

Agenda

Presented by Jeffrey Frantzen, Ph.D., P.E.

Principles of Pavement Design

Goals of pavement design
Smooth, stable surface and longevity
Terminology and basic components
Pavement section
Asphalt and concrete components
Loading
Consulting guidelines and standards
Collecting data necessary for design
Economics and lifecycle analysis

Aggregate Bases and Low Volume Road Design

Soil support and subsurface preparation
Base course design
Aggregate surfaced low volume road design
Use of geosynthetics in pavement design

Flexible Pavement Design

Soil support and subsurface preparation
Reclamation and recycling
Mixture content and pavement thickness
Preparing and overlaying existing pavement

Rigid Pavement Design

Soil support and subsurface preparation
Mixture content and pavement thickness
Preparing and overlaying existing pavements
Joint design

Maintenance and Rehabilitation

Goals Distresses
Preservation techniques Rehabilitation practices

Sustainability of Pavements

Recycled materials
Pervious pavements
Runoff filtration zones

Pavement Design

Wichita, KS - Tuesday, May 22, 2018

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Learning Objectives

You'll be able to:

Identify goals for pavement design.

Review pavement guidelines and standards.

Consider the use of geosynthetics in pavement design.

Explore soil support and subsurface preparation for flexible and rigid pavements.

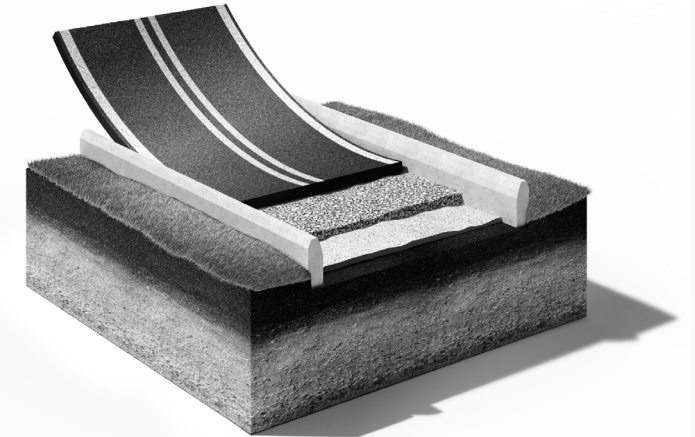
Discuss preservation techniques and rehabilitation practices for pavements.

Increase sustainability through the use of runoff infiltration zones, pervious pavements and the use of recycled materials.



Pavement Design

Wichita, KS - Tuesday, May 22, 2018



Understand the principles and goals of pavement design

Learn about aggregate bases and low volume road design

Discuss flexible and rigid pavement design principles

Explore pavement maintenance and rehabilitation

Review ways to make pavement more sustainable

Continuing Education Credits

Professional Engineers
6.5 PDHs

Architects
6.5 HSW PDHs
6.5 AIA HSW Learning Units

Contractors
Non-Credit Continuing Ed.



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Faculty

Jeffrey Frantzen, Ph.D., P.E. *Kaw Valley Engineering, Inc.*

Dr. Frantzen is a materials engineer with Kaw Valley Engineering, Inc. His present responsibilities involve pavement design; concrete, asphalt, and aggregate materials engineering; and general geotechnical engineering work. Dr. Frantzen has experience in Superpave and Marshall methods of asphalt mix design and ACI and Shilstone methods of concrete mix design. He has experience with AASHTO, Asphalt Institute, PCA, PCASE, and USACE methods of pavement design for asphalt, concrete, and aggregate surfaced pavements. His previous employment experience over the last 40 years has been with the Kansas DOT, Koss Construction Company, and Kleinfelder. He holds B.S., M.S., and Ph.D. degrees in Civil Engineering from the University of Nebraska, Kansas State University, and the University of Kansas, respectively.

Seminar Information

Hyatt Regency Wichita 400 West Waterman Wichita, KS 67202 (316) 293-1234	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:15 pm	Lunch (On your own) 12:15 - 1:15 pm Afternoon Session 1:15 - 4:30 pm
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Tuition

\$279 for individual registration

\$259 for three or more simultaneous registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and a job description, go online to www.halfmoonseminars.org.

How to Register

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Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Additional Learning

- Webinar Series**
- HEC-RAS**
- **Hydraulic Principles and Applications**
Thurs., Mar. 22, 2018, 11:00 AM - 1:00 PM CDT
 - **Working with the HEC-RAS User Interface**
Thurs., Mar. 22, 2018, 1:30 - 3:00 PM CDT
 - **Water Surface Profiling**
Fri., Mar. 23, 2018, 11:00 AM - 1:00 PM CDT
 - **Steady Flow Surface Profile Demonstrations**
Fri., Mar. 23, 2018, 1:30 - 3:30 PM CDT
- Land Description Workshop**
- **Land Description Basics**
Fri., Apr. 20, 2018, 9:00 - 10:30 AM CDT
 - **Interpreting Land Descriptions**
Fri., Apr. 20, 2018, 11:00 AM - 12:30 PM CDT
 - **Writing Land Descriptions**
Fri., Apr. 20, 2018, 1:00 - 2:30 PM CDT
- Boundaries and Easements**
- **Locating Land Boundaries on Paper (And on the Ground)**
Weds., Apr. 25, 2018, 9:00 - 10:30 AM CDT
 - **Physical Evidence and Boundaries**
Thurs., Apr. 26, 2018, 1:00 - 2:30 PM CDT
 - **Easements: Understanding Possessive Rights in Lands of Others**
Thurs., Apr. 26, 2018, 11:00 AM - 12:30 PM CDT
 - **Disputes: Boundaries, Shared Spaces, and Split Estates**
Thurs., Apr. 26, 2018, 1:00 - 2:30 PM CDT
- Commercial Energy Conservation Code**
- **Commercial Energy Conservation Code and COMcheck Introduction**
Weds., Mar. 28, 2018, 11:00 AM - 1:00 PM CDT
 - **Building Envelope Energy Efficiency**
Weds., Mar. 28, 2018, 1:30 - 3:30 PM CDT
 - **Heating, Ventilation and Air Conditioning Systems**
Thurs., Mar. 29, 2018, 11:00 AM - 1:00 PM CDT
 - **Service Water Heating, Power and Lighting**
Thurs., Mar. 29, 2018, 1:30 - 3:00 PM CDT

For more information visit: www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW PDHs/continuing education hours to architects in all states, excluding Florida architects. Educators and courses are not subject to preapproval in Kansas.

This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects.

This seminar provides a non-credit continuing education opportunity to contractors. It has not been submitted to any state contractor licensing board for continuing education approval.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can't Attend? Order the CD/Manual Package:

An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Pavement Design
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How to Register		Registrant Information Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred. () I need special accommodations. Please contact me.
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Complete the entire form. Attach duplicates if necessary.		

Tuition () I will be attending the live seminar. Single Registrant - \$279.00 . Three or more registrants from the same company registering at the same time - \$259.00 each. () I am not attending. Please send me the CD manual package for \$289.00 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CVV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____