

# DRAINFIELD DESIGN AND DENSITY, CORP.

FLORIDA ENGINEERING BUSINESS #27909  
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November 2, 2021

State of Florida  
Department of Health  
Collier County Public Health Unit  
Environmental Health and Engineering  
P.O. Box 428  
Naples, FL 34106-0428

RE: Performance-Based System  
Garcia - Deerey Residence  
6075 English Oaks Lane  
Naples, Collier County, Florida 34119  
Golden Gate Estates; W 180' of Tract 52 Unit 96, Collier County, Florida

Dear Sir:

Garcia - Deerey wishes to apply for an Advanced Secondary Treatment System (ASTS) for a single-family home located at 6075 English Oaks Lane, Naples, Collier County, Florida 34119. The ASTS is a "Hoot" Aerobic Treatment System Model 1000-AND. This ASTS meets or exceeds the ASTS standards.

## **System Design Criteria**

System design criteria shall include performance levels for the ASTS and monitoring requirements and monitoring locations, and methods of monitoring flow through the system. Performance levels shall be indicated in the design as ASTS standards, or baseline treatment. If soil is considered part of the treatment system in any performance-based standard, monitoring points in the effluence plume within the boundaries of the property must be in compliance with the minimum criteria for Class G-I and G-II groundwater as specified in 62-520.420, F.A.C., hereby incorporated by reference. See attached plans and exhibits for specific data.

## **System Design Calculations for the Advanced Secondary Treatment System (ASTS)**

See attached plan.

## **A contingency plan for effluent to be collected and disposed of in the event of in the event of system failure is as follows:**

In the event of a system failure, water use will immediately be restricted to minimum usage and the aerobic tank will be pumped by a licensed tank pumping contractor as needed and the effluent taken to a licensed disposal facility. Each component of this treatment/purification and effluent disposal system will be examined for its contribution to the system failure. The component(s) that contribute to the failure will be repaired or replaced until system operation can be restored. System elements will be replaced until the cause of failure is isolated and corrected. With proper inspections and maintenance, system failures should be limited to minor component failure and not overall system failure. Mechanical and electrical components will be replaced as needed. Physical components such as pipes, tanks, emitters, and filters will be inspected and cleaned or replaced as needed.

### **Certificate of Design**

“I certify that the engineering features of this performance-based treatment system have been designed or specified by me and conform to engineering principles applicable to such projects. In my professional judgment, this system when properly constructed, operated and maintained will achieve the established performance standard and comply with all applicable statutes of the State of Florida and rules of the Department.”

An operation and maintenance manual shall be prepared by the unit’s design engineer and provided as part of the original design.

All changes to the engineering specifications shall be approved and certified by the design engineer. A copy of any changes shall be provided to the county health department for review for compliance with ASTS Standards and approval or disapproval.

All changes to the operation and maintenance manual shall be approved and certified by the design engineer. A copy of any changes shall be provided to the county health department for review and approval or disapproval.

### **Permits**

System Inspection – Before covering with earth and before placing the ASTS into service, a person installing or constructing any portion of the ASTS shall notify the county health department of the completion of the construction activities and shall have the system inspected by the department for compliance with the requirements.

### **Inspection, Maintenance & Monitoring of ASTS**

The Inspection Maintenance Frequency shall be as follows.

1. Samples for CBOD5 and TSS or perform a visual inspection of the ground surface above the emitter lines for soil saturation shall be done by a qualified Maintenance Entity (ME), Class D Operator.
2. If drainfield size reduction is the only benefit being utilized, then the only monitoring required is ponding depth on a quarterly basis.
3. Reports to be submitted to County Health Department.

If you have any questions, please contact this office.

Thank you.

Sincerely,  
Drainfield Design and Density Corp.

This item has been digitally signed and sealed by  
James B. Kuhlman PE. on date noted in sealed signature.  
Printed copies of this document are not considered  
signed and sealed and signature must be verified on any  
electronic copies.

James B. Kuhlman, P.E.  
Florida Registration #22388

File 21-212  
Garcia - Deerey