

Site Evaluation: _____
Building Application: _____
Drainage Plan: _____
Floodplain Information: _____

Health District OSSF Permit# ON 11653
City/County Building Permit# _____
Receipt Number# 297928

1/8/21
CC 3333
\$350

**GALVESTON COUNTY HEALTH DISTRICT
ON-SITE SEWAGE FACILITY
APPLICATION AND INSPECTION REPORT**

 **E-MAILED**
4-16-2021

NEW INSTALLATION
 RENOVATION

1. PROPERTY OWNER'S NAME: MORENO RAFAEL
(LAST) (FIRST) (MIDDLE)
2. PERMANENT MAILING ADDRESS: 5023 BIRCH SANTA FE
(STREET/P.O. BOX) (CITY/STATE) (ZIP)
3. TELEPHONE NO. DURING DAY: () 832-573-5546
4. SITE ADDRESS: 5023 BIRCH ST SANTA FE TX 77517
(STREET) (CITY/STATE) (ZIP)
5. PROPERTY DESCRIPTION: Lot B Block _____ Sec. _____ Subdivision Gordons Sub
Lot Size: _____ **PROPERTY SURVEY OR SIMILAR DOCUMENT SHOULD BE ATTACHED.**
6. SOURCE OF WATER: Private Well Public Water Supply _____
(NAME OF SUPPLIER)
7. SINGLE FAMILY RESIDENCE: No. Of Bedrooms 3 Living Area (sq. ft.) 2007 < 2500 FT²
8. ESTIMATED MAXIMUM DAILY WATER CONSUMPTION (gpd): 240
WATER-SAVING DEVICES PROVIDED: (CIRCLE ONE) YES/NO
9. COMMERCIAL/INSTITUTIONAL (including multi-family residences) TYPE: N/A
NO. OF EMPLOYEES/OCCUPANTS/UNITS: N/A DAYS OCCUPIED PER WEEK: N/A
10. IS AN ORGANIZED SEWAGE COLLECTION WITHIN 300 FEET? YES NO
11. Professional design required: YES NO If yes, professional design attached: Yes No
DESIGNER: RAYMOND BECKFORD REGISTRATION NO. 3687
PHONE NO. () 832 867 8871 (PE or RS)
12. INSTALLER: John Wilson REGISTRATION NO. 080033971
PHONE NO. () 409-925-2531

I. SEWER (House drain):
TYPE AND SIZE OF PIPE: SCH 40 PVC 4" Ø SLOPE OF SEWER PIPE TO TANK: 1/8" / FOOT

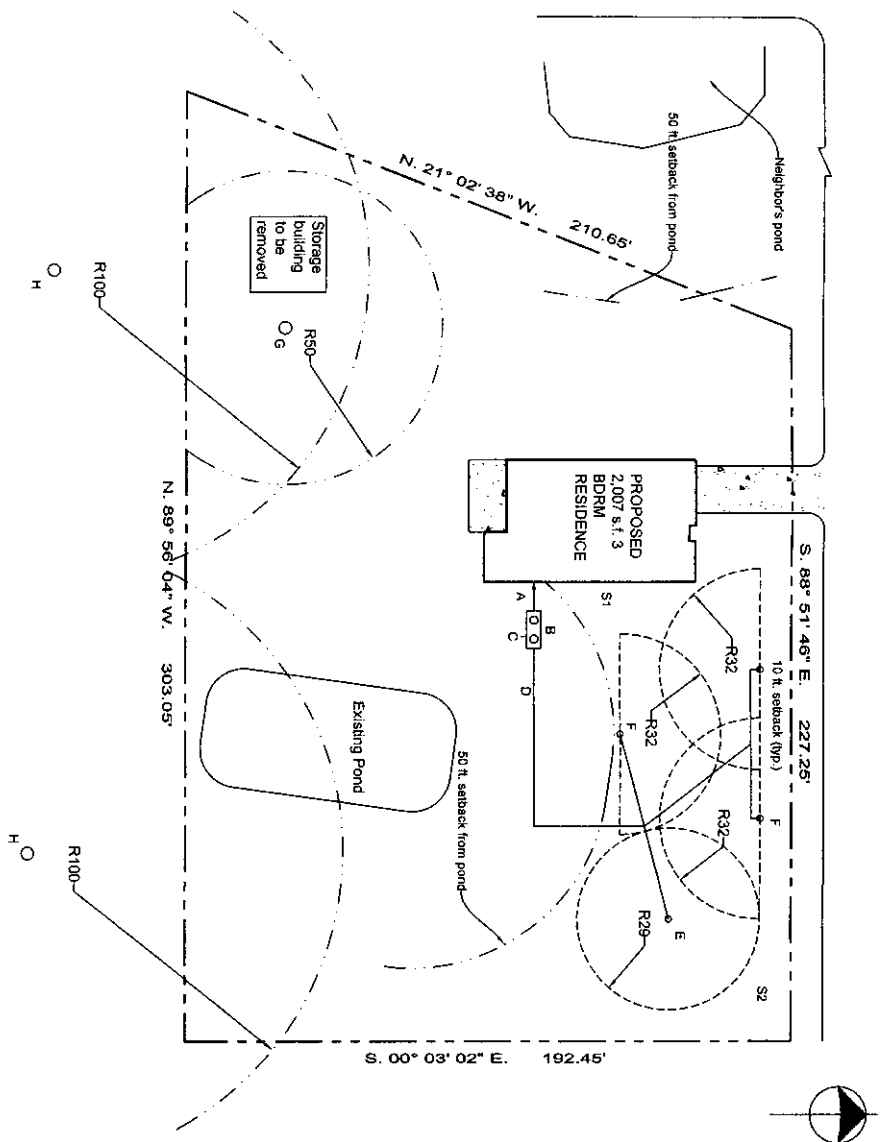
II. TREATMENT TANKS:

TANK #	MAT'L	NO. OF COMPARTMENTS	TYPE	SIZE	gals
#1	<u>CONC</u>	<u>3</u>	<u>ATU</u>	<u>500</u>	
#2			<u>1 TRASH</u>	<u>400</u>	
#3			<u>2 ATU</u>	<u>621/224</u>	
#4			<u>1 pump</u>	<u>771</u>	

III. SITE EVALUATION
NOTE: Information worksheet must be attached for review to be completed. SURFACE 0.041
Soil Class/Texture CLAY LOAM Load Rate 0.2 g/sf./day
Performed By R. BECKFORD Registration NO. 05 25275 Phone No. () 832 867 8871

IV. DISPOSAL AREA
TYPE: SPRAY IRRIGATION MINIMUM AREA REQUIRED 5854 s.f./6000^{FT²} designed
EXCAVATION WIDTH N/A DISTANCE BETWEEN EXCAVATIONS N/A
TYPE/SIZE OF MEDIA N/A TYPE/DIAMETER OF PIPE 1" Purple Sch 40 pvc
TYPE OF BARRIER N/A EXCAVATION DEPTH N/A
LANDSCAPE PLAN SCB WITH NATIVE GRASS OR ST. AUGUSTINE. SEE REPORT

Gravel road from Birch Street



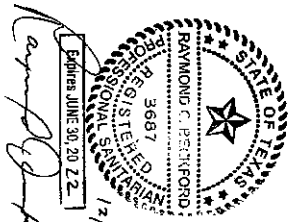
This property exhibits less than a 2% slope across its entire area
 The property is not within the 100-year flood plain per Galveston County
 FIRMI Panel 48167C0375G

Basis for Design
 Proposed 2,007 s.f., 3 bedroom single family residence - 240 gpd
 Spray irrigation area required - 240 gpd / 0.041 gpd/day = 5,854 s.f.
 Spray irrigation designed - 6,010 s.f. (overlap deducted)

- Legend**
- A - Two way cleanout
 - B - Proposed 500 gallon Pro Flo 500 SLP172 Aerobic Treatment Unit or equal
 - C - NSF approved chlorinator
 - D - 1" diameter SCH 40 PVC irrigation line, 1/2" diameter laterals
 - E - 1" diameter Rain Propus or equal sprinkler head, 1 typical
 - F - 32 ft. radius K Rain Propus or equal sprinkler head, 3 typical
 - G - Proposed pressure centered water well
 - H - Neighboring water wells
 - S1, S2 - Soil bore locations

Landscape Plan / Irrigation Schedule
 The spray irrigation area must be continuously covered with native grasses and vegetation. Over seed with Winter Rye or other cold tolerant grass during winter months. Install sprinkler heads 10 feet from trees. Set timer to spray between the hours of midnight and 5:00 am.

Maintenance
 A maintenance contract shall remain in effect throughout the operation of this OSSF. The property owner must ensure that the OSSF is provided with electricity at all times and that the disinfection unit is supplied with the appropriate chlorine. Malfunctions must be reported to the maintenance provider as soon as possible. The property owner must operate this OSSF according to the owners manual and this specific design. Daily wastewater flows in excess of 240 gpd will invalidate this design.



SCALE: 1" = 40'
 OSSF Design for
RAFAEL MORENO
 5023 Birch Street
 Santa Fe, TX 77517
 Being out of Lot 5, Simpson Subdivision, Abstract 611
 Prepared by: Raymond Beckford, RS
 Contact: 832-867-8871
 Date: December, 2020

V. PLOT PLAN

NOTE: This information must be attached for review to be completed.

- 1. Submit two (2) copies of the Galveston County Health District OSSF Application & Inspection Report.

The plot on the above mentioned form must include:

- a. Size and shape of lot or property.
b. All structures on lot such as buildings, barns, pens, etc.
c. Size and location of treatment tank(s),
d. Size and location of wastewater disposal area,
e. Distance of treatment tank(s) from house, property line, water well and wastewater disposal area,
f. Distance of wastewater disposal area from house, property line, water well and treatment tank(s),
g. Distance and direction to closest neighboring water well from treatment tank(s) and wastewater disposal area,
h. Distance and direction to closer open water such as ponds, lakes, streams, etc.

Raymond [Signature]
DESIGNERS SIGNATURE

5687
REGISTRATION NO.

12/27/2020
DATE

This notice must be read and signed before these construction plans will be approved. AFTER APPROVAL A BUILDING PERMIT MUST BE SECURED FROM THE APPROPRIATE COUNTY OR CITY BUILDING INSPECTION DEPARTMENT. The final inspection is to assure the system has been constructed according to the submitted plan and is consistent with good public health engineering practices. The acceptance of this plan and approval of the final inspection, however, should not be construed to mean that the Galveston County Health District recommends, approves, certifies or guarantees On-Site Sewage Facility Systems or their satisfactory performance. In the Galveston County Facility Systems may not function satisfactorily at all times. This plan meets all State and local rules and laws including distance requirements.

Rufael Moreno A.
Property Owner

HEALTH DISTRICT USE ONLY

Authorization to Construct Approved/Disapproved by [Signature] DR# 057799 Date 4-10-2021
Inspection Requested by [Signature] Date
Date inspection requested for Time am/pm
Date inspection made Time am/pm
Construction Approved/Disapproved by DR# Date
Disapproval notice given to
REMARKS:

PROPOSED
ON-SITE SEWAGE FACILITY DESIGN

for

Rafael Moreno

located at
5023 Birch Street
Santa Fe, TX 77517

Prepared by:
Raymond C Beckford, RS
832-867-8871

December, 2020

BASIS FOR DESIGN: 5023 Birch Street Santa Fe TX 77517

Proposed 2,007 square foot, three bedroom single family residence with ulf fixtures

Total Daily Flow – 240 gpd

Spray irrigation area required: $240 \text{ gpd} \div 0.041 \text{ gal./s.f./day} = 5,854 \text{ square feet}$

Spray irrigation area designed: 6,010 square feet (overlaps deducted)

SYSTEM CONFIGURATION

500 gallon Pro Flo 500 SLPT2 Aerobic Treatment Unit or equal

NSF approved chlorinator

PUMP SIZING

Total dynamic head (TDH) = operating head + friction head + static head

Operating head = $40 \text{ psi} \times 2.31 \text{ ft./psi} = 92.4 \text{ ft.}$

Friction head = $3.26 \text{ psi} \times 2.31 \text{ ft./psi} = 7.53 \text{ ft.}$

Static head = 7 ft.

TDH = $92.4 \text{ ft.} + 7.53 \text{ ft.} + 7 \text{ ft.} = 106.93 \text{ ft. @ 20 gpm}$

Choose E Series Environmental 20 gpm or similar pump

SPRINKLER HEAD SPECIFICATIONS

K Rain Model 11003 RCW #3 low angle nozzle or equivalent (4 required).

Trajectory: 11°

Spray Radius: 32 feet, flow rate: 3.1 gpm @ 40 psi, 3 typical

Spray Radius: 29 feet, flow rate: 3.0 gpm @ 30 psi, 1 typical

DISTRIBUTION PIPING

Irrigation line to sprinklers – 1" diameter Schedule 40 PVC, ½" diameter laterals all purple pipe.

EFFLUENT DISINFECTION

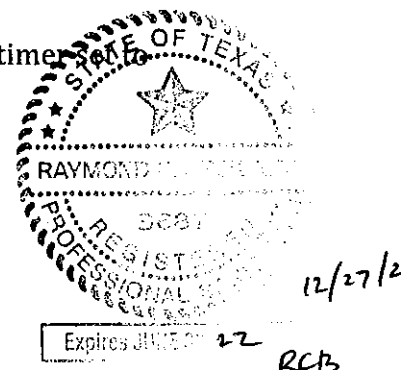
The treated effluent must be disinfected with chlorine prior to irrigation. NSF approved stack fed tablet type or liquid chlorine chlorinators are acceptable.

LANDSCAPE PLAN

The irrigated area must be continuously covered or seeded with Coastal Bermuda or St. Augustine grasses. Areas subjected to dormant or dying vegetation during the winter months shall over seeded with Winter Rye grass or other cold tolerant vegetation. Grasses shall be cut as needed to prevent interference with the sprinkler operation. Surface improvements such as buildings sidewalks, driveways, patios, etc., cannot be constructed within the spray application area. Grade the sprinkler area to provide positive storm water runoff.

SPRAY TIMES

Spray times can be on demand, however, if controlled by a commercial timer, spray between 12:00 midnight and 5:00 am.



MAINTENANCE

A maintenance contract shall be maintained for throughout the life of this OSSF. The property owner must ensure that the OSSF is provided with electricity at all times and that the disinfection unit is supplied with the appropriate chlorine.

Malfunctions must be reported to the Maintenance Provider as soon as possible.

The property owner must operate the OSSF according to the owner's manual and specific design criteria.

ADDITIONAL NOTES

The system has been designed in accordance 30 TAC Chapter 285 On-Site Sewage Facilities for the purposes of securing a permit. This OSSF designer provides no process guarantee relative to system operation and performance. Water conservation is encouraged with all on-site wastewater systems. Daily flows in excess of 240 gpd will invalidate this design.



RCB
12/27/20

Septic Systems DOs and DON'Ts

(Courtesy of National Small Flows Clearinghouse, Pipeline, Fall 1995, Vol. 6 No. 4)

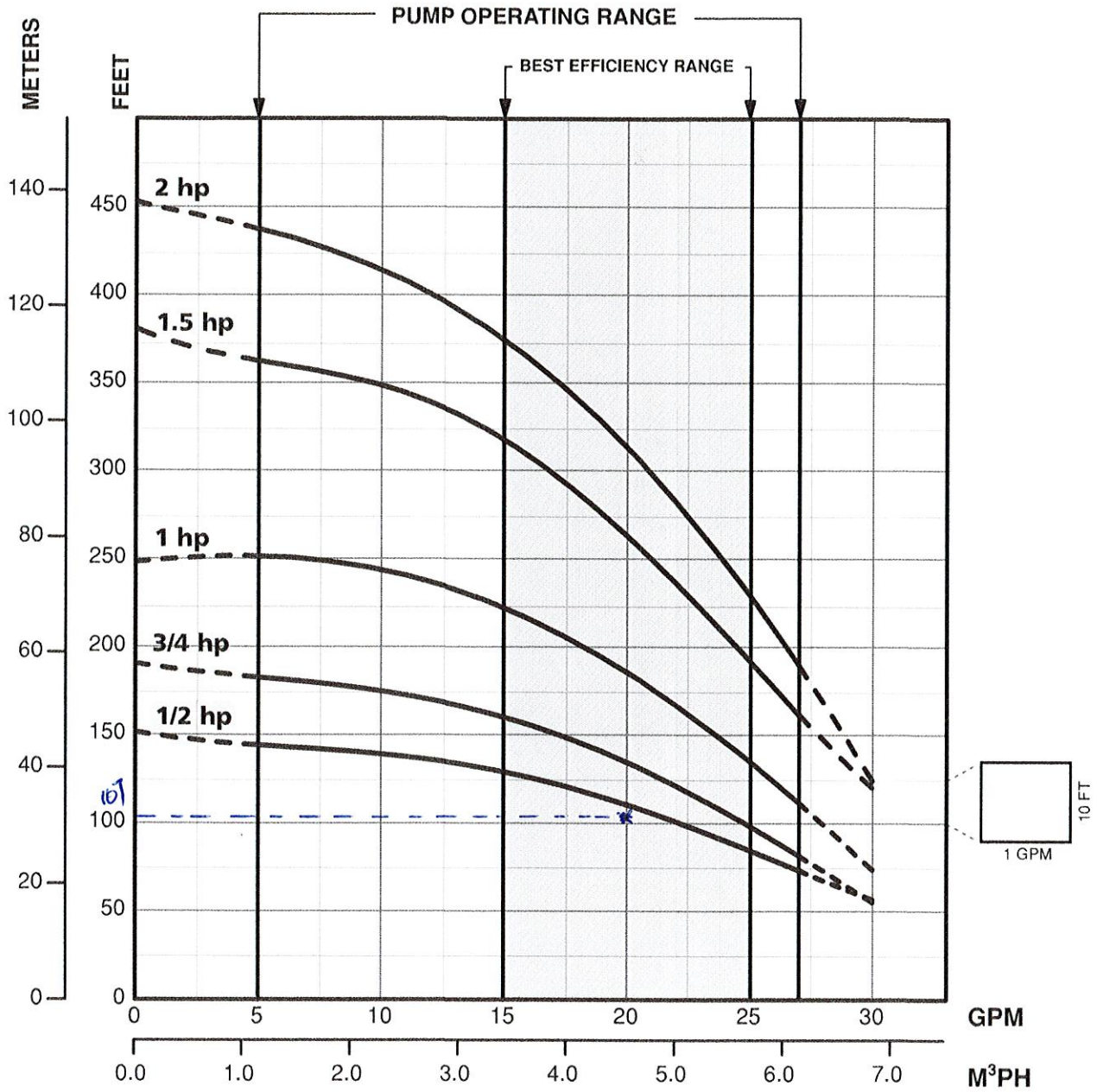
Dos	DON'Ts
Learn the location of your septic tanks and soil treatment area. Keep a sketch of it handy with your maintenance record for service visits	Go down into a septic tank. Toxic gases are produced by the natural treatment processes in septic tanks and can kill in minutes. Extreme care should be taken when inspecting a septic tank, even when just looking into it.
Have your onsite wastewater treatment system inspected annually	Allow anyone to drive or park over any part of the system
Have your septic tank pumped out regularly by a licensed contractor	Plant anything over or near the soil treatment area except grass. Roots from nearby tree or shrubs may damage distribution line.
Keep your septic tank cover accessible for inspection and pumping. Install risers if necessary.	Dig into your soil treatment area or build anything over it, and don't cover the soil treatment area with hard surface such as concrete or asphalt. The area over the soil treatment area should have only a grass cover. The grass will not only prevent erosion but will help remove excess water.
Call a professional whenever you experience problems with your system or if there are any signs of system malfunction.	Make or allow repairs on your on-site wastewater treatment system without obtaining the required health department permit. Do use professional licensed septic contractors when needed.
Keep a detailed record of repairs, pumping, inspections, permits issued, and other maintenance activities.	Use septic tank additives. These products usually do not help and some may even harmful to your system

Dos	DON'Ts
<p>Conserve water to avoid overloading the system. Be sure to repair any leaky faucets or toilets. Space laundry over the week and not all on one day.</p>	<p>Use your toilet as a trash can, or poison your septic system and the groundwater by pouring harmful chemicals and cleansers down the drain. Harsh chemicals can kill the beneficial bacteria that treat your wastewater.</p>
<p>Divert other sources of water, like roof drains, house footing drains, and sump pumps, away from the on-site wastewater treatment system. Excessive water keeps the soil in the soil treatment area from naturally cleansing the wastewater.</p>	<p>Use a garbage disposal without checking with your local regulatory agency to make sure that your on-site wastewater treatment system can accommodate this additional waste.</p>

Submersible Pumps

E-Series Environmental Pumps

Thermoplastic - 20 GPM Performance Curves



FPS, 1/2 HP, 20 GPM High Head Effluent Pump
 Model: 20FE05P4-2W115

Product Details

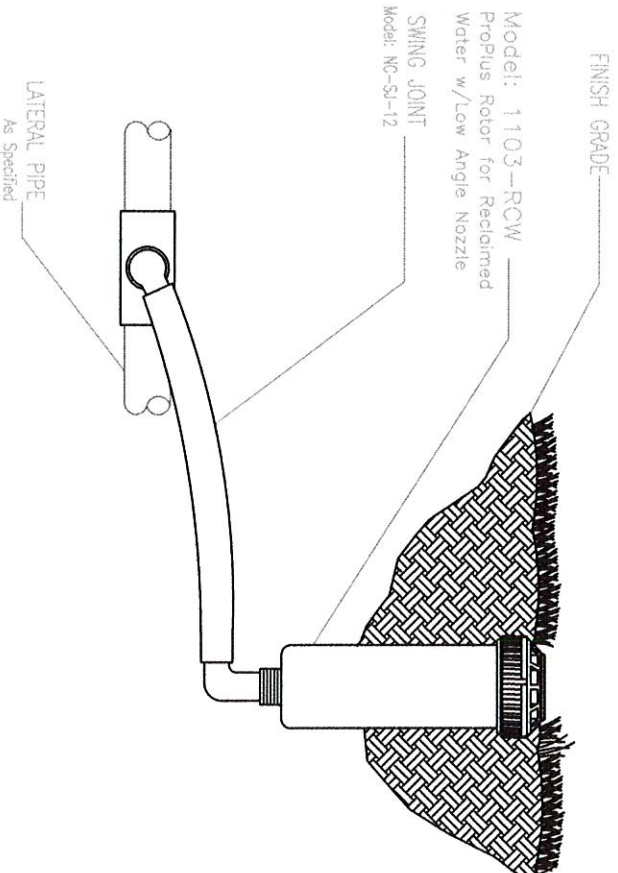
OSSF

SPECIFICATIONS

- Inlet: 3/4" Threaded NPT
- Arc Adjustment Range: 40° to Continuous 360°
- Flow Range: .5 - 10.0 GPM
- Pressure Rating: 7 - 70 PSI
- Precipitation Rate: .06 to .50 Inches Per Hour (Depending on Spacing and Nozzle Used)
- Overall Height (Popped Down): 7 1/2" / 17" for High Pop
- Recommended Spacing: 28' to 44'
- Radius: 28' to 50'
- Nozzle Trajectory: 26°
- Low Angle Nozzle Trajectory: 12°

LOW ANGLE DATA

NOZZLE #	PRESSURE PSI	RADIUS FT.	FLOW GPM
#1	30	22'	1.2
	40	24'	1.7
	50	26'	1.8
#3	30	29'	3.0
	40	32'	3.1
	50	35'	3.5
#4	30	31'	3.4
	40	34'	3.9
	50	37'	4.4
#6	30	38'	4.7
	40	38'	6.5
	50	40'	7.3
	60	42'	8.0
	70	44'	8.6



The PropPlus is a gear-driven, rotary type sprinkler, capable of covering an area of 28' to 50' (8.5 to 15.3 M) radius at nozzle pressure of 30 to 70 PSI (2.0 to 5.0 bar) with a discharge rate of .5 to 10.0 GPM (1.14 to 28.39 LPM).



K-Rain Pro-Plus Rotor for Reclaimed Water

September, 2010
By: A.S.

Scale:
* All Dimensions subject to allowable specification tolerances.

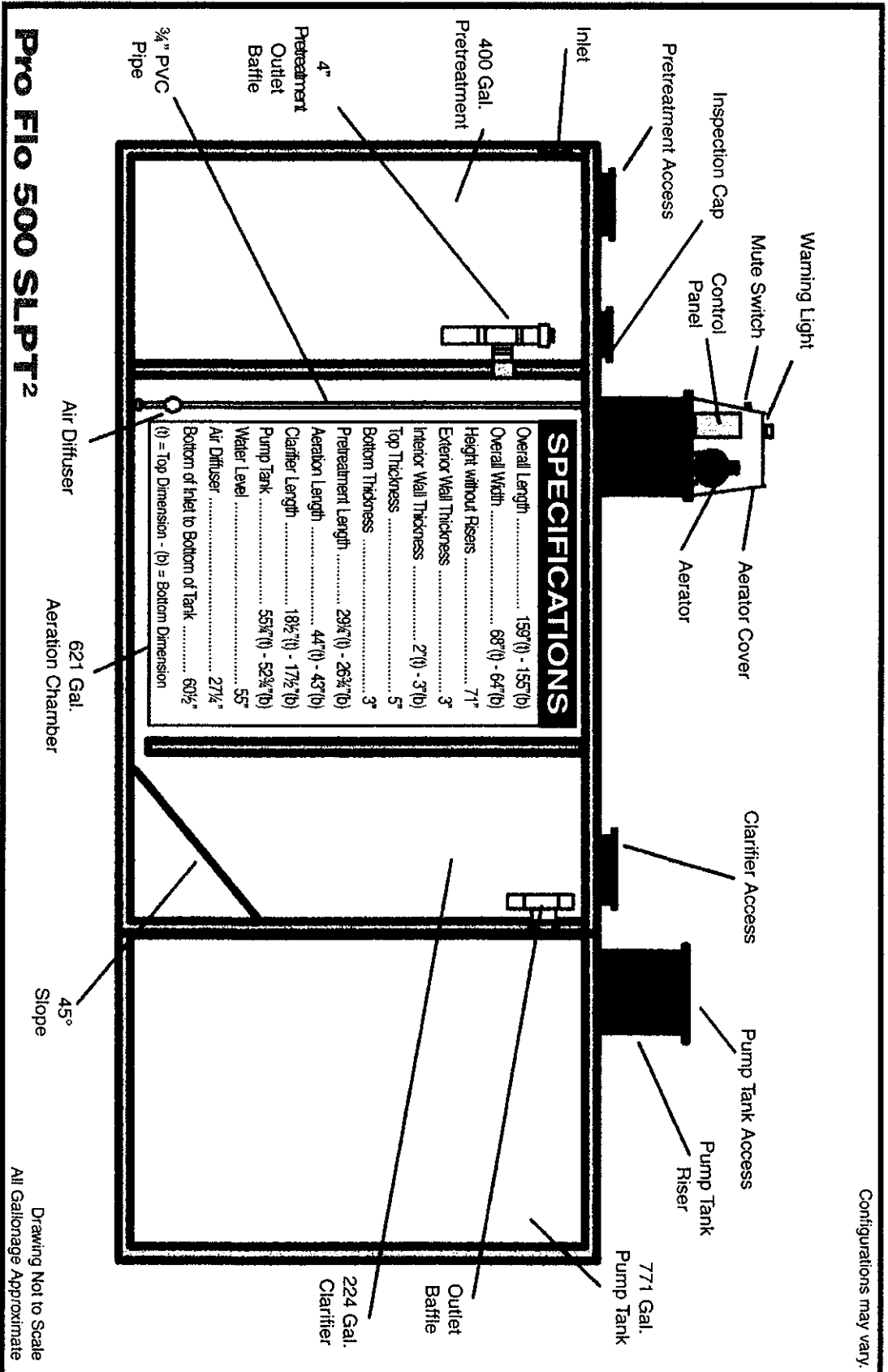
Dwg. #: KR-PPR

TEN-G. Pipe

PRECAST PRODUCTS

9235 Main Street #1
P.O. Box 507
Needville, Texas, 77461
1-888-331-5871

" Providing Concrete Environmental Solutions "



SPECIFICATIONS

Overall Length	159"(l) - 155"(b)
Overall Width	68"(l) - 64"(b)
Height without Risers	71"
Exterior Wall Thickness	3"
Interior Wall Thickness	2 1/2" - 3"(b)
Top Thickness	5"
Bottom Thickness	3"
Pretreatment Length	29 1/2"(l) - 26 3/4"(b)
Aeration Length	44"(l) - 43"(b)
Clarifier Length	18 1/2"(l) - 17 1/2"(b)
Pump Tank	55 1/2"(l) - 52 3/4"(b)
Water Level	55"
Air Diffuser	27 1/4"
Bottom of Inlet to Bottom of Tank	60 1/2"

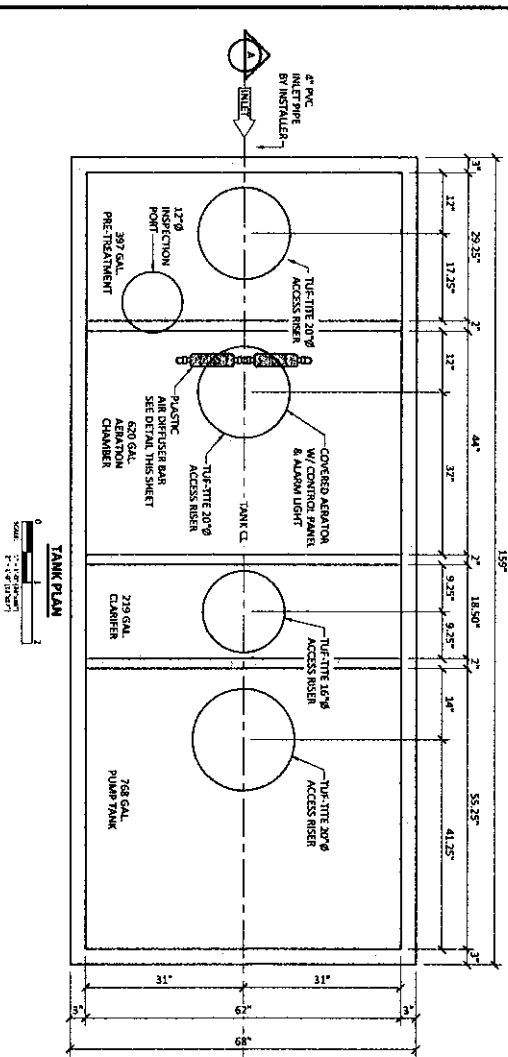
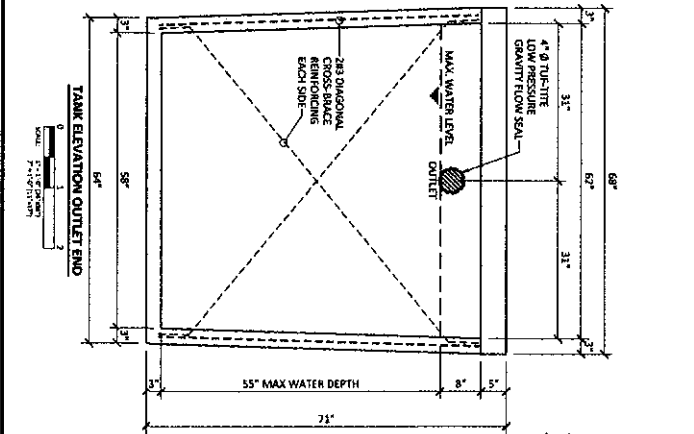
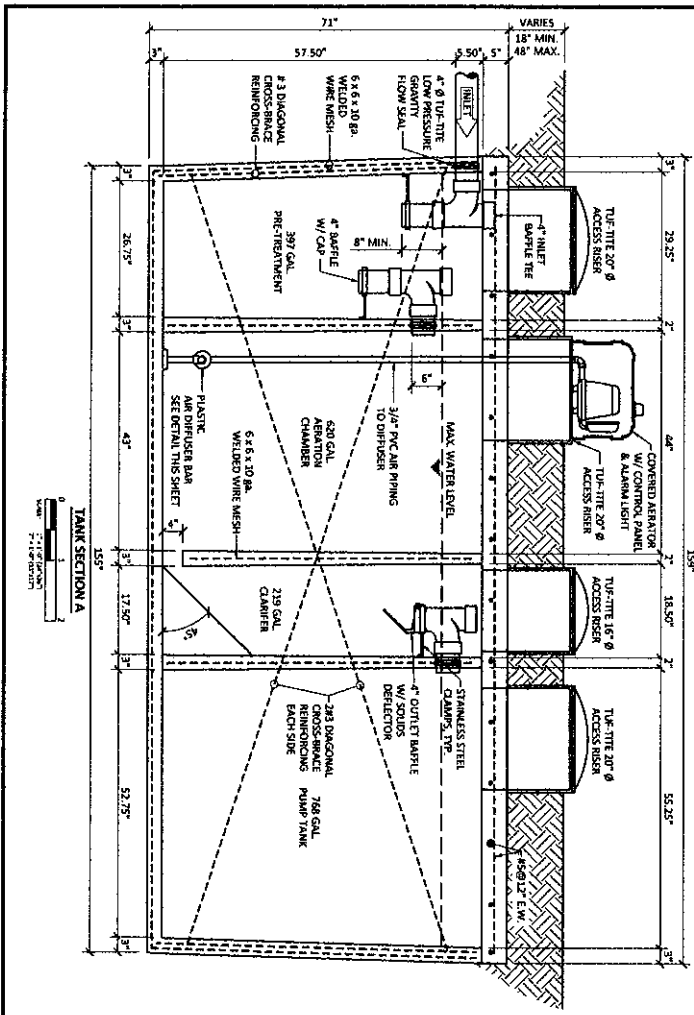
(l) = Top Dimension - (b) = Bottom Dimension

Configurations may vary.

Pro Flo 500 SLPT2

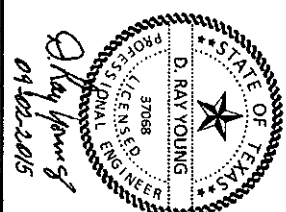
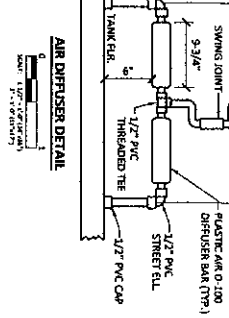
Drawing Not to Scale
All Gallonage Approximate

Pro Flo 500 SLPT2 System Diagram



- CONCRETE SPECIFICATIONS:**
1. THE MINIMUM COMPRESSIVE STRENGTH SHALL BE 6500 PSI @ 28 DAYS OF AGE.
 2. MIN. CONCRETE COVER FOR REINFORCING BARS, MATS, OR FABRIC SHALL NOT BE LESS THAN 1 IN.
- GENERAL NOTES:**
1. THIS TANK IS TO BE BUILT AND INSTALLED PER THE DIBERAT PORTION OF ASTM C1207-12 STANDARD SPECIFICATION FOR PRECAST CONCRETE SEPTIC TANKS.
 2. ACCESS COVERS MAY BE BURIED BELOW GRADE W/ A MINIMUM 6" COVER BUT NOT EXCEED 12" COVER EXCEPT 12" DEEPS SHALL BE REQUIRED TO COVER TANKS SHALL BE CLEARLY MARKED WITHIN 2'-0" OF TANK INSET.
 3. PROVIDING THE FOLLOWING INFORMATION:
 - MANUFACTURER NAME OR TRADEMARK OF MANUFACTURER
 - MANUFACTURED DATE
 4. EXTERNAL LOAD CAPACITY (SEE DETAIL THIS SHEET)
 5. EXPOSED ACCESS OPENINGS 12" O.D. OR LARGER SHALL BE PROVIDED WITH A LOCK SYSTEM TO PREVENT UNAUTHORIZED ENTRANCE.
 6. ANY ACCESS OPENING 6" O.D. AND LARGER SHALL BE CLEARLY MARKED.
 7. ALL INLET/OUTLET FITTINGS TO BE AT 4" DIA. TIE-INS TO LOW PRESSURE GRANULAR SEAL MODEL No. 75-SPRINT CAST INTO TANK WALL.
 8. BARRELS OR TEES SHALL BE PLACED AT THE INLET PIPE. SHALL EXTEND AT LEAST 18" BELOW THE LIQUID LEVEL AND AT LEAST 5" IN. ABOVE THE LIQUID LEVEL FOR INJECTION.
 9. ALL INJECTION POINTS ARE REQUIRED TO DISCONNECT THAT FAILURE WILL NOT OCCUR BY PHYSICAL APPOINTING LOADS TO THE TANK. THE LOAD APPLIED SHALL BE 1.5 TIMES THE DESIGN DEAD LOAD. SUCH TESTING SHALL BE WITNESSED & CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
 10. 2" DIA. TIE-INS SHALL BE USED ON DEB OF THE CAST IN PLACE INTERNAL WALL BETWEEN THE AERATION & CHAMBER.

TANK DIMENSIONS	
TANK LENGTH (TOP)	55.00
TANK LENGTH (BOTTOM)	55.00
TANK WIDTH (TOP)	68.00
TANK WIDTH (BOTTOM)	68.00
TANK HEIGHT	71.00
FLOOR THICKNESS	3.00
WALL THICKNESS	5.00
BOTTOM TO INLET	66.50
TANK VOLUMES	
TREATMENT CAPACITY	397 gal
AERATION CAPACITY	520 gal
CHAMBER CAPACITY	219 gal
PUMP TANK CAPACITY	768 gal
WATER DEPTH	55 in
TANK CONCRETE VOLUME	86.72 FT ³
TANK TO CONCRETE VOLUME	22.16 FT ³
TANK WIDTH (EARTH)	13008 in
UD WEIGHT	4148 lbs
TOTAL TANK WEIGHT (EARTH)	13156 lbs



500 SLP7Z

PRO FLO AEROBIC SYSTEMS, LP
WASTEWATER TREATMENT SYSTEMS
20222 FM 362
WALLER, TEXAS 77484

PRO FLO
AEROBIC WASTEWATER TREATMENT UNIT

DATE: 02/20/15
DRAWN BY: JAW
CHECKED BY: JAW
SHEET NO.: 01 OF 01

WATERENGINEERS, INC.
Water & Wastewater Treatment Consultants
TEXAS BOARD OF PROFESSIONAL ENGINEERS FIRM No. 2066
17230 HUFFMEISTER ROAD TEL: 281-373-0500
CYPRESS, TEXAS 77429 FAX: 281-373-1113

GENERAL NOTES

NOTE - EQUIVALENT MATERIALS AND EQUIPMENT MAY BE SUBSTITUTED PROVIDED STATE AND COUNTY REGULATIONS ARE MET.

- 1. AN ON-SITE SEWERAGE FACILITY LICENSE MUST BE OBTAINED FROM THE PERMITTING AUTHORITY PRIOR TO INSTALLING THIS WASTEWATER SYSTEM.**
- 2. SYSTEM INSTALLATION MUST BE BY A REGISTERED INSTALLER OF ON-SITE SEWERAGE FACILITIES AS REQUIRED BY ARTICLE 4477-7E OF VERNONS CIVIL STATUTES OR BY THE OWNER OF THE PROPERTY UNDER LICENSE.**
- 3. IF ANY DISCREPANCIES EXIST BETWEEN THIS DESIGN AND ACTUAL FIELD CONDITIONS IT IS THE INSTALLER'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE DESIGNER AND THE PERMITTING AUTHORITY PRIOR TO START OF ANY WORK.**
- 4. ALL CONSTRUCTION METHODS AND MATERIALS MUST BE IN ACCORDANCE WITH COUNTY AND STATE RULES AND POLICIES UNLESS SPECIFICALLY NOTED BY THIS DRAWING AND APPROVED BY THE PERMITTING AUTHORITY.**
- 5. SITE SHALL BE CAREFULLY FINISH GRADED TO PROVIDE POSITIVE STORM WATER RUNOFF. ABSORPTION AREA SHALL BE CROWNED. DRAINAGE SWALES SHALL BE CONSTRUCTED TO ADEQUATELY CONVEY STORM WATER AWAY FROM THE ABSORPTION AREA.**
- 6. THIS SYSTEM, IF INSTALLED AND OPERATED IN ACCORDANCE WITH THIS PLAN SHOULD NOT PRESENT A HAZARD TO PUBLIC HEALTH OR THREATEN PROPOSED OR ADJACENT WATER WELLS.**
- 7. IT IS THE INSTALLER'S RESPONSIBILITY TO INSURE THAT THE SAFE DISTANCE FROM ANY WATER WELL MEET OR EXCEED STATE AND LOCAL CRITERIA, AND ARE IN ACCORDANCE WITH THE LICENSE ISSUED.**
- 8. IT IS THE INSTALLER'S RESPONSIBILITY TO REVIEW THE DESIGN CRITERIA WHICH ACCOMPANIES OR IS SHOWN ON THIS DRAWING. THE CRITERIA IS AN IMPORTANT PART OF THE CONSTRUCTION DOCUMENTATION PACKAGE.**
- 9. ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE, CURRENT EDITION. ALL ELECTRICAL WORK SHALL BE CONDUCTED UNDER THE SUPERVISION OF A MASTER ELECTRICIAN.**
- 10. IF THE PROPERTY IS LOCATED IN THE WITHIN THE 100 YEAR FLOOD PLAIN ALL MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE ELEVATED AT LEAST 18 INCHES ABOVE THE BASE FLOOD ELEVATION.**
- 11. STORM OR SITE DRAINAGE IMPROVEMENTS SHOWN ON THIS DRAWING SHALL BE COMPLETED PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE ON-SITE SEWERAGE FACILITY.**

12. PLUMBING STUB OUTS SHALL BE CONSTRUCTED AS SHALLOW AS POSSIBLE. MAXIMUM DEPTH SHALL BE BELOW NATURAL GROUND TO FLOWLINE IS 12 INCHES.
13. CONDENSATE FROM AIR CONDITIONING, ICE-MACHINES, OR OTHER REFRIGERATION EQUIPMENT SHALL NOT BE DISCHARGED INTO THE ON-SITE SEWERAGE SYSTEM UNLESS THE SYSTEM HAS BEEN SIZED TO ACCEPT SUCH WASTEWATER FLOW. WATER SOFTENER BACKWASH OR POOL/SPA DRAINS/BACKWASH SHALL NOT BE INTRODUCED INTO THE SYSTEM.
14. CONTRACTORS SHALL NOTIFY THE UTILITY COORDINATION COMMITTEE, 1-800-669-8344 AND/OR TEXAS ONE CALL SYTEM 1-800-245-4545, 48 HOURS IN ADVANCE OF CONSTRUCTION FOR THE PURPOSE OF LOCATING UNDERGROUND LINES (PER OSHA 1926.651).
15. THE LICENSING AUTHORITY SHALL BE NOTIFIED FOR INSPECTION PRIOR TO COVERING OF ANY SYSTEM COMPONENTS.
16. *CONTAMINANTS SUCH AS PESTICIDES, HYDROCARBON WASTES, BLUE WATER DISINFECTANTS, CIGARETTE BUTTS, COFFEE GROUNDS, PAPER TOWELS, SANITARY NAPKINS, CONDOMS, SHOULD NOT BE ALLOWED TO ENTER THE ONSITE SEWAGE FACILITY.*
17. *IT IS THE OWNER'S RESPONSIBILITY TO KEEP A CURRENT MAINTENANCE CONTRACT WITH AN APPROVED MAINTENANCE COMPANY. THE CONTRACT SHOULD STATE WHO IS RESPONSIBLE TO REPLENISH THE DISINFECTION DEVICE.*
18. ANY WARRANTY ON THE PRODUCT(S) INSTALLED ARE THOSE MADE BY THE MANUFACTURER. THE ENGINEER/INSTALLER EXPRESSLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTY FOR FITNESS FOR A PARTICULAR PURPOSE, AND ENGINEER/INSTALLER NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY LIABILITY CONNECTION WITH THE DESIGN, INSTALLATION, OPERATION, AND/OR OPERATION OF THE PRODUCT. LICENSE HOLDER ASSUMES FULL RESPONSIBILITY FOR THE PERFORMANCE OF THIS SYSTEM FOLLOWING FINAL INSPECTION APPROVAL BY THE LICENSING AUTHORITY.

THESE CALCULATIONS ARE BASED UPON SOUND ENGINEERING PRACTICE IN ACCORDANCE WITH THE STATE OF TEXAS REQUIREMENTS AND WILL BE ADEQUATE FOR THIS INSTALLATION.

ADDITIONAL QUANTITIES OF EFFLUENT FROM ANY SOURCE ARE NOT PROVIDED FOR THIS DESIGN. IF THE QUANTITY OR QUALITY OF EFFLUENT CHANGES FROM THE DESIGN CRITERIA THE INSTALLATION AND DESIGN ARE INVALIDATED. SYSTEM UPGRADING TO MEET ADDITIONAL EFFLUENT LOADING IS THE RESPONSIBILITY OF THE PROPERTY OWNER.

SELECTION OF OSSF TYPE AND SYSTEM DESIGN IS BASED UPON SOIL SAMPLES AT THE LOCATIONS SHOWN ON THE SITE PLAN. IF DURING THE ACTUAL CONSTRUCTION OF THIS SYSTEM THE SOIL TYPE PROVES UNSUITABLE FOR A CONVENTIONAL SYSTEM THE DESIGN FOR SUCH WILL BE CHANGED TO SUIT THE REQUIREMENTS OF THE STATE OF TEXAS.

SITE / SOIL EVALUATION

CLIENT: Rafael Moreno
ADDRESS: 5023 Birch Street
Santa Fe, TX 77517

LEGAL DESCRIPTION: Being out of Lot 5, Simpson Subdivision, Abstract 611
PROPERTY SIZE: 1.17 acres

EXISTING OR PROPOSED STRUCTURE TO BE SERVED: Proposed 2,007 s.f.
single family residence.

TOPOGRAPHY

SLOPE:
FLAT (UNDER 2%) SLIGHT (UNDER 4%) _____ SEVERE (OVER 5%) _____

VEGETATION:
GRASS/BRUSH LIGHTLY WOODED HEAVILY WOODED _____ n/a

SITE DRAINAGE:
POOR _____ ADEQUATE: GOOD: _____

NOTE: If slope is severe a topographic survey with 5 foot contours must be provided with this form on the design. If site drainage is poor or slope is flat, then a detailed drainage plan must be provided on the design.

FLOOD HAZARD

PROPERTY IS LOCATED:

OUTSIDE 100 YEAR FLOOD PLAIN: yes FIRM 48167C0375G

IN 100 YEAR FLOOD PLAIN

IN 100 YEAR FLOOD PLAIN AND FLOODWAY

NOTE: Attach a FEMA Flood Insurance Rate Map (FIRM) with property location identification or current survey with Flood Plain determination.



RCP
12/27/20

WATER SUPPLY

PUBLIC _____ COMMUNITY _____ PRIVATE x

NAME OF WATER SUPPLIER: Proposed *private water well*.

NOTE: If well is on-site complete the following: _

SIZE OF WELL: n/a AGE OF WELL: n/a

DEPTH OF WELL: n/a

SEAL BLOCK PRESENT: n/a

WELL HOUSE PROTECTION WELL: n/a

IS A WELL LOG AVAILABLE (ATTACH IF AVAILABLE): n/a

NEIGHBORING WELL WITHIN 150 FEET OF PROPERTY LINE: None

(If neighboring well exists they must be shown on the design.)

OTHER SETBACKS

Streams, Ponds, or Lakes within 75 feet: *Shown*

Sharp Slopes, Breaks, or Dry Ditches: *None*

SOIL EVALUATION

SOIL BORING NO. 1

PROFILE DEPTH	TEXTURE (USDA)	COLOR	GRAVEL %
0" to 13"	Loam	Dark Gray	0
13" to 24"	Clay Loam	Gray	0
24" to 60"	Clay Loam	Light Brownish/Gray	0

SOIL BORING NO. 2

PROFILE DEPTH	TEXTURE (USDA)	COLOR	GRAVEL %
---------------	----------------	-------	----------

Same as Soil Bore 1



RCB
12/27/20

**EFFLUENT LOADING
DETERMINATION**

SOIL TEXTURE	SOIL CLASS	GALLONS PER DAY / SQUARE FOOT
course sand, gravel	1a	> 0.5
sand, loamy sand	1b	0.38
sandy loam, loam	II	0.25
silt, silt loam, silty clay loam, clay loam, sandy clay loam, sandy clay	III	0.20
silty clay, clay	IV	0.10

NOTE: The soil evaluated for effluent loading should be the soil below the maximum depth of application (normally between 36 and 48 inches)

INDICATION OF SEASONAL WATER TABLE: YES @ 13"

NOTE: Subsurface horizons with colors of red, yellow and brown generally indicate good soil aeration and drainage throughout the year. Subsurface horizons that are in color of gray, olive or brackish colors indicate poor aeration and poor soil drainage. Any soil profile that has grayish colors indicative of a high water table or soil mottling within 36 inches of the surface or has groundwater visible in the test bore less than 48 inches below the ground surface shall be deemed unsuitable for conventional subsurface disposal due to the internal drainage.

Soil Classification: CLASS III

IS SOIL SUITABLE FOR A CONVENTIONAL SYSTEM: NO
APPLICATION RATE: 0.20 GPD/SF/DAY

NOTE: If soil has an application rate of over 0.38 GPD/SF or less than 0.1 GPD/SF or a high seasonal water table then conventional systems are prohibited by State Law.

I, Raymond C. Beckford, a registered Site Evaluator, license OS 25275, did personally conduct the site evaluation at: 5023 Birch Street Santa Fe TX 77517

I certify these results are true and correct for the property evaluated.



Raymond C. Beckford

Signature

12-27-2020

Galveston County Health District Site Evaluation Form

Date: 12/20/2020

Client: RAFAEL MORENO

Phone: _____

Address: 5023 BIRCH ST

City, State Zip: SANTA FE TX 77517

Legal Description:

Site Address: 5023 BIRCH ST

City/Area: SANTA FE TX

Subdivision: SIMPSON

Sec: _____ Lot: 5 Block: _____

Survey: _____

Abstract No: 611

Property Size: _____

Acres: 1.17

Existing or proposed structure to be served: (Circle one) Existing Structure/New Structure

Topography

Slope	Vegetation	Drainage
Flat: Under 2% <input checked="" type="checkbox"/> Note: If slope is flat a detailed drainage plan shall be provided on design.	Grass/Brush: <input checked="" type="checkbox"/>	Poor: _____ Note: If drainage is poor a detailed drainage plan shall be provided on design.
Slight: Under 4% _____	Lightly Wooded: <input checked="" type="checkbox"/>	Adequate: <input checked="" type="checkbox"/>
Severe: Over 30% _____ Note: If slope is severe a Topo Survey with half foot contours should be provided with this form on design.	Heavily Wooded: _____	Good: _____
Other: _____	Other: _____	Other: _____

Flood Hazard

Property is located:

Outside 100 year flood plain:

*In 100 year flood plain: _____

In 100 year flood plain and floodway: _____

Note: *Systems installed in flood plain must document how floatation concerns will be addressed on design. Attach a FEMA Flood Insurance Rate Map (FIRM) with property location identification or current survey with Flood Plain determination.

Soil Evaluation

(Based on at least two soil borings or two backhoe pits at opposite ends of the soil absorption area)



Profile Depth	Texture (USDA)	Color
0-13"	LOAM	DARK GRAY
13"-24"	CLAY LOAM	GRAY
24"-60"	CLAY LOAM	LIGHT BROWN / GRAY

(Minimum depth is two feet below proposed excavation)



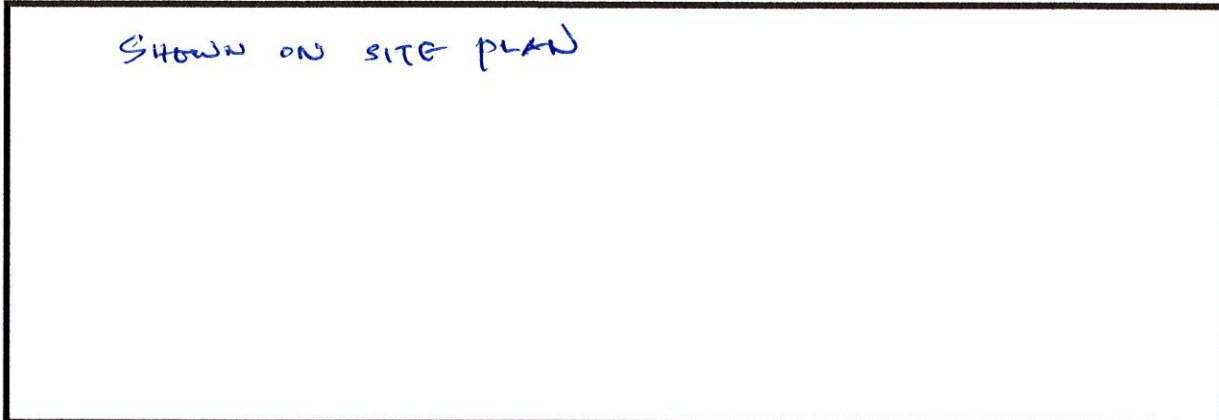
Profile Depth	Texture (USDA)	Color
SAME AS ABOVE		

(Minimum depth is two feet below proposed excavation)

Normal Textures (USDA) course sand/gravel, loamy sand, sandy loam, loam, sandy clay, clay loam, silty clay, clay.

Note: Location of bore holes must be shown on design or on a separate sheet of paper attached to this report.

Separation Requirements {show features in the area where the OSSF is to be installed that could be contaminated by the OSSF or could prevent the proper operation of the system in space below or attached page (include items such as adjacent wells, ponds, slopes, etc)}



RESTRICTIVE HORIZON

Restrictive Horizon within 24" below bottom of proposed excavation? Yes _____ No

GRAVEL ANALYSIS (For Class II and Class III Soils with Gravel)

% Total Gravel: 0%

% Gravel Less Than 2.0 mm: _____

% Gravel Greater than 5.0 mm: _____

EFFLUENT LOADING DETERMINATION

Soil Class/Texture

Gallons per day per square foot

Ia/Gravelly Soil >30% Gravel

To great for consideration >0.5

Ib/Sandy solis with <30% gravel

0.38

II/Sandy loams/loams

0.25

III/Sandy clay/clay loams

0.20

IV/Clay/silty clays

Unsuitable

0.10

Indication of seasonal water table: (Circle One)

Yes No

Depth: 13"

FINDINGS

Is soil suitable for standard subsurface disposal methods? (Circle One) Yes No

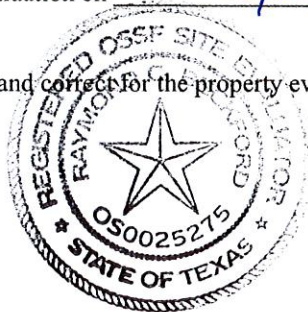
Wastewater application rate 0.2 Gal/day/sq.ft.

I, RAYMOND BECKFORD, a registered SITE EVALUATOR

did personally conduct the site evaluation on 12/20/2020

(Date)

I certify that these results are true and correct for the property evaluated.



Raymond Beckford

Site Evaluator

OS 25275
Registration Number

**TWO YEAR INITIAL MAINTENANCE AGREEMENT FOR AN
ON SITE SEWAGE FACILITY TREATMENT SYSTEM**

System Owner:

Rafael Moreno

Serial Number: _____

Brand Name: Aqua KlearSystem Name: Aqua Klear

Located at:

5023 Birch St
Santa Fe TX

Gulf Coast Aerobic Services will inspect and service your Aqua Klear Aerobic System once every 4 months for a period of two years from the date that this OSSF is first used at no additional charge to the customer as required by state guidelines dated June 13, 2001. For a new single family dwelling, this date is the date of sale by the builder. For an existing single family dwelling this date is the date the notice of approval is issued by the permitting authority.

Before this initial two year service policy expires, the owner of this OSSF is required to have a new maintenance contract signed. A copy of the new contract shall be submitted to the permitting authority at least 30 days before the current contract expires. If the property owner or maintenance company desire to discontinue the maintenance contract, the maintenance company shall notify, in writing, the permitting authority at least 30 days prior to the date service will cease. If a maintenance company discontinues business, the property owner shall within 30 days of the termination date, contract with another approved maintenance company and provide the permitting authority with a copy of the newly signed maintenance agreement.

Testing and Reporting

Gulf Coast Aerobic Services shall test and report on the following for this system as required by rule:

1. An inspection every 4 months, which includes inspection of the mechanical and electrical component parts as necessary to ensure proper function is being attained.
2. An effluent quality inspection consisting of a visual check for color, turbidity, scum overflow and an examination of odors.
3. If required, a sample shall be pulled from the aeration tank to determine if there is an excess of solids in the treatment plant. If the test results determine a need for solids removal, the user will bear the cost and responsibility for doing so.
4. If any improper operation is observed at the time of the inspection, the user shall be notified immediately in writing of the condition(s) and the estimated cost to bring the system into compliance and good working order.
5. If required, a chlorine residual test will be taken at each visit.

Inspection Contract Description:

An Inspection Contract to be effective for a period of 12 months. Inspections are to be performed every 4 months. Under the terms of this Inspection Contract Renewal Agreement the owner is responsible for keeping chlorine (calcium Hypochlorite properly labeled for wastewater disinfection) in the chlorinator as well as the cost of the chlorine. Additional service, as ordered including replacement of components, laboratory test work, and pumping of unit or pre-tank will be done upon authority from the customer and at an additional charge.

(This Policy Does Not Include Pumping Sludge From Unit If Necessary)

-If you request notification prior to inspection an attempt will be made to contact you when we are certain we will have a technician in your area, if we are unable to reach you the technician will still attempt to complete the scheduled inspection. If he is unable to complete the inspection due to a locked gate and/or dogs in the yard, etc. a door hanger will be left as notification of our attempt to complete the inspection and this will count as one of your three yearly inspections.

-Any service call requested by the owner that requires repairs due to any fault of the owner and/or requiring no repairs at all will result in a \$70.00 service call fee + parts and labor (if required) and payment will be due immediately. FAILURE TO PAY ANY INVOICE WILL RESULT IN CANCELLATION OF CONTRACT.

Michael P. Robinson, has been certified by the manufacturer of your system and will be responsible for fulfilling the requirements of this Inspection Contract, as well as responding to any complaints and/or addressing any concerns by the owner of the system. Concerns and/or complaints will be addressed within 48 hours of the initial contact. Upon expiration of this inspection contract, our firm will offer a renewal of your inspection contract as mandated by State regulations.

VIOLATIONS OF WARRANTY include shutting off the electric current of the system for more than 24 hours, disconnecting the alarm system, restricting ventilation to the aerator, overloading the system above its rated capacity, or introducing excessive amounts of harmful matter into the system, or any other form of unusual abuse.

Michael P. Robinson, who has been certified by the manufacturer of your system and will be responsible for fulfilling the requirements of this Maintenance Contract, as well as responding to any complaints and/or addressing any concerns by the owner of the system. Concerns and/or complaints will be addressed within 48 hours of the initial contract. Upon expiration of this service policy, our firm will offer a continuing service policy as mandated by state regulations.

Affidavit to the Public

THE COUNTY OF GALVESTON §
STATE OF TEXAS §

AFFIDAVIT

According to Texas Commission on Environmental Quality Rules for On-Site Sewage (OSSFs) Facilities, this document is filed in the Deed Records of Galveston County, Texas.

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (commission) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), §5.012 and §5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety Code, requires owners to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert full legal description and full location address):

Lot B Gordons Subdivisor 5023 Birch Street

The property is owned by Rafael Moreno Aleman
(insert owner's full name)

Santa Fe
77517

This OSSF shall be covered by a continuous service policy for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally under the guidelines of the regulatory authority.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF may be obtained from the Galveston County Health District.

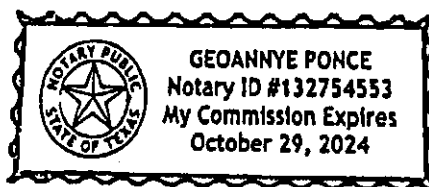
WITNESS BY HAND(S) ON THIS 06 DAY OF January, 2021.

Rafael Moreno

(Owner(s) signature(s))

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 06 DAY OF January

[Signature]
Notary Public, State of Texas
Notary's Printed Name:
Commission Expires:



FILED AND RECORDED

Instrument Number: 2021027570

Recording Fee: 26.00

Number Of Pages:2

Filing and Recording Date: 04/16/2021 1:11PM

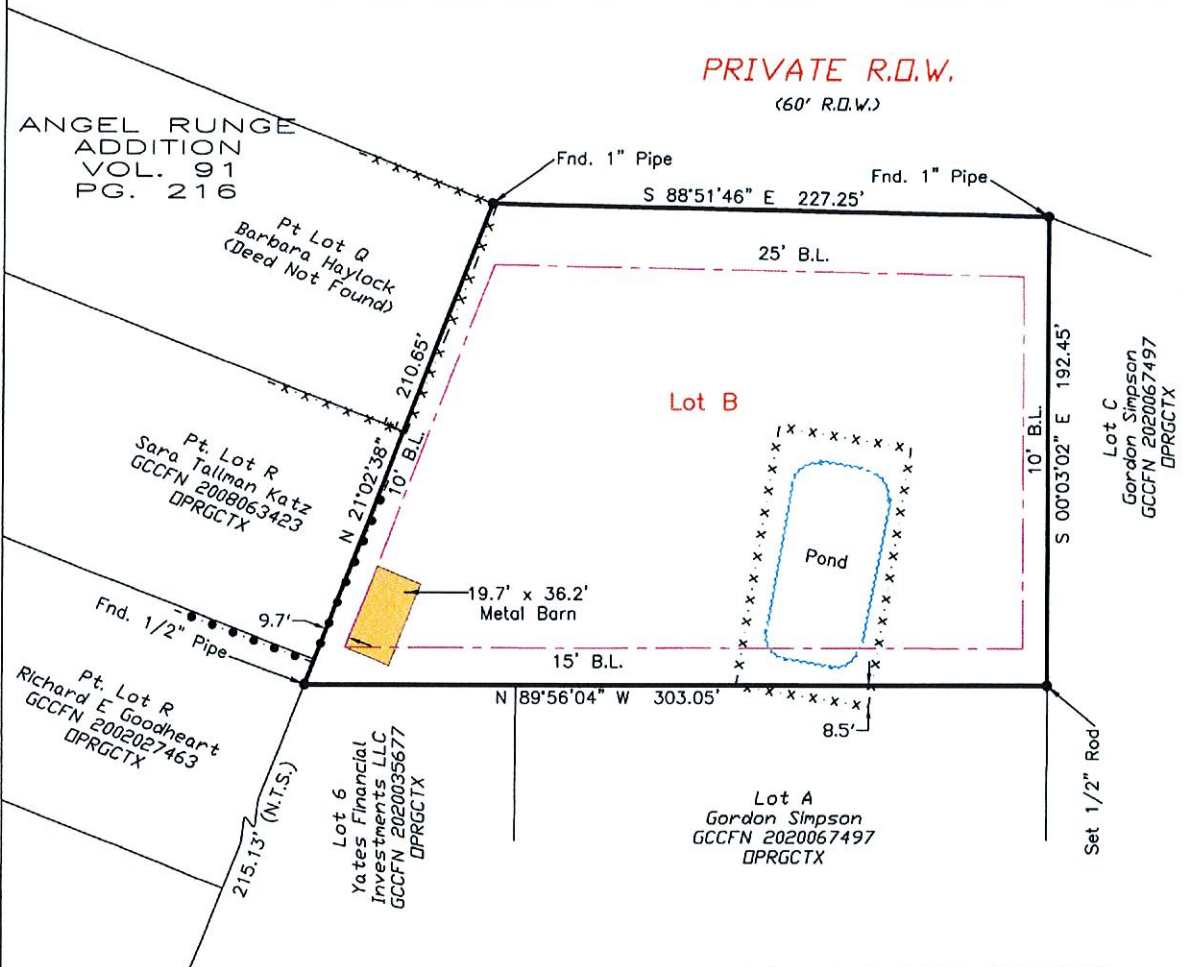
I hereby certify that this instrument was FILED on the date and time stamped hereon and RECORDED in the OFFICIAL PUBLIC RECORDS of Galveston County, Texas.



Dwight D. Sullivan

Dwight D. Sullivan, County Clerk
Galveston County, Texas

DO NOT DESTROY - Warning, this document is part of the Official Public Record.

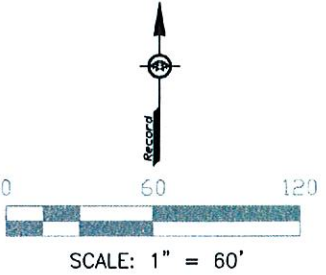


CEDAR STREET
(Width Varies)

Survey of Lot B of GORDON'S SUBDIVISION, a subdivision in Galveston County, Texas, according to the map or plat thereof recorded in Galveston County Clerk's File No. 2020067497, in the Official Public Records of Real Property of Galveston County, Texas.

I hereby certify that on the below date, the herein described property, together with improvements located thereon, was surveyed on the ground and under my direction, and that this map, together with dimensions as shown hereon, accurately represents the facts as found on the ground this date.

Brene Addison
Brene Addison
Registered Professional
Land Surveyor No. 6598



NOTES:
 1) This property is subject to the zoning ordinances of the City of Santa Fe.
 2) This property lies within "other areas" Zone X as established by the FEMA Flood Insurance Rate Map No. 48167C0375G, Dated August 15, 2019.
 3) This property is subject to any restrictions of record and may be subject to setbacks from power lines as established by DSHA and/or the local power company.
 4) Bearings are based on the monumentation of the North right-of-way line of Cedar Street.
 Surveyed without the benefit of a title commitment. This property may be subject to matters of record not shown hereon that might be revealed by title report or title commitment.

Legend:
 - x - x - Wire Fence
 B.L. Building Setback Line
 Building Line
 (N.T.S.) Not to Scale

TRICON LAND SURVEYING, LLC
 Mailing: 6341 Stewart Rd. #251
 Physical: 2011 59th Street
 Galveston, TX 77551
 409-497-2772
 TriconLandSurveying.com
 T.B.P.L.S. Firm No. 10194309

Drafting: LP Survey Date: October 27, 2020
 Surveyed for: Gordon Simpson

City of Santa Fe Residential Development Permit Application

12002 Hwy. 6, P.O. Box 950, Santa Fe, TX 77510 Phone: 409-925-6412 Fax: 409-316-1941

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED



Project Address: 5023 Brich St Santa Fe Tx 77517
 Legal Description: LOT B Gordon's subdivision GCAD account #:

Type of Permit: BUILDING MECHANICAL ELECTRICAL PLUMBING Manufactured /Modular Home
 FLATWORK ROOFING MOVING DEMOLITION POOL INCLUDE
 VALUE \$ _____

CLASS OF WORK: NEW ADDITION ALTERATION REPAIR OTHER

DESCRIPTION OF WORK AND USE OF BUILDING:
New family residence
 Total Building Square Footage: 2,747 sq.ft
 Building Square Footage (unconditioned space): 424 sq.ft.
 Building Height 22.41' No. of Stories 1
 Pool Value \$ _____ Flood Zone: "X" Elevation Certificates Req.

Total Paving (sq. ft.) <u>691</u>	# Parking Spaces Provided <u>691</u>	Well and Septic YES or NO	% of Lot Coverage <u>12.48%</u>	Zoning District	Fire Sprinkler Required YES or NO	SWPPP Required YES or NO
--------------------------------------	---	------------------------------	------------------------------------	-----------------	--------------------------------------	-----------------------------

Owner's Name <u>Rafael Moreno</u>	GENERAL CONTRACTOR: <u>Rafael Moreno</u>
STREET: <u>1110 Kildare</u>	STREET: <u>1110 Kildare</u>
CITY, STATE, ZIP: <u>Houston Tx 77047</u>	CITY, STATE, ZIP: <u>Houston Tx 77047</u>
PHONE NO.: <u>832-573-5546</u>	PHONE NO.: <u>832-573-5546</u>
E-MAIL: <u>rafaeljunior@icloud.com</u>	E-MAIL: <u>rafaeljunior@icloud.com</u>

SUBCONTRACTORS:	Company Name and Phone Number	Master's Name (Copy of License and Insurance required)
Electrical	<u>Rafael Moreno</u>	<u>Jensen Electric</u>
Plumbing:		
Mechanical:		
Other:		

Required to be submitted with application:

- TWO copies of the building plans
- A scaled plot plan or survey (showing all easements and set backs)
- A Site Grading Plan or Drainage Plan
- Storm Water Pollution Prevention Plan (developments over 1 acre in size)

Windstorm Most structures built or modified within Santa Fe must be built to the 120 MPH standards of the Texas Building Code for Windstorm Resistant Construction. The TDI Certificate of Compliance WPI-8 must be available to the Building Department within 60 days of the Final Inspection before issuance of the Permanent Occupancy Certificate. Failure to provide the required Windstorm Certificate shall result in cancellation of any Occupancy Certificate.

Special Flood Hazard Areas Any development in a special flood hazard area requires a development permit. (examples: fill dirt, barns, driveways) Elevations certificates are required for any structures located in a special flood hazard area. Lowest floor shall be certified by a registered engineer or surveyor to be 12 inches above Base Flood Elevation.

Two elevation certificates are required: before work begins and before the Permanent Occupancy Certificate is issued.

A stamped form survey with slab elevation shall be submitted PRIOR to slab inspection.

NOTICE: I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other state or local law regulation construction or performance of construction. Proposed construction shall meet all applicable codes. Upon submission of this application, I understand that the permit is conditioned information that I have supplied and may be revoked upon a finding by the inspection official that any relevant item of information is correct. I acknowledge that Galveston County Drainage District #1 may require additional drainage or detention for this project, and that I am responsible for contacting them. This permit becomes void if work or construction authorized is not commenced within 180 days, or if construction is suspended or abandoned for a period of 180 days at any time after work is commenced.

SIGNATURE
 Printed Name: Rafael Moreno
 Phone No.: 832 573 5546

Initial Review	Approved
By: _____ Date: _____	By: _____ Date: _____