

Registration

Three ways to register: **PHONE** **FAX** **MAIL**

Fees: Course fee is \$895 and includes workshop materials, breaks, and lunch both days.

Early Registration Discount: Pay only \$845 if registration is received by September 15

Design of Stormsewers and Pavement Drainage

Princeton, NJ October 13-14, 2009

Name(s)/Title(s) _____

Department _____

Organization _____

Address _____

City _____ State _____ Zip _____

Phone/Fax _____

Email _____

Special Dietary Requirements _____

Cell # for Emergency Contact only _____

P.O. Number _____

Credit Card: American Express Mastercard Visa

Credit Card Number _____ Expiration _____

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Make checks payable to
Water Resources Learning Center, Inc.
3918 Prosperity Avenue
Suite 305
Fairfax, VA 22031
703.289.9600 voice
703.289.9622 fax
info@waterlearning.org



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CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT COURSES 1.4 CEUs/14 PDHs



RESOURCES LEARNING CENTER
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DESIGN OF STORM SEWERS AND PAVEMENT DRAINAGE

Princeton, NJ October 13-14, 2009

To be removed from our in-house mailing list, please send a fax or email us.

Online Training Programs coming soon!

Design of Storm Sewers and Pavement Drainage

Princeton, NJ

October 13-14, 2009

Course Description

This two day course provides students with a thorough knowledge of surface pavement drainage design and hydraulic design of storm sewer systems. The course includes a review of hydrology for pavements, and detailed information on sizing curb open inlets, grates, and curb and gutter flow. One day is spent on sizing storm sewers, computing energy losses and hydraulic grade line calculations. Example problems are performed using nomographs and calculators (bring your calculator!). 1.4 CEUs

Course Outline

- Review of Hydraulic Theory
- Hydrology Using Rational Method
- Drainage of Highway Pavements
- Example Problems
- Intro to Storm Sewers
- Energy Losses
- Hydraulic Grade Line Calculations
- Example Problems

Benefits

- Understand open channel and closed system hydraulic theory.
- Learn the types of collection systems available for pavement drainage and how to design them.
- Learn the types of energy losses that occur in storm sewer systems and how to calculate them.
- Learn how to compute a hydraulic grade line.
- Perform actual hands-on design examples.

Course Material

Attendees will receive a course workbook, selected reference material and publications; FHWA HDS-3 Design Charts for Open Channel Flow, FHWA HEC-22 Urban Drainage Design, and FHWA software Visual Urban Drainage Design.

Who Should Attend?

The workshop is intended for engineers, consultants, designers, technicians, and planners involved in storm sewer and pavement drainage design. Those involved in other areas of drainage who would like to obtain a better understanding of the design practices are also encouraged to attend. The course material is presented in a manner that will benefit individuals who are new to this field as well as those with much experience.

“Really enjoyed the course. Interesting seeing the theoretical relate to the real world.”

Shellie DeMoss, Johnson, Mirmiran & Thompson

“Excellent course, excellent instructor. Brian knows water.”

Caleb Thornhill, Freese & Nichols

“Brian is a super instructor. His style of instruction and presentations at the University of Maryland prompted me to take a trip to Arlington, TX for a second class. I’ll be chasing him around the globe for more knowledge.”

Bethel Oguike, Naval Facilities Engineering Command

“Great Seminar-learned more than in my college class.”

Brittany, McCormick Taylor

“An excellent course for those interested in or involved with the design of pavement drainage & storm sewers. Thank you for your fine presentation.”

Edward R. Zabala, PE

“Brian was an extremely effective presenter. I enjoyed his presentation and came away with a better understanding of pavement drainage and storm drain design. Thank you!!”

Glen Robison, Psomas

“Recommend to anyone wanting to learn how to do pipe design.”

Jennifer West, US Army Corps of Engineers

“Brian - you’re a great guy and a joy to listen to, especially with a potentially boring topic - you’re a good teacher dude!”

Shawn Hardy, Moffatt & Nichol

Course Time 8:30AM–4:30PM
Registration & Continental Breakfast 8:00AM

Location

PRINCETON, NJ
Holiday Inn
100 Independence Way
Princeton, NJ 08540
609-520-1200
Room Rate: \$109.00

Water Resources Learning Center

The Water Resources Learning Center is a training organization dedicated to continuing education in the field of water resources. The organization offers courses in hydrology, hydraulics, stormwater management, watershed planning and management, software applications, drainage design, storm sewers, stream channels, NPDES & TMDL’s, erosion and sediment control, etc. These highly “interactive” courses are designed for an adult learning environment for the professional and are taught throughout the United States and abroad. Courses are offered in both a “live” instructor lead environment and online (coming soon).

In-house training programs are also available to organizations. This may be more economical and allows for course material to be customized to meet your specific needs.

PLEASE NOTE: In order to maintain a credible environment conducive to learning, we do not endorse products nor accept sponsorships or exhibits from providers of products and services.

Instructor

Brian C. Roberts, Director of the Water Resources Learning Center, will present this workshop. Mr. Roberts has held several significant water resources positions throughout the years including President of Water Resource Consultants, Hydraulics Engineer for FHWA, Project Manager for Fairfax County Stormwater Management, Executive Director of National Corrugated Steel Pipe Association. He has taught for the Federal Highway Administration, American Society of Civil Engineers, International Erosion Control Association, Soil Conservation Service and more than 35 State Departments of Transportation. He has a BS and MS in Civil Engineering (Water Resources) and has held professional engineering licenses in Virginia and Maryland.

Continuing Education Units

Seminar participants are eligible for 1.4 (one and four tenths) CEUs for successful completion of the program. The CEU is a nationally recognized unit of measurement for continuing education and training programs that meet certain requirements. Certificates of completion will be issued to each participant. We have not become an approved provider of continuing education courses for the State of NY at this time. We are however approved in all other states.

Fees

Course fee is \$895 and includes workshop materials, breaks, and lunch both days. **Register early and pay only \$845. Registration and payment must be received by September 15 for this discount.**

Cancellation Policy

Cancellations must be made five (5) working days in advance to be eligible for refund. Participants can be substituted at any time. Credit will be given for future courses for those unable to make the cancellation deadline. Please note that seating is limited at these locations.