STORMWATER MANAGEMENT

PAVEDRAIN®

Performance Testing

Stormwater Management Academy at the University of Central Florida (UCF)

UCF STORMWATER ACADEMY PAVEDRAIN® PERFORMANCE REPORT

The final PaveDrain performance report was completed May 2016 and submitted from the University of Central Florida (UCF) Stormwater Management Academy Research and Testing Laboratory (SMART Lab) by Manoj Chopra, Ph.D, P.E; Mike Hardin, Ph.D, P.E., CFM; Ikiensinma GogoAbite, Ph.D.' and Kristen Lassen.

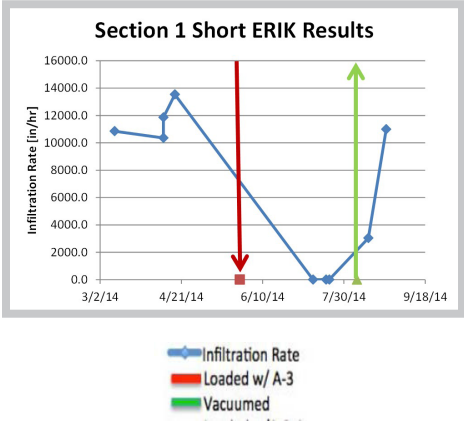
TESTING SCOPE

The UCF Stormwater Academy evaluation of the PaveDrain® system was conducted to determine: 1) Infiltration performance of different sections, 2) System's ability to be rejuvenated (i.e. cleaned/maintained) under soil loading conditions and 3) PaveDrain® porosity (sustainable void space).

INFILTRATION PERFORMANCE

The PaveDrain® infiltration performance was determined by:

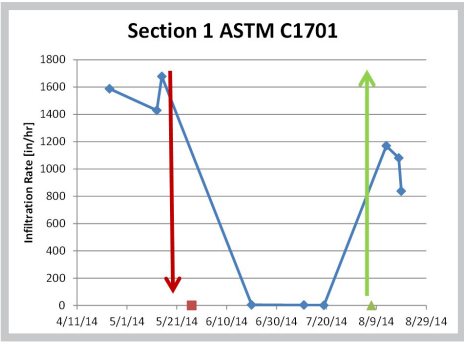
1) Obtaining the initial infiltration rates
2) Hyper-loading with two different types of soils to simulate a lifetime of pavement sediment loading
3) Testing as a system fully-loaded with sediment
4) Performing maintenance using the PaveDrain® VacHead attached to Vac Truck
5) Obtaining post-maintenance infiltration rates.



INFILTRATION RATES

Initial infiltration rates were determined using two different test methods:

ERIK Method	ASTM Method
Initial Rate: 11,652 in/hr	**Initial Rate:** 1,554 in/hr
Clogged condition: 3.7 inches per hour	**Clogged condition:** 2.9 in/hr
Following Maintenance: 7,015 inches per hour	**Following Maintenance:** 1,080 in/hr



OPERATING POROSITY (Sustainable Void Space)

Operating Porosity represents the sustainable void space of the PaveDrain system, which was calculated to be 19.5%. This means that the arch within the PaveDrain block is equal to 1.1 inches of stormwater storage **ABOVE** the base.

CONCLUSION

"The testing completed on the PaveDrain® permeable pavement system shows that this system is able to infiltrate rainwater and effectively be rejuvenated by the PaveDrain® VacHead if it becomes clogged with sediment. With the amount of void space provided in the typical Pave Drain® system design, it can be inferred that these systems will be able to satisfactorily infiltrate Stormwater with longer maintenance intervals."
Mike Hardin, Ph.D., P.E., CFM

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For more information about Stormwater Management, contact Inside Sales at 800.448.3636 email at info@acfenv.com

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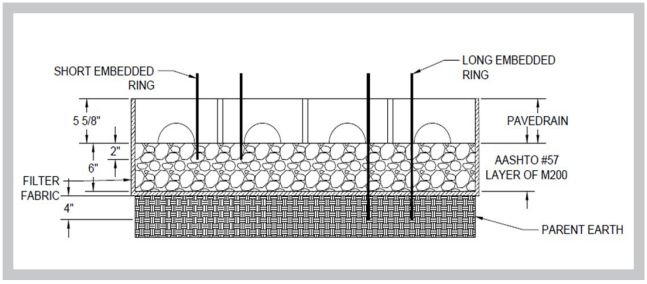
PAVEDRAIN® PERFORMANCE TESTING

ERIK Test Method

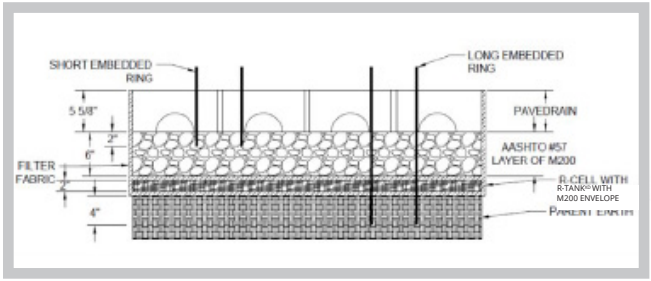
ERIK Device

Maintenance with Vac Head

Completed job City of Melbourne



Section 1 – Typical PaveDrain Cross-Section with 6" AASHTO #57



Section 3 – Integrated Infrastructure Cross-Section with PaveDrain, 6" AASHTO #57 and 2" R-Tank^{XD}

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