

Advertisement for Bids

Project Number: TN-20152

Owner: Claiborne County Board of Education

The Claiborne County Board of Education is hereby soliciting sealed bids for the following items: Pump Stations (Pumps only) at Springdale School under the Appalachian Regional Commission Grant program. Separate sealed bids will be accepted until August 9, 2024 at 2:00 p.m. at which time they will be opened and read aloud. All bids must be inclusive of all delivery and handling charges. Claiborne County Board of Education reserves the right to reject any and all bids. Bid quotes must be effective for 60 days after bid opening date. Further, the Claiborne County Board of Education reserves the right to contact the successful bidder for one full calendar year from award date to determine if successful bidder is willing to provide the same materials or services at the original bid price. All bidders submitting bids are required to present **ALL** the required vendor information, defined in the project specifications, as accompanying information to their bid submittal, regardless of if these documents have been submitted in previous solicitations, in order for their bid submitted to be considered a valid bid. For specifications and more information contact George Coots at gcoots@cutn.com or Ginger Stout at gstout@etdd.org. This project is funded under a grant contract with the State of Tennessee. The contract documents may be examined at the following locations:

East Tennessee Development District
216 Corporate Place
Alcoa, TN. 37701

Claiborne County Utility District
630 Davis Drive
New Tazewell, TN. 37825

Knoxville Builders Exchange
300 Clark Street
Knoxville, TN. 37921

State of Tennessee
GO-DBE website

Please send bid quotes to Claiborne County Board of Education, Attn: Meredith Arnold, 1403 Tazewell Road, Tazewell, TN 37879. All bid envelopes must be noted on outside of envelope as '2020 ARC Springdale School Wastewater Project – Pump Stations'.

INFORMATION FOR BIDDERS

1. Receipt and Opening of Bids:

Claiborne County Board of Education (herein called the "Owner"), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the Board of Education and then at said office publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to Meredith Arnold 1403 Tazewell Road, Tazewell, TN 37879 and designated as bid for 2020 ARC, Springdale School Wastewater Project.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof.

2. Responsibility of Bidder:

In order to closely evaluate all bids and determine the responsiveness to the customer request. Each proposal must be submitted in the same order as the customer specification for ease of comparison. Each item must have a check mark in the appropriate column indicating compliance. Those items that are different by brand, model number (when applicable), and operational performance must be clearly defined and listed separately on a document clearly identified as "Clarifications and Substitutions". Vendors failing to comply with this request are subject to immediate rejection without further cause. (NO EXCEPTIONS)

All equipment in the bid must meet or exceed the OWNERS specifications and must meet all applicable State and Federal regulations.

BIDDER must assure that any bid will be good and may not be withdrawn for period of 60 calendar days from the date of the bid opening.

Equipment must be able to be delivered within a time specified and accepted by the vendor and the Board of Education. Delivery of all equipment will be made to the prescribed location determined by the School Supt. Mayor or their representative.

All bidders submitting bids are required to present the required vendor information as accompanying information to their bid submittal, regardless if these documents have been submitted in previous solicitation. All of these items must be included with this bid submittal in order for the bid submitted to be considered a valid bid.

- a. Acknowledgment Regarding Bidder Sam Registration (Form Attached)
- b. Iran Divestment Act (Form Attached)
- c. Certification of Non-Boycott of Israel (Form Attached)

All bidders must submit their full name, address and a contact person and phone number with bid.

3. Responsibility of the Owner:

The OWNER reserves the right to reject any and all bids.

The OWNER may not negotiate with any one Bidder to reduce or alter the stated bid.

Should the bids have to be thrown out for whatever reason a mini-rebid will be held with the parties that submitted original bids, unless only one bid is received and the State requires additional bids.

The OWNER agrees to provide written NOTICE of AWARD OF BID within 15 calendar days of the date of the bid opening.

4. Method of Bidding:

Bids must be submitted in a sealed envelope, bearing on the outside the name and address of the BIDDER and words "Bid for 2020 ARC, Springdale School Wastewater Project'-Pumps"

If forwarded by mail, the sealed envelope must be enclosed in another envelope addressed to:

Meredith Arnold
Claiborne County Board of Education
1403 Tazewell Road
Tazewell, TN. 37879

5. Qualification of Bidder:

The Owner may make such investigations as he/she deems necessary to determine the ability of the bidder to provide the equipment being requested and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the owner that such bidder is properly qualified to carry out the obligations of the contract to provide the material within a timely fashion. Conditional bids will not be accepted.

6. Bid Security:

No bid bond or certified check will be required for the submittal of the bid.

7. Addenda and Interpretations:

No interpretation of the meaning of the specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to George Coots, Claiborne Utility District, 630 Davis Drive, New Tazewell, TN. 37825 and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which or emailed to all prospective bidders (at the respective addresses furnished for such purposes, not later than two days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.

8. Laws and Regulations:

The bidder’s attention is directed to the fact that all applicable State laws, municipal ordinances and the rules and regulations of all authorities having jurisdiction over the project shall apply to the contract throughout and they will be deemed to be included in the contract the same as though herein written out in full.

9. Method of Award – Lowest Qualified Bidder:

After receiving bids and determining the amount of funds estimated by the OWNER as available to finance the contract, the OWNER will award the contract to the lowest responsible bidder. The lowest most responsive bidder will be determined upon the basis of the lowest base bid or lowest base bid combined with alternates (additive or deductive). If the contract is to be awarded based on the owners base bid with alternates, alternates will be accepted in the numerical order in which they are listed in the Form of Bid.

10. Obligation of Bidder:

At the time of the opening of bids each bidder will be presumed to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

Claiborne County Board of Education

Pumps

Delivery

1. Anticipated Delivery date should be listed.
2. Bids to include any shipping related costs of the equipment to:
Claiborne Utilities District. 630 Davis Drive, New Tazewell, Tn 37825
3. At time of delivery, complete operation and maintenance manuals covering the equipment will be provided.
4. BID BOND
No bid bond payment will be made. A Purchase Order Number will be issued and approved prior to delivery. Payment will be provided within 15 working days of delivery of apparatus and or equipment provided apparatus and equipment meets bid specifications.

Delivery	Yes	No	Explanation
Meets Specifications			

Bid Preparation

Bids can be prepared and submitted in sections or as a whole with sections outlined and separated. Bids may be submitted for any one section or all sections. Bids will be marked and indicated for each section submitted. Bids will be sealed and specified date of opening will be determined.

ADVERTISEMENT FOR BIDS

Project No. _____

Owner: _____

Separate sealed bids for _____ for

_____ will be received by _____ at

the office of _____ until

_____ o'clock .P.M., .E.S.T. _____, 20____, and then at

said office publicly opened and read aloud.

Bids must be submitted in a sealed envelope, bearing on the outside the name and address of the Bidder and the name of the project: “_____.” If forwarded by mail, the sealed envelope must be enclosed in another envelope.

The Information for Bidders, Form of Bid, Specifications, and, and other contract documents may be examined or obtained at the following:

The owner reserves the right to waive any informalities or to reject any or all bids.

No bidder may withdraw their bid within 60 days after the actual date of the opening thereof.

_____ is an Equal Opportunity Employer. _____

prohibits discrimination on the basis of race, color, religion, sex, or national origin, in the admissions or access to, or treatment, or employment in its programs or activities.

Date: _____

INFORMATION FOR BIDDERS

1. Receipt and Opening of Bids:

The _____ (herein called the "Owner), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at the office of _____ until _____ o'clock .P.M., /E.S.T, _____, 20____, and then at said office publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to Meredith Arnold _____ at _____ and designated as bid for _____.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof.

2. Preparation of Bid:

Each bid must be submitted on the prescribed form and accompanied by Certification of Bidder Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion and the Iran Divestment Act Certification. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures, and the foregoing Certifications must be fully completed and executed when submitted.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, the name of the project for which the bid is submitted.

3. Method of Bidding:

The Owner invites the following bid(s):

TOTAL AMOUNT MUST INCLUDE ALL APPLICABLE COST, INCLUDING BUT NOT LIMITED TO SHIPPING, FREIGHT, DELIVERY, AND ASSEMBLY. PAYMENT BY INVOICE.

4. Qualification of Bidder:

The Owner may make such investigations as s/he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

5. Time of Completion and Liquidated Damages:

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" or Purchase Order from the Owner and to fully complete the project within _____ consecutive calendar days thereafter. Bidder must agree also to pay as liquidated damages, the sum of \$_____ for each consecutive calendar day thereafter.

6. Addenda and Interpretations:

No interpretation of the meaning of the specifications or other pre-bid documents will be made to any bidder orally.

All requests for such interpretation should be in writing addressed to _____ at _____ and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. All such interpretations and any supplemental instructions will be not later than two days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the bid submission.

7. Laws and Regulations:

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

8. Method of Award - Lowest Qualified Bidder:

After receiving bids and determining the amount of funds estimated by the OWNER as available to finance the contract, the OWNER will award the contract based upon the lowest and most responsive bid. The lowest responsible bidder will be determined upon the basis of the lowest base bid or lowest base bid combined with alternates (additive or deductive) and meeting the bid specifications. If the contract is to be awarded based on the lowest base bid with alternates, alternates will be accepted in the numerical order in which they are listed in the Form of Bid. The OWNER may not negotiate with any Bidder to reduce or alter the submitted bid.

9. Obligation of Bidder:

At the time of the opening of bids each bidder will be presumed to have to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

All vehicles and equipment submitted in the bid must MEET OR EXCEED the OWNER'S specifications and MUST meet all applicable ISO, NFPA, or other state industry standards.

Charges or terms for delivery of apparatus must be clearly stated on the bid form. Apparatus must be able to be delivered within the terms stated in the "*Time of Completion and Liquidated Damages*", under its own power, and will be subjected to tests to determine its performance and reliability as a condition of sale.

BIDDER discounts and terms, if any, must be clearly stated in the submitted bid.

BID FOR UNIT PRICE CONTRACTS

Place _____

Date _____

Project No. _____

Proposal of _____ (hereinafter called "Bidder")¹
a corporation, organized and existing under the laws of the State of _____,
partnership, or an individual doing business as _____.
To the _____ (hereinafter called "Owner")

The Bidder, in compliance with your invitation for bids for the purchase of a _____
, having examined the specifications with related documents, and being familiar with all
of the conditions related to the proposed project including the availability of materials
and labor, hereby proposes to deliver all equipment in compliance with the
specifications, within the time set forth therein, and at the prices stated below. These
prices are to cover all expenses incurred in performing the work required under the
contract documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be
specified in written "Notice to Proceed" or Purchase Order from the Owner and to fully
complete the project within _____ consecutive calendar days thereafter as stipulated
in the specifications. Bidder further agrees to pay as liquidated damages the sum of
\$_____ for each consecutive calendar day in excess of the agreed upon time period
of completion and delivery.

¹ _____
Insert corporation, partnership or individual as applicable.

Bidder acknowledges receipt of the following addendum:

Bidder agrees to perform all the work described in the specifications and shown on the plans, for the following unit prices:

<u>ITEM NO.</u>	<u>EST. QTY.</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u> <u>(Each)</u>	<u>Total</u>
1	_____	_____	Dollars & Cents (\$_____)	Dollars & Cents (\$_____)
2	_____	_____	Dollars & Cents (\$_____)	Dollars & Cents (\$_____)
3	_____	_____	Dollars & Cents (\$_____)	Dollars & Cents (\$_____)
			TOTAL OF BID	\$_____

Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will supersede.

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 days after the scheduled closing time for receiving bids.

Respectfully submitted:

By: _____
(Signature)

(Name & Title)

(Business Address, State, & Zip Code)

BID FOR LUMP SUM CONTRACTS

Place _____

Date _____

Project No. _____

Proposal of _____ (hereinafter called "Bidder") (a
 _____ corporation/a partnership/an individual doing
 _____ (State) STRIKE OUT INAPPLICABLE TERMS
 business as _____)
 To the _____ (hereinafter called
 "Owner")

The Bidder, in compliance with your invitation for bids for the purchase of a

 having examined the specifications with related documents, and being familiar with all of
 the conditions related to the proposed project including the availability of materials and
 labor, hereby proposes to deliver all equipment in compliance with the specifications,
 within the time set forth therein, and at the prices stated below. These prices are to cover
 all expenses incurred in performing the work required under the contract documents, of
 which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be
 specified in written "Notice to Proceed" or Purchase Order from the Owner and to fully
 complete the project within _____ consecutive calendar days thereafter as stipulated
 in the specifications. Bidder further agrees to pay as liquidated damages the sum of
 \$_____ for each consecutive calendar day in excess of the agreed upon time period
 of completion and delivery.

Bidder acknowledges receipt of the following addendum:

BASE PROPOSAL: Bidder agrees to perform all the work described in the specifications
 and shown on the plans for the (\$_____) (Amount shall be shown in both words and
 figures. In case of discrepancy, the amount shown in words will supersede.)

ALTERNATE PROPOSALS

Alternate No. 1: _____

Deduct the sum of _____ (\$ _____)

Alternate No. 2: _____

Deduct the sum of _____ (\$ _____)

Alternate No. 3: _____

Deduct the sum of _____ (\$ _____)

Alternate No. 4: _____

Deduct the sum of _____ (\$ _____)

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Respectfully submitted:

By: _____
(Signature)

(Name & Title)

(Business Address, State, & Zip Code)

ACKNOWLEDGEMENT REGARDING BIDDER SAM REGISTRATION

Pursuant to 2 CFR Parts 183 and 215 and the requirement of the U.S. Department of Housing and Urban Development (HUD), contractors procured directly by grantees, sub-grantees, and/or sub-recipients of HUD funds, including CDBG are required to have an active registration in the System of Award Management (SAM). This document shall be completed and submitted as part of the bid proposal.

1. By submitting this proposal, the prospective bidder certifies that it has an active registration in SAM that is not set to expire within the next 90 days.
2. By submitting this proposal, the prospective bidder certifies neither it, its principals nor affiliates, is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that an erroneous certification was rendered, in addition to other remedies available to the Federal Government, the Department or agency with which this transaction originated may pursue available remedies.
4. Further, the prospective bidder shall provide immediate written notice to the person to which this proposal is submitted if at any time the Participant learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. By submitting this proposal, it is agreed that should the proposed covered transaction be entered into, the prospective bidder will not knowingly enter into any lower-tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the agency with which this transaction originated.
6. It is further agreed that by submitting this proposal, the prospective bidder will include Certification of Subcontractor Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion without modification, in all lower-tier covered transactions and in all solicitations for lower-tier covered transactions.

Provide the following information as detailed in the prospective bidder's SAM registration:

Entity Name: _____

Address: _____

City: _____ State: _____ Zip: _____

SAM Entity ID: _____ Expiration Date: _____

Active Exclusions: Yes No

**IRAN DIVESTMENT
ACT**

In compliance with the Iran Divestment Act (State of Tennessee 2016, Public Chapter No. 817), which became effective on July 1, 2016, certification is required of all bidders on contracts over \$1,000.

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party hereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to T.C.A. § 12-12-106.

I affirm, under the penalties of perjury, this statement to be true and correct.

Date	Signature of Bidder
	Company

A bid shall not be considered for award nor shall award be made where the foregoing certification has been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. The **City/County of _____** may award a bid to a bidder who cannot make the certification, on case-by-case basis, if:

1. The investment activities in Iran were made before July 1, 2016, the investment activities in Iran have not been expanded or reviewed on or after July 1, 2016, and the person has adopted, publicized, and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
2. The **City/County of _____** makes a determination that the goods or services are necessary for the **City/County of _____** to perform its functions and that, absent such an exemption, the political subdivision will be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.

CERTIFICATION OF NON-BOYCOTT OF ISRAEL

The Bidder certifies that it is not currently engaged in, and will not for the duration of the contract engage in, a boycott of Israel as defined by Tenn. Code Ann. § 12-4-119. This provision shall not apply to contracts with a total value of less than two hundred fifty thousand dollars (\$250,000) or to contractors with less than ten (10) employees.

According to the law, a boycott of Israel means engaging in refusals to deal, terminating business activities, or other commercial actions that are intended to limit commercial relations with Israel, or companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel to do business, or persons or entities doing business in Israel, when such actions are taken:

- 1) In compliance with, or adherence to, calls for a boycott of Israel, or
- 2) In a manner that discriminates on the basis of nationality, national origin, religion, or other unreasonable basis, and is not based on a valid business reason. Tenn. Code Ann. § 12-4-119.

I certify this statement to be true and correct.

Bidder Name Printed

Date

Signature of Bidder

Company

1. All equipment/material items will be 'or owner approved equivalent'.

PROJECT NO.WPN 22.0156 SPRINGDALE SEWER PROJECT FOR CLAIBORNE UTILITIES DISTRICT

CONTACT:

WATER ,SEWER,GAS- CLAIBORNE UTILITIES DISTRICT-423-626-4282

GEORGE COOTS -423-626-4282

ELECTRIC - POWELL VALLEY ELECTRIC - 423-626-0700

PREPARED BY ; Parsons Engineering & Associates
Consulting Engineer / Surveyor
P.O. Box 690
Harrogate, Tennessee 37752
(423) 526 7715

SHEET INDEX	FILE NAME
1	COVER
2	COVER SHEET
3	SDPLANS1
4	adgrids1
5	SDPLANS2
6	adgrids2
7	SDPLANS3
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11	SDPLANS5
12	adgrids5
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14	adgrids6
15	SDPLANS7
16	adgrids7
17	SDHYDL
18	SDHYDL 2
19	SDHYDL 3
20	SDPUMPN01
21	SDPUMPN02
22	SDPUMPN03
23	SDPLANS1A
24	PUMPSCURVE2
25	HYD DESIGNS0

APPROVED FOR SUBMITTAL



GEORGE COOTS

CLAIBORNE UTILITIES DISTRICT

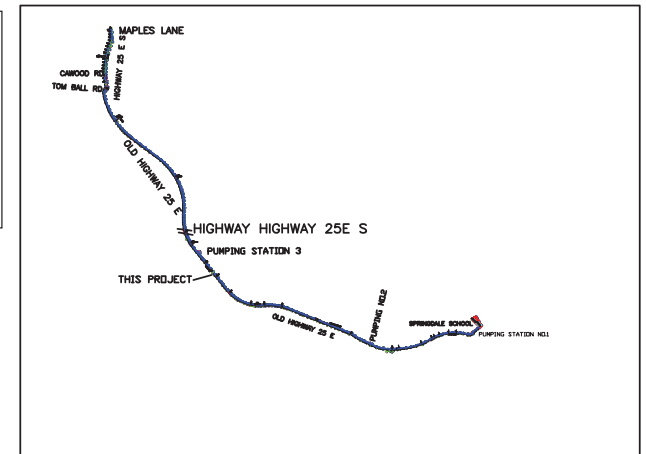


STATE COUNTY MAP

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



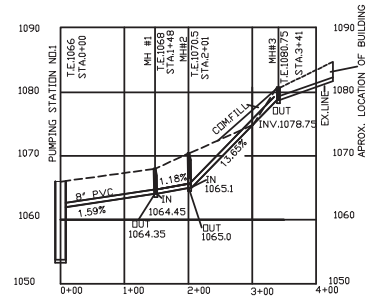
2/2/2023



LOCATION MAP

SPRINGDALE SCHOOL WATER USE

2500 GAL IN 12 HOURS
 2500 GAL IN 12 HOURS/12X60=3.47 GAL/MIN
 PEAK 3.47 GAL/MIN X 4=13.88 GA; /MIN



PLAN VIEW



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION
 UNLESS CROSSING AT 90 DEGREES
 WHEN SEWERS MUST CROSS WATER LINES
 THE TOP OF THE SEWER LINE MUST BE AT LEAST
 18 INCHES BELOW THE BOTTOM OF THE WATER LINE
 4" GATE VALVES 1000' +/- AND AS NEED

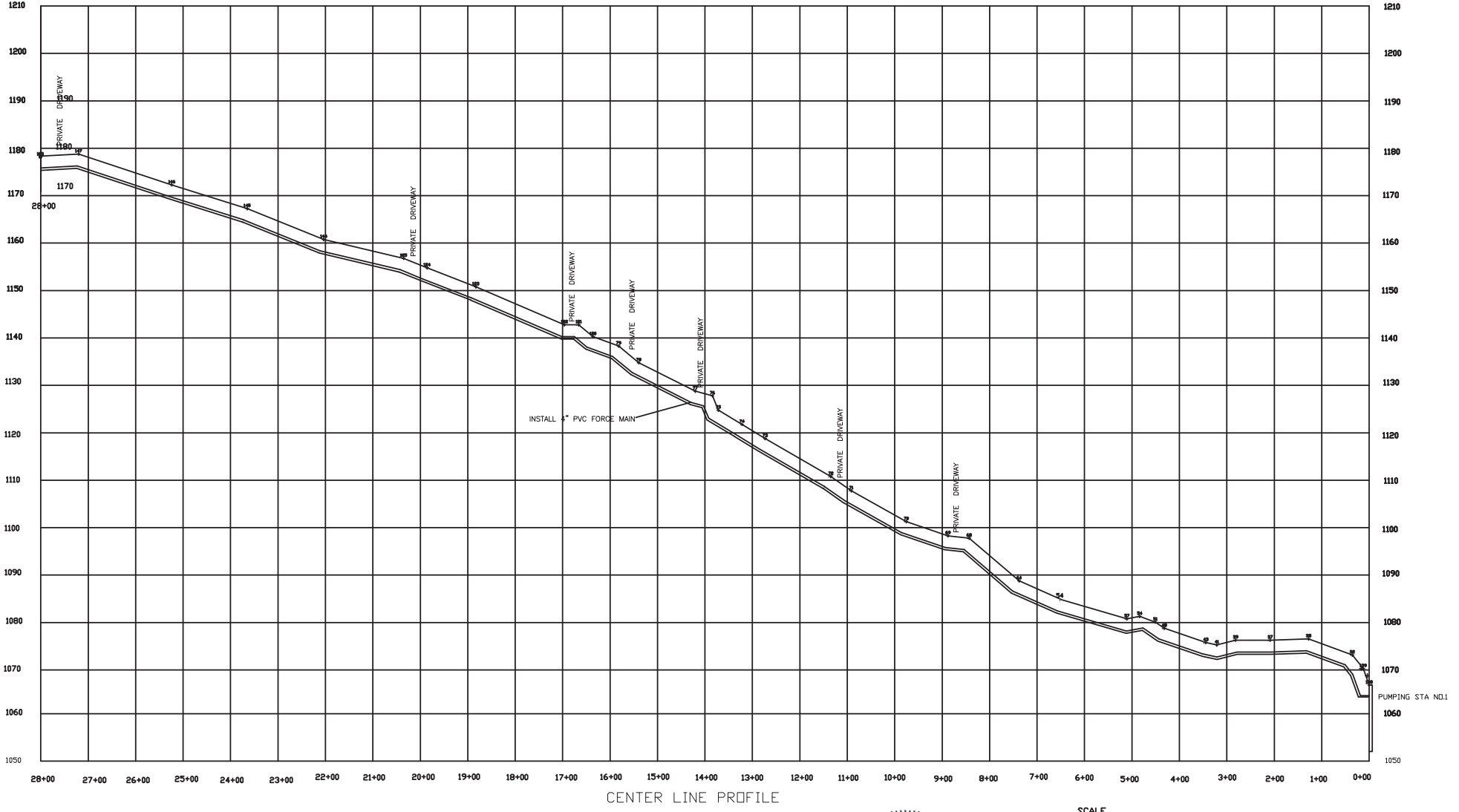
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



2/2/2023

Parsons Engineering & Associates
 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 423-526-7715

PROJECT NO.22.0156 PLAN SHEET NO.1		
SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1"= 100'	APPROVED BY: DATE: 12/6/2022 WILLIAM L. PARSONS	REVISED:
PLAN SHOWING TIE INTO EX SEWER AND GRAVITY SEWER STA.0+00 TO STA 28+00		
CIVIL DISTRICT NO.1 CLAIBORNE COUNTY TENNESSEE		FILE NO. SDPLANS1

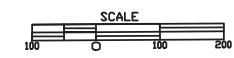


CENTER LINE PROFILE



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION
 UNLESS CROSSING AT 90 DEGREES
 4" GATE VALVES 1000' +/- OR AS NEEDED

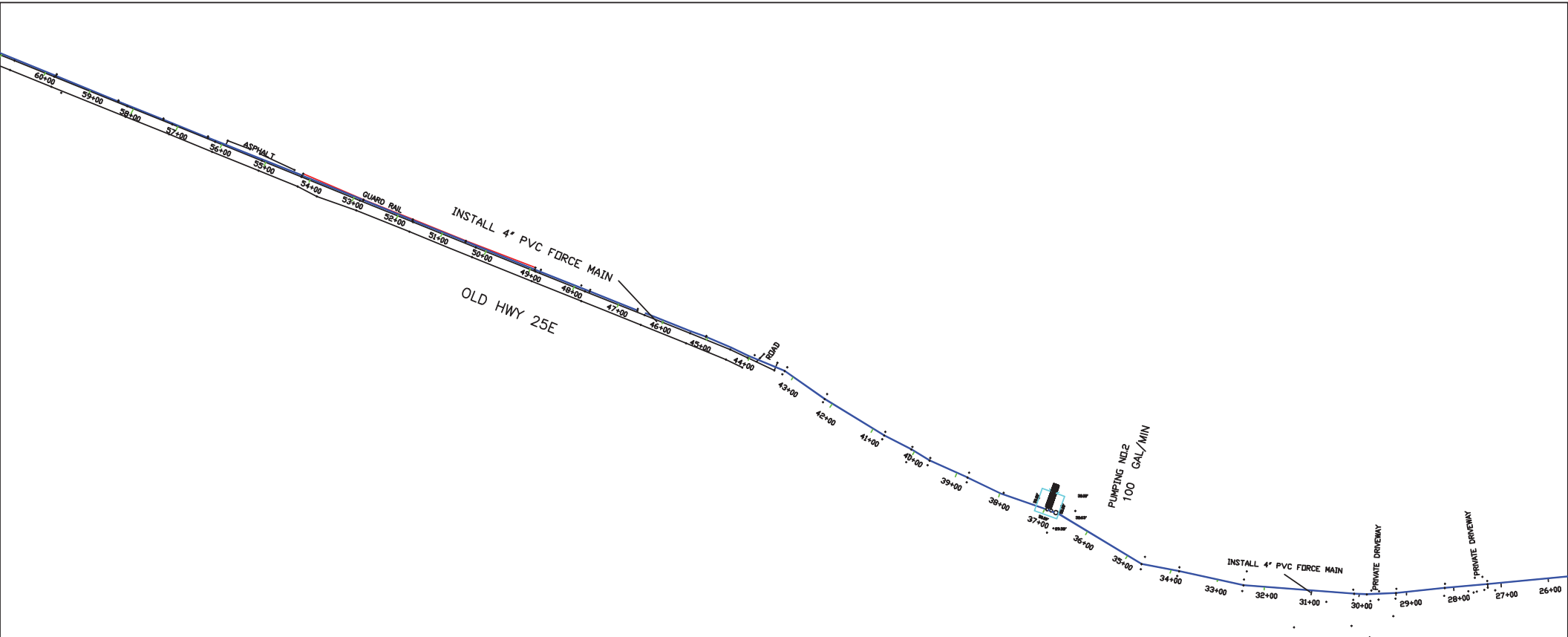
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



Parsons Engineering & Associates
 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 423-526-7715

PROJECT NO. WPN 22.0156
 PROFILE SHEET 1

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1" = 10' DATE: 12/6/2022	APPROVED BY: WILLIAM L. PARSONS	REVISED:
CL. PROFILE FROM STA. 0+00 TO STA. 28+00		
CIVIL DISTRICT NO. ONE CLAIBORNE COUNTY TENNESSEE	FILE NO. SDGRIDS1	



APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



NOTE
WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION

UNLESS CROSSING AT 90 DEGREES

WHEN SEWERS MUST CROSS WATER LINES
THE TOP OF THE SEWER LINE MUST BE AT LEAST
18 INCHES BELOW THE BOTTOM OF THE WATER LINE

4" GATE VALVES 1000' +/- OR AS NEEDED



2/2/2023

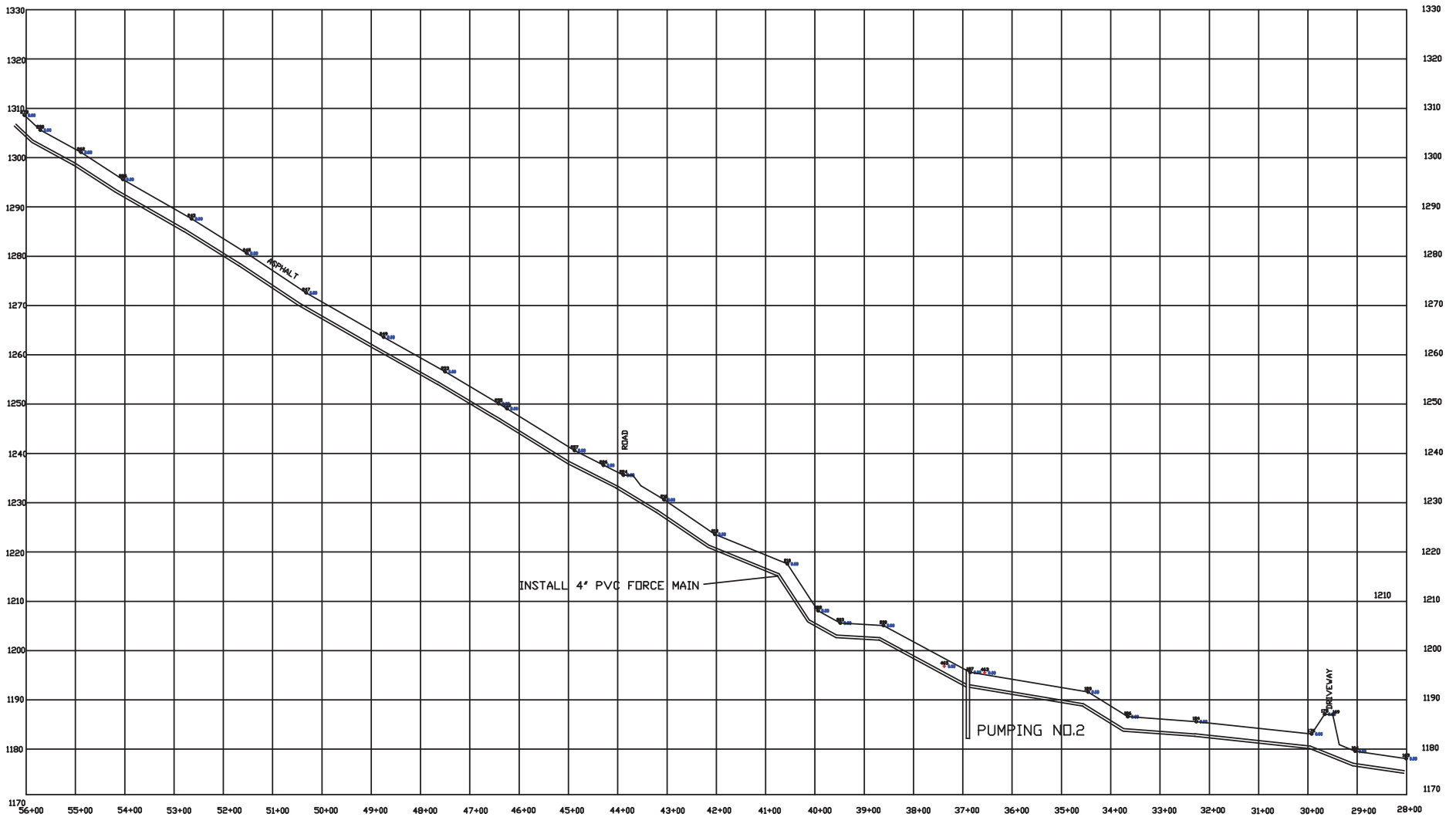


Parsons Engineering & Associates
Consulting Engineer / Surveyor
P.O. Box 690
Harrrogate, Tennessee 37752

423-526-7715

PROJECT NO.22.0156
PLAN SHEET NO.2

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1" = 100'	APPROVED BY: DATE: 12/6/2022	REVISD:
STA. 26+00 TO STA. 60+00		
CIVIL DISTRICT NO.10 CLAIBORNE COUNTY TENNESSEE	FILE NO. SDPLANS2	



CENTER LINE PROFILE



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
 UNLESS CROSSING AT 90 DEGREES
 4" GATE VALVES 1000' +/- OR AS NEEDED



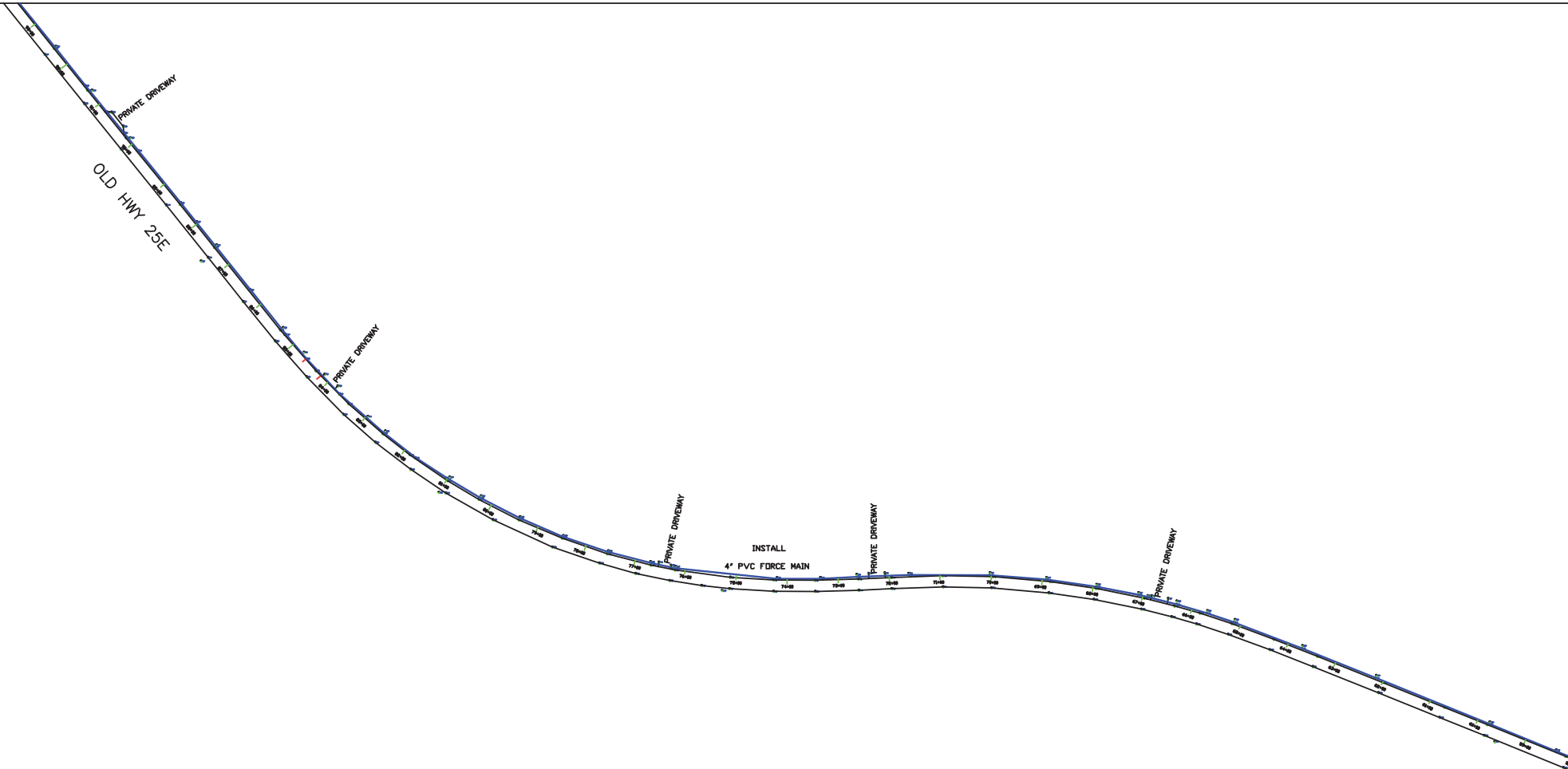
Parsons Engineering & Associates
 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 423-526-7715

PROJECT NO. WPN 22.0156
 PROFILE SHEET 2

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1" = 10' DATE: 12/6/2022	APPROVED BY: WILLIAM L. PARSONS	REVISED:
CL PROFILE FROM STA 28+00 TO STA 56+00		
CIVIL DISTRICT NO. ONE CLAIBORNE COUNTY TENNESSEE		FILE NO. SDGRIDSF2F

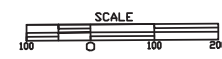
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT

2/2/2023



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION
 UNLESS CROSSING AT 90 DEGREES
 WHEN SEWERS MUST CROSS WATER LINES
 THE TOP OF THE SEWER LINE MUST BE AT LEAST
 18 INCHES BELOW THE BOTTOM OF THE WATER LINE
 4" GATE VALVES 1000' +/- OR AS NEEDED

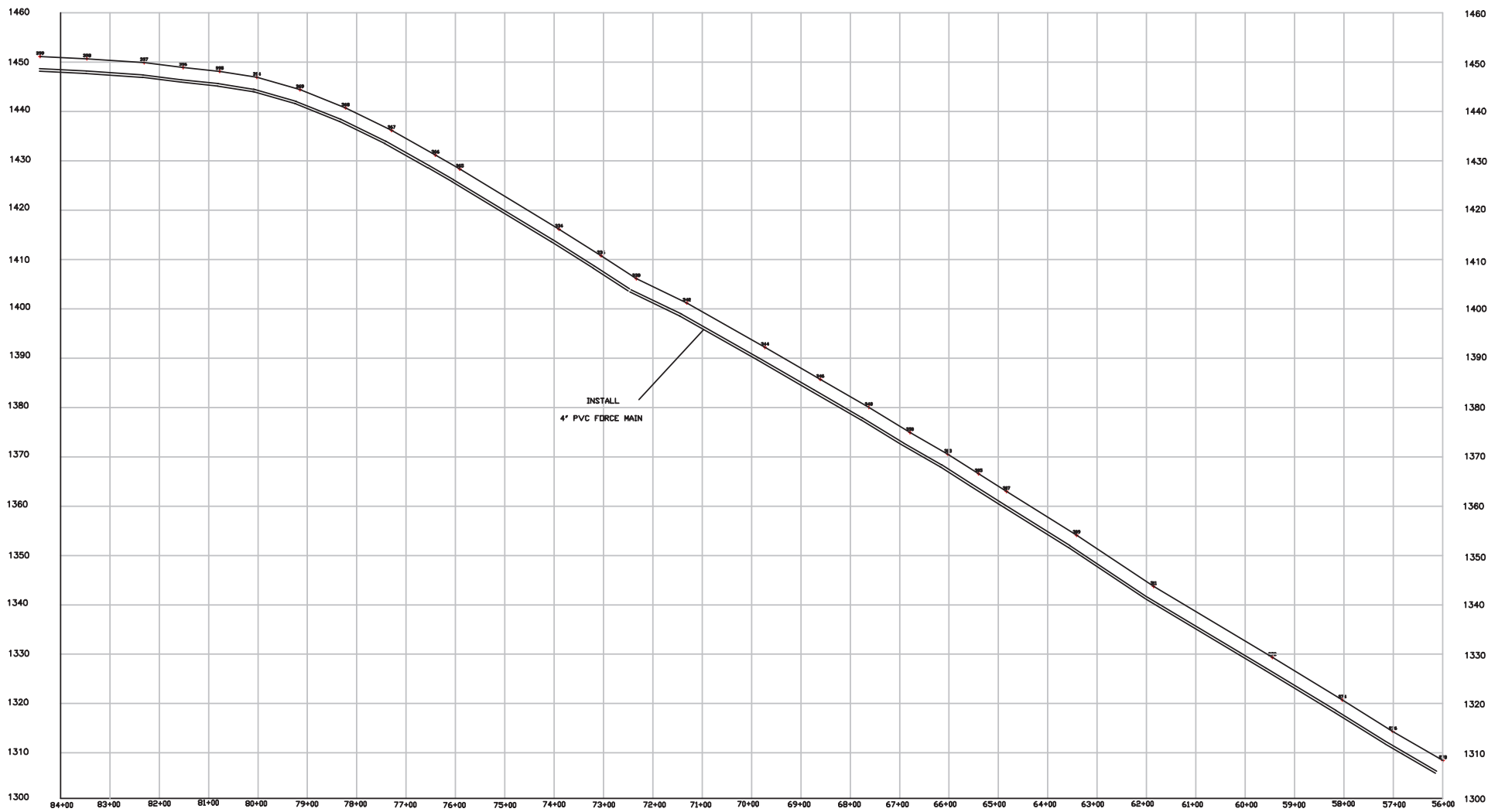
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



Parsons Engineering & Associates
 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 423-526-7715

PROJECT NO. WPN 22.0156
 PLAN SHEET NO. 3

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1" = 100'	APPROVED BY: WILLIAM L. PARSONS	REVISED:
DATE: 12/6/2022		
STA. 58 +00 TO STA. 93+00		
CIVIL DISTRICT NO. 12 CLAIBORNE COUNTY TENNESSEE	FILE NO. SDPLANS3	



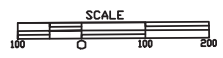
CENTER LINE PROFILE

NOTE

WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION
 UNLESS CROSSING AT 90 DEGREES
 4" GATE VALVES 1000' +/- OR AS NEEDED



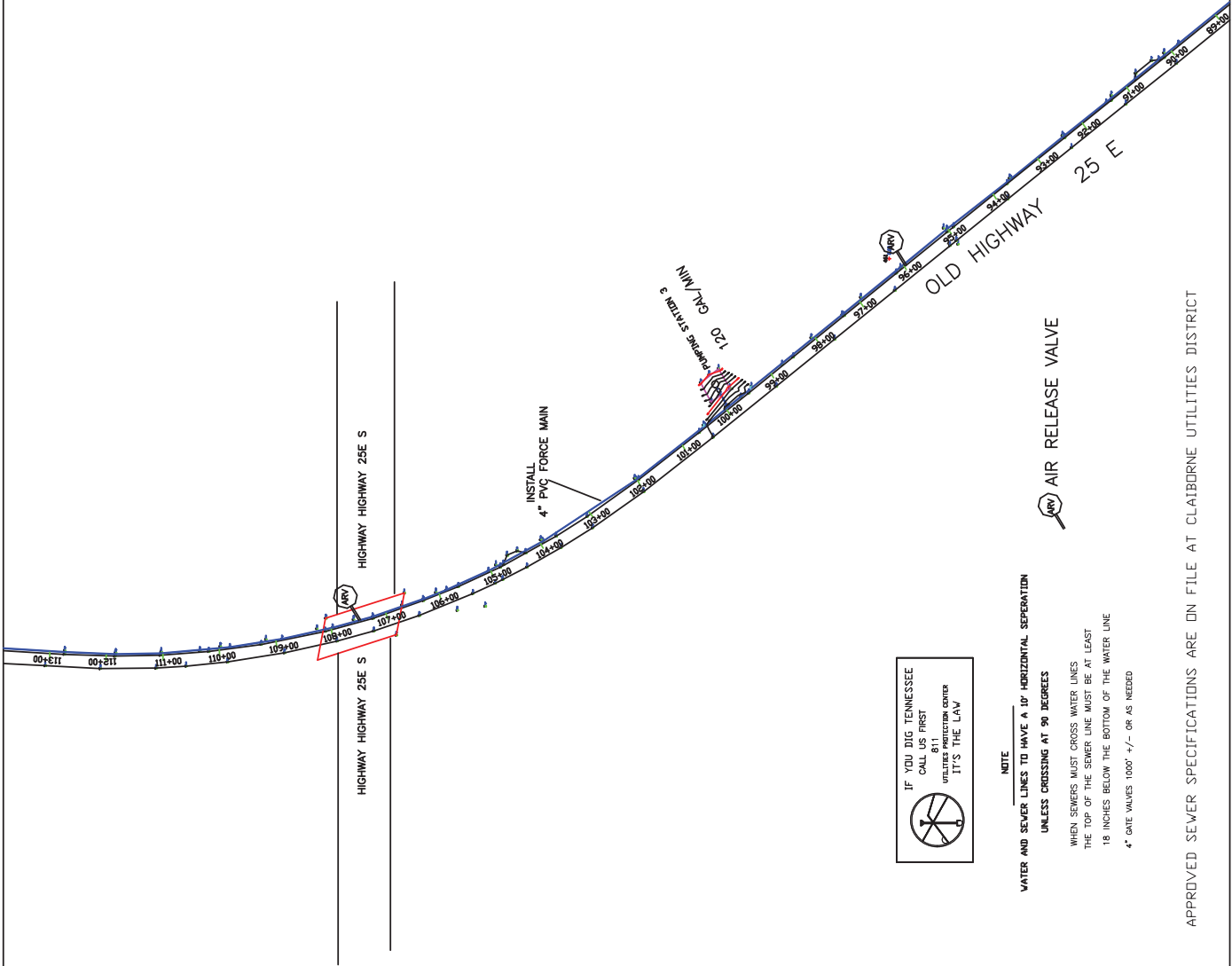
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



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PROJECT NO. WPN22.0156
 PROFILE SHEET 3

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT		
SCALE: 1" = 100'	APPROVED BY: WILLIAM L. PARSONS	REVISED:
DATE: 12/6/2022		
FROM STA. 58+00 TO STA. 84+00		
CIVIL DISTRICT ONE CLAIBORNE COUNTY TENNESSEE	FILE NO. SDGRIDS3	



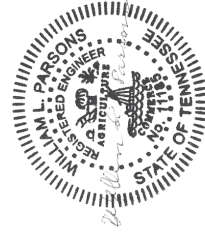
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NOTE
WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
UNLESS CROSSING AT 90 DEGREES

WHEN SEWERS MUST CROSS WATER LINES
THE TOP OF THE SEWER LINE MUST BE AT LEAST
18 INCHES BELOW THE BOTTOM OF THE WATER LINE
4" GATE VALVES 1000' +/- OR AS NEEDED

ARV AIR RELEASE VALVE



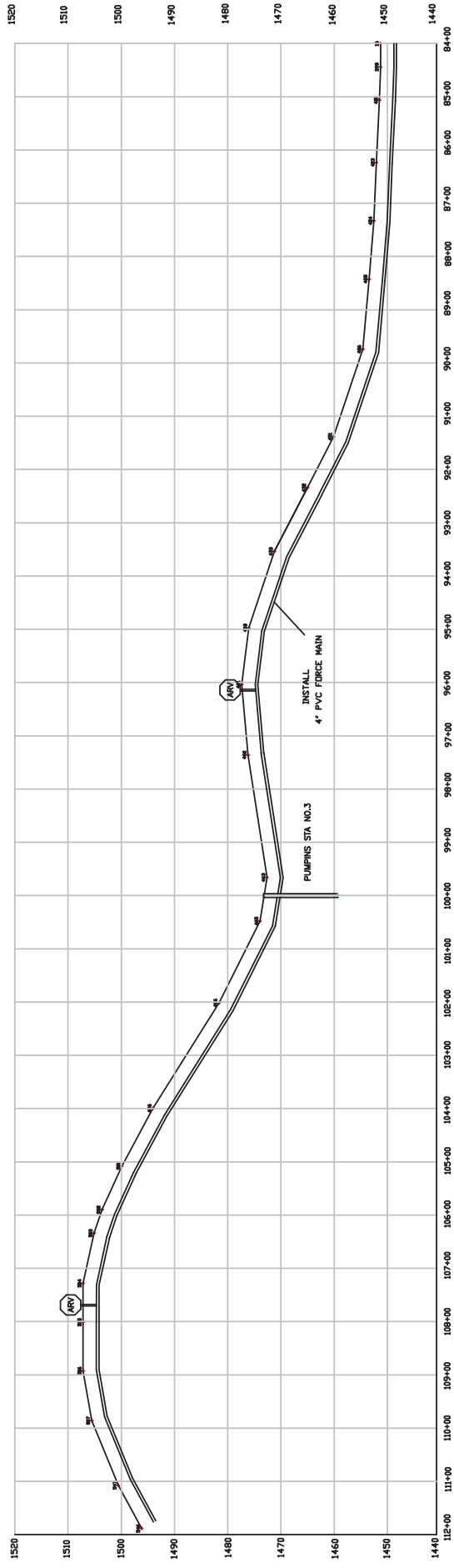
2/2/2023



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Harrrogate, Tennessee 37752
423-526-7715
PROJECT NO. WPN 22.0156
PLAN SHEET NO. 4

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS CL. PROFILE FROM STA 89+00 TO STA 113+00	DATE: 12/6/2022	DESIGNED BY: WILLIAM L. PARSONS	REVISIONS:
		SCALE: 1" = 100'	FILE NO. SDPLANS4
			CLAIRBORNE COUNTY TENNESSEE

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIRBORNE UTILITIES DISTRICT



CENTER LINE PROFILE



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NOTE
WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
UNLESS CROSSING AT 90 DEGREES
4" GATE VALVES 1000' +/- OR AS NEEDED
INSTALL AIR RELEASE AT ALL HIGH AREA



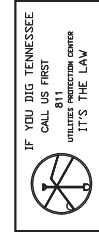
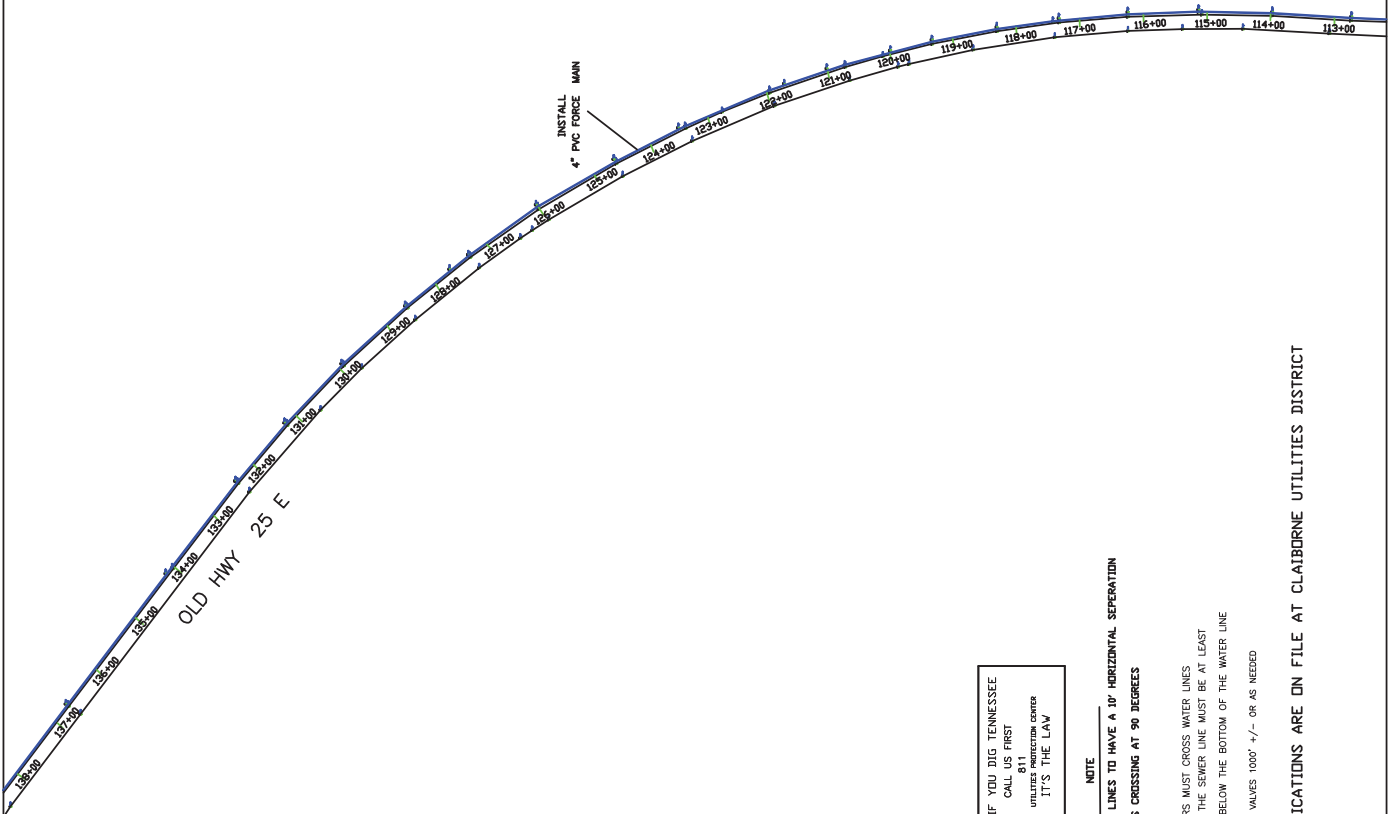
2/2/2023

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423-626-7715

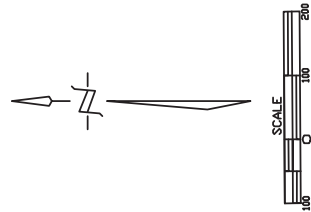
PROJECT NO. WPN22.0156
PROFILE SHEET 4

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIRBORNE UTILITIES DISTRICT	
DESIGNED BY:	WILLIAM L. PARSONS
CHECKED BY:	WILLIAM L. PARSONS
DATE: 12/8/2022	REVISED:
CL. PROFILE FROM STA. 84+00 TO STA. 112+00	
FILE NO.:	CML DISTRICT ONE
SDGRISS4	CLAIRBORNE COUNTY TENNESSEE

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIRBORNE UTILITIES DISTRICT



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 423-526-7715



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPERATION
 UNLESS CROSSING AT 90 DEGREES

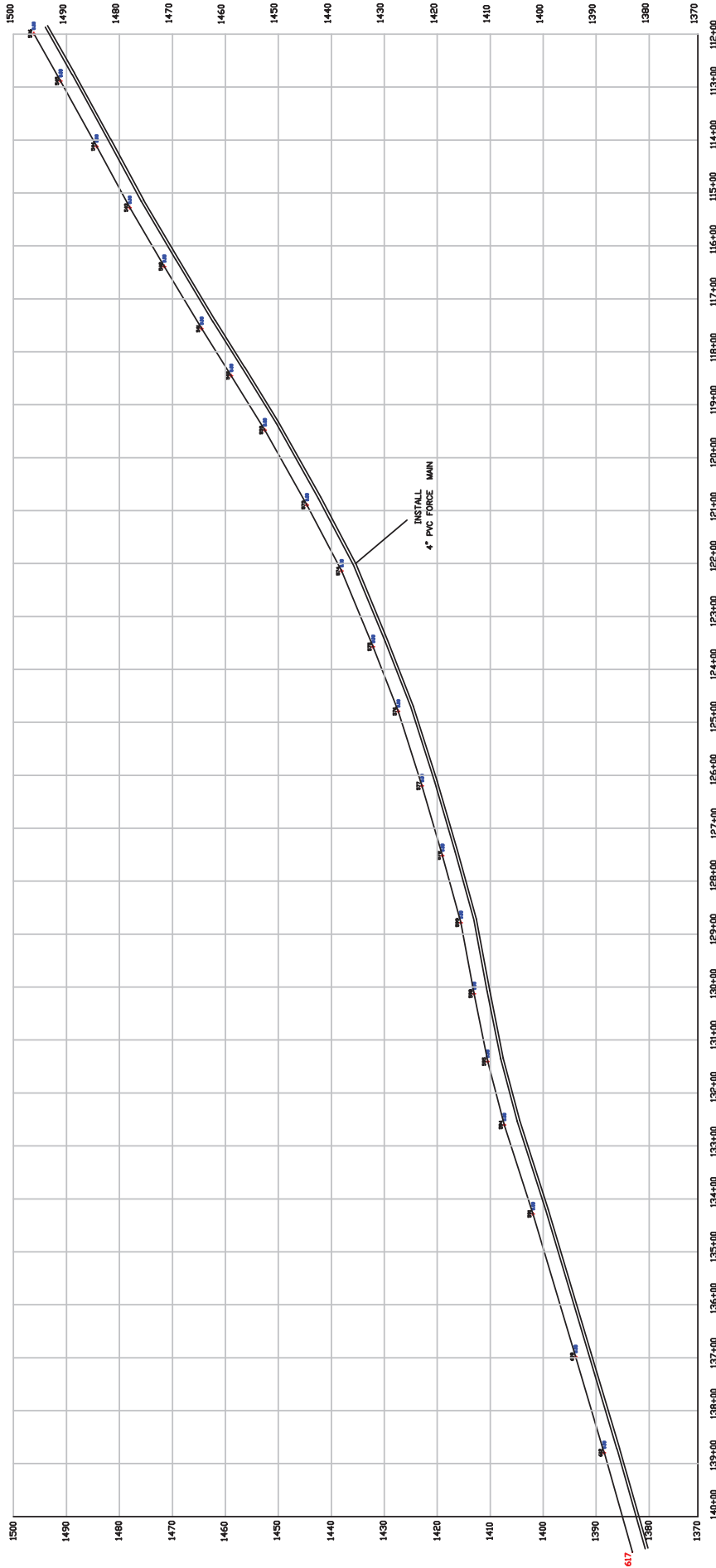
WHEN SEWERS MUST CROSS WATER LINES
 THE TOP OF THE SEWER LINE MUST BE AT LEAST
 18 INCHES BELOW THE BOTTOM OF THE WATER LINE
 4" GATE VALVES 1000' +/- OR AS NEEDED

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIRBORNE UTILITIES DISTRICT

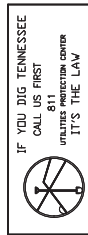
2/2/2023

PROJECT NO. WPN 22.0156
 PLAN SHEET NO. 5

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIRBORNE UTILITIES DISTRICT	
SCALE: 1"=100'	DESIGNED BY: WILLIAM L. PARSONS
DATE: 12/8/2022	REVIEWED:
FROM STA. 113+00 TO STA. 138+00	
CIVIL DISTRICT NUMBER CLAIRBORNE COUNTY TENNESSEE	
FILE NO.	SUPLANS



CENTER LINE PROFILE



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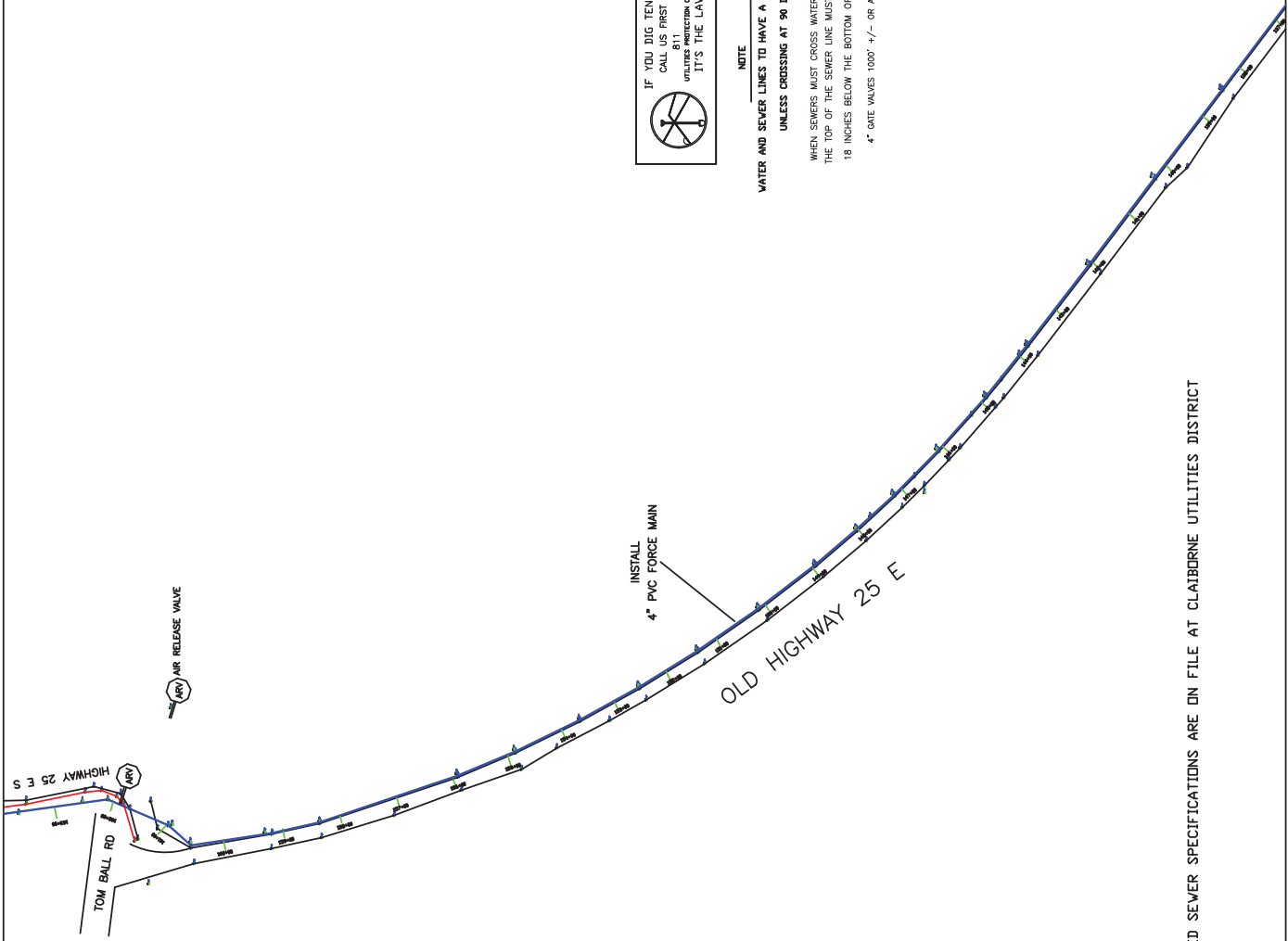
NOTE
WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
UNLESS CROSSING AT 90 DEGREES
4" GATE VALVES 1000' +/- OR AS NEEDED

PROJECT NO. WPN 22.0156
PROFILE SHEET 5

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
DESIGNED BY	APPROVED BY
DATE: 12/8/2023	WILLIAM L. PARSONS
CL PROFILE FROM STA. 112+00 TO STA. 140+00	
FILE NO.	SDGRD155

2/2/2023
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APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



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NOTE
WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
UNLESS CROSSING AT 90 DEGREES
WHEN SEWERS MUST CROSS WATER LINES
THE TOP OF THE SEWER LINE MUST BE AT LEAST
18 INCHES BELOW THE BOTTOM OF THE WATER LINE
4" GATE VALVES 1000' +/- OR AS NEEDED



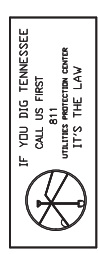
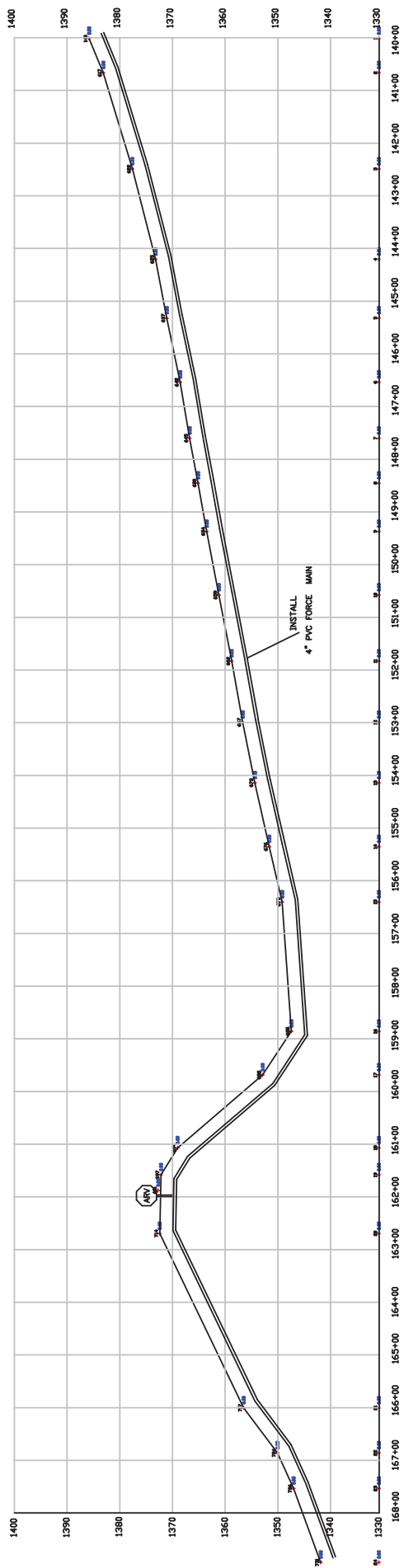
2/2/2023

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PROJECT NO: MPN 22.0156
PLAN SHEET NO. 6

SPONSOR: SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1" = 100'	APPROVED BY:
DATE: 12/8/2022	WILLIAM L. PARSONS
REVISED:	REVISED:
FROM STA. 137+00 TO STA. 163+00	
CIVIL DISTRICT NO: 10	FILE NO. SIPLANS6
CLAIBORNE COUNTY, TENNESSEE	

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



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NOTE
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UNLESS CROSSING AT 90 DEGREES
4" GATE VALVES 1000' +/- OR AS NEEDED

PROJECT NO. WPN 22.0156
PROFILE SHEET 6

SCALE: 1"=100'	APPROVED BY:	FILE NO.:
DATE: 12/8/2022	WILLIAM L. PARSONS	CL DISTRICT NO. ONE
	REVISION:	CL. PROFILE FROM STA 140+00 TO STA 168+00
		CLAIRBORNE COUNTY TENNESSEE
		SDGRIDS

2/2/2023
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APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIRBORNE UTILITIES DISTRICT

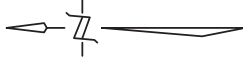


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NOTE

**WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
UNLESS CROSSING AT 90 DEGREES**

WHEN SEWERS MUST CROSS WATER LINES
THE TOP OF THE SEWER LINE MUST BE AT LEAST
18 INCHES BELOW THE BOTTOM OF THE WATER LINE
4" GATE VALVES 1000' +/- OR AS NEEDED



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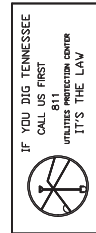
2/2/2023

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT

PROJECT NO. WPN 22.0156
PLAN SHEET NO. 7

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIRBORNE UTILITIES DISTRICT
SCALE: 1/8" = 1'-0" APPROVED BY: [Signature]
DATE: 12/6/2023 WILLIAM L. PARSONS REVISED:

FROM STA. 164+00 TO STA. 181+00
CIVIL DISTRICT NO. 109
CLAIBORNE COUNTY TENNESSEE
FILE NO. SDPLANS7



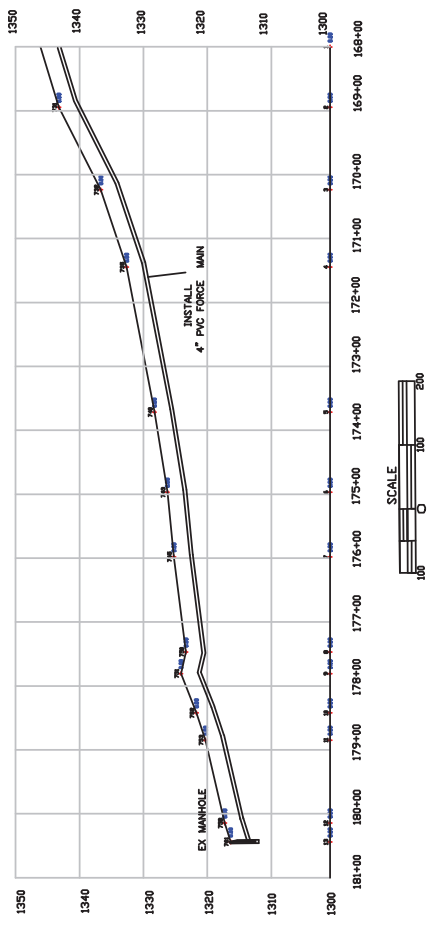
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



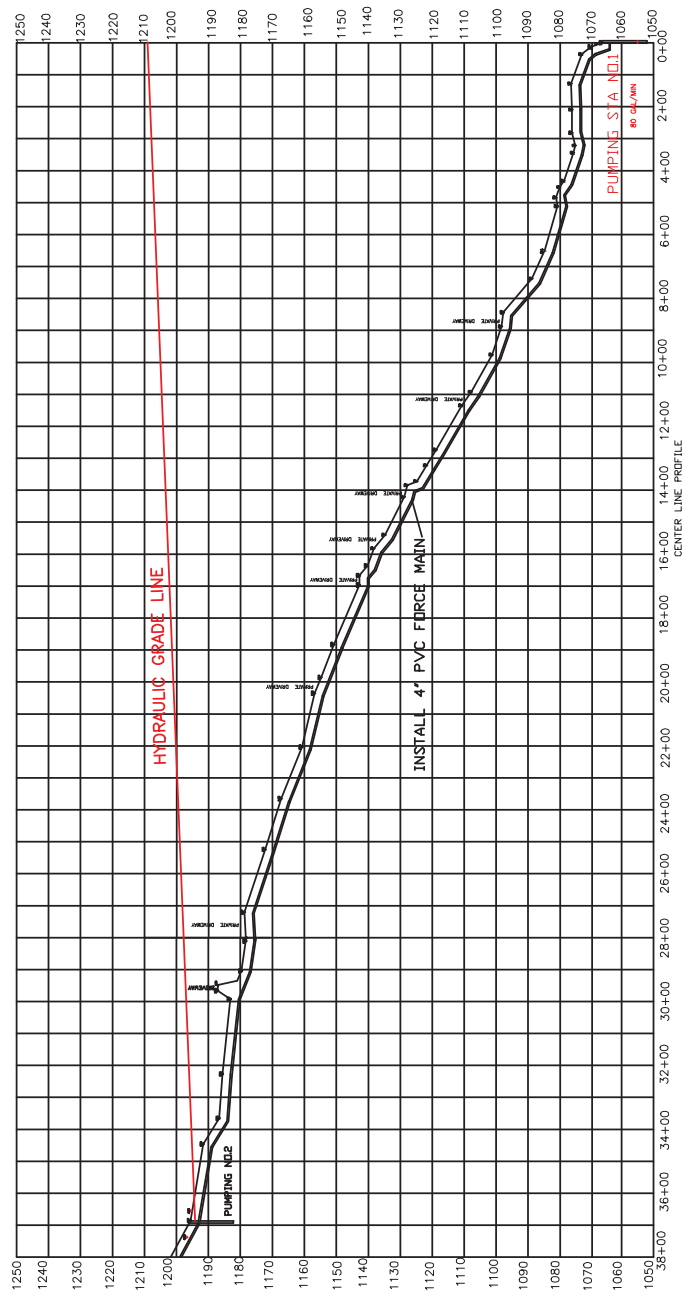
2/2/2023
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 Consulting Engineer / Surveyor
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 423-526-7715

PROJECT NO. WPN 22.0156
 PROFILE SHEET 7

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1" = 10'	APPROVED BY:
DATE: 12/8/2023	WILLIAM L. PARSONS
	REVISED:
	CIVIL DISTRICT NO. ONE
	FILE NO. 181+00
	CLAIBORNE COUNTY TENNESSEE
	SDGR1057



NOTE
 WATER AND SEWER LINES TO HAVE A 10' HORIZONTAL SEPARATION
 UNLESS CROSSING AT 90 DEGREES
 4" DATE VALUES 1000' +/- OR AS NEEDED

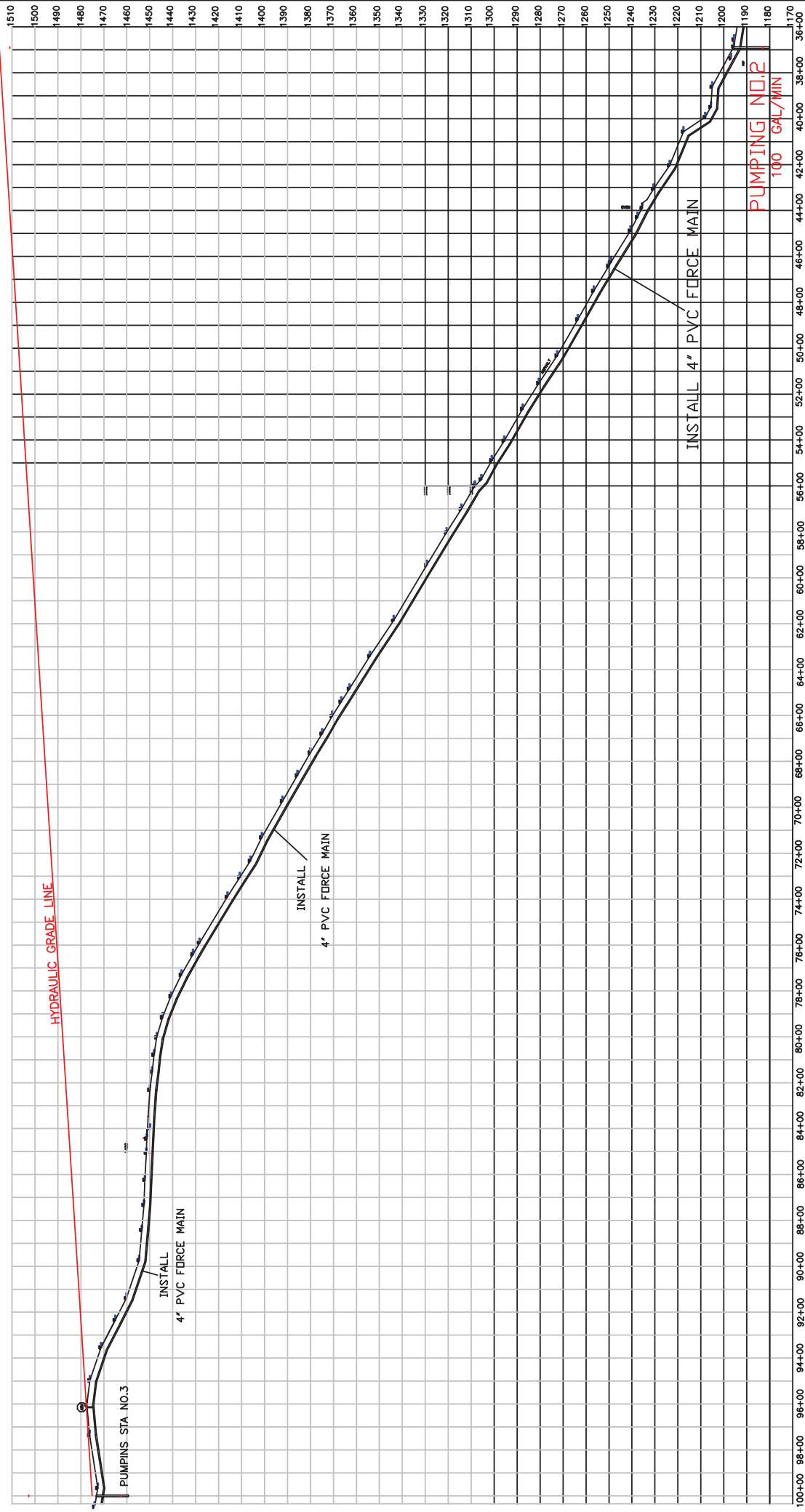


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 423-526-7715

2/2/2023

PROJECT NO. WPN 22.0156	
HYDRAULIC GRADE LINE FOR PUMP NO.1	
SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS	
FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1"=20'	DATE: 12/07/2022
DESIGNED BY: WILLIAM L. PARSONS	REVISIONS:
CHECKED BY: WILLIAM L. PARSONS	FILE NO.:
CIVIL PROFILE FROM STA 0+00 TO STA 36+00	38+00
CLAIBORNE COUNTY TENNESSEE	SPHY01

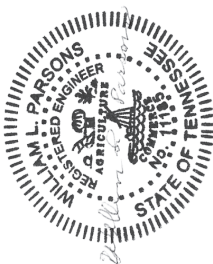
APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



HYDRAULIC GRADE LINE FOR PUMPING STATION NO.2

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1" = 20' DATE: 12/6/2022	APPROVED BY: WILLIAM L. PARSONS
CL. PROFILE FROM STA 36+00 TO STA 100+00	
CIVIL DISTRICT NO. 02 CLAIBORNE COUNTY TENNESSEE	

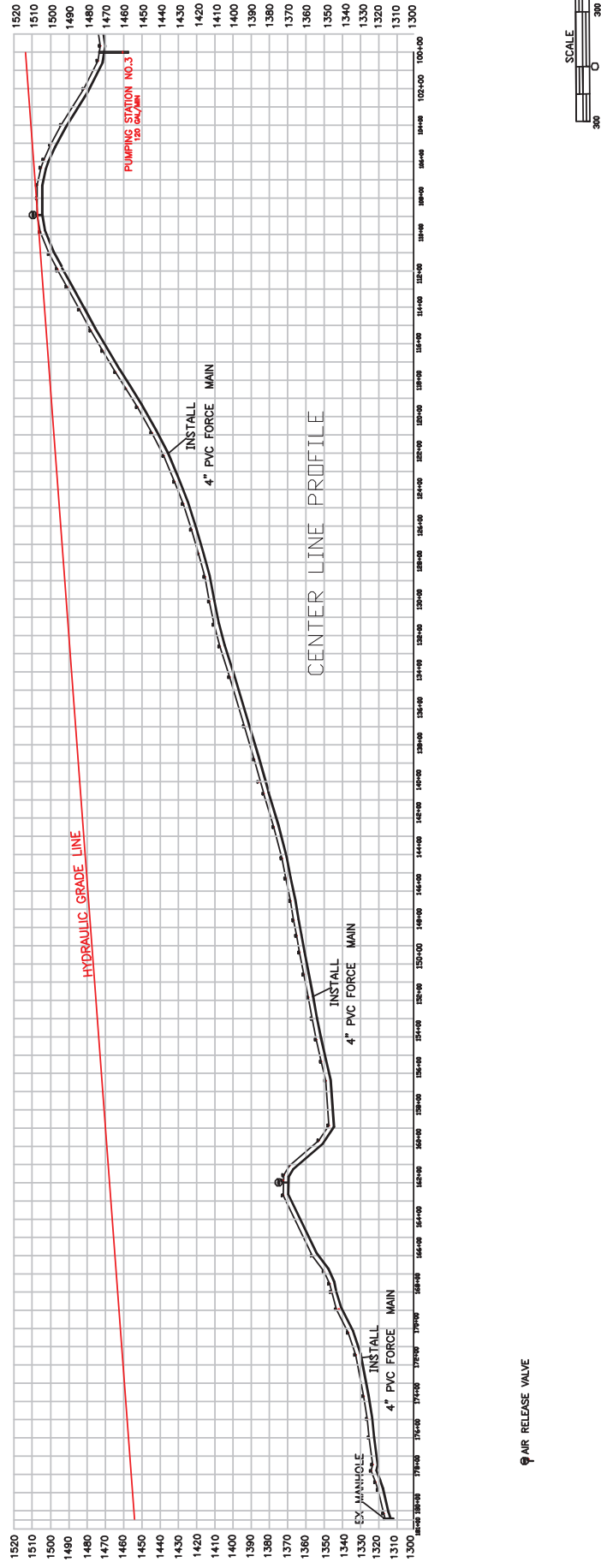
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 423-526-7715



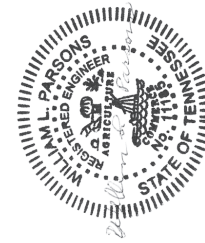
2/2/2023

AIR RELEASE VALVE

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT



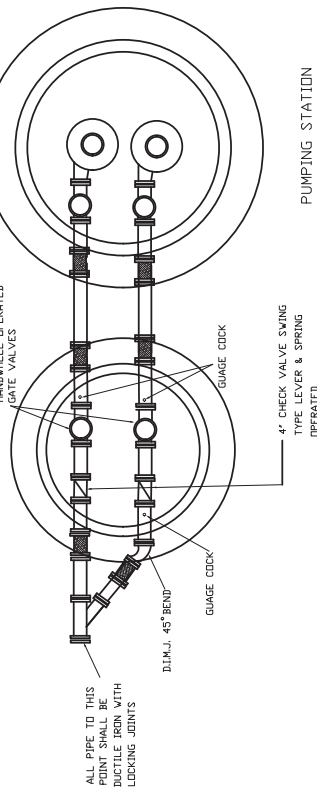
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PROJECT NO: WPN 22.0156
 NORMAL GRADE LINE FOR PUMPING STATION NO.3

SPRINGDALE SEWER FORCE MAIN AND PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1" = 30'	DATE: 12/2/2022
DESIGNED BY: WILLIAM L. PARSONS	REVISIONS:
PROJECT FROM 100+00 TO 100+00	
CIVIL DISTRICT NO. 10	
CLAIBORNE COUNTY TENNESSEE	
FILE NO. SDHY04.3	

PAIN'T ALL VALVES & PIPING WITH BITUMINOUS PAINT



VALVE VAULT
NOT TO SCALE

PUMP OFF 3' OFF BOTTOM
OF CONDUIT
TIME RUN 376 GAL/80 GAL/MIN = 4.7 MIN
DESIGN 7100 GAL / DAY = 19 CYCLES
376 GAL

PUMPING STATION
NOT TO SCALE

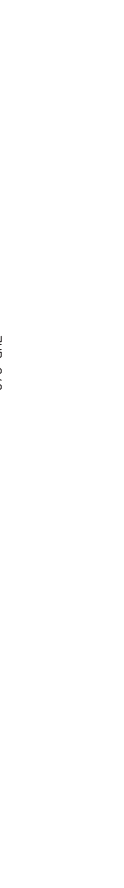
INDENT JUNCTION BOX ABOVE WET WELL TOP SLAB-BOND ACCESS MATCH NEW & JUNCTION BOX FOR SPALDING TO BE USED THROUGHOUT GALVANIZED RIBBED STEEL CONDUIT TO CONDUCTORS FROM PUMP POWER CONDUCTORS TO CONTROL PANELS TO CONTROL PANELS TO PUMP POWER CONDUCTORS TO BE COVERED WITH GAL TAP EXPOSURE HELDER BRACKET



WET WELL TOP SLAB
NOT TO SCALE



WET WELL ELECTRICAL CABLE ENTRY DETAIL
NOT TO SCALE



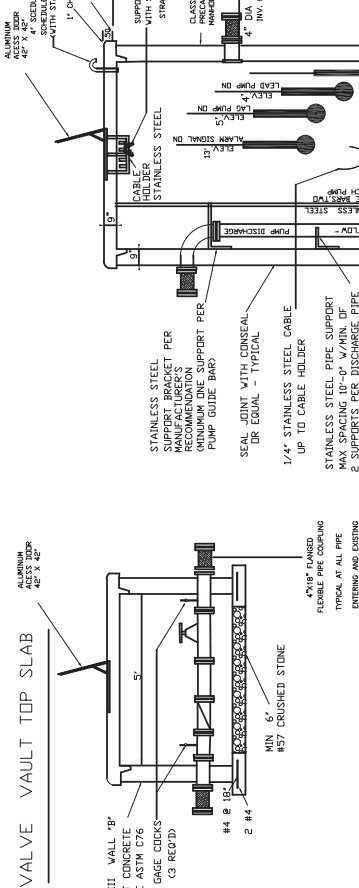
VALVE VAULT TOP SLAB
NOT TO SCALE



WET WELL TOP SLAB
NOT TO SCALE



WET WELL ELECTRICAL CABLE ENTRY DETAIL
NOT TO SCALE



DUPLEX PUMPING NO. 1 80 GAL/MIN
TELEMETRY WILL BE USED



VALVE VAULT



TYPICAL DITCH SECTIONS

- 1. 25 FOOT CLASS 4 SOUTHERN YELLOW PINE POLE
- 2. LIGHTNING ARRESTER WITH MOUNTING BRACKETS
- 3. DOWN OUT BY CONTRACTOR
- 4. DOWN SLOPE BY ELECTRIC UTILITY 1/2"/240 VOLTS, 4 WHEELS PHASE/LAG HENTZ
- 5. # 2 1/4" # 8 ANGLE TYPE THIN GA. 2" C.
- 6. # 6 ANGLE SLOPE CONDUIT SUPPORTED ON 2 FT CENTERS
- 7. CONDUIT SUPPORTS ON 8 FT CENTERS (MINIMUM)
- 8. GROUNDING CONDUIT WOOD PRESERVE COVER.
- 9. INSULATED WOOD BRACKET
- 10. ELECTRIC METERS AND BASE
- 11. PUMP CONTROL PANEL
- 12. 100 AMP 3 BLADE SPALDING VOLT SINGLE THROU/MEMO 4 FUSIBLE SAFETY SWITCH WITH 100 ANKLEARY FUSES
- 13. # 1 LONG X 5/8" C/V GRADING ROD
- 14. 2-1/2" CONDUIT FOR PUMP MOTOR CABLE CONDUCTORS
- 15. 1-1/2" CONDUIT FOR CONTROL CABLES
- 16. ALARM INDICATING LIGHT
- 17. 86 AWG/BARE CULLIGHTING ARRESTER GROUNDING CONDUCTOR IN 1/2" ROOD GAL STEEL CONDUIT/BOND TO LIGHTING ARRESTER TERMINAL DR CONDUCTOR
- 18. 242-LR HD IN 3/4" C/D POLE MOUNTED AREA LIGHT AREA LIGHT SHALL BE 175W MERCURY VAPOR WITH PHOTOCELL CONTROL AND MOUNTING ARM
- 19. 1 1/2" CONDUIT FITTINGS

SEAL JOINT WITH CONSEAL OR EQUAL - TYPICAL
1 1/4" STAINLESS STEEL CABLE UP TO CABLE HOLDER
STAINLESS STEEL PIPE SUPPORT MAX SPACING 10'-0" W/MIN. OF 2 SUPPORTS PER DISCHARGE PIPE
TOP OF GROUT
STAINLESS STEEL ANCHOR BOLTS CAST IN PLACE
MIN 6" #57 CRUSHED STONE
ELEV. OF INLET PIPE 10'-3" = 11'
TOTAL EMERGENCY STORAGE
3 x 374 GALLONS 1125 GALS / 2945-GOR AND 7 MN

ALUMINUM ANCHOR BRACKET 4" X 4" X 1/2"
SCHEDULE 80 PVC VENT PIPE WITH STAINLESS STEEL BIRD SCREENS
FINISH GRADE
CLASS III WALL (3) PRECAST CONCRETE MANHOLE ASTM C76
MATERIALS AND METHODS RECOMMENDATION PUMP GUIDE BAR
CABLE TRAY
SUPPORT ELECTRICAL CABLES WITH STAINLESS STEEL STRAIN RELIEF (RIPS)
DIA 4" DIA INFLUENT SEWER INV. ELEV. 13'FLOW
PUMP DISCHARGE
PUMP

NOTE: THESE PIPE CROSS SECTION SHALL BE PAVED WITH 8" OF THE SAME AS EXISTING PAVEMENT WHICH EVER IS GREATER



WILLIAM L. PARSONS
REGISTERED ENGINEER
NO. 1928
STATE OF TENNESSEE

2/2/2023

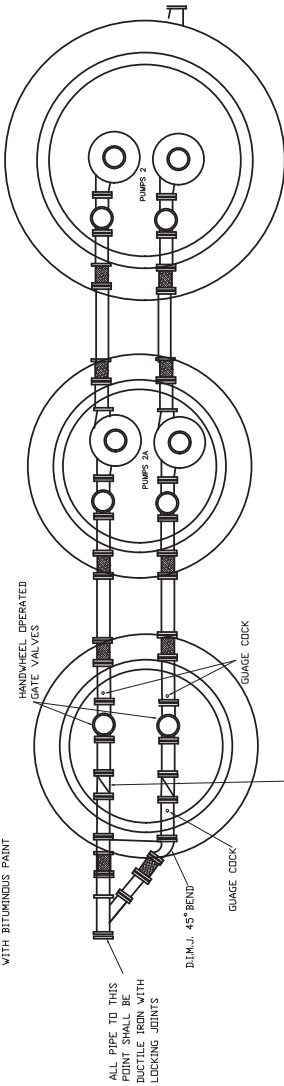
PROJECT NO. WPN 22-0156
PUMPING STATION NO. 1 80 GAL/MIN

PARSONS Engineering / Surveyor
P.O. Box 690
Harrogate, Tennessee 37752
423-262-7715

SCALE: 1/4" = 1'-0"	SEWER EXTENSION	REVISIONS
DATE: 12/12/2022	APPROVED BY: WILLIAM L. PARSONS	
SPRINGDALE FORCE MAIN PROJECT		
ADDITION TO CLAIRBORNE UTILITIES DISTRICT		
CIVIL DISTRICT NO. ONE		FILE NO. SDP/MP/NO
CLAIRBORNE TENNESSEE		

ALL MANHOLES, PUMPS & APPURTENANCES WILL HAVE CORROSION COATINGS (CONSEAL CS-55)

PAINT ALL VALVES & PIPING WITH BITUMINOUS PAINT



ALL PIPE TO THIS POINT SHALL BE DUCTILE IRON WITH LOCKING JOINTS

4" CHECK VALVE SWING TYPE LEVER & SPRING OPERATED

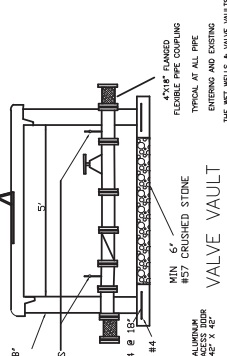
VALVE VAULT
NOT TO SCALE

PUMPING STATION
NOT TO SCALE

PUMPING STATION
NOT TO SCALE

PUMP OFF 3' OFF BOTTOM
PUMP ON 4' OFF BOTTOM
TIME RUN 376 GAL/MIN / 100 GAL/MIN=3.76 MIN
DESIGN 25,000 GAL/DAY = 67 CYCLES
376 GAL

ALUMINUM ACCESS DOOR 42" x 42"

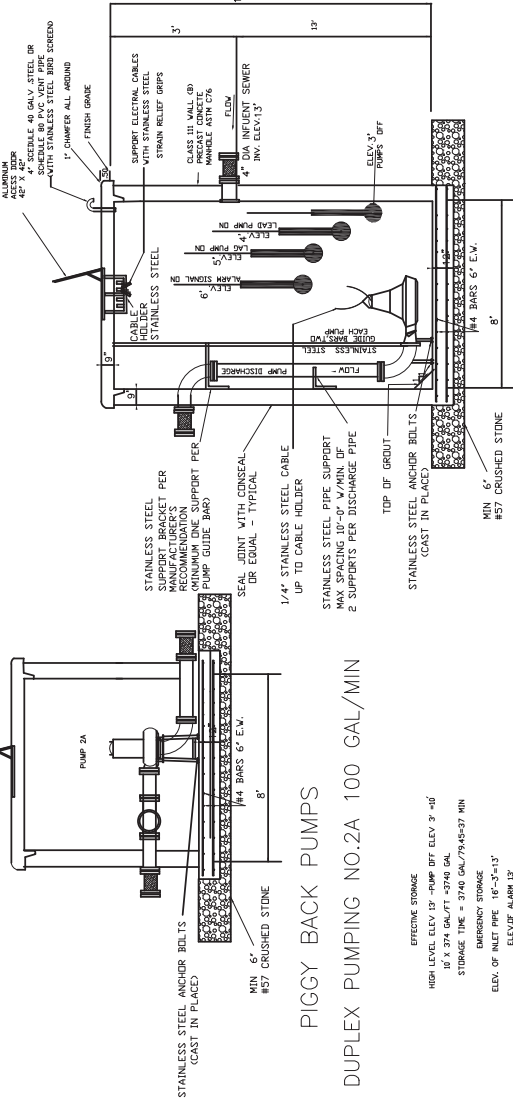


CLASS III WALL "3" PRECAST CONCRETE MANHOLE ASTM C76 GAGE COCKS (3 REQ'D)

VALVE VAULT
NOT TO SCALE



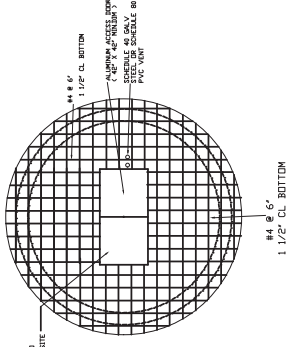
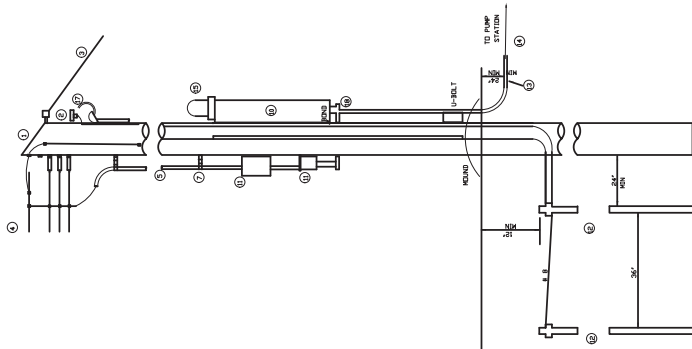
2/2/2023



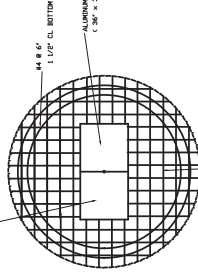
PIGGY BACK PUMPS
DUPLX PUMPING NO.2A 100 GAL/MIN

EFFICIENT STORAGE
HIGH LEVEL ELEV 15" PUMP OFF ELEV 3' +5'
18 X 374 GAL/FT = 3740 GAL
STORAGE TIME = 3740 GAL / 79.45 = 47 MIN
EMERGENCY STORAGE
ELEV OF INLET PIPE 16'-3 1/2"
ELEV OF ALARM 15"
TOTAL EMERGENCY STORAGE
3 X 374 GAL/FT = 1122 GAL
STORAGE TIME = 1122 GAL / 79.45 = 14 MIN
TOTAL = 51 MIN

DUPLX PUMPING NO.2 100 GAL/MIN
TELEMETRY WILL BE USED

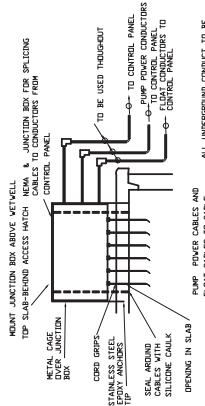


WET WELL TOP SLAB
NOT TO SCALE

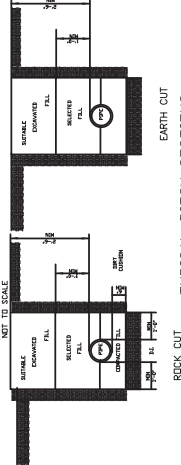


VALVE VAULT TOP SLAB
NOT TO SCALE

- 1 25 FOOT CLASS 4 SOUTHERN YELLOW PINE POLE
- 2 LIGHTNING ARRESTER WITH MOUNTING BRACKETS
- 3 DOWN GUY BY CONTRACTOR
- 4 2" x 2" x 8' INACTIVE THIN GALV. 2" C.
- 5 8' # 6 ANCHORED CLAMPING CONDUCTOR SPOULDED ON 2 FT CENTERS
- 6 1/2" CONDUIT FOR PUMP MOTOR CABLES
- 7 1/2" CONDUIT FOR CONTROL CABLES
- 8 FASTEN WITH 3 COPPER STAPLES
- 9 ELECTRIC METER AND BASE
- 10 PUMP CONTROL PANEL
- 11 100 AMP 3 BLADE 25/NA240 VOLT SINGLE THROW NEMA 4 FUSIBLE SAFETY SWITCH WITH 100 AMP LFP FUSES
- 12 8' LONG X 5/8" C/W GROUND ROD
- 13 2-1/2" CONDUIT FOR PUMP MOTOR CABLES
- 14 1-1/2" CONDUIT FOR CONTROL CABLES
- 15 ALARM INDICATING LIGHT
- 16 #6 AVERAGE COLLECTING ARRESTER GROUNDING CONDUCTOR IN 1/2" ROD
- 17 GALV. STEEL CONDUIT FOR LIGHTING ARRESTER TERMINAL OR CONDUCTOR
- 18 #12 REBAR ON IN 3/4" CTD POLE INTENDED AREA LIGHT AREA LIGHT SHALL BE 1750 MEDIUM VARIOR WITH PHOTOELECTRIC CONTROL AND INDICATING ARM
- 19 1/2" CONDUIT FITTINGS



WET WELL ELECTRICAL CABLE ENTRY DETAIL
NOT TO SCALE



TYPICAL DITCH SECTIONS
NOTE: WHERE PIPE CROSSES ROAD, MANHOLE SHALL PAVE WITH 2" OF THE SAME AS EXISTING PAVEMENT WHICH EVER IS GREATER

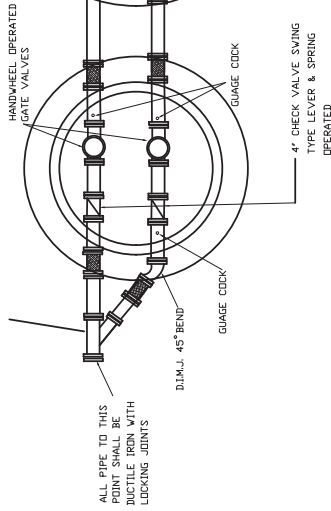
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Consulting Engineer / Surveyor
P.O. Box 690
Harrrogate, Tennessee 37752
425-526-7715
WPN22.0156

SPRINGDALE FORCE MAIN PROJECT PUMPING STATION NO.2 100 GAL/MIN	APPROVED BY VILLIAM L. PARSONS	REVISED
SCALE: AS SHOWN	DATE: 12/6/2022	

ADDITION TO CLAIBORNE UTILITIES DISTRICT
CIVIL DISTRICT NO. ONE
CLAIBORNE COUNTY TENNESSEE

FILE NO.
SOP/PM/NO.2

PAINT ALL VALVES & PIPING INSIDE VALVE VAULT WITH BITUMINOUS PAINT



ALL PIPE TO THIS POINT SHALL BE DUCTILE IRON WITH LOCKING JOINTS

D.I.M.J. 45° BEAD

GAUGE COCK

4" CHECK VALVE SWING TYPE LEVER & SPRING OPERATED

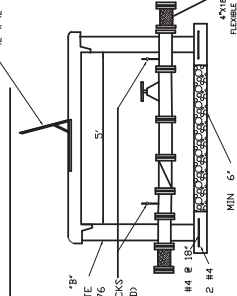
VALVE VAULT

NET TO SCALE



2/2/2023

VALVE VAULT TOP SLAB

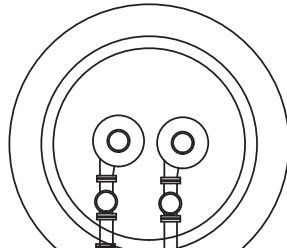


VALVE VAULT

NET TO SCALE

EFFECTIVE STORAGE
HIGH LEVEL ELEV. 12' - 0" PUMP REF. ELEV. 7'-0"
IF X 374 GAL. FT. 3740 GAL.
STORAGE TIME - 3740 GAL. / 8778 - 43 MIN
EMERGENCY STORAGE
ELEV. OF INLET PIPE 10'-0" x 13"
ELEV. OF ALARM 10'
TOTAL EMERGENCY STORAGE
3 X 374 GAL. FT. = 1122 GAL.
TOTAL TIME 206 MIN

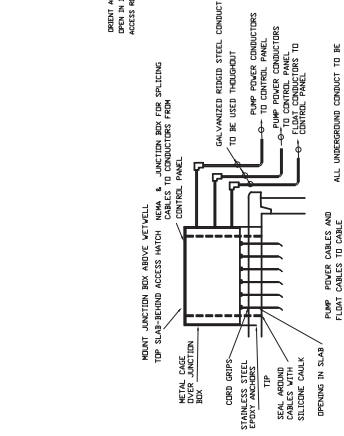
DUPLEX PUMPING NO.3 120 GAL./MIN



PUMPING STATION

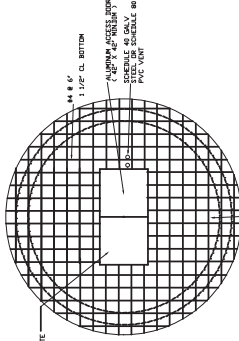
NET TO SCALE

PUMP OFF 3' OFF BOTTOM
PUMP ON 4' OFF BOTTOM
TIME RUN GAL./200 GAL./MIN = 313 MIN
DESIGN 20,100
376 GAL. → 75 CYCLES



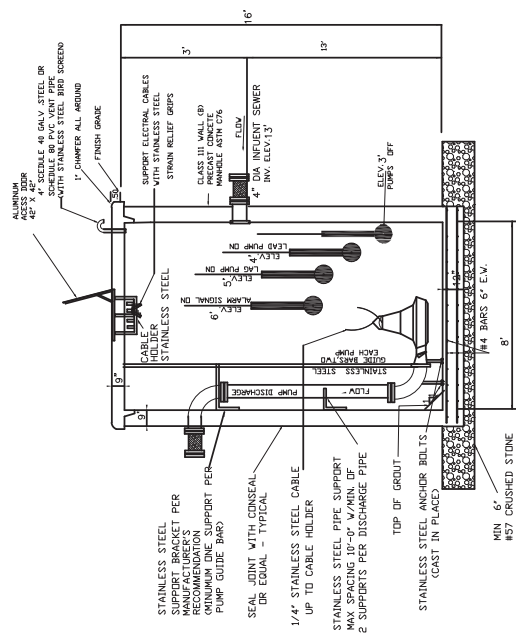
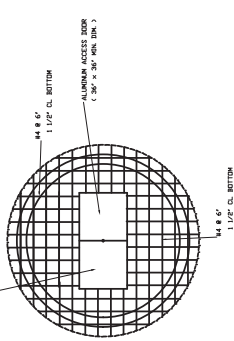
WET WELL ELECTRICAL CABLE ENTRY DETAIL

NET TO SCALE



WET WELL TOP SLAB

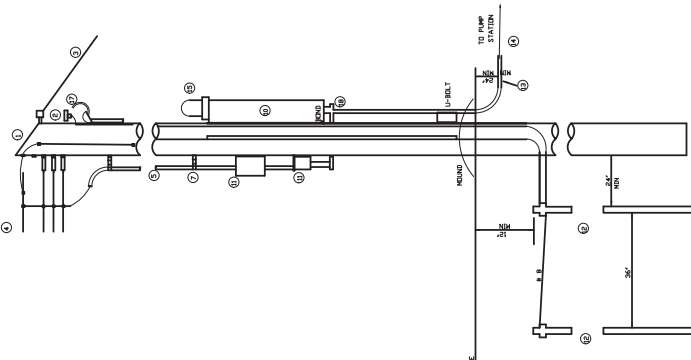
NET TO SCALE



TYPICAL DITCH SECTIONS

ROCK CUT

NOTE: WHERE PIPE CROSSES ROAD OR PAVEMENT WITH 2" OF THE SAME AS EXISTING PAVEMENT WHICH EVER IS GREATER



- 1 25 FOOT CLASS 4 SOUTHERN YELLOW PINE POLE
- 2 LIGHTNING ARRESTER WITH MOUNTING BRACKETS
- 3 DOWN DUTY BY CONTRACTOR
- 4 DOWN DROPS BY ELECTRIC UTILITY 150/240 VOLTS, 4 WIRE, 3 PHASE, 60 HERTZ
- 5 3 # 2.1 # 8 ANCHOR THRU WALL 2" C.
- 6 # 6 ANCHORED CIRCUMFERENTIAL CONDUCTOR SPACED ON 2 FT CENTERS
- 7 1/2" CONDUIT (CONDUIT TO BE USED IN ALL WET WELLS)
- 8 BRASS CONDUCTOR ROAD ARRESTOR COVER
- 9 FASTEN WITH 3 COPPER STAPLES
- 10 ELECTRIC METER AND BASE
- 11 PUMP CONTROL PANEL
- 12 100 AMP 3 BLADE 5/16x4 VOLT, SINGLE THROW, 4 USEABLE SAFETY SWITCH WITH 100 AMP LAMP FUSES
- 13 8' LONG X 5/8" C/W GROUND ROD
- 14 1-1/2" CONDUIT FOR PUMP MOTOR CABLE CONDUCTORS
- 15 1-1/2" CONDUIT FOR CONTROL CABLES
- 16 ALARM INDICATING LIGHT
- 17 46 AWG/1000 COLLECTING TO LIGHTNING ARRESTOR TERMINAL OR CONDUCTOR
- 18 GALSTEEL COLLLECTING TO LIGHTNING ARRESTOR TERMINAL OR CONDUCTOR
- 19 SHEARER ONE IN 3/4" CTD PILE MOUNTED AREA LIGHT AREA LIGHT SHALL BE 175W MERCURY VAPOR WITH PHOTOCELL CONTROL AND MOUNTING ARM
- 20 1/2" CONDUIT FITTINGS

PUMPING STATION NO.3 120 GAL./MIN

STATIC HEAD ON PUMPS 1508 - 1470 + 14 = 52'

FRICITION HEAD ON PUMPS 8.190' X 8.2' / 1000' = 66.83'

TELEMETRY WILL BE USED 118.83'

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P.O. Box 690
Harrrogate, Tennessee 37752
423-5261-7715

PROJECT NO. WPN 22-0156
PUMPING STATION NO.3 120 GAL./MIN

SPRINGDALE FORCE MAIN PROJECT

SEWER EXTENSION

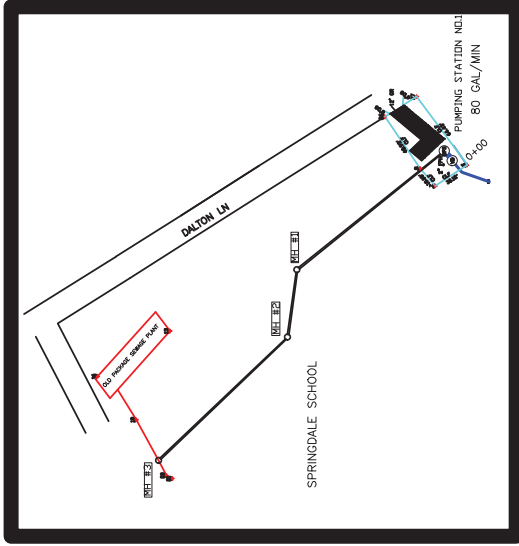
APPROVED BY: VILLIAM L. PARSONS

DATE: 12/6/2023

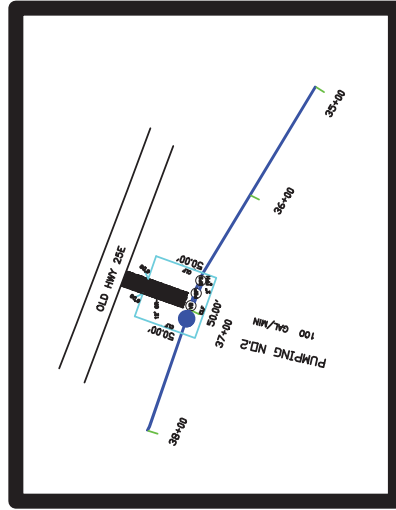
REVISION:

CIVIL DISTRICT NO. ONE
CLAIBORNE COUNTY TENNESSEE

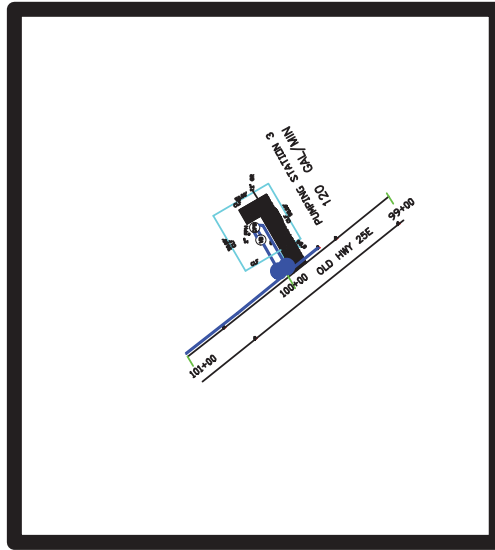
FILE NO. SUP16MNO3



PLAN VIEW



PLAN VIEW

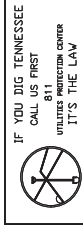


PLAN VIEW

- LEGEND
- CLF CHAIN LINK FENCE
 - 6" DG 6" DOUBLE GATE
 - 6" DG 6" DOUBLE GATE FOR DUPLEX PUMPS
 - WB VALVE VAULT
 - WB VALVE VAULT FOR PROGRACK PUMPS
 - 24" FRP 12" WIDE GRAVEL ROAD
 - 12" FRP 12" WIDE GRAVEL ROAD



2/2/2023



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 Harrogate, Tennessee 37752
 423-886-7715

PROJECT NO. 22.0156

SITE LAYOUT FOR PUMPING STATIONS FOR CLAIBORNE UTILITIES DISTRICT	
SCALE: 1" = 50'	APPROVED BY: WILLIAM L. PARSONS
DATE: 12/6/2022	REVISED: SPRING DALE SEWER

FILE NO. CIVIL DISTRICT NO. 006	SOP/PLANS
CLAIBORNE COUNTY TENNESSEE	

APPROVED SEWER SPECIFICATIONS ARE ON FILE AT CLAIBORNE UTILITIES DISTRICT

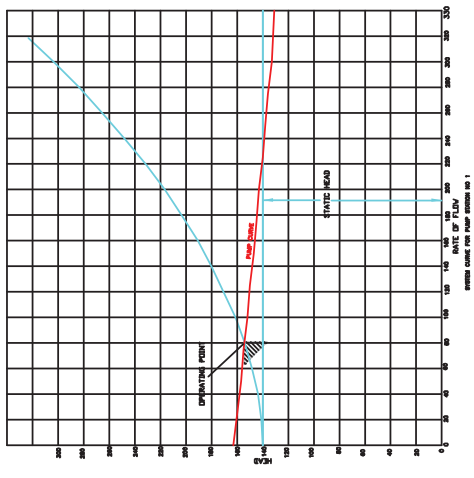
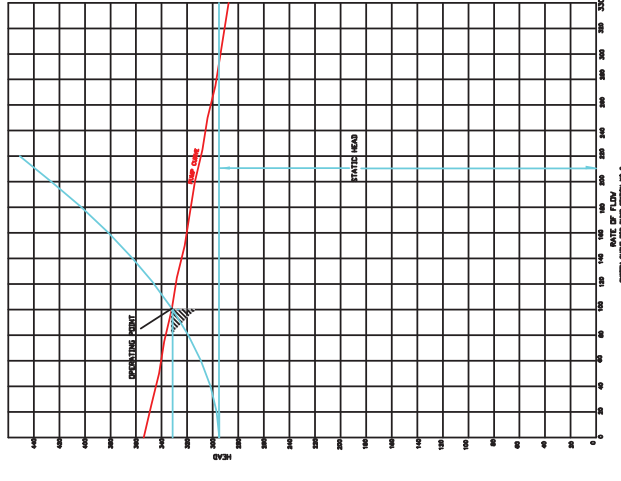
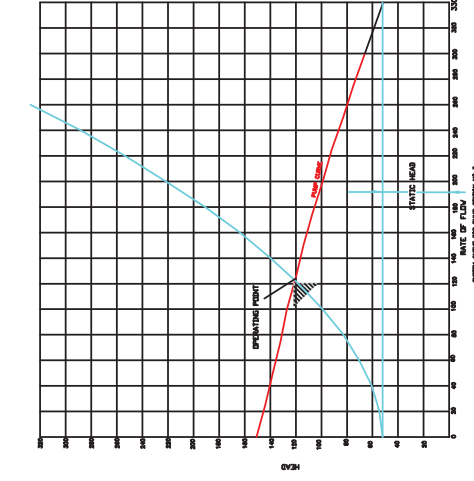


2/2/2023

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 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 (423) 586 7715

PROJECT NOLVFN 220156
 SYSTEMS CURVES PLOTTED OVER PUMP CURVES

SPRINGDALE FORCE MAIN PROJECT		FILE NO.
SEWER EXTENSION	PROJECT NO.	PUMPS/CURVE2
DATE	DESIGNED BY	
	WILLIAM L. PARSONS	REVISED
ADDITION TO CLAIBORNE UTILITIES DISTRICT		
CIVIL DISTRICT NO. 10		
CLAIBORNE COUNTY TENNESSEE		



PUMPING STATION #1 / 80 GAL/MIN VELOCITY 2.04 FEET PER SECOND

POTENTIAL CUSTOMERS GAL	SERVICE STATION	TOTAL 12 HOURS SCHOOL GAL	HOUSES SERVED	TOTAL HOUSES SERVED	AVERAGE SEWAGE FLOW GAL PER MIN	PEAK SEWAGE FLOW GAL PER MIN	PIPE DIAMETER INCHES
		2500			3.47	13.89	4
	1000				1.39	5.56	4
3600			12	12	2.5	10	4

LINE BETWEEN NO1 & NO2 PUMPING STATION 3700'
WATER IN LINE 2590 GALLONS

PROJECT:WPN22.0156

PUMPING STATION #2 / 100 GAL/MIN VELOCITY 2.55 FEET PER SEC

PUMPING STATION NO.1 GAL	HOUSES SERVED	TOTAL HOUSES SERVED	AVERAGE SEWAGE FLOW GAL PER MIN	PEAK SEWAGE FLOW GAL PER MIN	PIPE DIAMETER INCHES
7100			7.36	29.45	4
POTENTIAL CUSTOMERS 18,000		60	12.5	50	4

LINE BETWEEN PUMPING STATION 2 AND PUMPING STATION 3 6300'
WATER IN LINE 4410 GALLONS

PROJECT:WPN22.0156

PUMPING STATION #3 / 120 GAL/MIN VELOCITY 3.06 FEET PER SECOND

PUMPING NO 2	TOTAL 12 HOURS SCHOOL	HOUSES SERVED	TOTAL HOUSES SERVED	AVERAGE SEWAGE FLOW GAL PER MIN	PEAK SEWAGE FLOW GAL PER MIN	PIPE DIAMETER INCHES
25,100				19.86	79.45	4
POTENTIAL CUSTOMERS 28,000	3,000		10	2.08	8.33	4

LINE BETWEEN PUMPING STATION 3 AND MANHOLE 8050 FT
WATER IN LINE 5635 GALLONS

VOLUME OF ONE CUBIC FOOT OF WATER

PI (R) H 62.4 =VOL
 PI (R)² H 62.4 =VOL
 PI (4)² 1=50 CF
 GAL OF WATER = CUBIC FEET X 7.48
 GAL OF WATER = 50 FT³ X 7.48 GAL/FT³=374 GAL

NOTES

- THE PROJECT DOES NOT INCLUDE DEMOLITION OF EX. PACKAGE PLANT
- THE SPRINGDALE SCHOOL HAS A EXISTING GREASE TRAP
- THE APPROVED STANDARD SPECIFICATIONS (IF APPLICABLE) WILL BE AVAILABLE AT CLAIBORNE UTILITIES DISTRICT
- ALL MANHOLES,PUMPS & APPURTENANCES WILL HAVE CORROSION COATINGS WITH CONSEAL CS-95
- HIGH-TIDE TELEMETRY SERVICE WILL BE REQUIRED
- THE ENTIRE FORCEMAIN IS ON HIGHWAY R.O.W. & SCHOOL PROPERTY
- THERE ARE NOT PROVISIONS FOR OROOR CONTROL BUT IF OOROR BECOMES A PROBLEM CUD WILL ADDRESS THE ISSUE
- FLEXIBLE CONNECTIONS WILL BE USED WHERE PIPES ENTER & EXIT THE WET WELLS & VALVE BOXES
- VOLUME OF WASTE WATER WILL BE DETERMINED BY METERING OF THE WATER USAGE OF THE SCHOOL
- FOR PUMP STATION 2 TWO PUMPS WILL BE USED IN SERIES TO ACHIEVE THE REQUIRED HEAD
- WE HAVE REVISED THE DETAILS OF PUMP STATION NO.2 SHOWING THAT PUMP 2A IS SUBMERSEBLE AND PUMP 2B IS IN A DRY WELL
- A 2" WATER LINE WILL BE INSTALLED AT ALL PUMPING STATION IN THE EVENT THAT FLUSHING IS NECESSARY
- THREE PUMPING STATIONS ARE NECESSARY TO PROVIDE SERVICE TO THE SCHOOL
- HOW LONG WILL THE SEWAGE BE IN THE FORCE MAIN (1 DAY BY DESIGN)

PUMPING STATION NO.1 80 GAL/MIN

DUPLEX PUMPING STATION NO.1 80 GAL/MIN

STATIC HEAD 1195.00--1055.00=140.00'
 FRICTION HEAD 3700' X 4.0'/1000'=14.8'
 C=140 TOTAL HEAD =154.80'

TELEMETRY WILL BE USED

HIGH LEVEL ELEV.7' - PUMP OFF ELEV. 3' = 4'
 4 X374 GAL/FT=1496 GAL.

EMERGENCY STORAGE

ELEV. OF INLET PIPE 16'-3"=13'
 ELEV. OF ALARM 7'
 TOTAL EMERGENCY STORAGE

6' X 374 GAL/FT =2244 GAL
 2244 GAL/29.46 GAL/MIN=76 MIN
 76 MIN/60=1 HR AND 16 MIN

VELOCITY CALCULATIONS
 V= VELOCITY / FT / SEC
 Q= FLOW RATE (GPM)
 D= PIPE INSIDE DIAMETER
 EQUATION
 $V=0.408 \frac{Q}{D}$

VELOCITY 2.04 FT/SEC

PUMPING STATION NO.2 100 GAL/MIN

STATIC HEAD ON PUMPS 1476'-1195'+14'=295.00'

C=140 FRICTION HEAD ON PUMPS 6300' X 6.4'/1000'=40.32'
 335.32'

TELEMETRY WILL BE USED

EFFECTIVE STORAGE

HIGH LEVEL ELEV.7' - PUMP OFF ELEV. 3' = 4'
 4 X374 GAL/FT=1496 GAL.

EMERGENCY STORAGE

ELEV. OF INLET PIPE 16'-3"=13'
 ELEV. OF ALARM 7'

TOTAL EMERGENCY STORAGE
 6' X 374 GAL/FT =2244 GAL
 2244 GAL/79.49 GAL/MIN=28 MIN

VELOCITY CALCULATIONS
 V= VELOCITY / FT / SEC
 Q= FLOW RATE (GPM)
 D= PIPE INSIDE DIAMETER
 EQUATION
 $V=0.408 \frac{Q}{D}$

VELOCITY 2.55 FT/SEC

PUMPING STATION NO.3 120 GAL/MIN
 STATIC HEAD ON PUMPS 1508'-1470'+14'=52'

FRICTION HEAD ON PUMPS 8050' X 8.2'/1000'=66.01'
 118.01'

TELEMETRY WILL BE USED

EFFECTIVE STORAGE

HIGH LEVEL ELEV.7' - PUMP OFF ELEV. 3' = 4'
 4 X374 GAL/FT=1496 GAL.

EMERGENCY STORAGE

ELEV. OF INLET PIPE 16'-3"=13'
 ELEV. OF ALARM 7'
 TOTAL EMERGENCY STORAGE

6' X 374 GAL/FT =2244 GAL
 2244 GAL/87.78 GAL/MIN= 26 MIN

VELOCITY CALCULATIONS
 V= VELOCITY / FT / SEC
 Q= FLOW RATE (GPM)
 D= PIPE INSIDE DIAMETER
 EQUATION
 $V=0.408 \frac{Q}{D}$

3.06 FT/SEC

ANTI-FLOTATION CALCULATIONS

VOLUME OF VAULT

PI (R)² H 62.4 =VOL
 PI (4.75)² 17 62.4 =66,346 POUNDS

WEIGHT OF CONCRETE

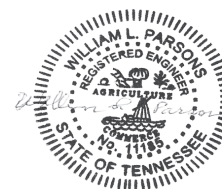
SIDES PI D TH=POUNDS
 PI(8.75) (0.75) (16) (150 #/FT³ = 49,480 #
 TOP + BOTTOM

PI (4.75)² (2.0) (150 #/FT³ = 21,265 #
 O.K. 70,745 POUNDS

CALCULATIONS APPLY TO PUMP STATION 1,2 & 3

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 Consulting Engineer / Surveyor
 P.O. Box 690
 Harrogate, Tennessee 37752
 426-526-7715

PROJECT NO.WPN 22.0156



2/2/2023

HYDRAULIC CALCULATIONS AND NOTES

SPRINGDALE FORCE MAIN PROJECT SEWER EXTENSION		
SCALE:1"=4' N.T.S. DATE:12/6/2022	APPROVED BY: WILLIAM L. PARSONS	REVISED:
ADDITION TO CLAIBORNE UTILITIES DISTRICT		
CIVIL DISTRICT NO.10 CLAIBORNE COUNTY TENNESSEE		FILE NO. HYDESIGNSD