

MultiDrain Systems

www.multidrainsystems.com



**Transportation Industry:
Demonstrate AASHTO compliance for
drainage system grate**



FEA Consulting

Overview

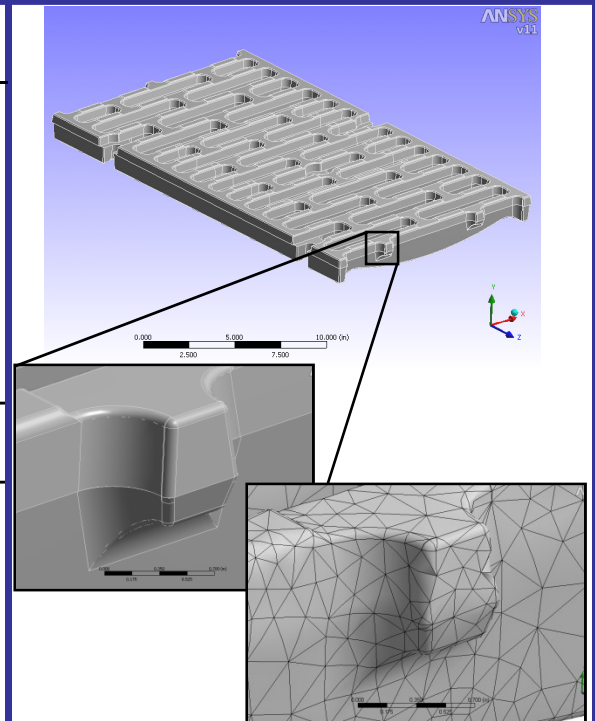
MultiDrain® Systems is a manufacturer and distributor of pre-engineered trench drain systems. Products include the EconoDrain® EPS forming system, EconoDrain PT-3™ heavy-duty trench drain system, MultiDrain® steel trench drain, and Alfa Channel® polymer concrete trench drain.

Prior to investment in prototype construction and physical testing, MultiDrain utilizes FEA services to assure compliance with regulatory conformance to AASHTO, DOT, FAA, Military and "Euro" specifications.

Testimonial

"Beyond the grating, we also utilize your service to evaluate total system performance to assure service continuity and life expectations."

Engineering Manager, MultiDrain Systems, Inc.



Challenge

Perform large deformation plasticity analysis with detailed CAD geometry in a timeframe allowing for design iterations. The CAD geometry consists of very small features compared to global dimensions, making meshing a challenge.

Solution

An advanced meshing algorithm within ANSYS Workbench uses state-of-the-art meshing technology from ICEM-CFD/AI*Environment to create a uniformly sized mesh, marginalizing insignificant features without the need to manually remove them.

Benefits

Accurate simulation reduces the need for additional prototypes and testing; reduces project lead times and helps get the product into the market faster. By outsourcing engineering simulation to Simutech, MultiDrain is getting expert simulation services and quick turn-around times without maintaining in-house expertise.