

PISTA[®] VIO[™]Grit Removal System Allows WWTP Work Around While Significantly Upgrading Grit Removal Performance

PISTA VIO

Location:

City of Longview Wastewater Treatment Plant Longview, TX ____

Equipment Installed

(1) 50 MGD **PISTA® VIO™** Grit Chamber
 (1) Top-Mounted TURBO Grit Pump
 (1) Model 15 **PISTA®** Grit Screw Conveyors
 PLC Controls

The City of Longview's Wastewater Treatment Plant is designed and permitted to treat an annual average flow of 21 million gallons per day (MGD) and can treat a 2-hour peak flow of 63 MGD of raw sewage. In 2020, the City approved wastewater treatment plant upgrades known as the "Grace Creek Head Works" Improvements.

The project included significantly improving the grit removal efficiency from the existing aerated grit chambers, which had to stay online during the construction phase. Flow comes from four pipes into the headworks and so the best way was to turn 90 degrees off the existing structure through the selected **PISTA VIO™** Model 50 grit chamber and route the grit chamber effluent to a new channel next to the existing aerated grit basins. This **PISTA VIO™** provides the double benefit of design flexibility and market-leading grit removal performance as the test results on back indicate.







Continued on backpage

Grit Removal Efficiency Test Results:

Grit removal efficiency testing conducted nearly a year after installation revealed that the system is exceeding the stated performance – removing virtually 99% of ALL grit (including the finest of grit particles down to 70 mircons in size).

Size	Influent (g)	Effluent (g)	Cumulative Efficiency (%)
Microns			
300	19,390.96	2.94	99.98
200	11,420.32	7.01	99.97
150	10,070.42	28.14	99.91
100	6,610.11	31.70	99.86
75	3,603.36	14.50	99.84
50	1,597.00	4.35	99.83
Residual	628.14	1.66	99.83
Total	54,431.04	90.66	99.83

Conducted March 2023 via CCS Testing Methodology

The PISTA[®] VIOTM achieves flexibility because of its ability to arrange connecting channels at any variable angle up to the full 360 degrees of the circular chamber.



Smith & Loveless Inc. Phone: (913) 898-5201 www.SmithandLoveless.com Fax: (913) 888-2173