

APPLICATION PROCEDURES
FOR ON-SITE SEWER PERMITS

STANDARD SYSTEMS

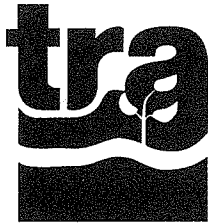
1. Completed application signed by property owner
2. Site Evaluation
3. Original detailed drawing
4. Prescribed application fees: \$120.00 for new systems
 \$ 40.00 for add-on to existing systems

AEROBIC SYSTEMS

1. Completed application signed by property owner
2. Site Evaluation
3. Original detailed design signed and sealed by Professional Engineer or Registered Sanitarian
4. Affidavit to the Public with Filing Fees for the County Clerk
5. Maintenance agreement
6. Landscaping Plan
7. Prescribed application fees: \$120.00 for new systems
 \$ 40.00 for add-on to existing systems

Allow 7 to 10 days for review of plans and site evaluation.

NOTE: ALL OF THE ABOVE REQUIRED INFORMATION WILL NEED TO BE TURNED IN AT ONE TIME. IF ANY ONE ITEM IS MISSING THE APPLICATION WILL NOT BE ACCEPTED.



Trinity River Authority of Texas
LAKE LIVINGSTON PROJECT

Serving as an agent of the Texas Commission On Environmental Quality.

P. O. Box 360 A/C 936
Livingston, TX 77351 365-2292

APPLICATION FOR ON-SITE SEWERAGE FACILITY

I hereby make application to install and operate an on-site sewerage facility within the 2,000 foot Water Quality Zone as designated by TAC Regulation 285.3 of the Texas Commission On Environmental Quality.

NAME OF APPLICANT LEAGUE CLENT EDWARD
MAILING ADDRESS P.O. Box 2469 ONALASKA TX 77360
HOME TELEPHONE NO. 936-967-5833 BUSINESS TELEPHONE NO. -

LOCATION OF PROPOSED CONSTRUCTION: COUNTY POLK
SUBDIVISION SANDY RIDGE SECTION BLOCK LOT G/F

DESCRIBE LOCATION IF NOT IN SUBDIVISION 102.17 X 121.08 X 99.62 X 107.84 LOT DIMENSIONS

TYPE OF CONSTRUCTION FRAME-CAMP HOUSE COMMERCIAL () DWELLING (X)

NO. OF BEDROOMS 1 (ONE) NO. OF BATHROOMS 1 (ONE)

GARBAGE DISPOSAL No WASHING MACHINE No DISHWASHER No

SEPTIC SYSTEM: PROPOSED (X) EXISTING () HOLDING TANK ()

If existing system complete the following items:

SIZE OR DIMENSION OF TANK

DRAINFIELD: A. WIDTH OF DRAINFIELD DITCH

B. TOTAL LENGTH OF DRAINFIELD

C. TOTAL TRENCH BOTTOM AREA OF DRAINFIELD (Length x Width)

D. DRAINFIELD DISTANCE FROM WATER'S EDGE (131 ft. MSL)

Authorization is hereby given to the Trinity River Authority of Texas, Texas Department of Health, and the Texas Commission On Environmental Quality or their agents or designees, singularly or jointly, to enter upon the described property for the purpose of performing site evaluations, inspection septic systems or for any reason consistent with the water quality programs of the Trinity River Authority of Texas, The Texas Department of Health, or the Texas Commission On Environmental Quality.

Signature of Applicant Clent E. League Date 11-5-07

POLK COUNTY PERMITS

602 E. Church • Suite 400
Livingston, Texas 77351
(936) 327-6826 • (936) 327-6890 Fax
pcpermits@hotmail.com

TYPE OF PERMIT 911, DEV FEE PAID 50.00

APPLICATION FOR DEVELOPMENT AND ON-SITE SEWERAGE FACILITY PERMIT

NAME OF APPLICANT: League Eddie + Patricia
(LAST) (FIRST) (MIDDLE)

MAILING ADDRESS: PO Box 2469 Dumas Tx 71360-2469
(CITY) (STATE) (ZIP)

911 ADDRESS (office use) _____

HOME TELEPHONE: 936-967-5833 BUSINESS # 668 0744
cell 936

ARE YOU A NEW POLK CO. RESIDENT: YES _____ NO WATER CO. NAME & PH.# LLW
327-3107

LOCATION OF PROPOSED CONSTRUCTION:

SUBDIVISION: Sandy Ridge SECTION _____ BLOCK Bridle + Pt + LOT 3

DIRECTIONS TO PROPERTY: 190 W. On left after Sandy Ridge Dr.

LOT DIMENSIONS: _____ ACRES _____

TYPE OF SOIL: _____

SEPTIC SYSTEM: PROPOSED TRA EXISTING _____ HOLDING TANK _____

WILL A LICENSED INSTALLER, INSTALL YOUR SYSTEM? _____ WHEN? _____

IS THERE A PRIVATE/PUBLIC WELL WITHIN 100' / 150' OF PROPERTY? YES _____ NO

TYPE OF CONSTRUCTION Frame - camp house COMMERCIAL _____ RESIDENTIAL

NUMBER OF OCCUPANTS one NUMBER OF BEDROOMS 1 NUMBER OF BATHROOMS 1

GARBAGE DISPOSAL _____ WASHING MACHINE _____ DISHWASHER _____

	EXISTING	SQUARE FEET	YEAR
NEW BUILDING		<u>336</u>	
ADDITION TO BUILDING			
MOBILE HOME			
COMMERCIAL			

IS BUILDING IN THE FLOOD PLAIN? YES _____ NO

Authorization is hereby given to Polk County, Texas, Texas Department of Health, and the Texas Natural Resource Conservation Commission or their agents or designees, singularly or jointly, to enter upon the described property for the purpose of making soil evaluation test, inspecting septic systems, evaluating flood hazards or for any reason consistent with the water quality programs of the Texas Department of Health, and the Texas Natural Resource Conservation Commission.

Signature of Applicant Paul E. League Date 10-22-07

RECEIPT

DATE 10/19/07 No. 635120

RECEIVED FROM Eddie League \$ 50.00

Fifty & no/100 DOLLARS

24814 911, DEV TRA

FOR RENT
 FOR

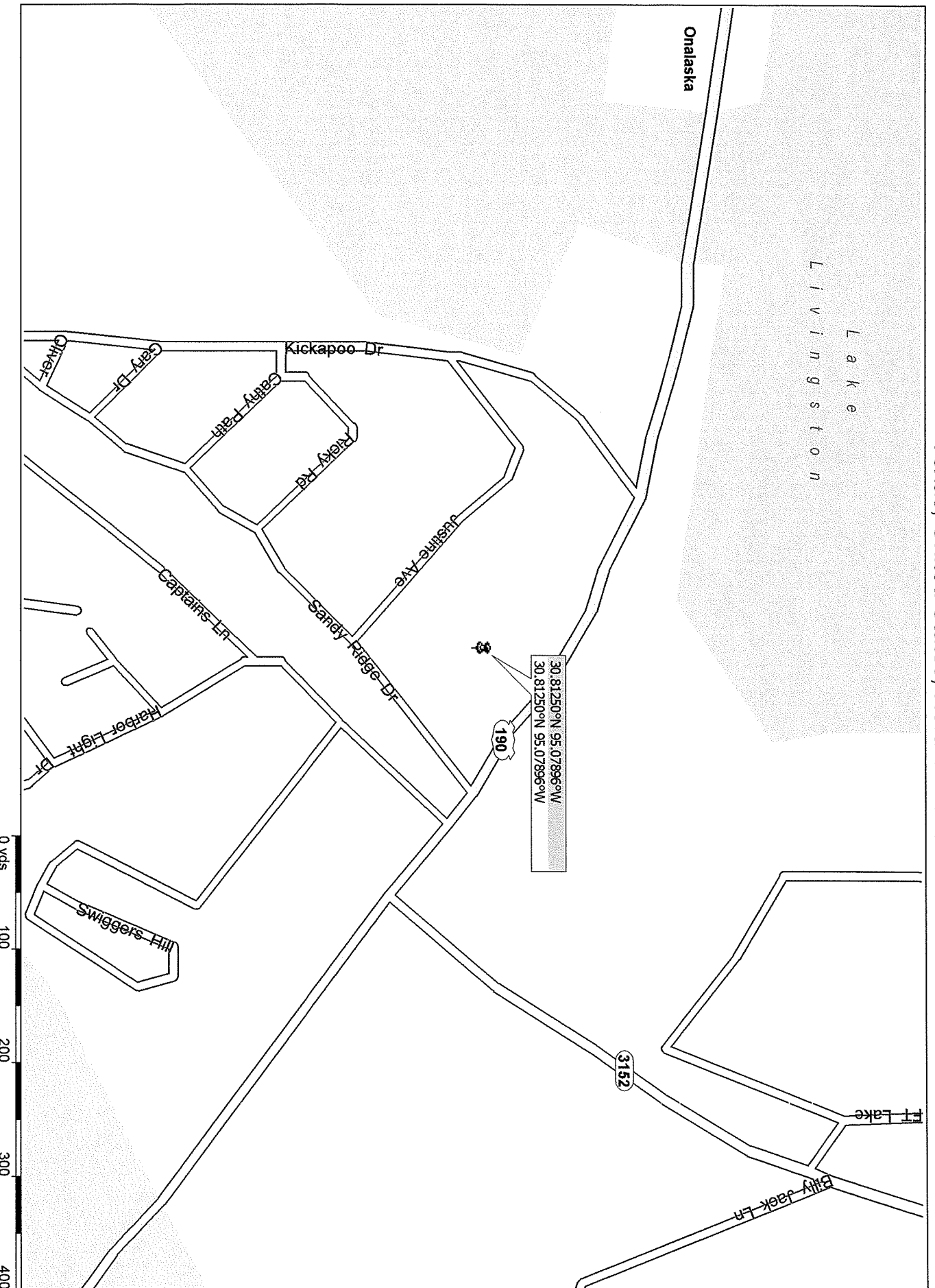
ACCOUNT	<u>25</u>	<u>-</u>	<input checked="" type="checkbox"/> CASH
PAYMENT	<u>25</u>	<u>-</u>	<input checked="" type="checkbox"/> CHECK
BAL. DUE	<u>---</u>	<u>---</u>	<input type="checkbox"/> MONEY ORDER

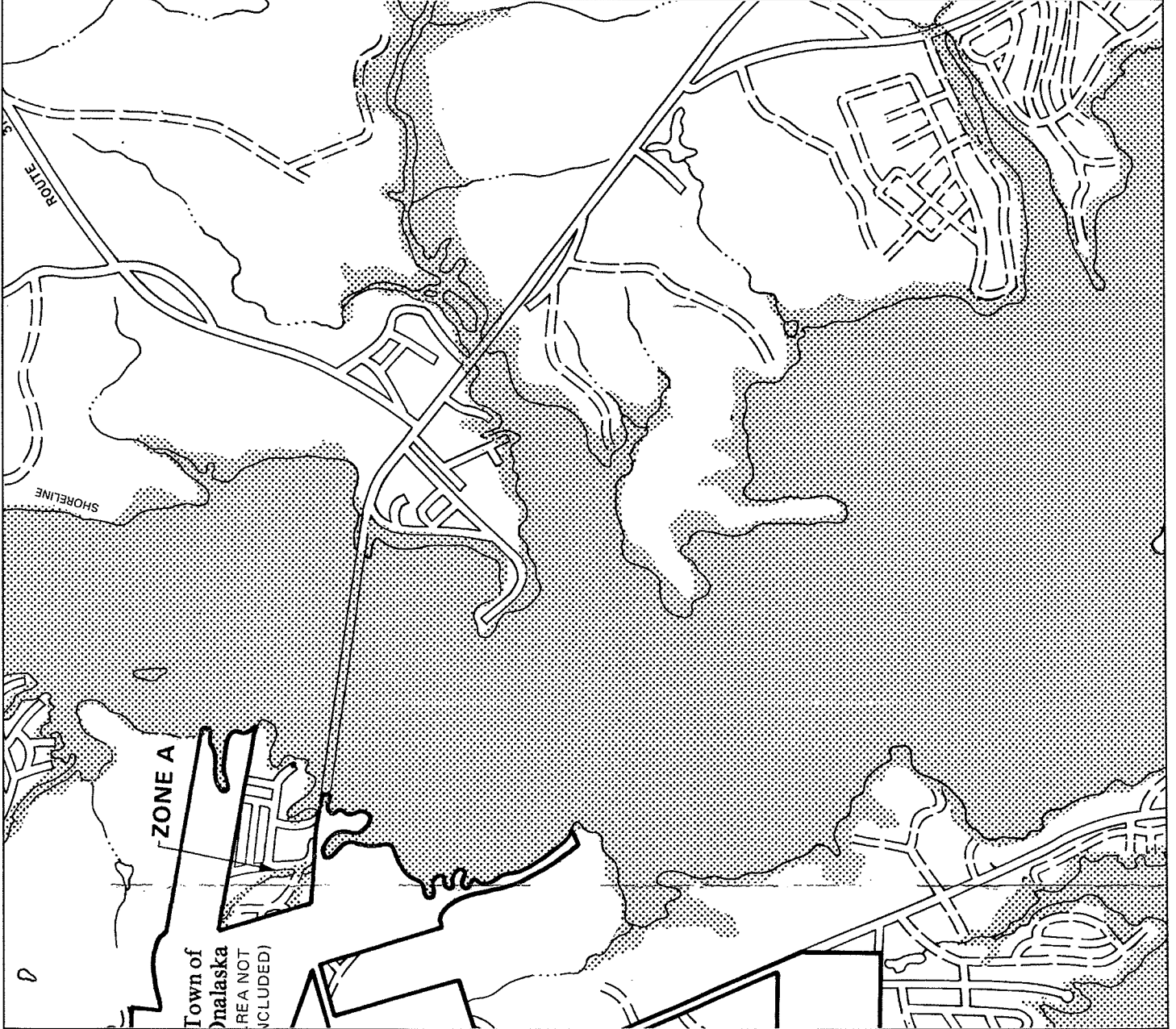
FROM _____ TO _____

BY cm

1182

Texas, United States, North America





FLOOD HAZARD BOUNDARY MAP

**POLK COUNTY,
TEXAS**
UNINCORPORATED AREA
PAGE 6 OF 14
(SEE MAP INDEX FOR PAGES NOT PRINTED)

EFFECTIVE DATE:
DECEMBER 13, 1977

CONVERTED BY LETTER
EFFECTIVE 3/1/91
COMMUNITY-PANEL NO.
480526 0006 A



**U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT**
FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT Version 1.0. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. Further information about National Flood Insurance Program flood hazard maps is available at www.fema.gov/nifm/itsd.



On Site Sewage Facilities

Planning Documents

Site evaluation and Septic Design

Owner:

Clent E League

Address:

386 Town Country
Livingston, Texas 77351
Home Number 1-936-967-5833

Physical Property Address:

180 Justin
Livingston, Texas 77351

TRA - Polk Richard Gerard TCEQ Designated Representative

GPS Location:

Latitude 30.81250 Degrees North and Longitude 95.07896 Degrees West
Section Block Lot G of Sandy Ridge

Property Description: Approximate Acres =.28

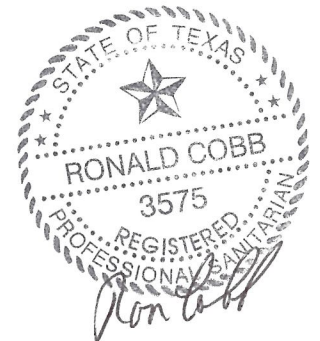
Undeveloped highway frontage lot with sparse tree.

Recommended On-Site Sewage Facility Low Pressure Dosing - Septic Tank

Rated for a minimum capacity of 180 Gallons Per Day.

Site Inspection Date 07/24/2008

Job Number - S072408_1_League_



Blue Water Works 1-936-646-5115

Owner Interview

Site status at the time of the evaluation.

Yes - Will there be more than one piece of property used?

Yes - Are you the owner of all properties involved?

Yes - Was the property plated before 1988?

No - Are there abandoned or active private water wells on your property?

Yes - Are there public wells on neighboring properties? (150ft)

Yes - if yes can you locate?

No - Do you have any cisterns or underground tanks on your property

No - Is property serviced by a public water supply?

No - Is there an existing on site sewage system?

No - Is there underground drainage on the property?

No - Is there underground water supply lines?

No - Is there underground gas supply lines?

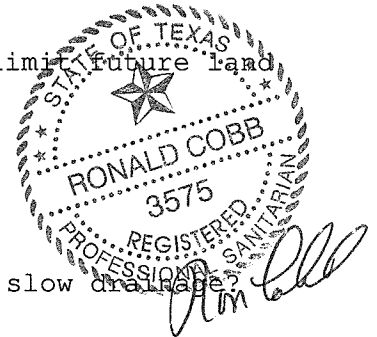
No - Is there underground electrical lines?

No - Is there a sprinkler system installed on any part of the property?

Yes - Do you understand that new disposal areas will limit future land use of those areas?

Yes - Does your home use water saving devices?

No - Does any part of the properties exhibit poor or slow drainage?



Blue Water Works 1-936-646-5115

OSSF Soil/Site Evaluation Form

07/24/2008

Bore Number 1

From Surface to 6 inches Dominate Soil Class is II
Description: Sandy Loam

From 6 inches to 13 inches Dominate Soil Class is III
Description: Sandy Clay Loam (very hard clay)

From 13 inches to 48 inches Dominate Soil Class is IV
Description: Mottled Red Clay (very hard)

First sign of seasonal water noted at 13 inches. No signs of a water table were noticed in this bore.

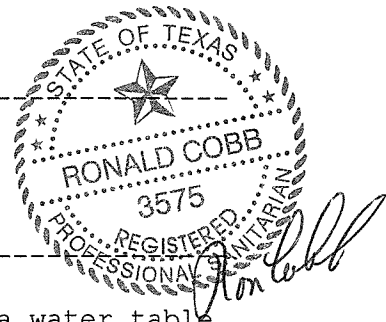
Bore Number 2

From Surface to 6 inches Dominate Soil Class is II
Description: Sandy Loam

From 6 inches to 16 inches Dominate Soil Class is III
Description: Sandy Clay Loam (very hard clay)

From 16 inches to 48 inches Dominate Soil Class is IV
Description: Mottled Red Clay (very hard)

First sign of seasonal water noted at 16 inches. No signs of a water table were noticed in this bore.



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Design

Waste Volume - Facility Type

The type of facility as listed in Chapter 285.91 Table III is Single Family Dwelling (one or two bedrooms) - less than 1500 ft². The base usage rate with water saving devices in use is 180 gallons per day.

Single Family Dwelling (one or two bedrooms) - less than 1500 ft² = 180
Q - Total Design Flow 180

Application Criteria (Chapter 285.91 Table V)

Slope of the site in the application area is 3.12%.
Restrictive horizons were not encountered in the borings made in the proposed application area.
No signs of a seasonal high water table were noted during the soil borings.
No free water was noted during the soil borings.
The site is not in the 100 year floodplain and is not in a floodway.
Site acreage is in compliance with requirements of Chapter 285.

Site Data

Public water lines do not cross the site

The property does not have water borders. (Streams, Ponds, Lakes, or Creeks)

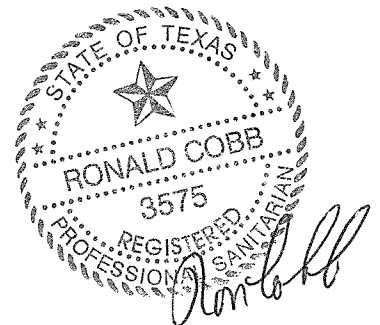
The property does not have steep slopes that could be the source of seeps.

Soil Type

Controlling soil type is Soil Class IV

OSSF

Recommended On-Site Sewage Facility Low Pressure Dosing - Septic Tank



Blue Water Works 1-936-646-5115

Treatment Equipment

The pipe from the sewer stub-out to the treatment system should be watertight Schedule 40 PVC or SDR 26. Slope of the line should be no less than 1/8 inch per foot (1%). A two-way cleanout plug is required between the sewer stub out and the treatment tank. An additional cleanout plug should be provided every 50 feet on long runs of pipe and within five feet of 90 degree bends. The minimum inside diameter is three inches.

Trash/Pre-treatment tank - 500 gallon tank

Septic unit - 500 gallon tank

Any state approved system listed at http://www.tnrcc.state.tx.us/cgi-bin/enforcement/ossf_approved.pl may be used if rated at or above daily loading.

Pump Tank - 500 gallon tank

An audible and visible high water alarm, on an electric circuit separate from the pump, must be provided.

Single supply pump

Pump Specifications - 31 gpm at a discharge head of 6 ft .

(Ra) per 285.91(1) Application Rate = .10 Gal/Ft²/Day
Application area required for 180 / .10 = 1800 Ft²

Trenches (spaced on 3 foot centers)

15 trenches 40 feet in length

Total linear feet of trench = 600

Trenches should be 6. inches wide and a minimum of 18 inches deep.

Note: (keep dosing pipe level to within plus or minus 2 inches)

Dosing area 600 linear feet or (600*3)=1800 ft².

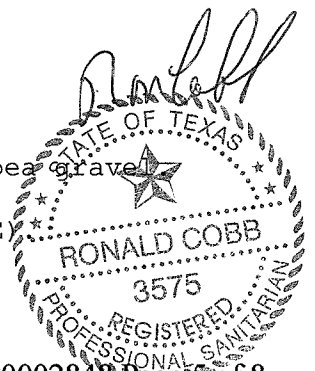
Trench fill:

A minimum of 12.0 inches of chipped tires (max 2in.) or clean pea gravel

Require fill = 11 cubic yards.

Cover with Geotextile fabric meeting criteria in 285.33(b)(1)(E)

Back fill with Class Ib, II, or III soil.



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Calculations: Dosing lateral pipe size

Design Basis - 1/8 inch holes spaced on 5 foot centers
with a head pressure of 2 feet

(Flow from single hole is calculated using formula National Small Flows
Clearinghouse publication WWBKDM090.)

$Q = 11.79 \text{ times } (d) \text{ squared times the square root of } (h)$ where Q is in
gallons per minute [gpm], d is in inches, h is in feet
for $d=4/32$ inches+ and $h = 2$ feet
 $Q = 0.261$ gpm

Longest lateral line is 40 feet with 8 holes.

Total flow in this line is $8. \times 0.261$ gpm = 2.084 gpm

For even distribution pressure loss in lateral line should not exceed 10%
of the design pressure on each hole.

Design pressure is 2 feet

Line loss at this flow rate in a 1 inch schedule 40 PVC is .3 ft per 100
feet.

For the longest lateral of 40 feet the line loss is 0.1 feet.

For lateral lines use 1 inch PVC.

Supply line length is ft

Supply flow rate total is 31. GPM

Line loss at this flow rate in a 1 1/2 inch schedule 40 PVC is .0 ft per
100 feet.

For the supply line length of feet the pressure loss is 0. feet.

For supply lines use 1 1/2 inch PVC.

Elevation lift from pump off to highest point in piping is 6 feet.

Supply line losses plus 10% for fittings is 0. feet.

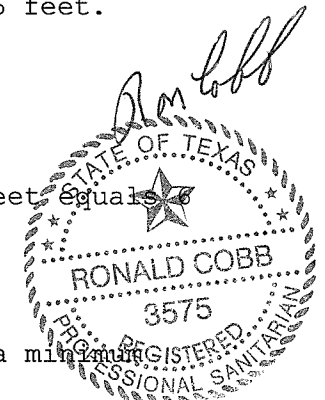
Maximum Lateral line loss as shown above is 0.1 feet.

Minimum supply pressure of pump is 6 feet + 0. feet + 0.1 feet equals 6
feet.

Pump Specifications -

Submersible pump capable of a minimum of 6 feet of head at a minimum
flowrate of 31 gpm.

Ronald F Cobb RS 3575 OS0019171 LI0006066 S012005 OS0021999



BP0002848 Page 6 of 8

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Pump Tank Level Switch Placements:

Header Pipe Volume -

For 1 inch header line size the contained volume is 4.25 Gal/100ft.
 $15 \times 40 \times 4.25/100 = 25.5 \text{ Gal}$

Tank size minimum -

Of Daily Flow - 1/2 Day Dosing + 1/3 above alarm
90 gallons minimum from pump on to alarm on
60 gallons minimum from alarm on to bottom of inlet pipe.
150 Total

Supply Pipe Volume -

For 1 1/2 inch supply line size the contained volume is 4.25 Gal/100ft.
Length of pipe (x)times gallons per foot (=)equals volume
 $0 \times 10.32/100 = .0 \text{ Gal}$

System Volume -

Header volume + Supply volume = Total volume
 $25.5 + .0 = 25.5 \text{ Gal}$

Dosing or Pump Cycle Volume-

Dosing volume is not a clean calculation and involves numerous calculated values and a judgment call on the part of the designer.

UNC Publication recommends a dosing rate based on adding supply pipe volume to 5 times the header volume, 128 Gallons in this case
They also prefer two to four dosing per day which is 45 to 90 gallons.

The contents of the supply and header lines will drain back to the pump tank without a check valve. ;

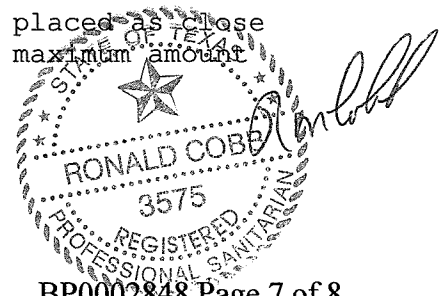
UNC publication does not recommends a check valve as the volume of lines exceeds 25% of daily flow.

Tank strapping is defined as the usable volume per foot. (gal/ft)

Approximate strapping for pump tank is 100 Gal/Ft.
or 8.33 Gal/Inch

Tank strapping may be easily determined for any tank by dividing the distance from the inside bottom to the bottom of the inlet pipe. The tank strapping can then be found by dividing the Manufactures rated capacity for the tank or compartment by the number of inches measured.

Placement of the top switch, the alarm on float, should be placed as close to the pump off switch as possible in order to provide the maximum amount of time available for repair following an alarm.



Blue Water Works 1-936-646-5115

Owner Notes:

Reasonable efforts have been made to assure that this septic design is within your property boundaries. We do not represent ourselves as professional surveyors and can only provide approximate locations of property corners with meets and bounds information. We do not assume any responsibility for misunderstandings or errors. Please review the drawing and notify the designer if you even suspect that any part of this septic design is located on property not owned by you.

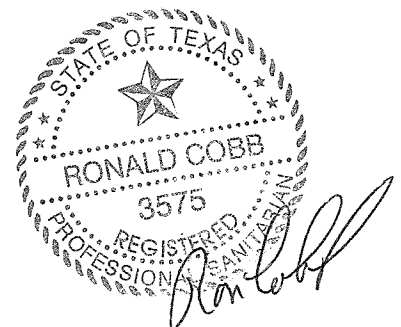
It is recommended that you keep this design along with all equipment information with other important papers. Photos of the installation can prove valuable in later years should maintenance be required.

Installer Notes:

Plastic tanks if installed must be protected from flotation. Buoyancy calculations and installation instructions should be obtained from manufacture and supplied to inspector and designer.

This system must be installed and maintained in accordance with all standards set by the Texas Commission on Environmental Quality and Local officials. This consultant / designer does not represent or warrant the material, installation, operation or proper performance of this system for any period of time. Every attempt has been made to accurately depict the location of lines, plants, tanks, sprinklers, etc. Construction realities may necessitate minor design changes. Any major changes will be submitted before construction.

All Construction methods must be in accordance with all State and Local Codes effecting the installation of On-Site Sewage Facilities





Blue Water Works LLC

212 Lakeshore South
Onalaska, Texas 77360

936-646-5115

Blue Water Works

Owner:

Clent E League

Address:

386 Town Country
Livingston, Texas 77351
Home Number 1-936-967-5833

Date Friday, August 01, 2008

<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>Rate</u>	<u>Amount</u>
1	1	Site Evaluation and Septic Design		300.00
			Non - Taxable in Texas	
Total				<u>\$300.00*</u>

Make check payable to ' Ronald Cobb ' or ' Blue Water Works '

Due upon receipt.

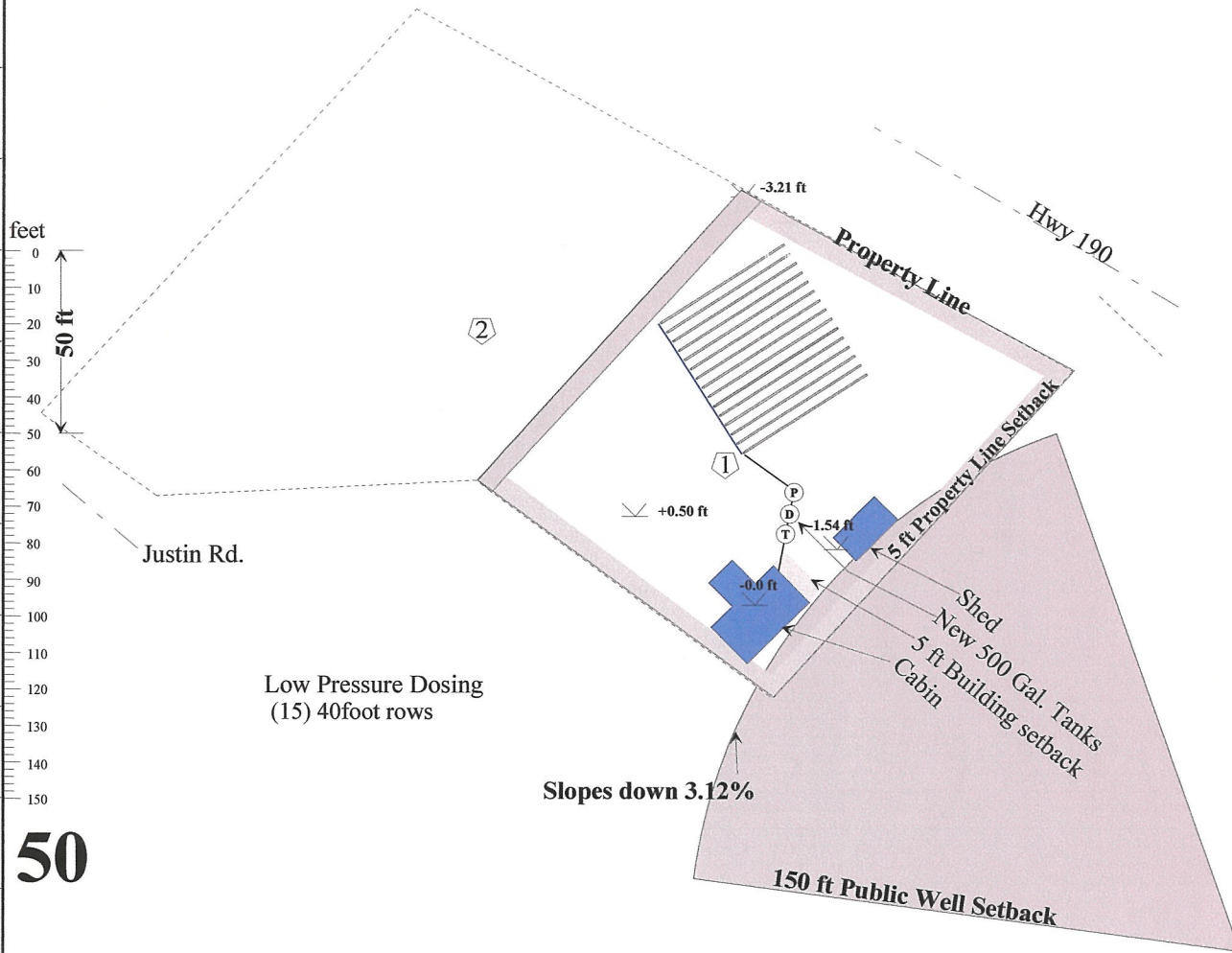
Thank you for your business.

Ron Cobb

Sleeve water line or sewer line
any place where they are closer
than 10 feet.

Tanks may be moved within
reason to expedite installation
and minimize damage to hardscapes.

Set exact trenches locations
to minimize damage
to mature trees

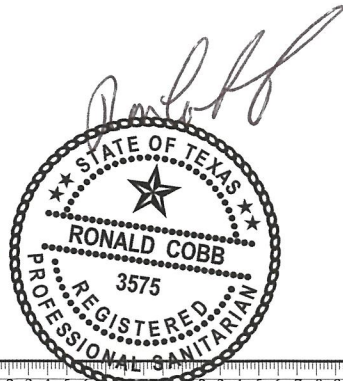


50

Elevations are relative to the location
marked -0.0 ft

Selected Setbacks Shown in Gray

Icon Key: Not to Scale	
	Clean Out
	Water Meter
	Boring
	Elevations
	Tr - Tree



Blue Water Works L. L. C. Ronald F. Cobb R. S. #3575 L. I. #6066	
Job Number: S072408_League	County: TRA Polk
Location:	
Subdivision: Sandy Ridge	
GPS North 30.81250	West 95.07896

0 .1 .2 .3 .4 .5 .6 .7 .8 .9 1 .1 .2 .3 .4 .5 .6 .7 .8 .9 2 .1 .2 .3 .4 .5 .6 .7 .8 .9 3 Decimal Ruler