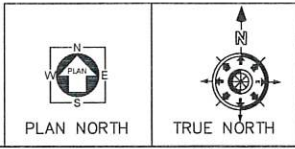
ALL DESIGN, DIMENSION, ARRANGEMENTS, DETAILS, AND SPECIFICATIONS ARE OWNED BY AND ARE THE PROPERTY OF EDWARD H. WIKOFF, AIA, P.C. AND SHALL BE KEPT IN CONFIDENCE AND NOT TO BE REPRODUCED, COPIED, OR DISCLOSED TO ANY PERSON, FIRM, OR CORPORATION FOR ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF EDWARD H. WIKOFF, AIA, P.C. THE CONTRACTOR SHALL REMAIN THE PROPERTY OF EDWARD H. WIKOFF, AIA, P.C. IN THE EVENT OF ANY DISCREPANCY OR CONFLICT BETWEEN THESE DRAWINGS AND ANY OTHER DOCUMENTS, THESE DRAWINGS SHALL PREVAIL.

SHEET TITLE
COVER SHEET

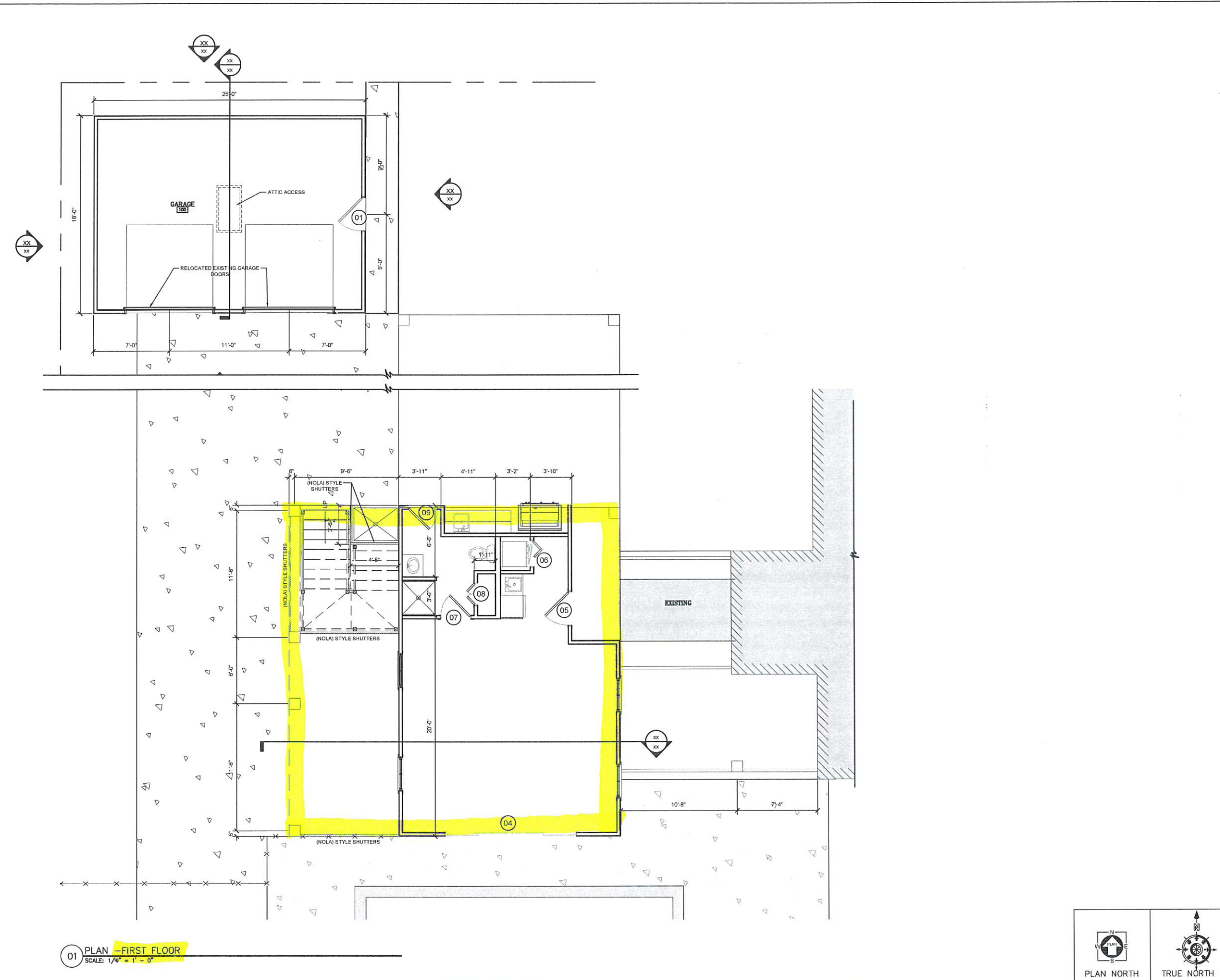
SHEET NO.
A0.1

- GENERAL NOTES:**
- ANY PART OR ITEM OF WORK WHICH IS REASONABLY IMPLIED OR NORMALLY REQUIRED TO MAKE EACH INSTALLATION SATISFACTORILY OPERABLE SHALL BE PERFORMED BY THE CONTRACTOR AND THE EXPENSE THEREOF SHALL BE INCLUDED IN THE APPLICABLE UNIT PRICES OR LUMP SUM PRICES BID FOR THE WORK. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE THE OWNER WITH COMPLETE OPERABLE SYSTEMS, SUBSYSTEMS, AND OTHER ITEMS OF WORK. ALL MISCELLANEOUS APPURTENANCES SHALL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE APPLICABLE UNIT PRICES OR LUMP SUM PRICES BID FOR THE WORK EVEN THOUGH THESE APPURTENANCES AND ITEMS MAY NOT BE SPECIFICALLY CALLED FOR IN THE SPECIFICATIONS.
 - THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO DEFINE THE GENERAL DESIGN AND SCOPE OF THE WORK REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS WHICH ARE NORMALLY INCIDENTAL TO THE WORK. THOSE COMPONENTS WHICH ARE NOT SHOWN ON THE DRAWING OR SPECIFIED BUT WHICH ARE REQUIRED AS AN ESSENTIAL AESTHETIC, FUNCTIONAL OR CODE REQUIRED ELEMENT OF THE WORK ARE TO BE INCLUDED.
 - TO ESTABLISH THE COMPLETE SCOPE OF ITS WORK AND TO EFFECT CLOSE COORDINATION WITH THE OTHER TRADES, EACH TRADE SHALL COMPLETELY REVIEW THE PLANS AND SPECIFICATIONS, NOT ONLY FOR ITS RESPECTIVE TRADE, BUT FOR THE WORK OF THE OTHER RELATED TRADES AS WELL. TITLES OF DIVISIONS (AND SECTIONS IN SPECIFICATIONS) IDENTIFYING WORK ARE PROVIDED FOR ORGANIZATIONAL AND REFERENCE PURPOSES AND SHALL NOT BE TAKEN AS AN ABSOLUTE SEPARATION OF THE TRADES OR OF THE UNITS OF MATERIAL AND LABOR.
 - THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS OR GUIDELINES FROM GOVERNING REGULATORY AGENCIES BEFORE PROCEEDING WITH ANY ITEMS OF WORK UNDER OR WITHIN SUCH JURISDICTION(S).
 - ALL DIMENSIONS AND TIE-INS GOVERNED BY EXISTING CONDITIONS ARE APPROXIMATE AND ARE NOT GUARANTEED TO BE CORRECT. ALL SUCH DIMENSIONS AND CONDITIONS SHALL BE FIELD VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO PROCEEDING WITH ANY WORK. IF CONDITIONS AND DIMENSIONS VARY FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT BEFORE PROCEEDING WITH WORK WHERE DIMENSIONS ARE NOT SHOWN WITH +/- INDICATIONS ADJUSTMENTS MAY BE MADE TO SUIT FIELD CONDITIONS.
 - THE CONTRACTOR SHALL VERIFY CONDITIONS, SERVICES, DIMENSIONS, AND ELEVATIONS OF SITE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 - THE CONTRACTOR SHALL SUBCONTRACT WITH SUPPLIERS AND FABRICATION AND INSTALLATION COMPANIES WHICH CAN DEMONSTRATE THAT THEY POSSESS THE KNOWLEDGE, EXPERIENCE, AND PROVEN CAPABILITIES TO FULLY PERFORM ALL ASPECTS OF THE WORK REQUIRED WITHOUT OMISSION.

01 PLAN - SITE
SCALE: 3/32" = 1' - 0"



DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD



01 PLAN - FIRST FLOOR
SCALE: 1/4" = 1' - 0"

DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD

GENERAL NOTES

- NOTES:**
- ALL EXTERIOR DOORS ARE TO BE WEATHERSTRIPPED.
 - CONTRACTOR TO VERIFY EXTERIOR DOORS AND WINDOWS HEAD HEIGHT W/ MANUFACTURER.
 - 2x4 STUD W/ 1/2" GYP. BOARD (INTERIOR WALL) UNLESS NOTED OTHERWISE.
 - INSTALL 2x BLOCKING FOR THE WALL CABINETS, TOWEL BARS, TOWEL RINGS, TOILET TISSUE HOLDERS, STAIR HANDRAILS AND DEADWOOD.
- PAINTING:**
- ALL SURFACES SHALL BE CLEAN AND DRY BEFORE PAINTING. PAINT MATERIAL SHALL BE THE BEST MATERIAL AND DELIVERED TO THE JOB IN THEIR ORIGINAL CONTAINERS.
 - EXTERIOR PAINTING, WHERE REQUIRED, SHALL BE ONE COAT OF PRIMER, AND SECOND COAT SHALL BE EXTERIOR LATEX PAINT.
 - GYP. BOARD SURFACES TO BE LEVEL IV.
 - INTERIOR GYP. BOARD SHALL BE ONE COAT OF PRIMER AND SECOND COAT SHALL BE INTERIOR LATEX PAINT. AFTER ALL JOINTS HAVE BEEN TAPED AND FLOATED.
 - INTERIOR TRIM, ONE COAT OF PRIMER AND ONE COAT OF ENAMEL FINISH.
 - EXTERIOR CAULKING SHALL BE TOP QUALITY SILICONE CAULK.
- PLUMBING NOTES:**
- PLUMBING FIXTURES SHALL BE INSTALLED AND CONNECTED TO SEWER LINES. PROVIDE WATER VALVES AND STOPS IN THE HOT & COLD WATER LINES TO ALL NEW PLUMBING FIXTURES.
 - ALL WATER PIPING SHALL BE PEX WATER LINES. NIPPLE CONNECTIONS AT FIXTURES SHALL BE COPPER.
 - ALL PLUMBING, WASTE AND VENT, SHALL BE ABS (VERIFY W/ OWNER) ABOVE GRADE.
- SAFETY:**
- BEDROOM WINDOWS COMPLY WITH THE FOLLOWING EMERGENCY EGRESS PROVISIONS OF CABO ARTICLE 310.2. EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM INSIDE TO FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES.
 - DRAWINGS BASED ON ANDERSEN MANUFACTURER WINDOW COMPANY. CONTRACTOR TO OBTAIN ROUGH OPENING SIZES FROM WINDOW MANUF.
 - SMOKE DETECTORS TO BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE CODES.
 - CARBON MONOXIDE DETECTORS TO BE INSTALLED IN ALL ROOMS WITH GAS-FIRED APPLIANCES.
- GLASS NOTES:**
- ALL GLASS IN EXTERIOR DOORS AND WINDOWS TO BE DOUBLE GLAZED IMPACT RESISTANT.
 - ALL EXTERIOR WINDOWS/OPENINGS SHALL BE PROVIDED WITH ONE OF THE FOLLOWING: OPERABLE SHUTTERS, ANCHORABLE MIN. 5/8" THICK PLYWOOD, INSTALLABLE CORRUGATED STEEL PANELS OR IMPACT RESISTANT GLASS. SEE SPEC BELOW.
 - IMPACT RESISTANT GLASS TO MEET ASTM E-1886 AND E-1996/WMDA HALLMARK PROGRAM.
- CODE COMPLIANCE:**
- ALL CONSTRUCTION TO MEET OR EXCEED ALL REQUIREMENTS OF:
 - THE 2015 INTERNATIONAL RESIDENTIAL CODE AND
 - HIGH WIND STANDARDS CHAPTER 3 SECTION R301.2.1.1. SOUTHERN BUILDING CODE CONGRESS AND
 - INTERNATIONAL CODE COUNCIL (ICC) STANDARD FOR RESIDENTIAL CONSTRUCTION IN HIGH WIND REGIONS (ICC600).
 - DESIGN WIND SPEED = 140 MPH.
- WALL ASSEMBLY:**
- 1-HR RATED WALL ASSEMBLY - U305.
2x4 @ 16" O.C. WITH ONE LAYER OF 5/8" FIRE RATED GWB EACH SIDE AND ONE LAYER OF 1/2" PLYWOOD-X SHEATHING ON THE GARAGE SIDE OF WALL. ALL GWB JOINTS (INCLUDING CEILING AND WALL CONNECTIONS) TO BE FIRE TAPED AND CAULKED.
- 1-HR RATED WALL ASSEMBLY - U305.
2x4 @ 16" O.C. WITH ONE LAYER OF 5/8" FIRE RATED GWB EACH SIDE. ALL GWB JOINTS (INCLUDING CEILING AND WALL CONNECTIONS) TO BE FIRE TAPED AND CAULKED. NOTE 2x6 PLUMBING WALL TO RECEIVE 5/8" MRGWB ON EXPOSED SIDE AND NO SHEATHING ON SIDE FACING 1-HR WALL.



Edward H. Wilk
ARCHITECT
14114 Mac Street, Bay St. Louis, Mississippi 39520
228-457-4236 FAX: 228-457-4237



A NEW BUILDING FOR:
JENNINGS RESIDENCE
131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW
SHEET TITLE	FIRST FLOOR PLAN
SHEET NO.	A1.1

GENERAL NOTES

NOTES:

1. ALL EXTERIOR DOORS ARE TO BE WEATHERSTRIPPED.
2. CONTRACTOR TO VERIFY EXTERIOR DOORS AND WINDOWS HEAD HEIGHT W/MANUFACTURER.
3. 2x4 STUD W 1/2" GYP. BOARD (INTERIOR WALL) UNLESS NOTED OTHERWISE.
4. INSTALL 2x BLOCKING FOR THE WALL CABINETS, TOWEL BARS, TOWEL RINGS, TOILET TISSUE HOLDERS, STAIR HANDRAILS AND DEADWOOD.

PAINTING:

1. ALL SURFACES SHALL BE CLEAN AND DRY BEFORE PAINTING. PAINT MATERIAL SHALL BE THE BEST MATERIAL AND DELIVERED TO THE JOB IN THEIR ORIGINAL CONTAINERS.
2. EXTERIOR PAINTING, WHERE REQUIRED, SHALL BE ONE COAT OF PRIMER, AND SECOND COAT SHALL BE EXTERIOR LATEX PAINT.
3. GYP. BOARD SURFACES TO BE LEVEL IV.
4. INTERIOR GYP. BOARD SHALL BE ONE COAT OF PRIMER AND SECOND COAT SHALL BE INTERIOR LATEX PAINT. AFTER ALL JOINTS HAVE BEEN TAPED AND FLOATED.
5. INTERIOR TRIM, ONE COAT OR PRIMER AND ONE COAT OF ENAMEL FINISH.
6. EXTERIOR CAULKING SHALL BE TOP QUALITY SILICONE CAULK.

PLUMBING NOTES:

1. PLUMBING FIXTURES SHALL BE INSTALLED AND CONNECTED TO SEWER LINES. PROVIDE WATER VALVES AND STOPS IN THE HOT & COLD WATER LINES TO ALL NEW PLUMBING FIXTURES.
2. ALL WATER PIPING SHALL BE PEX WATER LINES. NIPPLE CONNECTIONS AT FIXTURES SHALL BE COPPER.
3. ALL PLUMBING, WASTE AND VENT, SHALL BE ABS (VERIFY W/ OWNER) ABOVE GRADE.

SAFETY:

1. BEDROOM WINDOWS COMPLY WITH THE FOLLOWING EMERGENCY EGRESS PROVISIONS OF CABO ARTICLE 310.2. EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNITS MUST BE OPERABLE FROM INSIDE TO FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS OR RESCUE THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES.
2. DRAWINGS BASED ON ANDERSEN MANUFACTURER WINDOW COMPANY. CONTRACTOR TO OBTAIN ROUGH OPENING SIZES FROM WINDOW MANUF.
3. SMOKE DETECTORS TO BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE CODES.
4. CARBON MONOXIDE DETECTORS TO BE INSTALLED IN ALL ROOMS WITH GAS-FIRED APPLIANCES.

GLASS NOTES:

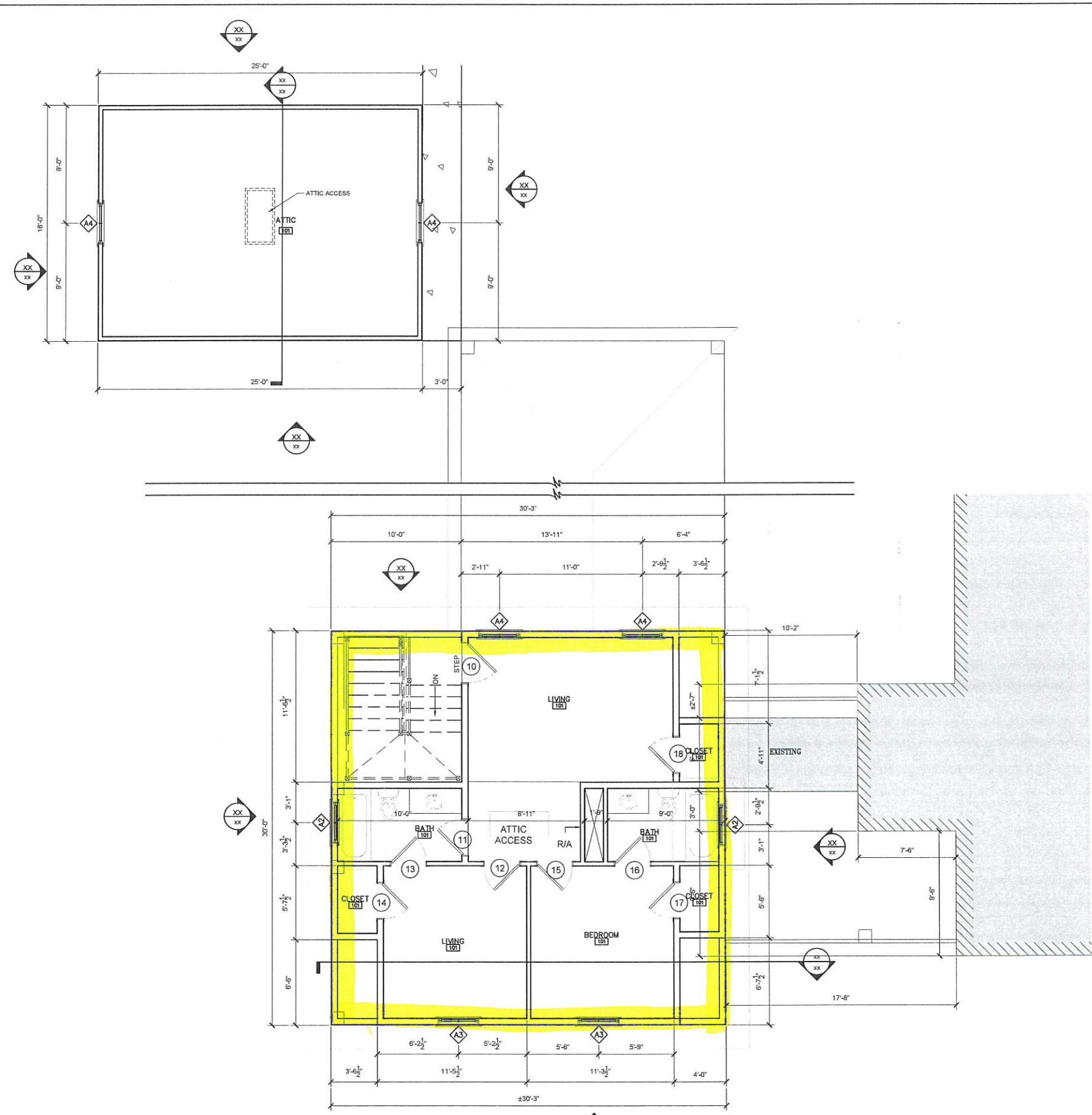
1. ALL GLASS IN EXTERIOR DOORS AND WINDOWS TO BE DOUBLE GLAZED IMPACT RESISTANT.
2. ALL EXTERIOR WINDOWS/OPENINGS SHALL BE PROVIDED WITH ONE OF THE FOLLOWING OPERABLE SHUTTERS, ANCHORABLE MIN. 5/8" THICK PLYWOOD, INSTALLABLE CORRUGATED STEEL PANELS OR IMPACT RESISTANT GLASS, SEE SPEC BELOW.
3. IMPACT RESISTANT GLASS TO MEET ASTM E-1885 AND E-1996/WMDA HALLMARK PROGRAM.

CODE COMPLIANCE:

1. ALL CONSTRUCTION TO MEET OR EXCEED ALL REQUIREMENTS OF:
 - 1.1. THE 2015 INTERNATIONAL RESIDENTIAL CODE AND
 - 1.2. HIGH WIND STANDARDS CHAPTER 3 SECTION R301.2.1.1, SOUTHERN BUILDING CODE CONGRESS AND
 - 1.3. INTERNATIONAL CODE COUNCIL (ICC) STANDARD FOR RESIDENTIAL CONSTRUCTION IN HIGH WIND REGIONS (ICC600).
2. DESIGN WIND SPEED = 140 MPH.

WALL ASSEMBLY:

- 1 1-HR RATED WALL ASSEMBLY - U305.
2x4 @ 16" O.C. WITH ONE LAYER OF 5/8" FIRE RATED GWB EACH SIDE AND ONE LAYER OF 1/2" PLYWOOD-X SHEATHING ON THE GARAGE SIDE OF WALL. ALL GWB JOINTS (INCLUDING CEILING AND WALL CONNECTIONS) TO BE FIRE TAPED AND CAULKED.
- 2 1-HR RATED WALL ASSEMBLY - U305.
2x4 @ 16" O.C. WITH ONE LAYER OF 5/8" FIRE RATED GWB EACH SIDE. ALL GWB JOINTS (INCLUDING CEILING AND WALL CONNECTIONS) TO BE FIRE TAPED AND CAULKED. NOTE 2x6 PLUMBING WALL TO RECEIVE 5/8" MRGWB ON EXPOSED SIDE AND NO SHEATHING ON SIDE FACING 1-HR WALL.



01 PLAN - SECOND FLOOR
SCALE: 1/4" = 1' - 0"



141 N. Main Street, Bay St. Louis, Mississippi 39520
228-467-4236 FAX: 228-467-4237



A NEW BUILDING FOR:
JENNINGS RESIDENCE
131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW

SHEET TITLE
SECOND FLOOR PLAN

SHEET NO.
A1.2

DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD



Edward H. Wilk
 ARCHITECT
 1481 Oak Street, Bay St. Louis, Mississippi 39520
 228-467-4236 FAX 228-467-4237

A NEW BUILDING FOR:
JENNINGS RESIDENCE
 131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW
SHEET TITLE	ELEVATION
SHEET NO.	A2.1

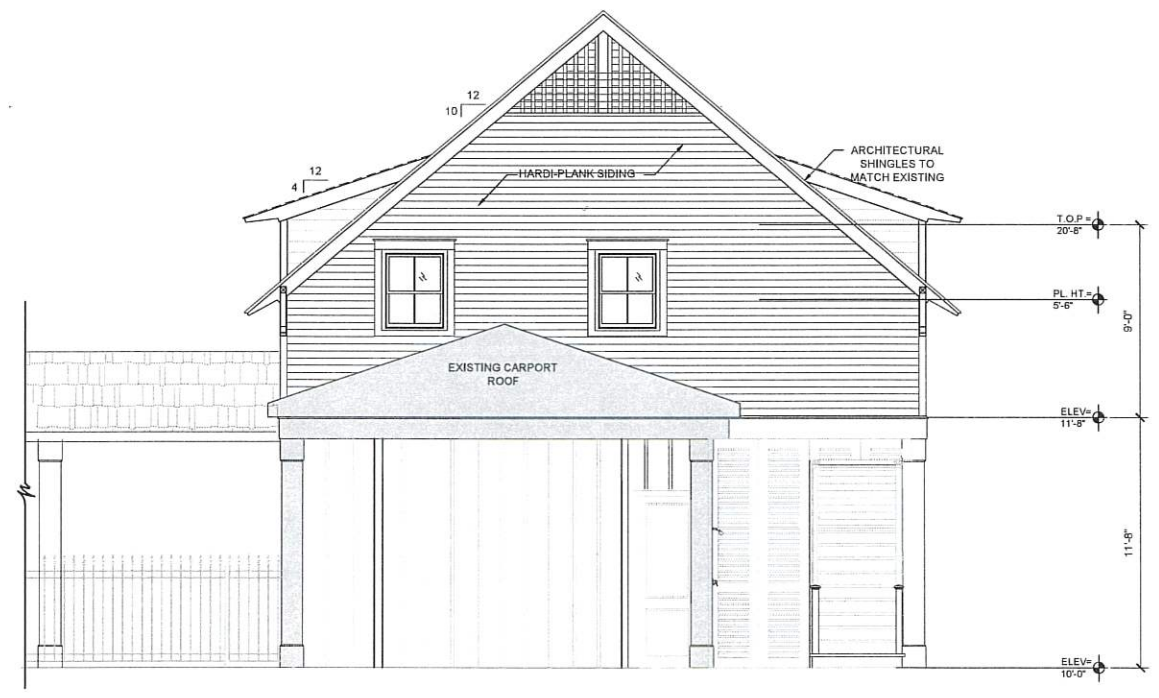
ALL DESIGN, REVISIONS, ARRANGEMENTS, DRAWINGS, AND SPECIFICATIONS ARE OWNED BY AND ARE THE PROPERTY OF EDWARD H. WILK, A.P.C. AND WILL BE REPRODUCED, COPIED, REPRODUCED FOR USE OR AND IN CONNECTION WITH THE PROJECT. NO PART OF THIS DESIGN OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF EDWARD H. WILK, A.P.C. THIS DOCUMENT IS NOT TO BE USED FOR ANY OTHER PROJECT AND SHALL REMAIN THE PROPERTY OF EDWARD H. WILK, A.P.C. NO PORTION OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF EDWARD H. WILK, A.P.C.



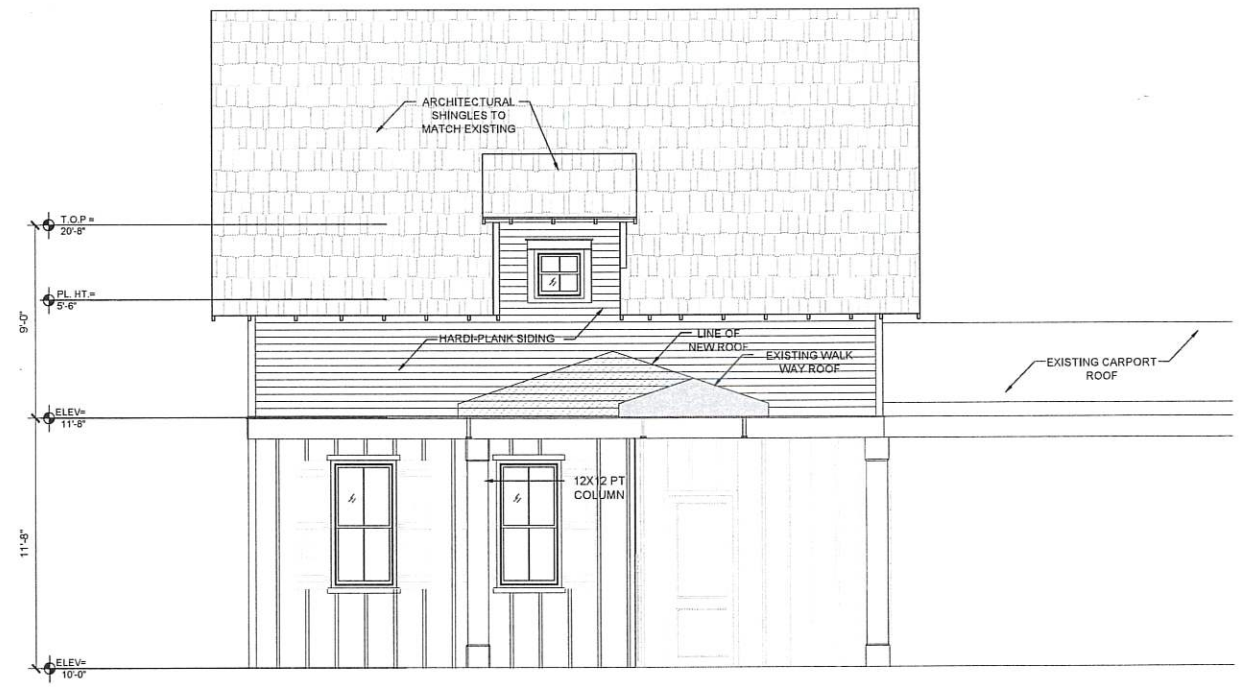
01 SOUTH ELEVATION
 SCALE: 1/4" = 1' - 0"



02 WEST ELEVATION
 SCALE: 1/4" = 1' - 0"



03 NORTH ELEVATION
 SCALE: 1/4" = 1' - 0"



04 EAST ELEVATION
 SCALE: 1/4" = 1' - 0"

DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD



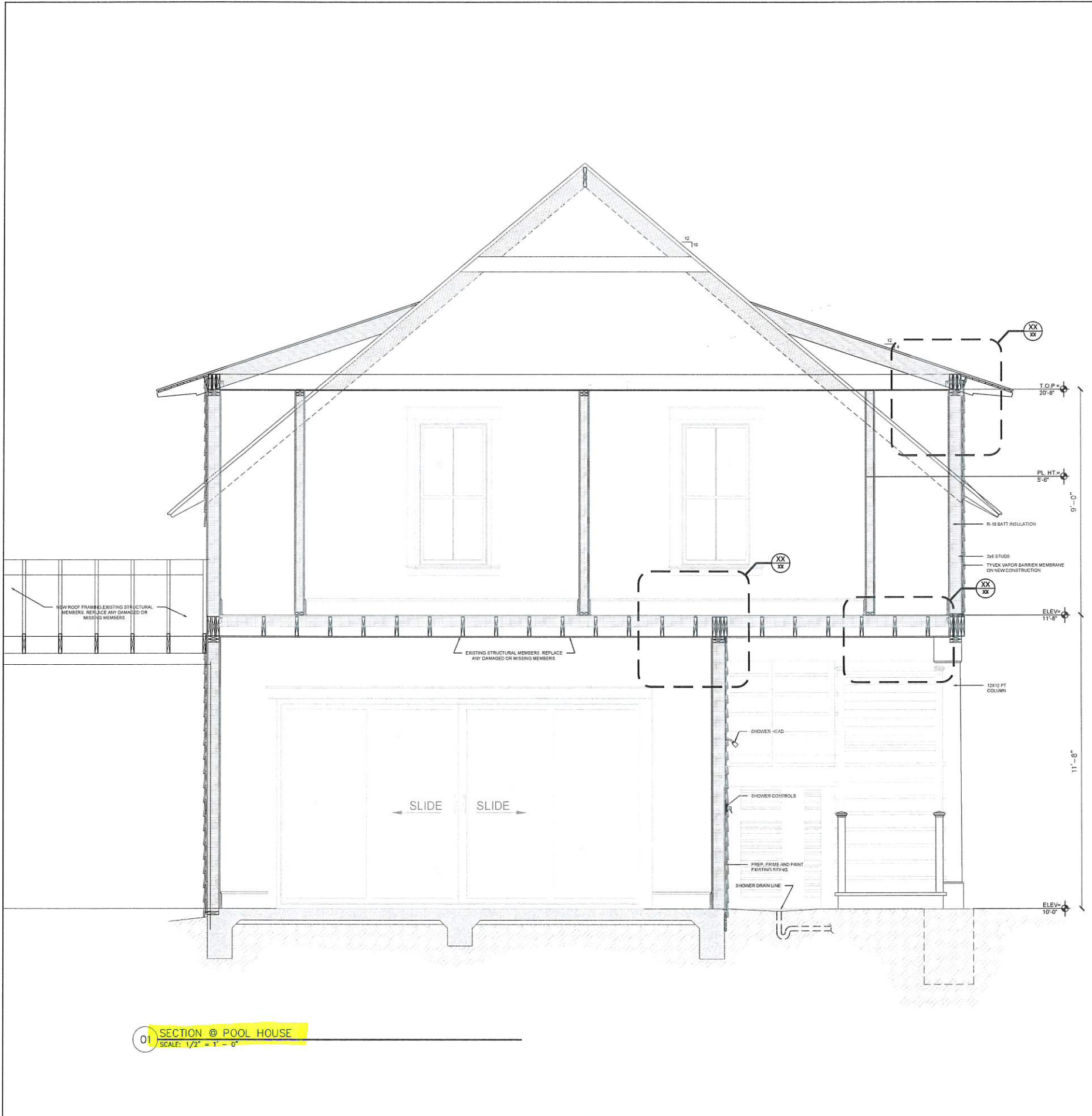
Edward H. Wik
 ARCHITECT
 144 Main Street, Bay St. Louis, Mississippi 39520
 228-467-4236 FAX: 228-467-4237

A NEW BUILDING FOR:
JENNINGS RESIDENCE
 131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

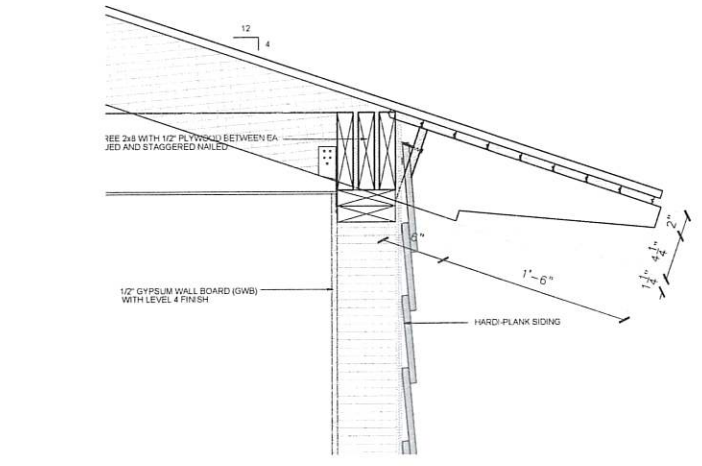
PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW

SHEET TITLE
SECTION & DETAILS

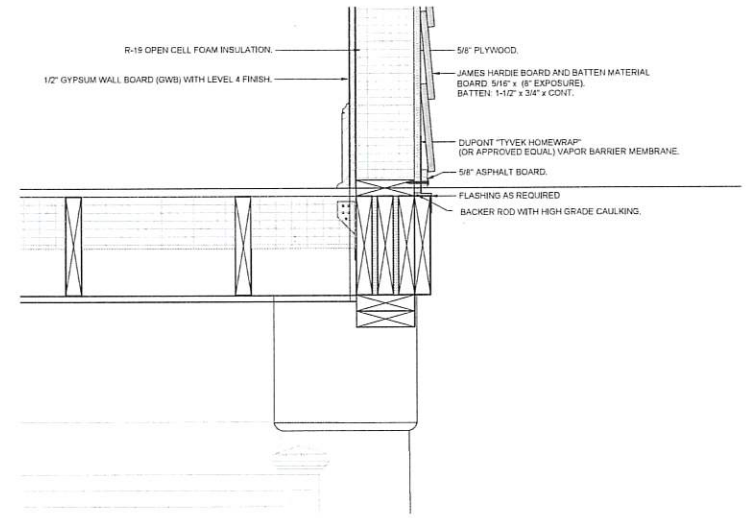
SHEET NO.
A5.2



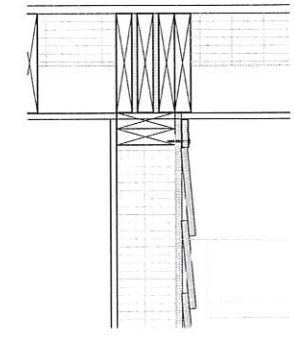
01 SECTION @ POOL HOUSE
 SCALE: 1/2" = 1' - 0"



02 DETAIL
 SCALE: 1 1/2" = 1' - 0"



03 DETAIL
 SCALE: 1 1/2" = 1' - 0"



04 DETAIL
 SCALE: 1 1/2" = 1' - 0"

DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD

TO: Planning and Zoning Board
City of Bay St. Louis

RE: 131 Keller Street
Parcel 149L-0-30-200.000
LOT 60B, 3RD WARD BAY ST. LOUIS

HEARING DATE: August 13, 2025

I have reviewed the application for Variance to the Zoning Ordinance submitted by Michael and Kathy Jennings. The property is located at 131 Keller Street and is zoned R-1, Single Family District. The zoning ordinance requires accessory structures to maintain a 5' setback from both the side and rear property lines. In addition, Section 1002.3.F requires a minimum separation of 5' between accessory structures.

The applicants request a 2' variance to the rear yard and a 2' variance to the side yard accessory structure setback. If granted, the accessory structure would be located 3' from both the rear and side property lines. Additionally, the applicants request a 2' variance to allow the existing carport to be 3' from the new garage instead of the required 5' separation between structures.

Side Yard:

Required: 5'
Proposed Distance: 3'
Variance Requested: 2'

Rear Yard:

Required: 5'
Proposed Distance: 3'
Variance Requested: 2'

Separation Between Structures:

Required: 5'
Proposed Distance: 3'
Variance Requested: 2'

The administration recommends denying the setback variances, and recommends approving the separation between structure variance.

- The property is over 15,000 sq ft; therefore, they should be able to construct an accessory structure without a variance
- It is requesting to away the garage parking to make an accessory dwelling.

APPLICATION FOR VARIANCE TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: MICHAEL & KATHY JENKINGS

ADDRESS: 318 W. FARREL ROAD
LAFAYETTE, LA 70508

PHONE: 337-412-1225

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

131 KELLER STREET, BAY ST. LOUIS, MS 39520

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

2. Parcel number(s) as described in the Hancock County tax rolls:

149L-0-30-200.000

3. Present Zoning: R-1

4. Present use of building/property: SINGLE FAMILY RESIDENTIAL

5. Application fee of \$100 (Residential): _____

Application fee of \$200 (Commercial): _____

Article XIII
1303 APPEALS, HEARING AND NOTICE

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

Article XIII
1305.3 VARIANCES

To recommend such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, literal enforcement of the provisions of this Ordinance will in an individual case result in unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice be done. Such variance may be granted in such case of unnecessary hardship upon a finding by the City Council that all of the following conditions exist:

- A. There are extraordinary and exceptional conditions which pertain to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures in the same district.
- B. The literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.
- C. Granting the variance requested will not confer upon the applicant any special privileges that are denied to other residents of the district in which the property is located.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the applicant.
- F. The existence of a nonconforming use of neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variance.
- G. The variance requested is the minimum variance that will make possible the legal use of the land, building, or structure.
- H. The variance is not a request to permit a use of land, building, or structure which is not permitted by right or by special exception in the district involved.

I. Notice of public hearing shall be given as in Section 1305.2(A).

J. The variance can't be transferred to a subsequent owner of the property, if the variance is unused.

K. The grant of a variance shall expire if the variance has not been activated within six (6) months of final approval. "Activation" shall mean obtaining a building permit for the required or necessary construction. In addition, the activation shall not be effective unless the construction is completed within six (6) months of obtaining the building permit. On good cause shown, the Bay St. Louis City Council may extend the above stated time limits for up to a maximum of six (6) months.

Please submit the following documentation with your application:

- 1. What is the specific provision of the ordinance involved SECTION 1002.3
- 2. The use for which a variance is sought _____

(D) SIDE & REAR YD. SET BACK
 (F) DISTANCE FROM ANOTHER BLDG.

NEW ACCESSORY STRUCTURE (GARAGE) AT REAR OF PROPERTY.

3. If request is for a setback variance, please answer the following:

- Front yard setback requirement
- Proposed distance remaining to the property line
- Total front yard setback variance needed
- 5' Side yard setback requirement
- 3' Proposed distance remaining to the property line
- 2 Total side yard setback variance needed
- 5' Rear yard setback requirement
- 3' Proposed distance remaining to the property line
- 2 Total rear yard setback variance needed

4. If request is for a variance other than setback, please answer the following:

- Required total square footage of lot
- Proposed square footage of lot
- Total square footage needed to lot
- Required minimum width of lot
- Proposed minimum width of lot
- Total variance to minimum lot width needed
- Required fence height
- Proposed fence height
- Total fence height variance needed

5. Other type(s) of variance needed:

THE DISTANCE FROM EXISTING GARAGE TO NEW GARAGE WILL BE 3' INSTEAD OF THE REQUIRED 5' PER SEC. 1002.3(F.)

- 6. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.
- 7. Size of any building to be erected, and the location of the building upon the lot.
- 8. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.
- 9. Is the property in question in a sub-division? NO
- 10. If the property in question is within a sub-division, is there an existing covenant running with the land? No
- 11. If the answer to question 9 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County.

Book Number _____

Page Number _____

It is warranted in good faith by the owners whose name is signed hereto that all of the above facts are true and correct.


Applicant's Signature

6/19/2025
Date

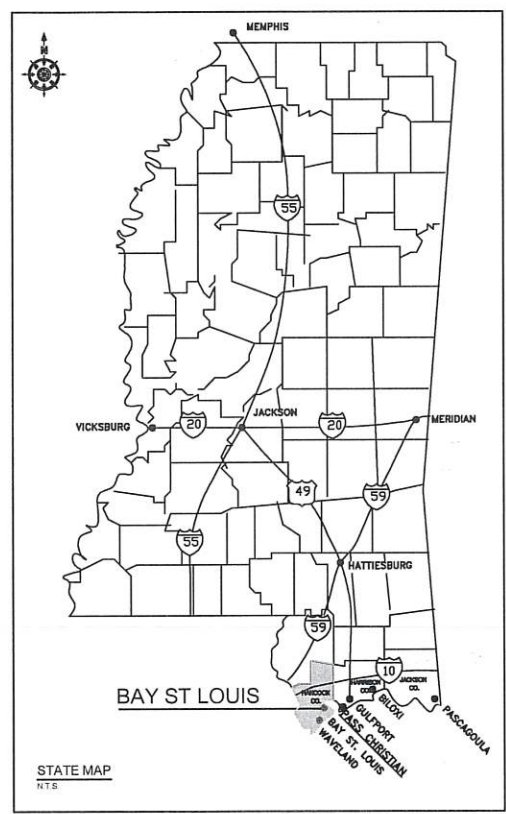
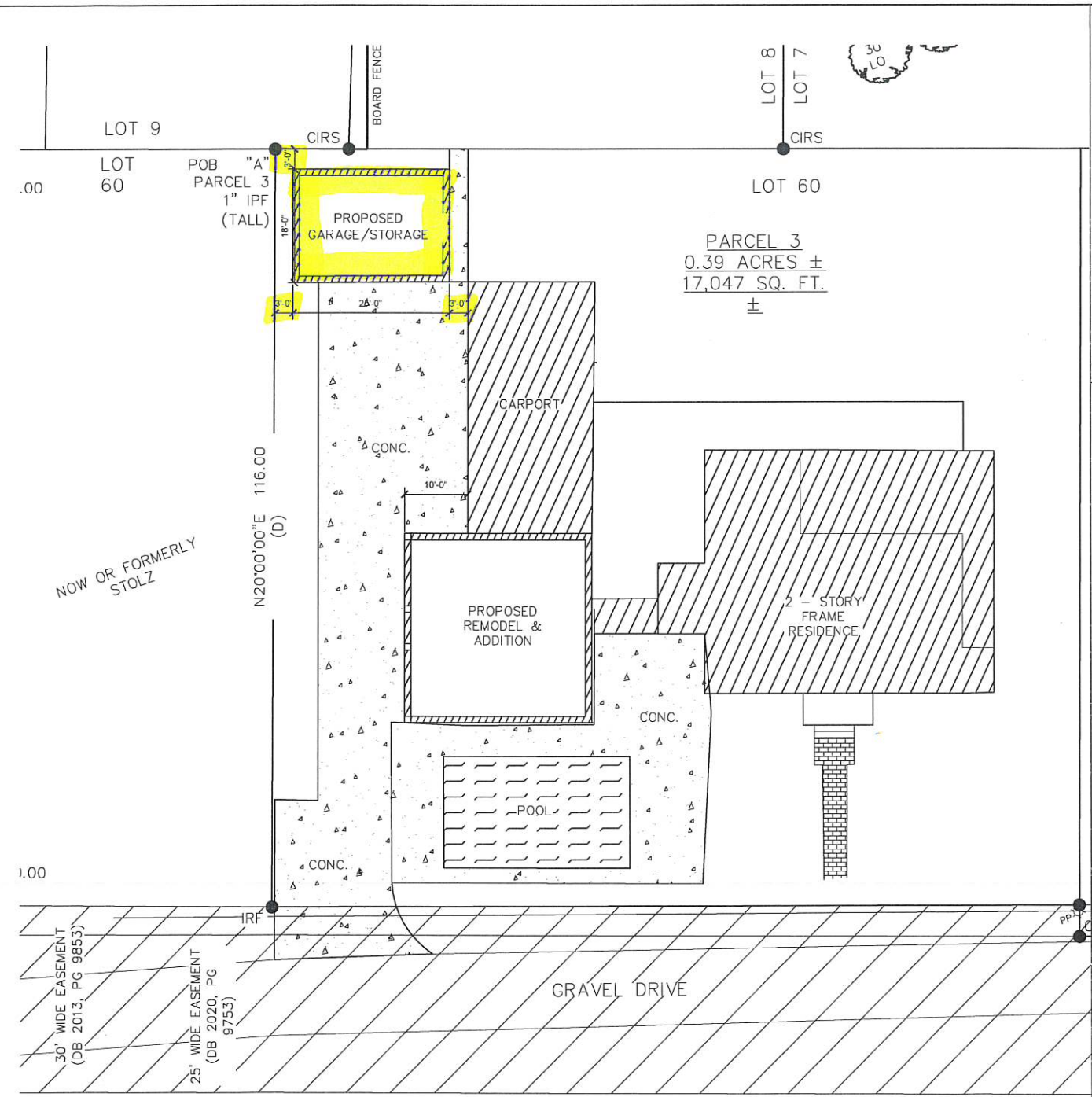
FOR OFFICE USE ONLY

Date of Application received: _____



PROPOSED NEW CONSTRUCTION FOR KATHY & MICHAEL JENNINGS RESIDENCE

131 KELLER ST.
BAY ST. LOUIS, MISSISSIPPI



INDEX

ARCHITECTURAL and CIVIL

- A0.1 COVER SHEET
- S1.1 FOUNDATION PLAN, NOTES AND DETAILS
- A1.1 GROUND FLOOR PLAN
- A1.2 SECOND FLOOR PLAN
- A1.3 ROOF PLAN
- A1.4 SCHEDULE & NOTES
- A2.1 EXTERIOR ELEVATIONS
- A2.2 EXTERIOR ELEVATIONS
- A5.1 SECTIONS @ STORAGE
- A5.2 SECTION @ POOL HOUSE

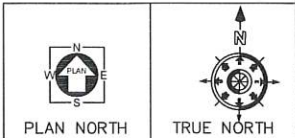
ELECTRICAL

- E-101 FLOOR PLAN ELECTRICAL

ARCHITECT
EDWARD H. WIKOFF, ARCHITECT, AIA PC
144 MAIN STREET
BAY ST. LOUIS, MISSISSIPPI 39520

- GENERAL NOTES:**
- ANY PART OR ITEM OF WORK WHICH IS REASONABLY IMPLIED OR NORMALLY REQUIRED TO MAKE EACH INSTALLATION SATISFACTORILY OPERABLE SHALL BE PERFORMED BY THE CONTRACTOR AND THE EXPENSE THEREOF SHALL BE INCLUDED IN THE APPLICABLE UNIT PRICES OR LUMP SUM PRICES BID FOR THE WORK. IT IS THE INTENT OF THESE SPECIFICATIONS TO PROVIDE THE OWNER WITH COMPLETE OPERABLE SYSTEMS, SUBSYSTEMS, AND OTHER ITEMS OF WORK. ALL MISCELLANEOUS APPURTENANCES SHALL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE APPLICABLE UNIT PRICES OR LUMP SUM PRICES BID FOR THE WORK EVEN THOUGH THESE APPURTENANCES AND ITEMS MAY NOT BE SPECIFICALLY CALLED FOR IN THE SPECIFICATIONS.
 - THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO DEFINE THE GENERAL DESIGN AND SCOPE OF THE WORK REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL INCLUDE ALL COMPONENTS WHICH ARE NORMALLY INCIDENTAL TO THE WORK. THOSE COMPONENTS WHICH ARE NOT SHOWN ON THE DRAWING OR SPECIFIED BUT WHICH ARE REQUIRED AS AN ESSENTIAL AESTHETIC, FUNCTIONAL OR CODE REQUIRED ELEMENT OF THE WORK ARE TO BE INCLUDED.
 - TO ESTABLISH THE COMPLETE SCOPE OF ITS WORK AND TO EFFECT CLOSE COORDINATION WITH THE OTHER TRADES, EACH TRADE SHALL COMPLETELY REVIEW THE PLANS AND SPECIFICATIONS, NOT ONLY FOR ITS RESPECTIVE TRADE, BUT FOR THE WORK OF THE OTHER RELATED TRADES AS WELL. TITLES OF DIVISIONS (AND SECTIONS IN SPECIFICATIONS) IDENTIFYING WORK ARE PROVIDED FOR ORGANIZATIONAL AND REFERENCE PURPOSES AND SHALL NOT BE TAKEN AS AN ABSOLUTE SEPARATION OF THE TRADES OR OF THE UNITS OF MATERIAL AND LABOR.
 - THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS OR GUIDELINES FROM GOVERNING REGULATORY AGENCIES BEFORE PROCEEDING WITH ANY ITEMS OF WORK UNDER OR WITHIN SUCH JURISDICTION(S).
 - ALL DIMENSIONS AND TIE-INS GOVERNED BY EXISTING CONDITIONS ARE APPROXIMATE AND ARE NOT GUARANTEED TO BE CORRECT. ALL SUCH DIMENSIONS AND CONDITIONS SHALL BE FIELD VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO PROCEEDING WITH ANY WORK. IF CONDITIONS AND DIMENSIONS VARY FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT BEFORE PROCEEDING WITH WORK WHERE DIMENSIONS ARE NOT SHOWN WITH +/- INDICATIONS ADJUSTMENTS MAY BE MADE TO SUIT FIELD CONDITIONS.
 - THE CONTRACTOR SHALL VERIFY CONDITIONS, SERVICES, DIMENSIONS, AND ELEVATIONS OF SITE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES.
 - THE CONTRACTOR SHALL SUBCONTRACT WITH SUPPLIERS AND FABRICATION AND INSTALLATION COMPANIES WHICH CAN DEMONSTRATE THAT THEY POSSESS THE KNOWLEDGE, EXPERIENCE, AND PROVEN CAPABILITIES TO FULLY PERFORM ALL ASPECTS OF THE WORK REQUIRED WITHOUT OMISSION.

01 PLAN - SITE
SCALE: 3/32" = 1' - 0"



A NEW BUILDING FOR:
JENNINGS RESIDENCE
 131 KELLER AVE., BAY ST. LOUIS, MISSISSIPPI 39520

PROJECT NO.	2024-002
START DATE	01/02/2024
PLOT DATE	
DRAWN BY	JS
CHECKED BY	EHW
SHEET TITLE	COVER SHEET
SHEET NO.	A0.1

DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD	DATE	COMMENTS	BY	APVD

TO: Planning and Zoning Commission
City of Bay St. Louis

RE: 1870 Blue Meadow Road
Tax Parcel: 136N-1-37-016.004
Lot 2 River View Subdivision Phase 2

HEARING DATE: August 13, 2025

I have reviewed the application for a Variance to the Zoning Ordinance submitted by Andrew Elkins for the property located at 1870 Blue Meadow Road, which is in the R-1 Single Family District. The R-1 district requires a 25-foot front yard setback. The applicant is requesting an 18-foot front yard setback in order to construct a dwelling.

Front Yard Setback:

Required: 25'

Proposed Distance of Front Yard: 18'

Variance Request: 7'

The administration recommends approving the variance request.

- A live oak tree is in the rear of the property, so the contractor needs to construct the house closer to the front property line so the protected live oak tree doesn't have to be removed.

If I can further assist in this matter, please feel free to contact my office at 228-466-5516.

Jeremy L. Burke
Zoning Administrator

APPLICATION FOR VARIANCE TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: Andrew Elkins

ADDRESS: 552 Pittman Road, Box 8 Ellisville, MS
39437

PHONE: (601) 319-4110

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

1870 Blue Meadow Road, ASL

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

2 River View Subdivision Phase 2

2. Parcel number(s) as described in the Hancock County tax rolls:

136N-1-37-016.004

3. Present Zoning: R-1

4. Present use of building/property: Vacant

5. Application fee of ²⁵⁰~~\$100~~ (Residential): #00544100

Application fee of ²⁵⁰~~\$200~~ (Commercial): _____

Article XIII
1303 APPEALS, HEARING AND NOTICE

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

Article XIII
1305.3 VARIANCES

To recommend such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, literal enforcement of the provisions of this Ordinance will in an individual case result in unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice be done. Such variance may be granted in such case of unnecessary hardship upon a finding by the City Council that all of the following conditions exist:

- A. There are extraordinary and exceptional conditions which pertain to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures in the same district.
- B. The literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.
- C. Granting the variance requested will not confer upon the applicant any special privileges that are denied to other residents of the district in which the property is located.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the applicant.
- F. The existence of a nonconforming use of neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variance.
- G. The variance requested is the minimum variance that will make possible the legal use of the land, building, or structure.
- H. The variance is not a request to permit a use of land, building, or structure which is not permitted by right or by special exception in the district involved.

I. Notice of public hearing shall be given as in Section 1305.2(A).

J. The variance can't be transferred to a subsequent owner of the property, if the variance is unused.

K. The grant of a variance shall expire if the variance has not been activated within six (6) months of final approval. "Activation" shall mean obtaining a building permit for the required or necessary construction. In addition, the activation shall not be effective unless the construction is completed within six (6) months of obtaining the building permit. On good cause shown, the Bay St. Louis City Council may extend the above stated time limits for up to a maximum of six (6) months.

Please submit the following documentation with your application:

- 1. What is the specific provision of the ordinance involved _____
- 2. The use for which a variance is sought Front yard setback
to be able to construct new dwelling

3. If request is for a setback variance, please answer the following:

- 25' Front yard setback requirement
- 18' Proposed distance remaining to the property line
- 7' Total front yard setback variance needed
- _____ Side yard setback requirement
- _____ Proposed distance remaining to the property line
- _____ Total side yard setback variance needed
- _____ Rear yard setback requirement
- _____ Proposed distance remaining to the property line
- _____ Total rear yard setback variance needed

4. If request is for a variance other than setback, please answer the following:

- _____ Required total square footage of lot
- _____ Proposed square footage of lot
- _____ Total square footage needed to lot
- _____ Required minimum width of lot
- _____ Proposed minimum width of lot
- _____ Total variance to minimum lot width needed
- _____ Required fence height
- _____ Proposed fence height
- _____ Total fence height variance needed

5. Other type(s) of variance needed:

6. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

7. Size of any building to be erected, and the location of the building upon the lot.

8. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

9. Is the property in question in a sub-division? _____

10. If the property in question is within a sub-division, is there an existing covenant running with the land? _____

11. If the answer to question 9 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County.

Book Number _____

Page Number _____

It is warranted in good faith by the owners whose name is signed hereto that all of the above facts are true and correct.

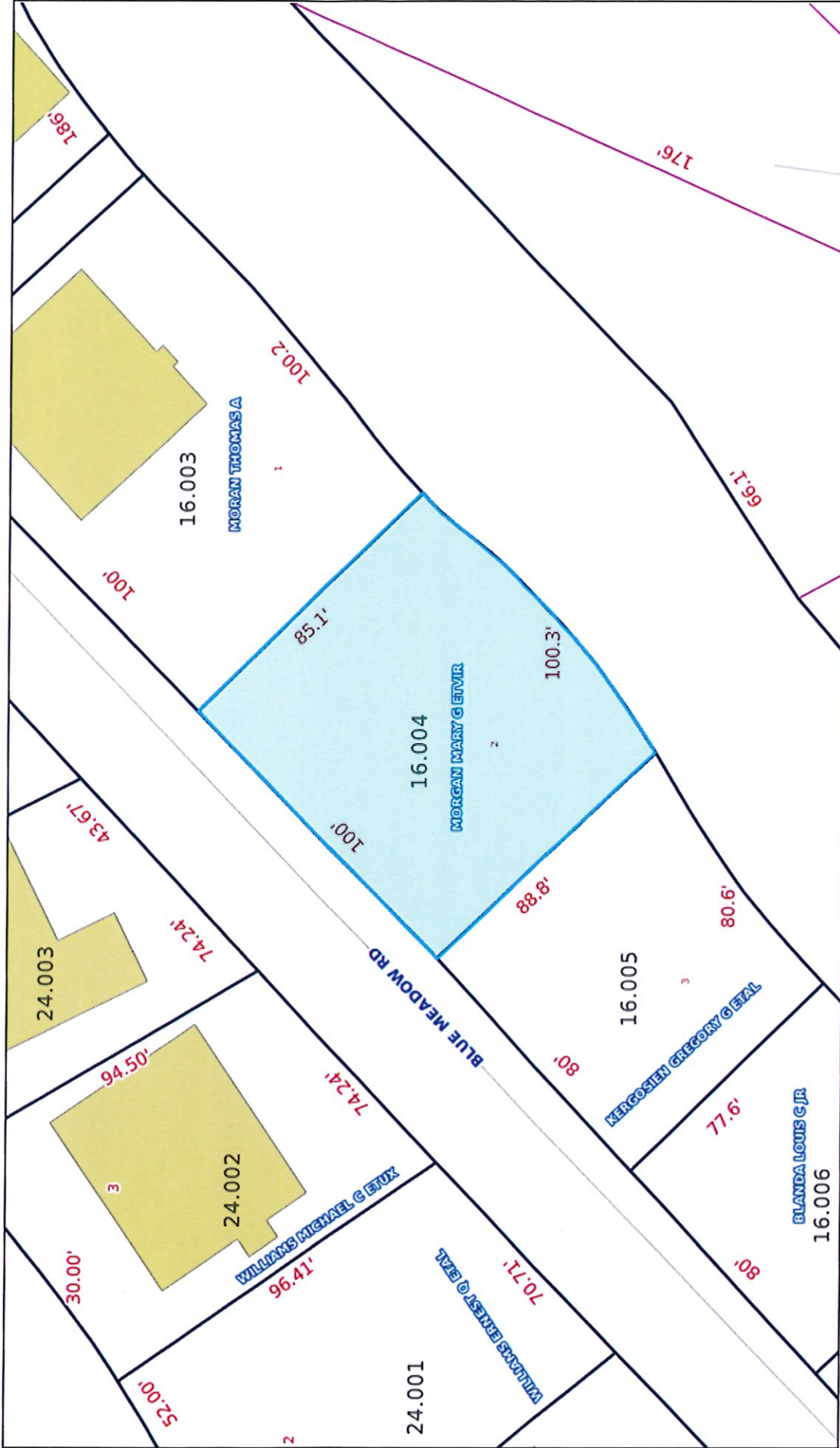
Applicant's Signature

Date

FOR OFFICE USE ONLY

Date of Application received: _____

Geoportal Map



DISCLAIMER: Any user of this map product accepts its faults and assumes all responsibility for the use thereof, and further agrees to hold Hancock County harmless from and against any damage, loss or liability arising from any use of the map product. Users are cautioned to consider carefully the provisional nature of the maps and data before using it for decisions that concern personal or public safety or the conduct of business that involves monetary or operational consequences. Conclusions drawn from, or actions undertaken, on the basis of such maps and data, are the sole responsibility of the user.

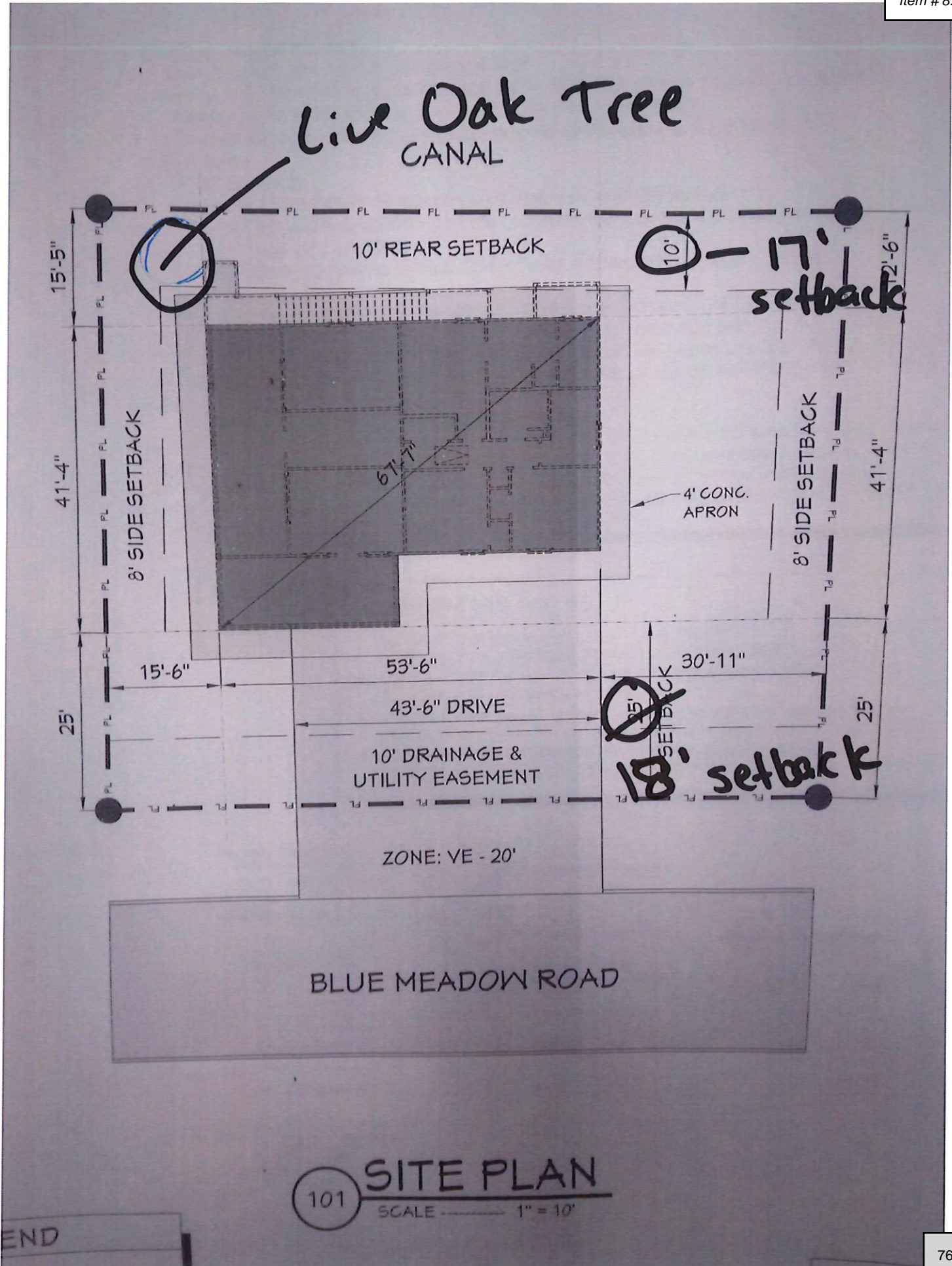
Parcels
136N-1-37-
016.004

Parcel Number: 136N-1-37-016.004
Owner Name: MORGAN MARY G ETVIR
Owner Address: 1202 RUE DEGAS
Owner City, State ZIP: MANDEVILLE, LA 70471
Physical Address: 0
Improvement Type:
Year Built: 0
Base Area: 0
Adjusted Area: 0
Actual Total Value: 50000
Taxable Total Value: 0
Estimated Tax: 897.75
Homestead Exemption: No
Deed Book: 2005
Deed Page: 542
Legal Description 1: 2 RIVER VIEW
SUBD PHASE 2
Legal Description 2:
Legal Description 3:

Close

Export







Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Fwd: Elkins application for Variance

1 message

Jeremy Burke <jburke@baystlouis-ms.gov>
To: Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Thu, Jul 31, 2025 at 10:25 AM

Caitlin,
Would you please at this email to Elkins Application (1870 Blue Meadow).

Thanks

----- Forwarded message -----

From: **Kate Lobrano** <treeregistry@gmail.com>
Date: Thu, Jul 31, 2025 at 10:18 AM
Subject: Elkins application for Variance
To: jburke@baystlouis-ms.gov <jburke@baystlouis-ms.gov>

Jeremy,
The Live Oak Registry is in favor of granting the variance requested by Andrew Elkins.

The property at 1870 Blue Meadow has a number of live oak trees that make this a very desirable lot on which to build. They provide much needed shade in an area with few live oaks. They are all of the size protected by our ordinance. The trees should be protected during construction by fencing them off.

Anita Warner, Chair
Live Oak Registry



Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

rezoning request for 1870 Blue Meadow Road - across the street from our house

2 messages

Susie Heroman <susiehero2@gmail.com>

Tue, Aug 12, 2025 at 7:54 AM

To: "cthompson@baystlouis-ms.gov" <cthompson@baystlouis-ms.gov>, Buzzy Heroman <buzzy@billyheromans.com>, Mike and Leslie Williams <bluemeadow@bellsouth.net>, Mike Williams <bluemeadow@bellsouth.com>

We received a postcard regarding a re-zoning variance request from Andrew Elkins. He is building a home across the street from us. While we live in Baton Rouge, we purchased our home in Bay St Louis in 2013.

We have watched the 12 or more truckloads of dirt being loaded onto the lot across the street (1870 Blue Meadow Road), then we watched the grading and erection of a small bulkhead. The people managing this "lot prep" also blocked the drainage on the ditch in the front of the lot, causing over a foot of standing water after a recent heavy rain.

With an open drainage ditch in the front of this small lot already present, I do not see how Mr. Elkins can possibly move the house 7 ft closer to the street.

My husband is out of town on a business trip and we cannot attend the hearing tomorrow, August 13, 2025 at 5:30 PM.

To be more specific - we are not in favor of any variance of 7 ft making an 18 ft front line to this about-to-be built home.

We are AGAINST the variance.

Thank you,
Susie Heroman
Baton Rouge, LA and [1871 Blue Meadow Road, Bay St Louis, MS](#)

--

Susie Heroman
[3164 Torrance Drive](#)
[Baton Rouge, Louisiana 70809](#)
225.806-1435

Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Tue, Aug 12, 2025 at 8:56 AM

To: Susie Heroman <susiehero2@gmail.com>

Received and I will forward this to the Zoning Commission.

[Quoted text hidden]

--

Respectfully,

Caitlin Bourgeois

Clerk of Council

Planning & Zoning Secretary

Bay St. Louis City Hall

688 Highway 90

Bay St. Louis, MS 39520

(228)-466-5446

TO: Planning and Zoning Board
City of Bay St. Louis
RE: 231 Carre Court
Parcel 137R-0-44-018.001
29 & 30 BLK 2 ST CHARLES SD

HEARING DATE: August 13, 2025

I have reviewed the application for Variance to the Zoning Ordinance submitted by Lynn Barnett. The property is located at 231 Carre Court and is zoned R-3, Multi Family District. The zoning ordinance requires an accessory structure (detached carport) to maintain a 5' setback from the side property line.

The applicant requests a 2' variance to the side yard accessory structure setback.

If granted, the accessory structure (detached carport) would be located 3' from the side property line.

Side Yard:

Required: 5'

Proposed Distance: 3'

Variance Requested: 2'

The administration recommends the _____ of the variance.

- The application received a letter of support from Anita Warner
- The house was moved over to the right side of the property when it was construction to stay away from a protected tree

Sincerely,
Jeremy L. Burke

APPLICATION FOR VARIANCE TO THE ZONING ORDINANCE

Please complete this form in its entirety; failure to do so may cause a delay in the submittal of your application to the Planning and Zoning Commission.

The following information is required before this application will be submitted to the Planning and Zoning Commission for consideration.

OWNER: Linn Barnett

ADDRESS: 231 Carve Ct
Bay St. Louis MS 39526

PHONE: 228. 224. 8362

ADDRESS OF PROPERTY IN QUESTION IF DIFFERENT FROM ADDRESS STATED ABOVE

1. Legal description of property to be considered for variance as described in the Hancock County tax rolls:

29 + 30 BLK 2 St. Charles Sub.

2. Parcel number(s) as described in the Hancock County tax rolls:

137R-0-44-018.001

3. Present Zoning: Residential

4. Present use of building/property: Residential

5. Application fee of \$²⁵⁰~~100~~ (Residential): _____ # 00543350

Application fee of \$200 (Commercial): _____

I. Notice of public hearing shall be given as in Section 1305.2(A).

J. The variance can't be transferred to a subsequent owner of the property, if the variance is unused.

K. The grant of a variance shall expire if the variance has not been activated within six (6) months of final approval. "Activation" shall mean obtaining a building permit for the required or necessary construction. In addition, the activation shall not be effective unless the construction is completed within six (6) months of obtaining the building permit. On good cause shown, the Bay St. Louis City Council may extend the above stated time limits for up to a maximum of six (6) months.

Please submit the following documentation with your application:

- 1. What is the specific provision of the ordinance involved _____
- 2. The use for which a variance is sought _____

3. If request is for a setback variance, please answer the following:

- _____ Front yard setback requirement
- _____ Proposed distance remaining to the property line
- _____ Total front yard setback variance needed
- 5 Ft Side yard setback requirement
- 3 Ft Proposed distance remaining to the property line
- 2 Ft Total side yard setback variance needed
- _____ Rear yard setback requirement
- _____ Proposed distance remaining to the property line
- _____ Total rear yard setback variance needed

(Detect Accessory Structure)

4. If request is for a variance other than setback, please answer the following:

- _____ Required total square footage of lot
- _____ Proposed square footage of lot
- _____ Total square footage needed to lot
- _____ Required minimum width of lot
- _____ Proposed minimum width of lot
- _____ Total variance to minimum lot width needed
- _____ Required fence height
- _____ Proposed fence height
- _____ Total fence height variance needed

**Article XIII
1303 APPEALS, HEARING AND NOTICE**

Every appeal or application shall refer to the specific provision of the ordinance involved and shall set forth the interpretation that is claimed, the use for which a special exception is sought, or the details of the variance that is applied for and the case may be, and accompanied by a plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon and used, the size of any building to be erected, and the location of the building upon the lot, the materials to be used and other such information as may be deemed necessary to provide full information regarding intended use. The Municipal Clerk shall forthwith transmit the appeal or application to the Commission together with all papers constituting the record upon which the action appealed from was taken.

**Article XIII
1305.3 VARIANCES**

To recommend such variances from the terms of this Ordinance as will not be contrary to the public interest where, owing to special conditions, literal enforcement of the provisions of this Ordinance will in an individual case result in unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice be done. Such variance may be granted in such case of unnecessary hardship upon a finding by the City Council that all of the following conditions exist:

- A. There are extraordinary and exceptional conditions which pertain to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures in the same district.
- B. The literal interpretation of the provisions of this Ordinance would deprive the applicant of rights commonly enjoyed by other residents of the district in which the property is located.
- C. Granting the variance requested will not confer upon the applicant any special privileges that are denied to other residents of the district in which the property is located.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the applicant.
- F. The existence of a nonconforming use of neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variance.
- G. The variance requested is the minimum variance that will make possible the legal use of the land, building, or structure.
- H. The variance is not a request to permit a use of land, building, or structure which is not permitted by right or by special exception in the district involved.

5. Other type(s) of variance needed:

6. A plat or plan, drawn to scale, showing the actual dimensions of the parcel of land to be built upon.

7. Size of any building to be erected, and the location of the building upon the lot.

8. Materials to be used (Exterior Finish) and other such information as may be deemed necessary to provide full information regarding intended use.

9. Is the property in question in a sub-division? NO

10. If the property in question is within a sub-division, is there an existing covenant running with the land? No

11. If the answer to question 9 is yes, please state the book and page numbers where the stated restrictive covenants are filed in the Chancery Clerks Office of Hancock County.

Book Number _____

Page Number _____

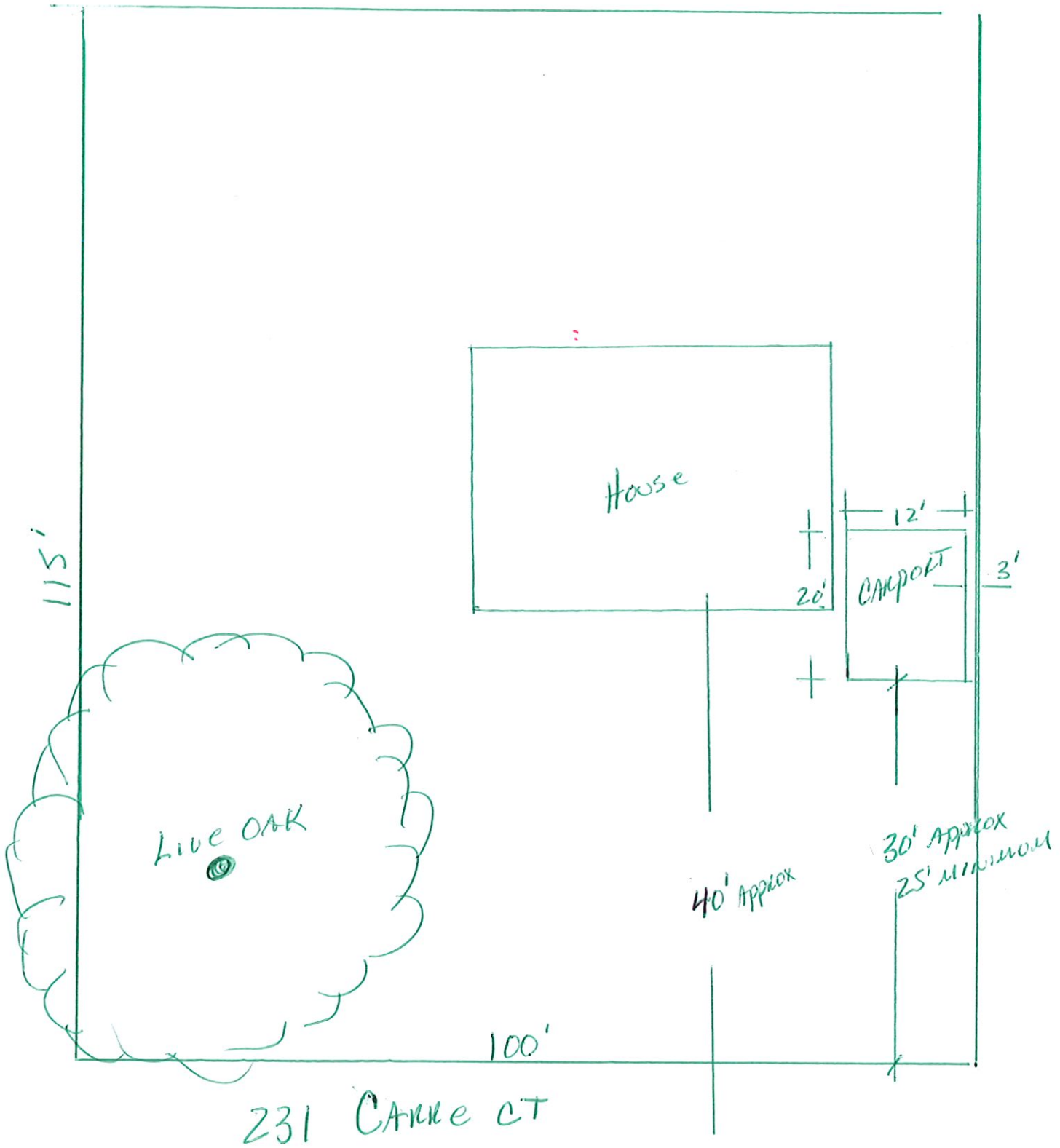
It is warranted in good faith by the owners whose name is signed hereto that all of the above facts are true and correct.

Lerna Barnett
Applicant's Signature

7-2-2025
Date

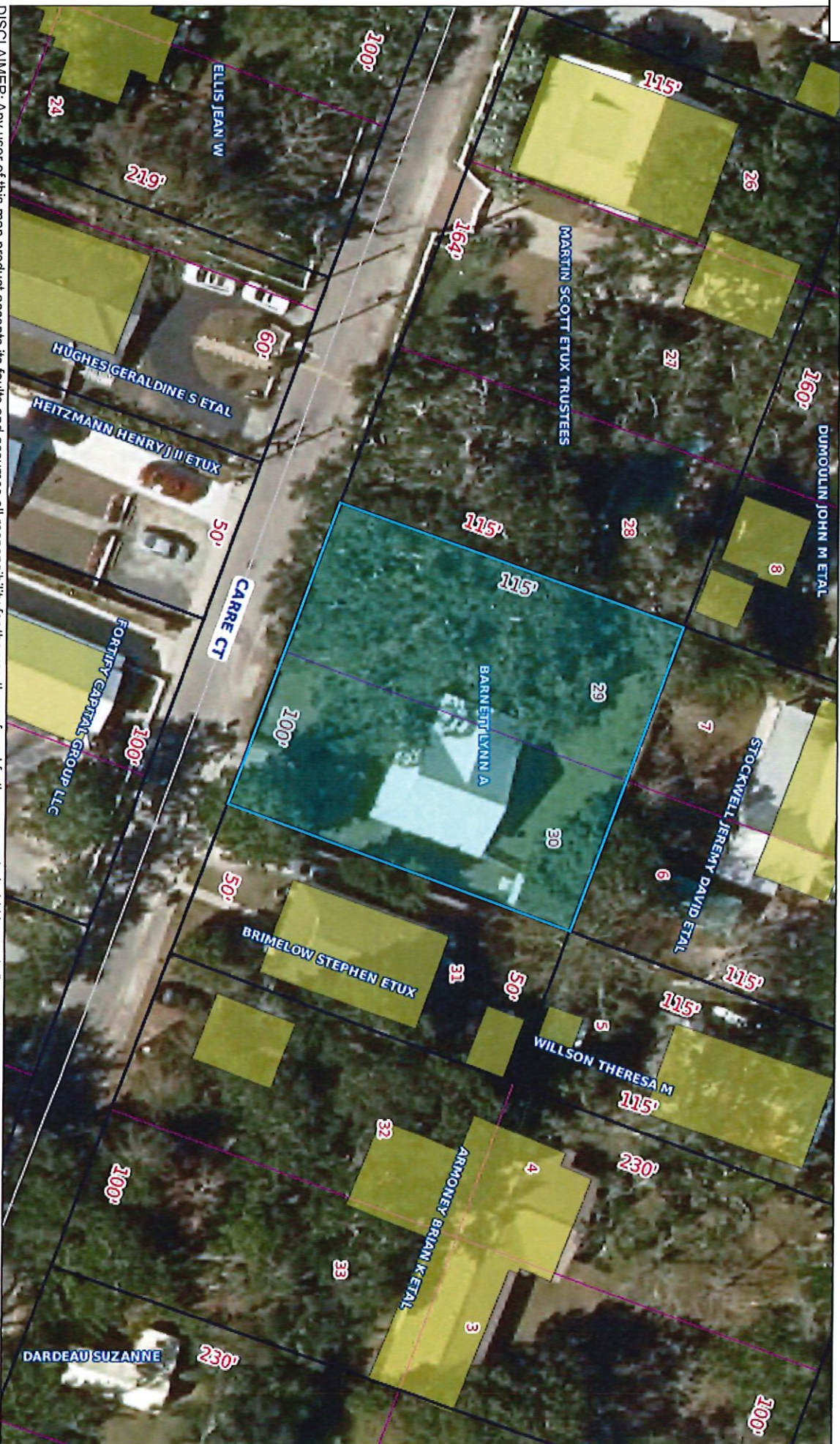
FOR OFFICE USE ONLY

Date of Application received: _____

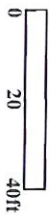


Item # 9.

Geoportal Map



DISCLAIMER: Any user of this map product accepts its faults and assumes all responsibility for the use thereof, and further agrees to hold Hancock County harmless from and against any damage, loss or liability arising from any use of the map product. Users are cautioned to consider carefully the provisional nature of the maps and data before using it for decisions that concern personal or public safety or the conduct of business that involves monetary or operational consequences. Conclusions drawn from, or actions undertaken, on the basis of such maps and data, are the sole responsibility of the user.





Caitlin Bourgeois <cthompson@baystlouis-ms.gov>

Fwd: Barnett Variance

1 message

Jeremy Burke <jburke@baystlouis-ms.gov>
To: Caitlin Bourgeois <cthompson@baystlouis-ms.gov>
Cc: Kate Lobrano <treeregistry@gmail.com>, lynnarnett.home@gmail.com

Thu, Jul 31, 2025 at 10:57 AM

Caitlin,
Would you put this email with Barnett application ([231 Carre Court](#)).

----- Forwarded message -----

From: **Kate Lobrano** <treeregistry@gmail.com>
Date: Thu, Jul 31, 2025 at 10:38 AM
Subject: Barnett Variance
To: jburke@baystlouis-ms.gov <jburke@baystlouis-ms.gov>

Jeremy,
The Live Oak Registry supports the variance requested by Lynn Barnett.

The property at [231 Carre Court](#) contains a registered live oak tree, The Bourgeois Oak, that dates back to 1805. Because of the size and location of this magnificent oak, there is only room to build a carport on the far right side of the property.

Anita Warner, Chair
Live Oak Registry

TO:

Planning and Zoning Commission
City of Bay St. Louis

RE:

1083 Hwy 90
Parcel No. 137F-2-26-009.000
Legal Description: PT 88 J BOUQUIE CL (BUS) HWY 90
Parcel No. 137F-2-26-010.000
Legal Description: PT 89 J BOUQUIE CL 26-8-14

Hearing Date: March 12, 2025

Application for a Minor Site Plan Review submitted by Bellamare Development. The application site plan is for a new convenience store and gas station with an attached coffee shop at the property located at 1083 Hwy 90. The property is zoned C-3 Highway Commercial District.

The administration recommends TABLE this minor site plan review.

City Engineering is still reviewing drainage calculations.

If I can be of any further assistance in this matter, please feel free to contact my office at 228-466-5516.

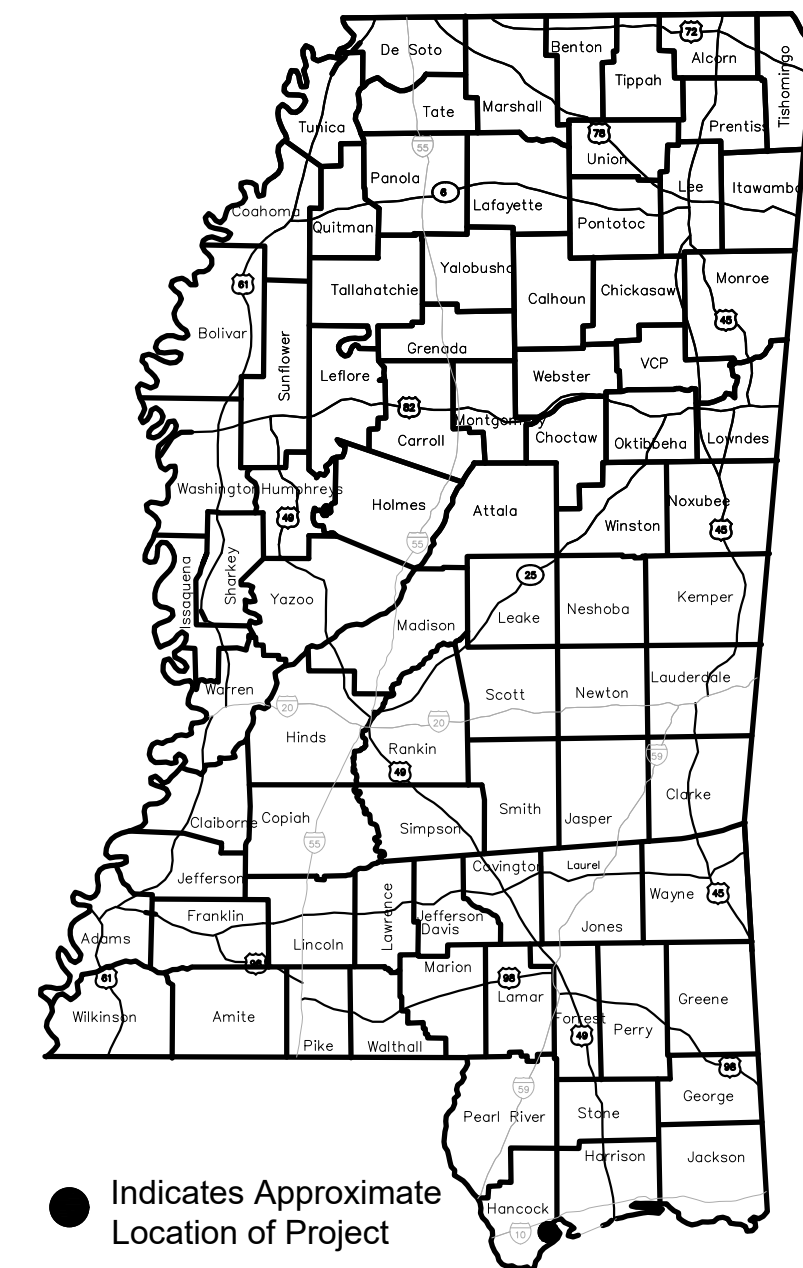
Jeremy L. Burke
Zoning Administrator

BAY ST. LOUIS CONVENIENCE STORE

1083 HIGHWAY 90, BAY SAINT LOUIS

HANCOCK COUNTY, MISSISSIPPI

(CIVIL PERMIT SET 276-1-2024)

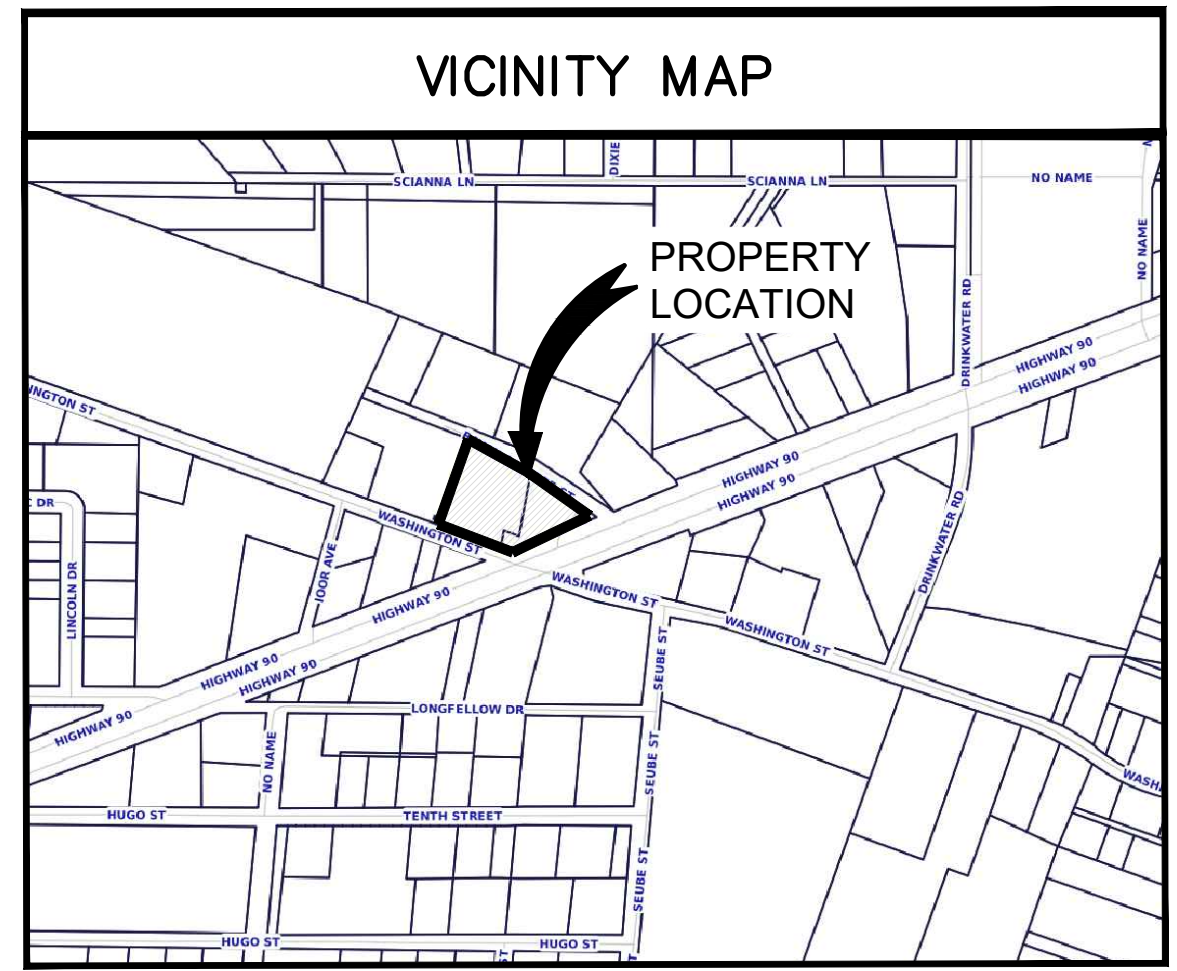


LOCATION MAP

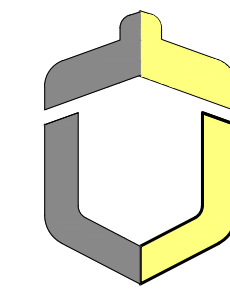
BAY ST. LOUIS CONVENIENCE STORE
1083 HIGHWAY 90, BAY SAINT LOUIS
HANCOCK COUNTY, MISSISSIPPI
CIVIL PERMIT SET

INDEX TO DRAWINGS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	T1.0	COVER SHEET
2	C001	EXISTING CONDITIONS
3	C110	EROSION, SEDIMENT AND POLLUTION CONTROL PLAN
4	C150	EROSION, SEDIMENT AND POLLUTION CONTROL PLAN DETAILS
5	C200	SITE PLAN
6	C250	SITE DETAILS I
7	C251	SITE DETAILS II
8	C300	GRADING PLAN
9	C310	DRAINAGE PLAN
10	C320	DRAINAGE PROFILES
11	C350	DRAINAGE DETAILS
12	C400	UTILITY PLAN
13	C450	UTILITY DETAILS



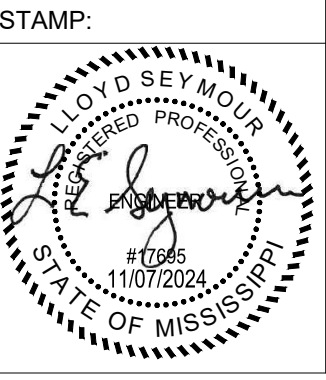
CIVIL ENGINEERING SERVICES



LIVE OAK ENGINEERING
2509 7TH AVE S. 955 HOWARD AVENUE
BIRMINGHAM, AL 35233 BILOXI, MS 39530
LIVEOAKENGINEERING.COM 205.637.3115
LOE JOB # -XXX-XX

SHEET REVISIONS:

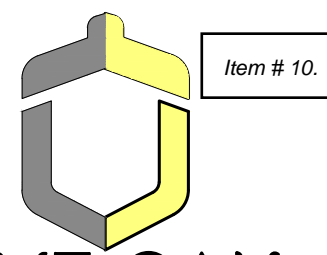
#	DATE/REFERENCE



SHEET TITLE:
COVER SHEET

DATE: 11-7-2024
SHEET NUMBER: 1 OF 13

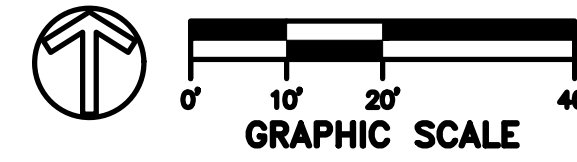
T001



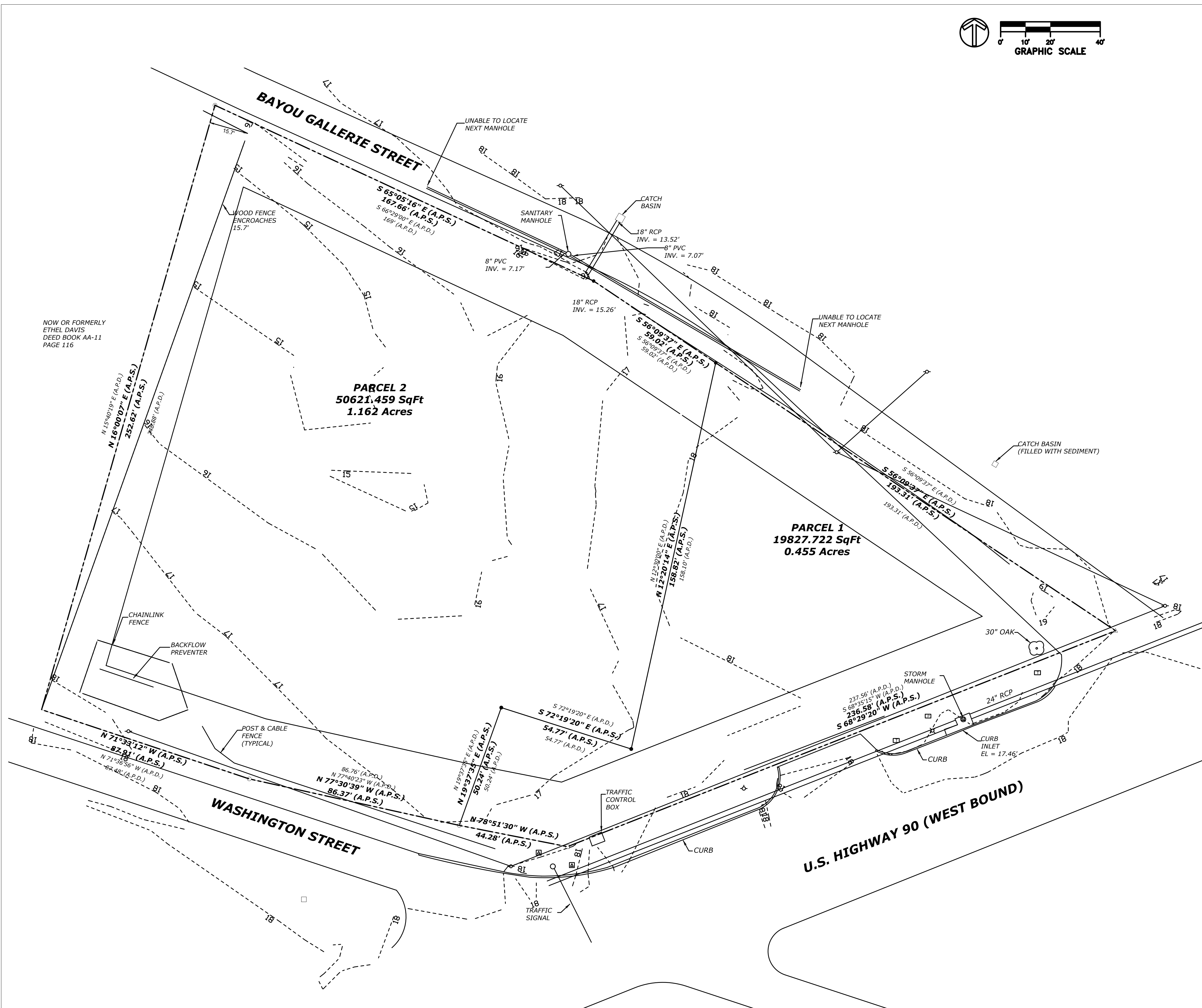
LIVE OAK ENGINEERING

2509 7TH AVE S.
BIRMINGHAM, AL 35233
955B HOWARD AVENUE
BILOXI, MS 39530
LIVEOAKENGINEERING.COM
LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
1083 HIGHWAY 90, BAY SAINT LOUIS
HANCOCK COUNTY, MISSISSIPPI
CIVIL PERMIT SET



ELEV =



NOW OR FORMERLY
ETHEL DAVIS
DEED BOOK AA-11
PAGE 116

PARCEL 2
50621.459 SqFt
1.162 Acres

PARCEL 1
19827.722 SqFt
0.455 Acres

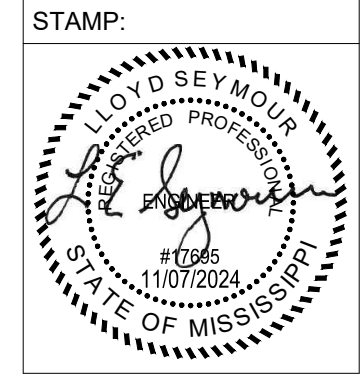
UNDERGROUND UTILITY NOTES

1. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL PROJECT RELATED UTILITIES, BURIED AND ABOVE GROUND, REGARDLESS OF INCLUSION ON THESE PLANS. THE LOCATIONS OF ANY EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
3. ALL CONTRACTOR DAMAGED UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THIS SURVEY IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY!
CONTRACTOR SHALL CONSULT ORIGINAL SURVEY FOR ANY PROPERTY INFORMATION AND EXISTING CONDITIONS

SHEET REVISIONS:

#	DATE/REFERENCE

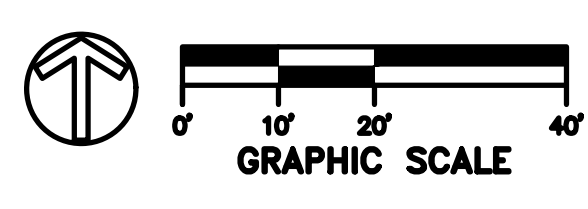


SHEET TITLE:
EXISTING CONDITIONS

DATE: 11-7-2024
SHEET NUMBER: 2 OF 13

C001

1 EXISTING CONDITIONS
C001 SCALE: 1" = 20'



ELEV =

SWPPP LEGEND

- 100.00- DENOTES EXISTING GRADE CONTOUR
- DENOTES FINISHED GRADE CONTOUR
- DENOTES STORMWATER FLOW DIRECTION
- DENOTES PERIMETER CONTROLS
- DENOTES INLET PROTECTION
- DENOTES TREE PROTECTION

SWPPP NOTES

1. THE CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENT CONTROLS DURING THE ENTIRE COURSE OF WORK TO PREVENT ANY SEDIMENT FROM LEAVING THE CONSTRUCTION SITE AND ENTERING ROADWAYS, STORM DRAINS SYSTEMS, DITCHES, SWALES, DETENTION BASINS, LOCAL WATER BODIES, AND/OR ADJACENT PROPERTIES.
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO EXPOSING ANY SOIL.
3. CONTRACTOR SHALL STAGE, TIME AND SEQUENCE CONSTRUCTION TO MINIMIZE THE SIZE OF EXPOSED SOIL AREAS AND THE TIME BETWEEN EXPOSING THE SOIL AREA AND FINISHING THE SOIL AREA.
4. PERIMETER CONTROLS SHALL BE CONSTRUCTED OF SILT FENCE AND/OR APPROVED BMP'S AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ARCHITECT.
5. ALL INLETS WITHIN THE CONTRACTOR'S LIMITS OF WORK SHALL BE PROTECTED WITH APPROVED EROSION AND SEDIMENT CONTROL MEASURES.
6. CONTRACTOR SHALL PROVIDE VEGETATION FOR AREAS WHERE SOILS HAVE BEEN DISTURBED.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT MIGRATES INTO THE STORM DRAIN SYSTEM. ANY SEDIMENT THAT HAS MIGRATED OFF OF THE PROJECT SITE SHALL BE REMOVED IMMEDIATELY UPON DISCOVERY.
8. TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL REMAIN FUNCTIONAL UNTIL PERMANENT EROSION AND SEDIMENT CONTROLS (SUCH AS PERMANENT GRASSING, PAVEMENT, ETC.) HAVE BEEN ESTABLISHED.
9. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED. ANY ADDITIONAL TEMPORARY CONTROL DEVICES THAT MAY BE REQUIRED SHALL BE PROVIDED AS PART OF THIS PROJECT AT NO ADDITIONAL COST TO THE OWNER.

CONSTRUCTION PHASE SEQUENCE

PHASE ONE

- INSTALL CONSTRUCTION ENTRANCE/EXIT
- CLEAR AREA REQUIRED FOR SILT FENCE PLACEMENT
- INSTALL SILT FENCE

PHASE TWO

- DEMOLITION AND REMOVAL OF DEMO DEBRIS

PHASE THREE

- CLEAR/GRUB REMAINING SITE AREAS

PHASE FOUR

- GRADE SITE TO ROUGH GRADES
- INSTALL STORM DRAINAGE MEASURES

PHASE FIVE

- CONSTRUCT UTILITIES (WATER, SEPTIC)
- BUILDING CONSTRUCTION BEGINS

PHASE SIX

- CONSTRUCT ROADS (PAVING, CURB AND GUTTER, SIDEWALKS)
- BUILDING CONSTRUCTION CONTINUES

PHASE SEVEN

- BUILDING CONSTRUCTION COMPLETED
- STABILIZE DISTURBED AREAS WITH SOLID SOD/SEED AND MULCH
- INSTALL PERMANENT LANDSCAPING

PHASE EIGHT

- REMOVE BMP MEASURES

PHASE NINE

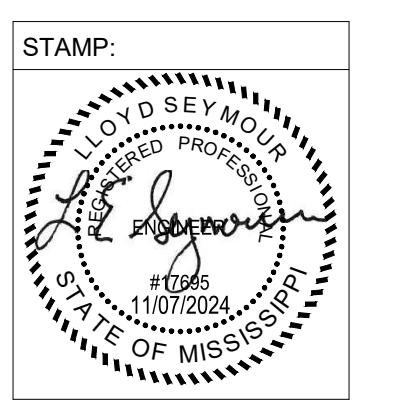
- REMOVE SILT FENCE
- PROJECT COMPLETE, FINAL INSPECTION

LIVE OAK ENGINEERING
 2509 7TH AVE S.
 BIRMINGHAM, AL 35233
 955B HOWARD AVENUE
 BILOXI, MS 39530
 LIVEOAKENGINEERING.COM
 LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
 1083 HIGHWAY 90, BAY SAINT LOUIS
 HANCOCK COUNTY, MISSISSIPPI
 CIVIL PERMIT SET

SHEET REVISIONS:

#	DATE/REFERENCE

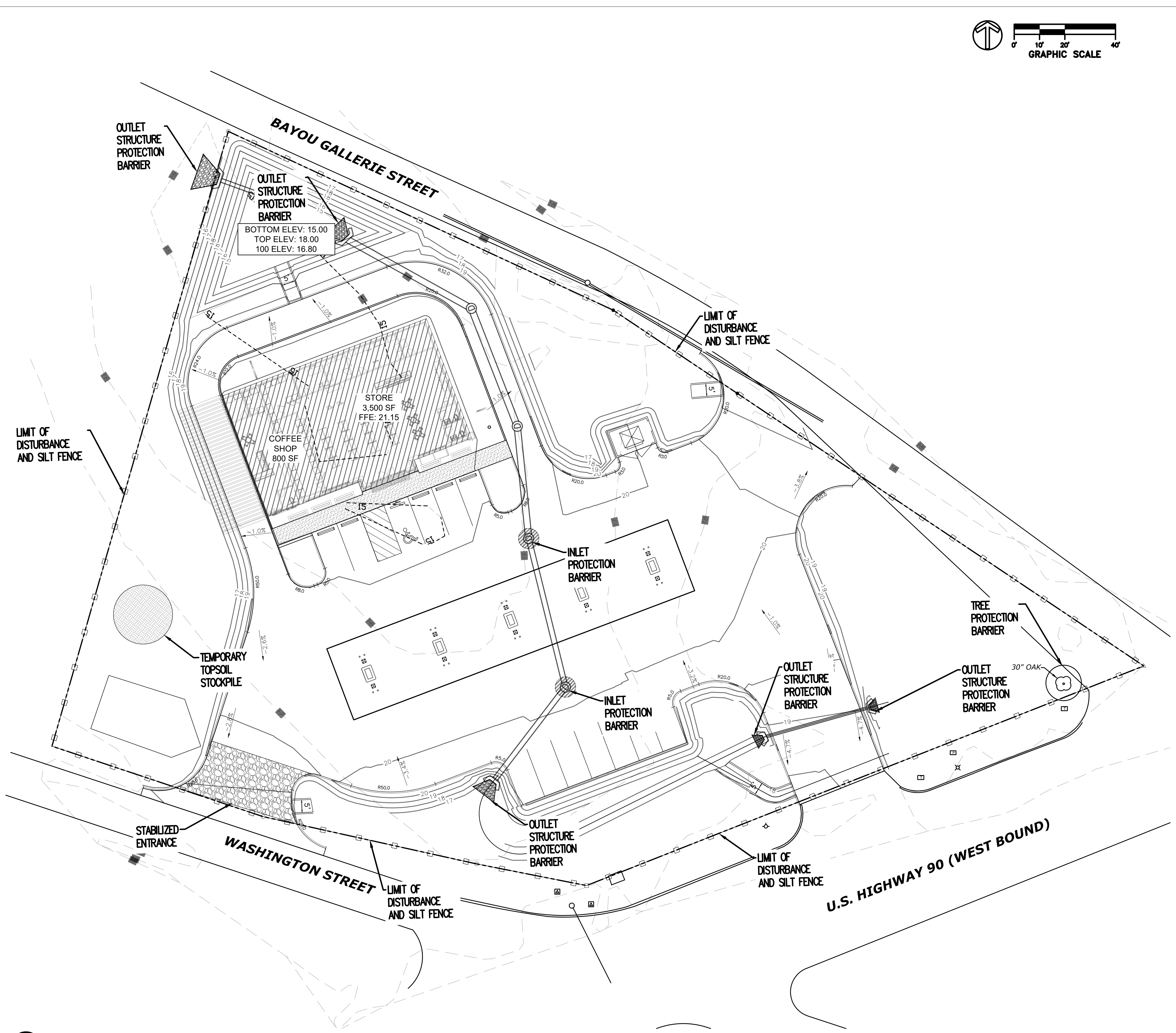


SHEET TITLE:

EROSION AND SEDIMENT CONTROL PLAN

DATE: 11-7-2024
 SHEET NUMBER: 3 OF 13

C110

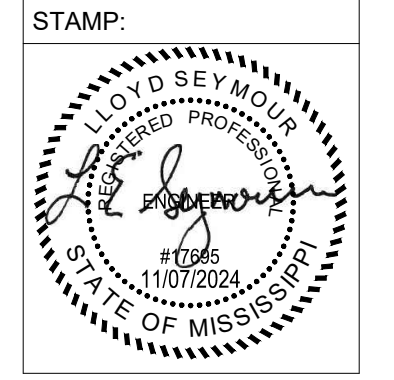


1 EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1" = 20'

BAY ST. LOUIS CONVENIENCE STORE
 1083 HIGHWAY 90, BAY SAINT LOUIS
 HANCOCK COUNTY, MISSISSIPPI
 CIVIL PERMIT SET

SHEET REVISIONS:

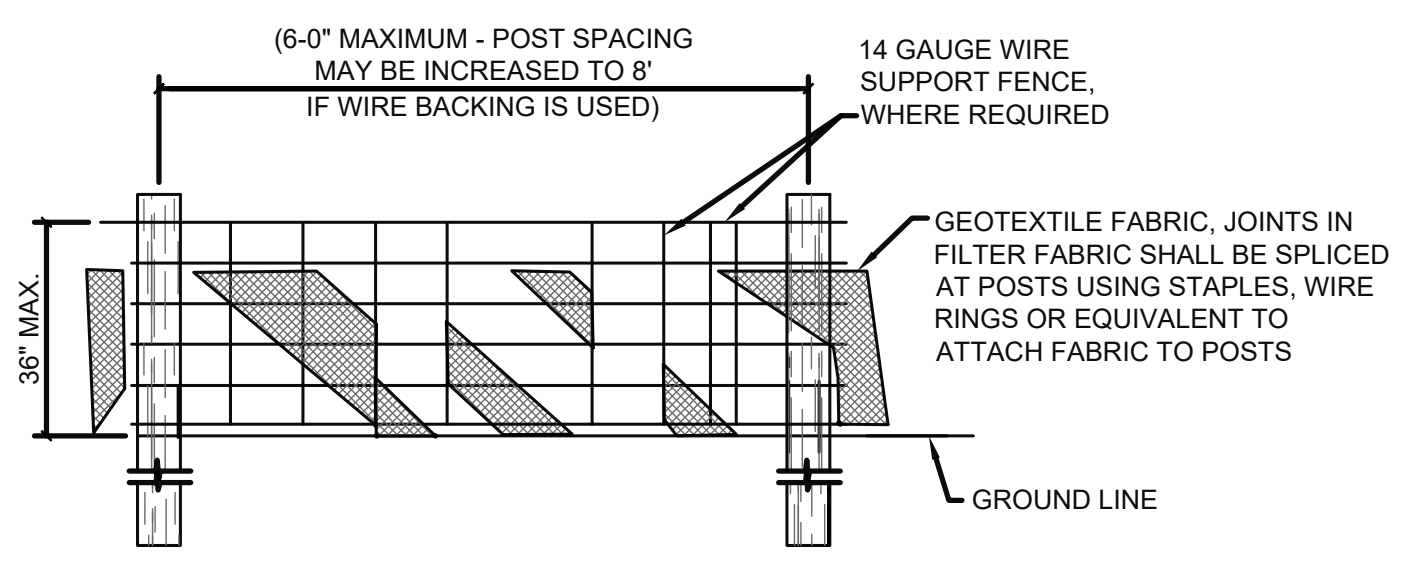
#	DATE/REFERENCE



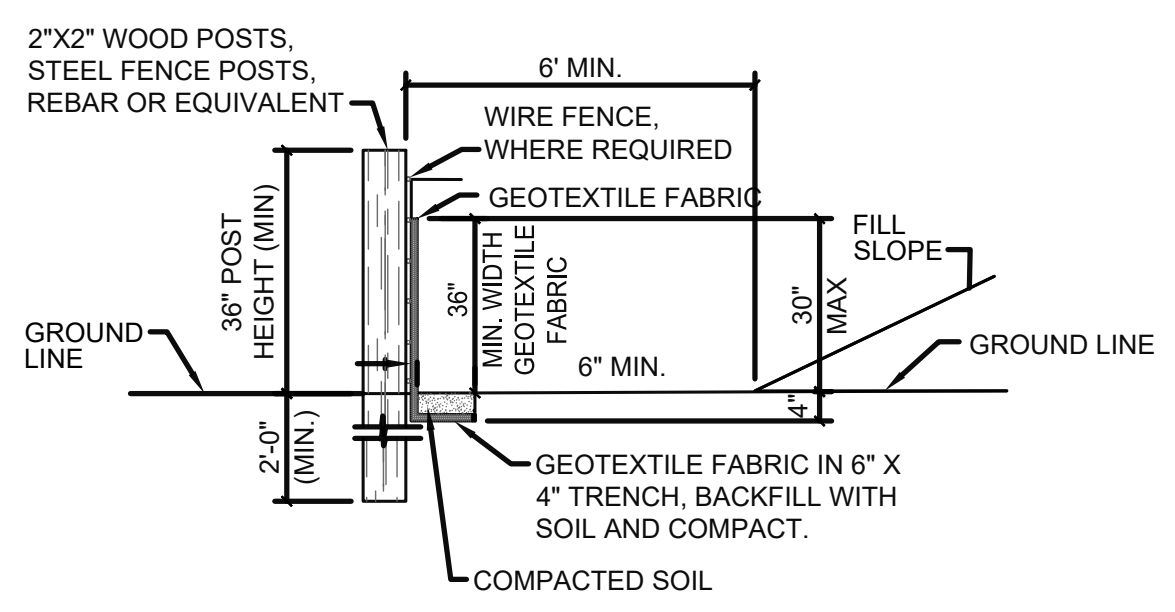
SHEET TITLE:
EROSION AND SEDIMENT CONTROL DETAILS

DATE: 11-7-2024
 SHEET NUMBER: 4 OF 13

C150



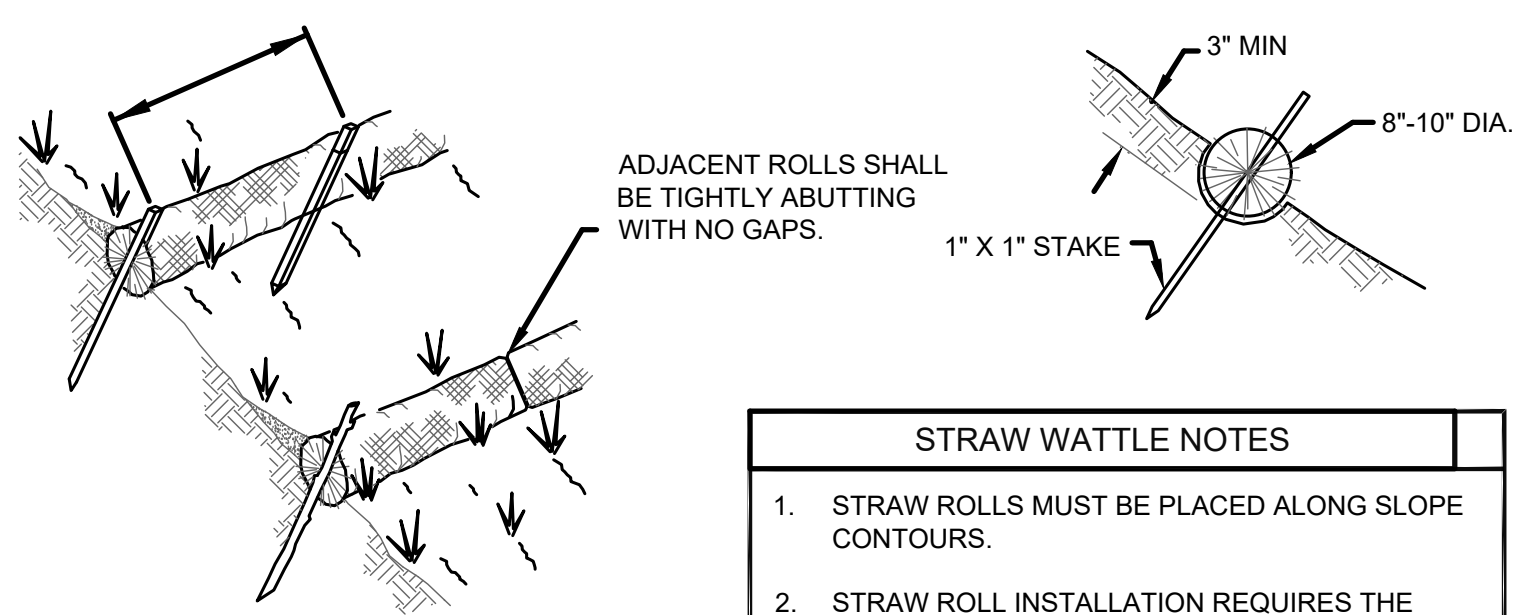
FRONT ELEVATION



SIDE ELEVATION

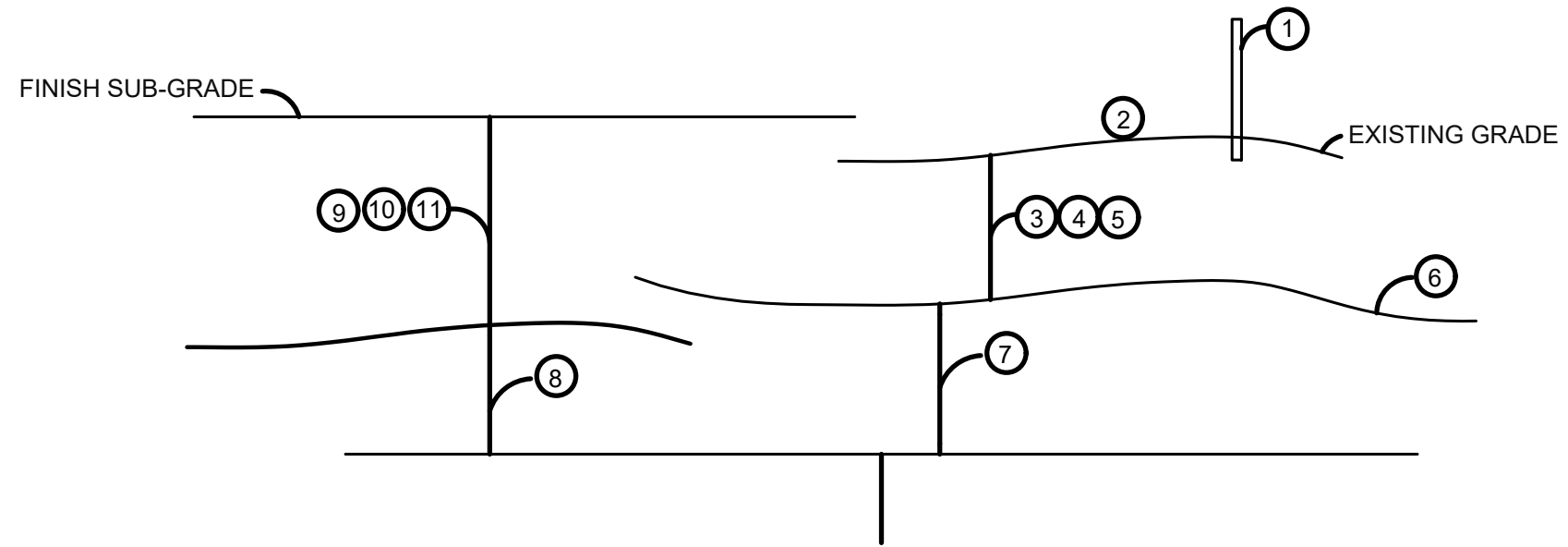
1 TYPICAL PERIMETER CONTROL DETAILS
 SCALE: N.T.S.

- PERIMETER CONTROL NOTES**
1. FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.
 1. POSTS SHALL BE SPACED A MAXIMUM OF 6' O.C. SPACING MAY BE INCREASED TO 8' IF WIRE BACKING IS USED.
 2. POSTS SHALL BE A MINIMUM OF 5'-0" IN LENGTH. IN ADDITION POSTS SHALL BE EITHER 2" x 2" N.D. WOOD POST OR HEAVY DUTY STEEL T-POSTS WITH PROJECTIONS FOR WIRE FASTENING.
 3. WIRE SUPPORT FENCE SHALL BE A MINIMUM OF 36" IN HEIGHT. SHALL NOT EXTEND MORE THAN 36" ABOVE THE GROUND, AND SHALL EXTEND 2" INTO THE TRENCH.
 4. WIRE FENCE SHALL BE A MINIMUM OF 14 GAUGE AND SHALL HAVE A MAXIMUM MESH SPACING OF 6". WIRE SHALL BE SECURELY FASTENED TO THE UPSLOPE, PROJECT SIDE OF POSTS USING HEAVY DUTY STAPLES (AT LEAST 1" LONG), TIE WIRES OR HOG RINGS.
 5. GEOTEXTILE FABRIC SHALL BE A MINIMUM OF 36" IN HEIGHT, AND SHALL NOT EXTEND MORE THAN 36" ABOVE THE ORIGINAL GROUND SURFACE.
 6. FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE AT THE TOP, MIDDLE, AND BOTTOM OF EACH POST. IN ADDITION THE FABRIC SHALL BE STAPLED OR WIRED TO THE WIRE FENCE APPROXIMATELY ONE HALF (1/2) THE DISTANCE BETWEEN THE POSTS AT THE TOP, MIDDLE AND BOTTOM OF THE WIRE FENCE.
 7. GEOTEXTILE FABRIC SHALL BE SPliced TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM OF 3" OVERLAP. EACH FREE END OF THE FABRIC SHALL BE SECURELY TIED TO THE WIRE FENCE AT 6" O.C. VERTICALLY.
 8. SILT FENCES SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. THE ENTIRE LENGTH OF FENCE SHALL BE CHECKED FOR ANY DAMAGES ON A DAILY BASIS AND BEFORE AND AFTER ANY RAINFALL EVENT, FOR ANY DAMAGES FOUND SHALL BE REMEDIATED BEFORE THE DAY'S END AT NO ADDITIONAL COST TO THE OWNER.
 9. SILT FENCES SHALL BE MAINTAINED TO PREVENT ANY MATERIAL FROM MIGRATING FROM THE UPSLOPE SIDE OF THE FENCE. ANY REQUIRED MAINTENANCE OF THE SILT FENCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 10. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL EVENT AND WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF (1/2) THE HEIGHT OF THE FENCE.
 11. IN ORDER TO PREVENT SEDIMENT LADEN STORM WATER FROM BY-PASSING THE FENCE, IN AREAS WHERE SILT FENCES ARE NOT UTILIZED ON ALL SIDES OF A DISTURBED AREA, THE FENCE SHALL EXTEND BEYOND THE DISTURBED AREA IN J-HOOK SHAPE ON EACH END AS SHOWN IN THE ISOLATED SILT FENCE INSTALLATION PLAN VIEW.

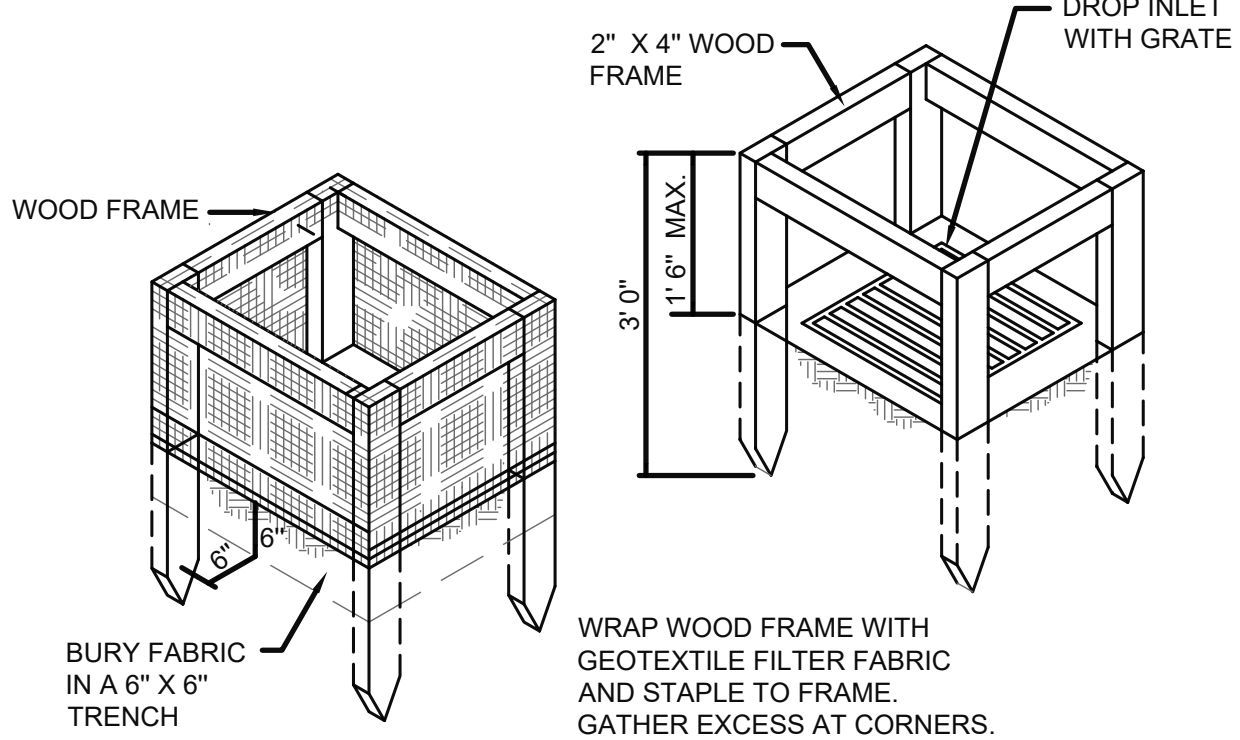


- STRAW WATTLE NOTES**
1. STRAW ROLLS MUST BE PLACED ALONG SLOPE CONTOURS.
 2. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A 3" MINIMUM TRENCH DUG ON CONTOUR.
 3. IF STAKES CAN NOT BE USED SECURE WITH SAND BAGS SPACED 4' APART.
 4. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

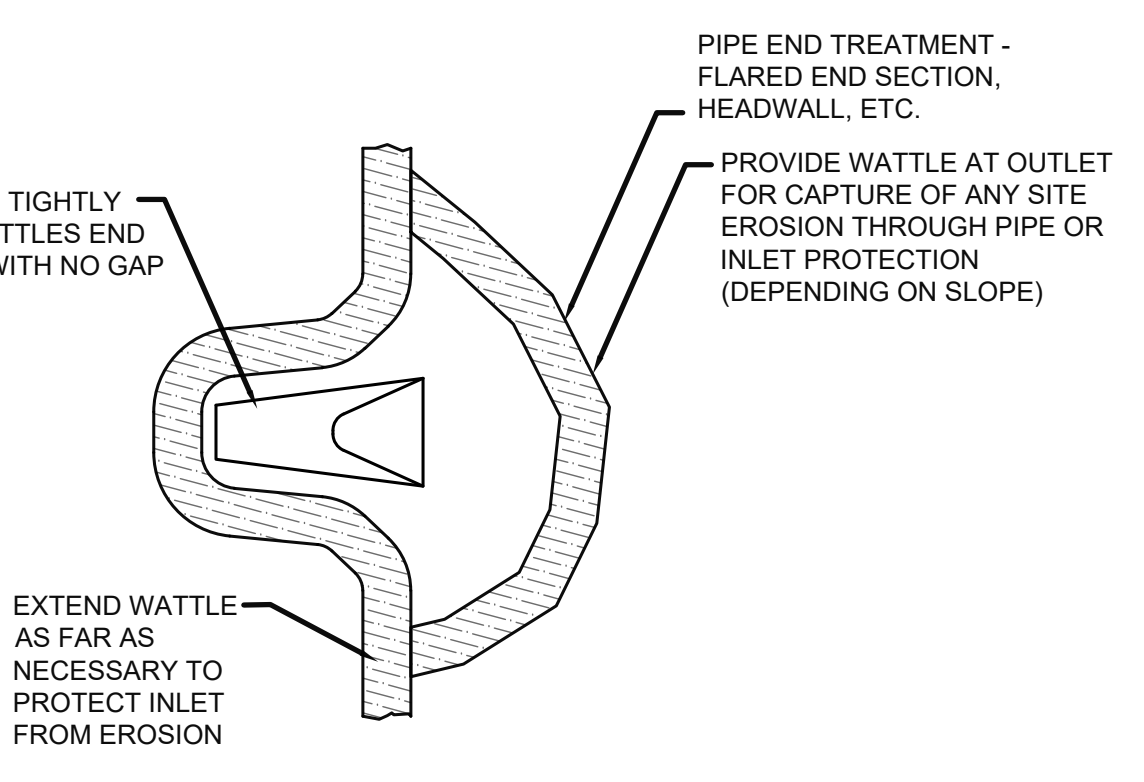
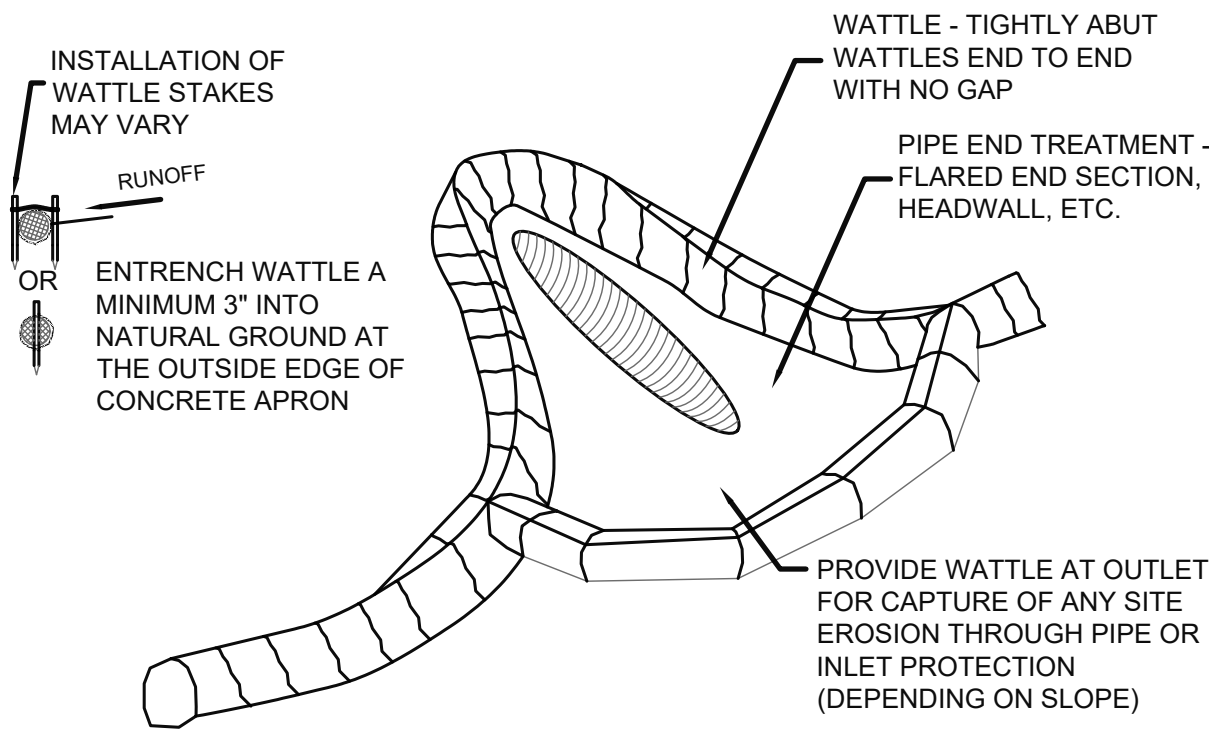
2 TYPICAL PERIMETER CONTROL DETAILS
 SCALE: NTS



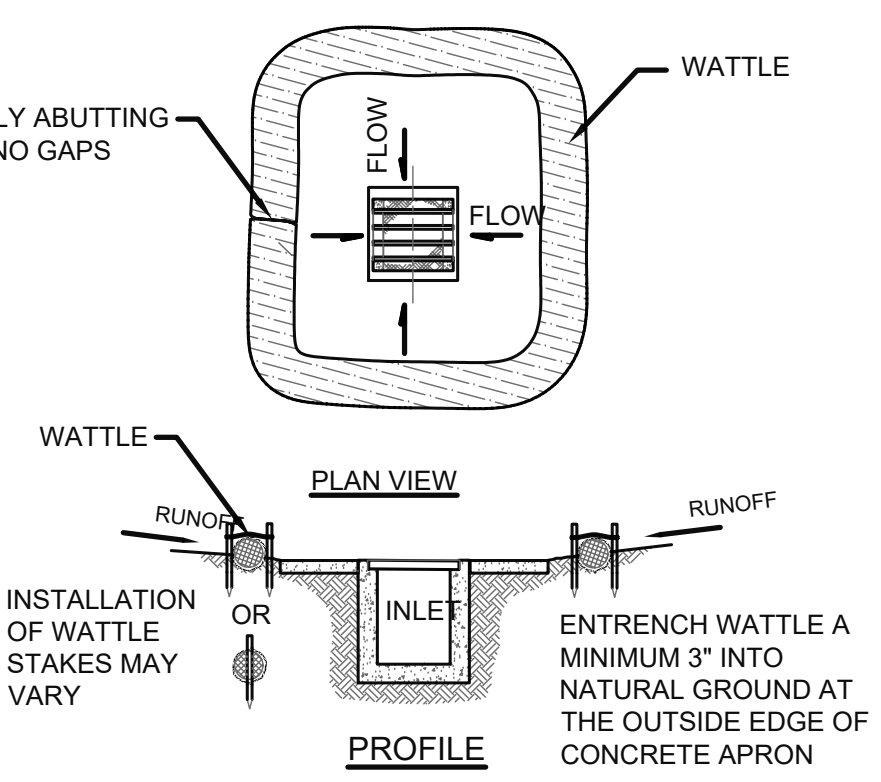
- CONSTRUCTION ENTRANCE/EXIT NOTE**
1. CRUSHED AGGREGATE SHALL BE COMPRISED OF STONE RANGING FROM 3" MINIMUM TO 6" MAXIMUM IN SIZE.
 2. THE ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT THE FLOW OF SEDIMENT ONTO PUBLIC ROADWAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS SHALL BE REMOVED IMMEDIATELY.
 3. THE ENTRANCE SHALL BE PROPERLY MAINTAINED FOR THE DURATION OF THE PROJECT TO PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC ROADWAY. ALL MAINTENANCE AND REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 4. THE ENTRANCE SHALL BE CHECKED ON A DAILY BASIS AND BEFORE AND AFTER ANY RAINFALL EVENT FOR ANY DAMAGES. ANY DAMAGES FOUND SHALL BE REMEDIATED BEFORE THE DAYS END.
 5. MEASURES SHALL BE TAKEN TO PREVENT VEHICULAR TRAFFIC FROM BYPASSING THE CONSTRUCTION ENTRANCE DURING INGRESS AND EGRESS.



SILT FENCE OPTION



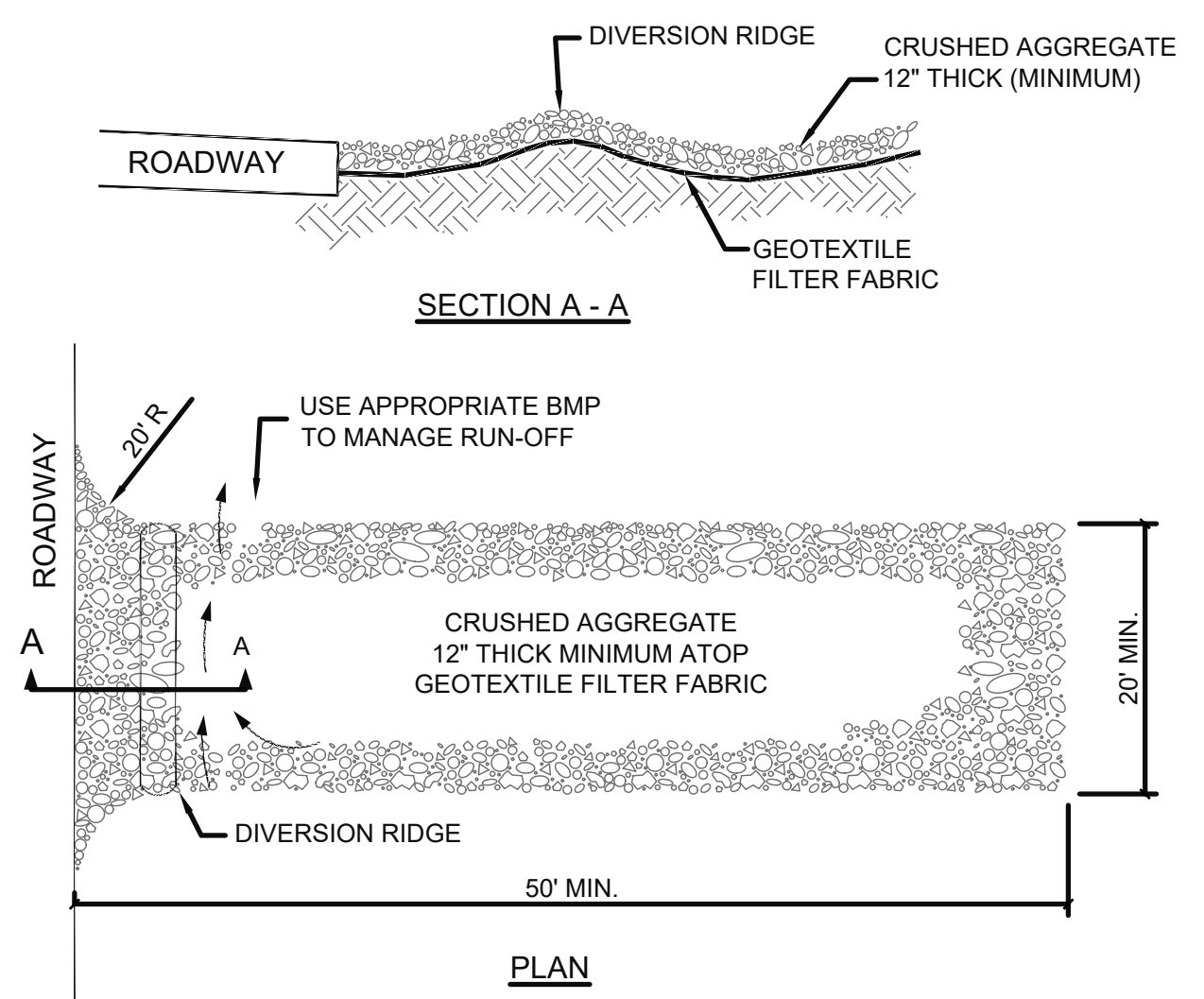
PIPE END TREATMENT WATTLE OPTION



INLET STRAW ROLL WATTLE OPTION

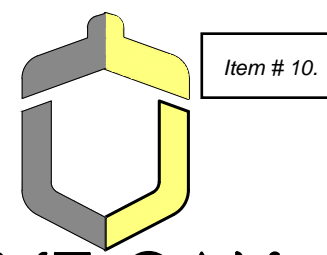
- EXCAVATION NOTES**
1. **EROSION CONTROL MEASURES:** THE INITIAL STEP FOR SITE PREPARATION SHALL BE TO ESTABLISH EROSION AND SEDIMENT CONTROL MEASURES.
 2. **DRAINAGE:** EFFECTIVE DRAINAGE, INCLUDING DITCHING AND/OR POSITIVE GRADING, SHOULD BE ESTABLISHED AT THE BEGINNING OF SITE DEVELOPMENT AND MODIFIED AS NECESSARY DURING CONSTRUCTION. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 3. **CLEARING:** UPON COMPLETION OF DEMOLITION WORK THE CONTRACTOR SHALL VERIFY THAT ALL EXISTING PAVEMENTS, SLABS, FOUNDATIONS, SIDEWALKS, ABANDONED UTILITIES, AND OTHER MISCELLANEOUS DEBRIS HAVE BEEN COMPLETELY REMOVED TO AT LEAST A MINIMUM OF 5 FEET BEYOND THE PROPOSED BUILDING FOOTPRINTS AND NEW PAVEMENT AREAS.
 4. **STRIPPING:** ONCE ALL PAVEMENTS, FOUNDATION AND DEBRIS HAVE BEEN REMOVED, STRIPPING EXCAVATIONS SHOULD BE CONTINUED TO APPROXIMATELY 6" BELOW EXISTING GRADE. STRIPPING EXCAVATION SHALL BE CARRIED OUT TO AT LEAST A MINIMUM OF 5 FEET BEYOND THE PROPOSED BUILDING FOOTPRINTS AND NEW PAVEMENT AREAS.
 5. **TOPSOIL:** CONTRACTOR SHALL STOCKPILE TOPSOIL AND OTHER SUITABLE FILL MATERIAL TO BE REUSED ON SITE. ALL UNSUITABLE SOILS SHALL BE REMOVED FROM THE SITE.
 6. **SUB-GRADE PREPARATION:** ONCE ALL TOPSOIL, ORGANIC MATERIALS, AND/OR OTHER UNSUITABLE SOILS HAVE BEEN REMOVED, THE FILL AREAS SHOULD BE LEVELED AND SEATED USING A STATIC ROLLER AND THEN PROOF-ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK WEIGHING AT LEAST 20 TONS TO IDENTIFY AREAS OF WEAK SOIL.
 7. **MUCK:** WHEN EXCAVATIONS ENCOUNTER UNSUITABLE MATERIALS BELOW THE BOTTOM OF THE STRIPPING AND UNDERCUT EXCAVATIONS, THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE MATERIAL AND BACKFILL WITH APPROPRIATE FILL MATERIAL AS APPROVED BY THE ENGINEER. THE DEPTH AND WIDTH OF MUCK EXCAVATION WILL BE AS DIRECTED OR APPROVED BY THE ENGINEER. THE CONTRACTOR WILL NOT BE COMPENSATED FOR EXCAVATION BEYOND THE DIMENSIONS AND ELEVATIONS AS SHOWN ON THE PLANS OR EXCAVATION THAT HAS NOT BEEN DIRECTED OR APPROVED BY THE ENGINEER. ALL MUCK AND FILL FORMATIONS BELOW THE BOTTOM OF THE STRIPPING/UNDERCUT EXCAVATIONS SHALL BE MEASURED AS UNIT PRICE PAY ITEMS PER THE UNSUITABLE SOILS ALLOWANCE.
 8. **ON-SITE SOILS:** ON-SITE SOILS ARE SUITABLE TO USE AS STRUCTURAL FILL BUT WILL LIKELY REQUIRE MOISTURE CONDITIONING TO MEET THE REQUIREMENTS OF STRUCTURAL FILL. IF CONSTRUCTION IS PERFORMED DURING THE WET SEASON THE NEAR SURFACE SOILS MAY BECOME UNSTABLE UNDER CONSTRUCTION TRAFFIC AND REQUIRE ADDITIONAL UNDERCUT.
 9. **STRUCTURAL FILL:** IF REQUIRED, STRUCTURAL FILL MATERIAL SHOULD BE SILTY SAND, CLAYEY SAND, OR LEAN CLAY (UNIFIED CLASSIFICATION SM, SC, OR CL) TYPE SOIL. THE PLASTICITY INDEX OF FILL SHOULD BE A MAXIMUM OF 20 AND HAVE A MAXIMUM LIQUID LIMIT OF 40.
 10. **COMPACTION:** MATERIALS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR (ASTM D 698). COMPACTION SHOULD BE ACHIEVED PRIOR TO PLACING SUBSEQUENT LIFTS. FILL SOILS SHOULD BE PLACED IN MAXIMUM LOOSE LIFTS OF 8" AT A MOISTURE CONTENT COMPARABLE (±3%) TO THE OPTIMUM MOISTURE CONTENT ESTABLISHED IN THE LABORATORY.
 11. **TESTING:** IN PLACE DENSITY TESTS SHOULD BE MADE PER 2,500 SQUARE FEET PER LIFT WITHIN THE BUILDING FOOTPRINT AND 5,000 SQUARE FEET PER LIFT UNDER PAVEMENT.

5 EXCAVATION DETAIL AND NOTES
 SCALE: NTS



3 TYPICAL CONSTRUCTION ENTRANCE/EXIT DETAIL
 SCALE: NTS

4 TYPICAL INLET/OUTLET PROTECTION DETAIL
 SCALE: NTS

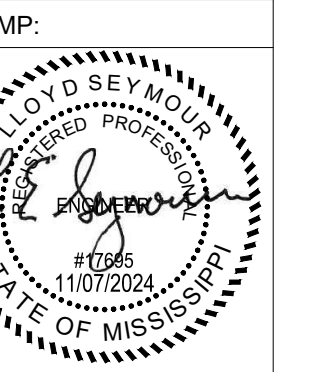


LIVE OAK ENGINEERING

2509 7TH AVE S.
BIRMINGHAM, AL 35233
955B HOWARD AVENUE
BILOXI, MS 39530
LIVEOAKENGINEERING.COM
LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
1083 HIGHWAY 90, BAY SAINT LOUIS
HANCOCK COUNTY, MISSISSIPPI
CIVIL PERMIT SET

SHEET REVISIONS:	
#	DATE/REFERENCE

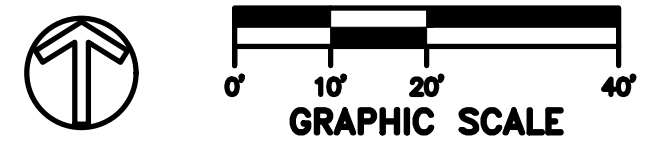


SHEET TITLE:
SITE PLAN

DATE: 11-7-2024
SHEET NUMBER: 5 OF 13

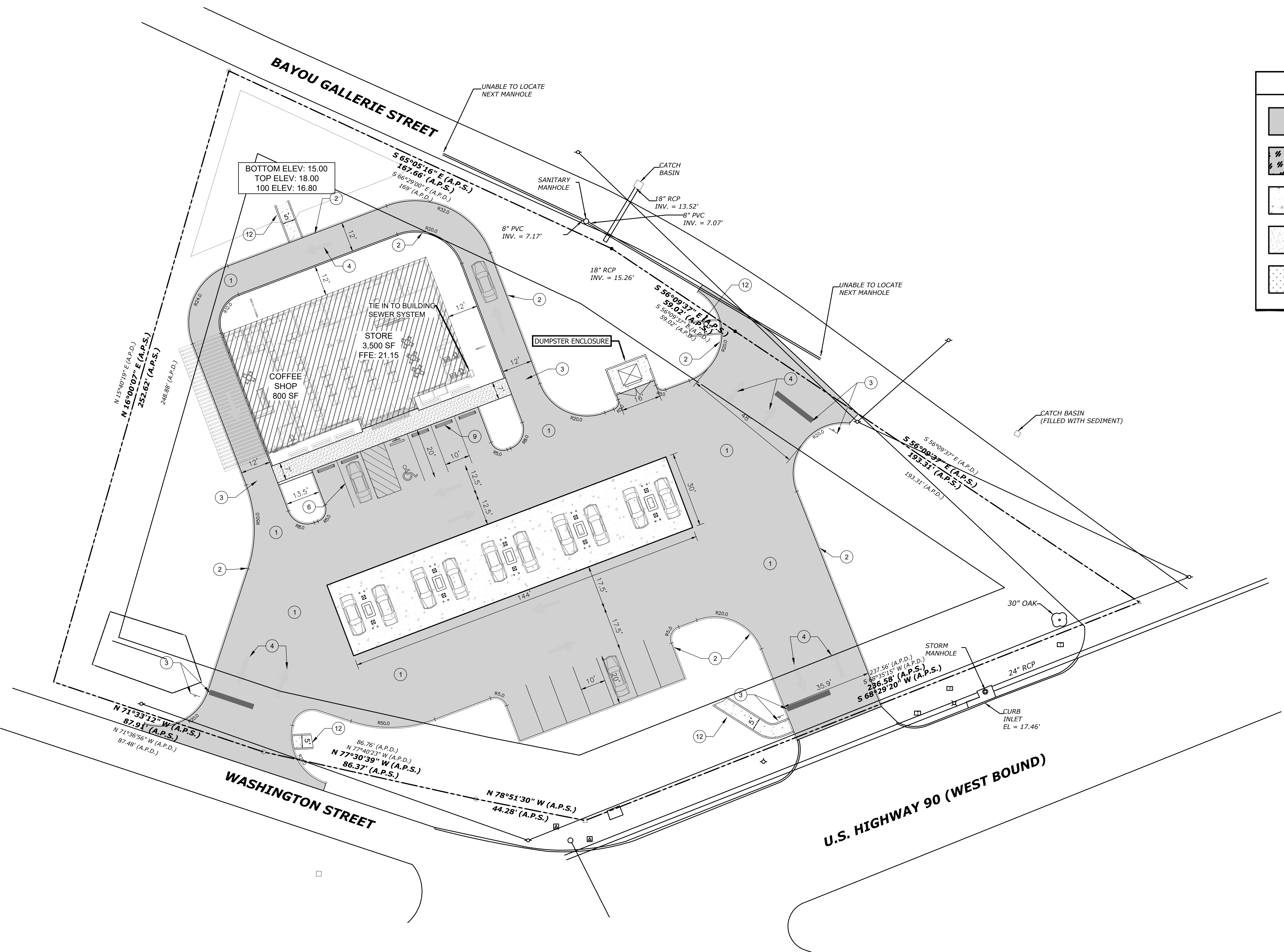
C200

ELEV =

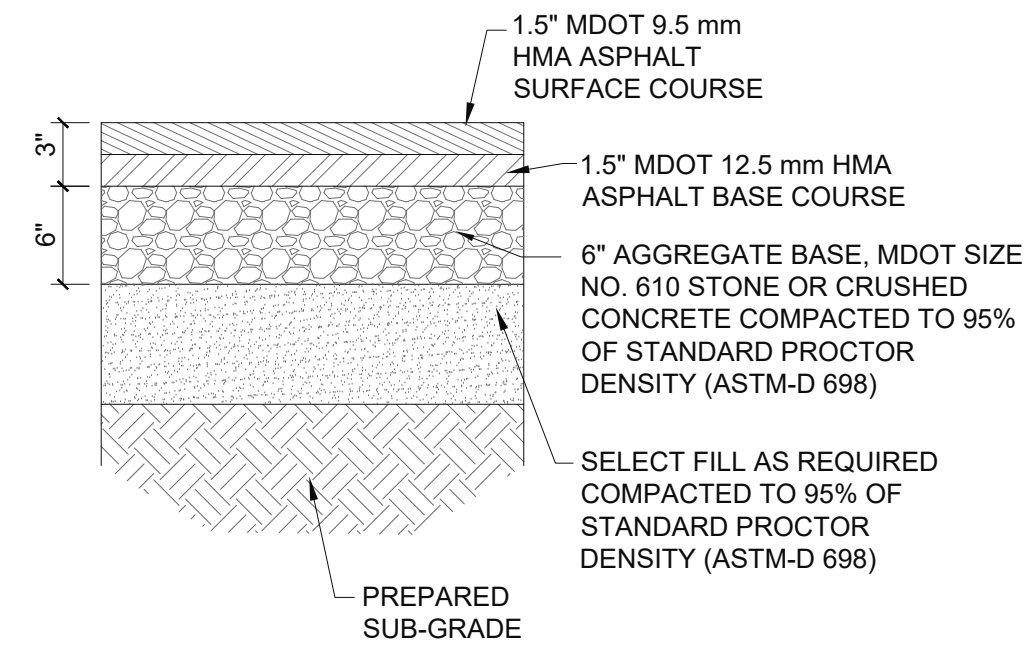


CIVIL SITE LEGEND	
	DENOTES LIGHT DUTY ASPHALT PAVEMENT (SEE PAVEMENT DETAILS)
	DENOTES HEAVY DUTY ASPHALT PAVEMENT (SEE PAVEMENT DETAILS)
	DENOTES 6" HEAVY DUTY CONCRETE PAVEMENT (SEE PAVEMENT DETAILS)
	DENOTES 4" CONCRETE SIDEWALK PAVEMENT (SEE PAVEMENT DETAILS)
	DENOTES GRASS PAVERS WITH PAVER EDGE (SEE PAVEMENT DETAILS)

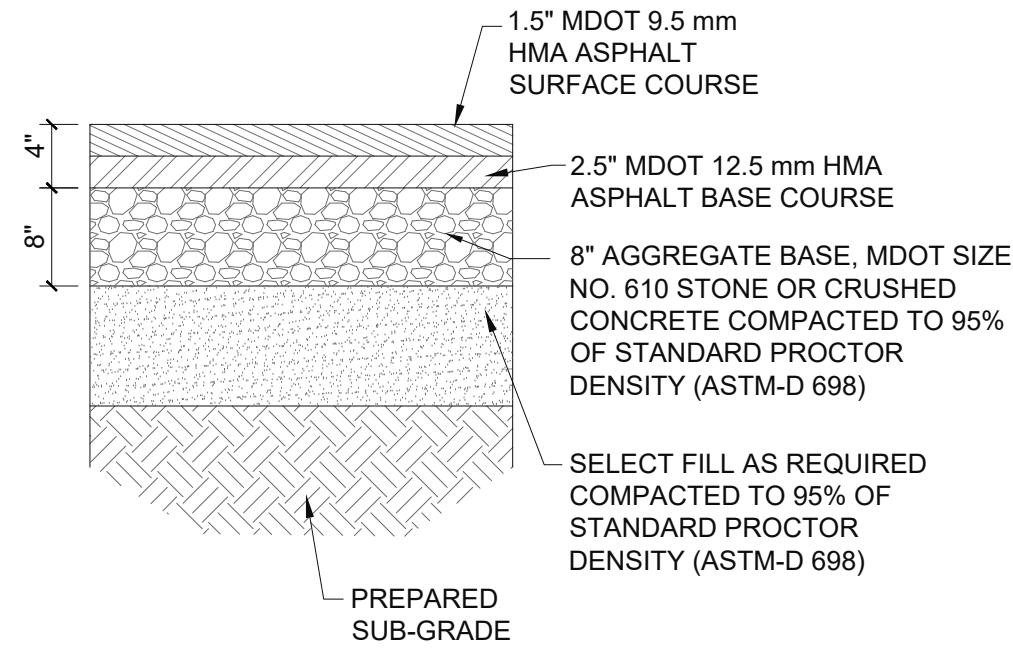
SITE WORK KEYNOTES	
①	HEAVY DUTY ASPHALT PAVEMENT AND GRANULAR BASE (DTL 2 & PAGE 250).
②	6" WIDE CONCRETE CURB/GUTTER (DTL 5 PAGE 250).
③	STOP BAR AND STOP SIGN
④	HORIZONTAL DEMARICATION PAINTING
⑤	GREEN SPACE TO RECEIVE TOPSOIL AND SOD. TOPSOIL MUST CONTAIN NO STONES ROOTS, TRASH, ETC. AND MUST BE UNIFORMLY DISTRIBUTED TO RECEIVE SOD PROVIDE AND INSTALL IRRIGATION SYSTEM AS REQUIRED FOR LOCAL CLIMATE CONDITIONS.
⑥	4" WIDE PAINTED TRAFFIC STRIPES WHITE.
⑦	HEAVY DUTY CONCRETE PAVEMENT
⑧	GAS DISPENSER
⑨	CAR STOP
⑩	CONCRETE STOP
⑪	PICK UP WINDOW
⑫	CONCRETE FLUME



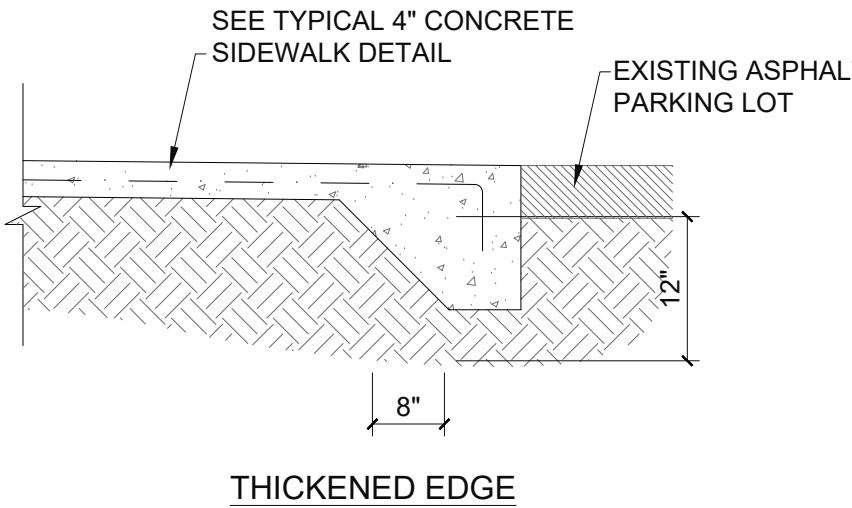
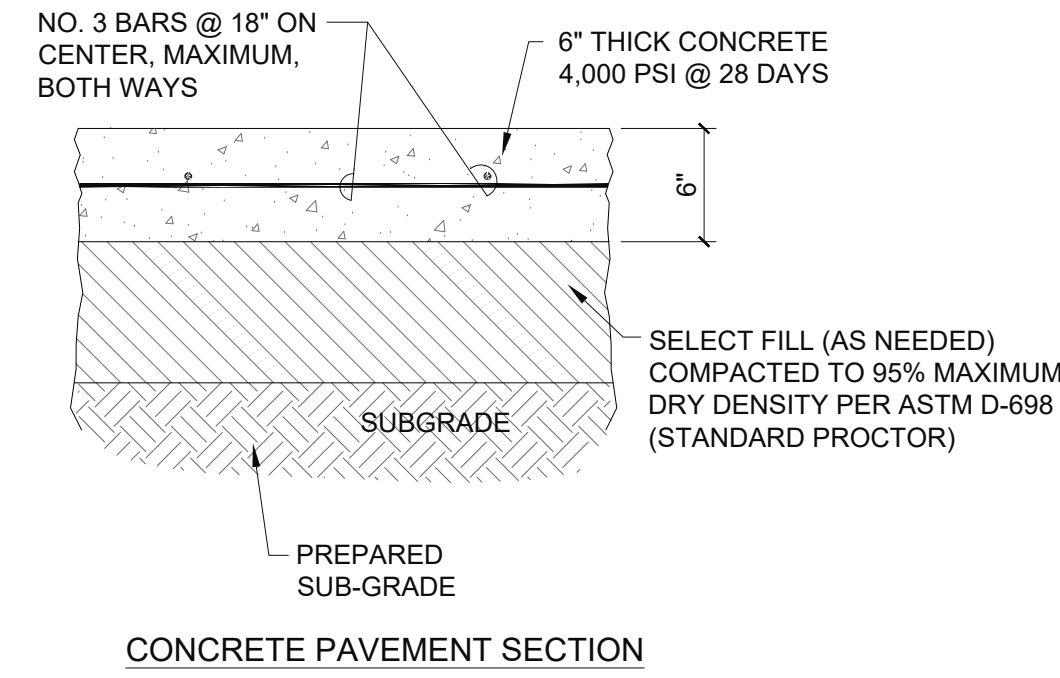
1 CIVIL SITE PLAN
SCALE: 1" = 20'



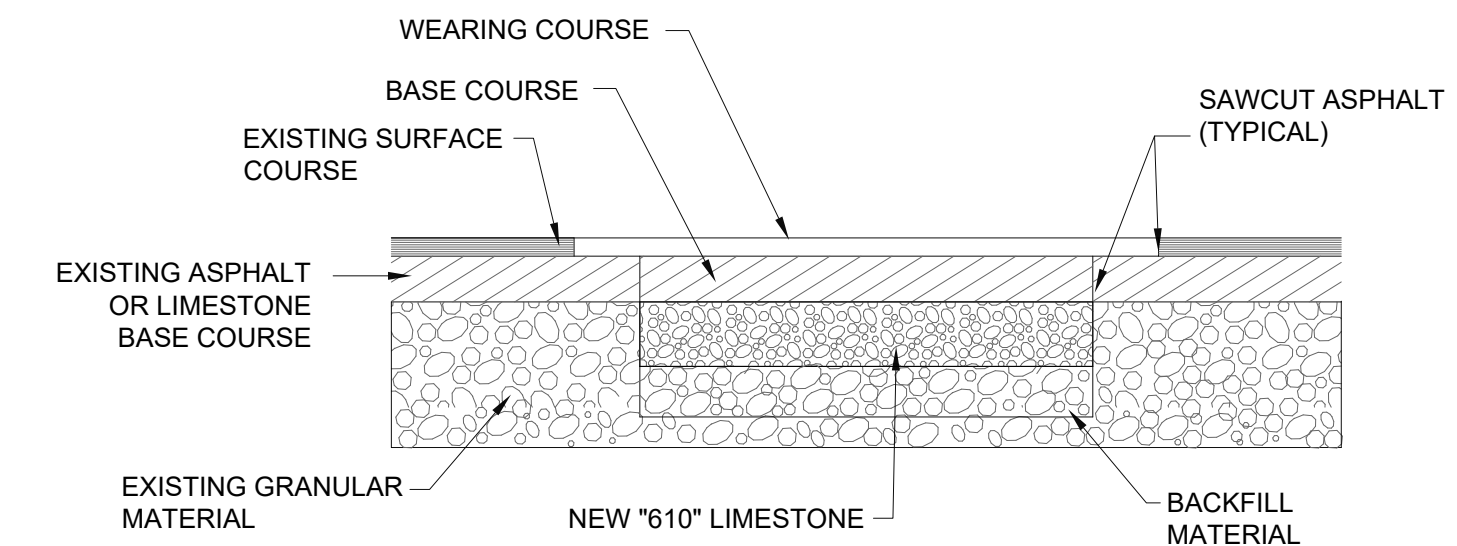
1 TYPICAL LIGHT DUTY ASPHALT PAVEMENT SECTION
SCALE: NTS



2 TYPICAL HEAVY DUTY ASPHALT PAVEMENT SECTION
SCALE: NTS



3 TYPICAL 6" CONCRETE PAVEMENT DETAILS
SCALE: NTS



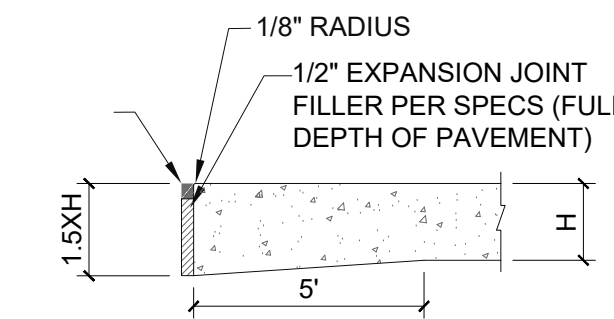
ASPHALT STREET REPAIR NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARDS.
- MIX DESIGNS: BASE COURSE: HMA, TYPE ST, 19 mm
WEARING COURSE: HMA, TYPE ST, 9.5 mm
- EXISTING GRANULAR MATERIAL, NEW BACKFILL MATERIAL AND NEW "610" LIMESTONE SHALL BE COMPACTED TO 95% PROCTOR PER ASTM D1557.
- TACK COAT SHALL BE APPLIED WHERE NEW ASPHALT MEETS EXISTING ASPHALT.
- REFER TO OTHER DETAILS FOR UTILITY PLACEMENT AND PAVEMENT MARKINGS AS APPLICABLE.

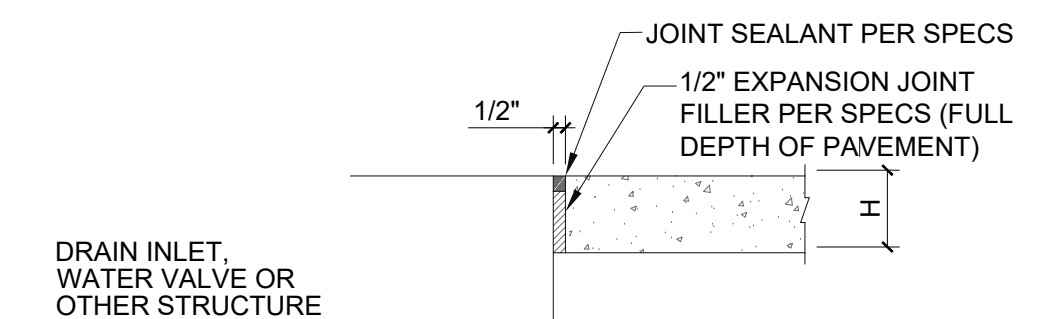
4 TYPICAL ASPHALT STREET PAVEMENT REPAIR SECTION
SCALE: NTS

4" CONCRETE PAVEMENT NOTES

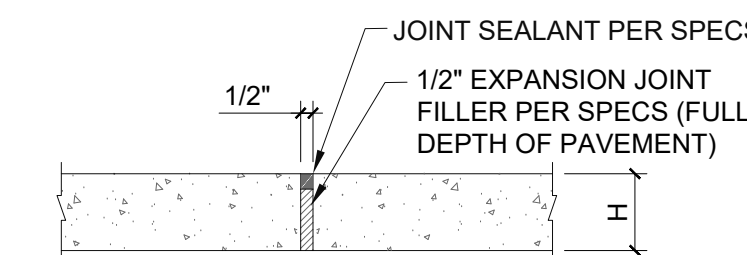
- ALL JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 330R-08 OR SECTION 3.07 IN THE NRMCA GUIDE SPECIFICATIONS.
- EXPANSION JOINTS SHALL BE LOCATED WHERE SIDEWALK ABUTS CONCRETE DRIVEWAYS, CURB OR OTHER ADJACENT STRUCTURES.
- CONTRACTION JOINTS SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 5 FEET OR AT A SPACING THAT MATCHES THE ADJACENT CURB.
- JOINTS SHALL BE PROVIDED WITHIN TWELVE (12) HOURS OF FINISHING CONCRETE.
- CONTRACTION JOINT CUTS SHALL BE 1/4 OF THE PAVEMENT THICKNESS DEEP. THE WIDTH OF THE CUT SHOULD BE APPROXIMATELY 1/8 INCH FOR UNSEALED JOINTS AND 1/4 INCH FOR SEALED JOINTS.
- FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" RADIUS.
- SCORED JOINTS SHALL BE 1/4" DEEP AND PLACED AT THE SPACING INDICATED FOR THE WIDTH OF SIDEWALK OR MATCH SCORED JOINTS OF ADJACENT CURB.
- CONCRETE SHALL BE FINISHED BY MEANS OF A FLOAT, STEEL TROWELLED AND BROOMED WITH A FINE BRUSH IN A TRANSVERSE DIRECTION.
- CONTRACTOR SHALL INSTALL CONTRACTION JOINTS AT THE END OF ONE PLACEMENT AND THE BEGINNING OF A SECOND PLACEMENT.
- CONTRACTOR SHALL CONTINUE CONTRACTION JOINTS THROUGH CURB AND GUTTER TO HELP ELIMINATE SYMPATHY CRACKS.



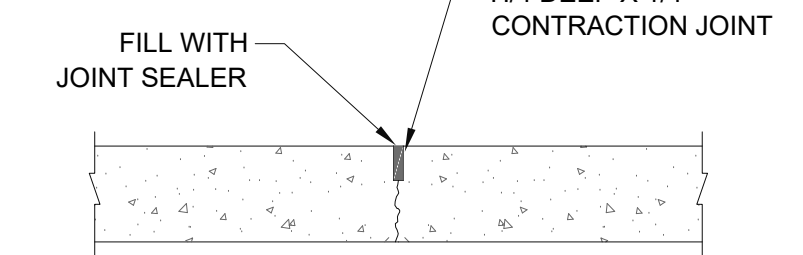
THICKENED EDGE



ISOLATION JOINT

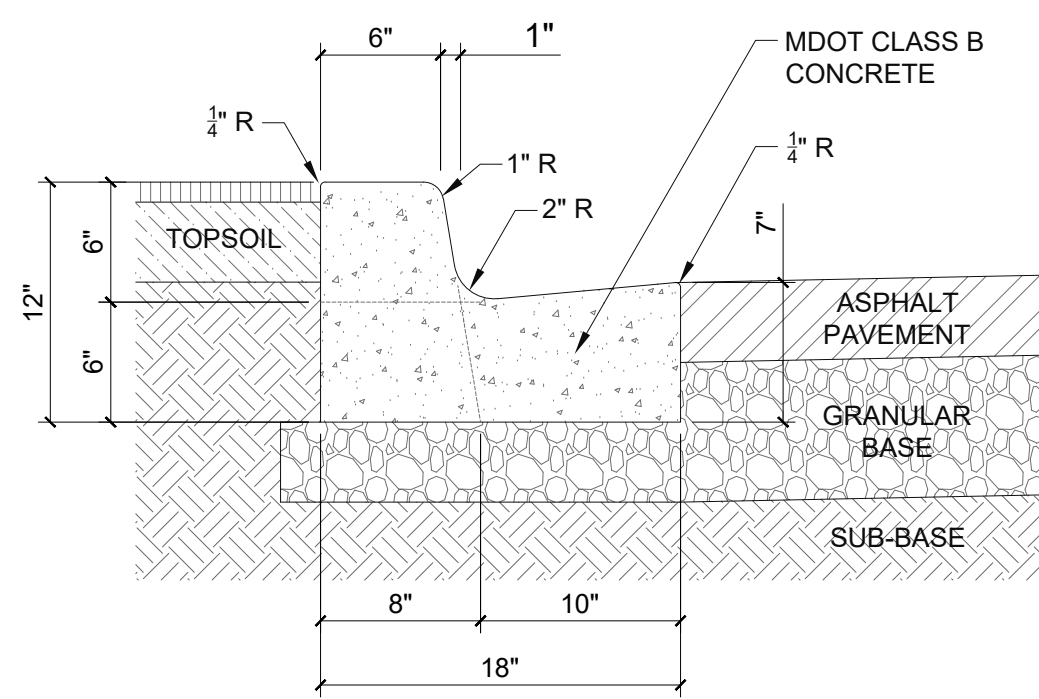


EXPANSION JOINT



CONTRACTION JOINT

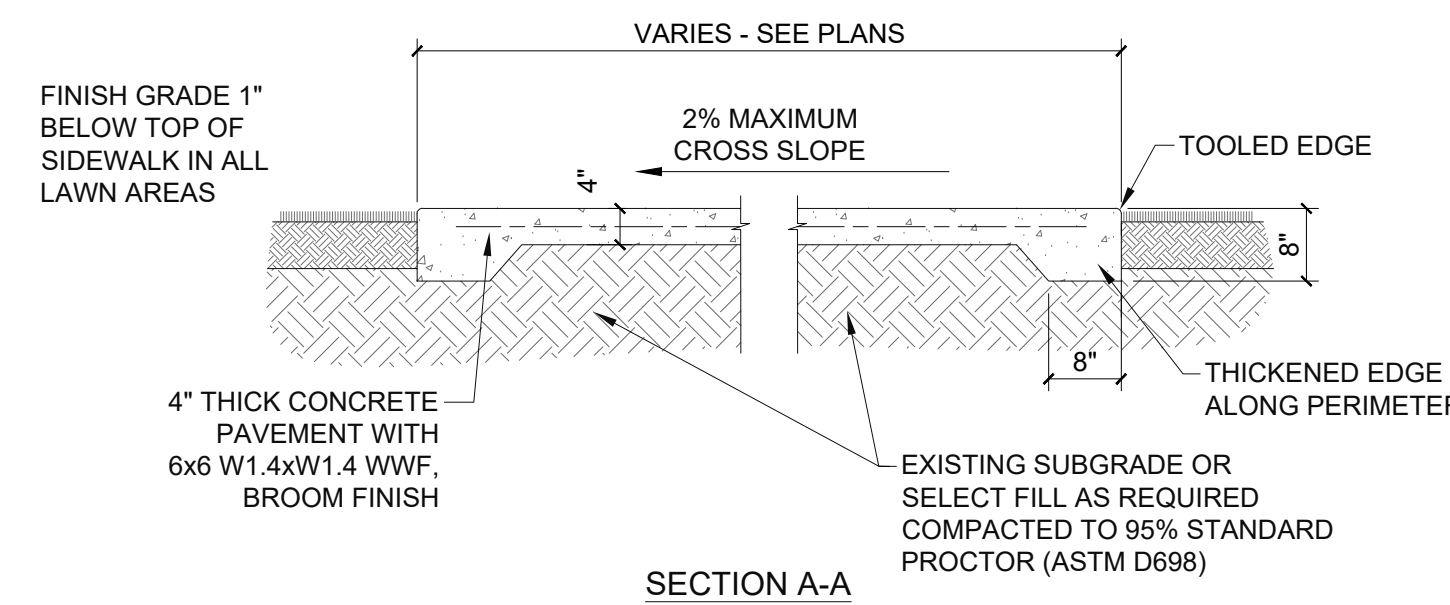
7 TYPICAL CONCRETE JOINT DETAILS
SCALE: NTS



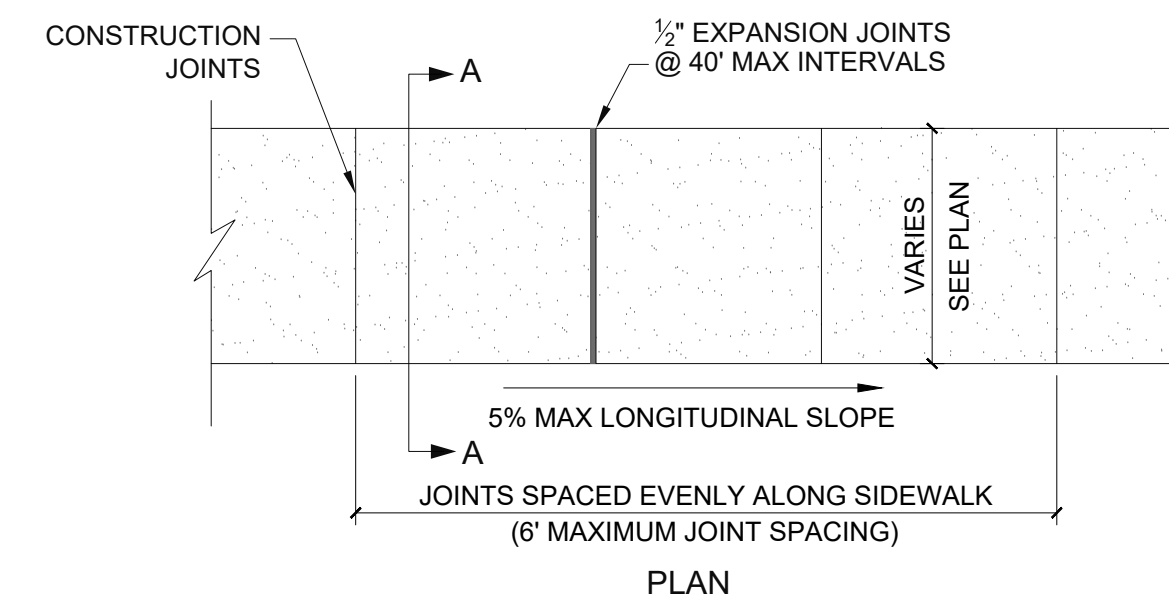
CURB SECTION

CURB & GUTTER NOTES

- CONSTRUCTION SHALL BE IN ACCORDANCE WITH LATEST ADDITION OF ACI 330R.
- EXPANSION JOINTS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, PT'S, AND PC'S.
- EXPANSION JOINTS SHALL BE LOCATED WHERE CURB ABUTS CONCRETE DRIVEWAYS, SIDEWALKS OR OTHER ADJACENT STRUCTURES.
- CONTRACTION JOINTS SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART.
- JOINTS SHALL BE PROVIDED WITHIN TWELVE (12) HOURS OF FINISHING CONCRETE.
- 1/2 INCH BITUMINOUS JOINT FILLER SHALL BE INSTALLED AT EXPANSION JOINT LOCATIONS AND SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
- CONTRACTION JOINT SHALL BE TOOLED AND BE 1/4 OF THE PAVEMENT THICKNESS DEEP. THE WIDTH OF THE TOOL SHOULD BE APPROXIMATELY 1/8 INCH FOR UNSEALED JOINTS AND 1/4 INCH FOR SEALED JOINTS.
- FORMED CONTRACTION JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4" RADIUS.

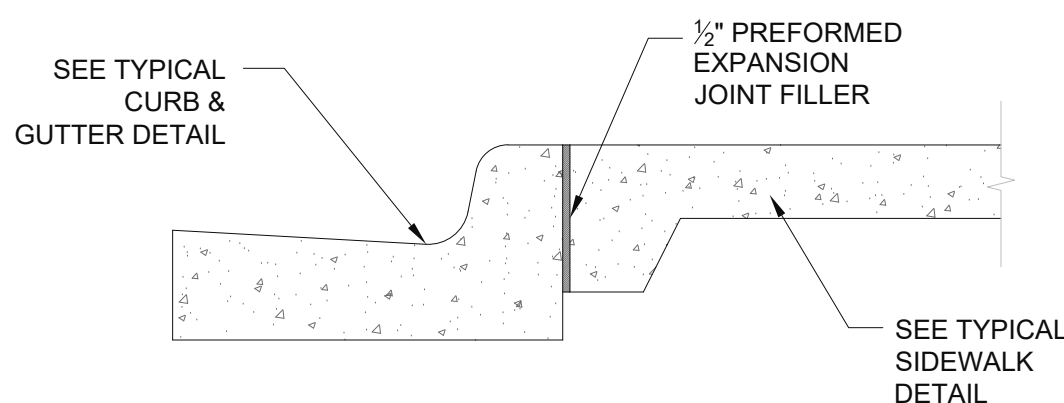


SECTION A-A

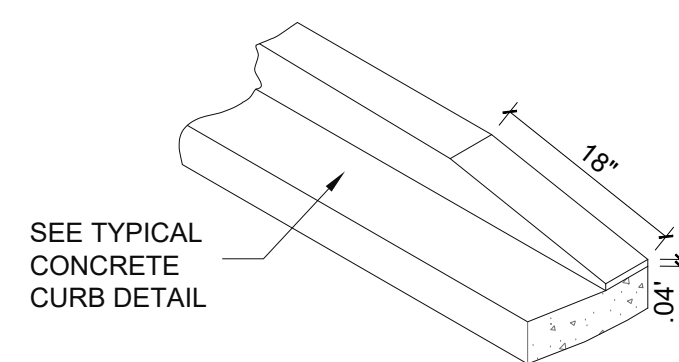


PLAN

6 TYPICAL 4" CONCRETE SIDEWALK DETAILS
SCALE: NTS



CURB AT SIDEWALK DETAIL

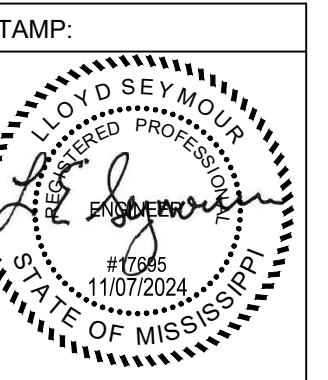


CURB TAPPER

5 TYPICAL CONCRETE CURB DETAIL
SCALE: NTS

SHEET REVISIONS:

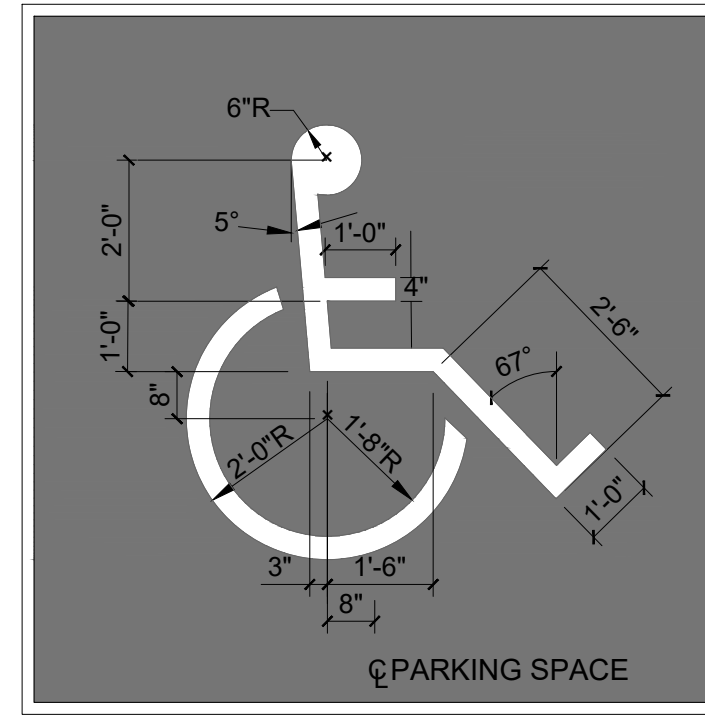
#	DATE/REFERENCE



SHEET TITLE:
SITE DETAILS

DATE: 11-7-2024
SHEET NUMBER: 6 OF 13

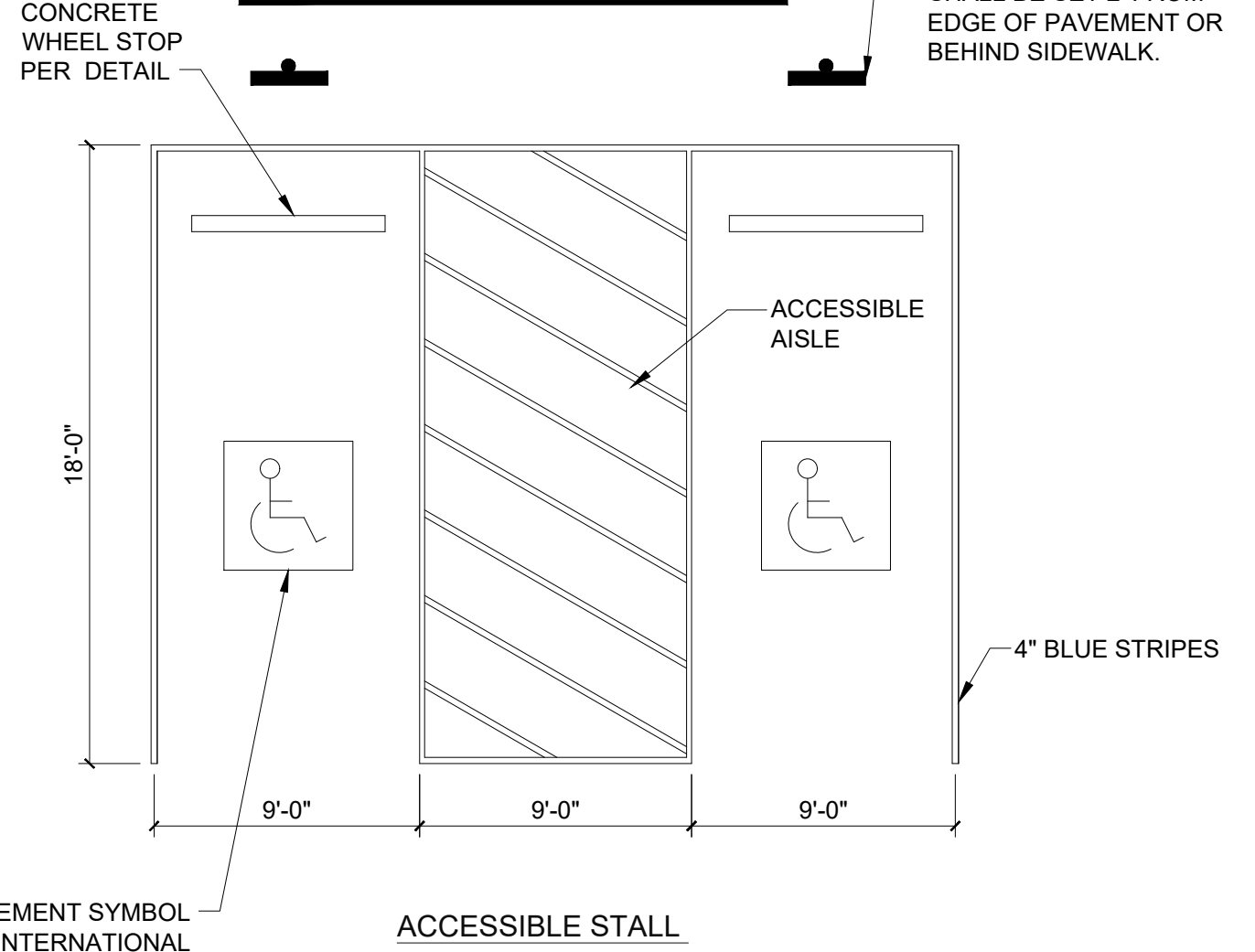
C250



ACCESSIBLE SYMBOL

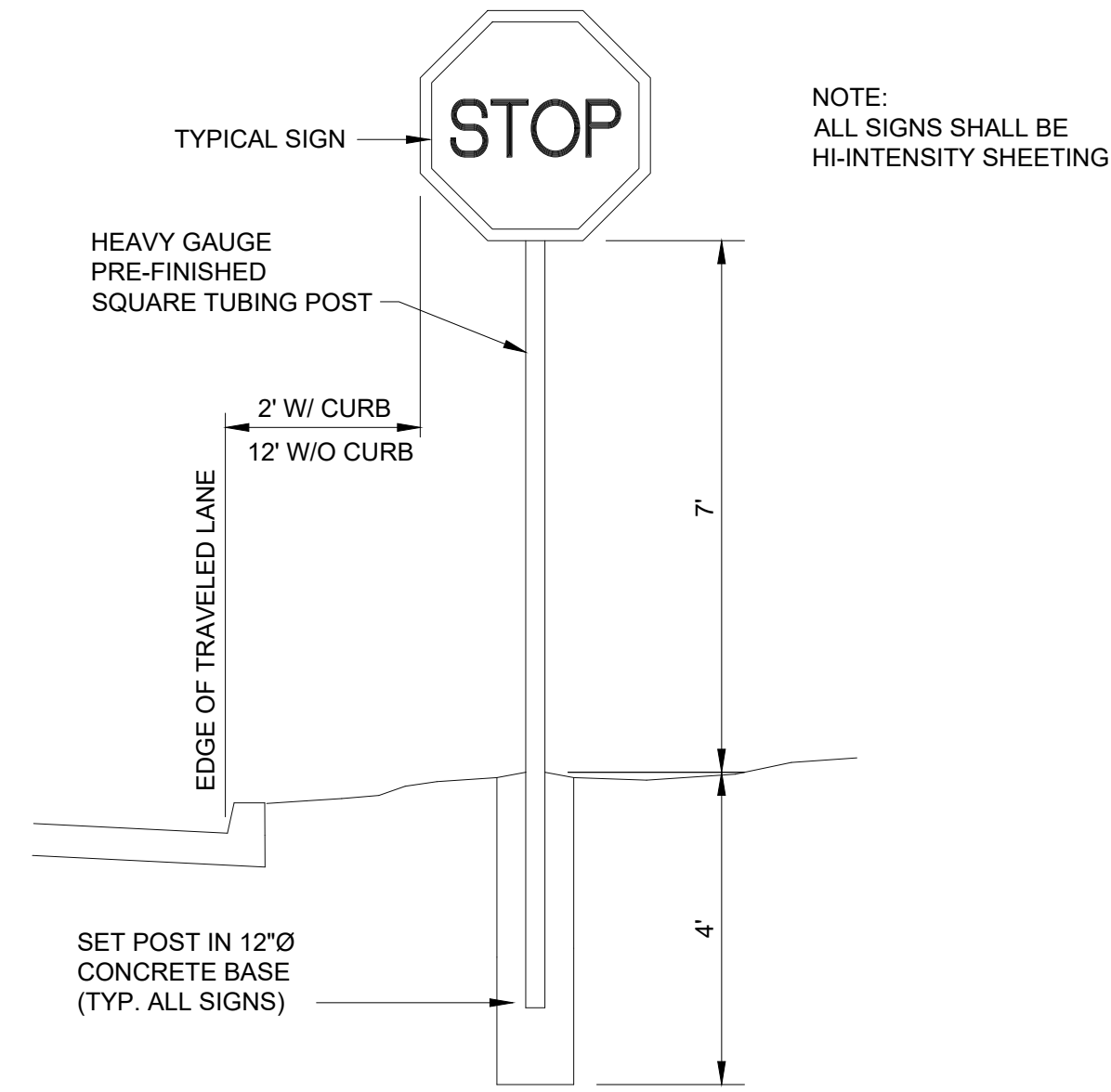
- HANDICAP SYMBOL DETAIL NOTES**
- PAVEMENT SYMBOL SHALL BE PAINTED WHITE ON A BLUE BACKGROUND.
 - BLUE COLOR SHALL MATCH NO. 15090 IN THE FEDERAL STANDARD 595B AS SPECIFIED IN SECTION 522(B)2.

- ACCESSIBLE STALL NOTES**
- ALL STRIPING CONTIGUOUS TO HANDICAPPED PARKING SPACES SHALL BE BLUE.
 - ALL ACCESSIBLE STALL MARKINGS SHALL BE THERMOPLASTIC.
 - ACCESSIBLE PARKING GRADES SHALL NOT EXCEED 1:50 IN ANY DIRECTION.

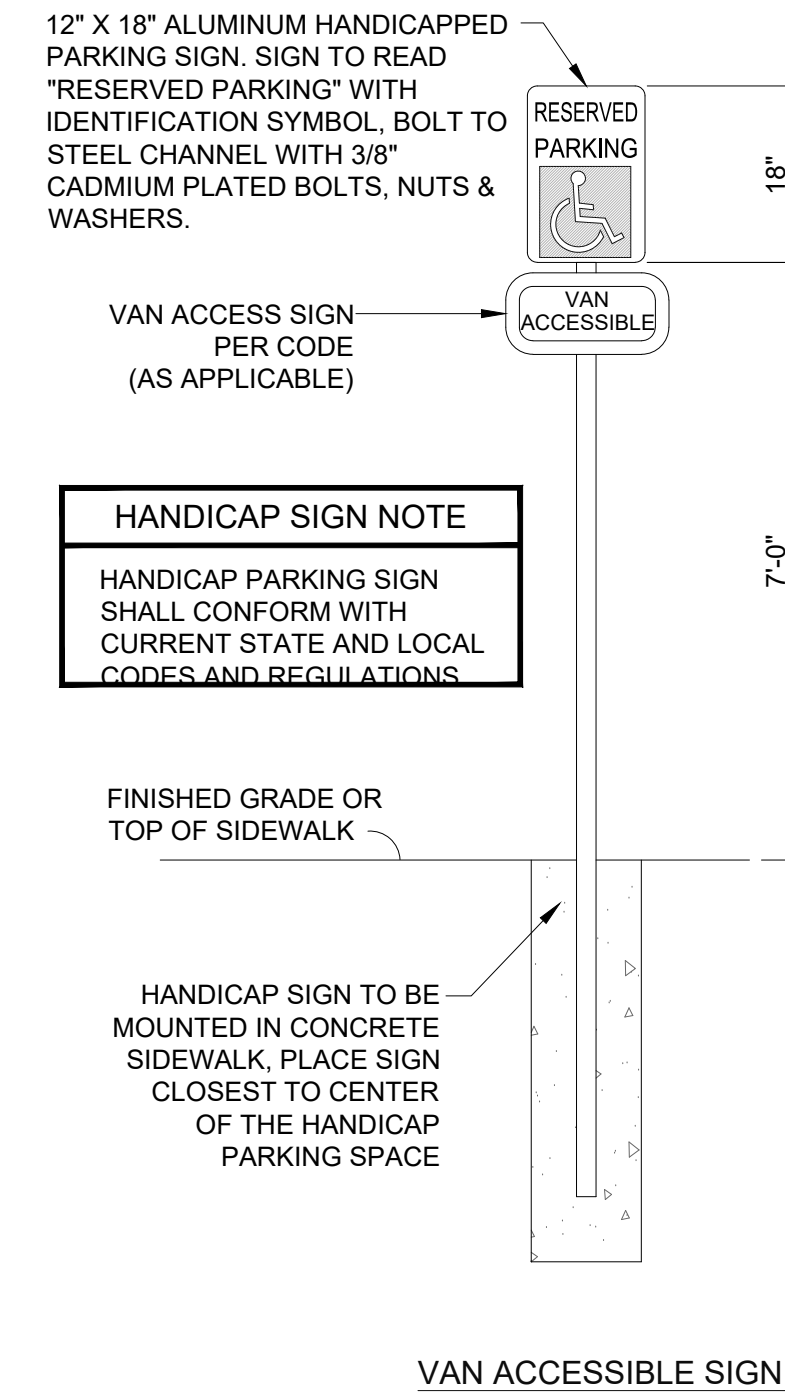


TYPICAL PAVEMENT SYMBOL PER INTERNATIONAL HANDICAP SYMBOL DETAIL

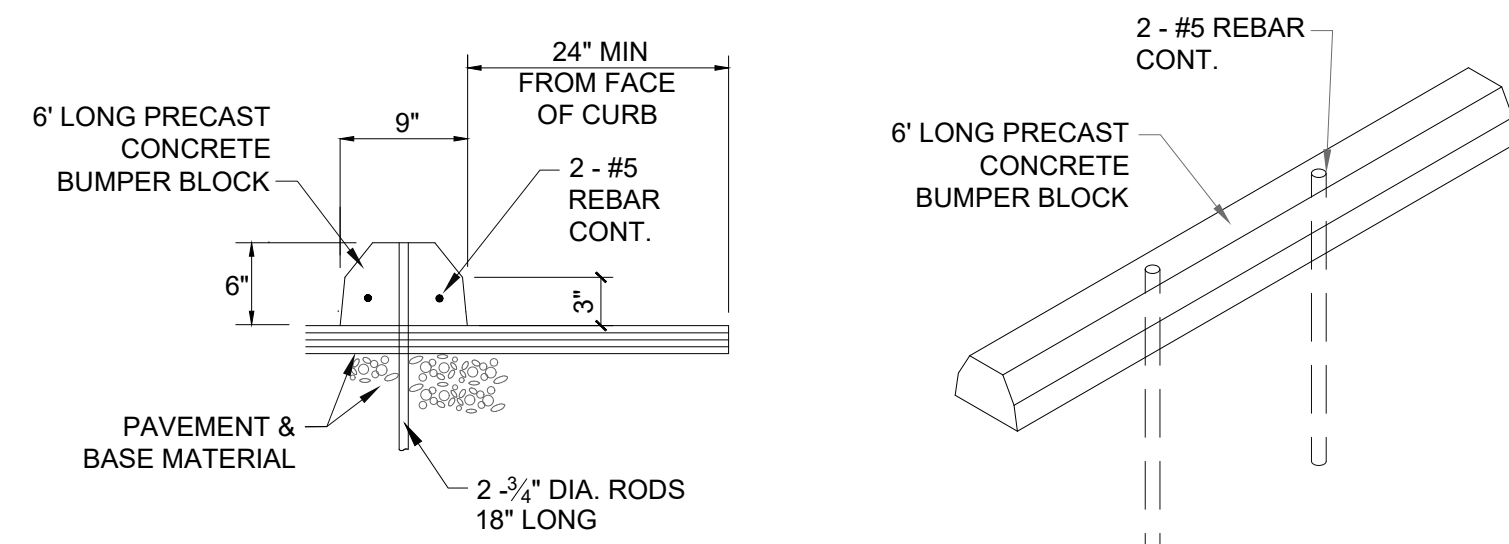
ACCESSIBLE STALL



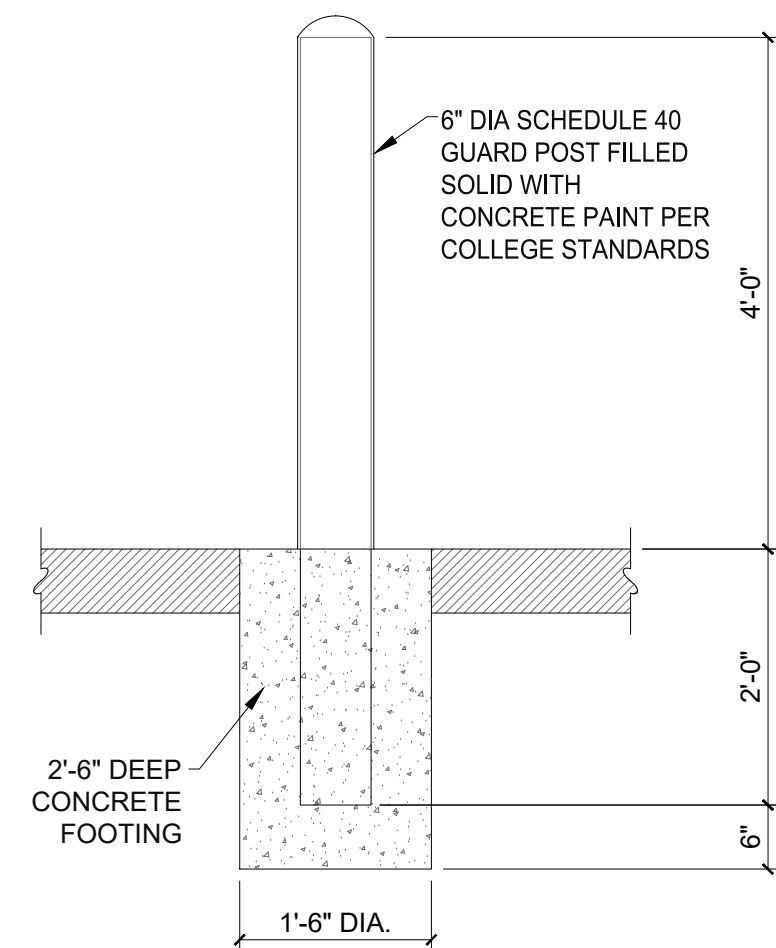
2 TYPICAL SIGN INSTALLATION DETAIL
C251 SCALE: NTS



3 TYPICAL ACCESSIBLE SIGN DETAIL
C251 SCALE: NTS



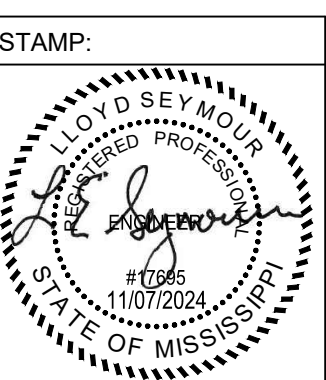
4 TYPICAL CONCRETE WHEEL STOP DETAIL
C251 SCALE: NTS



5 TYPICAL 6" BOLLARD DETAIL
C251 SCALE: NTS

SHEET REVISIONS:

#	DATE/REFERENCE

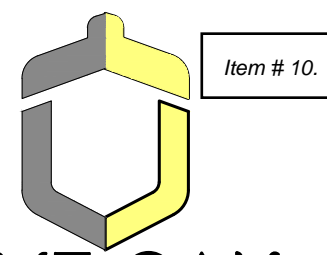


SHEET TITLE:

SITE DETAILS

DATE: 11-7-2024
SHEET NUMBER: 7 OF 13

C251

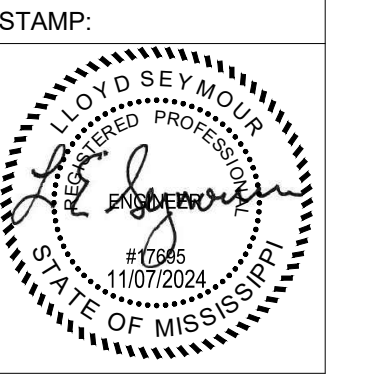


LIVE OAK ENGINEERING

2509 7TH AVE S.
BIRMINGHAM, AL 35233
955B HOWARD AVENUE
BILOXI, MS 39530
LIVEOAKENGINEERING.COM
LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
1083 HIGHWAY 90, BAY SAINT LOUIS
HANCOCK COUNTY, MISSISSIPPI
CIVIL PERMIT SET

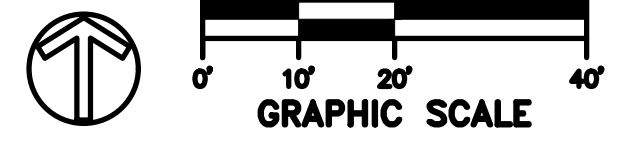
SHEET REVISIONS:	
#	DATE/REFERENCE



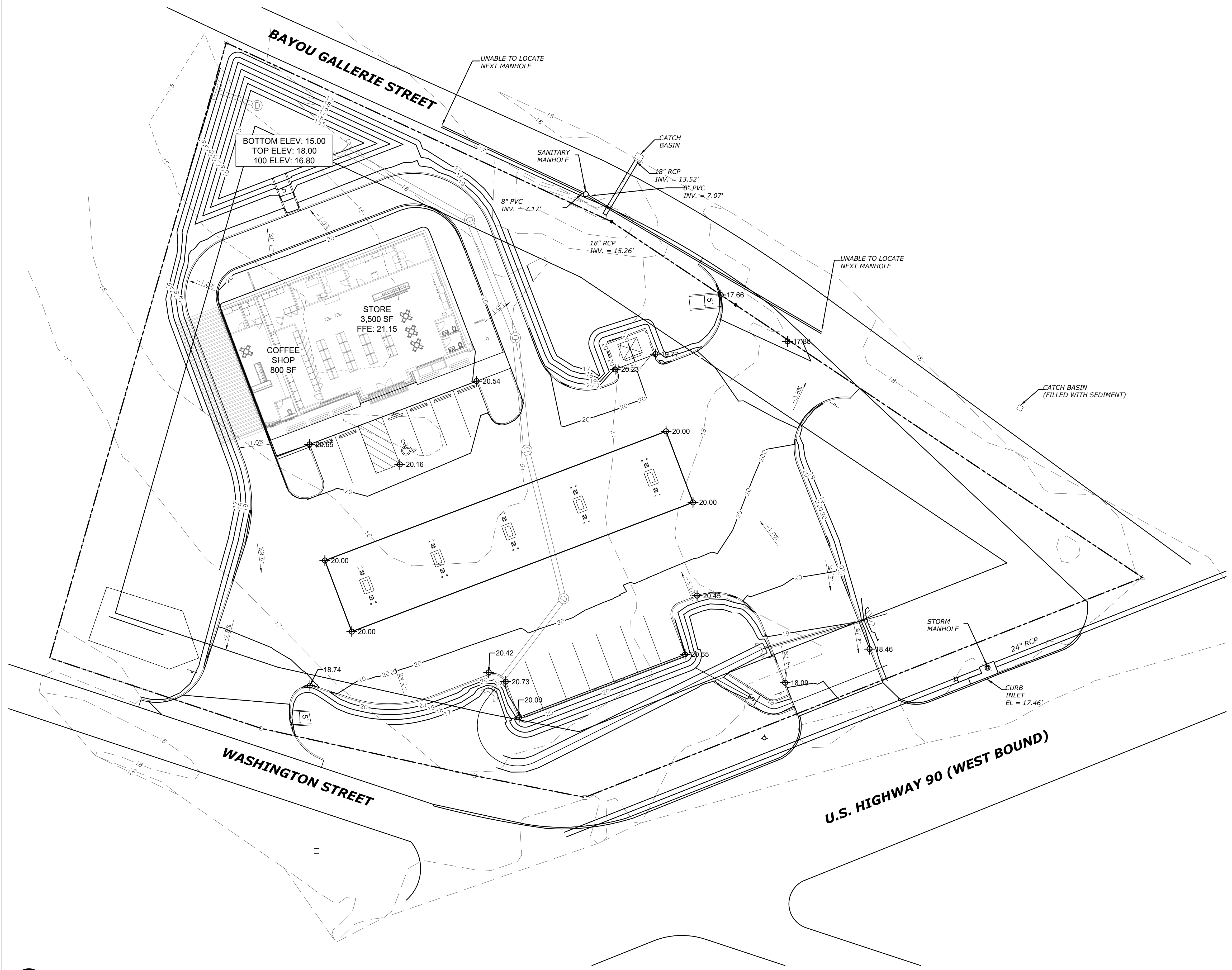
SHEET TITLE:
SITE GRADING AND DRAINAGE PLAN

DATE: 11-7-2024
SHEET NUMBER: 8 OF 13

C300



ELEV =



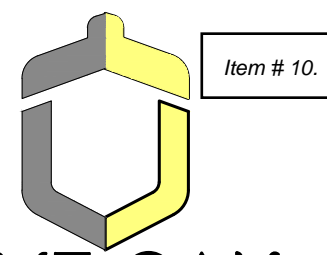
SITE GRADING AND DRAINAGE NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING TIE-IN POINTS, STRUCTURES, PIPES, ETC., PRIOR TO CONSTRUCTION.
- NO SIDEWALK CROSS SLOPE SHALL EXCEED 2%. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO CONSTRUCTION IF CONDITIONS CANNOT BE MET ON SITE.
- NO ACCESSIBLE PARKING STALLS OR ADJACENT ACCESS AISLES SHALL EXCEED 2% SLOPE IN ANY DIRECTIONS. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO CONSTRUCTION IF CONDITIONS CANNOT BE MET ON SITE.
- NO SIDEWALK CROSS SLOPE SHALL EXCEED 2% AND NO SIDEWALK LONGITUDINAL SLOPE SHALL EXCEED 5%. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO CONSTRUCTION IF CONDITIONS CANNOT BE MET ON SITE.
- FINISH SURFACES TO BE SMOOTH AND EVEN WITH NO ABRUPT OR AWKWARD CHANGES IN GRADE. IF SPECIFIC GRADES AND SLOPES ARE NOT SHOWN FOR WORK IN ANY AREA, THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IS ACHIEVED AWAY FROM BUILDINGS AND STRUCTURES AND TIE INTO EXISTING CONDITIONS.
- DRAIN BASIN AND INLINE DRAIN TOP ELEVATIONS SHALL BE ADJUSTED AS REQUIRED TO ENSURE THAT POSITIVE DRAINAGE IS MAINTAINED TOWARD THE DRAIN STRUCTURES.
- ALL ROOF AND CANOPY DRAINAGE SHALL BE CONNECTED TO THE SUBSURFACE DRAINAGE SYSTEM. CONTRACTOR SHALL CONSULT AND VERIFY ROOF AND CANOPY DRAINAGE SIZE AND LOCATION WITH ARCHITECTURAL/PLUMBING DRAWINGS.

LEGEND

- 10 --- DENOTES EXISTING GRADE CONTOUR
- 10 — DENOTES PROPOSED GRADE CONTOUR
- 8.00 DENOTES PROPOSED SPOT ELEVATION
- ↘ ↙ ↖ ↗ DENOTES WATERSHED FLOW DIRECTION
- DS - DRAIN STRUCTURE
- RCP - REINFORCED CONCRETE PIPE
- RCAP - REINFORCED CONCRETE ARCH PIPE
- HP - HIGH PERFORMANCE POLYPROPYLENE STORM PIPE

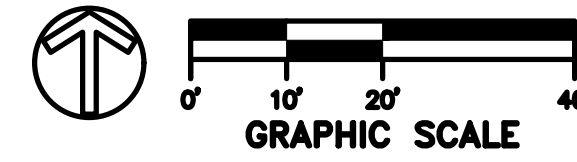
1 GRADING PLAN
SCALE: 1" = 20'



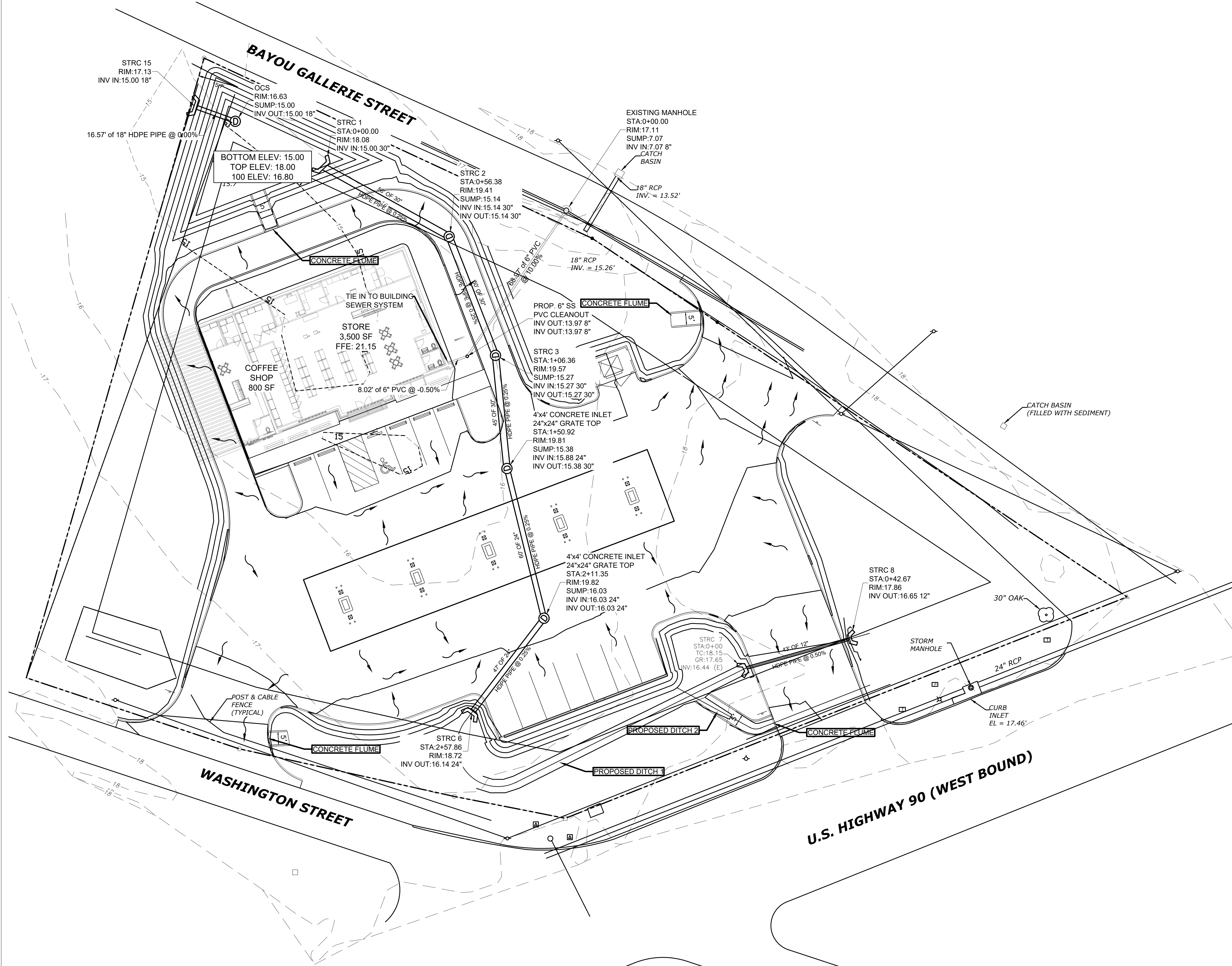
LIVE OAK ENGINEERING

2509 7TH AVE S.
BIRMINGHAM, AL 35233
955B HOWARD AVENUE
BILOXI, MS 39530
LIVEOAKENGINEERING.COM
LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
1083 HIGHWAY 90, BAY SAINT LOUIS
HANCOCK COUNTY, MISSISSIPPI
CIVIL PERMIT SET



ELEV =



DRAINAGE FLOW SUMMARY		
DRAINAGE AREA	Pre Peak Run-Off	Post Peak Run-Off
Total Area (Pre)	6.350	
South Area (Post)*		1.680
North Area (Post)		4.560
TOTAL	6.350	6.240

* ROUTED THROUGH POND

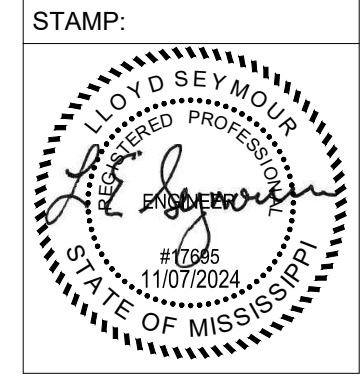
- ### STORM WATER MANAGEMENT NOTES
- DRAINAGE SYSTEM SHOWN WILL BE PRIVATELY OWNED AND MAINTAINED.
 - IN THE EVENT OF CONFLICT BETWEEN CITY OF OXFORD STORM WATER REQUIREMENTS AND THE PLANS, THE CITY OF OXFORD LATEST STORM WATER MANAGEMENT ORDINANCE SHALL GOVERN.
 - TRASH RACKS ARE REQUIRED TO PROTECT DISCHARGE STRUCTURE ORIFICES AND CONTAIN GARBAGE FROM EXISTING THE PROPERTY.
 - ALL FLUMES AND OUTLET STRUCTURES ARE REQUIRED TO BE PROTECTED BY RIP-RAP.

LEGEND

- 10 — DENOTES EXISTING GRADE CONTOUR
- ⑩ DENOTES PROPOSED GRADE CONTOUR
- 8.00 DENOTES PROPOSED SPOT ELEVATION
- ↘ ↙ ↖ ↗ DENOTES WATERSHED FLOW DIRECTION
- DS - DRAIN STRUCTURE
- RCP - REINFORCED CONCRETE PIPE
- RCAP - REINFORCED CONCRETE ARCH PIPE
- HP - HIGH PERFORMANCE POLYPROPYLENE STORM PIPE

SHEET REVISIONS:

#	DATE/REFERENCE



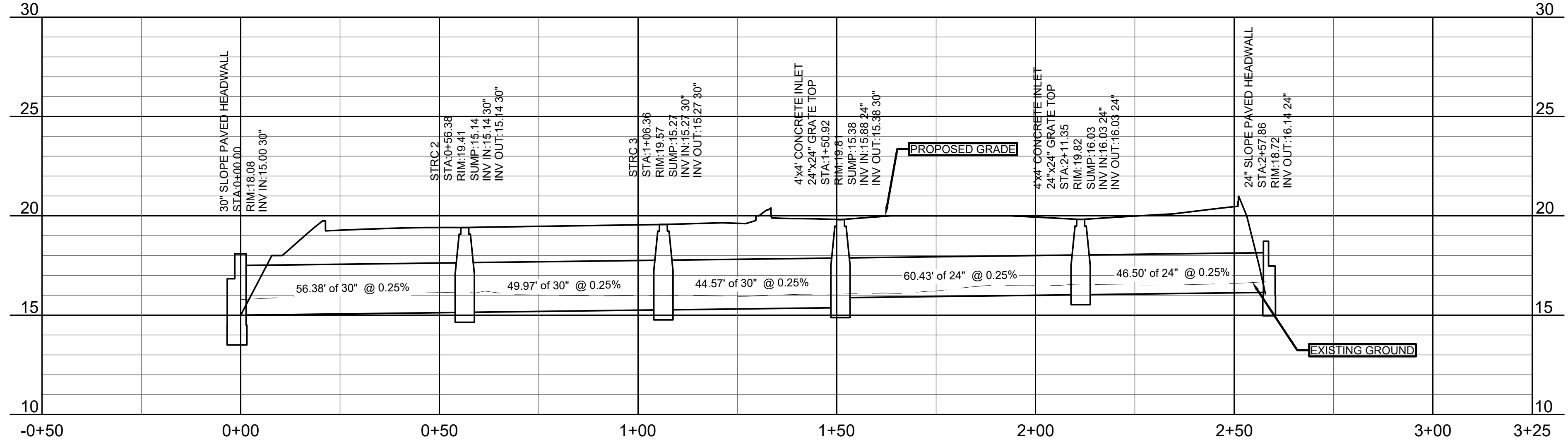
SHEET TITLE:
DRAINAGE PLAN

DATE: 11-7-2024
SHEET NUMBER: 9 OF 13

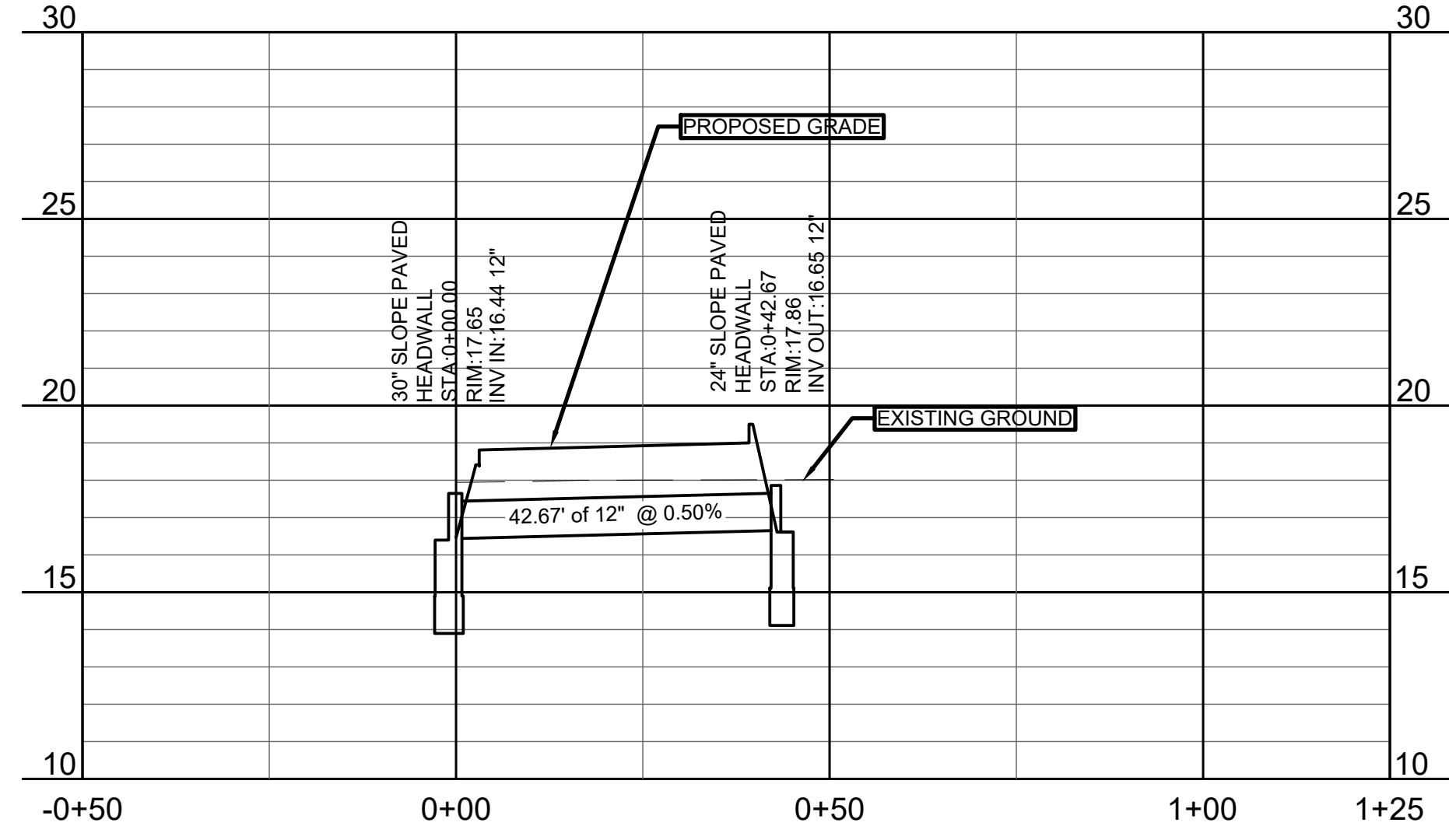
C310

1 DRAINAGE PLAN
C310 SCALE: 1" = 20'

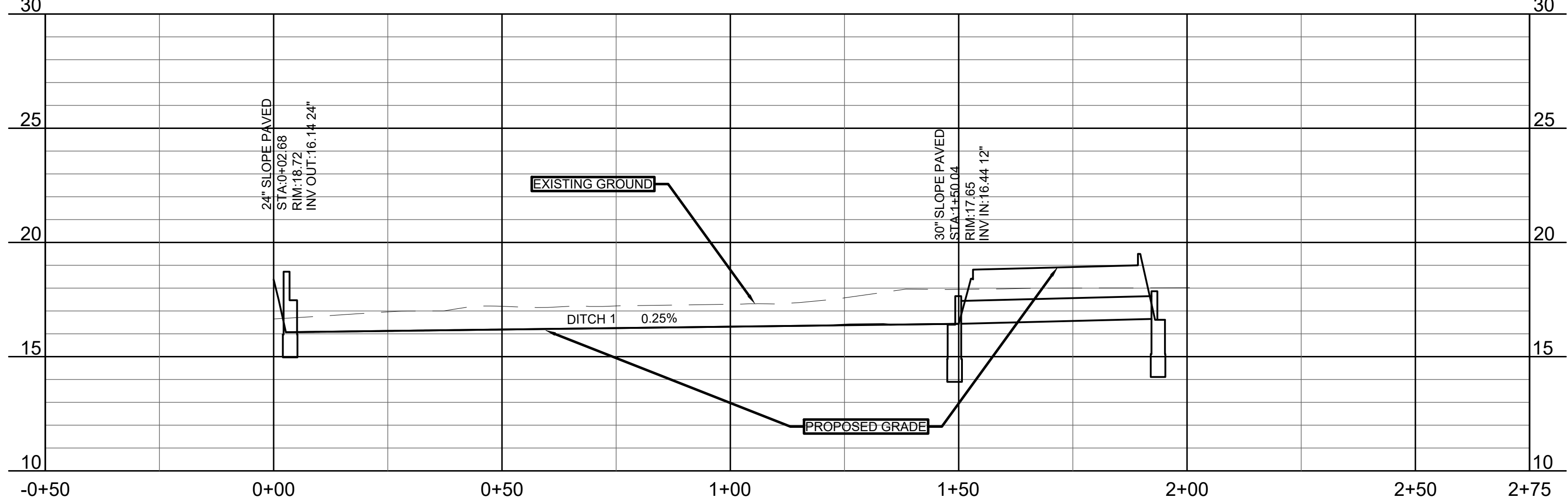
STORM LINE 1 PROFILE



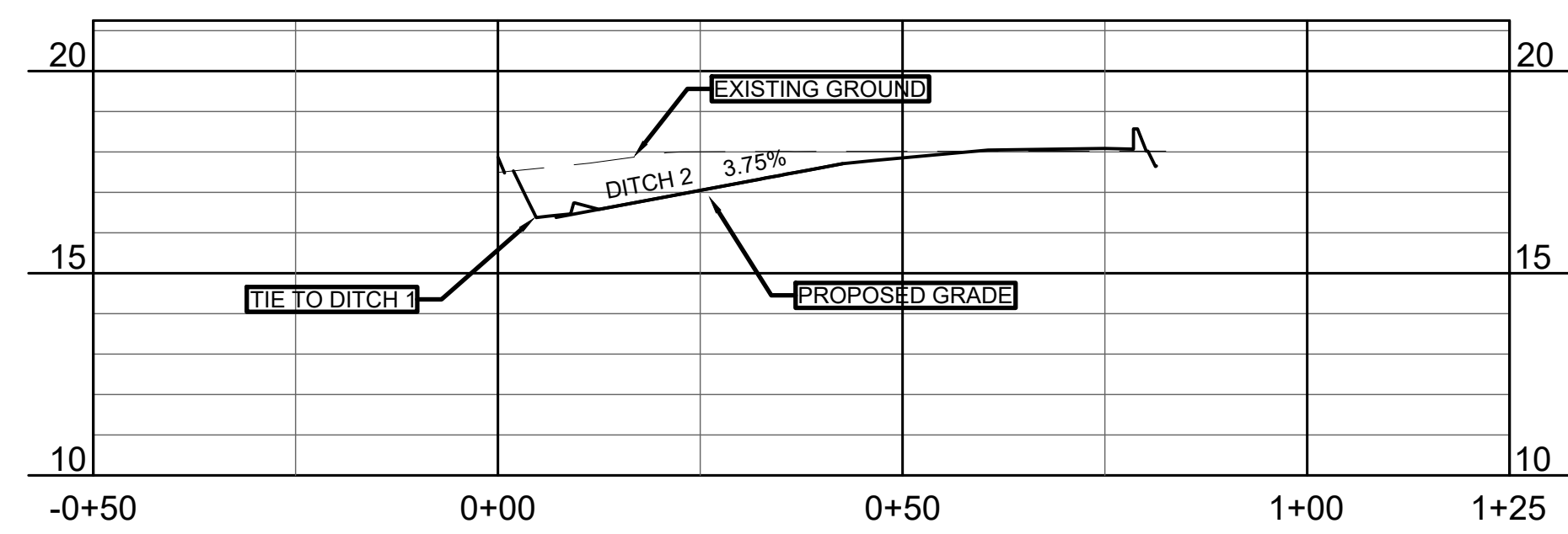
STORM LINE 2 PROFILE



DITCH 1 PROFILE



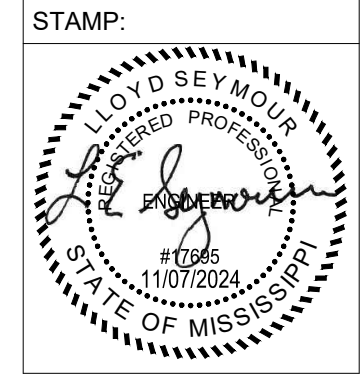
DITCH 2 PROFILE



BAY ST. LOUIS CONVENIENCE STORE
 1083 HIGHWAY 90, BAY SAINT LOUIS
 HANCOCK COUNTY, MISSISSIPPI
 CIVIL PERMIT SET

SHEET REVISIONS:

#	DATE/REFERENCE



SHEET TITLE:

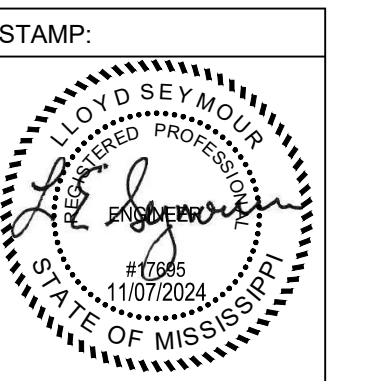
DRAINAGE PROFILES

DATE: 11-7-2024
 SHEET NUMBER: 10 OF 13

C320

SHEET REVISIONS:

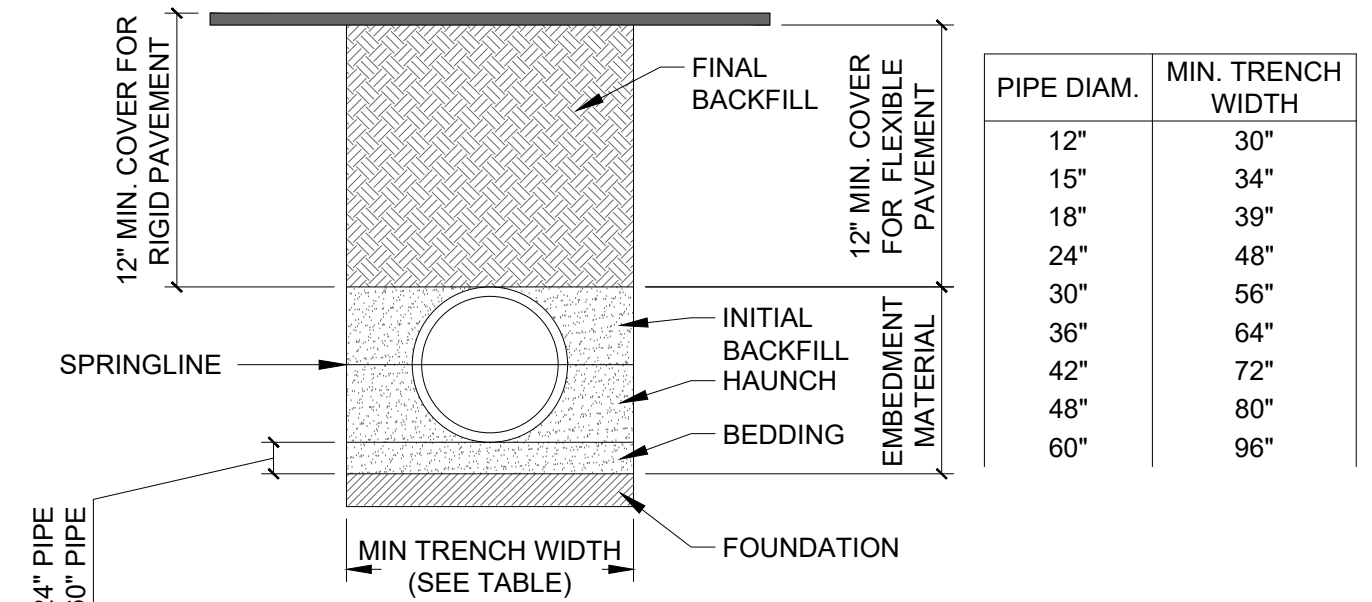
#	DATE/REFERENCE



SHEET TITLE:
DRAINAGE DETAILS

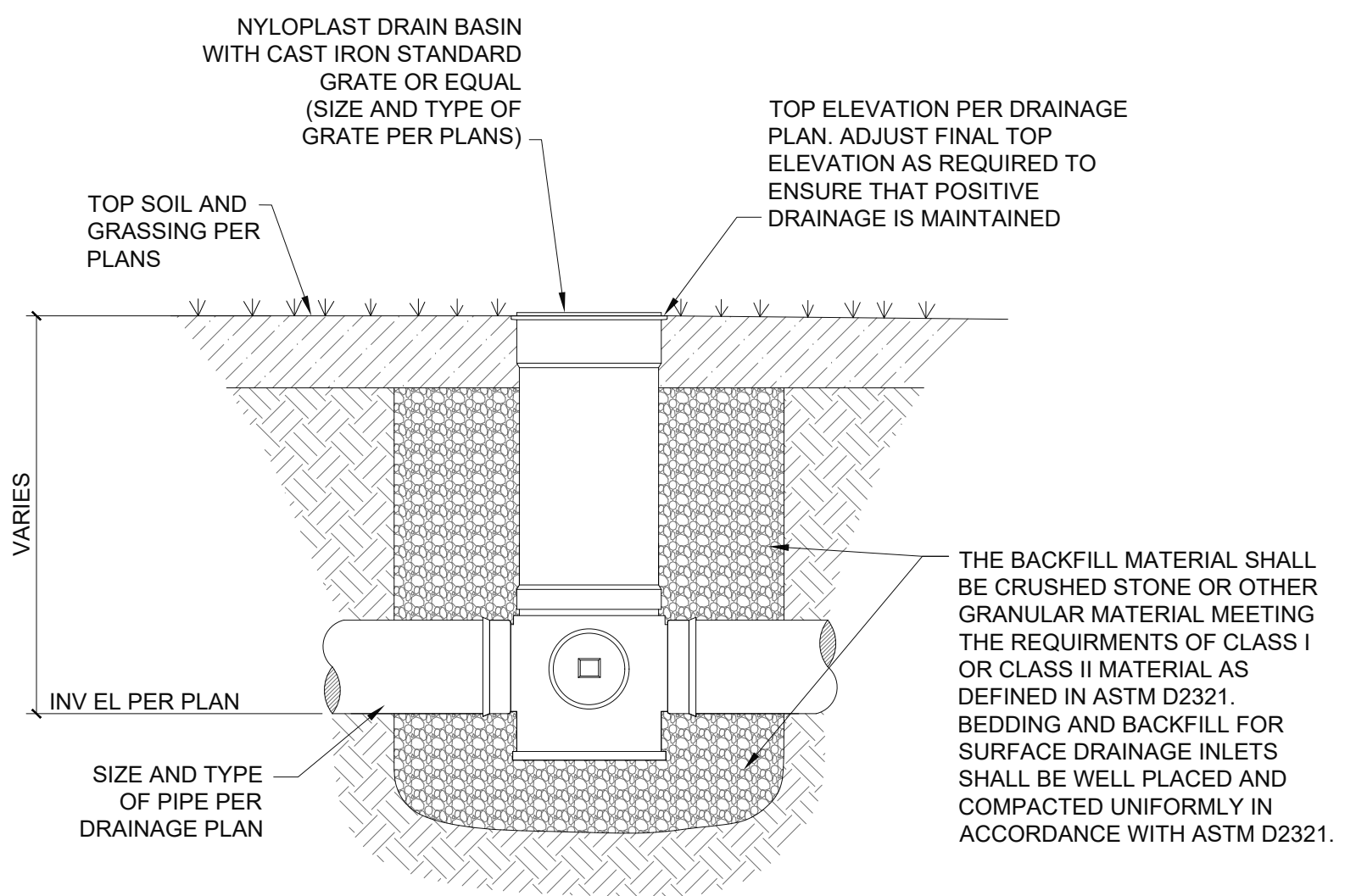
DATE: 11-7-2024
SHEET NUMBER: 11 OF 13

C350

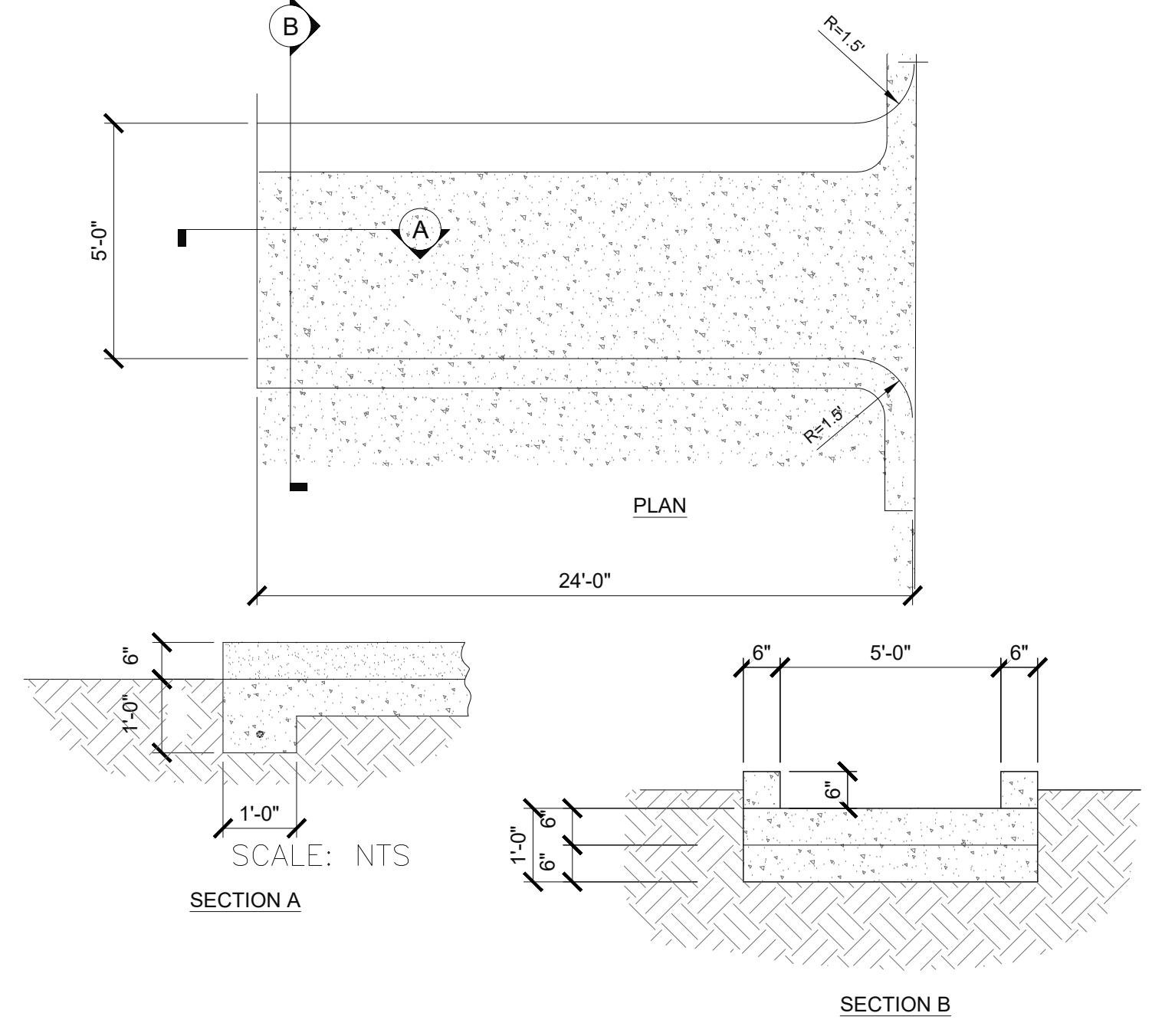


- HP STORM PIPE INSTALLATION NOTES**
- ALL HP STORM PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH LATEST VERSION OF ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS".
 - SUITABLE EMBEDMENT MATERIALS, EITHER ON-SITE OR IMPORTED, SHALL MEET THE REQUIREMENTS FOR CLASS I, II, OR III PER THE LATEST VERSION OF ASTM D2321. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE ENGINEER FOR EMBEDMENT MATERIAL TO BE USED FOR PIPE INSTALLATION. SEE THE EMBEDMENT MATERIAL TABLE FOR COMPACTION AND LIFT PLACEMENT REQUIREMENTS.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER.
 - BEDDING: BEDDING IS REQUIRED TO ESTABLISH LINE AND GRADE AND TO PROVIDE FIRM PIPE SUPPORT. MINIMUM BEDDING THICKNESS SHALL BE 4" FOR UP TO 24" DIAMETER PIPE AND 6" FOR 30"-60" DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED, WHILE THE REMAINDER SHALL BE THOROUGHLY COMPACTED.
 - HAUNCHING: THE HAUNCHING MATERIAL SHALL BE INSTALLED UNIFORMLY IN LIFTS ON EACH SIDE OF THE PIPE AND SHOVELED UNDER THE PIPE ENSURING TO FILL VOIDS. THE MATERIAL SHALL BE THOROUGHLY COMPACTED TO THE SPRING LINE OF THE PIPE EXTENDING TO THE SIDE WALLS OF THE TRENCH ENSURING THAT THE PIPE ALIGNMENT IS NOT DISTURBED.
 - INITIAL BACKFILL: THE INITIAL BACKFILL SHALL PROCEED TO THE TOP OF THE PIPE. THE MATERIAL SHALL BE THOROUGHLY COMPACTED INSTALLED IN UNIFORMED LIFTS ON EACH SIDE OF THE PIPE EXTENDING TO THE SIDE WALLS OF THE TRENCH.
 - FINAL BACKFILL (NON-TRAFFIC): SUITABLE MATERIAL IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) SHALL BE GENERAL FILL MATERIAL. BACKFILL SHALL PROCEED TO FINISHED GRADE IN 12 INCH LIFTS COMPACTED TO ELIMINATE AIR VOIDS.
 - FINAL BACKFILL (TRAFFIC): SUITABLE MATERIAL IN TRAFFIC APPLICATIONS SHALL BE SELECT FILL COMPACTED IN 8 INCH LOOSE LIFTS TO NOT LESS THAN 95 PERCENT STANDARD PROCTOR.
 - MINIMUM COVER (NON-TRAFFIC): FOR NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS), MINIMUM COVER IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE.
 - MINIMUM COVER (TRAFFIC): FOR TRAFFIC APPLICATIONS THE MINIMUM COVER IS 12" FOR UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
 - CONTRACTOR SHALL MAINTAIN TRENCH BACKFILL AT GROUND SURFACE UNTIL FINAL ACCEPTANCE OF THE WORK. ALL SURPLUS MATERIALS NOT USED IN BACKFILLING SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR AT HIS OWN EXPENSE.

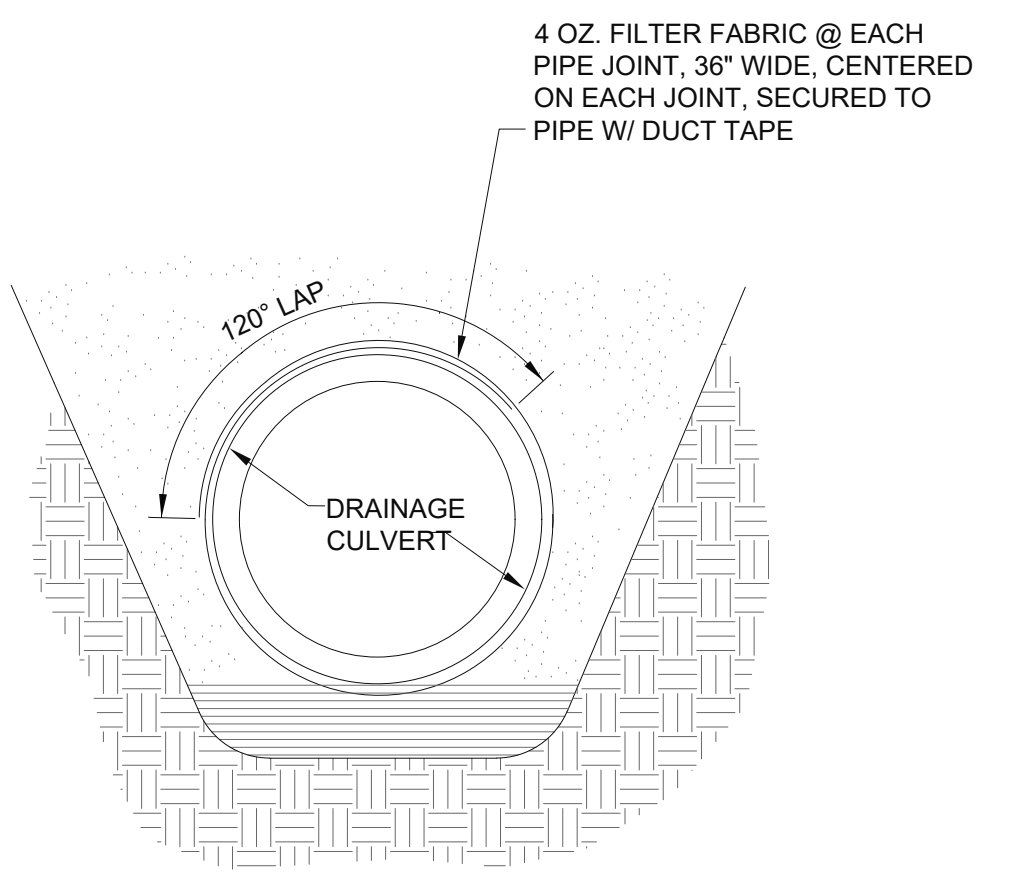
5 HP STORM PIPE TRENCH INSTALLATION DETAIL
SCALE: NTS



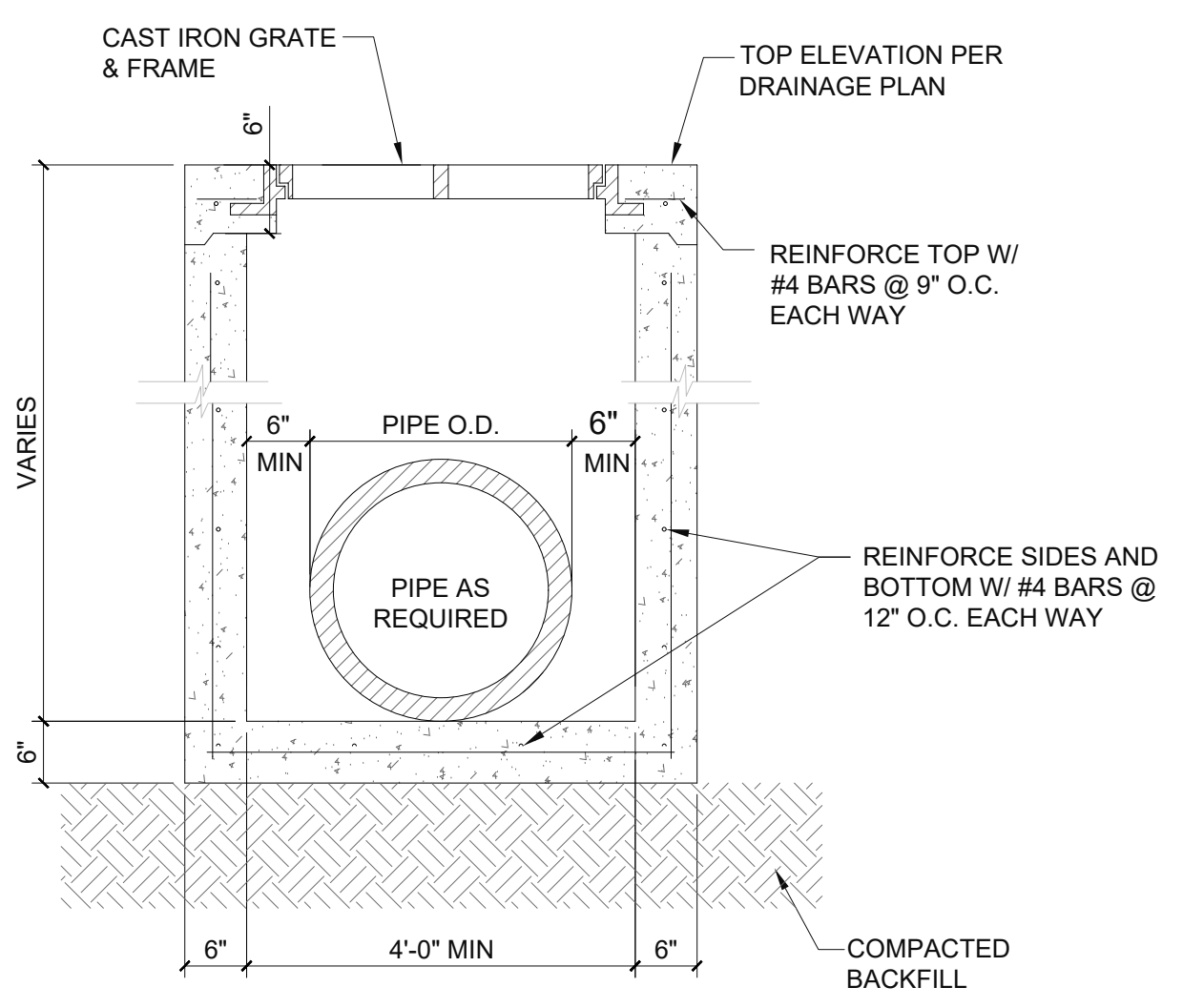
2 TYPICAL DRAIN BASIN DETAIL
SCALE: NTS



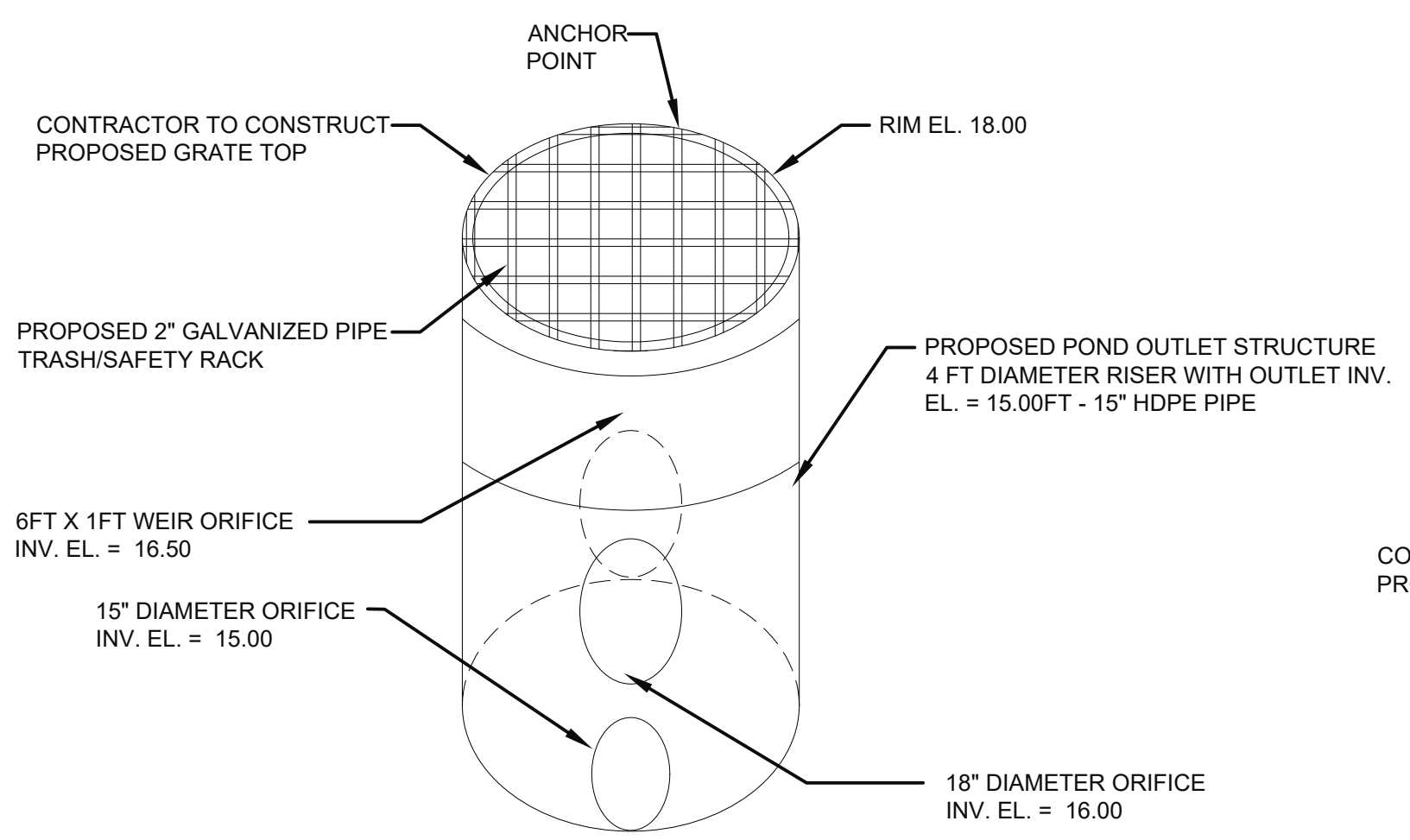
4 TYPICAL CONCRETE FLUME DETAIL
SCALE: NTS



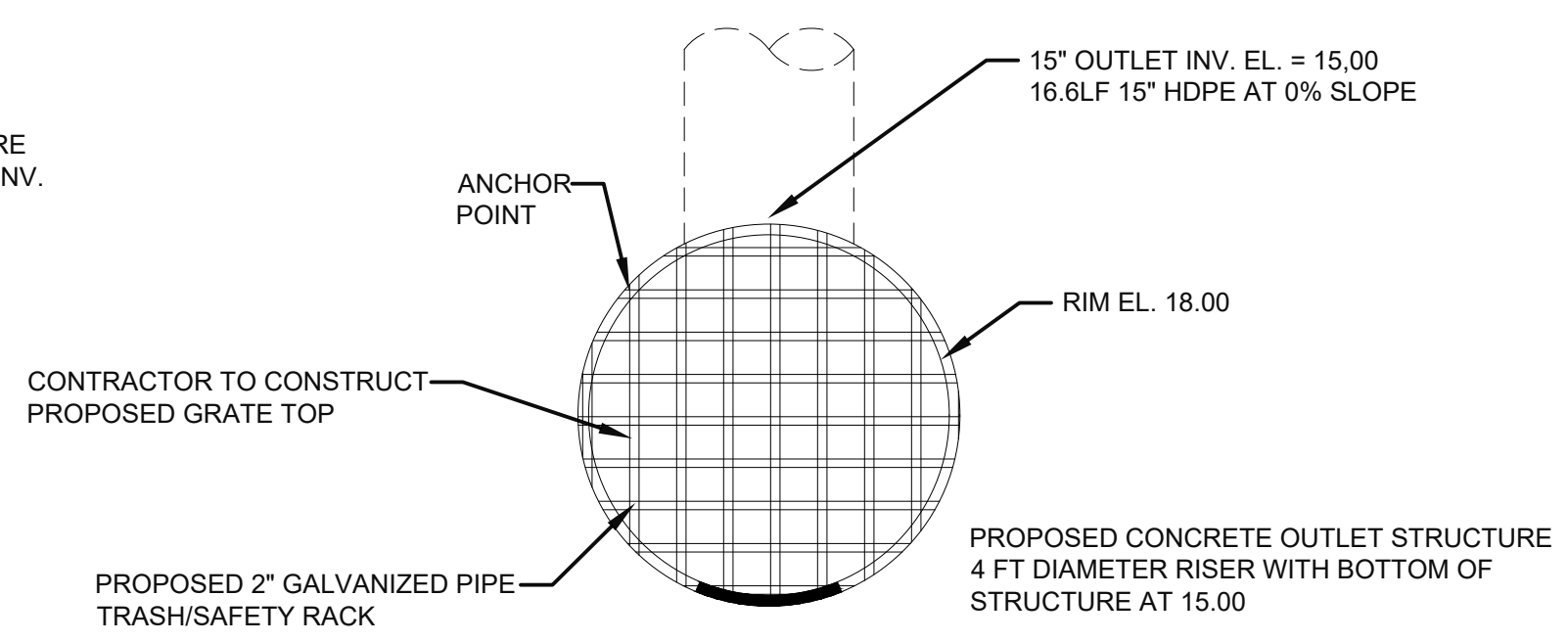
1 TYPICAL STORM DRAIN PIPE WRAP DETAIL
SCALE: NTS

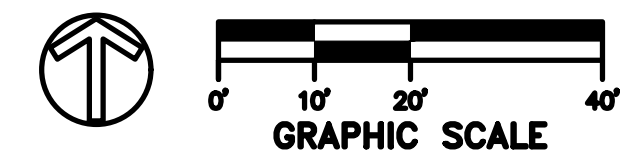


3 TYPICAL DRAIN INLET DETAIL
SCALE: NTS



6 BASIN OUTLET DETAIL - ISOMETRIC VIEW
SCALE: NTS

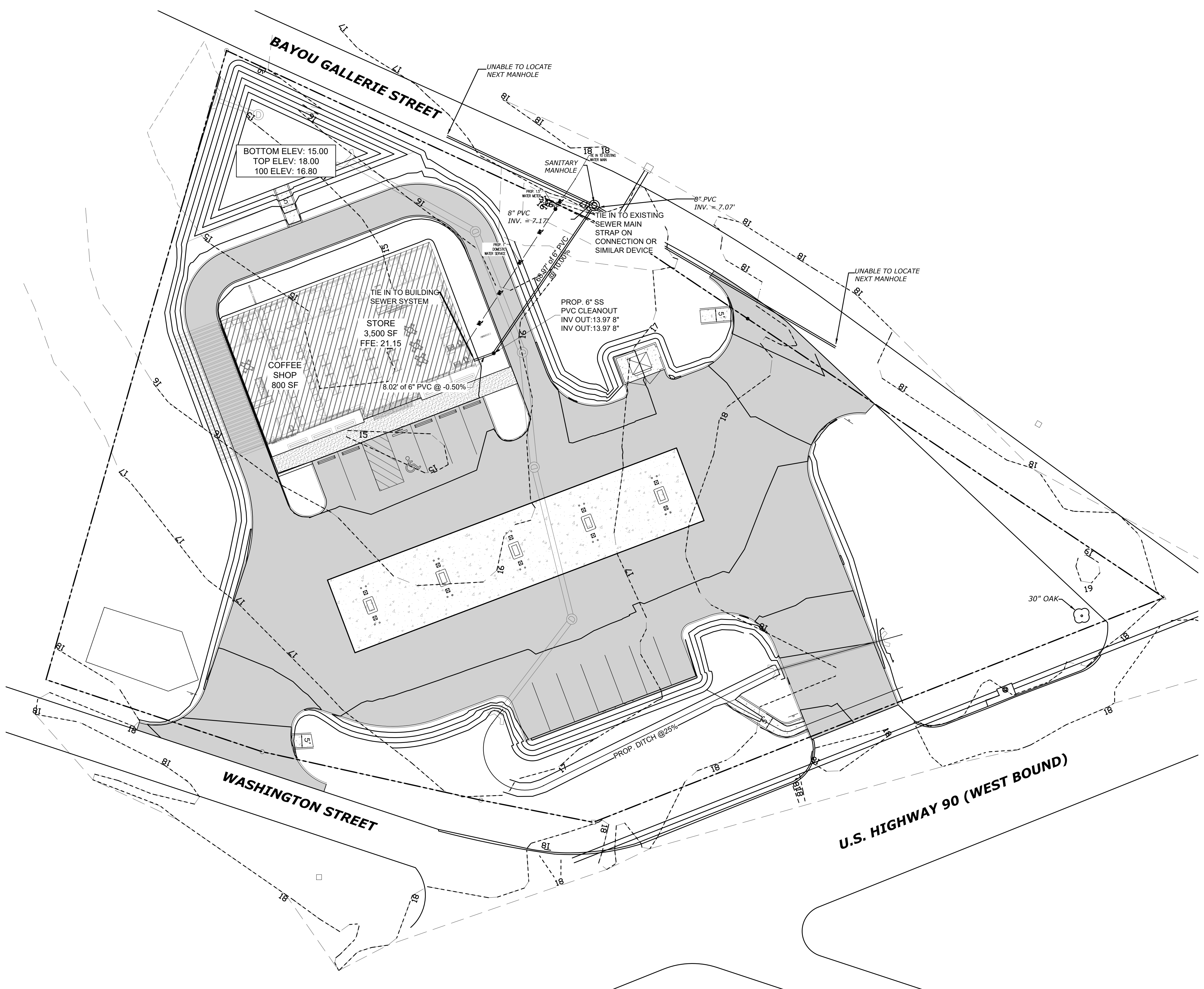




ELEV =

LIVE OAK ENGINEERING
 2509 7TH AVE S.
 BIRMINGHAM, AL 35233
 955B HOWARD AVENUE
 BILOXI, MS 39530
 LIVEOAKENGINEERING.COM
 LOE JOB# 276-1

BAY ST. LOUIS CONVENIENCE STORE
 1083 HIGHWAY 90, BAY SAINT LOUIS
 HANCOCK COUNTY, MISSISSIPPI
 CIVIL PERMIT SET



UNDERGROUND UTILITY NOTES

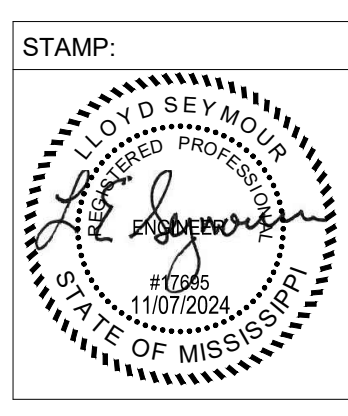
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL PROJECT RELATED UTILITIES, BURIED AND ABOVE GROUND, REGARDLESS OF INCLUSION ON THESE PLANS. THE LOCATIONS OF ANY EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
- ALL CONTRACTOR DAMAGED UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

SITE UTILITY NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL PROJECT RELATED UTILITIES, BURIED AND ABOVE GROUND, REGARDLESS OF INCLUSION ON THESE PLANS. THE LOCATIONS OF ANY EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ALL CONTRACTOR DAMAGED UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE FOR CONNECTION TO EXISTING WATER MAIN.
- CONTRACTOR IS RESPONSIBLE FOR PERFORMING GAS LINE TAP, PROVIDING GAS VALVE, AND PROVIDING GAS SERVICE TO THE BUILDING.
- CONTRACTOR SHALL FURNISH AND INSTALL 750 LINEAR FEET OF 4" SDR-21 CL200 PVC AND ASSOCIATED CAPS FOR USE AS IRRIGATION SLEEVES. LOCATIONS OF IRRIGATION SLEEVES SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH OTHER TRADES FOR TIE IN LOCATION AND SIZE REQUIREMENTS FOR UTILITY TIE IN POINTS.
- CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION HAVING POTENTIAL IMPACT TO THE UTILITY'S STRUCTURE.
- CONTRACTOR SHALL INSTALL FITTINGS, THRUST BLOCKS, AND OTHER REQUIRED COMPONENTS TO ESTABLISH THE PROPER ALIGNMENT OF UTILITY MAINS AND SERVICES AS SHOWN ON THE PLANS.
- CONTRACTOR SHALL INSTALL ALL WATER MAINS AND SERVICES AT AN ELEVATION WHICH WILL AVOID ALL CONFLICTS WITH SEWER, DRAINAGE, AND OTHER UNDERGROUND UTILITIES. WATER MAINS SHALL BE LAID WITH A MINIMUM OF 30" COVER UNLESS APPROVED BY THE ENGINEER TO AVOID A CONFLICT.
- ALL VALVES BOXES, CLEANOUTS, SEWER MANHOLE TOPS, AND OTHER UTILITY STRUCTURE TOPS SHALL BE ADJUSTED BY THE CONTRACTOR TO MATCH FINAL GRADES IN ALL AREAS.

SHEET REVISIONS:

#	DATE/REFERENCE



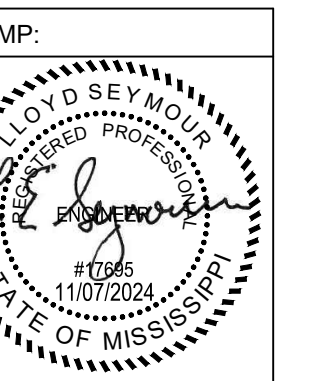
SHEET TITLE:
UTILITY PLAN

DATE: 11-7-2024
 SHEET NUMBER: 12 OF 13

C400

1
 C400 **UTILITY PLAN**
 SCALE: 1" = 20'

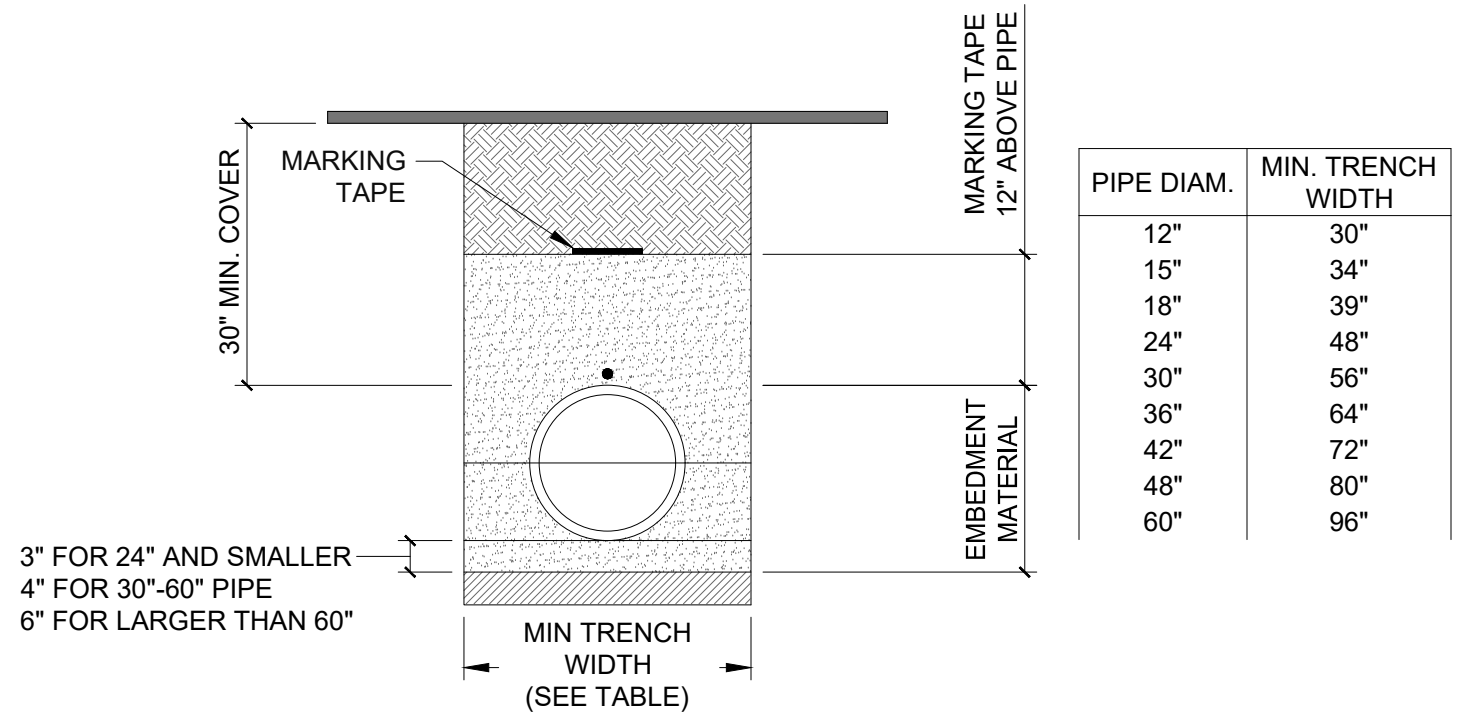
SHEET REVISIONS:	
#	DATE/REFERENCE



SHEET TITLE:
UTILITY DETAILS

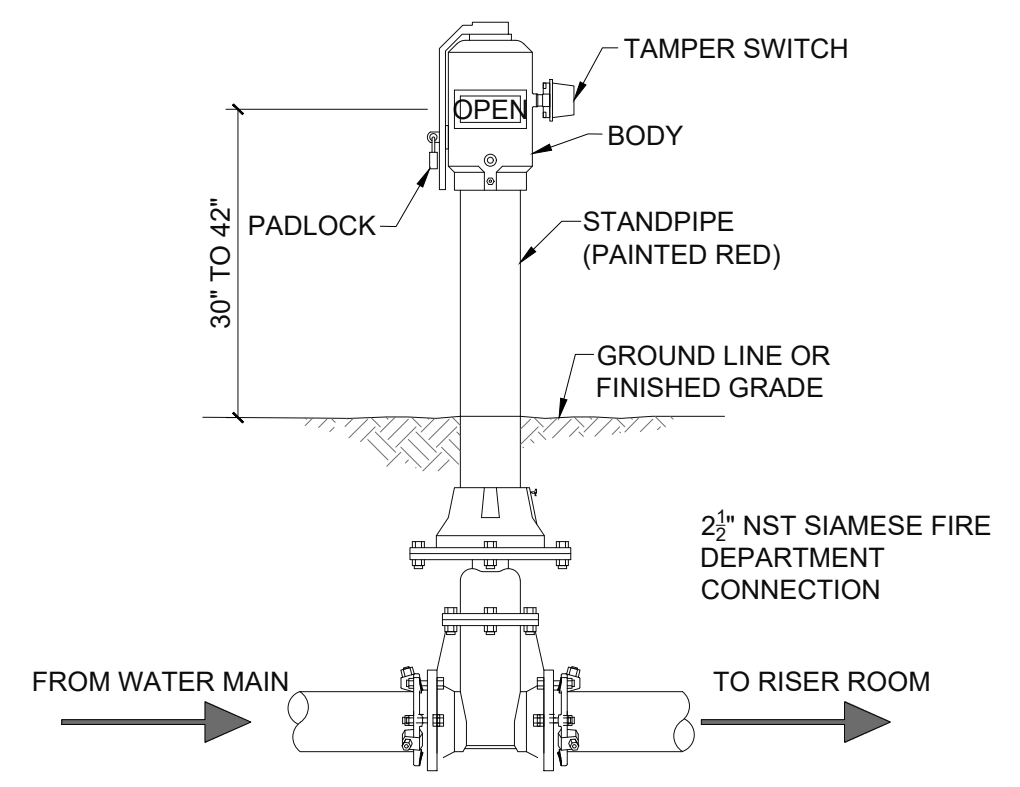
DATE: 11-7-2024
SHEET NUMBER: 13 OF 13

C450



- WATER AND SEWER PIPE INSTALLATION NOTES**
- SUITABLE EMBEDMENT MATERIALS, EITHER ON-SITE OR IMPORTED, SHALL MEET THE REQUIREMENTS FOR CLASS I, II, OR III PER THE LATEST VERSION OF ASTM D2321. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE ENGINEER FOR EMBEDMENT MATERIAL TO BE USED FOR PIPE INSTALLATION. SEE THE EMBEDMENT MATERIAL TABLE FOR COMPACTION AND LIFT PLACEMENT REQUIREMENTS.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER.
 - BEDDING: BEDDING IS REQUIRED TO ESTABLISH LINE AND GRADE AND TO PROVIDE FIRM PIPE SUPPORT. MINIMUM BEDDING THICKNESS SHALL BE 4" FOR UP TO 24" DIAMETER PIPE AND 6" FOR 30"-60" DIAMETER PIPE. THE MIDDLE 1/3 BENEATH THE PIPE INVERT SHALL BE LOOSELY PLACED, WHILE THE REMAINDER SHALL BE THOROUGHLY COMPACTED.
 - HAUNCHING: THE HAUNCHING MATERIAL SHALL BE INSTALLED UNIFORMLY IN LIFTS ON EACH SIDE OF THE PIPE AND SHOVELED UNDER THE PIPE ENSURING TO FILL VOIDS. THE MATERIAL SHALL BE THOROUGHLY COMPACTED TO THE SPRING LINE OF THE PIPE EXTENDING TO THE SIDE WALLS OF THE TRENCH ENSURING THAT THE PIPE ALIGNMENT IS NOT DISTURBED.
 - INITIAL BACKFILL: THE INITIAL BACKFILL SHALL PROCEED TO THE TOP OF THE PIPE. THE MATERIAL SHALL BE THOROUGHLY COMPACTED INSTALLED IN UNIFORMED LIFTS ON EACH SIDE OF THE PIPE EXTENDING TO THE SIDE WALLS OF THE TRENCH.
 - FINAL BACKFILL (NON-TRAFFIC): SUITABLE MATERIAL IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) SHALL BE GENERAL FILL MATERIAL. BACKFILL SHALL PROCEED TO FINISHED GRADE IN 12 INCH LIFTS COMPACTED TO ELIMINATE AIR VOIDS.
 - FINAL BACKFILL (TRAFFIC): SUITABLE MATERIAL IN TRAFFIC APPLICATIONS SHALL BE SELECT FILL COMPACTED IN 8 INCH LOOSE LIFTS TO NOT LESS THAN 95 PERCENT STANDARD PROCTOR.
 - MINIMUM COVER (NON-TRAFFIC): FOR NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS), MINIMUM COVER IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE.
 - MINIMUM COVER (TRAFFIC): FOR TRAFFIC APPLICATIONS THE MINIMUM COVER IS 12" FOR UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
 - CONTRACTOR SHALL MAINTAIN TRENCH BACKFILL AT GROUND SURFACE UNTIL FINAL ACCEPTANCE OF THE WORK. ALL SURPLUS MATERIALS NOT USED IN BACKFILLING SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR AT HIS OWN EXPENSE.

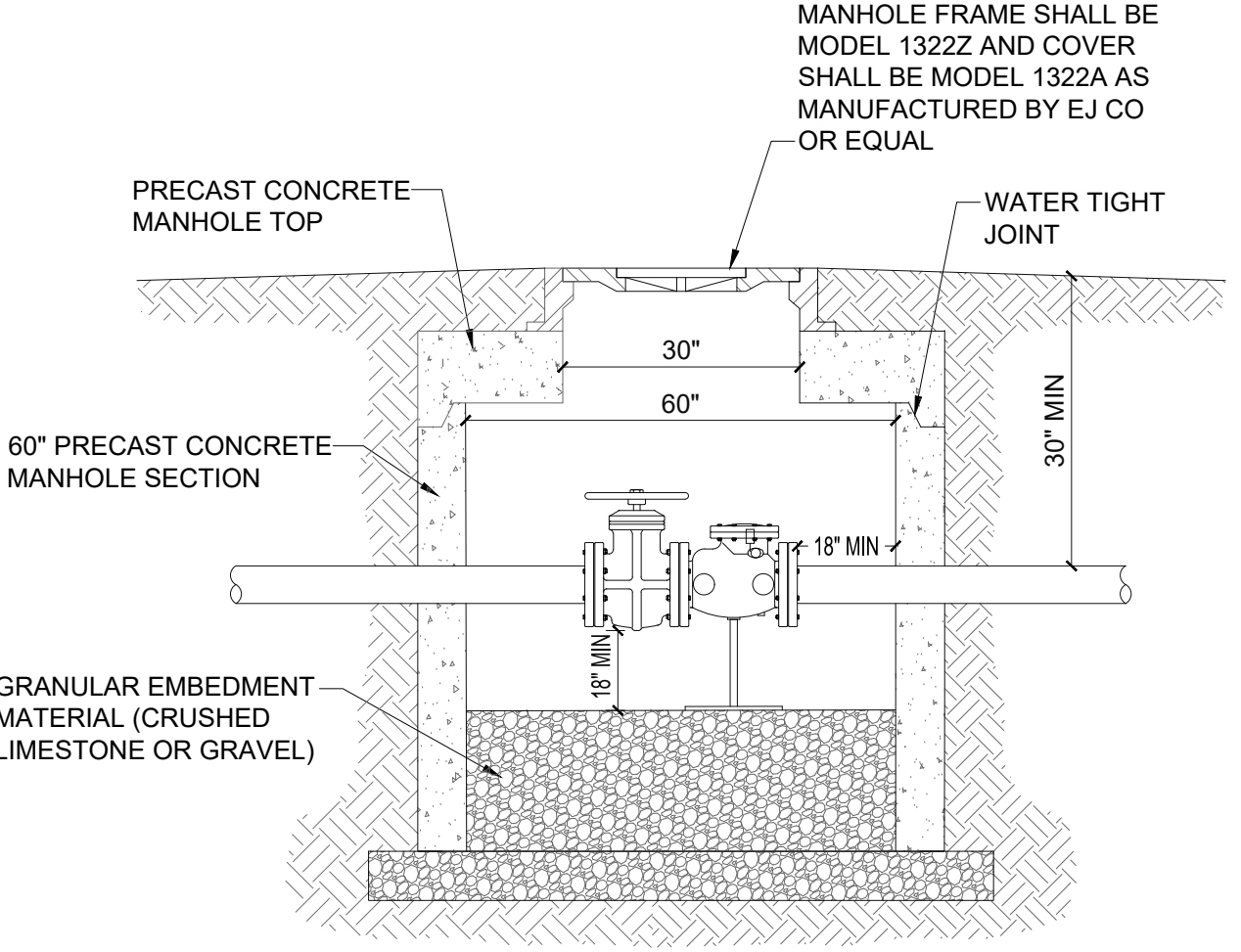
3 WATER AND SEWER PIPE INSTALLATION DETAIL
SCALE: NTS



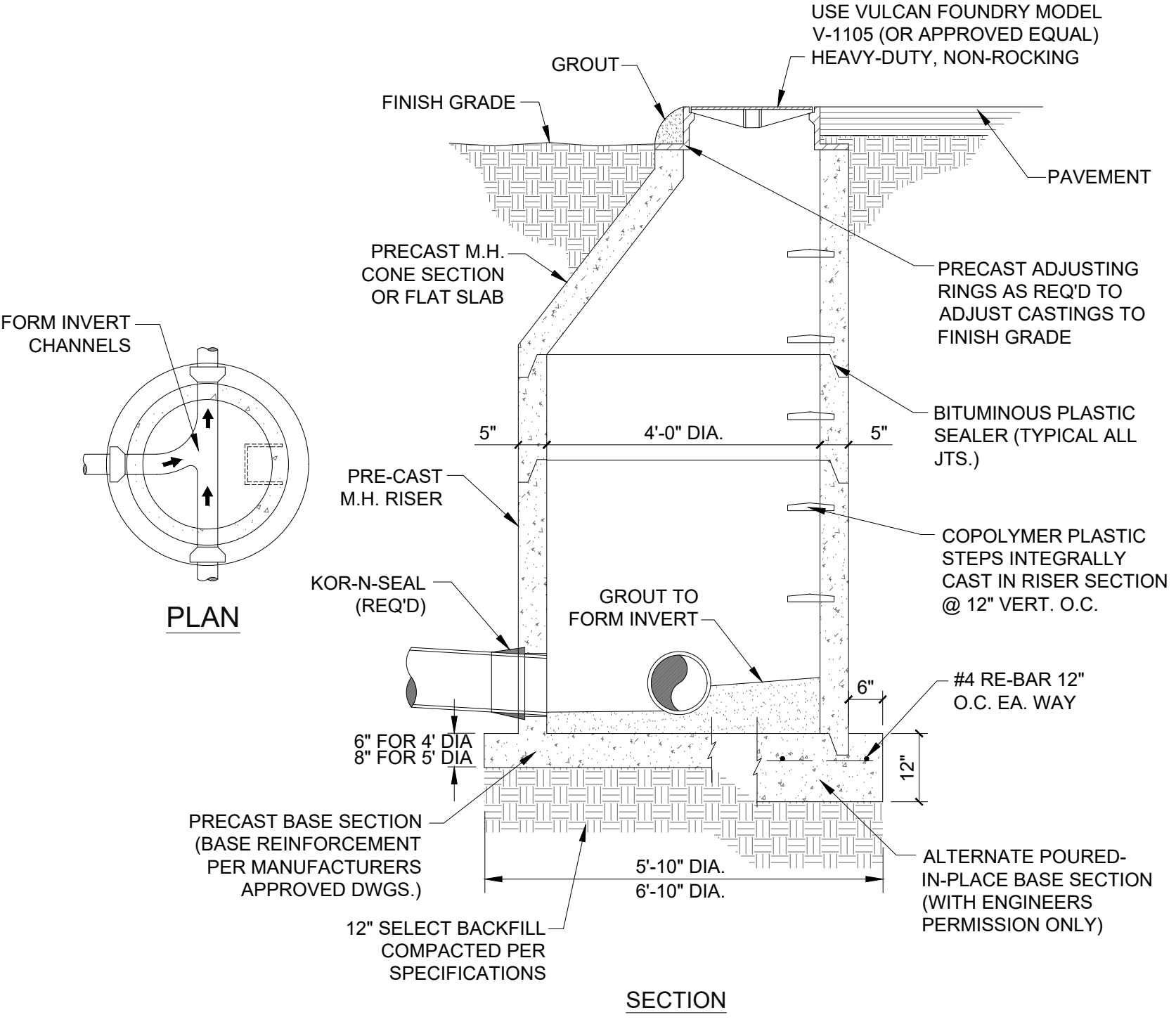
6 TYPICAL POST INDICATOR VALVE DETAIL
SCALE: NTS

ASTM D2321 CLASS DESCRIPTION	ASTM D2487 DESCRIPTION	NOTATION	MINIMUM STANDARD PROCTOR DENSITY (%)	MAXIMUM LIFT PLACEMENT DEPTH	
I	CRUSHED ROCK, ANGULAR	N/A	ANGULAR CRUSHED STONE OR ROCK, CRUSHED GRAVEL, CRUSHED SLAG; LARGE VOIDS WITH LITTLE OR NO FINES	DUMPED	18"
II	CLEAN, COARSE-GRAINED SOILS	GW	WELL-GRADED GRAVEL, GRAVEL-SAND MIXTURES; LITTLE OR NO FINES	85%	12"
		GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES; LITTLE OR NO FINES		
		SW	WELL-GRADED SANDS, GRAVELLY SANDS; LITTLE OR NO FINES		
		SP	POORLY-GRADED SANDS, GRAVELLY SAND; LITTLE OR NO FINES		
COARSE-GRAINED SOILS, BORDERLINE CLEAN TO W/FINES	GW-GC, SP-SM	SANDS AND GRAVELS WHICH ARE BORDERLINE BETWEEN CLEAN AND WITH FINES	90%	9"	
COURSE-GRAINED SOILS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES			
	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES			
	SM	SILTY SANDS, SAND-CLAY MIXTURES			
INORGANIC FINE-GRAINED SOILS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SILTS WITH SLIGHT PLASTICITY	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY, SANDY, OR SILTY CLAYS; LEAN CLAYS	90%	9"
	CL				

2 EMBEDMENT MATERIAL TABLE
SCALE: NTS



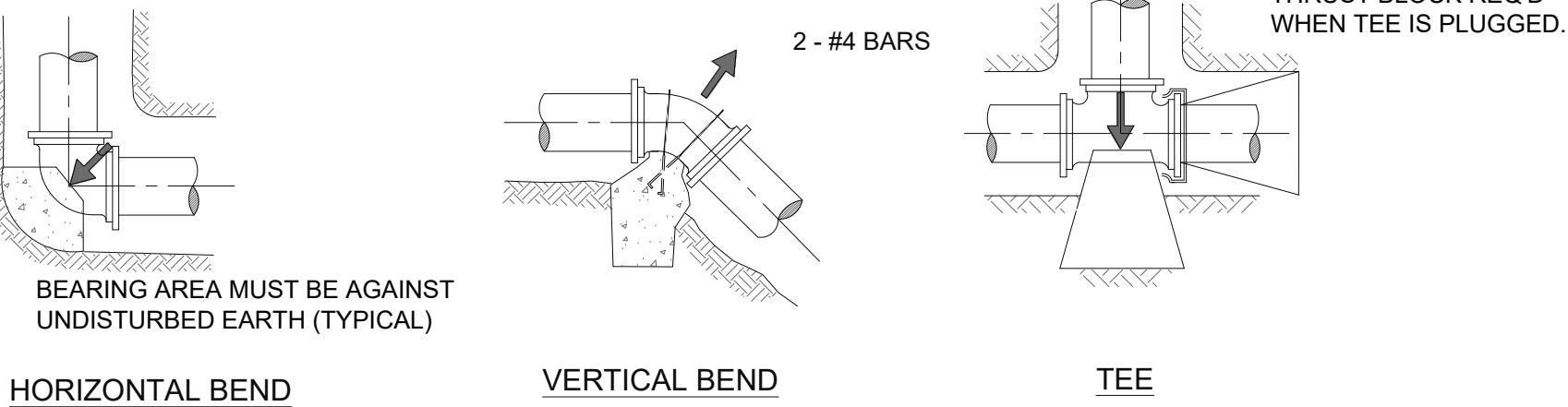
5 TYPICAL CHECK VALVE DETAIL
SCALE: NTS



1 TYPICAL SEWER MANHOLE DETAIL
SCALE: NTS

BEARING AREAS FOR THRUST BLOCKING IN SQUARE FEET						
FITTING:	4" DIA.	6" DIA.	8" DIA.	10" DIA.	12" DIA.	14" DIA.
TEES	2.0	2.5	4.7	5.0	7.0	9.0
90°	2.0	2.7	6.7	7.2	10.4	12.7
45°	1.0	1.5	3.6	3.9	5.6	6.9
22 1/2°	1.0	1.0	1.8	2.0	2.9	3.5

NOTE: ALL FITTINGS SHALL BE COVERED WITH A GEOTEXTILE FABRIC PRIOR TO POURING CONCRETE THRUST BLOCKING



4 TYPICAL WATER MAIN THRUST BLOCK DETAIL
SCALE: NTS

6 TYPICAL POST INDICATOR VALVE DETAIL
SCALE: NTS



August 7, 2025

Jeremy Burke
Zoning Administrator
City of Bay St. Louis
688 Highway 90
Bay St. Louis, MS 39520

RE: Bay St. Louis Convenience Store

Dear Mr. Burke,

We have reviewed the responses from Live Oak Engineering after our 8/4/25 review of the proposed convenience store at 1083 Highway 90. We have no further comments on the drainage design for the proposed development.

Sincerely,

A handwritten signature in blue ink that reads "Jason Chiniche, P.E.".

Jason Chiniche, P.E.

**RE: Minor Site Plan Review – 1083 Highway 90 - Bellamare Development
Recommendation for Approval**

This letter is to confirm that the minor site plan submitted by Bellamare Development for the property located at 1083 Highway 90 has been reviewed and is recommended for approval.

The proposed plans have been reviewed and approved by the City of Bay St. Louis Building Department, Fire Department, and City Engineer. In addition, the applicant has submitted the required approval from the Mississippi Department of Transportation (MDOT).

Based on the completed reviews and all supporting documentation received, the administration recommends approval of this minor site plan.

Please feel free to contact me if you have any questions or need further information.

Jeremy Burke
Zoning Administrator

STORMWATER MANAGEMENT REPORT

For

Bay St. Louis Convenience Store

1083 Highway 90

Bay St. Louis, Mississippi

Revised July 3, 2025

Prepared by:



**LIVE OAK
ENGINEERING**

STORMWATER MANAGEMENT REPORT

Bay St Louis Convenience Store

PROJECT DESCRIPTION

The proposed project consists of the development of approximately 1.9 acres of previously undeveloped commercial land. The project is located at 1083 Highway 90 in Bay St. Louis, Mississippi.

REGULATORY REQUIREMENTS

An appropriate storm water drainage system has been design to convey storm water by means of overland sheet flow and underground piping to a detention basin design to meet the City of Bay St Louis Stormwater management Requirements. Rate control will consists of containing the on-site peak post-development discharge rates so they do not exceed the peak pre-development discharge rates for the 10-year, 25-year, and 100-year storm events.

PRE-DEVELOPMENT ANALYSIS

The drainage basin for this project is comprised of approximately 1.9 acres of previous undeveloped commercial land. The Pre-developed conditions are described below.

Pre-developed Conditions - South Area

<u>Description</u>	<u>Area (ac)</u>	<u>Pre-developed "CN" Value</u>
Fair Grass, Group C	0.14 ac	79
Total Area	0.14 ac	Weighted CN 79

Pre-developed Conditions - North Area

Description	Area (ac)	Pre-developed "CN" Value
Fair Grass, Group C	1.75 ac	79
Total Area	1.75 ac	Weighted CN 79

Pre-development run-off rates were calculated using the SCS methodologies and AutoDesk Storm and Sanitary Analysis modeling software. Pre-development analysis has been performed for the 10-year, 25-year, and 100-year storm event. The results are listed below and the hydraulic calculations for the Pre-development conditions can be found in attached Appendix.

Pre-developed Hydrological Results - South Area

Event (24 hour)	Area	Duration	24-hour Rainfall	Peak Run-Off
10-year	0.14 ac	5.0 min	8.70 in	1.00 cfs
25-year	0.14 ac	5.0 min	10.50 in	1.26 cfs
100-year	0.14 ac	5.0 min	12.50 in	1.56 cfs

Pre-developed Hydrological Results - North Area

Event (24 hour)	Area	Duration	24-hour Rainfall	Peak Run-Off
10-year	1.75 ac	8.2 min	8.70 in	11.39 cfs
25-year	1.75 ac	8.2 min	10.50 in	14.39 cfs
100-year	1.75 ac	8.2 min	12.50 in	17.72 cfs

POST-DEVELOPMENT ANALYSIS

The post-developed conditions include the developing of approximately 1.9 acres of land for the development of the new convenience store. The post-developed conditions are described below.

Post-developed Conditions – North Area

Description	Area (ac)	Post-developed “CN” Value
Pervious	0.130 ac	74
Impervious	0.200 ac	98
Total Area	0.330 ac	Weighted CN 89

Post-developed Conditions – South Area

Description	Area (sf)	Post-developed “CN” Value
Pervious	0.310 ac	74
Impervious	0.170 ac	98
Total Area	0.480 ac	Weighted CN 83

Post-developed Conditions – West Area

Description	Area (sf)	Post-developed “CN” Value
Pervious	0.250 ac	74
Impervious	0.450 ac	98
Total Area	0.700 ac	Weighted CN 89

Post-developed Conditions – Offsite

Description	Area (sf)	Post-developed “CN” Value
Pervious	0.380 ac	79
Total Area	0.380 ac	Weighted CN 79

The same method as the pre-development analysis was used to calculate the post-development analysis. The results are listed below and the hydraulic calculations for the post-development conditions can be found in attached Appendix.

Post-developed Hydrological Results – 10-year Storm Event

<u>Drainage Area</u>	<u>Area</u>	<u>Duration</u>	<u>Peak Run-Off</u>
North Area	0.330 ac	5 min	2.69 cfs
South Area	0.480 ac	5 min	3.64 cfs
West Area	0.700 ac	5 min	5.70 cfs
Offsite	0.380 ac	5 min	2.71 cfs

Post-developed Hydrological Results – 25-year Storm Event

<u>Drainage Area</u>	<u>Area</u>	<u>Duration</u>	<u>Peak Run-Off</u>
North Area	0.330 ac	5 min	3.29 cfs
South Area	0.480 ac	5 min	4.54 cfs
West Area	0.700 ac	5 min	6.99 cfs
Offsite	0.380 ac	5 min	3.43 cfs

Post-developed Hydrological Results – 100-year Storm Event

<u>Drainage Area</u>	<u>Area</u>	<u>Duration</u>	<u>Peak Run-Off</u>
North Area	0.330 ac	5 min	3.96 cfs
South Area	0.480 ac	5 min	5.53 cfs
West Area	0.700 ac	5 min	8.41 cfs
Offsite	0.380 ac	5 min	4.22 cfs

DETENTION BASIN AND OUTLET STRUCTURE DEVELOPMENT

Detention Basin and Outlet Structure Description

A detention system has been designed to provide the required storage volume to ensure that the peak post-developed run-off rates do not exceed the pre-developed run-off rates for the required storm events. The detention basins and routing information are listed below and detention routing calculations can be found in attached Appendix.

North Detention Basin and Outlet Structure Description

Top Bank Elevation	18.5 ft
Top Bank Area	2,225 sf
Bottom Elevation	16 ft
Bottom Area	1,430 sf
Total Pond Volume	4,686 cf
12" Outlet Pipe Elevation	15.75 ft

South Detention Basin and Outlet Structure Description

Top Bank Elevation	18.25 ft
Top Bank Area	3,560 sf
Bottom Elevation	15 ft
Bottom Area	1,015 sf
Total Pond Volume	7,100 cf
15" Outlet Pipe Elevation	14.75 ft

West Detention Basin and Outlet Structure Description

Top Bank Elevation	18.25 ft
Top Bank Area	4,340 sf
Bottom Elevation	16 ft
Bottom Area	285 sf
Total Pond Volume	4,155 cf
12" Outlet Pipe Elevation	15.50 ft

PRE-DEVELOPMENT vs POST-DEVELOPMENT ANALYSISPre-development vs Post-developed Hydrological Results – 10-year Storm Event

<u>Drainage Area</u>	<u>Pre Peak Run-off</u>	<u>Post Peak Run-off</u>
Pre - North Area	11.39 cfs	
Pre - South Area	1.00 cfs	
Post – Thru Ponds		6.78 cfs
Post – Offsite		2.71 cfs
Totals	12.39 cfs	9.49 cfs

Pre-development vs Post-developed Hydrological Results – 25-year Storm Event

<u>Drainage Area</u>	<u>Pre Peak Run-off</u>	<u>Post Peak Run-off</u>
Pre - North Area	14.39 cfs	
Pre - South Area	1.26 cfs	
Post – Thru Ponds		7.80 cfs
Post – Offsite		3.43 cfs
Totals	15.65 cfs	11.23 cfs

Pre-development vs Post-developed Hydrological Results – 100-year Storm Event

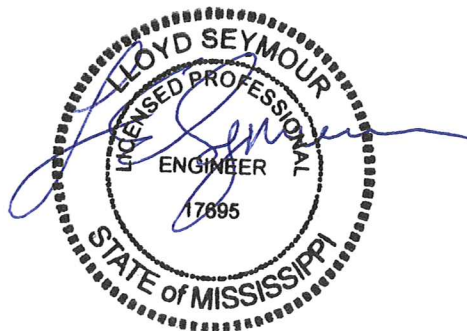
<u>Drainage Area</u>	<u>Pre Peak Run-off</u>	<u>Post Peak Run-off</u>
Pre - North Area	17.72 cfs	
Pre - South Area	1.56 cfs	
Post – Thru Ponds		8.52 cfs
Post – Offsite		4.22 cfs
Totals	19.28 cfs	12.74 cfs

ENGINEER’S CERTIFICATION

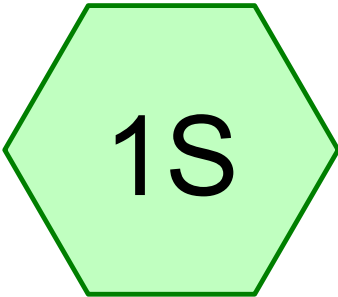
I, Lloyd (Les) Seymour, hereby certify that this Storm Water Management Plan dated July 3, 2025 has been developed in conformity with accepted engineering standards in hydrology and it was determined that the stormwater system meets the City of Bay St. Louis Stormwater Management Requirements.

Any individual or group who chooses to use this report for future projects shall assume all risk regarding their design.

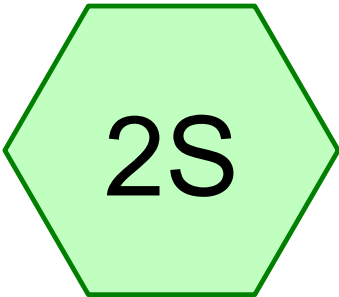
Lloyd (Les) Seymour, PE
Live Oak Engineering



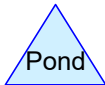
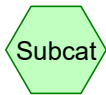
Appendix- Calculations



Pre - North



Pre - South



Routing Diagram for Bay St. Louis Pre
Prepared by Live Oak Engineering, Printed 3/3/2025
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Bay St. Louis Pre

Prepared by Live Oak Engineering
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Printed 3/3/2025
Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	10-Year	Type III 24-hr		Default	24.00	1	8.70	2
2	25-Year	Type III 24-hr		Default	24.00	1	10.50	2
3	100-Year	Type III 24-hr		Default	24.00	1	12.50	2

Bay St. Louis Pre

Prepared by Live Oak Engineering
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Printed 3/3/2025
Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.890	79	50-75% Grass cover, Fair, HSG C (1S, 2S)
1.890	79	TOTAL AREA

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Printed 3/3/2025

Page 4

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
1.890	HSG C	1S, 2S
0.000	HSG D	
0.000	Other	
1.890		TOTAL AREA

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Printed 3/3/2025

Page 5

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	1.890	0.000	0.000	1.890	50-75% Grass cover, Fair	1S, 2S
0.000	0.000	1.890	0.000	0.000	1.890	TOTAL AREA	

Bay St. Louis Pre

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 6

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre - North

Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>5.80"
 Flow Length=200' Tc=8.2 min CN=79 Runoff=11.39 cfs 0.846 af

Subcatchment2S: Pre - South

Runoff Area=0.140 ac 0.00% Impervious Runoff Depth>5.81"
 Tc=5.0 min CN=79 Runoff=1.00 cfs 0.068 af

Total Runoff Area = 1.890 ac Runoff Volume = 0.914 af Average Runoff Depth = 5.80"
100.00% Pervious = 1.890 ac 0.00% Impervious = 0.000 ac

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 3/3/2025

Page 7

Summary for Subcatchment 1S: Pre - North

Runoff = 11.39 cfs @ 12.11 hrs, Volume= 0.846 af, Depth> 5.80"

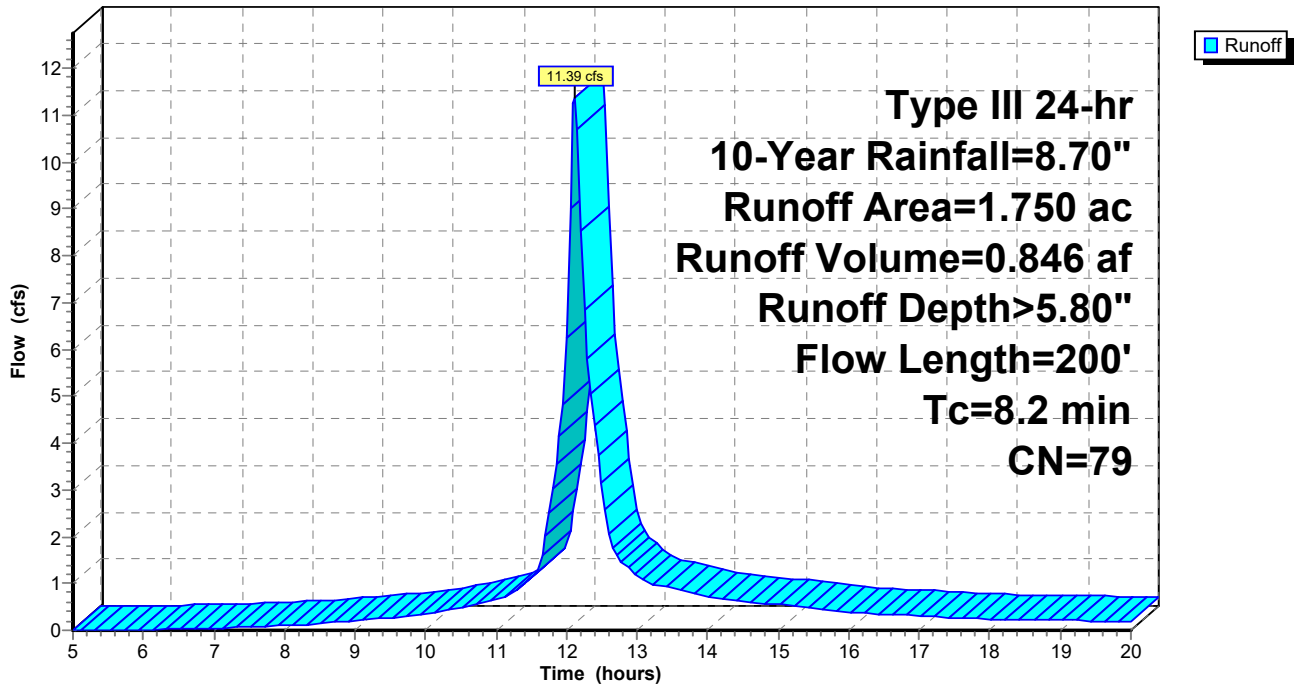
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
1.750	79	50-75% Grass cover, Fair, HSG C
1.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	75	0.0300	0.17		Sheet Flow, Grass: Dense n= 0.240 P2= 5.80"
1.0	125	0.0200	2.12		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.2	200	Total			

Subcatchment 1S: Pre - North

Hydrograph



Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 3/3/2025

Page 8

Hydrograph for Subcatchment 1S: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.00	0.00	18.00	8.07	5.58	0.24
5.25	0.53	0.00	0.00	18.25	8.11	5.61	0.23
5.50	0.56	0.00	0.00	18.50	8.14	5.64	0.22
5.75	0.59	0.00	0.01	18.75	8.17	5.67	0.22
6.00	0.63	0.00	0.01	19.00	8.21	5.70	0.21
6.25	0.66	0.01	0.02	19.25	8.24	5.73	0.21
6.50	0.70	0.01	0.03	19.50	8.27	5.76	0.20
6.75	0.74	0.02	0.04	19.75	8.30	5.79	0.19
7.00	0.79	0.02	0.05	20.00	8.33	5.81	0.19
7.25	0.83	0.03	0.06				
7.50	0.88	0.04	0.07				
7.75	0.94	0.05	0.09				
8.00	0.99	0.07	0.10				
8.25	1.05	0.09	0.12				
8.50	1.12	0.11	0.15				
8.75	1.19	0.13	0.17				
9.00	1.27	0.16	0.21				
9.25	1.35	0.19	0.24				
9.50	1.44	0.23	0.28				
9.75	1.54	0.28	0.32				
10.00	1.64	0.33	0.36				
10.25	1.76	0.39	0.41				
10.50	1.88	0.46	0.49				
10.75	2.02	0.54	0.56				
11.00	2.18	0.63	0.65				
11.25	2.36	0.74	0.82				
11.50	2.59	0.90	1.10				
11.75	3.09	1.26	2.50				
12.00	4.35	2.25	6.24				
12.25	5.61	3.33	6.84				
12.50	6.11	3.78	3.15				
12.75	6.34	3.99	1.51				
13.00	6.52	4.15	1.17				
13.25	6.68	4.29	0.98				
13.50	6.82	4.42	0.89				
13.75	6.94	4.53	0.81				
14.00	7.06	4.64	0.73				
14.25	7.16	4.73	0.67				
14.50	7.26	4.82	0.63				
14.75	7.35	4.90	0.59				
15.00	7.43	4.98	0.55				
15.25	7.51	5.05	0.51				
15.50	7.58	5.12	0.47				
15.75	7.65	5.18	0.43				
16.00	7.71	5.24	0.39				
16.25	7.76	5.29	0.36				
16.50	7.82	5.34	0.34				
16.75	7.87	5.38	0.33				
17.00	7.91	5.43	0.31				
17.25	7.96	5.47	0.29				
17.50	8.00	5.51	0.27				
17.75	8.04	5.54	0.26				

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 3/3/2025

Page 9

Summary for Subcatchment 2S: Pre - South

Runoff = 1.00 cfs @ 12.07 hrs, Volume= 0.068 af, Depth> 5.81"

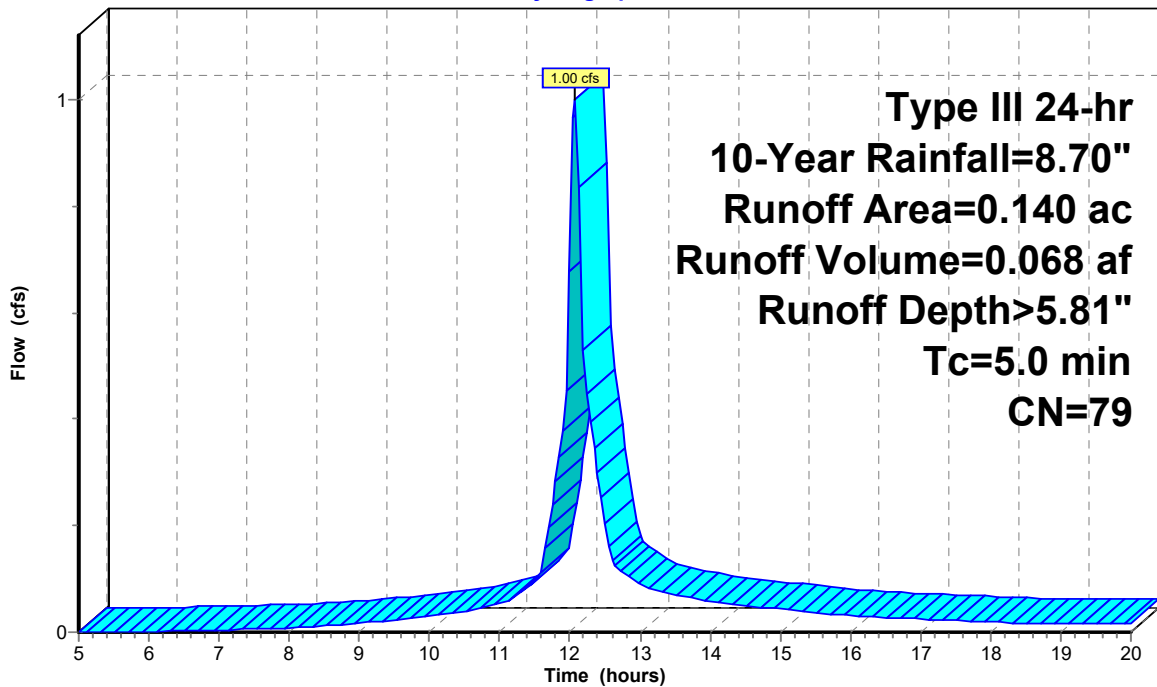
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
0.140	79	50-75% Grass cover, Fair, HSG C
0.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Pre - South

Hydrograph



Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 3/3/2025

Page 10

Hydrograph for Subcatchment 2S: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.00	0.00	18.00	8.07	5.58	0.02
5.25	0.53	0.00	0.00	18.25	8.11	5.61	0.02
5.50	0.56	0.00	0.00	18.50	8.14	5.64	0.02
5.75	0.59	0.00	0.00	18.75	8.17	5.67	0.02
6.00	0.63	0.00	0.00	19.00	8.21	5.70	0.02
6.25	0.66	0.01	0.00	19.25	8.24	5.73	0.02
6.50	0.70	0.01	0.00	19.50	8.27	5.76	0.02
6.75	0.74	0.02	0.00	19.75	8.30	5.79	0.02
7.00	0.79	0.02	0.00	20.00	8.33	5.81	0.02
7.25	0.83	0.03	0.00				
7.50	0.88	0.04	0.01				
7.75	0.94	0.05	0.01				
8.00	0.99	0.07	0.01				
8.25	1.05	0.09	0.01				
8.50	1.12	0.11	0.01				
8.75	1.19	0.13	0.01				
9.00	1.27	0.16	0.02				
9.25	1.35	0.19	0.02				
9.50	1.44	0.23	0.02				
9.75	1.54	0.28	0.03				
10.00	1.64	0.33	0.03				
10.25	1.76	0.39	0.03				
10.50	1.88	0.46	0.04				
10.75	2.02	0.54	0.05				
11.00	2.18	0.63	0.05				
11.25	2.36	0.74	0.07				
11.50	2.59	0.90	0.09				
11.75	3.09	1.26	0.24				
12.00	4.35	2.25	0.68				
12.25	5.61	3.33	0.45				
12.50	6.11	3.78	0.21				
12.75	6.34	3.99	0.11				
13.00	6.52	4.15	0.09				
13.25	6.68	4.29	0.08				
13.50	6.82	4.42	0.07				
13.75	6.94	4.53	0.06				
14.00	7.06	4.64	0.06				
14.25	7.16	4.73	0.05				
14.50	7.26	4.82	0.05				
14.75	7.35	4.90	0.05				
15.00	7.43	4.98	0.04				
15.25	7.51	5.05	0.04				
15.50	7.58	5.12	0.04				
15.75	7.65	5.18	0.03				
16.00	7.71	5.24	0.03				
16.25	7.76	5.29	0.03				
16.50	7.82	5.34	0.03				
16.75	7.87	5.38	0.03				
17.00	7.91	5.43	0.02				
17.25	7.96	5.47	0.02				
17.50	8.00	5.51	0.02				
17.75	8.04	5.54	0.02				

Bay St. Louis Pre*Type III 24-hr 25-Year Rainfall=10.50"*

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 11

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre - North

Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>7.43"
 Flow Length=200' Tc=8.2 min CN=79 Runoff=14.39 cfs 1.083 af

Subcatchment2S: Pre - South

Runoff Area=0.140 ac 0.00% Impervious Runoff Depth>7.43"
 Tc=5.0 min CN=79 Runoff=1.26 cfs 0.087 af

Total Runoff Area = 1.890 ac Runoff Volume = 1.170 af Average Runoff Depth = 7.43"
100.00% Pervious = 1.890 ac 0.00% Impervious = 0.000 ac

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=10.50"

Printed 3/3/2025

Page 12

Summary for Subcatchment 1S: Pre - North

Runoff = 14.39 cfs @ 12.11 hrs, Volume= 1.083 af, Depth> 7.43"

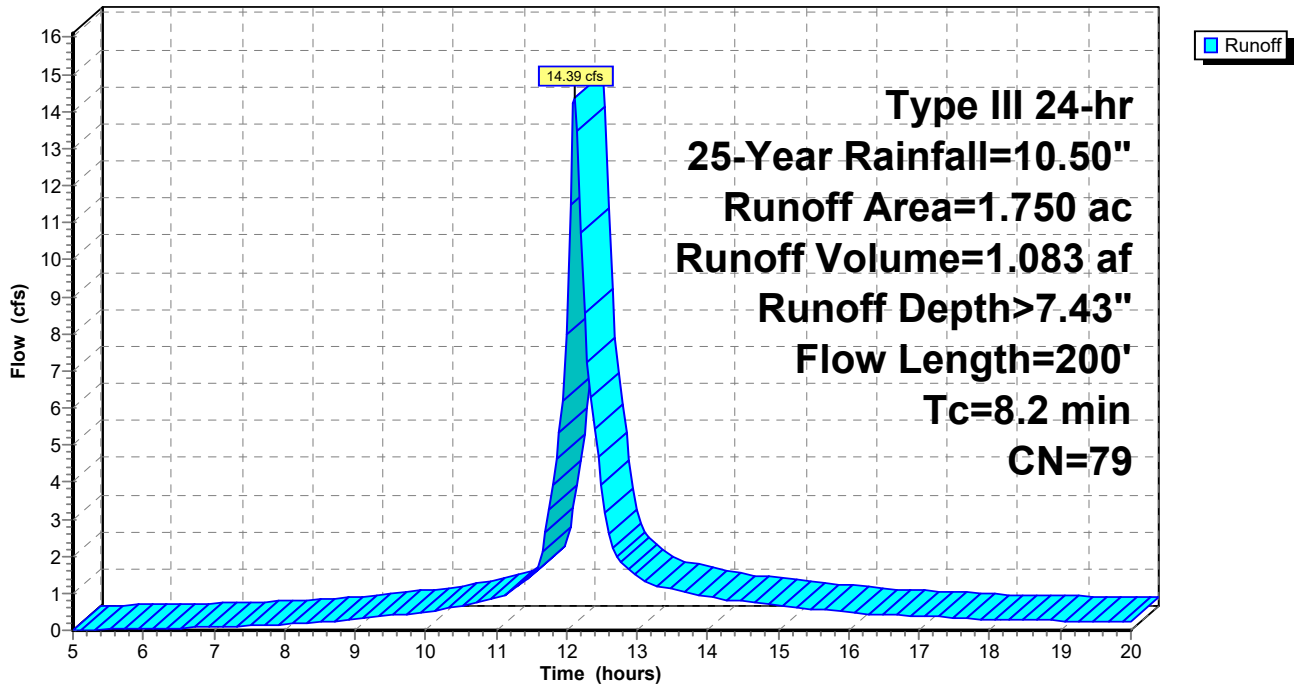
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
1.750	79	50-75% Grass cover, Fair, HSG C
1.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	75	0.0300	0.17		Sheet Flow, Grass: Dense n= 0.240 P2= 5.80"
1.0	125	0.0200	2.12		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.2	200	Total			

Subcatchment 1S: Pre - North

Hydrograph



Bay St. Louis Pre

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 13

Hydrograph for Subcatchment 1S: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.00	0.01	18.00	9.74	7.15	0.29
5.25	0.63	0.00	0.02	18.25	9.79	7.19	0.28
5.50	0.67	0.01	0.02	18.50	9.83	7.23	0.27
5.75	0.71	0.01	0.03	18.75	9.87	7.26	0.27
6.00	0.76	0.02	0.04	19.00	9.90	7.30	0.26
6.25	0.80	0.02	0.05	19.25	9.94	7.34	0.25
6.50	0.85	0.03	0.06	19.50	9.98	7.37	0.25
6.75	0.90	0.04	0.08	19.75	10.01	7.41	0.24
7.00	0.95	0.06	0.09	20.00	10.05	7.44	0.23
7.25	1.01	0.07	0.11				
7.50	1.07	0.09	0.12				
7.75	1.13	0.11	0.14				
8.00	1.20	0.13	0.16				
8.25	1.27	0.16	0.19				
8.50	1.35	0.19	0.23				
8.75	1.44	0.23	0.26				
9.00	1.53	0.27	0.31				
9.25	1.63	0.32	0.35				
9.50	1.74	0.38	0.40				
9.75	1.86	0.44	0.45				
10.00	1.98	0.51	0.50				
10.25	2.12	0.59	0.57				
10.50	2.27	0.69	0.67				
10.75	2.44	0.80	0.77				
11.00	2.63	0.92	0.87				
11.25	2.85	1.08	1.10				
11.50	3.13	1.28	1.45				
11.75	3.73	1.75	3.26				
12.00	5.25	3.02	7.98				
12.25	6.77	4.37	8.58				
12.50	7.37	4.93	3.92				
12.75	7.65	5.19	1.87				
13.00	7.87	5.39	1.46				
13.25	8.06	5.56	1.21				
13.50	8.23	5.72	1.11				
13.75	8.38	5.86	1.01				
14.00	8.52	5.99	0.90				
14.25	8.64	6.11	0.83				
14.50	8.76	6.22	0.78				
14.75	8.87	6.32	0.73				
15.00	8.97	6.42	0.68				
15.25	9.06	6.51	0.63				
15.50	9.15	6.59	0.58				
15.75	9.23	6.66	0.53				
16.00	9.30	6.73	0.48				
16.25	9.37	6.79	0.45				
16.50	9.43	6.85	0.42				
16.75	9.49	6.91	0.40				
17.00	9.55	6.97	0.38				
17.25	9.60	7.02	0.36				
17.50	9.65	7.06	0.34				
17.75	9.70	7.11	0.31				

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=10.50"

Printed 3/3/2025

Page 14

Summary for Subcatchment 2S: Pre - South

Runoff = 1.26 cfs @ 12.07 hrs, Volume= 0.087 af, Depth> 7.43"

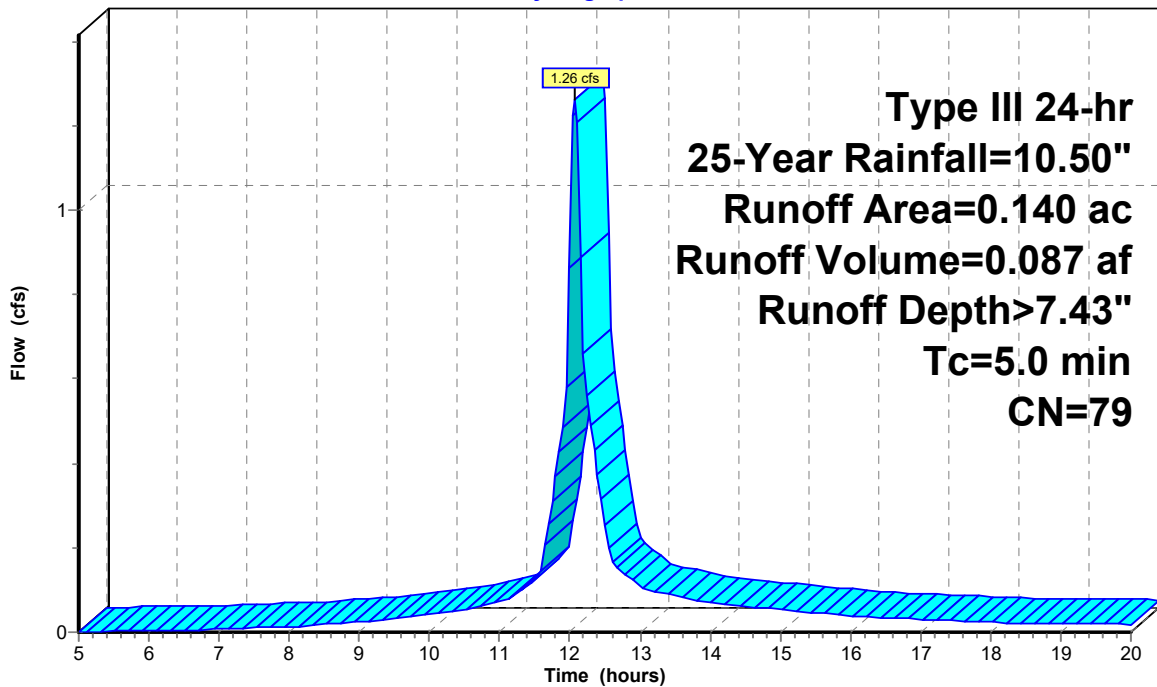
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
0.140	79	50-75% Grass cover, Fair, HSG C
0.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Pre - South

Hydrograph



Runoff

**Type III 24-hr
25-Year Rainfall=10.50"**
Runoff Area=0.140 ac
Runoff Volume=0.087 af
Runoff Depth>7.43"
Tc=5.0 min
CN=79

Bay St. Louis Pre

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 15

Hydrograph for Subcatchment 2S: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.00	0.00	18.00	9.74	7.15	0.02
5.25	0.63	0.00	0.00	18.25	9.79	7.19	0.02
5.50	0.67	0.01	0.00	18.50	9.83	7.23	0.02
5.75	0.71	0.01	0.00	18.75	9.87	7.26	0.02
6.00	0.76	0.02	0.00	19.00	9.90	7.30	0.02
6.25	0.80	0.02	0.00	19.25	9.94	7.34	0.02
6.50	0.85	0.03	0.01	19.50	9.98	7.37	0.02
6.75	0.90	0.04	0.01	19.75	10.01	7.41	0.02
7.00	0.95	0.06	0.01	20.00	10.05	7.44	0.02
7.25	1.01	0.07	0.01				
7.50	1.07	0.09	0.01				
7.75	1.13	0.11	0.01				
8.00	1.20	0.13	0.01				
8.25	1.27	0.16	0.02				
8.50	1.35	0.19	0.02				
8.75	1.44	0.23	0.02				
9.00	1.53	0.27	0.03				
9.25	1.63	0.32	0.03				
9.50	1.74	0.38	0.03				
9.75	1.86	0.44	0.04				
10.00	1.98	0.51	0.04				
10.25	2.12	0.59	0.05				
10.50	2.27	0.69	0.05				
10.75	2.44	0.80	0.06				
11.00	2.63	0.92	0.07				
11.25	2.85	1.08	0.09				
11.50	3.13	1.28	0.12				
11.75	3.73	1.75	0.31				
12.00	5.25	3.02	0.86				
12.25	6.77	4.37	0.56				
12.50	7.37	4.93	0.25				
12.75	7.65	5.19	0.14				
13.00	7.87	5.39	0.11				
13.25	8.06	5.56	0.10				
13.50	8.23	5.72	0.09				
13.75	8.38	5.86	0.08				
14.00	8.52	5.99	0.07				
14.25	8.64	6.11	0.07				
14.50	8.76	6.22	0.06				
14.75	8.87	6.32	0.06				
15.00	8.97	6.42	0.05				
15.25	9.06	6.51	0.05				
15.50	9.15	6.59	0.05				
15.75	9.23	6.66	0.04				
16.00	9.30	6.73	0.04				
16.25	9.37	6.79	0.04				
16.50	9.43	6.85	0.03				
16.75	9.49	6.91	0.03				
17.00	9.55	6.97	0.03				
17.25	9.60	7.02	0.03				
17.50	9.65	7.06	0.03				
17.75	9.70	7.11	0.02				

Bay St. Louis Pre*Type III 24-hr 100-Year Rainfall=12.50"*

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 16

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Pre - North

Runoff Area=1.750 ac 0.00% Impervious Runoff Depth>9.25"
 Flow Length=200' Tc=8.2 min CN=79 Runoff=17.72 cfs 1.349 af

Subcatchment2S: Pre - South

Runoff Area=0.140 ac 0.00% Impervious Runoff Depth>9.26"
 Tc=5.0 min CN=79 Runoff=1.56 cfs 0.108 af

Total Runoff Area = 1.890 ac Runoff Volume = 1.457 af Average Runoff Depth = 9.25"
100.00% Pervious = 1.890 ac 0.00% Impervious = 0.000 ac

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=12.50"

Printed 3/3/2025

Page 17

Summary for Subcatchment 1S: Pre - North

Runoff = 17.72 cfs @ 12.11 hrs, Volume= 1.349 af, Depth> 9.25"

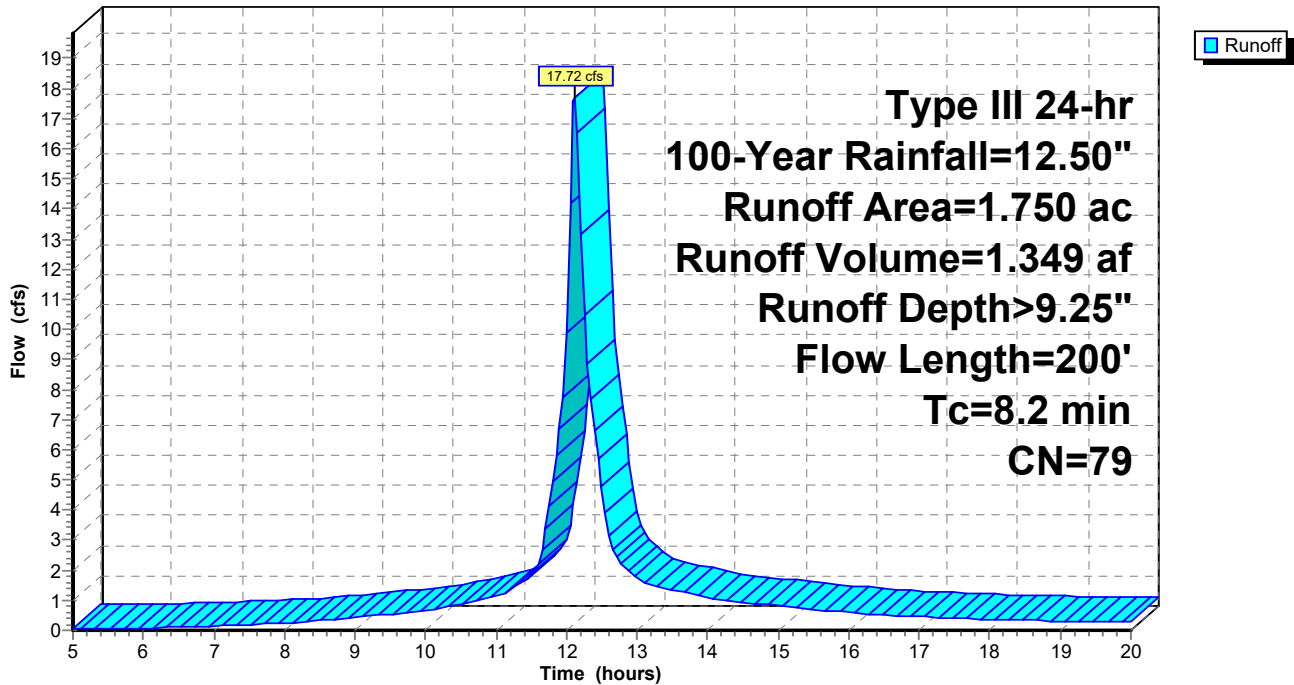
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
1.750	79	50-75% Grass cover, Fair, HSG C
1.750		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.2	75	0.0300	0.17		Sheet Flow, Grass: Dense n= 0.240 P2= 5.80"
1.0	125	0.0200	2.12		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
8.2	200	Total			

Subcatchment 1S: Pre - North

Hydrograph



Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=12.50"

Printed 3/3/2025

Page 18

Hydrograph for Subcatchment 1S: Pre - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.01	0.03	18.00	11.60	8.92	0.35
5.25	0.76	0.02	0.04	18.25	11.65	8.97	0.34
5.50	0.80	0.03	0.05	18.50	11.70	9.02	0.33
5.75	0.85	0.03	0.06	18.75	11.74	9.06	0.32
6.00	0.90	0.04	0.08	19.00	11.79	9.11	0.31
6.25	0.95	0.06	0.09	19.25	11.84	9.15	0.30
6.50	1.01	0.07	0.11	19.50	11.88	9.19	0.30
6.75	1.07	0.09	0.12	19.75	11.92	9.23	0.29
7.00	1.13	0.11	0.14	20.00	11.96	9.27	0.28
7.25	1.20	0.13	0.17				
7.50	1.27	0.16	0.19				
7.75	1.35	0.19	0.21				
8.00	1.43	0.22	0.24				
8.25	1.51	0.26	0.27				
8.50	1.61	0.31	0.32				
8.75	1.71	0.36	0.37				
9.00	1.82	0.42	0.42				
9.25	1.94	0.49	0.48				
9.50	2.07	0.57	0.54				
9.75	2.21	0.65	0.60				
10.00	2.36	0.75	0.67				
10.25	2.53	0.85	0.76				
10.50	2.71	0.98	0.88				
10.75	2.91	1.12	1.00				
11.00	3.13	1.28	1.13				
11.25	3.39	1.48	1.41				
11.50	3.73	1.74	1.85				
11.75	4.44	2.33	4.12				
12.00	6.25	3.90	9.92				
12.25	8.06	5.56	10.49				
12.50	8.77	6.23	4.77				
12.75	9.11	6.55	2.28				
13.00	9.37	6.80	1.77				
13.25	9.59	7.01	1.47				
13.50	9.79	7.20	1.34				
13.75	9.98	7.37	1.22				
14.00	10.14	7.52	1.09				
14.25	10.29	7.67	1.00				
14.50	10.43	7.80	0.94				
14.75	10.56	7.92	0.88				
15.00	10.68	8.04	0.82				
15.25	10.79	8.15	0.76				
15.50	10.89	8.25	0.70				
15.75	10.99	8.34	0.64				
16.00	11.07	8.42	0.58				
16.25	11.15	8.50	0.54				
16.50	11.23	8.57	0.51				
16.75	11.30	8.64	0.48				
17.00	11.37	8.70	0.46				
17.25	11.43	8.76	0.43				
17.50	11.49	8.82	0.41				
17.75	11.55	8.87	0.38				

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 100-Year Rainfall=12.50"

Printed 3/3/2025

Page 19

Summary for Subcatchment 2S: Pre - South

Runoff = 1.56 cfs @ 12.07 hrs, Volume= 0.108 af, Depth> 9.26"

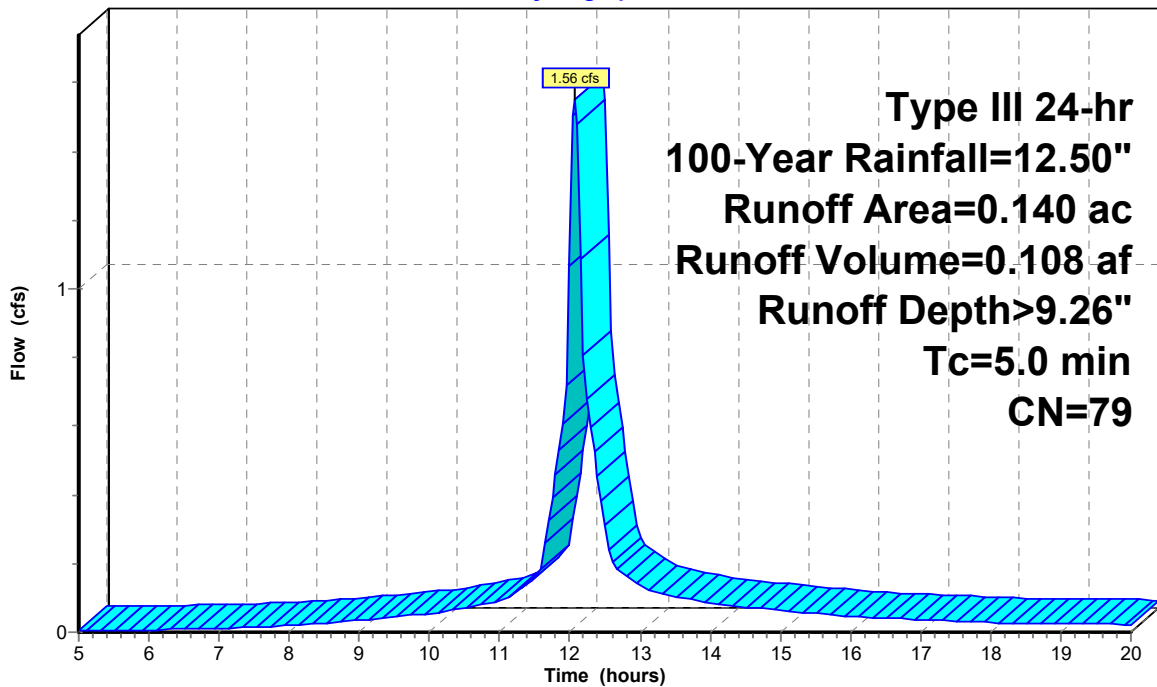
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
0.140	79	50-75% Grass cover, Fair, HSG C
0.140		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Pre - South

Hydrograph



**Type III 24-hr
100-Year Rainfall=12.50"**
Runoff Area=0.140 ac
Runoff Volume=0.108 af
Runoff Depth>9.26"
Tc=5.0 min
CN=79

Bay St. Louis Pre

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 3/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 20

Hydrograph for Subcatchment 2S: Pre - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.01	0.00	18.00	11.60	8.92	0.03
5.25	0.76	0.02	0.00	18.25	11.65	8.97	0.03
5.50	0.80	0.03	0.00	18.50	11.70	9.02	0.03
5.75	0.85	0.03	0.01	18.75	11.74	9.06	0.03
6.00	0.90	0.04	0.01	19.00	11.79	9.11	0.02
6.25	0.95	0.06	0.01	19.25	11.84	9.15	0.02
6.50	1.01	0.07	0.01	19.50	11.88	9.19	0.02
6.75	1.07	0.09	0.01	19.75	11.92	9.23	0.02
7.00	1.13	0.11	0.01	20.00	11.96	9.27	0.02
7.25	1.20	0.13	0.01				
7.50	1.27	0.16	0.02				
7.75	1.35	0.19	0.02				
8.00	1.43	0.22	0.02				
8.25	1.51	0.26	0.02				
8.50	1.61	0.31	0.03				
8.75	1.71	0.36	0.03				
9.00	1.82	0.42	0.03				
9.25	1.94	0.49	0.04				
9.50	2.07	0.57	0.04				
9.75	2.21	0.65	0.05				
10.00	2.36	0.75	0.05				
10.25	2.53	0.85	0.06				
10.50	2.71	0.98	0.07				
10.75	2.91	1.12	0.08				
11.00	3.13	1.28	0.09				
11.25	3.39	1.48	0.12				
11.50	3.73	1.74	0.16				
11.75	4.44	2.33	0.39				
12.00	6.25	3.90	1.07				
12.25	8.06	5.56	0.68				
12.50	8.77	6.23	0.31				
12.75	9.11	6.55	0.17				
13.00	9.37	6.80	0.13				
13.25	9.59	7.01	0.12				
13.50	9.79	7.20	0.11				
13.75	9.98	7.37	0.10				
14.00	10.14	7.52	0.09				
14.25	10.29	7.67	0.08				
14.50	10.43	7.80	0.07				
14.75	10.56	7.92	0.07				
15.00	10.68	8.04	0.06				
15.25	10.79	8.15	0.06				
15.50	10.89	8.25	0.06				
15.75	10.99	8.34	0.05				
16.00	11.07	8.42	0.05				
16.25	11.15	8.50	0.04				
16.50	11.23	8.57	0.04				
16.75	11.30	8.64	0.04				
17.00	11.37	8.70	0.04				
17.25	11.43	8.76	0.03				
17.50	11.49	8.82	0.03				
17.75	11.55	8.87	0.03				

Bay St. Louis Pre

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Table of Contents

Printed 3/3/2025

TABLE OF CONTENTS**Project Reports**

- 1 Routing Diagram
- 2 Rainfall Events Listing (selected events)
- 3 Area Listing (all nodes)
- 4 Soil Listing (all nodes)
- 5 Ground Covers (all nodes)

10-Year Event

- 6 Node Listing
- 7 Subcat 1S: Pre - North
- 9 Subcat 2S: Pre - South

25-Year Event

- 11 Node Listing
- 12 Subcat 1S: Pre - North
- 14 Subcat 2S: Pre - South

100-Year Event

- 16 Node Listing
- 17 Subcat 1S: Pre - North
- 19 Subcat 2S: Pre - South

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Printed 7/3/2025

Page 1

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.380	79	50-75% Grass cover, Fair, HSG C (3S)
0.690	74	>75% Grass cover, Good, HSG C (1S, 2S, 10S)
0.820	98	Paved parking, HSG C (1S, 2S, 10S)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 2

Summary for Subcatchment 1S: Post - North

Runoff = 2.69 cfs @ 12.07 hrs, Volume= 0.192 af, Depth> 6.96"
Routed to Pond 4P : North

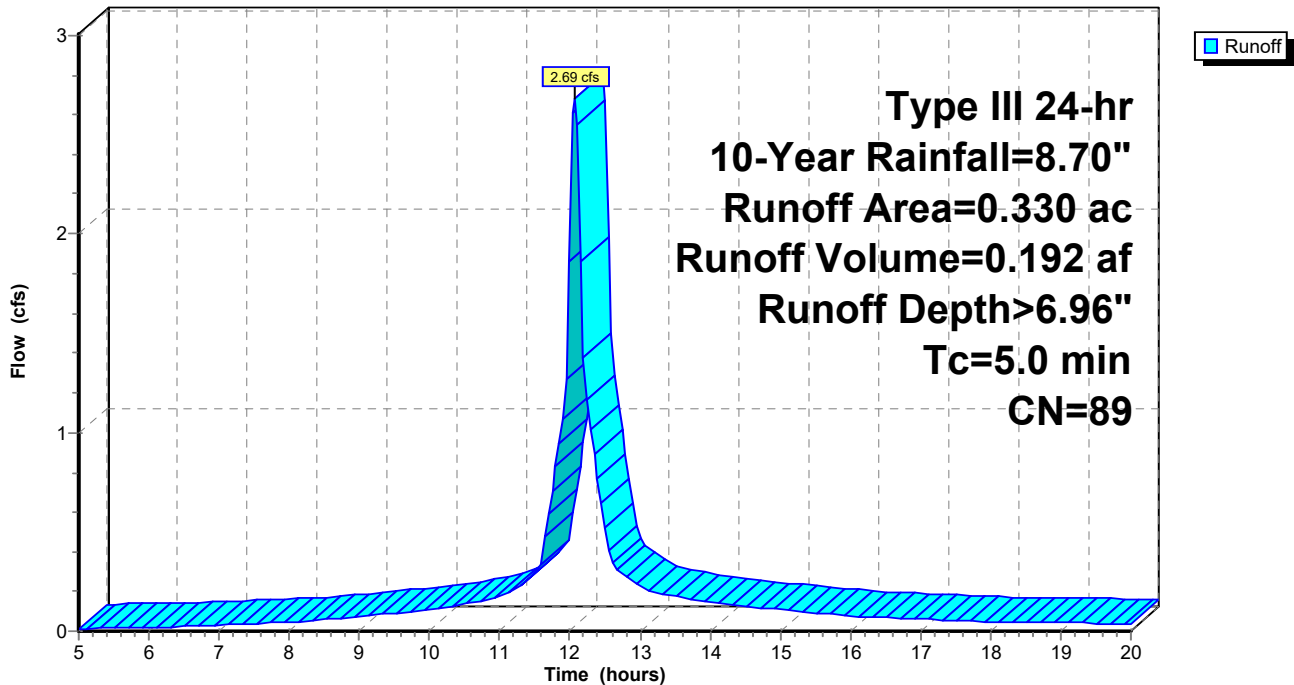
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
0.130	74	>75% Grass cover, Good, HSG C
0.200	98	Paved parking, HSG C
0.330	89	Weighted Average
0.130		39.39% Pervious Area
0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: Post - North

Hydrograph



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 3

Hydrograph for Subcatchment 1S: Post - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.04	0.01	18.00	8.07	6.76	0.05
5.25	0.53	0.05	0.01	18.25	8.11	6.79	0.04
5.50	0.56	0.06	0.02	18.50	8.14	6.83	0.04
5.75	0.59	0.08	0.02	18.75	8.17	6.86	0.04
6.00	0.63	0.09	0.02	19.00	8.21	6.89	0.04
6.25	0.66	0.10	0.02	19.25	8.24	6.92	0.04
6.50	0.70	0.12	0.02	19.50	8.27	6.95	0.04
6.75	0.74	0.14	0.03	19.75	8.30	6.98	0.04
7.00	0.79	0.16	0.03	20.00	8.33	7.01	0.04
7.25	0.83	0.19	0.03				
7.50	0.88	0.22	0.04				
7.75	0.94	0.25	0.04				
8.00	0.99	0.28	0.04				
8.25	1.05	0.32	0.05				
8.50	1.12	0.36	0.06				
8.75	1.19	0.41	0.07				
9.00	1.27	0.46	0.07				
9.25	1.35	0.52	0.08				
9.50	1.44	0.59	0.09				
9.75	1.54	0.66	0.10				
10.00	1.64	0.74	0.11				
10.25	1.76	0.83	0.12				
10.50	1.88	0.93	0.14				
10.75	2.02	1.05	0.16				
11.00	2.17	1.17	0.17				
11.25	2.36	1.33	0.22				
11.50	2.59	1.54	0.28				
11.75	3.09	1.98	0.71				
12.00	4.35	3.15	1.86				
12.25	5.61	4.36	1.16				
12.50	6.11	4.84	0.52				
12.75	6.34	5.07	0.29				
13.00	6.52	5.25	0.23				
13.25	6.68	5.39	0.19				
13.50	6.82	5.53	0.18				
13.75	6.94	5.65	0.16				
14.00	7.06	5.76	0.14				
14.25	7.16	5.86	0.13				
14.50	7.26	5.96	0.12				
14.75	7.35	6.05	0.12				
15.00	7.43	6.13	0.11				
15.25	7.51	6.21	0.10				
15.50	7.58	6.28	0.09				
15.75	7.65	6.34	0.08				
16.00	7.71	6.40	0.08				
16.25	7.76	6.45	0.07				
16.50	7.82	6.51	0.07				
16.75	7.87	6.55	0.06				
17.00	7.91	6.60	0.06				
17.25	7.96	6.64	0.06				
17.50	8.00	6.69	0.05				
17.75	8.04	6.72	0.05				

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 4

Summary for Subcatchment 2S: Post - South

Runoff = 3.64 cfs @ 12.07 hrs, Volume= 0.251 af, Depth> 6.28"
Routed to Pond 6P : South - Outfall

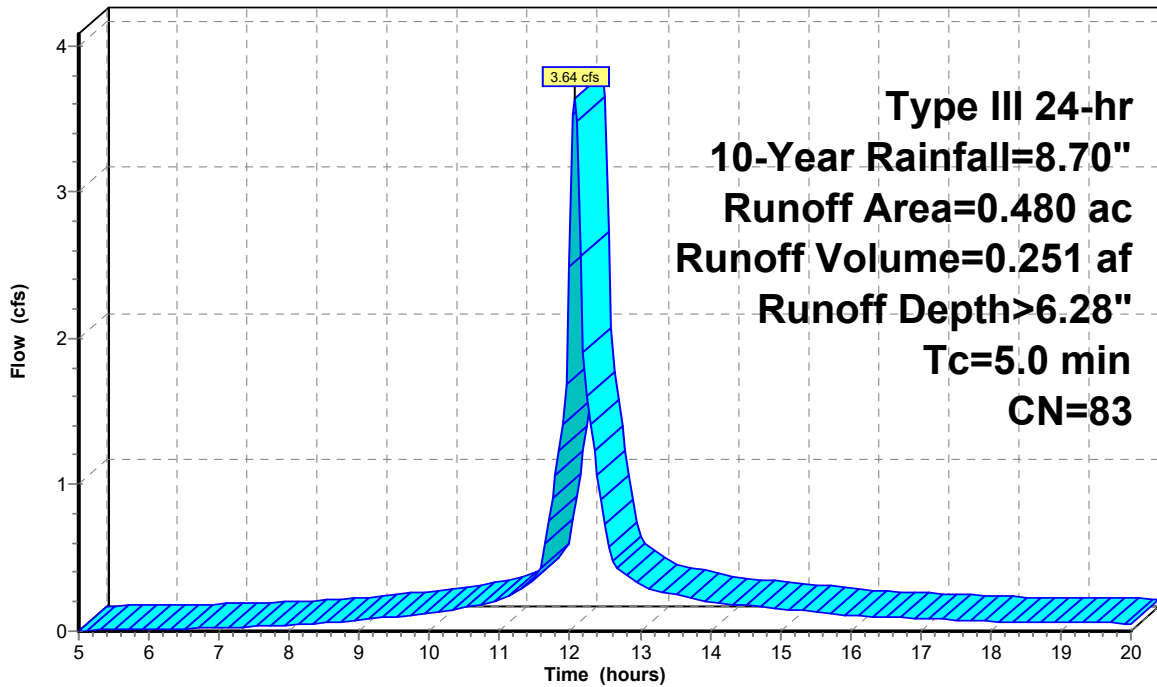
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
0.170	98	Paved parking, HSG C
0.310	74	>75% Grass cover, Good, HSG C
0.480	83	Weighted Average
0.310		64.58% Pervious Area
0.170		35.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Post - South

Hydrograph



**Type III 24-hr
10-Year Rainfall=8.70"
Runoff Area=0.480 ac
Runoff Volume=0.251 af
Runoff Depth>6.28"
Tc=5.0 min
CN=83**

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 5

Hydrograph for Subcatchment 2S: Post - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.00	0.00	18.00	8.07	6.05	0.07
5.25	0.53	0.01	0.01	18.25	8.11	6.08	0.06
5.50	0.56	0.01	0.01	18.50	8.14	6.11	0.06
5.75	0.59	0.01	0.01	18.75	8.17	6.14	0.06
6.00	0.63	0.02	0.01	19.00	8.21	6.17	0.06
6.25	0.66	0.03	0.01	19.25	8.24	6.20	0.06
6.50	0.70	0.04	0.02	19.50	8.27	6.23	0.06
6.75	0.74	0.05	0.02	19.75	8.30	6.26	0.05
7.00	0.79	0.06	0.02	20.00	8.33	6.29	0.05
7.25	0.83	0.07	0.03				
7.50	0.88	0.09	0.03				
7.75	0.94	0.11	0.04				
8.00	0.99	0.13	0.04				
8.25	1.05	0.15	0.05				
8.50	1.12	0.18	0.06				
8.75	1.19	0.22	0.07				
9.00	1.27	0.25	0.08				
9.25	1.35	0.30	0.09				
9.50	1.44	0.35	0.10				
9.75	1.54	0.40	0.11				
10.00	1.64	0.46	0.12				
10.25	1.76	0.53	0.14				
10.50	1.88	0.62	0.16				
10.75	2.02	0.71	0.19				
11.00	2.17	0.82	0.21				
11.25	2.36	0.95	0.27				
11.50	2.59	1.13	0.36				
11.75	3.09	1.52	0.91				
12.00	4.35	2.59	2.49				
12.25	5.61	3.73	1.60				
12.50	6.11	4.19	0.73				
12.75	6.34	4.41	0.41				
13.00	6.52	4.58	0.32				
13.25	6.68	4.72	0.27				
13.50	6.82	4.85	0.25				
13.75	6.94	4.97	0.23				
14.00	7.06	5.08	0.20				
14.25	7.16	5.18	0.19				
14.50	7.26	5.27	0.18				
14.75	7.35	5.36	0.16				
15.00	7.43	5.44	0.15				
15.25	7.51	5.51	0.14				
15.50	7.58	5.58	0.13				
15.75	7.65	5.64	0.12				
16.00	7.71	5.70	0.11				
16.25	7.76	5.75	0.10				
16.50	7.82	5.80	0.10				
16.75	7.87	5.85	0.09				
17.00	7.91	5.89	0.09				
17.25	7.96	5.94	0.08				
17.50	8.00	5.98	0.08				
17.75	8.04	6.01	0.07				

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 6

Summary for Subcatchment 3S: Post - Offsite

Runoff = 2.71 cfs @ 12.07 hrs, Volume= 0.184 af, Depth> 5.81"

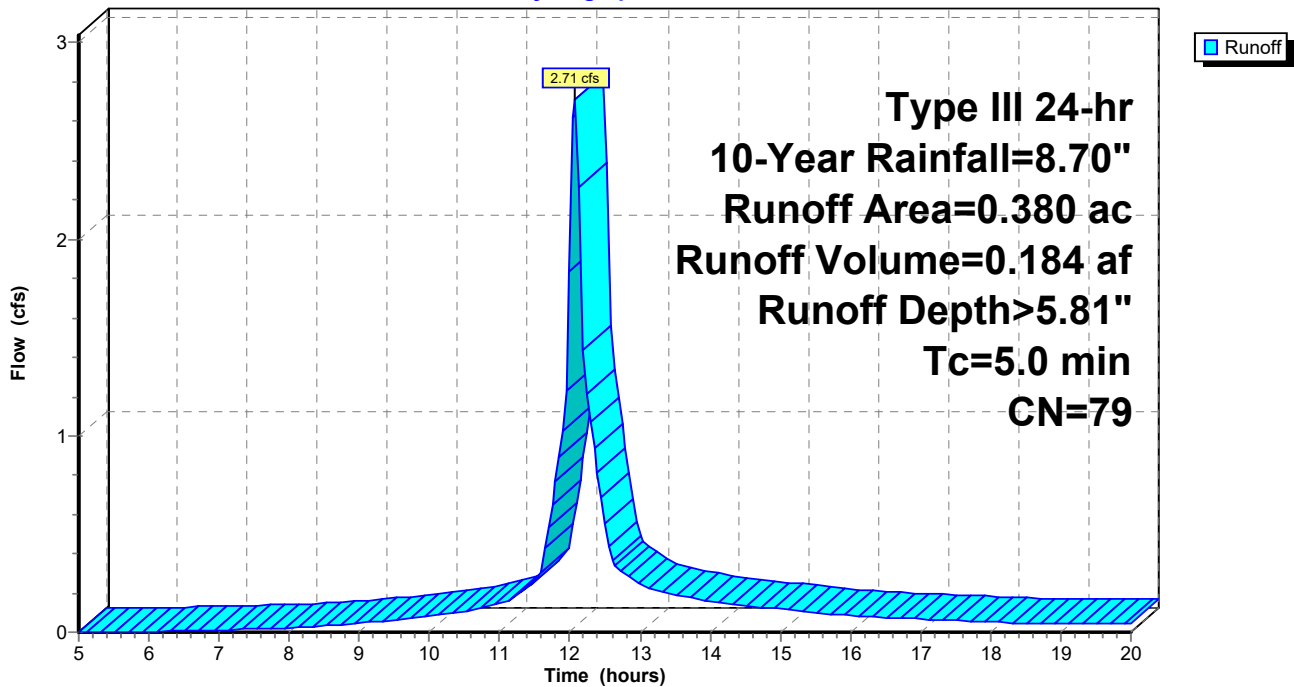
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
0.380	79	50-75% Grass cover, Fair, HSG C
0.380		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Post - Offsite

Hydrograph



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 7

Hydrograph for Subcatchment 3S: Post - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.00	0.00	18.00	8.07	5.58	0.05
5.25	0.53	0.00	0.00	18.25	8.11	5.61	0.05
5.50	0.56	0.00	0.00	18.50	8.14	5.64	0.05
5.75	0.59	0.00	0.00	18.75	8.17	5.67	0.05
6.00	0.63	0.00	0.00	19.00	8.21	5.70	0.05
6.25	0.66	0.01	0.00	19.25	8.24	5.73	0.04
6.50	0.70	0.01	0.01	19.50	8.27	5.76	0.04
6.75	0.74	0.02	0.01	19.75	8.30	5.79	0.04
7.00	0.79	0.02	0.01	20.00	8.33	5.81	0.04
7.25	0.83	0.03	0.01				
7.50	0.88	0.04	0.02				
7.75	0.94	0.05	0.02				
8.00	0.99	0.07	0.02				
8.25	1.05	0.09	0.03				
8.50	1.12	0.11	0.03				
8.75	1.19	0.13	0.04				
9.00	1.27	0.16	0.05				
9.25	1.35	0.19	0.05				
9.50	1.44	0.23	0.06				
9.75	1.54	0.28	0.07				
10.00	1.64	0.33	0.08				
10.25	1.76	0.39	0.09				
10.50	1.88	0.46	0.11				
10.75	2.02	0.54	0.13				
11.00	2.17	0.63	0.14				
11.25	2.36	0.74	0.19				
11.50	2.59	0.90	0.25				
11.75	3.09	1.26	0.65				
12.00	4.35	2.25	1.84				
12.25	5.61	3.33	1.21				
12.50	6.11	3.78	0.56				
12.75	6.34	3.99	0.31				
13.00	6.52	4.15	0.24				
13.25	6.68	4.29	0.21				
13.50	6.82	4.42	0.19				
13.75	6.94	4.53	0.17				
14.00	7.06	4.64	0.16				
14.25	7.16	4.73	0.14				
14.50	7.26	4.82	0.14				
14.75	7.35	4.90	0.13				
15.00	7.43	4.98	0.12				
15.25	7.51	5.05	0.11				
15.50	7.58	5.12	0.10				
15.75	7.65	5.18	0.09				
16.00	7.71	5.24	0.08				
16.25	7.76	5.29	0.08				
16.50	7.82	5.34	0.07				
16.75	7.87	5.38	0.07				
17.00	7.91	5.43	0.07				
17.25	7.96	5.47	0.06				
17.50	8.00	5.51	0.06				
17.75	8.04	5.54	0.05				

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 8

Summary for Pond 4P: North

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 6.96" for 10-Year event
 Inflow = 2.69 cfs @ 12.07 hrs, Volume= 0.192 af
 Outflow = 1.73 cfs @ 12.17 hrs, Volume= 0.191 af, Atten= 36%, Lag= 5.8 min
 Primary = 1.73 cfs @ 12.17 hrs, Volume= 0.191 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.77' @ 12.17 hrs Surf.Area= 1,664 sf Storage= 1,309 cf

Plug-Flow detention time= 13.8 min calculated for 0.191 af (100% of inflow)
 Center-of-Mass det. time= 12.6 min (762.1 - 749.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	15.75'	4,686 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
15.75	0	0.0	0	0	0	
16.00	1,430	180.0	119	119	2,578	
18.50	2,255	233.0	4,567	4,686	4,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	15.75'	12.0" Round Culvert L= 230.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.75' / 15.25' S= 0.0022 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.71 cfs @ 12.17 hrs HW=16.76' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 1.71 cfs @ 2.67 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

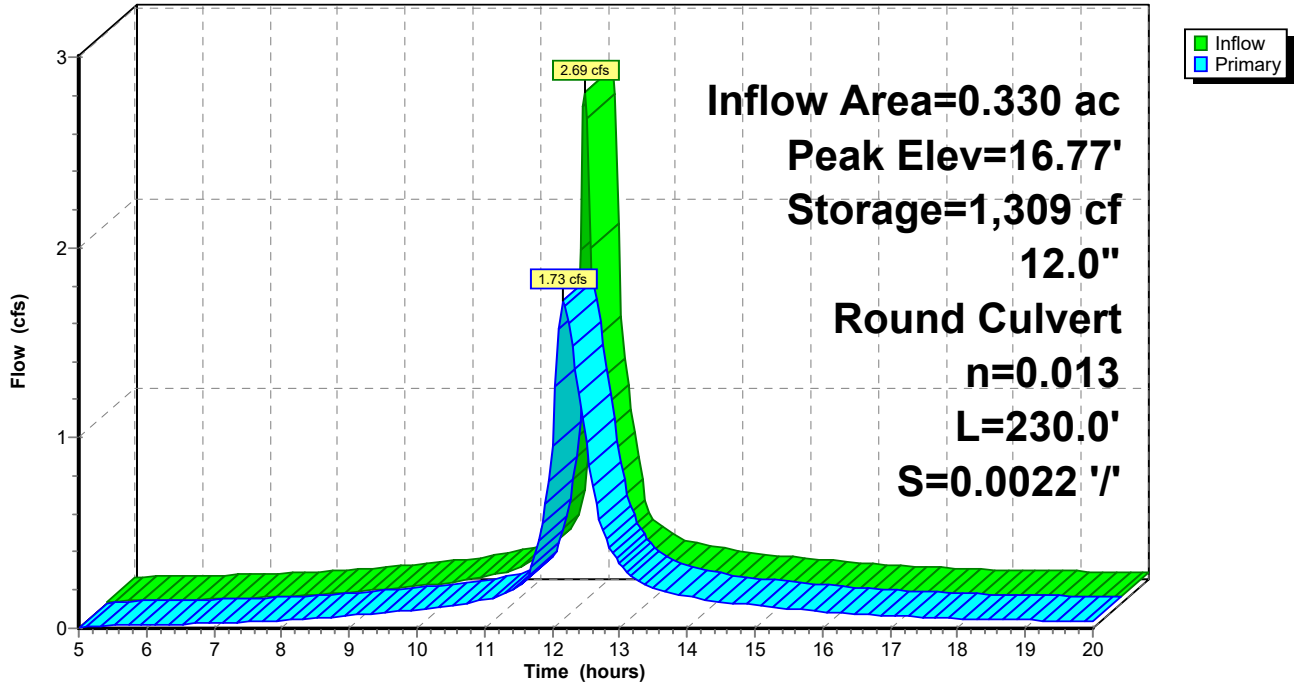
Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 9

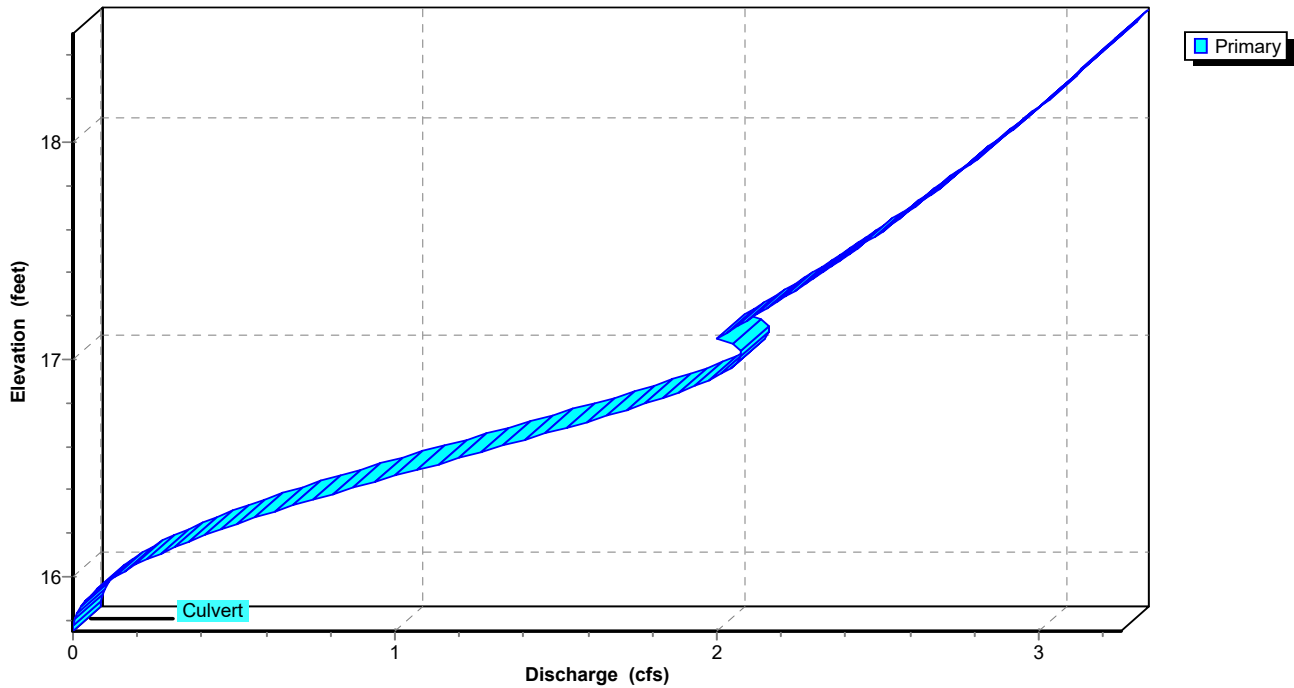
Pond 4P: North

Hydrograph

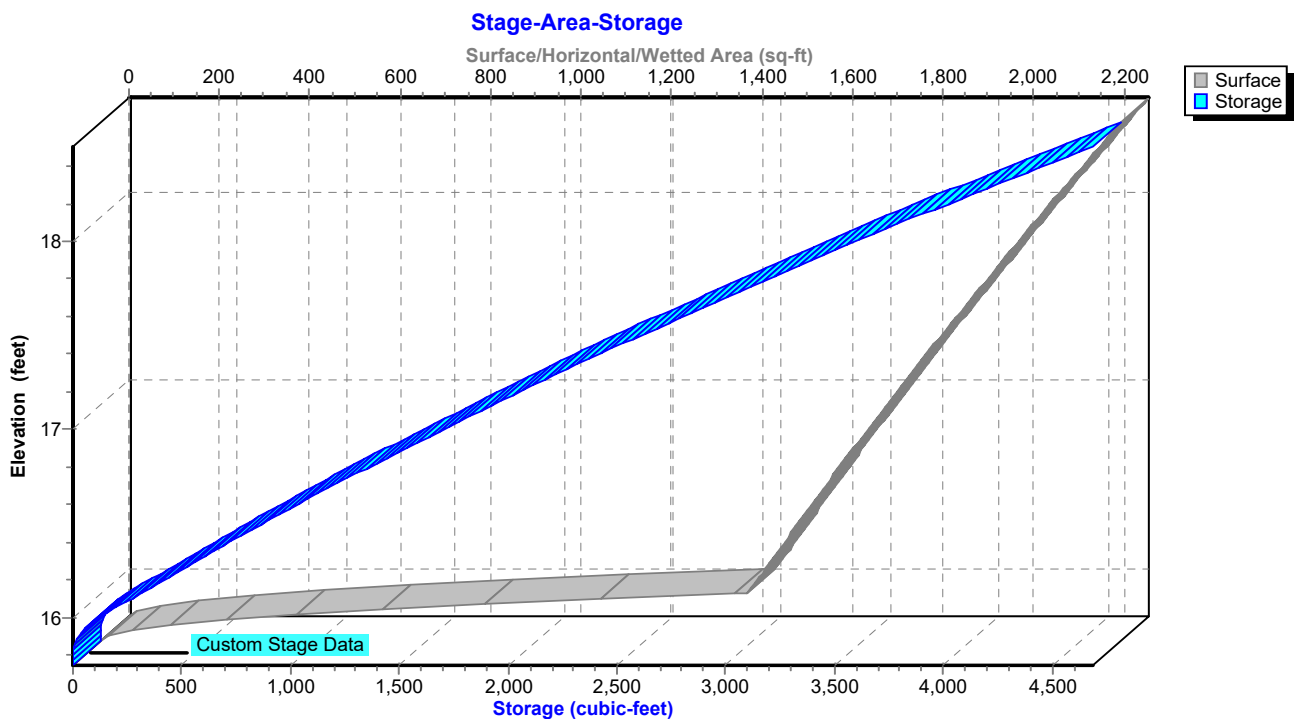


Pond 4P: North

Stage-Discharge



Pond 4P: North



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 11

Hydrograph for Pond 4P: North

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.01	1	15.79	0.00
5.50	0.02	5	15.84	0.01
6.00	0.02	7	15.85	0.02
6.50	0.02	10	15.86	0.02
7.00	0.03	13	15.87	0.03
7.50	0.04	18	15.88	0.03
8.00	0.04	23	15.89	0.04
8.50	0.06	31	15.91	0.05
9.00	0.07	44	15.93	0.07
9.50	0.09	59	15.95	0.08
10.00	0.11	77	15.97	0.10
10.50	0.14	104	15.99	0.12
11.00	0.17	143	16.02	0.15
11.50	0.28	223	16.07	0.22
12.00	1.86	788	16.45	0.96
12.50	0.52	802	16.46	0.98
13.00	0.23	338	16.15	0.34
13.50	0.18	216	16.07	0.21
14.00	0.14	165	16.03	0.17
14.50	0.12	130	16.01	0.14
15.00	0.11	106	15.99	0.12
15.50	0.09	85	15.97	0.10
16.00	0.08	65	15.95	0.09
16.50	0.07	51	15.94	0.07
17.00	0.06	43	15.93	0.06
17.50	0.05	36	15.92	0.06
18.00	0.05	30	15.91	0.05
18.50	0.04	26	15.90	0.04
19.00	0.04	24	15.90	0.04
19.50	0.04	22	15.89	0.04
20.00	0.04	20	15.89	0.04

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 12

Stage-Discharge for Pond 4P: North

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.75	0.00	16.79	1.77	17.83	2.73
15.77	0.00	16.81	1.81	17.85	2.75
15.79	0.00	16.83	1.85	17.87	2.76
15.81	0.01	16.85	1.88	17.89	2.78
15.83	0.01	16.87	1.92	17.91	2.80
15.85	0.02	16.89	1.95	17.93	2.82
15.87	0.03	16.91	1.98	17.95	2.83
15.89	0.04	16.93	2.01	17.97	2.85
15.91	0.05	16.95	2.03	17.99	2.86
15.93	0.07	16.97	2.05	18.01	2.88
15.95	0.08	16.99	2.07	18.03	2.90
15.97	0.10	17.01	2.08	18.05	2.91
15.99	0.12	17.03	2.08	18.07	2.93
16.01	0.14	17.05	2.07	18.09	2.95
16.03	0.17	17.07	2.05	18.11	2.96
16.05	0.19	17.09	1.99	18.13	2.98
16.07	0.22	17.11	2.01	18.15	2.99
16.09	0.25	17.13	2.04	18.17	3.01
16.11	0.28	17.15	2.06	18.19	3.03
16.13	0.31	17.17	2.08	18.21	3.04
16.15	0.34	17.19	2.11	18.23	3.06
16.17	0.37	17.21	2.13	18.25	3.07
16.19	0.41	17.23	2.15	18.27	3.09
16.21	0.45	17.25	2.17	18.29	3.10
16.23	0.48	17.27	2.19	18.31	3.12
16.25	0.52	17.29	2.21	18.33	3.13
16.27	0.56	17.31	2.24	18.35	3.15
16.29	0.60	17.33	2.26	18.37	3.16
16.31	0.65	17.35	2.28	18.39	3.18
16.33	0.69	17.37	2.30	18.41	3.19
16.35	0.73	17.39	2.32	18.43	3.21
16.37	0.78	17.41	2.34	18.45	3.22
16.39	0.82	17.43	2.36	18.47	3.24
16.41	0.87	17.45	2.38	18.49	3.25
16.43	0.92	17.47	2.40		
16.45	0.97	17.49	2.42		
16.47	1.01	17.51	2.44		
16.49	1.06	17.53	2.46		
16.51	1.11	17.55	2.48		
16.53	1.16	17.57	2.50		
16.55	1.21	17.59	2.51		
16.57	1.26	17.61	2.53		
16.59	1.31	17.63	2.55		
16.61	1.35	17.65	2.57		
16.63	1.40	17.67	2.59		
16.65	1.45	17.69	2.61		
16.67	1.50	17.71	2.62		
16.69	1.55	17.73	2.64		
16.71	1.59	17.75	2.66		
16.73	1.64	17.77	2.68		
16.75	1.68	17.79	2.70		
16.77	1.72	17.81	2.71		

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 13

Stage-Area-Storage for Pond 4P: North

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.75	0	0	18.35	2,200	4,352
15.80	57	1	18.40	2,218	4,463
15.85	229	8	18.45	2,237	4,574
15.90	515	26	18.50	2,255	4,686
15.95	915	61			
16.00	1,430	119			
16.05	1,445	191			
16.10	1,459	264			
16.15	1,474	337			
16.20	1,489	411			
16.25	1,504	486			
16.30	1,519	561			
16.35	1,534	638			
16.40	1,549	715			
16.45	1,565	793			
16.50	1,580	871			
16.55	1,595	951			
16.60	1,611	1,031			
16.65	1,627	1,112			
16.70	1,642	1,194			
16.75	1,658	1,276			
16.80	1,674	1,359			
16.85	1,690	1,443			
16.90	1,705	1,528			
16.95	1,721	1,614			
17.00	1,738	1,700			
17.05	1,754	1,788			
17.10	1,770	1,876			
17.15	1,786	1,965			
17.20	1,803	2,054			
17.25	1,819	2,145			
17.30	1,836	2,236			
17.35	1,852	2,329			
17.40	1,869	2,422			
17.45	1,886	2,515			
17.50	1,903	2,610			
17.55	1,919	2,706			
17.60	1,936	2,802			
17.65	1,954	2,899			
17.70	1,971	2,997			
17.75	1,988	3,096			
17.80	2,005	3,196			
17.85	2,023	3,297			
17.90	2,040	3,398			
17.95	2,057	3,501			
18.00	2,075	3,604			
18.05	2,093	3,708			
18.10	2,110	3,814			
18.15	2,128	3,919			
18.20	2,146	4,026			
18.25	2,164	4,134			
18.30	2,182	4,243			

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 14

Summary for Pond 6P: South - Outfall

Inflow Area = 1.510 ac, 54.30% Impervious, Inflow Depth > 6.74" for 10-Year event
 Inflow = 8.42 cfs @ 12.10 hrs, Volume= 0.848 af
 Outflow = 6.78 cfs @ 12.24 hrs, Volume= 0.847 af, Atten= 20%, Lag= 8.2 min
 Primary = 6.78 cfs @ 12.24 hrs, Volume= 0.847 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.84' @ 12.24 hrs Surf.Area= 2,266 sf Storage= 3,028 cf

Plug-Flow detention time= 7.2 min calculated for 0.847 af (100% of inflow)
 Center-of-Mass det. time= 6.4 min (763.5 - 757.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	14.75'	7,100 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
14.75	0	0.0	0	0	0
15.00	1,015	165.0	85	85	2,167
18.25	3,560	325.0	7,016	7,100	8,456

Device	Routing	Invert	Outlet Devices
#1	Primary	14.75'	15.0" Round Culvert L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 14.75' / 14.65' S= 0.0029 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.77 cfs @ 12.24 hrs HW=16.84' (Free Discharge)

↑**1=Culvert** (Barrel Controls 6.77 cfs @ 5.52 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

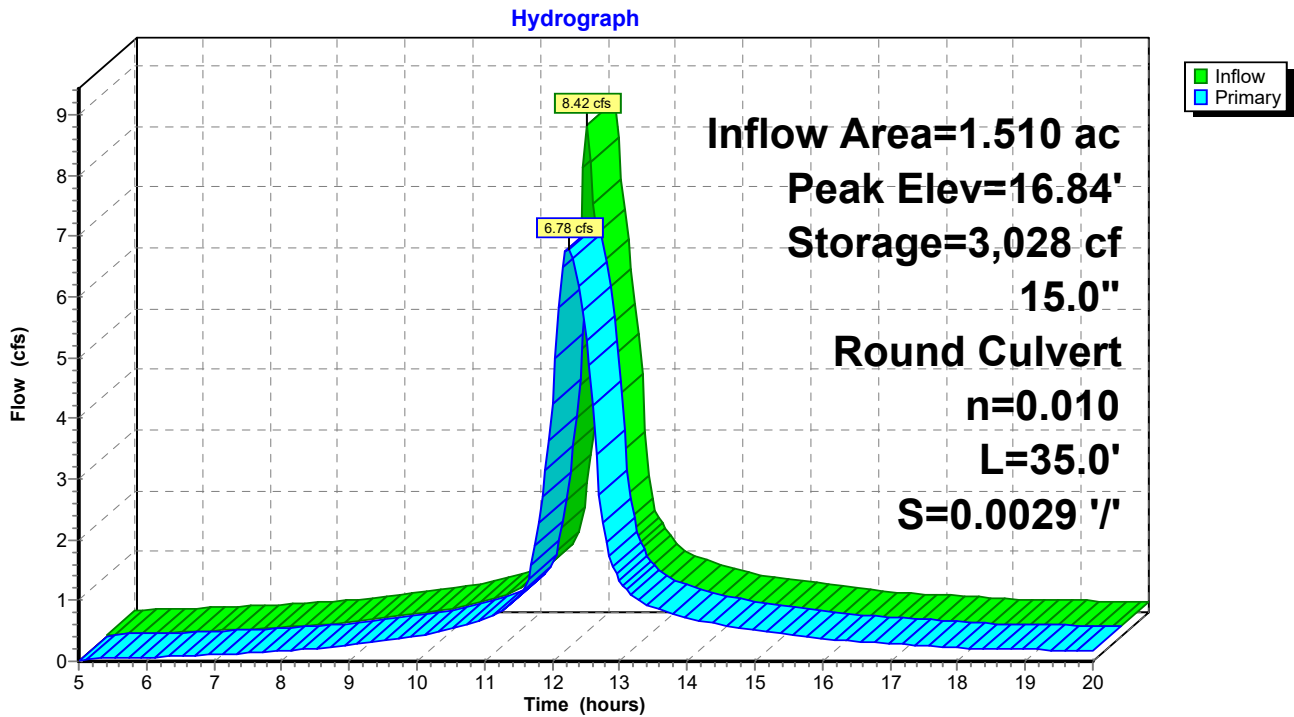
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

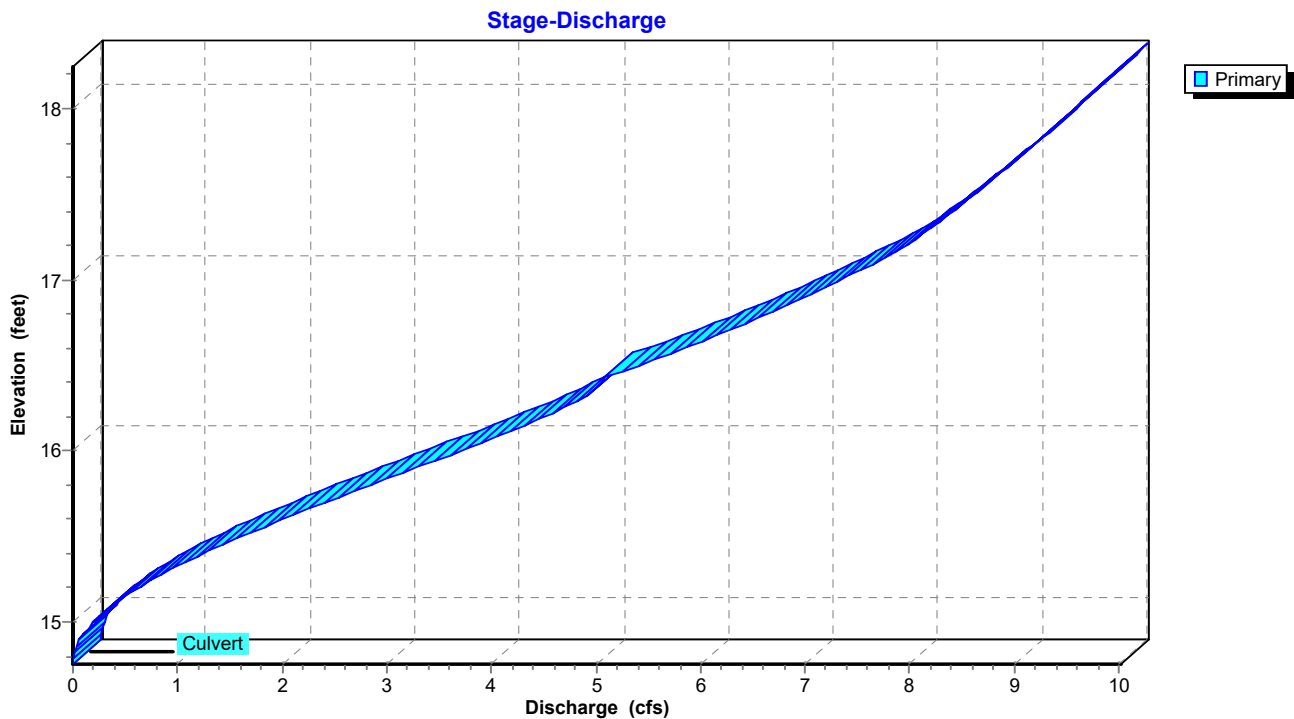
Printed 7/3/2025

Page 15

Pond 6P: South - Outfall



Pond 6P: South - Outfall



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

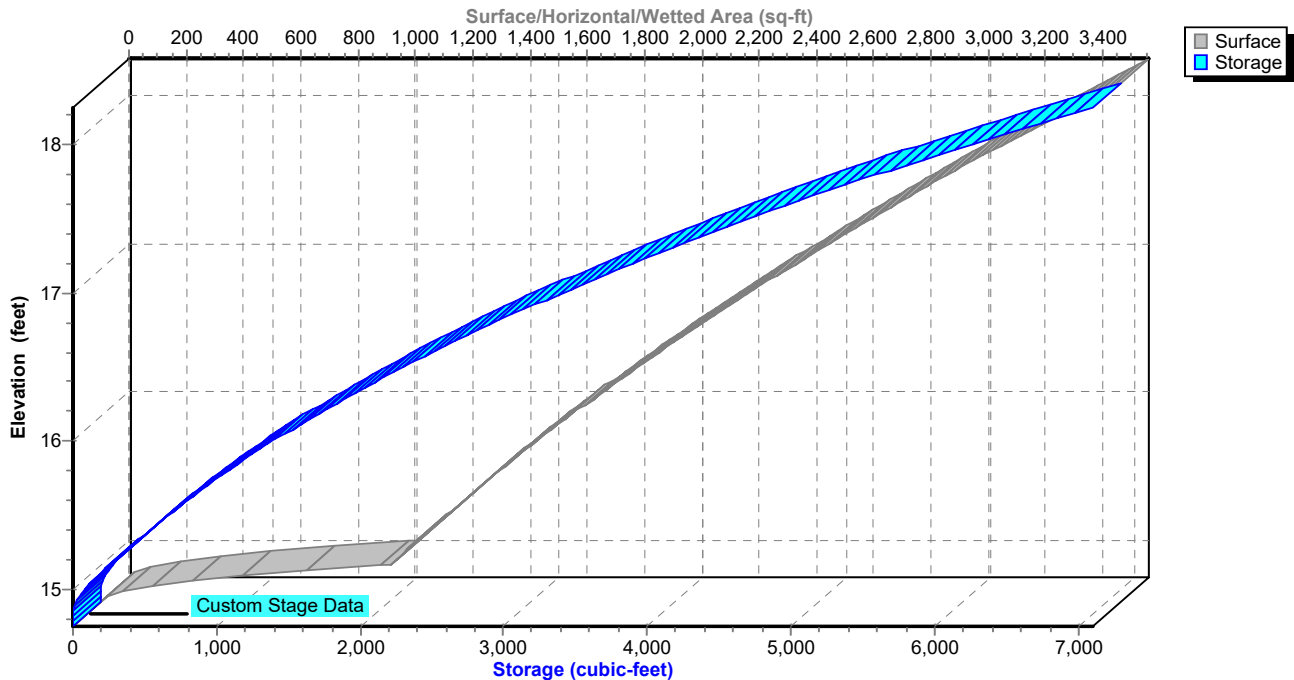
Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 16

Pond 6P: South - Outfall

Stage-Area-Storage



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 17

Hydrograph for Pond 6P: South - Outfall

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.03	2	14.81	0.01
5.50	0.05	12	14.88	0.05
6.00	0.07	16	14.89	0.07
6.50	0.09	23	14.91	0.09
7.00	0.12	33	14.93	0.11
7.50	0.15	47	14.95	0.14
8.00	0.18	63	14.98	0.17
8.50	0.23	89	15.00	0.21
9.00	0.30	126	15.04	0.28
9.50	0.37	164	15.08	0.35
10.00	0.45	203	15.11	0.43
10.50	0.57	255	15.16	0.54
11.00	0.73	320	15.22	0.69
11.50	1.16	462	15.34	1.05
12.00	6.01	1,615	16.13	4.25
12.50	3.91	2,239	16.47	5.27
13.00	1.15	565	15.42	1.34
13.50	0.84	399	15.29	0.89
14.00	0.68	330	15.23	0.71
14.50	0.58	283	15.19	0.60
15.00	0.51	249	15.16	0.52
15.50	0.43	215	15.12	0.45
16.00	0.36	180	15.09	0.38
16.50	0.31	152	15.07	0.32
17.00	0.28	134	15.05	0.29
17.50	0.25	116	15.03	0.26
18.00	0.21	97	15.01	0.23
18.50	0.20	84	15.00	0.20
19.00	0.19	77	14.99	0.19
19.50	0.18	72	14.99	0.18
20.00	0.17	66	14.98	0.17

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 18

Stage-Discharge for Pond 6P: South - Outfall

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
14.75	0.00	15.79	2.81	16.83	6.74	17.87	9.33
14.77	0.00	15.81	2.89	16.85	6.82	17.89	9.37
14.79	0.00	15.83	2.98	16.87	6.89	17.91	9.41
14.81	0.01	15.85	3.07	16.89	6.96	17.93	9.44
14.83	0.02	15.87	3.15	16.91	7.03	17.95	9.48
14.85	0.03	15.89	3.24	16.93	7.10	17.97	9.52
14.87	0.05	15.91	3.33	16.95	7.17	17.99	9.56
14.89	0.06	15.93	3.41	16.97	7.23	18.01	9.59
14.91	0.08	15.95	3.50	16.99	7.30	18.03	9.63
14.93	0.11	15.97	3.59	17.01	7.37	18.05	9.66
14.95	0.13	15.99	3.67	17.03	7.43	18.07	9.70
14.97	0.16	16.01	3.76	17.05	7.50	18.09	9.74
14.99	0.19	16.03	3.84	17.07	7.56	18.11	9.77
15.01	0.22	16.05	3.93	17.09	7.63	18.13	9.81
15.03	0.26	16.07	4.01	17.11	7.69	18.15	9.84
15.05	0.29	16.09	4.09	17.13	7.76	18.17	9.88
15.07	0.33	16.11	4.17	17.15	7.82	18.19	9.91
15.09	0.37	16.13	4.25	17.17	7.88	18.21	9.95
15.11	0.42	16.15	4.33	17.19	7.94	18.23	9.98
15.13	0.46	16.17	4.41	17.21	8.00	18.25	10.02
15.15	0.51	16.19	4.48	17.23	8.05		
15.17	0.56	16.21	4.55	17.25	8.09		
15.19	0.61	16.23	4.62	17.27	8.13		
15.21	0.67	16.25	4.69	17.29	8.18		
15.23	0.72	16.27	4.75	17.31	8.22		
15.25	0.78	16.29	4.82	17.33	8.26		
15.27	0.84	16.31	4.87	17.35	8.30		
15.29	0.90	16.33	4.92	17.37	8.35		
15.31	0.96	16.35	4.97	17.39	8.39		
15.33	1.02	16.37	5.01	17.41	8.43		
15.35	1.09	16.39	5.04	17.43	8.47		
15.37	1.15	16.41	5.05	17.45	8.51		
15.39	1.22	16.43	5.09	17.47	8.55		
15.41	1.29	16.45	5.19	17.49	8.59		
15.43	1.36	16.47	5.28	17.51	8.63		
15.45	1.43	16.49	5.37	17.53	8.67		
15.47	1.51	16.51	5.46	17.55	8.71		
15.49	1.58	16.53	5.55	17.57	8.75		
15.51	1.66	16.55	5.64	17.59	8.79		
15.53	1.73	16.57	5.72	17.61	8.83		
15.55	1.81	16.59	5.81	17.63	8.87		
15.57	1.89	16.61	5.89	17.65	8.91		
15.59	1.97	16.63	5.98	17.67	8.95		
15.61	2.05	16.65	6.06	17.69	8.99		
15.63	2.13	16.67	6.14	17.71	9.03		
15.65	2.21	16.69	6.22	17.73	9.07		
15.67	2.30	16.71	6.29	17.75	9.11		
15.69	2.38	16.73	6.37	17.77	9.14		
15.71	2.46	16.75	6.45	17.79	9.18		
15.73	2.55	16.77	6.52	17.81	9.22		
15.75	2.63	16.79	6.60	17.83	9.26		
15.77	2.72	16.81	6.67	17.85	9.30		

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 19

Stage-Area-Storage for Pond 6P: South - Outfall

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
14.75	0	0	17.35	2,700	4,292
14.80	41	1	17.40	2,745	4,428
14.85	162	5	17.45	2,790	4,566
14.90	365	18	17.50	2,835	4,707
14.95	650	43	17.55	2,881	4,850
15.00	1,015	85	17.60	2,927	4,995
15.05	1,042	136	17.65	2,974	5,143
15.10	1,070	189	17.70	3,021	5,293
15.15	1,098	243	17.75	3,068	5,445
15.20	1,127	299	17.80	3,115	5,599
15.25	1,156	356	17.85	3,163	5,756
15.30	1,185	414	17.90	3,212	5,916
15.35	1,215	474	17.95	3,260	6,077
15.40	1,245	536	18.00	3,309	6,242
15.45	1,275	599	18.05	3,359	6,408
15.50	1,306	663	18.10	3,408	6,578
15.55	1,337	729	18.15	3,459	6,749
15.60	1,368	797	18.20	3,509	6,923
15.65	1,400	866	18.25	3,560	7,100
15.70	1,432	937			
15.75	1,465	1,009			
15.80	1,498	1,084			
15.85	1,531	1,159			
15.90	1,565	1,237			
15.95	1,599	1,316			
16.00	1,633	1,397			
16.05	1,668	1,479			
16.10	1,703	1,563			
16.15	1,739	1,649			
16.20	1,775	1,737			
16.25	1,811	1,827			
16.30	1,847	1,918			
16.35	1,884	2,012			
16.40	1,922	2,107			
16.45	1,959	2,204			
16.50	1,997	2,303			
16.55	2,036	2,404			
16.60	2,075	2,506			
16.65	2,114	2,611			
16.70	2,153	2,718			
16.75	2,193	2,826			
16.80	2,233	2,937			
16.85	2,274	3,050			
16.90	2,315	3,164			
16.95	2,356	3,281			
17.00	2,398	3,400			
17.05	2,440	3,521			
17.10	2,483	3,644			
17.15	2,525	3,769			
17.20	2,569	3,897			
17.25	2,612	4,026			
17.30	2,656	4,158			

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 20

Summary for Pond 7P: West

Inflow Area = 0.700 ac, 64.29% Impervious, Inflow Depth > 6.96" for 10-Year event
 Inflow = 5.70 cfs @ 12.07 hrs, Volume= 0.406 af
 Outflow = 3.55 cfs @ 12.17 hrs, Volume= 0.406 af, Atten= 38%, Lag= 6.0 min
 Primary = 3.55 cfs @ 12.17 hrs, Volume= 0.406 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.43' @ 12.17 hrs Surf.Area= 2,171 sf Storage= 1,537 cf

Plug-Flow detention time= 2.6 min calculated for 0.406 af (100% of inflow)
 Center-of-Mass det. time= 2.5 min (752.0 - 749.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	15.50'	4,155 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
15.50	0	0.0	0	0	0
16.00	285	105.0	48	48	878
17.00	1,330	260.0	744	791	5,384
18.25	4,340	440.0	3,364	4,155	15,420

Device	Routing	Invert	Outlet Devices
#1	Primary	15.50'	12.0" Round Culvert L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.50' / 15.25' S= 0.0031 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.53 cfs @ 12.17 hrs HW=17.42' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 3.53 cfs @ 4.50 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

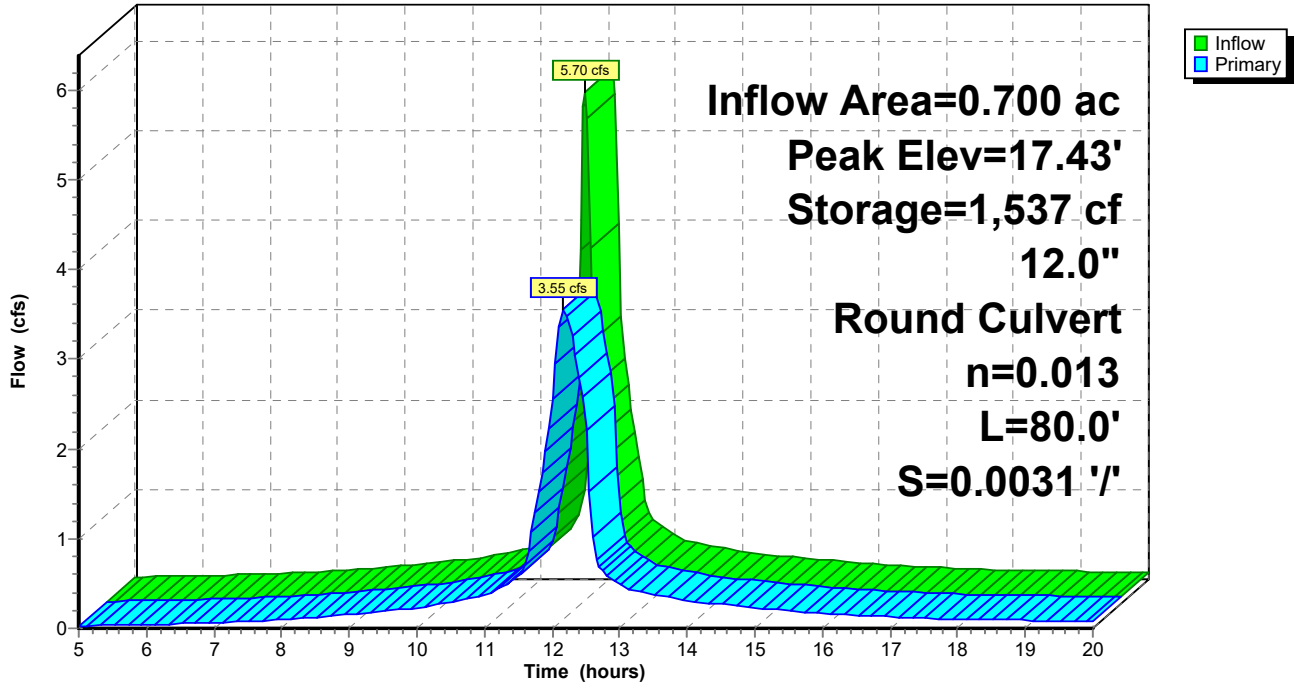
Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 21

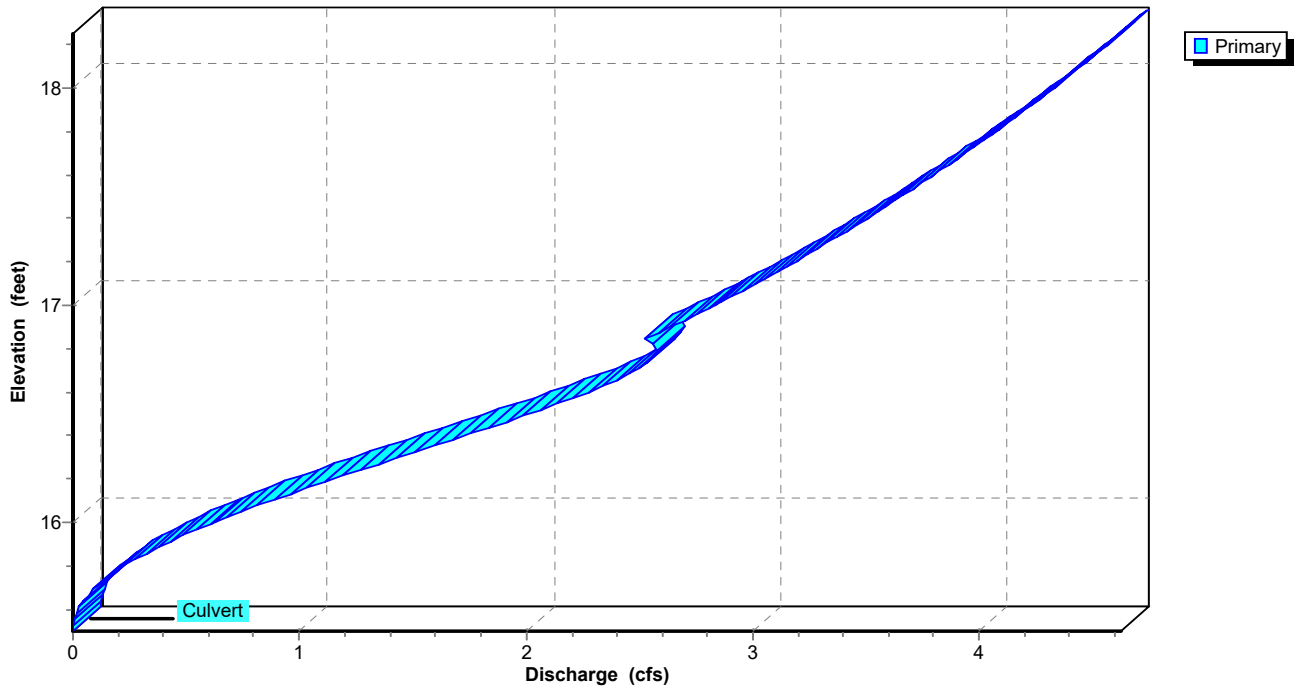
Pond 7P: West

Hydrograph



Pond 7P: West

Stage-Discharge



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

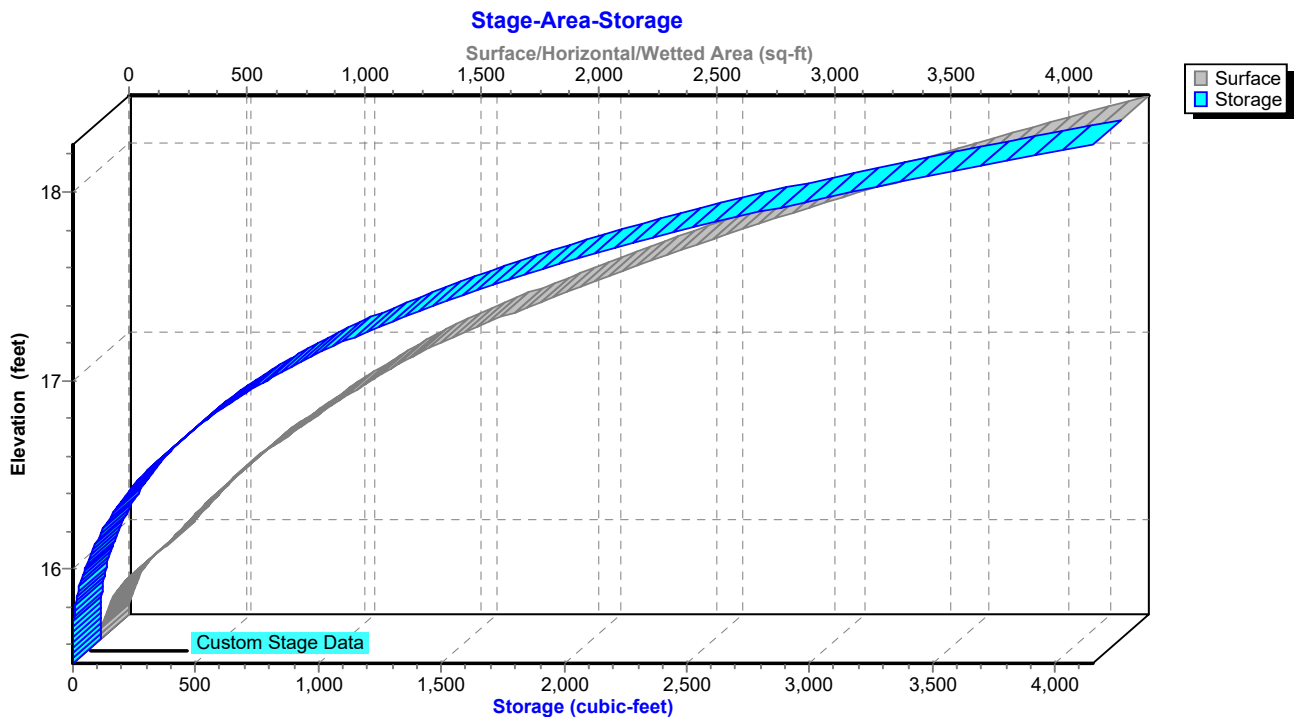
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 22

Pond 7P: West



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 23

Hydrograph for Pond 7P: West

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.03	0	15.60	0.02
5.50	0.03	1	15.62	0.03
6.00	0.04	1	15.63	0.04
6.50	0.05	1	15.64	0.05
7.00	0.06	2	15.66	0.06
7.50	0.08	2	15.68	0.08
8.00	0.09	3	15.69	0.09
8.50	0.12	4	15.72	0.12
9.00	0.16	6	15.75	0.15
9.50	0.19	8	15.77	0.19
10.00	0.23	10	15.80	0.23
10.50	0.29	15	15.84	0.29
11.00	0.37	21	15.88	0.36
11.50	0.60	43	15.98	0.58
12.00	3.95	513	16.76	2.56
12.50	1.11	341	16.57	2.20
13.00	0.48	33	15.94	0.49
13.50	0.38	22	15.89	0.38
14.00	0.30	16	15.85	0.31
14.50	0.26	13	15.82	0.27
15.00	0.23	10	15.80	0.23
15.50	0.20	8	15.78	0.20
16.00	0.16	6	15.75	0.16
16.50	0.14	5	15.74	0.14
17.00	0.13	4	15.73	0.13
17.50	0.11	4	15.71	0.11
18.00	0.10	3	15.70	0.10
18.50	0.09	3	15.69	0.09
19.00	0.09	3	15.69	0.09
19.50	0.08	2	15.68	0.08
20.00	0.08	2	15.68	0.08

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 24

Stage-Discharge for Pond 7P: West

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.50	0.00	16.54	2.13	17.58	3.77
15.52	0.00	16.56	2.18	17.60	3.80
15.54	0.00	16.58	2.23	17.62	3.83
15.56	0.01	16.60	2.28	17.64	3.86
15.58	0.01	16.62	2.32	17.66	3.88
15.60	0.02	16.64	2.37	17.68	3.91
15.62	0.03	16.66	2.41	17.70	3.94
15.64	0.05	16.68	2.45	17.72	3.97
15.66	0.06	16.70	2.48	17.74	3.99
15.68	0.08	16.72	2.51	17.76	4.02
15.70	0.10	16.74	2.54	17.78	4.05
15.72	0.12	16.76	2.56	17.80	4.07
15.74	0.15	16.78	2.57	17.82	4.10
15.76	0.17	16.80	2.58	17.84	4.13
15.78	0.20	16.82	2.56	17.86	4.15
15.80	0.23	16.84	2.51	17.88	4.18
15.82	0.26	16.86	2.56	17.90	4.20
15.84	0.29	16.88	2.60	17.92	4.23
15.86	0.33	16.90	2.64	17.94	4.25
15.88	0.37	16.92	2.68	17.96	4.28
15.90	0.41	16.94	2.72	17.98	4.30
15.92	0.45	16.96	2.76	18.00	4.33
15.94	0.49	16.98	2.80	18.02	4.35
15.96	0.53	17.00	2.83	18.04	4.38
15.98	0.58	17.02	2.87	18.06	4.40
16.00	0.62	17.04	2.91	18.08	4.43
16.02	0.67	17.06	2.94	18.10	4.45
16.04	0.72	17.08	2.98	18.12	4.47
16.06	0.77	17.10	3.02	18.14	4.50
16.08	0.82	17.12	3.05	18.16	4.52
16.10	0.87	17.14	3.09	18.18	4.54
16.12	0.93	17.16	3.12	18.20	4.57
16.14	0.98	17.18	3.15	18.22	4.59
16.16	1.04	17.20	3.19	18.24	4.61
16.18	1.09	17.22	3.22		
16.20	1.15	17.24	3.26		
16.22	1.21	17.26	3.29		
16.24	1.26	17.28	3.32		
16.26	1.32	17.30	3.35		
16.28	1.38	17.32	3.38		
16.30	1.44	17.34	3.42		
16.32	1.50	17.36	3.45		
16.34	1.56	17.38	3.48		
16.36	1.62	17.40	3.51		
16.38	1.68	17.42	3.54		
16.40	1.73	17.44	3.57		
16.42	1.79	17.46	3.60		
16.44	1.85	17.48	3.63		
16.46	1.91	17.50	3.66		
16.48	1.96	17.52	3.69		
16.50	2.02	17.54	3.72		
16.52	2.07	17.56	3.74		

Bay St. Louis Post Revised2

Type III 24-hr 10-Year Rainfall=8.70"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 25

Stage-Area-Storage for Pond 7P: West

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.50	0	0	18.10	3,887	3,538
15.55	3	0	18.15	4,036	3,736
15.60	11	0	18.20	4,186	3,941
15.65	26	1	18.25	4,340	4,155
15.70	46	3			
15.75	71	6			
15.80	103	10			
15.85	140	16			
15.90	182	24			
15.95	231	35			
16.00	285	48			
16.05	319	63			
16.10	355	79			
16.15	393	98			
16.20	433	119			
16.25	474	141			
16.30	518	166			
16.35	563	193			
16.40	611	223			
16.45	660	254			
16.50	712	289			
16.55	765	326			
16.60	820	365			
16.65	877	408			
16.70	936	453			
16.75	997	501			
16.80	1,060	553			
16.85	1,124	607			
16.90	1,191	665			
16.95	1,260	726			
17.00	1,330	791			
17.05	1,417	860			
17.10	1,507	933			
17.15	1,600	1,010			
17.20	1,695	1,093			
17.25	1,794	1,180			
17.30	1,895	1,272			
17.35	1,998	1,370			
17.40	2,105	1,472			
17.45	2,214	1,580			
17.50	2,326	1,694			
17.55	2,441	1,813			
17.60	2,559	1,938			
17.65	2,679	2,069			
17.70	2,802	2,206			
17.75	2,928	2,349			
17.80	3,057	2,499			
17.85	3,189	2,655			
17.90	3,323	2,818			
17.95	3,460	2,987			
18.00	3,600	3,164			
18.05	3,742	3,347			

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 26

Summary for Subcatchment 10S: Post - West

Runoff = 5.70 cfs @ 12.07 hrs, Volume= 0.406 af, Depth> 6.96"
 Routed to Pond 7P : West

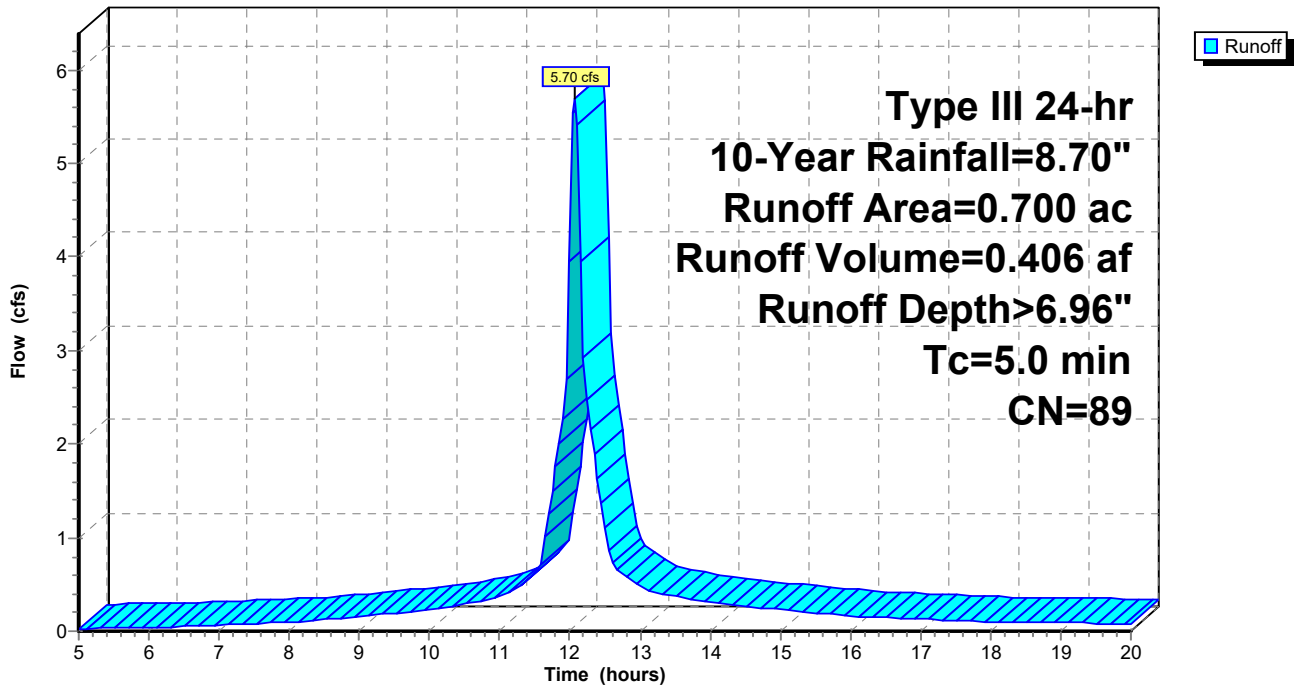
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-Year Rainfall=8.70"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG C
0.250	74	>75% Grass cover, Good, HSG C
0.700	89	Weighted Average
0.250		35.71% Pervious Area
0.450		64.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 10S: Post - West

Hydrograph



Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 10-Year Rainfall=8.70"

Printed 7/3/2025

Page 27

Hydrograph for Subcatchment 10S: Post - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.49	0.04	0.03	18.00	8.07	6.76	0.10
5.25	0.53	0.05	0.03	18.25	8.11	6.79	0.09
5.50	0.56	0.06	0.03	18.50	8.14	6.83	0.09
5.75	0.59	0.08	0.04	18.75	8.17	6.86	0.09
6.00	0.63	0.09	0.04	19.00	8.21	6.89	0.09
6.25	0.66	0.10	0.04	19.25	8.24	6.92	0.09
6.50	0.70	0.12	0.05	19.50	8.27	6.95	0.08
6.75	0.74	0.14	0.06	19.75	8.30	6.98	0.08
7.00	0.79	0.16	0.06	20.00	8.33	7.01	0.08
7.25	0.83	0.19	0.07				
7.50	0.88	0.22	0.08				
7.75	0.94	0.25	0.09				
8.00	0.99	0.28	0.09				
8.25	1.05	0.32	0.11				
8.50	1.12	0.36	0.12				
8.75	1.19	0.41	0.14				
9.00	1.27	0.46	0.16				
9.25	1.35	0.52	0.17				
9.50	1.44	0.59	0.19				
9.75	1.54	0.66	0.21				
10.00	1.64	0.74	0.23				
10.25	1.76	0.83	0.26				
10.50	1.88	0.93	0.29				
10.75	2.02	1.05	0.33				
11.00	2.17	1.17	0.37				
11.25	2.36	1.33	0.47				
11.50	2.59	1.54	0.60				
11.75	3.09	1.98	1.50				
12.00	4.35	3.15	3.95				
12.25	5.61	4.36	2.46				
12.50	6.11	4.84	1.11				
12.75	6.34	5.07	0.61				
13.00	6.52	5.25	0.48				
13.25	6.68	5.39	0.41				
13.50	6.82	5.53	0.38				
13.75	6.94	5.65	0.34				
14.00	7.06	5.76	0.30				
14.25	7.16	5.86	0.28				
14.50	7.26	5.96	0.26				
14.75	7.35	6.05	0.25				
15.00	7.43	6.13	0.23				
15.25	7.51	6.21	0.21				
15.50	7.58	6.28	0.20				
15.75	7.65	6.34	0.18				
16.00	7.71	6.40	0.16				
16.25	7.76	6.45	0.15				
16.50	7.82	6.51	0.14				
16.75	7.87	6.55	0.14				
17.00	7.91	6.60	0.13				
17.25	7.96	6.64	0.12				
17.50	8.00	6.69	0.11				
17.75	8.04	6.72	0.11				

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 28

Summary for Subcatchment 1S: Post - North

Runoff = 3.29 cfs @ 12.07 hrs, Volume= 0.237 af, Depth> 8.63"
Routed to Pond 4P : North

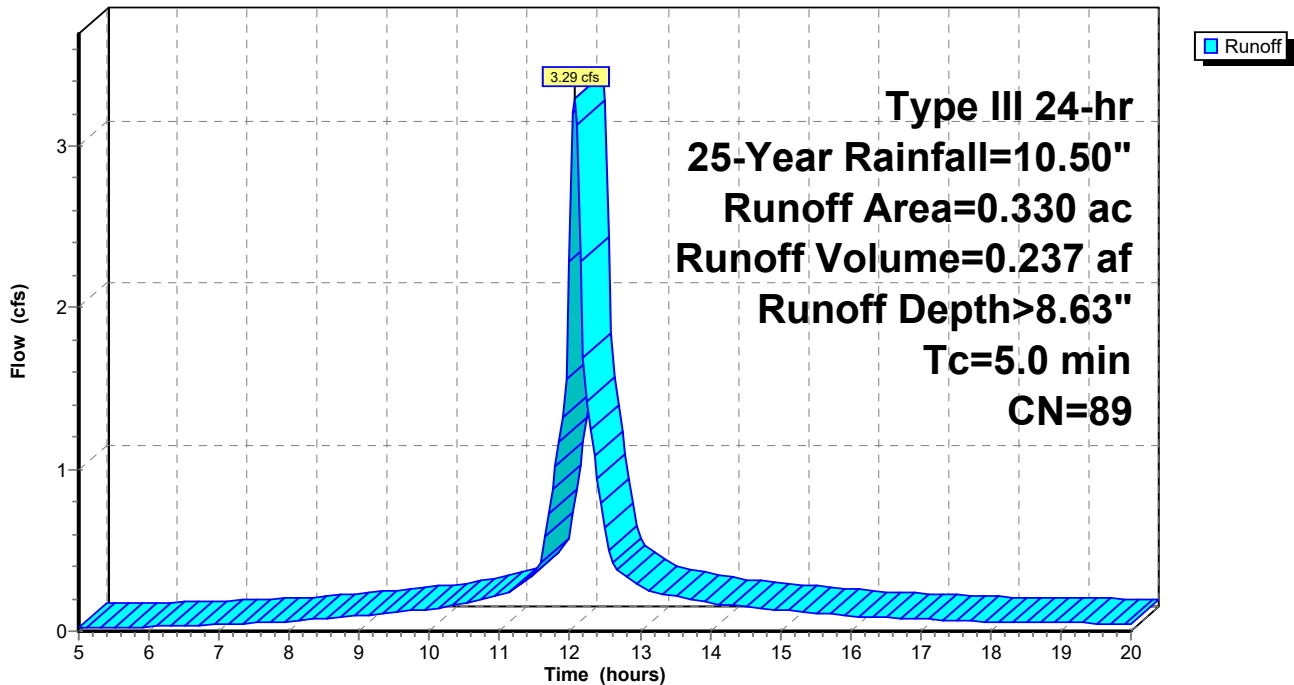
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
0.130	74	>75% Grass cover, Good, HSG C
0.200	98	Paved parking, HSG C
0.330	89	Weighted Average
0.130		39.39% Pervious Area
0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: Post - North

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 29

Hydrograph for Subcatchment 1S: Post - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.08	0.02	18.00	9.74	8.40	0.06
5.25	0.63	0.09	0.02	18.25	9.79	8.44	0.05
5.50	0.67	0.11	0.02	18.50	9.83	8.48	0.05
5.75	0.71	0.13	0.03	18.75	9.87	8.52	0.05
6.00	0.76	0.15	0.03	19.00	9.90	8.56	0.05
6.25	0.80	0.17	0.03	19.25	9.94	8.60	0.05
6.50	0.85	0.20	0.03	19.50	9.98	8.63	0.05
6.75	0.90	0.22	0.04	19.75	10.01	8.67	0.05
7.00	0.95	0.25	0.04	20.00	10.05	8.70	0.05
7.25	1.01	0.29	0.05				
7.50	1.07	0.33	0.05				
7.75	1.13	0.37	0.06				
8.00	1.20	0.41	0.06				
8.25	1.27	0.46	0.07				
8.50	1.35	0.52	0.08				
8.75	1.44	0.58	0.09				
9.00	1.53	0.65	0.10				
9.25	1.63	0.73	0.11				
9.50	1.74	0.82	0.12				
9.75	1.86	0.91	0.13				
10.00	1.98	1.02	0.14				
10.25	2.12	1.13	0.16				
10.50	2.27	1.26	0.18				
10.75	2.44	1.40	0.20				
11.00	2.63	1.56	0.22				
11.25	2.85	1.76	0.28				
11.50	3.13	2.02	0.35				
11.75	3.73	2.57	0.88				
12.00	5.25	4.01	2.29				
12.25	6.77	5.48	1.42				
12.50	7.37	6.07	0.64				
12.75	7.65	6.35	0.35				
13.00	7.87	6.56	0.27				
13.25	8.06	6.74	0.24				
13.50	8.23	6.91	0.22				
13.75	8.38	7.06	0.20				
14.00	8.52	7.19	0.17				
14.25	8.64	7.32	0.16				
14.50	8.76	7.43	0.15				
14.75	8.87	7.54	0.14				
15.00	8.97	7.64	0.13				
15.25	9.06	7.73	0.12				
15.50	9.15	7.82	0.11				
15.75	9.23	7.90	0.10				
16.00	9.30	7.97	0.09				
16.25	9.37	8.03	0.09				
16.50	9.43	8.10	0.08				
16.75	9.49	8.16	0.08				
17.00	9.55	8.21	0.07				
17.25	9.60	8.26	0.07				
17.50	9.65	8.31	0.07				
17.75	9.70	8.36	0.06				

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 30

Summary for Subcatchment 2S: Post - South

Runoff = 4.54 cfs @ 12.07 hrs, Volume= 0.317 af, Depth> 7.93"
Routed to Pond 6P : South - Outfall

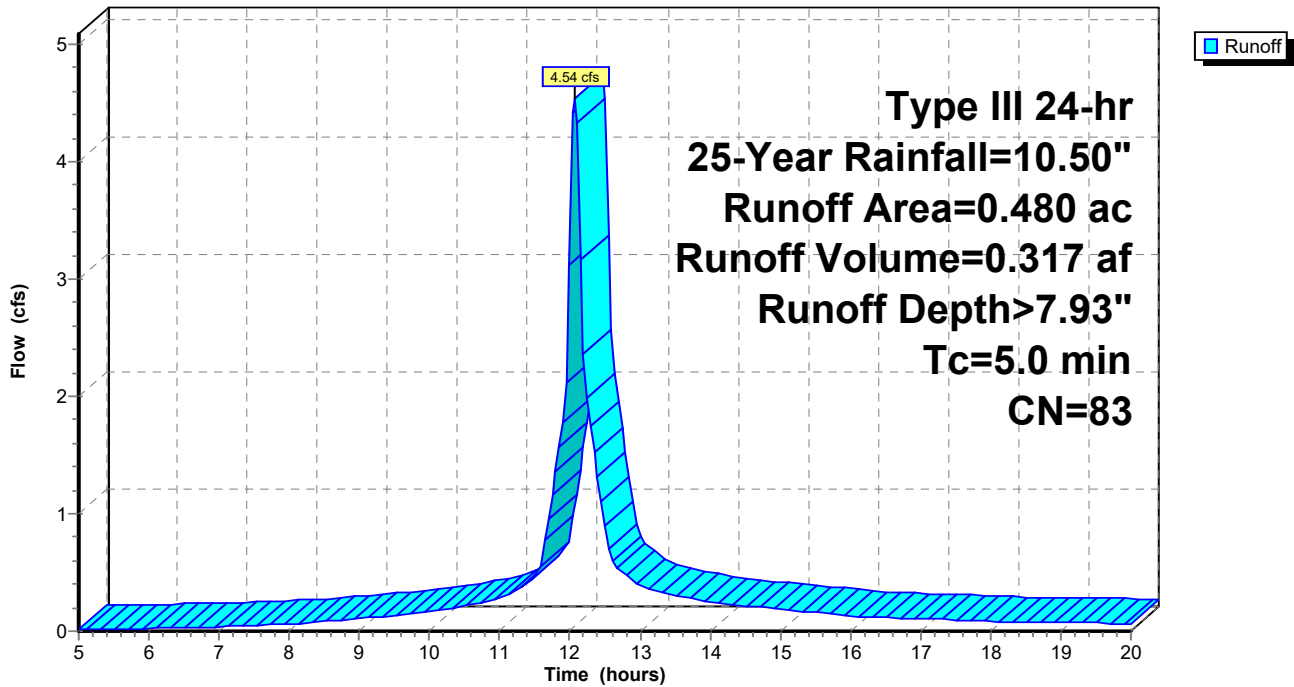
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
0.170	98	Paved parking, HSG C
0.310	74	>75% Grass cover, Good, HSG C
0.480	83	Weighted Average
0.310		64.58% Pervious Area
0.170		35.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Post - South

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 31

Hydrograph for Subcatchment 2S: Post - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.02	0.01	18.00	9.74	7.65	0.08
5.25	0.63	0.02	0.01	18.25	9.79	7.69	0.08
5.50	0.67	0.03	0.02	18.50	9.83	7.73	0.08
5.75	0.71	0.04	0.02	18.75	9.87	7.77	0.07
6.00	0.76	0.05	0.02	19.00	9.90	7.81	0.07
6.25	0.80	0.06	0.02	19.25	9.94	7.85	0.07
6.50	0.85	0.08	0.03	19.50	9.98	7.88	0.07
6.75	0.90	0.09	0.03	19.75	10.01	7.92	0.07
7.00	0.95	0.11	0.04	20.00	10.05	7.95	0.06
7.25	1.01	0.13	0.04				
7.50	1.07	0.16	0.05				
7.75	1.13	0.19	0.06				
8.00	1.20	0.22	0.06				
8.25	1.27	0.25	0.07				
8.50	1.35	0.30	0.08				
8.75	1.44	0.34	0.09				
9.00	1.53	0.40	0.11				
9.25	1.63	0.46	0.12				
9.50	1.74	0.53	0.13				
9.75	1.86	0.60	0.15				
10.00	1.98	0.68	0.16				
10.25	2.12	0.78	0.19				
10.50	2.27	0.89	0.22				
10.75	2.44	1.01	0.25				
11.00	2.63	1.15	0.28				
11.25	2.85	1.32	0.35				
11.50	3.13	1.55	0.46				
11.75	3.73	2.05	1.16				
12.00	5.25	3.40	3.12				
12.25	6.77	4.81	1.98				
12.50	7.37	5.38	0.90				
12.75	7.65	5.65	0.50				
13.00	7.87	5.86	0.39				
13.25	8.06	6.03	0.33				
13.50	8.23	6.19	0.31				
13.75	8.38	6.34	0.28				
14.00	8.52	6.47	0.25				
14.25	8.64	6.59	0.23				
14.50	8.76	6.70	0.22				
14.75	8.87	6.81	0.20				
15.00	8.97	6.91	0.19				
15.25	9.06	7.00	0.17				
15.50	9.15	7.08	0.16				
15.75	9.23	7.16	0.15				
16.00	9.30	7.23	0.13				
16.25	9.37	7.29	0.12				
16.50	9.43	7.35	0.12				
16.75	9.49	7.41	0.11				
17.00	9.55	7.47	0.11				
17.25	9.60	7.52	0.10				
17.50	9.65	7.57	0.09				
17.75	9.70	7.61	0.09				

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 32

Summary for Subcatchment 3S: Post - Offsite

Runoff = 3.43 cfs @ 12.07 hrs, Volume= 0.235 af, Depth> 7.43"

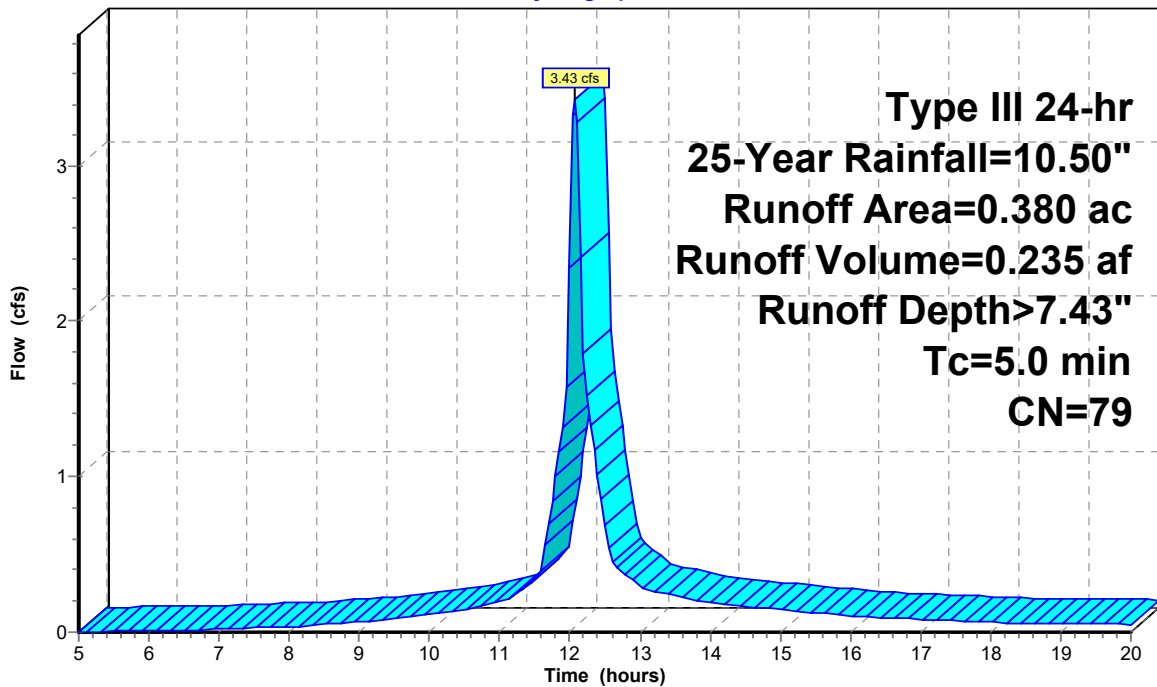
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
0.380	79	50-75% Grass cover, Fair, HSG C
0.380		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Post - Offsite

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 33

Hydrograph for Subcatchment 3S: Post - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.00	0.00	18.00	9.74	7.15	0.06
5.25	0.63	0.00	0.00	18.25	9.79	7.19	0.06
5.50	0.67	0.01	0.01	18.50	9.83	7.23	0.06
5.75	0.71	0.01	0.01	18.75	9.87	7.26	0.06
6.00	0.76	0.02	0.01	19.00	9.90	7.30	0.06
6.25	0.80	0.02	0.01	19.25	9.94	7.34	0.05
6.50	0.85	0.03	0.01	19.50	9.98	7.37	0.05
6.75	0.90	0.04	0.02	19.75	10.01	7.41	0.05
7.00	0.95	0.06	0.02	20.00	10.05	7.44	0.05
7.25	1.01	0.07	0.02				
7.50	1.07	0.09	0.03				
7.75	1.13	0.11	0.03				
8.00	1.20	0.13	0.04				
8.25	1.27	0.16	0.04				
8.50	1.35	0.19	0.05				
8.75	1.44	0.23	0.06				
9.00	1.53	0.27	0.07				
9.25	1.63	0.32	0.08				
9.50	1.74	0.38	0.09				
9.75	1.86	0.44	0.10				
10.00	1.98	0.51	0.11				
10.25	2.12	0.59	0.13				
10.50	2.27	0.69	0.15				
10.75	2.44	0.80	0.17				
11.00	2.63	0.92	0.19				
11.25	2.85	1.08	0.25				
11.50	3.13	1.28	0.33				
11.75	3.73	1.75	0.85				
12.00	5.25	3.02	2.34				
12.25	6.77	4.37	1.52				
12.50	7.37	4.93	0.69				
12.75	7.65	5.19	0.38				
13.00	7.87	5.39	0.30				
13.25	8.06	5.56	0.26				
13.50	8.23	5.72	0.24				
13.75	8.38	5.86	0.21				
14.00	8.52	5.99	0.19				
14.25	8.64	6.11	0.18				
14.50	8.76	6.22	0.17				
14.75	8.87	6.32	0.16				
15.00	8.97	6.42	0.15				
15.25	9.06	6.51	0.13				
15.50	9.15	6.59	0.12				
15.75	9.23	6.66	0.11				
16.00	9.30	6.73	0.10				
16.25	9.37	6.79	0.10				
16.50	9.43	6.85	0.09				
16.75	9.49	6.91	0.09				
17.00	9.55	6.97	0.08				
17.25	9.60	7.02	0.08				
17.50	9.65	7.06	0.07				
17.75	9.70	7.11	0.07				

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 34

Summary for Pond 4P: North

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 8.63" for 25-Year event
 Inflow = 3.29 cfs @ 12.07 hrs, Volume= 0.237 af
 Outflow = 2.03 cfs @ 12.17 hrs, Volume= 0.237 af, Atten= 38%, Lag= 6.1 min
 Primary = 2.03 cfs @ 12.17 hrs, Volume= 0.237 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.94' @ 12.17 hrs Surf.Area= 1,719 sf Storage= 1,603 cf

Plug-Flow detention time= 14.1 min calculated for 0.237 af (100% of inflow)
 Center-of-Mass det. time= 12.8 min (758.8 - 746.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	15.75'	4,686 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
15.75	0	0.0	0	0	0	
16.00	1,430	180.0	119	119	2,578	
18.50	2,255	233.0	4,567	4,686	4,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	15.75'	12.0" Round Culvert L= 230.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.75' / 15.25' S= 0.0022 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.01 cfs @ 12.17 hrs HW=16.93' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 2.01 cfs @ 2.73 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

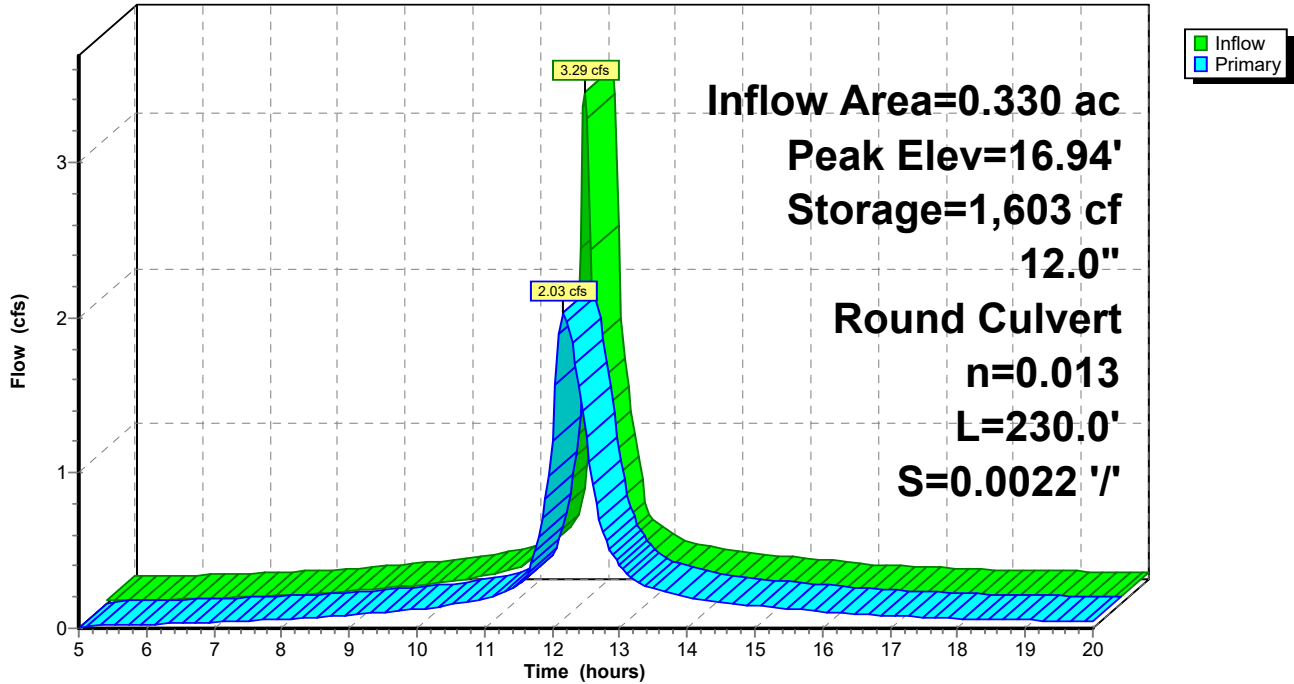
Type III 24-hr 25-Year Rainfall=10.50"

Printed 7/3/2025

Page 35

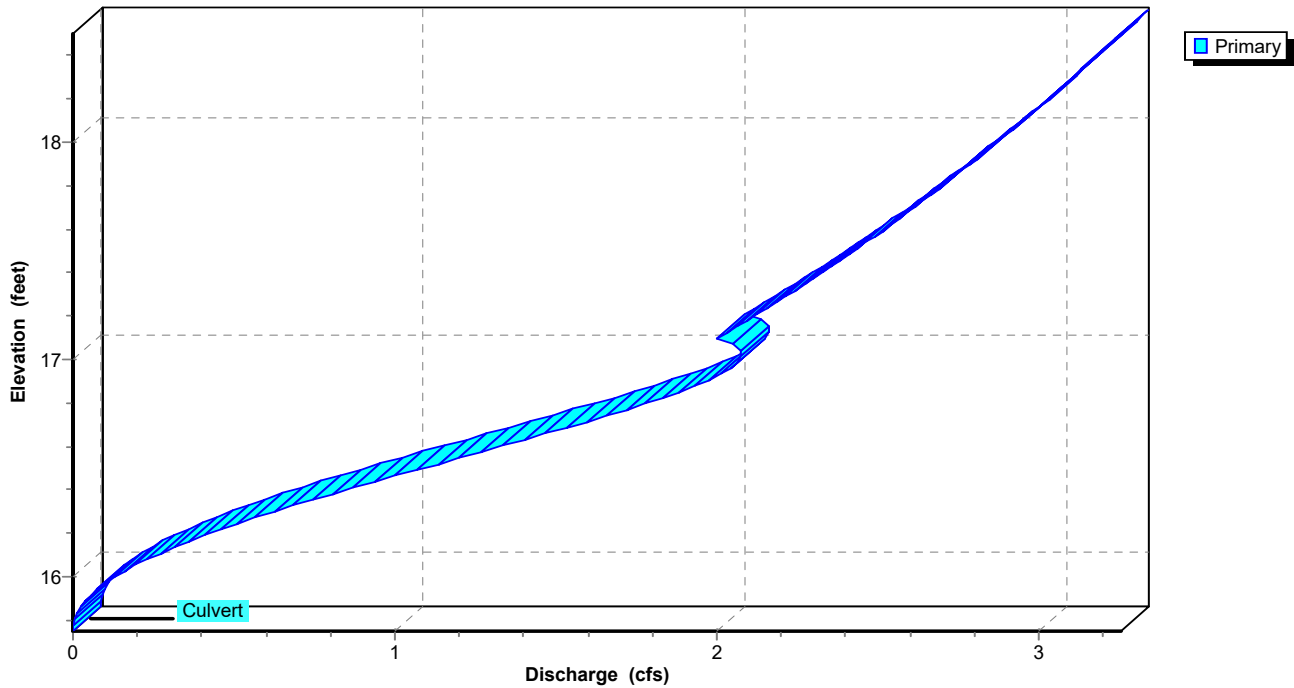
Pond 4P: North

Hydrograph

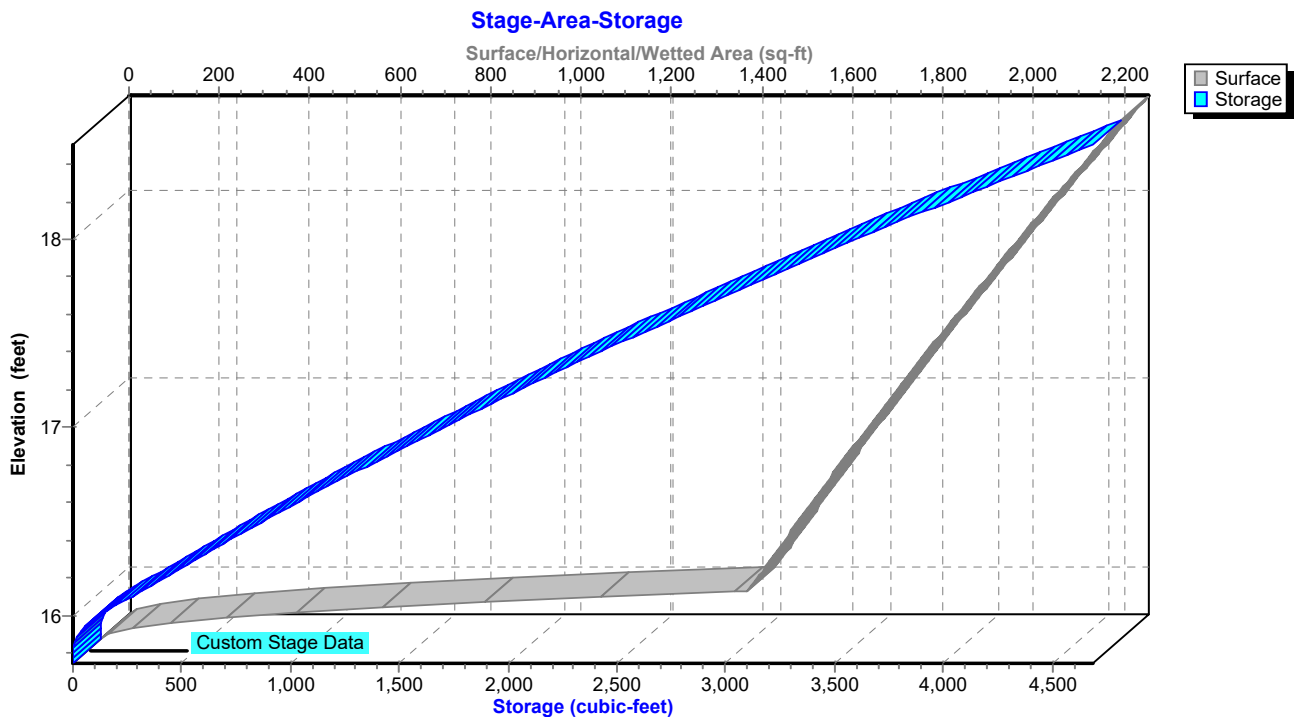


Pond 4P: North

Stage-Discharge



Pond 4P: North



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 37

Hydrograph for Pond 4P: North

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.02	1	15.80	0.01
5.50	0.02	9	15.86	0.02
6.00	0.03	12	15.86	0.03
6.50	0.03	16	15.88	0.03
7.00	0.04	21	15.89	0.04
7.50	0.05	28	15.90	0.05
8.00	0.06	35	15.92	0.06
8.50	0.08	47	15.93	0.07
9.00	0.10	64	15.95	0.09
9.50	0.12	85	15.97	0.10
10.00	0.14	110	15.99	0.12
10.50	0.18	145	16.02	0.15
11.00	0.22	192	16.05	0.19
11.50	0.35	284	16.11	0.28
12.00	2.29	951	16.55	1.21
12.50	0.64	966	16.56	1.23
13.00	0.27	393	16.19	0.41
13.50	0.22	259	16.10	0.26
14.00	0.17	203	16.06	0.20
14.50	0.15	165	16.03	0.17
15.00	0.13	138	16.01	0.15
15.50	0.11	113	16.00	0.13
16.00	0.09	88	15.98	0.11
16.50	0.08	69	15.96	0.09
17.00	0.07	58	15.95	0.08
17.50	0.07	48	15.93	0.07
18.00	0.06	40	15.92	0.06
18.50	0.05	34	15.91	0.05
19.00	0.05	31	15.91	0.05
19.50	0.05	29	15.91	0.05
20.00	0.05	27	15.90	0.05

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 38

Stage-Discharge for Pond 4P: North

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.75	0.00	16.79	1.77	17.83	2.73
15.77	0.00	16.81	1.81	17.85	2.75
15.79	0.00	16.83	1.85	17.87	2.76
15.81	0.01	16.85	1.88	17.89	2.78
15.83	0.01	16.87	1.92	17.91	2.80
15.85	0.02	16.89	1.95	17.93	2.82
15.87	0.03	16.91	1.98	17.95	2.83
15.89	0.04	16.93	2.01	17.97	2.85
15.91	0.05	16.95	2.03	17.99	2.86
15.93	0.07	16.97	2.05	18.01	2.88
15.95	0.08	16.99	2.07	18.03	2.90
15.97	0.10	17.01	2.08	18.05	2.91
15.99	0.12	17.03	2.08	18.07	2.93
16.01	0.14	17.05	2.07	18.09	2.95
16.03	0.17	17.07	2.05	18.11	2.96
16.05	0.19	17.09	1.99	18.13	2.98
16.07	0.22	17.11	2.01	18.15	2.99
16.09	0.25	17.13	2.04	18.17	3.01
16.11	0.28	17.15	2.06	18.19	3.03
16.13	0.31	17.17	2.08	18.21	3.04
16.15	0.34	17.19	2.11	18.23	3.06
16.17	0.37	17.21	2.13	18.25	3.07
16.19	0.41	17.23	2.15	18.27	3.09
16.21	0.45	17.25	2.17	18.29	3.10
16.23	0.48	17.27	2.19	18.31	3.12
16.25	0.52	17.29	2.21	18.33	3.13
16.27	0.56	17.31	2.24	18.35	3.15
16.29	0.60	17.33	2.26	18.37	3.16
16.31	0.65	17.35	2.28	18.39	3.18
16.33	0.69	17.37	2.30	18.41	3.19
16.35	0.73	17.39	2.32	18.43	3.21
16.37	0.78	17.41	2.34	18.45	3.22
16.39	0.82	17.43	2.36	18.47	3.24
16.41	0.87	17.45	2.38	18.49	3.25
16.43	0.92	17.47	2.40		
16.45	0.97	17.49	2.42		
16.47	1.01	17.51	2.44		
16.49	1.06	17.53	2.46		
16.51	1.11	17.55	2.48		
16.53	1.16	17.57	2.50		
16.55	1.21	17.59	2.51		
16.57	1.26	17.61	2.53		
16.59	1.31	17.63	2.55		
16.61	1.35	17.65	2.57		
16.63	1.40	17.67	2.59		
16.65	1.45	17.69	2.61		
16.67	1.50	17.71	2.62		
16.69	1.55	17.73	2.64		
16.71	1.59	17.75	2.66		
16.73	1.64	17.77	2.68		
16.75	1.68	17.79	2.70		
16.77	1.72	17.81	2.71		

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 39

Stage-Area-Storage for Pond 4P: North

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.75	0	0	18.35	2,200	4,352
15.80	57	1	18.40	2,218	4,463
15.85	229	8	18.45	2,237	4,574
15.90	515	26	18.50	2,255	4,686
15.95	915	61			
16.00	1,430	119			
16.05	1,445	191			
16.10	1,459	264			
16.15	1,474	337			
16.20	1,489	411			
16.25	1,504	486			
16.30	1,519	561			
16.35	1,534	638			
16.40	1,549	715			
16.45	1,565	793			
16.50	1,580	871			
16.55	1,595	951			
16.60	1,611	1,031			
16.65	1,627	1,112			
16.70	1,642	1,194			
16.75	1,658	1,276			
16.80	1,674	1,359			
16.85	1,690	1,443			
16.90	1,705	1,528			
16.95	1,721	1,614			
17.00	1,738	1,700			
17.05	1,754	1,788			
17.10	1,770	1,876			
17.15	1,786	1,965			
17.20	1,803	2,054			
17.25	1,819	2,145			
17.30	1,836	2,236			
17.35	1,852	2,329			
17.40	1,869	2,422			
17.45	1,886	2,515			
17.50	1,903	2,610			
17.55	1,919	2,706			
17.60	1,936	2,802			
17.65	1,954	2,899			
17.70	1,971	2,997			
17.75	1,988	3,096			
17.80	2,005	3,196			
17.85	2,023	3,297			
17.90	2,040	3,398			
17.95	2,057	3,501			
18.00	2,075	3,604			
18.05	2,093	3,708			
18.10	2,110	3,814			
18.15	2,128	3,919			
18.20	2,146	4,026			
18.25	2,164	4,134			
18.30	2,182	4,243			

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 40

Summary for Pond 6P: South - Outfall

Inflow Area = 1.510 ac, 54.30% Impervious, Inflow Depth > 8.40" for 25-Year event
 Inflow = 9.96 cfs @ 12.10 hrs, Volume= 1.057 af
 Outflow = 7.80 cfs @ 12.26 hrs, Volume= 1.055 af, Atten= 22%, Lag= 9.5 min
 Primary = 7.80 cfs @ 12.26 hrs, Volume= 1.055 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.15' @ 12.26 hrs Surf.Area= 2,521 sf Storage= 3,757 cf

Plug-Flow detention time= 7.4 min calculated for 1.051 af (99% of inflow)
 Center-of-Mass det. time= 6.5 min (760.0 - 753.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	14.75'	7,100 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
14.75	0	0.0	0	0	0
15.00	1,015	165.0	85	85	2,167
18.25	3,560	325.0	7,016	7,100	8,456

Device	Routing	Invert	Outlet Devices
#1	Primary	14.75'	15.0" Round Culvert L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 14.75' / 14.65' S= 0.0029 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=7.80 cfs @ 12.26 hrs HW=17.14' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 7.80 cfs @ 6.35 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

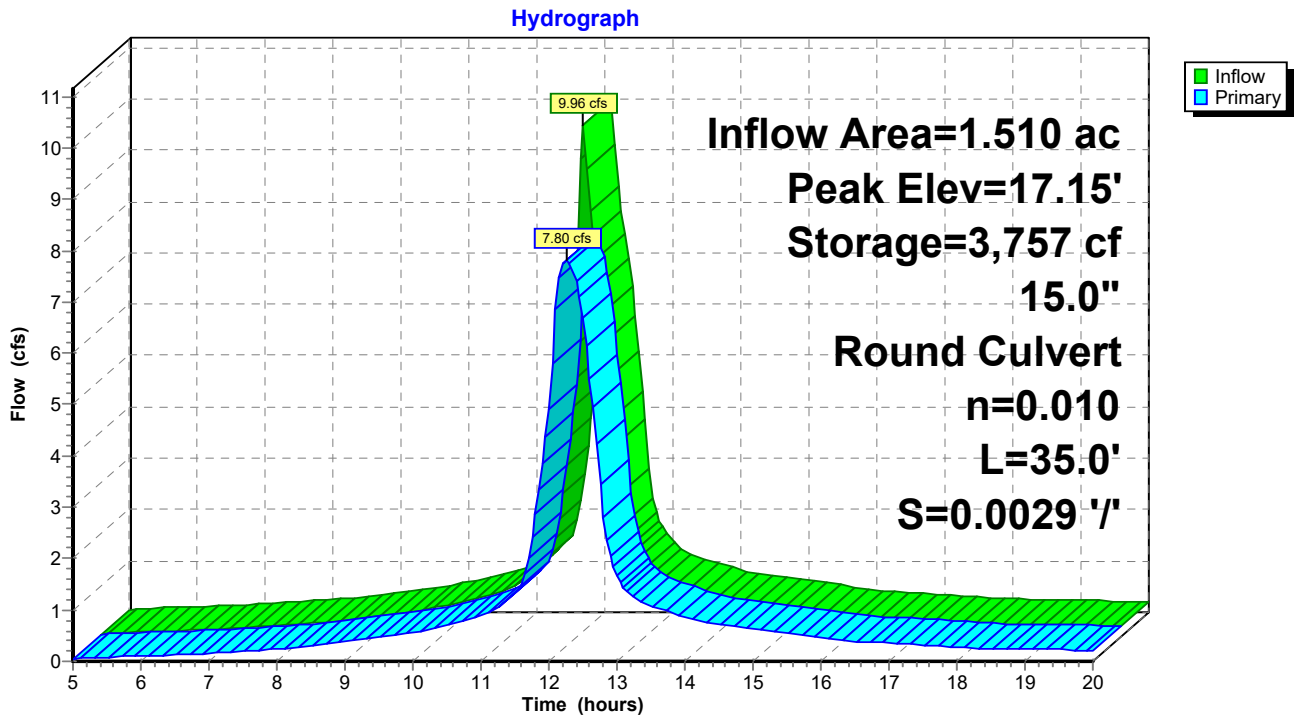
HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr 25-Year Rainfall=10.50"

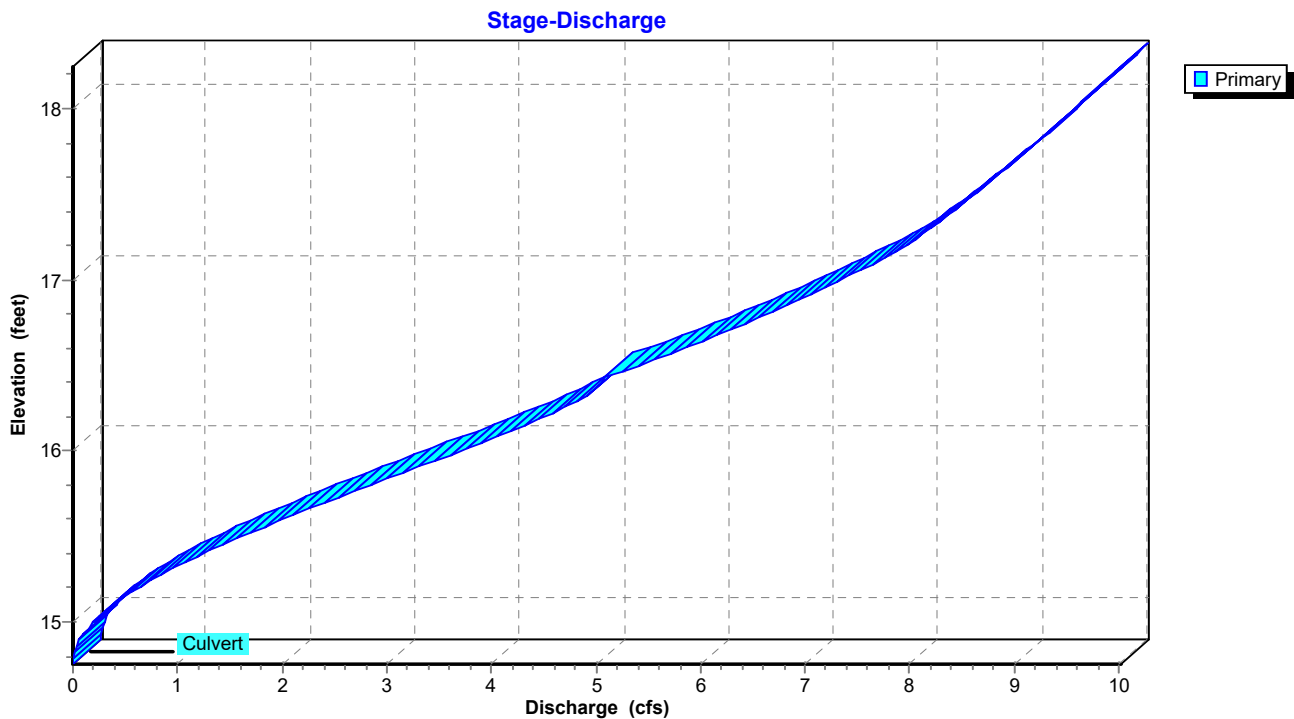
Printed 7/3/2025

Page 41

Pond 6P: South - Outfall

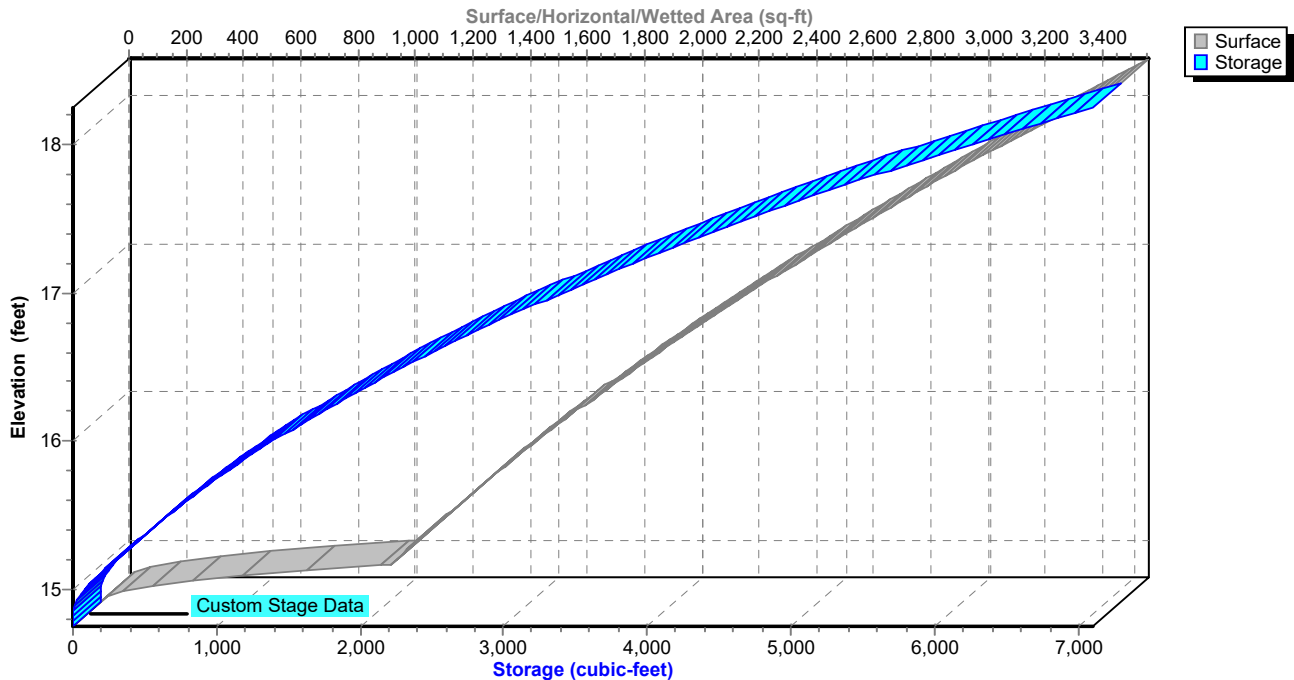


Pond 6P: South - Outfall



Pond 6P: South - Outfall

Stage-Area-Storage



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 43

Hydrograph for Pond 6P: South - Outfall

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.05	3	14.83	0.02
5.50	0.09	22	14.91	0.08
6.00	0.10	29	14.93	0.10
6.50	0.13	40	14.94	0.12
7.00	0.17	56	14.97	0.16
7.50	0.20	77	14.99	0.19
8.00	0.24	100	15.02	0.23
8.50	0.31	133	15.05	0.29
9.00	0.40	176	15.09	0.37
9.50	0.49	220	15.13	0.46
10.00	0.58	263	15.17	0.56
10.50	0.74	323	15.22	0.70
11.00	0.93	398	15.29	0.88
11.50	1.47	566	15.42	1.34
12.00	7.11	1,978	16.33	4.93
12.50	5.08	2,975	16.82	6.70
13.00	1.40	681	15.51	1.67
13.50	1.02	470	15.35	1.07
14.00	0.82	391	15.28	0.87
14.50	0.71	337	15.23	0.73
15.00	0.62	298	15.20	0.64
15.50	0.53	260	15.16	0.55
16.00	0.44	219	15.13	0.46
16.50	0.38	188	15.10	0.39
17.00	0.34	167	15.08	0.35
17.50	0.30	146	15.06	0.31
18.00	0.26	125	15.04	0.27
18.50	0.24	110	15.03	0.25
19.00	0.23	102	15.02	0.23
19.50	0.22	95	15.01	0.22
20.00	0.21	88	15.00	0.21

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 44

Stage-Discharge for Pond 6P: South - Outfall

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
14.75	0.00	15.79	2.81	16.83	6.74	17.87	9.33
14.77	0.00	15.81	2.89	16.85	6.82	17.89	9.37
14.79	0.00	15.83	2.98	16.87	6.89	17.91	9.41
14.81	0.01	15.85	3.07	16.89	6.96	17.93	9.44
14.83	0.02	15.87	3.15	16.91	7.03	17.95	9.48
14.85	0.03	15.89	3.24	16.93	7.10	17.97	9.52
14.87	0.05	15.91	3.33	16.95	7.17	17.99	9.56
14.89	0.06	15.93	3.41	16.97	7.23	18.01	9.59
14.91	0.08	15.95	3.50	16.99	7.30	18.03	9.63
14.93	0.11	15.97	3.59	17.01	7.37	18.05	9.66
14.95	0.13	15.99	3.67	17.03	7.43	18.07	9.70
14.97	0.16	16.01	3.76	17.05	7.50	18.09	9.74
14.99	0.19	16.03	3.84	17.07	7.56	18.11	9.77
15.01	0.22	16.05	3.93	17.09	7.63	18.13	9.81
15.03	0.26	16.07	4.01	17.11	7.69	18.15	9.84
15.05	0.29	16.09	4.09	17.13	7.76	18.17	9.88
15.07	0.33	16.11	4.17	17.15	7.82	18.19	9.91
15.09	0.37	16.13	4.25	17.17	7.88	18.21	9.95
15.11	0.42	16.15	4.33	17.19	7.94	18.23	9.98
15.13	0.46	16.17	4.41	17.21	8.00	18.25	10.02
15.15	0.51	16.19	4.48	17.23	8.05		
15.17	0.56	16.21	4.55	17.25	8.09		
15.19	0.61	16.23	4.62	17.27	8.13		
15.21	0.67	16.25	4.69	17.29	8.18		
15.23	0.72	16.27	4.75	17.31	8.22		
15.25	0.78	16.29	4.82	17.33	8.26		
15.27	0.84	16.31	4.87	17.35	8.30		
15.29	0.90	16.33	4.92	17.37	8.35		
15.31	0.96	16.35	4.97	17.39	8.39		
15.33	1.02	16.37	5.01	17.41	8.43		
15.35	1.09	16.39	5.04	17.43	8.47		
15.37	1.15	16.41	5.05	17.45	8.51		
15.39	1.22	16.43	5.09	17.47	8.55		
15.41	1.29	16.45	5.19	17.49	8.59		
15.43	1.36	16.47	5.28	17.51	8.63		
15.45	1.43	16.49	5.37	17.53	8.67		
15.47	1.51	16.51	5.46	17.55	8.71		
15.49	1.58	16.53	5.55	17.57	8.75		
15.51	1.66	16.55	5.64	17.59	8.79		
15.53	1.73	16.57	5.72	17.61	8.83		
15.55	1.81	16.59	5.81	17.63	8.87		
15.57	1.89	16.61	5.89	17.65	8.91		
15.59	1.97	16.63	5.98	17.67	8.95		
15.61	2.05	16.65	6.06	17.69	8.99		
15.63	2.13	16.67	6.14	17.71	9.03		
15.65	2.21	16.69	6.22	17.73	9.07		
15.67	2.30	16.71	6.29	17.75	9.11		
15.69	2.38	16.73	6.37	17.77	9.14		
15.71	2.46	16.75	6.45	17.79	9.18		
15.73	2.55	16.77	6.52	17.81	9.22		
15.75	2.63	16.79	6.60	17.83	9.26		
15.77	2.72	16.81	6.67	17.85	9.30		

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 45

Stage-Area-Storage for Pond 6P: South - Outfall

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
14.75	0	0	17.35	2,700	4,292
14.80	41	1	17.40	2,745	4,428
14.85	162	5	17.45	2,790	4,566
14.90	365	18	17.50	2,835	4,707
14.95	650	43	17.55	2,881	4,850
15.00	1,015	85	17.60	2,927	4,995
15.05	1,042	136	17.65	2,974	5,143
15.10	1,070	189	17.70	3,021	5,293
15.15	1,098	243	17.75	3,068	5,445
15.20	1,127	299	17.80	3,115	5,599
15.25	1,156	356	17.85	3,163	5,756
15.30	1,185	414	17.90	3,212	5,916
15.35	1,215	474	17.95	3,260	6,077
15.40	1,245	536	18.00	3,309	6,242
15.45	1,275	599	18.05	3,359	6,408
15.50	1,306	663	18.10	3,408	6,578
15.55	1,337	729	18.15	3,459	6,749
15.60	1,368	797	18.20	3,509	6,923
15.65	1,400	866	18.25	3,560	7,100
15.70	1,432	937			
15.75	1,465	1,009			
15.80	1,498	1,084			
15.85	1,531	1,159			
15.90	1,565	1,237			
15.95	1,599	1,316			
16.00	1,633	1,397			
16.05	1,668	1,479			
16.10	1,703	1,563			
16.15	1,739	1,649			
16.20	1,775	1,737			
16.25	1,811	1,827			
16.30	1,847	1,918			
16.35	1,884	2,012			
16.40	1,922	2,107			
16.45	1,959	2,204			
16.50	1,997	2,303			
16.55	2,036	2,404			
16.60	2,075	2,506			
16.65	2,114	2,611			
16.70	2,153	2,718			
16.75	2,193	2,826			
16.80	2,233	2,937			
16.85	2,274	3,050			
16.90	2,315	3,164			
16.95	2,356	3,281			
17.00	2,398	3,400			
17.05	2,440	3,521			
17.10	2,483	3,644			
17.15	2,525	3,769			
17.20	2,569	3,897			
17.25	2,612	4,026			
17.30	2,656	4,158			

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 46

Summary for Pond 7P: West

Inflow Area = 0.700 ac, 64.29% Impervious, Inflow Depth > 8.63" for 25-Year event
 Inflow = 6.99 cfs @ 12.07 hrs, Volume= 0.503 af
 Outflow = 3.95 cfs @ 12.19 hrs, Volume= 0.503 af, Atten= 44%, Lag= 7.1 min
 Primary = 3.95 cfs @ 12.19 hrs, Volume= 0.503 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.71' @ 12.19 hrs Surf.Area= 2,815 sf Storage= 2,220 cf

Plug-Flow detention time= 3.3 min calculated for 0.503 af (100% of inflow)
 Center-of-Mass det. time= 3.2 min (749.2 - 746.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	15.50'	4,155 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
15.50	0	0.0	0	0	0
16.00	285	105.0	48	48	878
17.00	1,330	260.0	744	791	5,384
18.25	4,340	440.0	3,364	4,155	15,420

Device	Routing	Invert	Outlet Devices
#1	Primary	15.50'	12.0" Round Culvert L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.50' / 15.25' S= 0.0031 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.94 cfs @ 12.19 hrs HW=17.70' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 3.94 cfs @ 5.02 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

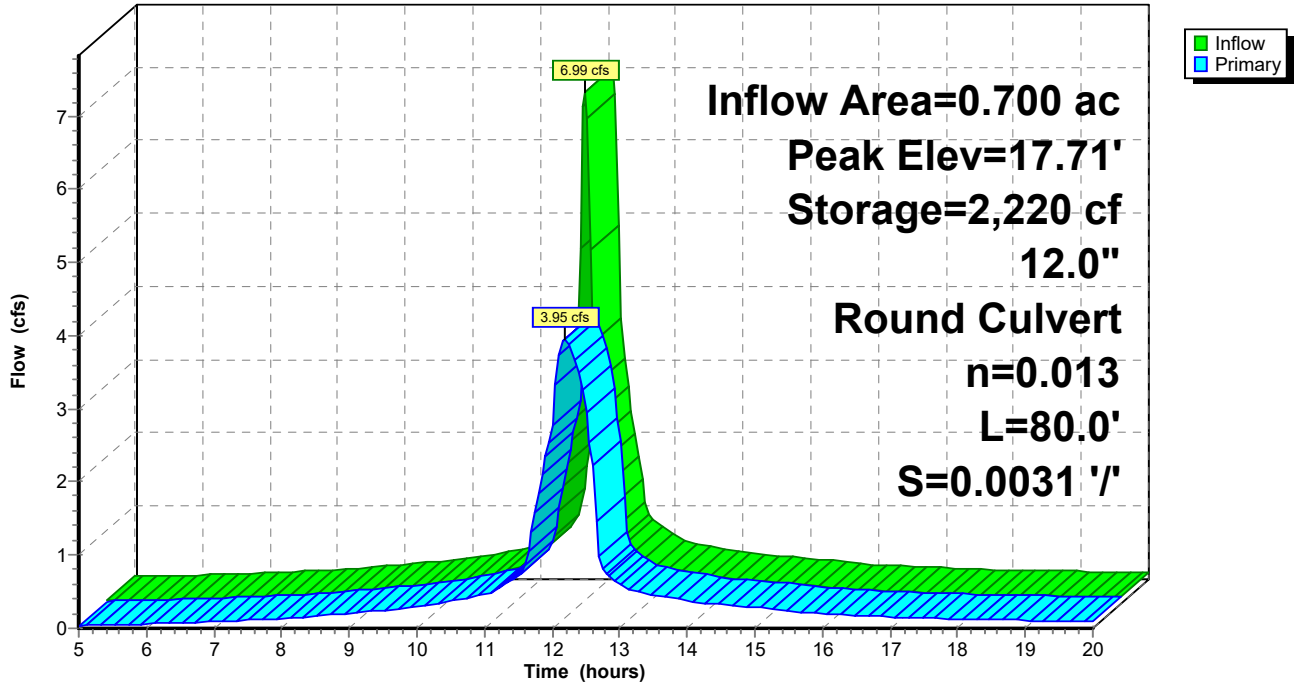
Type III 24-hr 25-Year Rainfall=10.50"

Printed 7/3/2025

Page 47

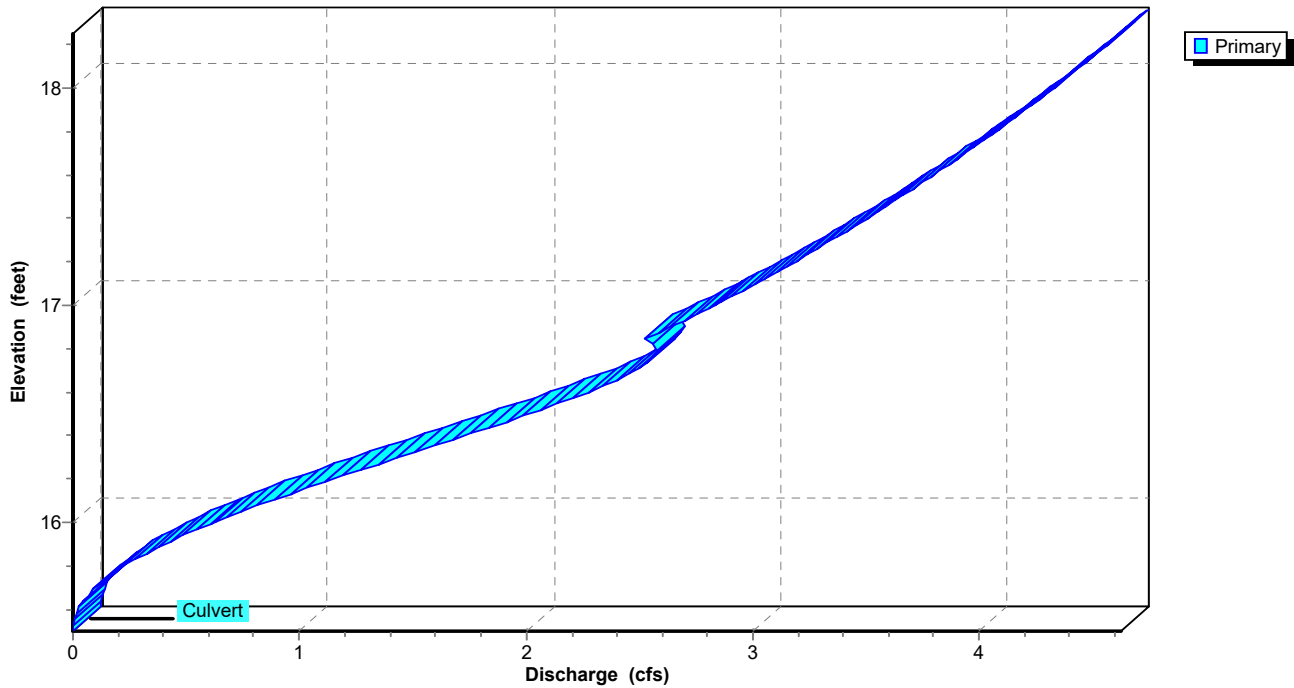
Pond 7P: West

Hydrograph

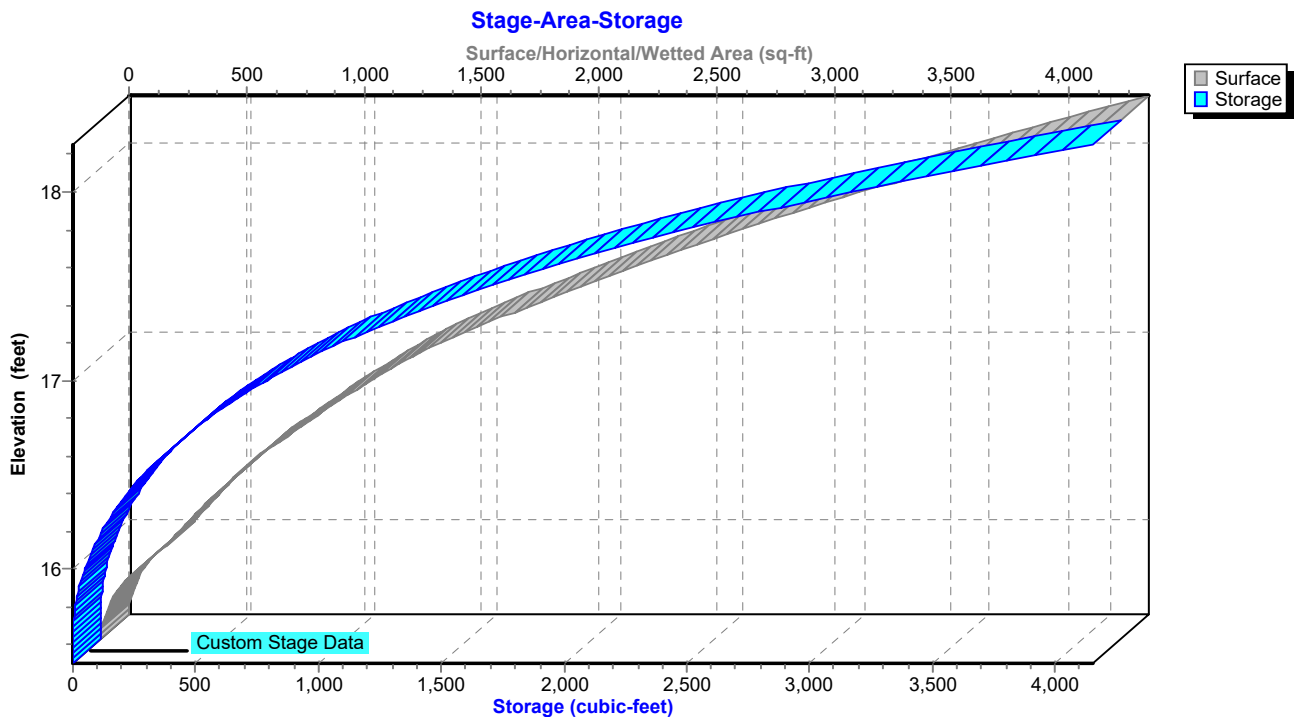


Pond 7P: West

Stage-Discharge



Pond 7P: West



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 49

Hydrograph for Pond 7P: West

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.04	1	15.62	0.03
5.50	0.05	1	15.64	0.05
6.00	0.06	1	15.65	0.06
6.50	0.07	2	15.67	0.07
7.00	0.09	3	15.69	0.09
7.50	0.11	3	15.71	0.11
8.00	0.13	4	15.72	0.13
8.50	0.16	6	15.75	0.16
9.00	0.20	9	15.78	0.20
9.50	0.25	11	15.81	0.25
10.00	0.29	15	15.84	0.29
10.50	0.37	21	15.88	0.37
11.00	0.46	29	15.93	0.46
11.50	0.75	60	16.04	0.73
12.00	4.85	755	16.97	2.78
12.50	1.35	876	17.06	2.95
13.00	0.58	45	15.99	0.60
13.50	0.46	30	15.93	0.46
14.00	0.37	22	15.88	0.37
14.50	0.32	17	15.86	0.32
15.00	0.28	14	15.83	0.28
15.50	0.24	11	15.81	0.24
16.00	0.20	8	15.78	0.20
16.50	0.17	7	15.76	0.18
17.00	0.16	6	15.75	0.16
17.50	0.14	5	15.73	0.14
18.00	0.12	4	15.72	0.12
18.50	0.11	4	15.71	0.11
19.00	0.11	3	15.71	0.11
19.50	0.10	3	15.70	0.10
20.00	0.10	3	15.70	0.10

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 50

Stage-Discharge for Pond 7P: West

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.50	0.00	16.54	2.13	17.58	3.77
15.52	0.00	16.56	2.18	17.60	3.80
15.54	0.00	16.58	2.23	17.62	3.83
15.56	0.01	16.60	2.28	17.64	3.86
15.58	0.01	16.62	2.32	17.66	3.88
15.60	0.02	16.64	2.37	17.68	3.91
15.62	0.03	16.66	2.41	17.70	3.94
15.64	0.05	16.68	2.45	17.72	3.97
15.66	0.06	16.70	2.48	17.74	3.99
15.68	0.08	16.72	2.51	17.76	4.02
15.70	0.10	16.74	2.54	17.78	4.05
15.72	0.12	16.76	2.56	17.80	4.07
15.74	0.15	16.78	2.57	17.82	4.10
15.76	0.17	16.80	2.58	17.84	4.13
15.78	0.20	16.82	2.56	17.86	4.15
15.80	0.23	16.84	2.51	17.88	4.18
15.82	0.26	16.86	2.56	17.90	4.20
15.84	0.29	16.88	2.60	17.92	4.23
15.86	0.33	16.90	2.64	17.94	4.25
15.88	0.37	16.92	2.68	17.96	4.28
15.90	0.41	16.94	2.72	17.98	4.30
15.92	0.45	16.96	2.76	18.00	4.33
15.94	0.49	16.98	2.80	18.02	4.35
15.96	0.53	17.00	2.83	18.04	4.38
15.98	0.58	17.02	2.87	18.06	4.40
16.00	0.62	17.04	2.91	18.08	4.43
16.02	0.67	17.06	2.94	18.10	4.45
16.04	0.72	17.08	2.98	18.12	4.47
16.06	0.77	17.10	3.02	18.14	4.50
16.08	0.82	17.12	3.05	18.16	4.52
16.10	0.87	17.14	3.09	18.18	4.54
16.12	0.93	17.16	3.12	18.20	4.57
16.14	0.98	17.18	3.15	18.22	4.59
16.16	1.04	17.20	3.19	18.24	4.61
16.18	1.09	17.22	3.22		
16.20	1.15	17.24	3.26		
16.22	1.21	17.26	3.29		
16.24	1.26	17.28	3.32		
16.26	1.32	17.30	3.35		
16.28	1.38	17.32	3.38		
16.30	1.44	17.34	3.42		
16.32	1.50	17.36	3.45		
16.34	1.56	17.38	3.48		
16.36	1.62	17.40	3.51		
16.38	1.68	17.42	3.54		
16.40	1.73	17.44	3.57		
16.42	1.79	17.46	3.60		
16.44	1.85	17.48	3.63		
16.46	1.91	17.50	3.66		
16.48	1.96	17.52	3.69		
16.50	2.02	17.54	3.72		
16.52	2.07	17.56	3.74		

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 51

Stage-Area-Storage for Pond 7P: West

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.50	0	0	18.10	3,887	3,538
15.55	3	0	18.15	4,036	3,736
15.60	11	0	18.20	4,186	3,941
15.65	26	1	18.25	4,340	4,155
15.70	46	3			
15.75	71	6			
15.80	103	10			
15.85	140	16			
15.90	182	24			
15.95	231	35			
16.00	285	48			
16.05	319	63			
16.10	355	79			
16.15	393	98			
16.20	433	119			
16.25	474	141			
16.30	518	166			
16.35	563	193			
16.40	611	223			
16.45	660	254			
16.50	712	289			
16.55	765	326			
16.60	820	365			
16.65	877	408			
16.70	936	453			
16.75	997	501			
16.80	1,060	553			
16.85	1,124	607			
16.90	1,191	665			
16.95	1,260	726			
17.00	1,330	791			
17.05	1,417	860			
17.10	1,507	933			
17.15	1,600	1,010			
17.20	1,695	1,093			
17.25	1,794	1,180			
17.30	1,895	1,272			
17.35	1,998	1,370			
17.40	2,105	1,472			
17.45	2,214	1,580			
17.50	2,326	1,694			
17.55	2,441	1,813			
17.60	2,559	1,938			
17.65	2,679	2,069			
17.70	2,802	2,206			
17.75	2,928	2,349			
17.80	3,057	2,499			
17.85	3,189	2,655			
17.90	3,323	2,818			
17.95	3,460	2,987			
18.00	3,600	3,164			
18.05	3,742	3,347			

Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 52

Summary for Subcatchment 10S: Post - West

Runoff = 6.99 cfs @ 12.07 hrs, Volume= 0.503 af, Depth> 8.63"
Routed to Pond 7P : West

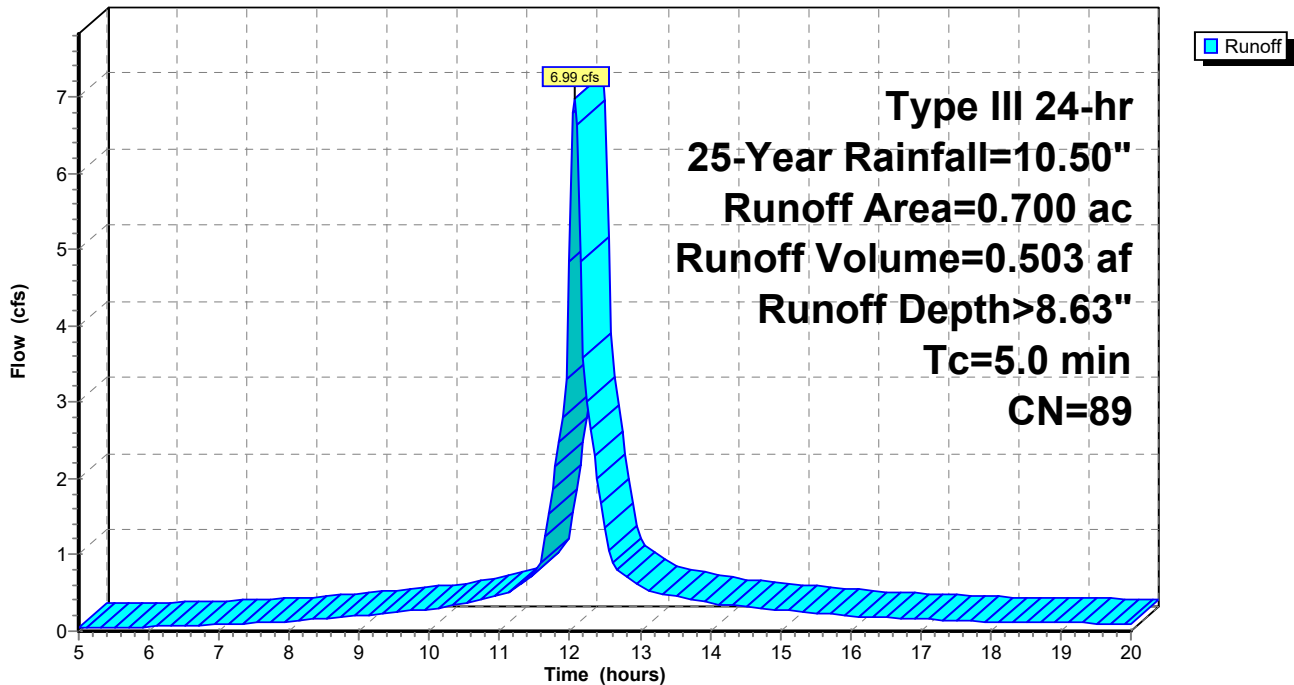
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=10.50"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG C
0.250	74	>75% Grass cover, Good, HSG C
0.700	89	Weighted Average
0.250		35.71% Pervious Area
0.450		64.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 10S: Post - West

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 25-Year Rainfall=10.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 53

Hydrograph for Subcatchment 10S: Post - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.60	0.08	0.04	18.00	9.74	8.40	0.12
5.25	0.63	0.09	0.05	18.25	9.79	8.44	0.12
5.50	0.67	0.11	0.05	18.50	9.83	8.48	0.11
5.75	0.71	0.13	0.05	18.75	9.87	8.52	0.11
6.00	0.76	0.15	0.06	19.00	9.90	8.56	0.11
6.25	0.80	0.17	0.06	19.25	9.94	8.60	0.10
6.50	0.85	0.20	0.07	19.50	9.98	8.63	0.10
6.75	0.90	0.22	0.08	19.75	10.01	8.67	0.10
7.00	0.95	0.25	0.09	20.00	10.05	8.70	0.10
7.25	1.01	0.29	0.10				
7.50	1.07	0.33	0.11				
7.75	1.13	0.37	0.12				
8.00	1.20	0.41	0.13				
8.25	1.27	0.46	0.14				
8.50	1.35	0.52	0.16				
8.75	1.44	0.58	0.18				
9.00	1.53	0.65	0.20				
9.25	1.63	0.73	0.23				
9.50	1.74	0.82	0.25				
9.75	1.86	0.91	0.27				
10.00	1.98	1.02	0.29				
10.25	2.12	1.13	0.33				
10.50	2.27	1.26	0.37				
10.75	2.44	1.40	0.42				
11.00	2.63	1.56	0.46				
11.25	2.85	1.76	0.59				
11.50	3.13	2.02	0.75				
11.75	3.73	2.57	1.86				
12.00	5.25	4.01	4.85				
12.25	6.77	5.48	3.01				
12.50	7.37	6.07	1.35				
12.75	7.65	6.35	0.75				
13.00	7.87	6.56	0.58				
13.25	8.06	6.74	0.50				
13.50	8.23	6.91	0.46				
13.75	8.38	7.06	0.41				
14.00	8.52	7.19	0.37				
14.25	8.64	7.32	0.34				
14.50	8.76	7.43	0.32				
14.75	8.87	7.54	0.30				
15.00	8.97	7.64	0.28				
15.25	9.06	7.73	0.26				
15.50	9.15	7.82	0.24				
15.75	9.23	7.90	0.22				
16.00	9.30	7.97	0.20				
16.25	9.37	8.03	0.18				
16.50	9.43	8.10	0.17				
16.75	9.49	8.16	0.17				
17.00	9.55	8.21	0.16				
17.25	9.60	8.26	0.15				
17.50	9.65	8.31	0.14				
17.75	9.70	8.36	0.13				

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 54

Summary for Subcatchment 1S: Post - North

Runoff = 3.96 cfs @ 12.07 hrs, Volume= 0.288 af, Depth>10.47"
 Routed to Pond 4P : North

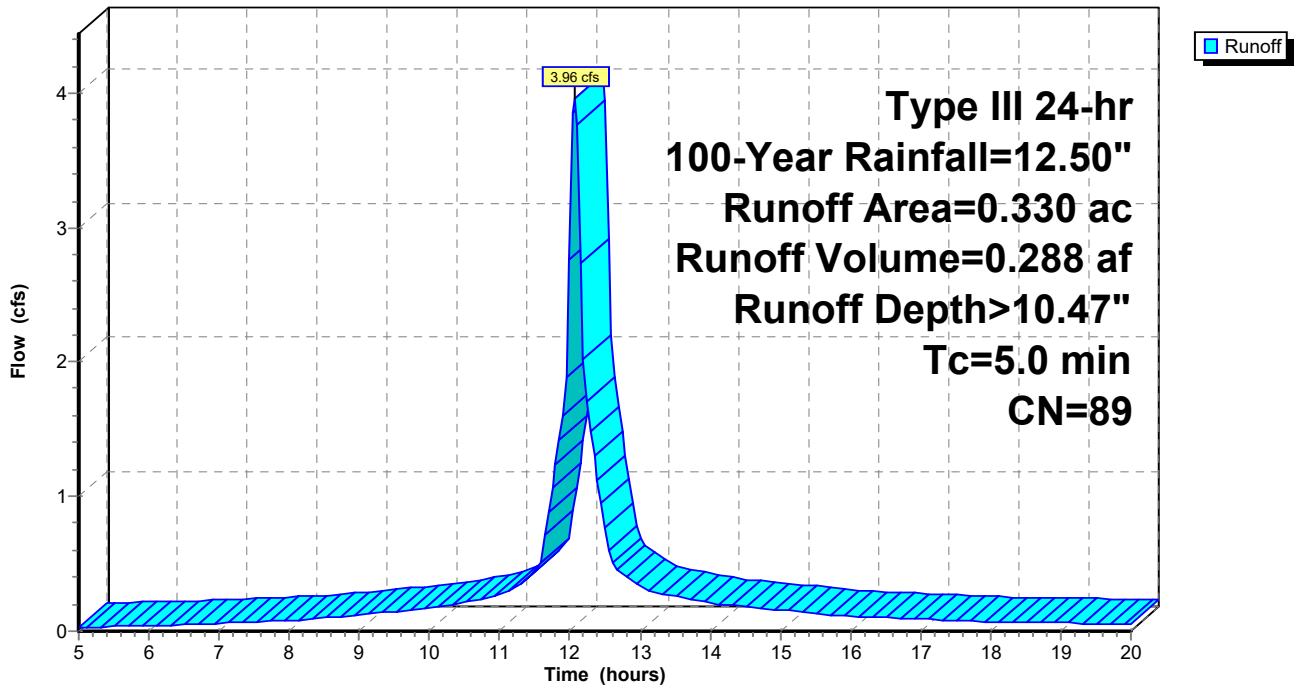
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
0.130	74	>75% Grass cover, Good, HSG C
0.200	98	Paved parking, HSG C
0.330	89	Weighted Average
0.130		39.39% Pervious Area
0.200		60.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 1S: Post - North

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 55

Hydrograph for Subcatchment 1S: Post - North

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.13	0.03	18.00	11.60	10.24	0.07
5.25	0.76	0.15	0.03	18.25	11.65	10.29	0.06
5.50	0.80	0.17	0.03	18.50	11.70	10.33	0.06
5.75	0.85	0.20	0.03	18.75	11.74	10.38	0.06
6.00	0.90	0.23	0.04	19.00	11.79	10.43	0.06
6.25	0.95	0.26	0.04	19.25	11.84	10.47	0.06
6.50	1.01	0.29	0.05	19.50	11.88	10.51	0.06
6.75	1.07	0.33	0.05	19.75	11.92	10.56	0.06
7.00	1.13	0.37	0.06	20.00	11.96	10.60	0.05
7.25	1.20	0.41	0.06				
7.50	1.27	0.46	0.07				
7.75	1.35	0.52	0.07				
8.00	1.43	0.57	0.08				
8.25	1.51	0.64	0.09				
8.50	1.61	0.71	0.10				
8.75	1.71	0.79	0.11				
9.00	1.82	0.88	0.12				
9.25	1.94	0.98	0.13				
9.50	2.07	1.09	0.15				
9.75	2.21	1.21	0.16				
10.00	2.36	1.34	0.17				
10.25	2.53	1.48	0.19				
10.50	2.71	1.64	0.22				
10.75	2.91	1.82	0.24				
11.00	3.13	2.01	0.27				
11.25	3.39	2.25	0.34				
11.50	3.73	2.57	0.43				
11.75	4.44	3.24	1.06				
12.00	6.25	4.98	2.76				
12.25	8.06	6.75	1.70				
12.50	8.78	7.45	0.76				
12.75	9.11	7.78	0.42				
13.00	9.38	8.04	0.33				
13.25	9.59	8.25	0.28				
13.50	9.79	8.45	0.26				
13.75	9.98	8.63	0.23				
14.00	10.14	8.79	0.21				
14.25	10.29	8.94	0.19				
14.50	10.43	9.08	0.18				
14.75	10.56	9.21	0.17				
15.00	10.68	9.33	0.16				
15.25	10.79	9.44	0.15				
15.50	10.89	9.54	0.13				
15.75	10.99	9.63	0.12				
16.00	11.08	9.72	0.11				
16.25	11.15	9.80	0.10				
16.50	11.23	9.87	0.10				
16.75	11.30	9.94	0.09				
17.00	11.37	10.01	0.09				
17.25	11.43	10.07	0.08				
17.50	11.49	10.13	0.08				
17.75	11.55	10.19	0.07				

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 56

Summary for Subcatchment 2S: Post - South

Runoff = 5.53 cfs @ 12.07 hrs, Volume= 0.391 af, Depth> 9.77"
Routed to Pond 6P : South - Outfall

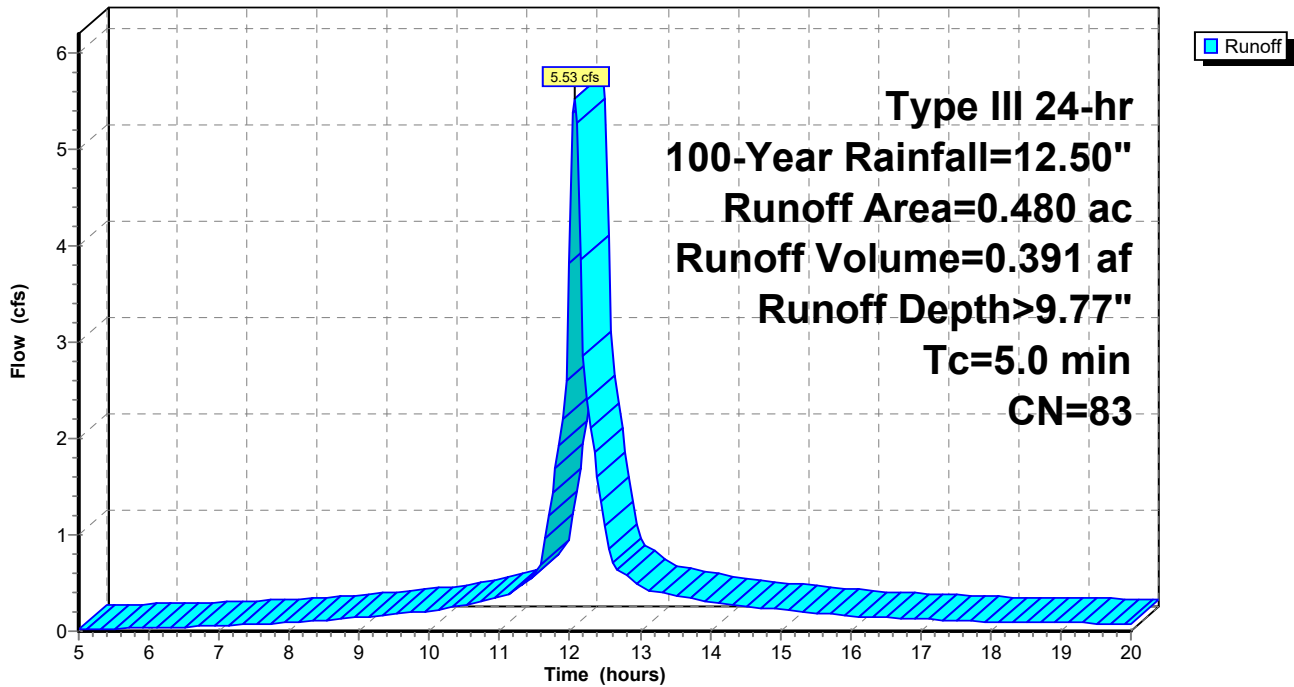
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
0.170	98	Paved parking, HSG C
0.310	74	>75% Grass cover, Good, HSG C
0.480	83	Weighted Average
0.310		64.58% Pervious Area
0.170		35.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 2S: Post - South

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 57

Hydrograph for Subcatchment 2S: Post - South

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.04	0.02	18.00	11.60	9.46	0.10
5.25	0.76	0.05	0.02	18.25	11.65	9.51	0.09
5.50	0.80	0.06	0.03	18.50	11.70	9.55	0.09
5.75	0.85	0.08	0.03	18.75	11.74	9.60	0.09
6.00	0.90	0.09	0.03	19.00	11.79	9.65	0.09
6.25	0.95	0.11	0.04	19.25	11.84	9.69	0.08
6.50	1.01	0.14	0.04	19.50	11.88	9.73	0.08
6.75	1.07	0.16	0.05	19.75	11.92	9.77	0.08
7.00	1.13	0.19	0.06	20.00	11.96	9.81	0.08
7.25	1.20	0.22	0.06				
7.50	1.27	0.25	0.07				
7.75	1.35	0.29	0.08				
8.00	1.43	0.34	0.08				
8.25	1.51	0.38	0.10				
8.50	1.61	0.44	0.11				
8.75	1.71	0.50	0.13				
9.00	1.82	0.58	0.14				
9.25	1.94	0.66	0.16				
9.50	2.07	0.75	0.18				
9.75	2.21	0.84	0.19				
10.00	2.36	0.95	0.21				
10.25	2.53	1.07	0.24				
10.50	2.71	1.21	0.28				
10.75	2.91	1.37	0.31				
11.00	3.13	1.55	0.35				
11.25	3.39	1.77	0.45				
11.50	3.73	2.05	0.57				
11.75	4.44	2.67	1.44				
12.00	6.25	4.32	3.82				
12.25	8.06	6.03	2.40				
12.50	8.78	6.72	1.09				
12.75	9.11	7.04	0.60				
13.00	9.38	7.30	0.47				
13.25	9.59	7.51	0.40				
13.50	9.79	7.70	0.37				
13.75	9.98	7.88	0.33				
14.00	10.14	8.04	0.30				
14.25	10.29	8.18	0.28				
14.50	10.43	8.32	0.26				
14.75	10.56	8.44	0.24				
15.00	10.68	8.56	0.23				
15.25	10.79	8.67	0.21				
15.50	10.89	8.77	0.19				
15.75	10.99	8.86	0.18				
16.00	11.08	8.95	0.16				
16.25	11.15	9.02	0.15				
16.50	11.23	9.10	0.14				
16.75	11.30	9.17	0.13				
17.00	11.37	9.23	0.13				
17.25	11.43	9.30	0.12				
17.50	11.49	9.35	0.11				
17.75	11.55	9.41	0.10				

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 58

Summary for Subcatchment 3S: Post - Offsite

Runoff = 4.22 cfs @ 12.07 hrs, Volume= 0.293 af, Depth> 9.26"

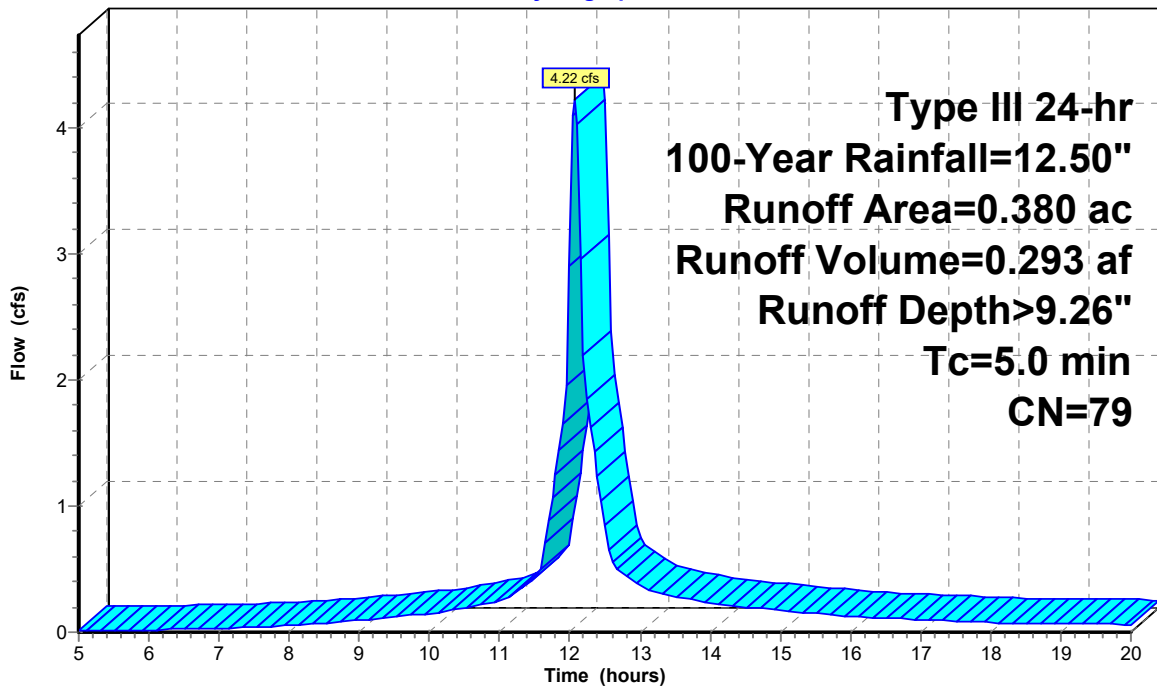
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
0.380	79	50-75% Grass cover, Fair, HSG C
0.380		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 3S: Post - Offsite

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 59

Hydrograph for Subcatchment 3S: Post - Offsite

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.01	0.01	18.00	11.60	8.92	0.08
5.25	0.76	0.02	0.01	18.25	11.65	8.97	0.07
5.50	0.80	0.03	0.01	18.50	11.70	9.02	0.07
5.75	0.85	0.03	0.01	18.75	11.74	9.06	0.07
6.00	0.90	0.04	0.02	19.00	11.79	9.11	0.07
6.25	0.95	0.06	0.02	19.25	11.84	9.15	0.07
6.50	1.01	0.07	0.02	19.50	11.88	9.19	0.06
6.75	1.07	0.09	0.03	19.75	11.92	9.23	0.06
7.00	1.13	0.11	0.03	20.00	11.96	9.27	0.06
7.25	1.20	0.13	0.04				
7.50	1.27	0.16	0.04				
7.75	1.35	0.19	0.05				
8.00	1.43	0.22	0.05				
8.25	1.51	0.26	0.06				
8.50	1.61	0.31	0.07				
8.75	1.71	0.36	0.08				
9.00	1.82	0.42	0.09				
9.25	1.94	0.49	0.11				
9.50	2.07	0.57	0.12				
9.75	2.21	0.65	0.13				
10.00	2.36	0.75	0.15				
10.25	2.53	0.85	0.17				
10.50	2.71	0.98	0.20				
10.75	2.91	1.12	0.22				
11.00	3.13	1.28	0.25				
11.25	3.39	1.48	0.32				
11.50	3.73	1.74	0.42				
11.75	4.44	2.33	1.07				
12.00	6.25	3.90	2.90				
12.25	8.06	5.56	1.85				
12.50	8.78	6.23	0.84				
12.75	9.11	6.55	0.47				
13.00	9.38	6.80	0.36				
13.25	9.59	7.01	0.31				
13.50	9.79	7.20	0.29				
13.75	9.98	7.37	0.26				
14.00	10.14	7.52	0.23				
14.25	10.29	7.67	0.21				
14.50	10.43	7.80	0.20				
14.75	10.56	7.92	0.19				
15.00	10.68	8.04	0.18				
15.25	10.79	8.15	0.16				
15.50	10.89	8.25	0.15				
15.75	10.99	8.34	0.14				
16.00	11.08	8.42	0.12				
16.25	11.15	8.50	0.12				
16.50	11.23	8.57	0.11				
16.75	11.30	8.64	0.10				
17.00	11.37	8.70	0.10				
17.25	11.43	8.76	0.09				
17.50	11.49	8.82	0.09				
17.75	11.55	8.87	0.08				

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 60

Summary for Pond 4P: North

Inflow Area = 0.330 ac, 60.61% Impervious, Inflow Depth > 10.47" for 100-Year event
 Inflow = 3.96 cfs @ 12.07 hrs, Volume= 0.288 af
 Outflow = 2.10 cfs @ 12.20 hrs, Volume= 0.287 af, Atten= 47%, Lag= 8.0 min
 Primary = 2.10 cfs @ 12.20 hrs, Volume= 0.287 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.18' @ 12.20 hrs Surf.Area= 1,796 sf Storage= 2,020 cf

Plug-Flow detention time= 14.7 min calculated for 0.287 af (100% of inflow)
 Center-of-Mass det. time= 13.3 min (756.5 - 743.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	15.75'	4,686 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
15.75	0	0.0	0	0	0	
16.00	1,430	180.0	119	119	2,578	
18.50	2,255	233.0	4,567	4,686	4,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	15.75'	12.0" Round Culvert L= 230.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.75' / 15.25' S= 0.0022 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.09 cfs @ 12.20 hrs HW=17.18' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 2.09 cfs @ 2.67 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

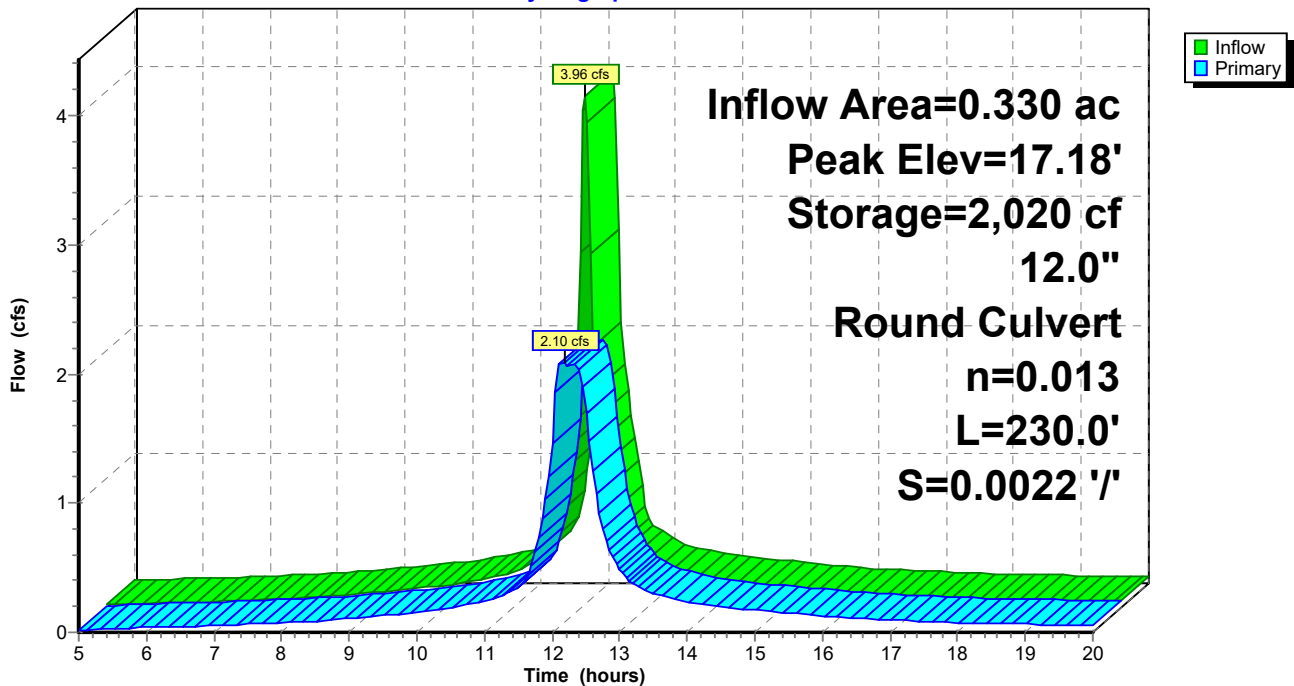
Type III 24-hr 100-Year Rainfall=12.50"

Printed 7/3/2025

Page 61

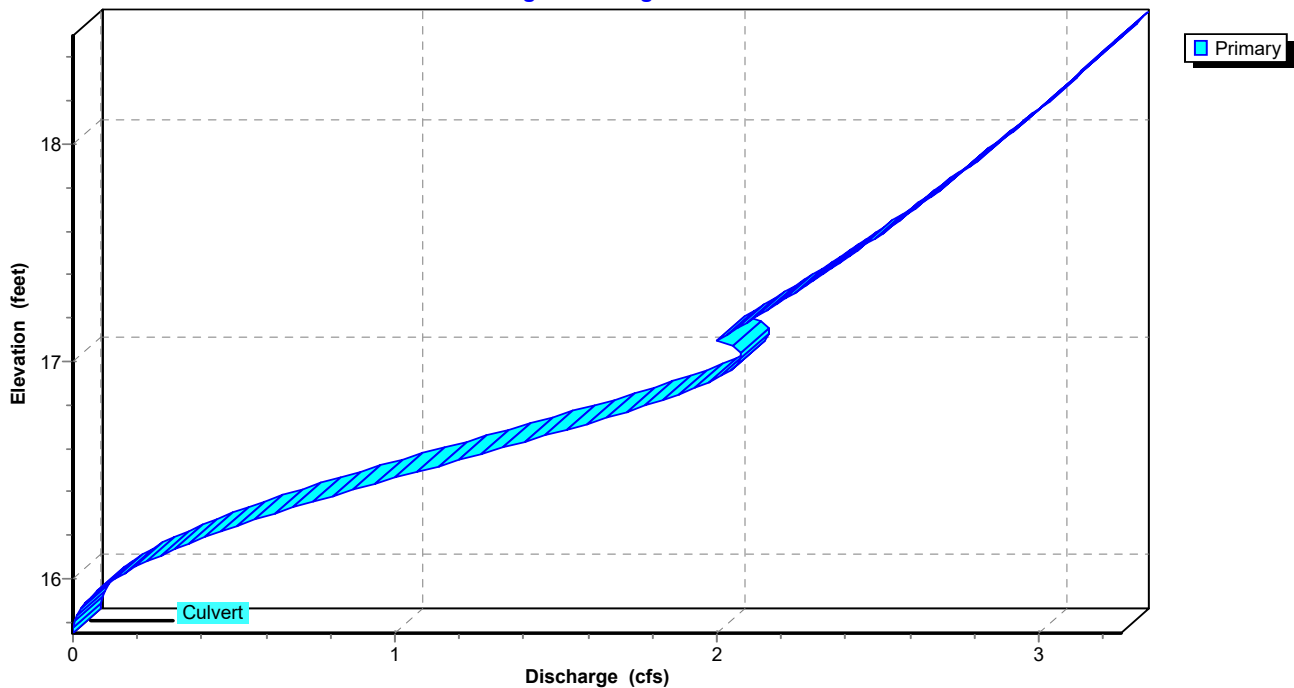
Pond 4P: North

Hydrograph

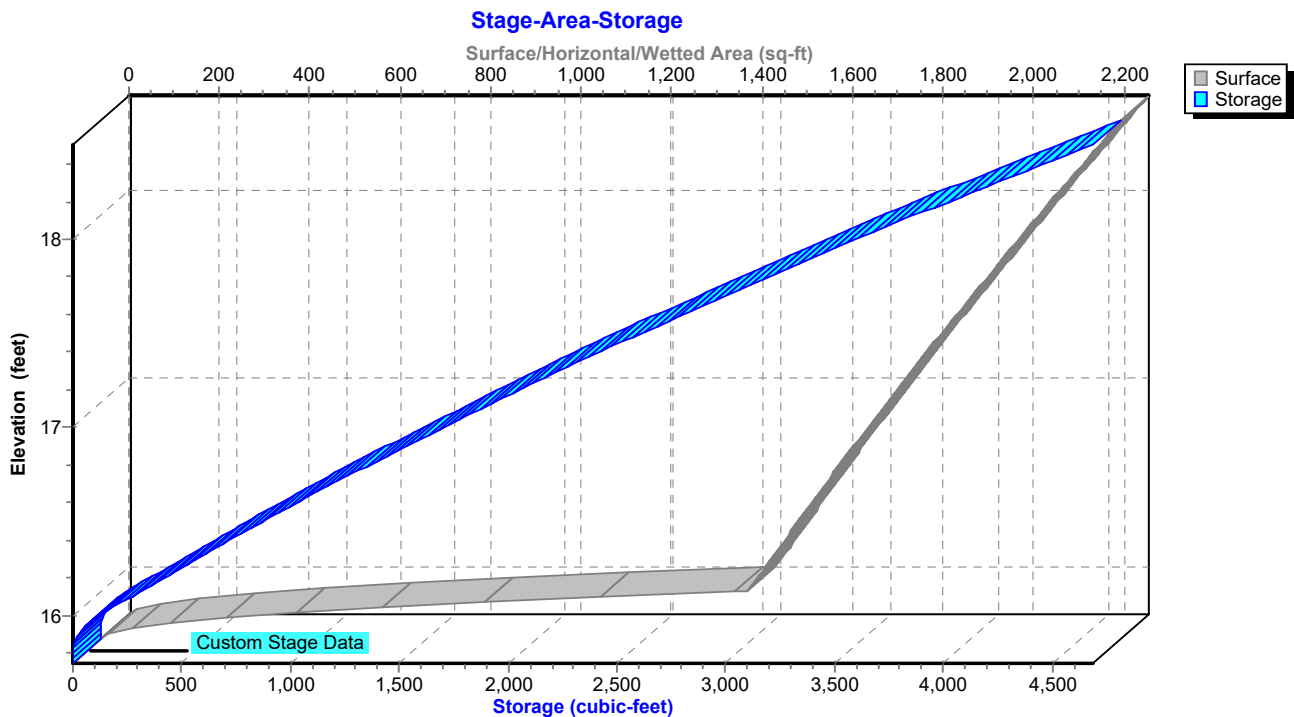


Pond 4P: North

Stage-Discharge



Pond 4P: North



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 63

Hydrograph for Pond 4P: North

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.03	2	15.81	0.01
5.50	0.03	14	15.87	0.03
6.00	0.04	18	15.88	0.04
6.50	0.05	23	15.89	0.04
7.00	0.06	31	15.91	0.05
7.50	0.07	40	15.92	0.06
8.00	0.08	50	15.94	0.07
8.50	0.10	66	15.95	0.09
9.00	0.12	89	15.98	0.11
9.50	0.15	118	16.00	0.13
10.00	0.17	148	16.02	0.15
10.50	0.22	190	16.05	0.19
11.00	0.27	242	16.09	0.24
11.50	0.43	346	16.16	0.35
12.00	2.76	1,125	16.66	1.47
12.50	0.76	1,291	16.76	1.70
13.00	0.33	462	16.23	0.49
13.50	0.26	303	16.13	0.30
14.00	0.21	242	16.08	0.24
14.50	0.18	200	16.06	0.20
15.00	0.16	171	16.04	0.17
15.50	0.13	143	16.02	0.15
16.00	0.11	114	16.00	0.13
16.50	0.10	90	15.98	0.11
17.00	0.09	75	15.96	0.10
17.50	0.08	63	15.95	0.08
18.00	0.07	52	15.94	0.07
18.50	0.06	44	15.93	0.07
19.00	0.06	41	15.92	0.06
19.50	0.06	38	15.92	0.06
20.00	0.05	35	15.92	0.06

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 64

Stage-Discharge for Pond 4P: North

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.75	0.00	16.79	1.77	17.83	2.73
15.77	0.00	16.81	1.81	17.85	2.75
15.79	0.00	16.83	1.85	17.87	2.76
15.81	0.01	16.85	1.88	17.89	2.78
15.83	0.01	16.87	1.92	17.91	2.80
15.85	0.02	16.89	1.95	17.93	2.82
15.87	0.03	16.91	1.98	17.95	2.83
15.89	0.04	16.93	2.01	17.97	2.85
15.91	0.05	16.95	2.03	17.99	2.86
15.93	0.07	16.97	2.05	18.01	2.88
15.95	0.08	16.99	2.07	18.03	2.90
15.97	0.10	17.01	2.08	18.05	2.91
15.99	0.12	17.03	2.08	18.07	2.93
16.01	0.14	17.05	2.07	18.09	2.95
16.03	0.17	17.07	2.05	18.11	2.96
16.05	0.19	17.09	1.99	18.13	2.98
16.07	0.22	17.11	2.01	18.15	2.99
16.09	0.25	17.13	2.04	18.17	3.01
16.11	0.28	17.15	2.06	18.19	3.03
16.13	0.31	17.17	2.08	18.21	3.04
16.15	0.34	17.19	2.11	18.23	3.06
16.17	0.37	17.21	2.13	18.25	3.07
16.19	0.41	17.23	2.15	18.27	3.09
16.21	0.45	17.25	2.17	18.29	3.10
16.23	0.48	17.27	2.19	18.31	3.12
16.25	0.52	17.29	2.21	18.33	3.13
16.27	0.56	17.31	2.24	18.35	3.15
16.29	0.60	17.33	2.26	18.37	3.16
16.31	0.65	17.35	2.28	18.39	3.18
16.33	0.69	17.37	2.30	18.41	3.19
16.35	0.73	17.39	2.32	18.43	3.21
16.37	0.78	17.41	2.34	18.45	3.22
16.39	0.82	17.43	2.36	18.47	3.24
16.41	0.87	17.45	2.38	18.49	3.25
16.43	0.92	17.47	2.40		
16.45	0.97	17.49	2.42		
16.47	1.01	17.51	2.44		
16.49	1.06	17.53	2.46		
16.51	1.11	17.55	2.48		
16.53	1.16	17.57	2.50		
16.55	1.21	17.59	2.51		
16.57	1.26	17.61	2.53		
16.59	1.31	17.63	2.55		
16.61	1.35	17.65	2.57		
16.63	1.40	17.67	2.59		
16.65	1.45	17.69	2.61		
16.67	1.50	17.71	2.62		
16.69	1.55	17.73	2.64		
16.71	1.59	17.75	2.66		
16.73	1.64	17.77	2.68		
16.75	1.68	17.79	2.70		
16.77	1.72	17.81	2.71		

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 65

Stage-Area-Storage for Pond 4P: North

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.75	0	0	18.35	2,200	4,352
15.80	57	1	18.40	2,218	4,463
15.85	229	8	18.45	2,237	4,574
15.90	515	26	18.50	2,255	4,686
15.95	915	61			
16.00	1,430	119			
16.05	1,445	191			
16.10	1,459	264			
16.15	1,474	337			
16.20	1,489	411			
16.25	1,504	486			
16.30	1,519	561			
16.35	1,534	638			
16.40	1,549	715			
16.45	1,565	793			
16.50	1,580	871			
16.55	1,595	951			
16.60	1,611	1,031			
16.65	1,627	1,112			
16.70	1,642	1,194			
16.75	1,658	1,276			
16.80	1,674	1,359			
16.85	1,690	1,443			
16.90	1,705	1,528			
16.95	1,721	1,614			
17.00	1,738	1,700			
17.05	1,754	1,788			
17.10	1,770	1,876			
17.15	1,786	1,965			
17.20	1,803	2,054			
17.25	1,819	2,145			
17.30	1,836	2,236			
17.35	1,852	2,329			
17.40	1,869	2,422			
17.45	1,886	2,515			
17.50	1,903	2,610			
17.55	1,919	2,706			
17.60	1,936	2,802			
17.65	1,954	2,899			
17.70	1,971	2,997			
17.75	1,988	3,096			
17.80	2,005	3,196			
17.85	2,023	3,297			
17.90	2,040	3,398			
17.95	2,057	3,501			
18.00	2,075	3,604			
18.05	2,093	3,708			
18.10	2,110	3,814			
18.15	2,128	3,919			
18.20	2,146	4,026			
18.25	2,164	4,134			
18.30	2,182	4,243			

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 66

Summary for Pond 6P: South - Outfall

Inflow Area = 1.510 ac, 54.30% Impervious, Inflow Depth > 10.24" for 100-Year event
 Inflow = 11.45 cfs @ 12.09 hrs, Volume= 1.289 af
 Outflow = 8.52 cfs @ 12.28 hrs, Volume= 1.286 af, Atten= 26%, Lag= 11.5 min
 Primary = 8.52 cfs @ 12.28 hrs, Volume= 1.286 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.46' @ 12.28 hrs Surf.Area= 2,795 sf Storage= 4,582 cf

Plug-Flow detention time= 7.6 min calculated for 1.286 af (100% of inflow)
 Center-of-Mass det. time= 6.7 min (757.6 - 750.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	14.75'	7,100 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
14.75	0	0.0	0	0	0
15.00	1,015	165.0	85	85	2,167
18.25	3,560	325.0	7,016	7,100	8,456

Device	Routing	Invert	Outlet Devices
#1	Primary	14.75'	15.0" Round Culvert L= 35.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 14.75' / 14.65' S= 0.0029 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=8.52 cfs @ 12.28 hrs HW=17.45' (Free Discharge)

↑**1=Culvert** (Inlet Controls 8.52 cfs @ 6.94 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

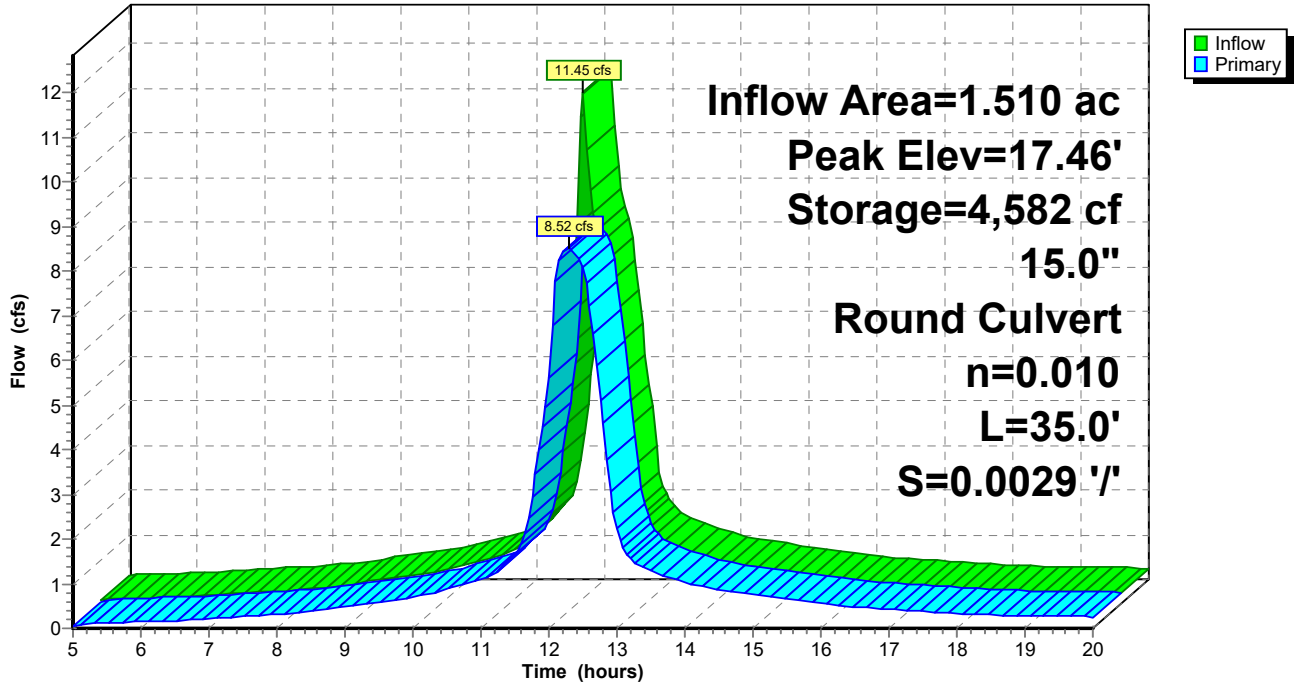
Type III 24-hr 100-Year Rainfall=12.50"

Printed 7/3/2025

Page 67

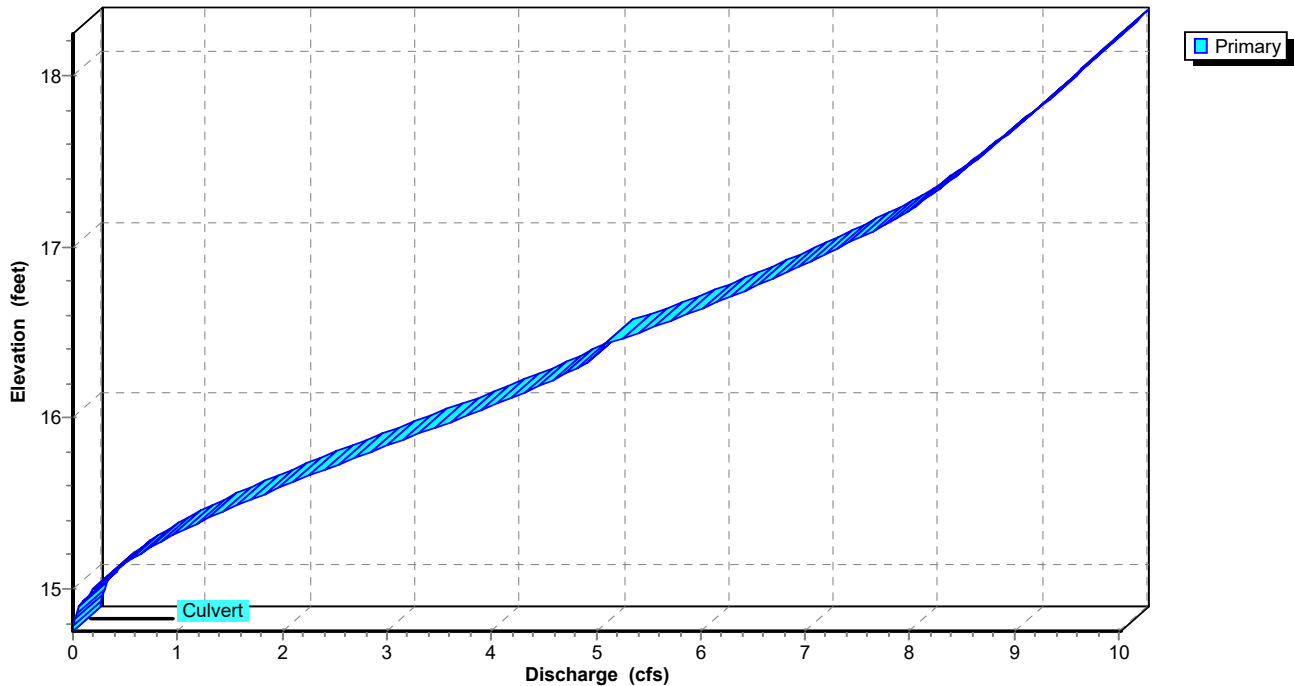
Pond 6P: South - Outfall

Hydrograph



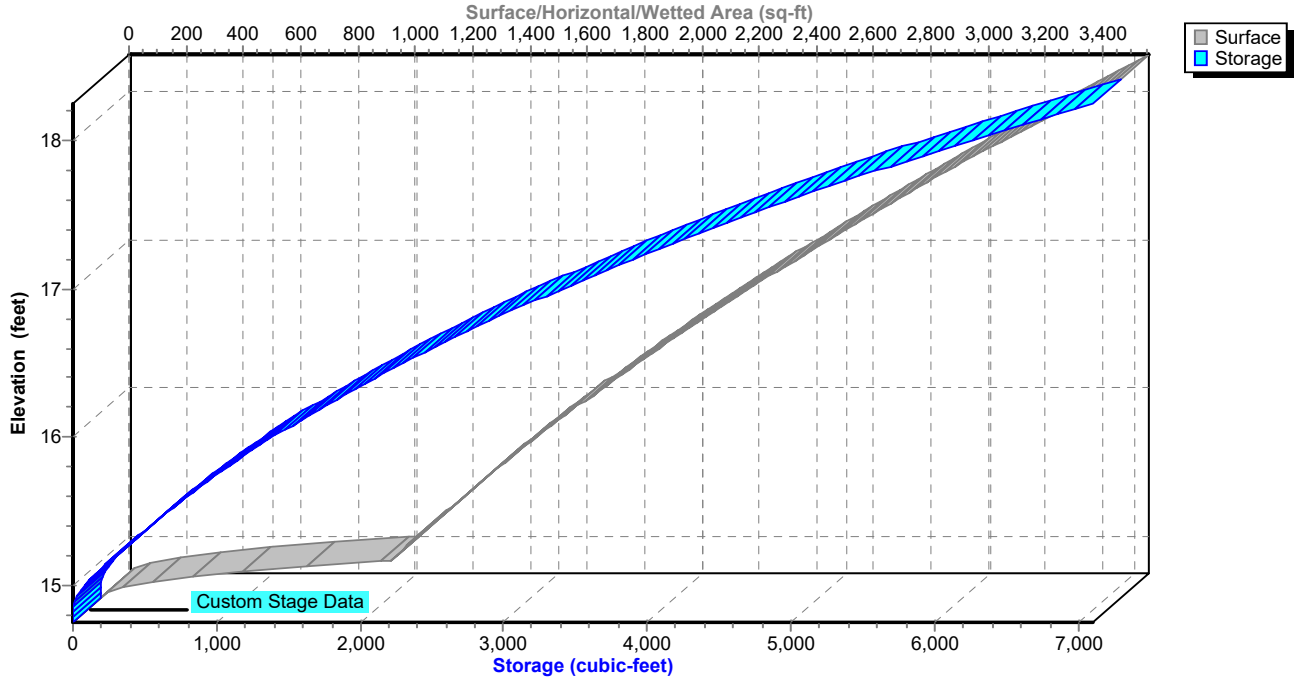
Pond 6P: South - Outfall

Stage-Discharge



Pond 6P: South - Outfall

Stage-Area-Storage



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 69

Hydrograph for Pond 6P: South - Outfall

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.07	4	14.84	0.03
5.50	0.12	37	14.94	0.12
6.00	0.15	48	14.96	0.14
6.50	0.18	64	14.98	0.17
7.00	0.23	88	15.00	0.21
7.50	0.27	115	15.03	0.26
8.00	0.32	142	15.06	0.31
8.50	0.41	180	15.09	0.38
9.00	0.51	229	15.14	0.48
9.50	0.62	277	15.18	0.59
10.00	0.73	326	15.22	0.70
10.50	0.92	395	15.28	0.88
11.00	1.15	480	15.35	1.10
11.50	1.81	677	15.51	1.66
12.00	8.48	2,399	16.55	5.63
12.50	6.47	4,004	17.24	8.07
13.00	1.68	870	15.65	2.22
13.50	1.22	546	15.41	1.28
14.00	0.99	455	15.33	1.03
14.50	0.85	393	15.28	0.87
15.00	0.74	349	15.24	0.76
15.50	0.63	305	15.21	0.65
16.00	0.52	260	15.17	0.55
16.50	0.46	225	15.13	0.47
17.00	0.41	201	15.11	0.42
17.50	0.36	178	15.09	0.37
18.00	0.31	154	15.07	0.33
18.50	0.29	137	15.05	0.30
19.00	0.28	129	15.04	0.28
19.50	0.26	121	15.04	0.27
20.00	0.25	113	15.03	0.25

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 70

Stage-Discharge for Pond 6P: South - Outfall

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
14.75	0.00	15.79	2.81	16.83	6.74	17.87	9.33
14.77	0.00	15.81	2.89	16.85	6.82	17.89	9.37
14.79	0.00	15.83	2.98	16.87	6.89	17.91	9.41
14.81	0.01	15.85	3.07	16.89	6.96	17.93	9.44
14.83	0.02	15.87	3.15	16.91	7.03	17.95	9.48
14.85	0.03	15.89	3.24	16.93	7.10	17.97	9.52
14.87	0.05	15.91	3.33	16.95	7.17	17.99	9.56
14.89	0.06	15.93	3.41	16.97	7.23	18.01	9.59
14.91	0.08	15.95	3.50	16.99	7.30	18.03	9.63
14.93	0.11	15.97	3.59	17.01	7.37	18.05	9.66
14.95	0.13	15.99	3.67	17.03	7.43	18.07	9.70
14.97	0.16	16.01	3.76	17.05	7.50	18.09	9.74
14.99	0.19	16.03	3.84	17.07	7.56	18.11	9.77
15.01	0.22	16.05	3.93	17.09	7.63	18.13	9.81
15.03	0.26	16.07	4.01	17.11	7.69	18.15	9.84
15.05	0.29	16.09	4.09	17.13	7.76	18.17	9.88
15.07	0.33	16.11	4.17	17.15	7.82	18.19	9.91
15.09	0.37	16.13	4.25	17.17	7.88	18.21	9.95
15.11	0.42	16.15	4.33	17.19	7.94	18.23	9.98
15.13	0.46	16.17	4.41	17.21	8.00	18.25	10.02
15.15	0.51	16.19	4.48	17.23	8.05		
15.17	0.56	16.21	4.55	17.25	8.09		
15.19	0.61	16.23	4.62	17.27	8.13		
15.21	0.67	16.25	4.69	17.29	8.18		
15.23	0.72	16.27	4.75	17.31	8.22		
15.25	0.78	16.29	4.82	17.33	8.26		
15.27	0.84	16.31	4.87	17.35	8.30		
15.29	0.90	16.33	4.92	17.37	8.35		
15.31	0.96	16.35	4.97	17.39	8.39		
15.33	1.02	16.37	5.01	17.41	8.43		
15.35	1.09	16.39	5.04	17.43	8.47		
15.37	1.15	16.41	5.05	17.45	8.51		
15.39	1.22	16.43	5.09	17.47	8.55		
15.41	1.29	16.45	5.19	17.49	8.59		
15.43	1.36	16.47	5.28	17.51	8.63		
15.45	1.43	16.49	5.37	17.53	8.67		
15.47	1.51	16.51	5.46	17.55	8.71		
15.49	1.58	16.53	5.55	17.57	8.75		
15.51	1.66	16.55	5.64	17.59	8.79		
15.53	1.73	16.57	5.72	17.61	8.83		
15.55	1.81	16.59	5.81	17.63	8.87		
15.57	1.89	16.61	5.89	17.65	8.91		
15.59	1.97	16.63	5.98	17.67	8.95		
15.61	2.05	16.65	6.06	17.69	8.99		
15.63	2.13	16.67	6.14	17.71	9.03		
15.65	2.21	16.69	6.22	17.73	9.07		
15.67	2.30	16.71	6.29	17.75	9.11		
15.69	2.38	16.73	6.37	17.77	9.14		
15.71	2.46	16.75	6.45	17.79	9.18		
15.73	2.55	16.77	6.52	17.81	9.22		
15.75	2.63	16.79	6.60	17.83	9.26		
15.77	2.72	16.81	6.67	17.85	9.30		

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 71

Stage-Area-Storage for Pond 6P: South - Outfall

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
14.75	0	0	17.35	2,700	4,292
14.80	41	1	17.40	2,745	4,428
14.85	162	5	17.45	2,790	4,566
14.90	365	18	17.50	2,835	4,707
14.95	650	43	17.55	2,881	4,850
15.00	1,015	85	17.60	2,927	4,995
15.05	1,042	136	17.65	2,974	5,143
15.10	1,070	189	17.70	3,021	5,293
15.15	1,098	243	17.75	3,068	5,445
15.20	1,127	299	17.80	3,115	5,599
15.25	1,156	356	17.85	3,163	5,756
15.30	1,185	414	17.90	3,212	5,916
15.35	1,215	474	17.95	3,260	6,077
15.40	1,245	536	18.00	3,309	6,242
15.45	1,275	599	18.05	3,359	6,408
15.50	1,306	663	18.10	3,408	6,578
15.55	1,337	729	18.15	3,459	6,749
15.60	1,368	797	18.20	3,509	6,923
15.65	1,400	866	18.25	3,560	7,100
15.70	1,432	937			
15.75	1,465	1,009			
15.80	1,498	1,084			
15.85	1,531	1,159			
15.90	1,565	1,237			
15.95	1,599	1,316			
16.00	1,633	1,397			
16.05	1,668	1,479			
16.10	1,703	1,563			
16.15	1,739	1,649			
16.20	1,775	1,737			
16.25	1,811	1,827			
16.30	1,847	1,918			
16.35	1,884	2,012			
16.40	1,922	2,107			
16.45	1,959	2,204			
16.50	1,997	2,303			
16.55	2,036	2,404			
16.60	2,075	2,506			
16.65	2,114	2,611			
16.70	2,153	2,718			
16.75	2,193	2,826			
16.80	2,233	2,937			
16.85	2,274	3,050			
16.90	2,315	3,164			
16.95	2,356	3,281			
17.00	2,398	3,400			
17.05	2,440	3,521			
17.10	2,483	3,644			
17.15	2,525	3,769			
17.20	2,569	3,897			
17.25	2,612	4,026			
17.30	2,656	4,158			

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 72

Summary for Pond 7P: West

Inflow Area = 0.700 ac, 64.29% Impervious, Inflow Depth > 10.47" for 100-Year event
 Inflow = 8.41 cfs @ 12.07 hrs, Volume= 0.611 af
 Outflow = 4.31 cfs @ 12.21 hrs, Volume= 0.611 af, Atten= 49%, Lag= 8.3 min
 Primary = 4.31 cfs @ 12.21 hrs, Volume= 0.611 af
 Routed to Pond 6P : South - Outfall

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.99' @ 12.21 hrs Surf.Area= 3,567 sf Storage= 3,122 cf

Plug-Flow detention time= 4.2 min calculated for 0.609 af (100% of inflow)
 Center-of-Mass det. time= 4.1 min (747.3 - 743.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	15.50'	4,155 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
15.50	0	0.0	0	0	0
16.00	285	105.0	48	48	878
17.00	1,330	260.0	744	791	5,384
18.25	4,340	440.0	3,364	4,155	15,420

Device	Routing	Invert	Outlet Devices
#1	Primary	15.50'	12.0" Round Culvert L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 15.50' / 15.25' S= 0.0031 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=4.31 cfs @ 12.21 hrs HW=17.98' (Free Discharge)
 ↑**1=Culvert** (Barrel Controls 4.31 cfs @ 5.49 fps)

Bay St. Louis Post Revised2

Prepared by Live Oak Engineering

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

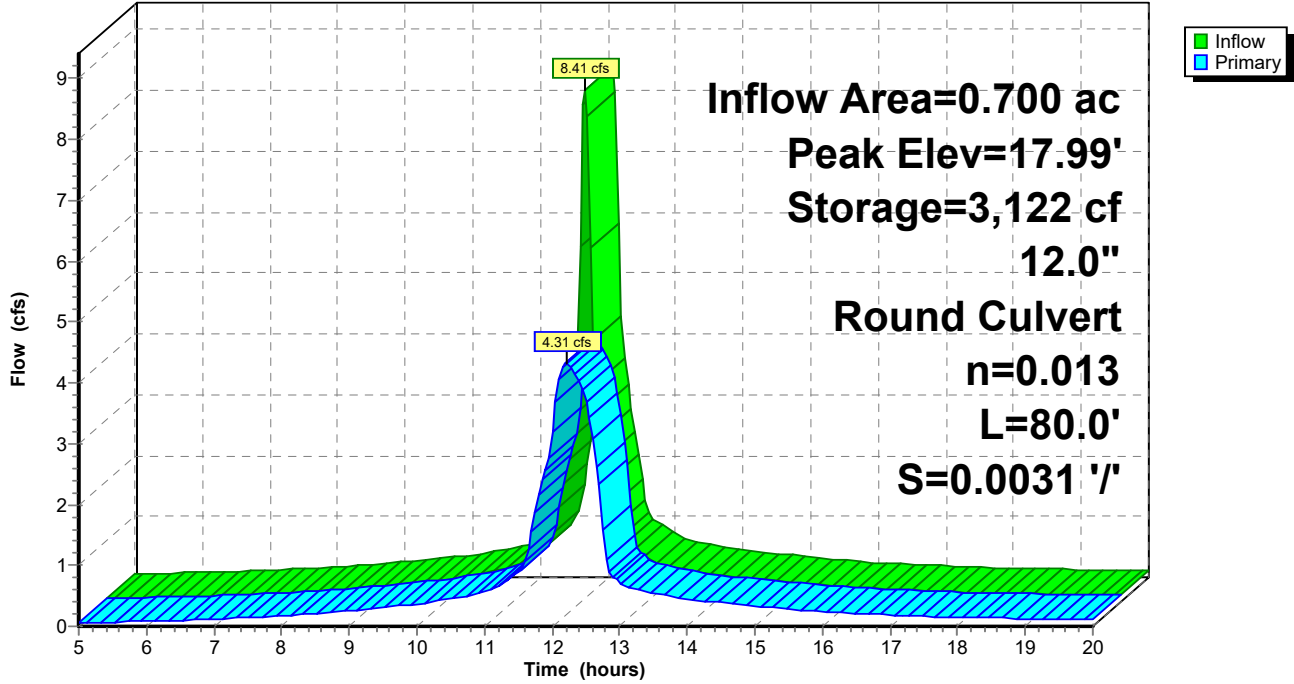
Type III 24-hr 100-Year Rainfall=12.50"

Printed 7/3/2025

Page 73

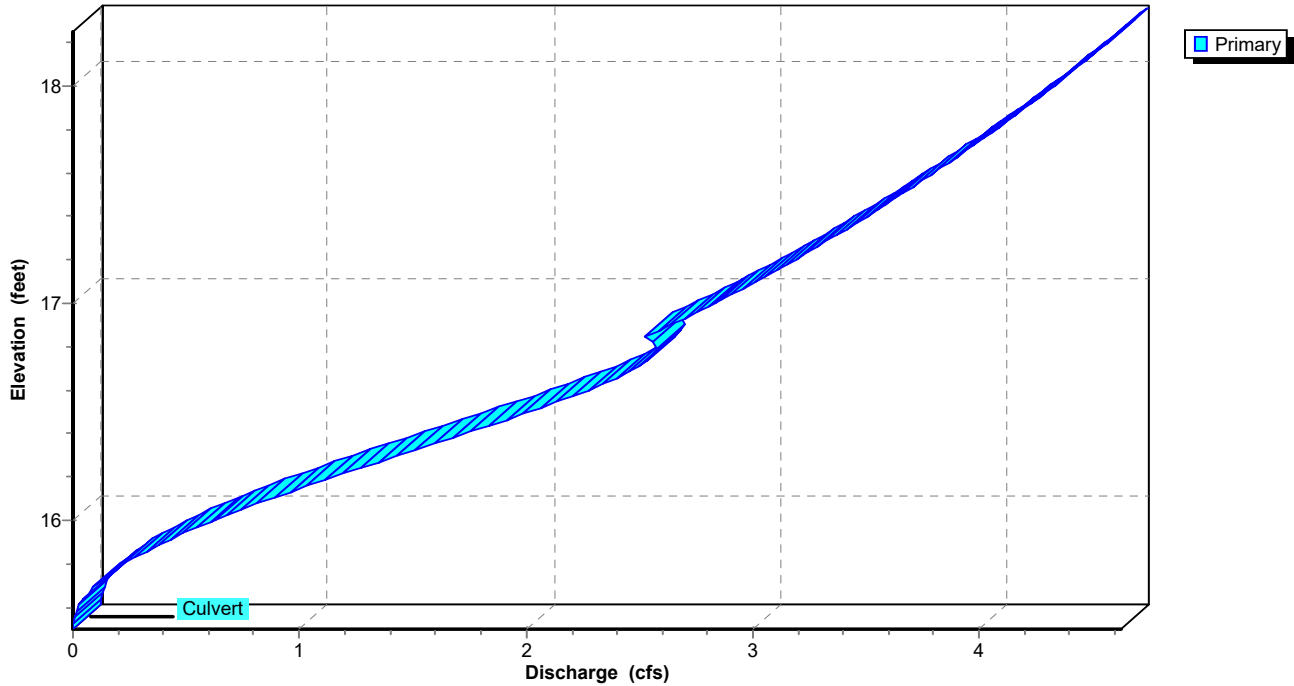
Pond 7P: West

Hydrograph

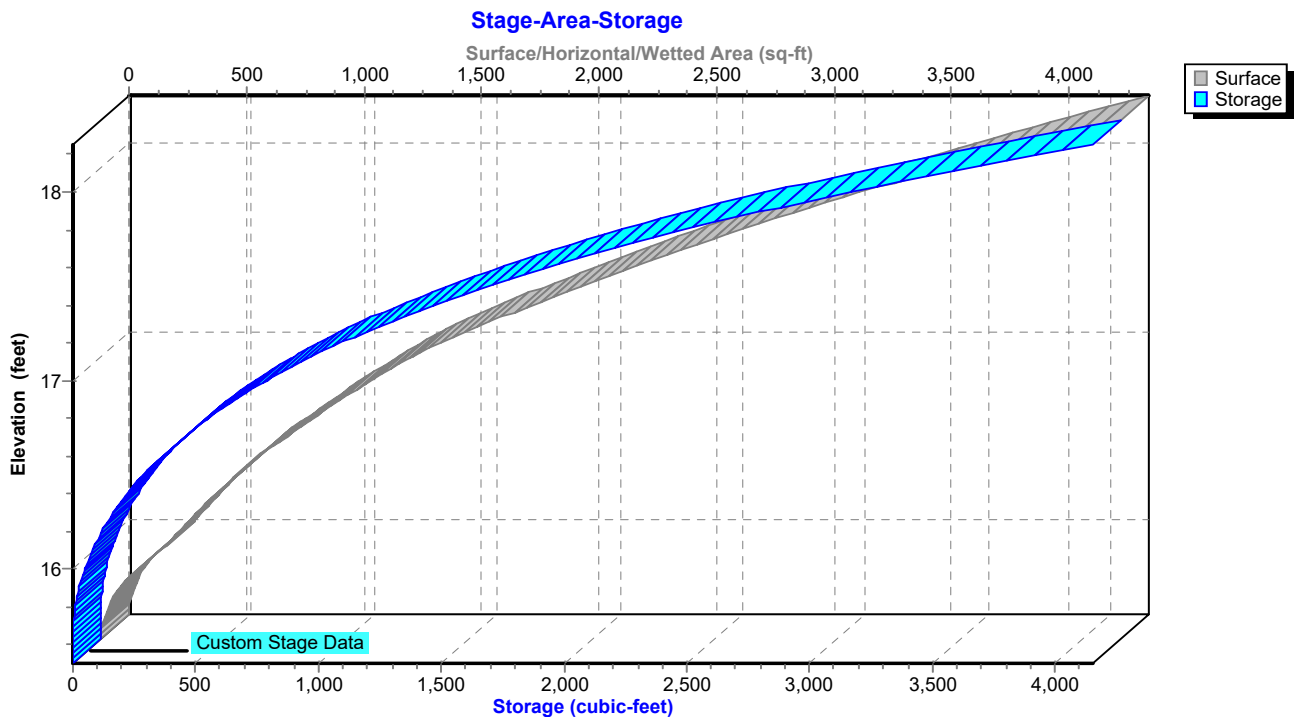


Pond 7P: West

Stage-Discharge



Pond 7P: West



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 75

Hydrograph for Pond 7P: West

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.06	1	15.64	0.05
5.50	0.07	2	15.67	0.07
6.00	0.08	2	15.68	0.08
6.50	0.10	3	15.70	0.10
7.00	0.12	4	15.72	0.12
7.50	0.14	5	15.74	0.14
8.00	0.17	6	15.75	0.16
8.50	0.21	9	15.79	0.21
9.00	0.26	12	15.82	0.26
9.50	0.31	16	15.85	0.31
10.00	0.37	20	15.88	0.36
10.50	0.46	29	15.92	0.46
11.00	0.57	40	15.97	0.56
11.50	0.92	81	16.10	0.89
12.00	5.85	1,090	17.20	3.19
12.50	1.62	1,732	17.52	3.68
13.00	0.70	60	16.04	0.73
13.50	0.55	39	15.97	0.55
14.00	0.44	28	15.92	0.45
14.50	0.38	23	15.89	0.39
15.00	0.33	18	15.86	0.34
15.50	0.28	14	15.84	0.29
16.00	0.23	11	15.80	0.24
16.50	0.21	9	15.79	0.21
17.00	0.19	8	15.77	0.19
17.50	0.16	6	15.76	0.17
18.00	0.14	5	15.74	0.14
18.50	0.13	5	15.73	0.13
19.00	0.13	4	15.73	0.13
19.50	0.12	4	15.72	0.12
20.00	0.11	4	15.71	0.11

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 76

Stage-Discharge for Pond 7P: West

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
15.50	0.00	16.54	2.13	17.58	3.77
15.52	0.00	16.56	2.18	17.60	3.80
15.54	0.00	16.58	2.23	17.62	3.83
15.56	0.01	16.60	2.28	17.64	3.86
15.58	0.01	16.62	2.32	17.66	3.88
15.60	0.02	16.64	2.37	17.68	3.91
15.62	0.03	16.66	2.41	17.70	3.94
15.64	0.05	16.68	2.45	17.72	3.97
15.66	0.06	16.70	2.48	17.74	3.99
15.68	0.08	16.72	2.51	17.76	4.02
15.70	0.10	16.74	2.54	17.78	4.05
15.72	0.12	16.76	2.56	17.80	4.07
15.74	0.15	16.78	2.57	17.82	4.10
15.76	0.17	16.80	2.58	17.84	4.13
15.78	0.20	16.82	2.56	17.86	4.15
15.80	0.23	16.84	2.51	17.88	4.18
15.82	0.26	16.86	2.56	17.90	4.20
15.84	0.29	16.88	2.60	17.92	4.23
15.86	0.33	16.90	2.64	17.94	4.25
15.88	0.37	16.92	2.68	17.96	4.28
15.90	0.41	16.94	2.72	17.98	4.30
15.92	0.45	16.96	2.76	18.00	4.33
15.94	0.49	16.98	2.80	18.02	4.35
15.96	0.53	17.00	2.83	18.04	4.38
15.98	0.58	17.02	2.87	18.06	4.40
16.00	0.62	17.04	2.91	18.08	4.43
16.02	0.67	17.06	2.94	18.10	4.45
16.04	0.72	17.08	2.98	18.12	4.47
16.06	0.77	17.10	3.02	18.14	4.50
16.08	0.82	17.12	3.05	18.16	4.52
16.10	0.87	17.14	3.09	18.18	4.54
16.12	0.93	17.16	3.12	18.20	4.57
16.14	0.98	17.18	3.15	18.22	4.59
16.16	1.04	17.20	3.19	18.24	4.61
16.18	1.09	17.22	3.22		
16.20	1.15	17.24	3.26		
16.22	1.21	17.26	3.29		
16.24	1.26	17.28	3.32		
16.26	1.32	17.30	3.35		
16.28	1.38	17.32	3.38		
16.30	1.44	17.34	3.42		
16.32	1.50	17.36	3.45		
16.34	1.56	17.38	3.48		
16.36	1.62	17.40	3.51		
16.38	1.68	17.42	3.54		
16.40	1.73	17.44	3.57		
16.42	1.79	17.46	3.60		
16.44	1.85	17.48	3.63		
16.46	1.91	17.50	3.66		
16.48	1.96	17.52	3.69		
16.50	2.02	17.54	3.72		
16.52	2.07	17.56	3.74		

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 77

Stage-Area-Storage for Pond 7P: West

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
15.50	0	0	18.10	3,887	3,538
15.55	3	0	18.15	4,036	3,736
15.60	11	0	18.20	4,186	3,941
15.65	26	1	18.25	4,340	4,155
15.70	46	3			
15.75	71	6			
15.80	103	10			
15.85	140	16			
15.90	182	24			
15.95	231	35			
16.00	285	48			
16.05	319	63			
16.10	355	79			
16.15	393	98			
16.20	433	119			
16.25	474	141			
16.30	518	166			
16.35	563	193			
16.40	611	223			
16.45	660	254			
16.50	712	289			
16.55	765	326			
16.60	820	365			
16.65	877	408			
16.70	936	453			
16.75	997	501			
16.80	1,060	553			
16.85	1,124	607			
16.90	1,191	665			
16.95	1,260	726			
17.00	1,330	791			
17.05	1,417	860			
17.10	1,507	933			
17.15	1,600	1,010			
17.20	1,695	1,093			
17.25	1,794	1,180			
17.30	1,895	1,272			
17.35	1,998	1,370			
17.40	2,105	1,472			
17.45	2,214	1,580			
17.50	2,326	1,694			
17.55	2,441	1,813			
17.60	2,559	1,938			
17.65	2,679	2,069			
17.70	2,802	2,206			
17.75	2,928	2,349			
17.80	3,057	2,499			
17.85	3,189	2,655			
17.90	3,323	2,818			
17.95	3,460	2,987			
18.00	3,600	3,164			
18.05	3,742	3,347			

Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 78

Summary for Subcatchment 10S: Post - West

Runoff = 8.41 cfs @ 12.07 hrs, Volume= 0.611 af, Depth>10.47"
 Routed to Pond 7P : West

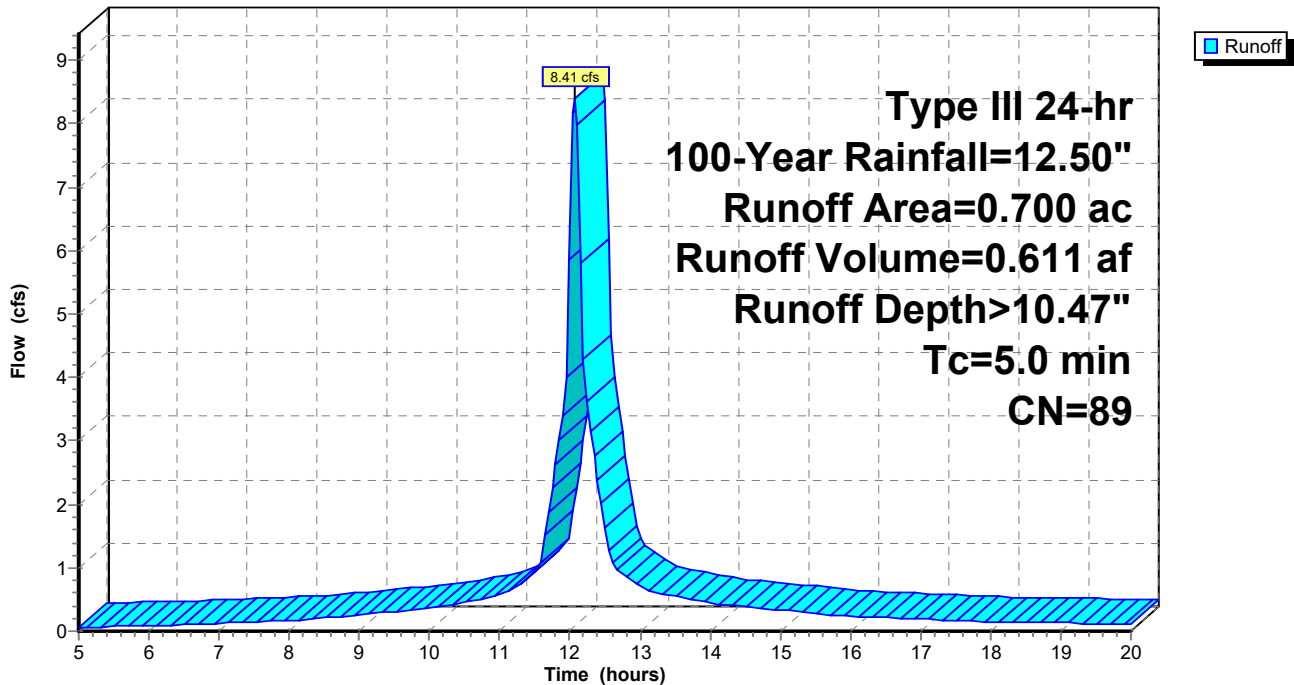
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-Year Rainfall=12.50"

Area (ac)	CN	Description
0.450	98	Paved parking, HSG C
0.250	74	>75% Grass cover, Good, HSG C
0.700	89	Weighted Average
0.250		35.71% Pervious Area
0.450		64.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry,

Subcatchment 10S: Post - West

Hydrograph



Bay St. Louis Post Revised2

Type III 24-hr 100-Year Rainfall=12.50"

Prepared by Live Oak Engineering

Printed 7/3/2025

HydroCAD® 10.20-3h s/n 10334 © 2024 HydroCAD Software Solutions LLC

Page 79

Hydrograph for Subcatchment 10S: Post - West

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.71	0.13	0.06	18.00	11.60	10.24	0.14
5.25	0.76	0.15	0.06	18.25	11.65	10.29	0.14
5.50	0.80	0.17	0.07	18.50	11.70	10.33	0.13
5.75	0.85	0.20	0.07	18.75	11.74	10.38	0.13
6.00	0.90	0.23	0.08	19.00	11.79	10.43	0.13
6.25	0.95	0.26	0.09	19.25	11.84	10.47	0.12
6.50	1.01	0.29	0.10	19.50	11.88	10.51	0.12
6.75	1.07	0.33	0.11	19.75	11.92	10.56	0.12
7.00	1.13	0.37	0.12	20.00	11.96	10.60	0.11
7.25	1.20	0.41	0.13				
7.50	1.27	0.46	0.14				
7.75	1.35	0.52	0.15				
8.00	1.43	0.57	0.17				
8.25	1.51	0.64	0.19				
8.50	1.61	0.71	0.21				
8.75	1.71	0.79	0.23				
9.00	1.82	0.88	0.26				
9.25	1.94	0.98	0.28				
9.50	2.07	1.09	0.31				
9.75	2.21	1.21	0.34				
10.00	2.36	1.34	0.37				
10.25	2.53	1.48	0.41				
10.50	2.71	1.64	0.46				
10.75	2.91	1.82	0.51				
11.00	3.13	2.01	0.57				
11.25	3.39	2.25	0.72				
11.50	3.73	2.57	0.92				
11.75	4.44	3.24	2.25				
12.00	6.25	4.98	5.85				
12.25	8.06	6.75	3.61				
12.50	8.78	7.45	1.62				
12.75	9.11	7.78	0.90				
13.00	9.38	8.04	0.70				
13.25	9.59	8.25	0.60				
13.50	9.79	8.45	0.55				
13.75	9.98	8.63	0.50				
14.00	10.14	8.79	0.44				
14.25	10.29	8.94	0.41				
14.50	10.43	9.08	0.38				
14.75	10.56	9.21	0.36				
15.00	10.68	9.33	0.33				
15.25	10.79	9.44	0.31				
15.50	10.89	9.54	0.28				
15.75	10.99	9.63	0.26				
16.00	11.08	9.72	0.23				
16.25	11.15	9.80	0.22				
16.50	11.23	9.87	0.21				
16.75	11.30	9.94	0.20				
17.00	11.37	10.01	0.19				
17.25	11.43	10.07	0.18				
17.50	11.49	10.13	0.16				
17.75	11.55	10.19	0.15				

BAY ST. LOUIS CONVENIENCE STORE
 1083 HIGHWAY 90, BAY SAINT LOUIS
 HANCOCK COUNTY, MISSISSIPPI
 CIVIL PERMIT SET

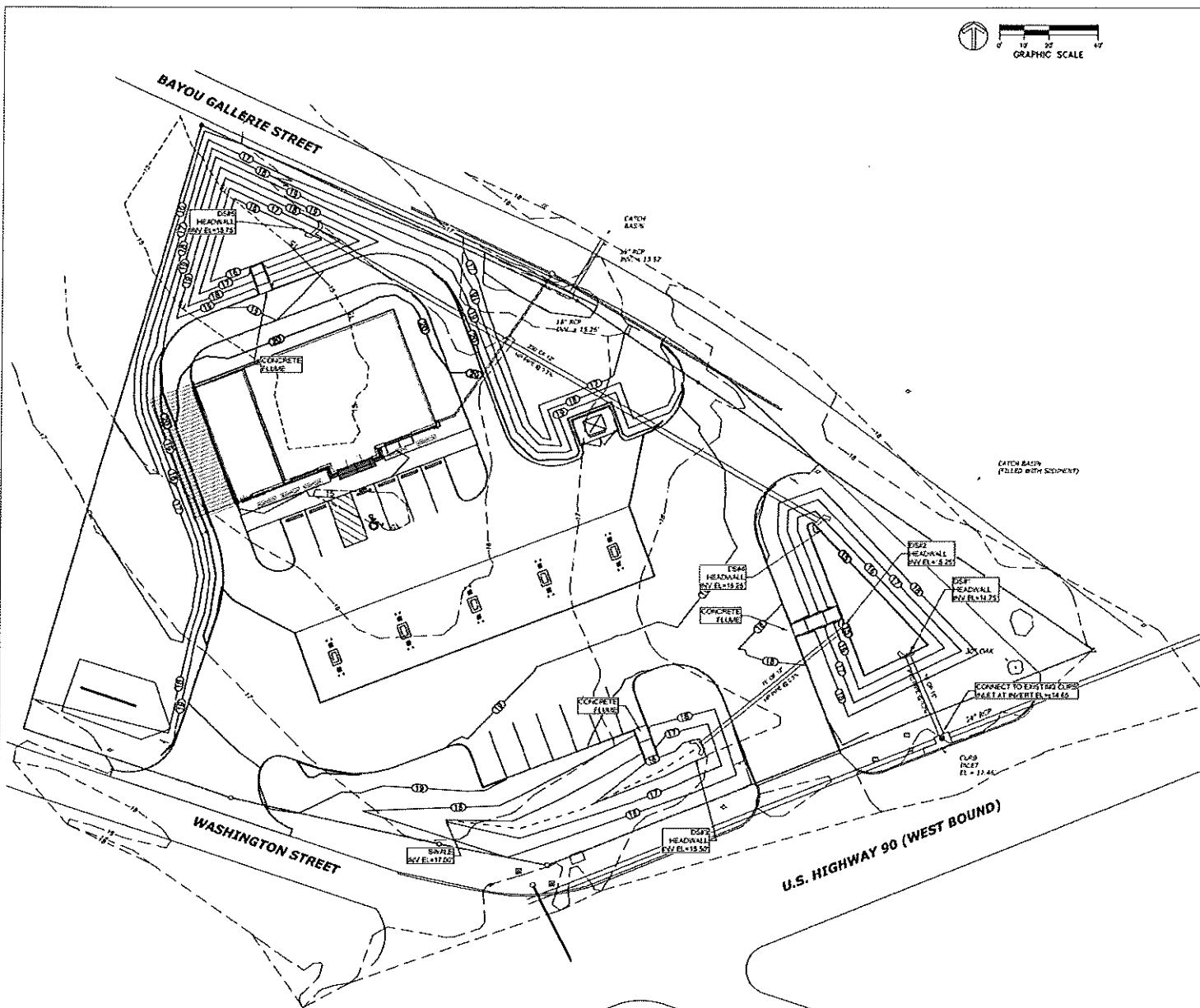
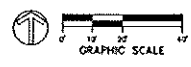
SHEET REVISIONS	
#	DATE/REFERENCE
1	23/09/2023 PERMIT SET
2	23/09/2023 REVISE
3	23/09/2023 REVISE



SHEET TITLE
DRAINAGE PLAN

DATE 17-03-2025
 SHEET NUMBER 9

C310



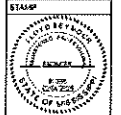
LEGEND	
— 10 —	DENOTES EXISTING GRADE CONTOUR
- - - 10 - - -	DENOTES PROPOSED GRADE CONTOUR
8.00	DENOTES PROPOSED SPOT ELEVATION
~~~~~	DENOTES WATER-SHED FLOW DIRECTION
DS	DRAIN STRUCTURE
RC-P	REINFORCED CONCRETE PIPE
RC-AP	REINFORCED CONCRETE ARCH PIPE
HP	HIGH PERFORMANCE POLYPROPYLENE STORM PIPE

**1 DRAINAGE PLAN**  
 C310 SCALE: 1" = 20'



**BAY ST. LOUIS CONVENIENCE STORE**  
 1083 HIGHWAY 90, BAY SAINT LOUIS  
 HANCOCK COUNTY, MISSISSIPPI  
 CIVIL PERMIT SET

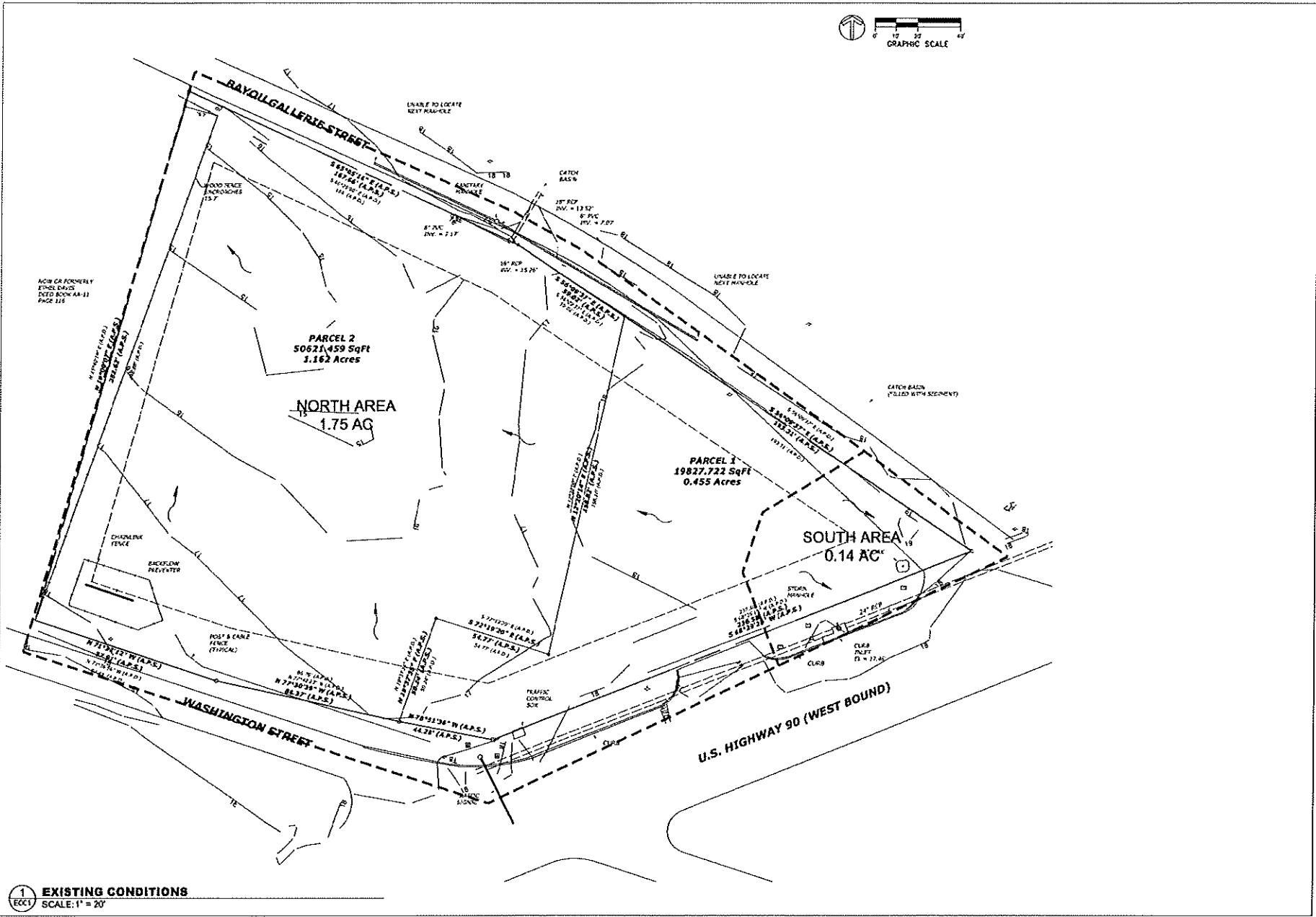
SHEET REVISIONS
2 DATE/REFERENCE
1 03/20/2024/09/24



SHEET TITLE  
**EXISTING CONDITIONS**

DATE: 11/7/2024  
 SHEET NUMBER: 2

**E001**



**1 EXISTING CONDITIONS**  
 SCALE: 1" = 20'

**BAY ST. LOUIS CONVENIENCE STORE**  
 1083 HIGHWAY 90, BAY SAINT LOUIS  
 HANCOCK COUNTY, MISSISSIPPI  
 CIVIL PERMIT SET

**SHEET REVISIONS**

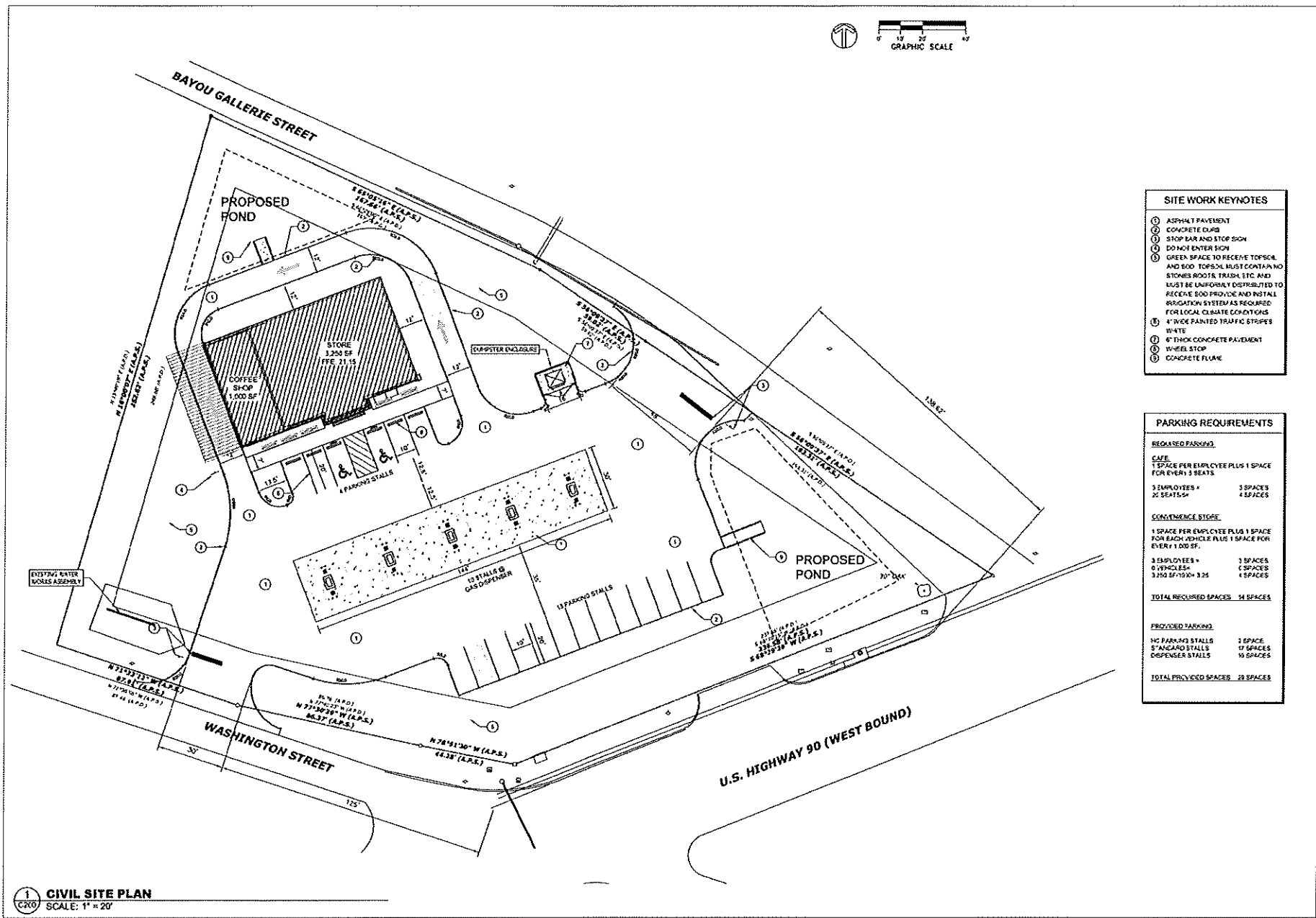
1	DATE REFERENCE
2	23.23.2023
3	23.23.2023
4	23.23.2023
5	23.23.2023



**SHEET TITLE**

**SITE PLAN**

DATE: 07-14-2023  
 SHEET NUMBER: 3  
**C200**



**SITE WORK KEYNOTES**

- ASPHALT PAVEMENT
- CONCRETE CURB
- STOP BAR AND STOP SIGN
- DO NOT ENTER SIGN
- GREEN SPACE TO RECEIVE TOPSOIL AND SOIL. TOPSOIL MUST CONTAIN NO STONES, ROOTS, TRASH, ETC. AND MUST BE UNIFORMLY DISTRIBUTED TO RECEIVE SOO. PROVIDE AND INSTALL IRRIGATION SYSTEM AS REQUIRED. FOR LOCAL CLIMATE CONDITIONS.
- 4" WIDE PAINTED TRAFFIC STRIPES WHITE
- 6" THICK CONCRETE PAVEMENT
- WHEEL STOP
- CONCRETE FLARE

**PARKING REQUIREMENTS**

**REQUIRED PARKING**

**CAFE**  
 1 SPACE PER EMPLOYEE PLUS 1 SPACE FOR EVERY 3 SEATS

3 EMPLOYEES + 3 SPACES  
 24 SEATS + 4 SPACES

**CONVENIENCE STORE**  
 1 SPACE PER EMPLOYEE PLUS 1 SPACE FOR EACH VEHICLE PLUS 1 SPACE FOR EVERY 1,000 SF.

3 EMPLOYEES + 3 SPACES  
 0 VEHICLES + 0 SPACES  
 3,200 SF / 1000 = 3.25 4 SPACES

**TOTAL REQUIRED SPACES 14 SPACES**

**PROVIDED PARKING**

14 PARKING STALLS 14 SPACES  
 8 STANDARD STALLS 17 SPACES  
 DISPENSER STALLS 10 SPACES

**TOTAL PROVIDED SPACES 23 SPACES**

**CIVIL SITE PLAN**  
 SCALE: 1" = 20'

**TO:** Planning and Zoning Board  
City of Bay St. Louis

**RE:** APPEAL DENIAL OF PROTECTED TREE REMOVAL PERMIT

403 S. Necaïse Avenue  
Parcel 149M-1-29-051.000  
261 Second Ward, Bay St. Louis

**HEARING DATE:** August 13, 2025

Will Raines has submitted a request for appeal regarding the denial of a tree removal permit. The property is located at 403 S. Necaïse Avenue and contains a protected live oak.

The request is to appeal the administrative denial and seek permission to remove the protected tree from the subject property.

This appeal is required to first be heard and recommended by the Planning and Zoning Commission before proceeding to the Bay St. Louis City Council for a final decision.

# BAY SAINT LOUIS

Building Department  
688 Highway 90, Bay St. Louis, MS 39520  
(228)469-0531 Office (228)466-5519 Fax

## TREE WORK PERMIT

PERMIT NO 20241285

DATE 04/17/25

PERMIT FEE \$ 75

NAME OF APPLICANT William Roinis

ADDRESS OF APPLICANT Parcel No. 149M-1-29-051.00 (Next to 401 S. Necaize Ave) Bay Saint Louis

TELEPHONE NUMBER 337-344-7173 and lefagen1@gmail.com

LOCATION OF WORK 403 S Necaize Ave

REQUEST TO: REMOVE  PLANT  TRIM OR PRUNE   
*mitigation

IN ACCORDANCE WITH BAY ST. LOUIS ORDINANCE #338 CHAPTER 25 TREE PRESERVATION; I HEREBY REQUEST PERMISSION TO REMOVE, PLANT OR PRUNE TREES ON PRIVATE PROPERTY.

SPECIES	NUMBER OF TREES	SIZE OF TREE
<input checked="" type="checkbox"/> LIVE OAK	<u>1</u>	
<input type="checkbox"/> MAGNOLIA		

PERSON OR COMPANY PERFORMING THE WORK n/a

APPLIANT'S SIGNATURE WR Roinis

APPROVED WITH THE FOLLOWING CONDITIONS:  
_____  
_____

DENIED AND REASON: Denied 5/23/25 Healthy tree owner could ask for variances to save tree or possible new plan pf

Edit Options Functions Help Chat



Project #

Property

Description

Issued to

General Segments Financial Property Info Information Comments History Footprint Conditions Description

Segments

TREE - TREE PERMIT

TREE - TREE PERMIT - Not Started

Status

Issued   Expiration

Estimated Value

Building Code   SINGLE FAMILY ATTACHED WA

Type Code

Financial		
Fees	Payments	Balance
<input type="text" value="75.00"/>	<input type="text" value="0.00"/>	<input type="text" value="75.00"/> <input type="button" value="G"/>

Contractor

Edit This Record

New      adauphin



Jeremy Burke <jburke@baystlouis-ms.gov>

---

## Bay St Louis Tree Ordinance

---

Jeremy Burke <jburke@baystlouis-ms.gov>  
To: "Will Raines, CCIM" <lafagent@gmail.com>  
Cc: Building and Zoning <permits@baystlouis-ms.gov>

Fri, May 30, 2025 at 1:15 PM

The denial of the tree removal permit is attached to this email.

[Quoted text hidden]

---

 **20250530142440964.pdf**  
371K

RECEIVED  
JUN 13 2023  
BY: [Signature]

Item # 11.

PLANNING AND ZONING COMMISSION  
CITY OF BAY ST LOUIS

WILL RAINES

APPLICANT

APPEAL FROM THE DENIAL OF TREE REMOVAL PERMIT

- i. On the 21st day of April, Will Raines, pursuant to Section 22-117 made application to the Tree Protection Advisor and the City of Bay St. Louis pursuant to Bay St. Louis Code of Ordinance Section 22-118 (2) Criteria of Issuance, to remove a tree out of necessity in order to construct a single family residence on site. Code Section 22-118 asks whether removal of the tree is necessary in order to construct the proposed improvements and allow the proposed improvements on the property. (See Section 22-118 that the Tree Protection Advisor shall consider 2) the necessity of removing the tree or trees in order to construct the proposed improvements or structures to allow reasonable economic use of the property). In this case, removal of the existing tree is absolutely necessary to construct the proposed improvements on this property and to allow reasonable economic use of the property. In fact, the existing tree reduces the buildable area of the subject lot from 45.10 feet by 70 feet to only 18.5 feet by 50 feet. The only way for the property to be utilized to build a single family residence is by removal of the tree. Therefore Will Raines should have been granted a tree removal permit out of necessity according to Section 22-118. It is for this reason he appeals from the denial to allow for tree removal. Absent removal of the tree the property has no reasonable economic use whatsoever. It is according to this Will Raines requests from the Planning and Zoning Commission a variance to allow for tree removal to render the property economically useful (so that he may build a single family residence).
- ii. Will Raines also, in his application, cited Section 22-118 (7) regarding the ease of which the proposed development can accommodate the existing trees. In this case, taking into account the lot setbacks and the drip line of the existing tree the buildable width is only 18 feet. This causes the total footprint available with the tree to be reduced to only 925 square feet. The proposed development for a single family residence is 3,382.50 square feet thus frustrating the entire purpose of the development of the land for its intended purpose. Thus according to Section 22-118 in this case the proposed development cannot accommodate the existing tree. It is according to this Will Raines requests from the Planning and Zoning Commission a variance to allow for tree removal to allow for economic use of the property as there is no way for the proposed development to accommodate the existing tree. Due to the tree he can only build a 925 square foot house, not the proposed 2,382 square foot house.

- a. Further a narrow house that would fit in a space of 18.5 feet would not conform with the historic requirements of the City of Bay St Louis so there is no ease by which the proposed development can accommodate the existing tree but it is rather impossible to accommodate the existing tree. See Bay St. Louis Code of Ordinance Section 2-257 (b) which discusses height and width of the facade requiring new builds to be comparable with existing homes in the vicinity. A narrow house that would fit in a space of 18.5 feet would, most assuredly, not be “comparable with existing homes in the vicinity.”
1. Pursuant to Section 22-118(8) the economic hardship that would be imposed upon the applicant were the permit denied should have been considered and the permit should have been granted. The economic hardship is great in this case as the land has no economic value absent removal of the tree. No single family residence can be built upon the property absent removal of the tree rendering Mr. Raines’ land completely useless. It is thus for this reason further that Mr. Raines requests from the Planning and Zoning Commission a variance to allow for tree removal.
- iii. The Planning and Zoning Commission must, in accordance with Section 22-116(b) move for approval of the tree removal permit. Will Raines submitted his letter of application and accompanying documentation to the City in accordance with all requirements of the ordinance on the 21st day of April, 2025. His request for removal of the tree was denied in writing by the City on May 27, 2025.
- a. Section 22-116(b) states: Site plans for development or redevelopment. A site plan for the development or redevelopment of any tract of land located in the city shall be submitted to the city, along with the application for a building permit, prior to the removal of any tree as herein defined. No building permit shall be issued until the tree site plan has been reviewed and approved in writing by the tree protection advisor, and a permit as provided is issued or denied within seven working days of submittal. Reasons for denial shall also be reported to the applicant in writing. If the applicant is not notified of approval or disapproval within seven working days, such plans shall be considered approved, and such permit shall be considered issued by the tree protection advisor through the building official.
1. Will Raines made application on April 21st. He was denied in writing on May 27, 2025.
  2. Because Will Raines was not approved or denied in writing within seven working days of submittal, then according to Section 22-116(b) his plans shall be considered approved and such permit shall be issued by the tree protection advisor through the building official.
  3. Will Raines therefore respectfully requests that, in accordance with Section 22-116(b) and its mandate of “shall” that the tree protection advisor accordingly issue his tree removal permit through the building

official and that the Planning and Zoning Commission formally make this recommendation on the record as all appeals must be filed with the Planning and Zoning Commission.

4. Will Raines formally requests that the Planning and Zoning Commission in accordance with Section 22-116(b) consider his April 21st application for tree removal approved and recommended that such permit shall issue.

Prepared by:  
Coastal Law Group  
Amanda P. Traxler MSB#102218  
114 Main Street, Suite 106  
Bay St. Louis, Mississippi 39520  
(228)731-1668  
[coastallawgroup.net](http://coastallawgroup.net)  
[attorneytraxler@gmail.com](mailto:attorneytraxler@gmail.com)