

BASTROP COUNTY HEALTH & DEVELOPMENT SERVICES

806 Water Street
Bastrop, TX 78602

LICENSE TO OPERATE AN ON-SITE SEWAGE FACILITY

Permit #: 2006-1854

Location: 154 PIONEER PASSAGE, Bastrop TX 78602

Permit Date: 01/03/07

Owner: NALLE CUSTOM HOMES,

Phone: (512) 281-1200

Mailing address: 103 WEST 1ST STREET Elgin TX 78621

A final inspection for the on-site sewage facility installed at the above-described location in Bastrop County has been completed. It is our determination that the system has been installed in basic compliance with the rules set forth under Title 30 TAC, TCEQ Chapter 285, On-Site Sewage Facilities and the Bastrop County Order for On-Site Sewage Facilities.

System Type: AEROBIC W/SPRAY Installer: DAN MATTHES, OS8739
Maximum Water Usage 300 Gallons Per Day

Aerobic Treatment Unit Requiring An On-Going Maintenance Contract?

YES ☒ NO ☐

(to be completed if applicable)

Brand Name: AQUAKLEAR Maintenance Provider: DAN MATTHES, OS8739

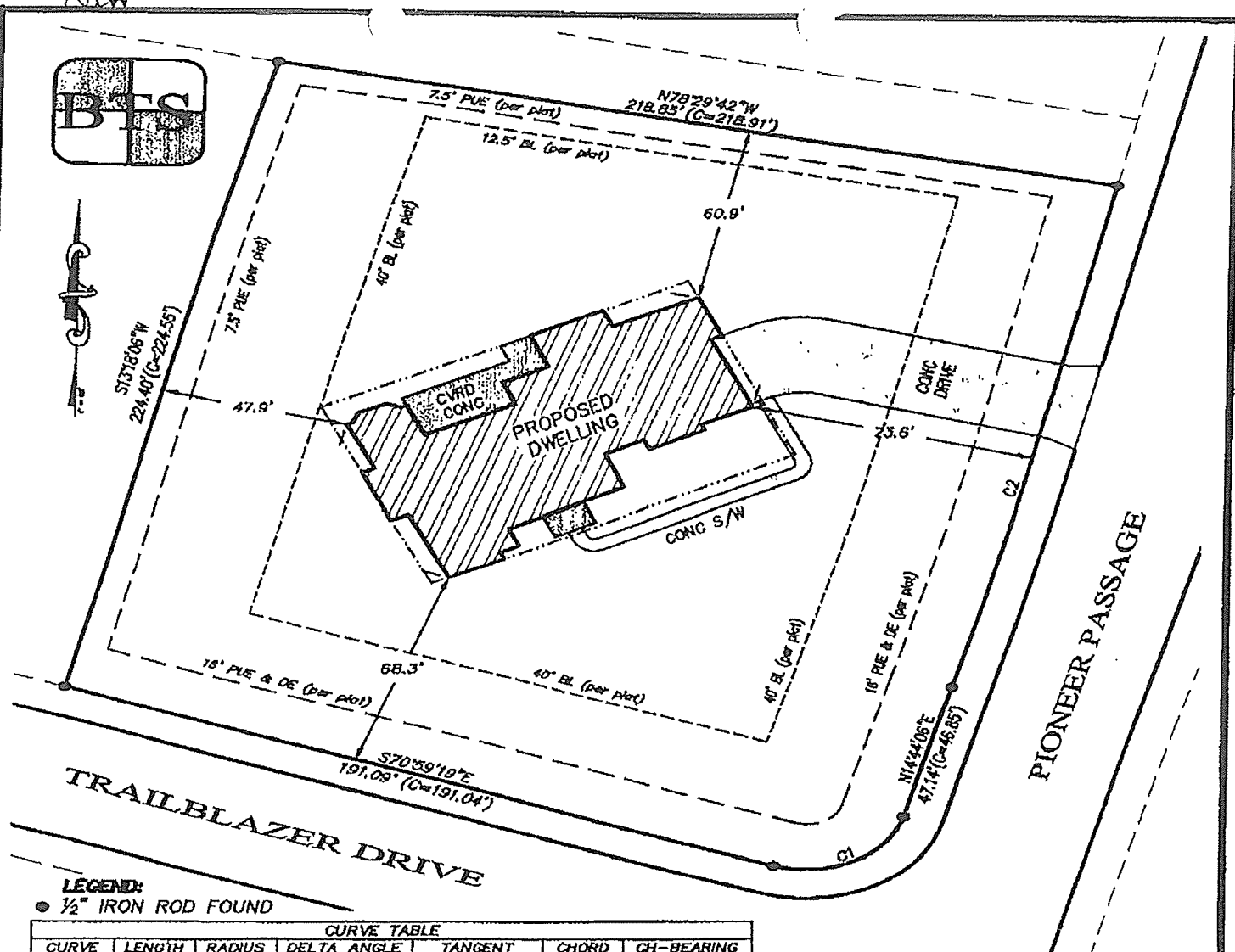
Maintenance Contract

Beginning Date: 3/30/07 Expiration Date: 3/30/09

If you or your Maintenance provider should disagree with these dates, please contact our office. Also, please be reminded that thirty (30) days prior to the contract expiration, you must submit another contract that must be effective for at least one (1) year.

Jessie G. Gandy OS8697
Agency Official

3/26/07
Date



NOTE: BEARINGS SHOWN HEREON BASED ON
EXISTING HORIZONTAL CONTROL NETWORK.

THIS IS TO CERTIFY THAT, ON THIS DATE, A TRUE AND ACCURATE SURVEY WAS MADE ON THE GROUND UNDER MY SUPERVISION OF PROPERTY LOCATED AT NO. 154 PIONEER PASSAGE IN BASTROP COUNTY, TEXAS, DESCRIBED AS FOLLOWS: LOT 7, BLOCK B, THE COLONY, SECTION 6A, A SUBDIVISION IN BASTROP COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT RECORDED IN CABINET 4, SLIDE 146B-147A OF THE PLAT RECORDS OF BASTROP COUNTY, TEXAS.

FLOOD NOTE:

THE PROPERTY DEPICTED HEREON IS NOT WITHIN A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY; THE FLOOD AREA BEING IDENTIFIED ON F. I. R. M. PANEL NO. 48021 C0125 C EFFECTIVE 8-19-91 LOCATED IN ZONE

TO: NALLE CUSTOM HOMES

RE: 154 PIONEER PASSAGE, PROJ. NO. 06-494

SURVEYORS CERTIFICATE

THE PLAT SHOWN HEREON IS A TRUE, CORRECT AND ACCURATE REPRESENTATION OF THE PROPERTY AS DETERMINED BY SURVEY, THE LINES AND DIMENSIONS OF SAID PROPERTY BEING AS INDICATED BY THE PLAT; THE SIZE, LOCATION AND TYPE OF BUILDINGS ARE AS SHOWN, ALL IMPROVEMENTS BEING WITHIN THE BOUNDARIES OF THE PROPERTY, SET BACK FROM THE PROPERTY LINES THE DISTANCES INDICATED. THERE ARE NO ENCROACHMENTS, CONFLICTS OR PROTRUSIONS, EXCEPT AS SHOWN HEREON, AND SAID PROPERTY HAS ACCESS TO AND FROM A DEDICATED ROADWAY.

DATE: SEPTEMBER 13, 2006

DATE: SEPTEMBER 13, 2006
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NOTE: THIS TRACT IS SUBJECT TO EASEMENTS, COVENANTS,
CONDITIONS, RESTRICTIONS AND RIGHT TO CREATE ADDITIONAL PUBLIC
UTILITY EASEMENTS, IF ANY, ACROSS SUBJECT PROPERTY AS SHOWN
IN 4/146B-147A, PRBC.

NOTE: NO TITLE COMMITMENT SUPPLIED OR REVIEWED FOR THIS PROJECT. PARTIES TO THIS TRANSACTION ARE RESPONSIBLE FOR VERIFICATION OF ALL EASEMENTS, COVENANTS AND CONDITIONS WHICH MAY AFFECT THIS TRACT BUT ARE NOT SHOWN HEREON.

BRYAN TECHNICAL SERVICES, INC.
P. O. BOX 1371
TAYLOR, TEXAS 76754
512-365-2524
512-365-2526 (Fax)
surveying@austin.tx.com

Brian K. Wendland, R.S.
Septic Designs
2105 Murray Ave.
Rockdale, Texas 76567
(512) 826-8425

November 24, 2006

Name: Nalle Custom Homes
Site Address: 154 Pioneer Passage
City: Cedar Creek/Bastrop
Mailing Address: 103 W. 1st St. Elgin, TX 78621
Phone: (512) 845-6395
County: Bastrop
Subdivision: Yes---Lot 7---Block B----The Colony
Area of lot: ~ 1.0 ± Acres
Bedroom Number: 4
Square feet of heated space in house: less than 3500 square feet
Water usage per day: 300 gallons
Effluent load rate: max. of .064gal./sq.ft./day
Water Saving Devices Installed: Yes
New Construction: Yes
Remodel? No
Well on site? No
Presence of sharp slopes and/or break in grade: No
Lakes, ponds, streams on site: No
Presence of 100-year floodplain: No
Slope of disposal area: 1 %
Presence of Easements: YES

Installer: Dan Matthes
OS 8739

Phone: (512) 284-0447

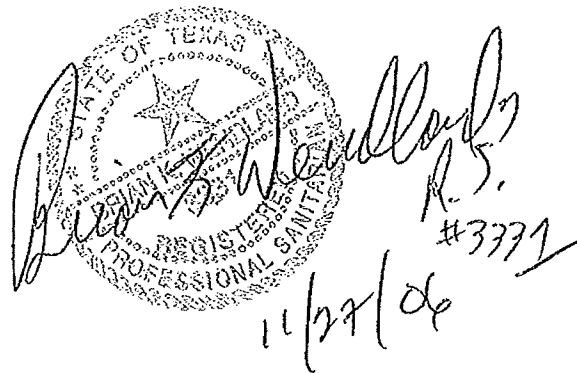
Required OSSF Calculations

Required surface area for spray irrigation (minimum):

Whereas: Required surface area in square feet for spray irrigation
equal to:

$$Q/R_i$$

Where Q = estimated daily water usage in gallons
R_i = effluent loading rate in gal/sq. ft./day



Therefore: $300 / .064 = 4688$ sq. ft. of surface application area required.

WHEREAS:

32' Radius of 3 spray "half-circles"

Of half-circles: 3 (1608 ft² per half-circle)

Area of circle (in square feet) = (radius x radius)(3.1416)

Therefore: $(32' \times 32')(3.1416) / 2 = 1608$ sq. ft. per half-circle

1608 ft² per half-circle X 3 half-circles = 4824 ft² for 3 half-circles ✓

Therefore: = 4824 total square feet of application spray area designed

Dosing Rate

three spray nozzles used in this design—every nozzle is a low angle trajectory nozzle and EVERY NOZZLE is a Nelson #8 nozzle.

#8 nozzle (3 of them spraying 32' radius) 3.2 gpm (each nozzle) @ 35 psi = 9.6 gpm

Dosing Duration

300 gallons per day / 9.6 GPM dosing rate = ~ 31.25 minutes (dosing duration)

Verification of Proper application rate of effluent per designed spray area

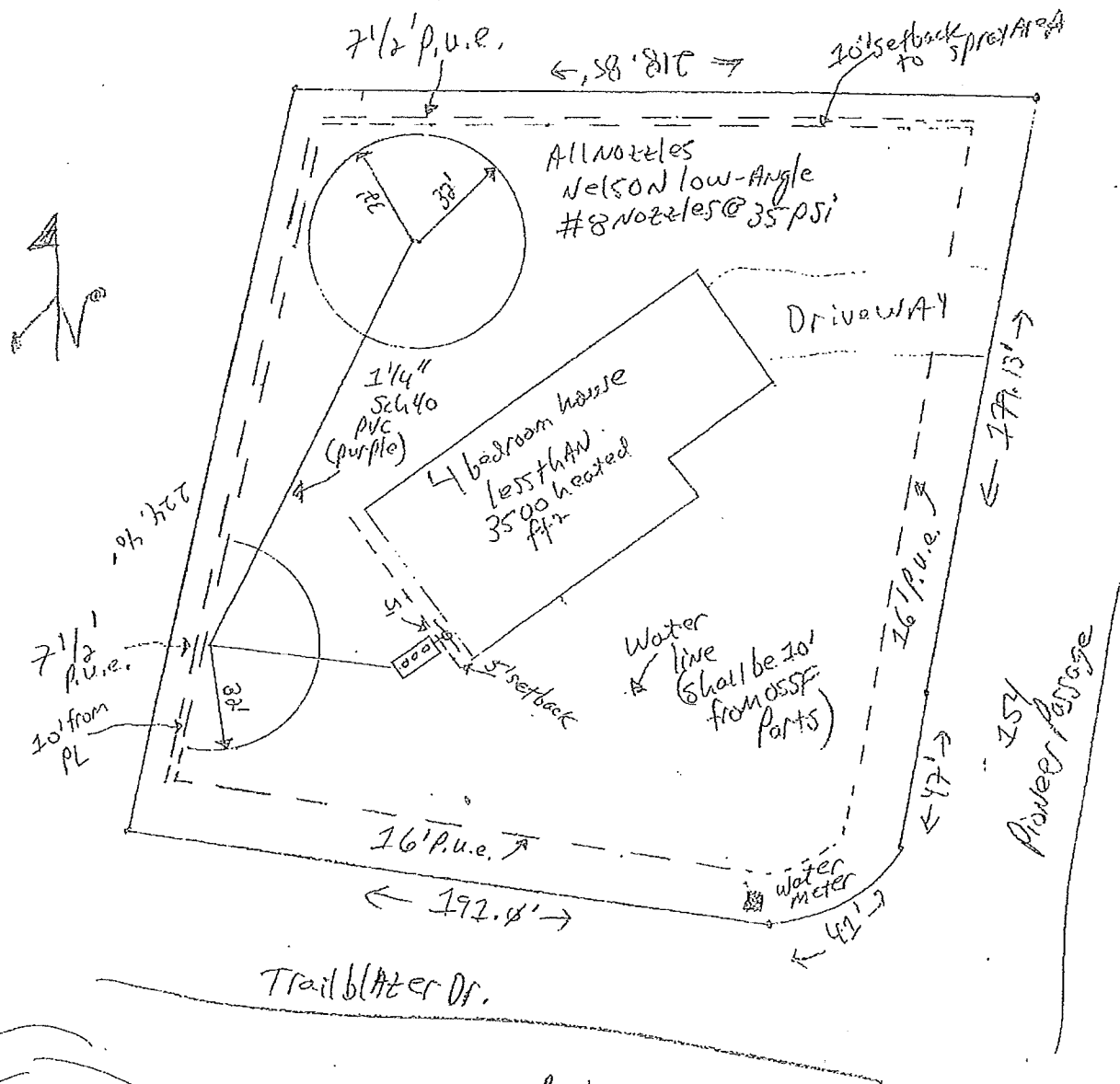
(Note: all nozzles are the same type and radius nozzles and all nozzles are spraying a 180° pattern—therefore all nozzles are "lumped into" the equation below):

(three nozzles)---will spray for 31.25 minutes X 9.6 GPM = 300 gallons distributed / 4824 square feet spray application area = 0.062 gallons of effluent per square feet of application area / day-----OK

NOTE: The rate of application of effluent SHALL NOT exceed .064 gallons per day per square foot.

Design Parameters

Treatment Unit:	Aqua-Klear 500 GPD unit(Model # AK5BESIDE2)
Aeration Chamber:	included in treatment unit
Pre-treatment tank required:	included in treatment unit
Pump Tank:	included in treatment unit
Pump:	½ HP Goulds Model # 16SE0511 (115 Volt)
Sprinkler nozzles:	Nelson # 8 low angle trajectory spray nozzle (12°)
Sprinkler drive units:	Nelson-Pro model #6000
Chlorination:	liquid type outside pump chamber
Supply Line Diameter:	1¼"

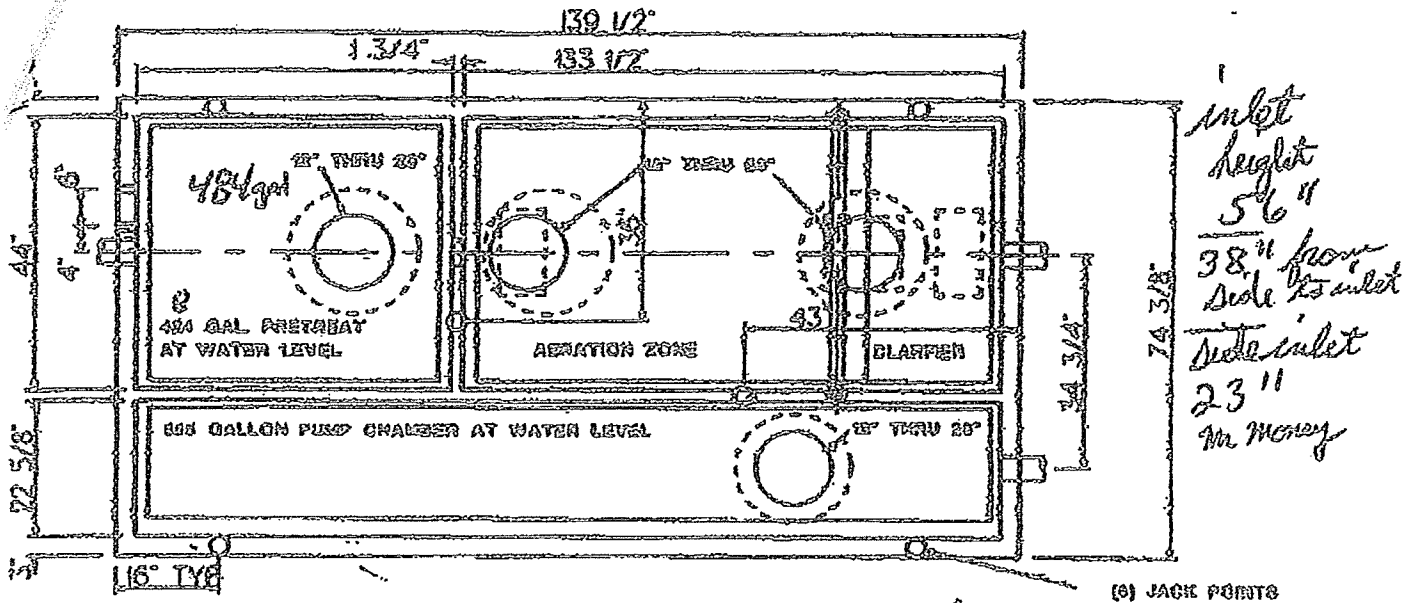


Scale
1" = 50'

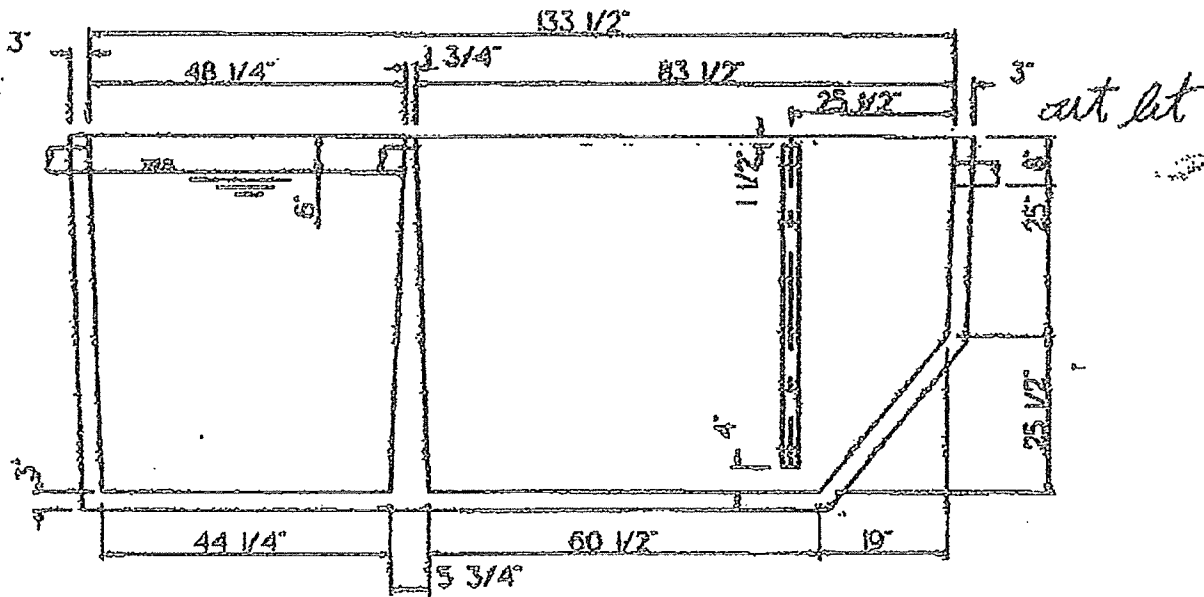
Legend

- 2 way/cleanout [3" or 4"] SDR 26 or PVC sch 40
- S₁ - supply line between Tank + house [3" or 4"] [cast iron, ductile iron, SDR 26 or PVC sch 40]
- Aqua-Klear 500 at least 5' from house

Lot 7 Block B
The Colony
Sub division



147" long 67" tall 75" wide



CUSTOMER
AQUAKLEAR
JACKSON MISSISSIPPI

TENSAS MACHINE & MANUFACTURING
ROUTE 1 BOX 100
NEWELLTON, LOUISIANA 70577