



CASE STUDY

PROJECT NAME

Victor Hernández Building Elderly Housing
Aquadilla, Puerto Rico

SYSTEM SPECIFICATIONS

6,000 GPD passive combined
treatment and dispersal system
for elderly housing facility

PRODUCTS USED

Advanced Enviro-Septic® (AES) combined
treatment and dispersal system
Septic Maze™ septic tank insert

INSTALLATION DATE

2021

CONTRACTOR

Sani-Plant
Trujillo Alto, Puerto Rico

OWNER

City of Aquadilla, Puerto Rico

Combined Treatment and Dispersal Wastewater Treatment System Replaces Failed Conventional System at Elderly Home in Puerto Rico

OVERVIEW

The Victor Hernández Building Elderly Housing facility in Aquadilla, Puerto Rico had a failed onsite septic system in poor soils that needed to be pumped to a holding tank weekly. With a limited budget for operations and maintenance and wastewater constituents typical of a project of this type, the situation made clear the need for a better solution with technology that offered a higher level of treatment to protect and preserve the permeability of the soil.

CHALLENGE

Limited area available for a new system and ongoing maintenance expenses were both challenges that steered project designers toward a passive treatment system requiring minimal ongoing maintenance and associated costs. The small footprint of the system was compatible with the land available and was economical to install and maintain. Also, key to the system selection was the need for superior treatment of the building's wastewater due to challenging wastewater typical of these types of facilities.

SYSTEM DESIGN

Following thorough review of the project, Sani-Plant of Trujillo Alto, PR, selected a NSF 40 and BNQ Certified, Advanced Enviro-Septic® (AES) combined treatment and dispersal system. A 6,000 GPD system was designed with an additional septic tank that included a Presby Maze septic insert to increase the retention of the waste to allow greater efficiency in the primary treatment. Because of the AES system's rigorously tested capability for high level treatment, the system needed a treatment and dispersal footprint of only 5,609 ft² (39 ½ ft x 142 ft) with an application rate of 1.07 GDP/ft². Also, the project required only 2,600 feet of AES pipe in a butterfly configuration with eight serial sections. This saved the facility a significant amount of space. Additionally, by installing a passive CTD system with a proven record for exceeding required treatment levels and a reduced footprint, the Victor Hernández Building saved significant short and long-term costs.

RESULT

Victor Hernández Building saved significant short and long-term costs by installing a passive, small footprint system with a proven record for exceeding required treatment levels.



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