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DAN G. ZOLLINGER, Ph.D., P.E., FACI

SENIOR PRINCIPAL ENGINEER | DZOLLINGER@KITTELSON.COM

FORMAL EDUCATION

- B.S., Civil Engineering, Utah State University, 1977
- M.S., Civil Engineering, Utah State University, 1981
- Ph.D., Civil Engineering, University of Illinois, 1989

PROFESSIONAL AFFILIATIONS, LICENSES, AND DESIGNATIONS

- Professional Engineer: State of Texas, No. 67129; State of California, No. 35726; State of Oklahoma, No. 29676

RELATED QUALIFICATIONS

- Nearly 30 years of research and project development experience in concrete pavement design and performance, including the transfer of new technology and test methods to improve the performance of concrete pavements.
- Past president of the International Society for Concrete Pavements (ISCP).
- Over his career has been involved in the management of several million dollars of concrete pavement research.

EMPLOYMENT HISTORY

- 2019—Present Senior Principal Engineer, Kittelson LLC
- 2006—Present Research Engineer, Texas A&M Transportation Institute
- 1994—2006 Associate Research Engineer, Texas A&M Transportation Institute
- 1988—1994 Assistant Research Engineer, Texas A&M Transportation Institute
- 1981—1984 Consulting Airport Engineer, Reinard W. Brandley, Sacramento, California
- 1980—1981 Airport Design Engineer, Salt Lake City International Airport, Salt Lake City, Utah
- 1979—1980 Geotechnical Engineer, Dames & Moore, Salt Lake City, Utah

RELEVANT EXPERIENCE

Co-Principal Investigator, Improving Portland Cement Concrete Performance, TTI, 2000-2004. The objective of this project was to improve the performance of CRC pavement by optimized aggregate blending, improved curing practice, improved temperature control, and improved construction practices. Research findings are summarized in:

Senadheera, Sanjaya, and Dan G. Zollinger, "Influence of Coarse Aggregate in Portland Cement Concrete on Spalling of Concrete Pavements," Research Report 1244-11, Texas Transportation Institute, The Texas A&M University System, College Station, Texas, October 1996.

Nelson, Rick, Terry Dossey, Dan Zollinger, and B. Frank McCullough, "Evaluation of the Performance of Pavements Made with Different Coarse Aggregates," Research Report 3925-1F, Center for Transportation Research, The University of Texas at Austin and the Texas Transportation Institute, Texas A&M University, November 1997.

Principal Investigator, Develop Guidelines for Routine Maintenance of Concrete Pavement, 2006-2008. The objective of this project was the development of guidelines for the maintenance of concrete pavements in Texas. The work involved working out a decision process for maintenance engineers to follow over the service life of a concrete pavement as well as the tools, guidelines, and deployment efforts for them to improve the performance of concrete pavements. Research findings are summarized in:

Youn su Jung, Freeman, Thomas J., Zollinger, Dan G., "Guidelines for Routine Maintenance of Concrete Pavement," Research Report 0-5821-1, Texas Transportation Institute, The Texas A&M University System, College Station, Texas, July 2008.

EXPERIENCE OVERVIEW

Dr. Dan G. Zollinger is a Research Engineer at the Texas A&M Transportation Institute and a Professor of Civil Engineering at Texas A&M University. His professional interests include pavement design, behavior and performance, the mechanical and material properties of concrete, non-destructive testing of pavements, the fracture and damage mechanics, and performance-based prediction modeling of concrete pavement distresses. His major area of research includes concrete pavement performance, rehabilitation, behavior, and design. Dr. Zollinger has many years of experience in the research of Portland cement concrete. He is the manager of the rigid pavement program at TTI. Prior to working at TTI, he had worked as a resident engineer for the SLC International Airport and a design engineer for Reinard W. Brandley, consulting airport engineer in Sacramento, California. Dr. Zollinger has been active in technical and professional societies. He is a member of the Airfield Pavement Committee of the American Society of Civil Engineers. He is a voting member of Committee 325 (Concrete Pavement Design) of American Concrete Institute. He was recently appointed to national office on Committee AFS60 Subsurface Drainage, and recently completed an appointment on Committee AFD70 Pavement Rehabilitation of the Transportation Research Board. Dr. Zollinger is a Fellow of the American Concrete Institute.

He is very knowledgeable about construction methods and procedures for concrete pavement and more recently, roller compacted concrete (RCC) pavements. He has extensive experience in concrete pavement design and performance. He has accumulated extensive experience and background in the development of

concrete pavement design procedures and was a member of the development team for the original Pavement ME. He served as the chairman of ACI Subcommittee 325.22 “Jointed Concrete Pavements” where a guide for the design of jointed concrete pavements was prepared. He has extensive experience in the instrumentation of all types of concrete pavement and monitoring pavement behavior through several TxDOT studies involved with improving the performance of concrete pavements. Through projects like these, Dr. Zollinger developed several new methods and deployment tools for concrete pavement maintenance, CoTE testing, aggregate susceptibility to ASR testing, curing quality (real-time) testing, and more recently, a device to detect joint well cleanliness as a means to assess bonding conditions prior to sealant installation.

He retired from the USAR at the rank of Lt. Colonel with 39 years’ service where he served in a variety of leadership positions and applied the management and motivational skills needed for this project. He has five years’ experience leading pavement construction projects as a consultant engineer and nearly 30 years’ experience leading pavement research projects.