
COURSE DESCRIPTION:

This course emphasizes the importance of good drainage with discussions of the effects of water on roads, problems caused by improper drainage, and ways to handle these problems. It covers types of drainage systems ranging from ditches, culverts, subdrains, inlets, and end structures. Uses, materials, installation, and maintenance of these systems are addressed as well. This course also introduces geosynthetic drainage applications.

This workshop is a required course for Roads Scholar and is worth six professional development hours.

INSTRUCTOR: JOHN FLECKENSTEIN

John Fleckenstein has been active in the design, testing, and performance of drainage systems for over 20 years. He is the owner of Highway Drainage Consultants located in Lexington, Kentucky. His company specializes in drainage system design and assessment. He was formerly with the Kentucky Transportation Center where he spent 15 years conducting pavement and drainage research.

AGENDA

Introduction and Class Overview

Problems Associated with Water on Roadways and Symptoms of Poor Drainage

Sources of Water Infiltration

Fundamental Elements of a Good Pavement Drainage System

Video: Importance of Roadway Drainage

Break

Pavement Drainage Design

Subsurface Drainage Design, Construction, Quality Control, Maintenance and Repair

Video: Inspection of Highway Edge Drains

Lunch

Surface Drainage Design, Construction, Quality Control, Maintenance and Repair

Videos: Culvert Not Just Something to Pass Over, Flowable Fill Backfill for Culverts, and Pothole Repair: Proven Practices

Break and Evaluations

Storm Water Retention/Detention and Water Quality Units

Legal Liability

Certificates