

The RD & T Newsletter



A Publication of the South Carolina Department of Transportation
Research and Materials Laboratory

Milton O. Fletcher
Research and Materials Engineer

Former Research and Materials Engineer Richard L. Stewart Accepts Position In Headquarters

The end of an era at the SCDOT Research and Materials Laboratory was suddenly realized in May when Research and Materials Engineer Richard L. Stewart accepted the position of Deputy Director for Executive Support in the Executive Director’s office.

Stewart, who has served as Research and Materials Engineer since 1976, is a 32-year veteran of the SCDOT. His new role in senior management will include supervision of the Department’s Communications and Legal Offices. He will also be responsible for support staff, special assistants and Commission support.



Richard Stewart at his new position as Deputy Director for Executive Support.

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His duties will also encompass responsibility for the continuing improvement of a system which ensures that SCDOT responds with prompt and accurate information and assistance to questions and concerns from the public, state and local agencies, members of the General Assembly, and other customers.

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Executive Director Elizabeth Mabry says Stewart is a valuable addition as a Deputy Director. "He has consistently demonstrated his ability to lead, his willingness to be a team player, and the thoroughness of every job he takes on for SCDOT," Mabry said.

During his tenure as head of the Research and Materials Laboratory, Stewart has been extremely active with regional and national committees related to both research and materials. He has served on AASHTO's Subcommittee on Materials for the past 24 years, and was vice-chairman of AASHTO Region II from 1987 to 1992. He was also a member of the Executive Council from 1987 to 1992 and from 1997 to the present.



Richard Stewart admires a large printout of himself from the 60's. The photo was given to him by employees at the Research and Materials Laboratory

Stewart especially values his involvement with the AMRL Administrative Task Group and AASHTO's accreditation program during recent years. He believes that achieving and maintaining accreditation is vital to a laboratory's credibility and to ensuring accurate and reliable test results.

Stewart has also been very active on the National Research Advisory Committee (RAC), having served in several regional capacities and as its chairman from 1995 to 1997. "Of all the research activities with which I have been associated, I think my work on the regional and national RAC committee has been the most gratifying," Stewart notes. He also believes RAC offers the best opportunity for a more coordinated and efficient transportation research program for the country. Stewart also feels that good leadership and tremendous effort by all involved in transportation research will be needed to achieve the desired higher level of research coordination.

Regarding NCHRP, Stewart believes this to be one of the most efficient and well-managed pooled-fund programs in the country. He currently serves on the panel for the NCHRP IDEA Project as well as committees for three projects tasked with identifying aggregate tests which can relate to the performance of HMA, PCC and unbound pavement layers.

"Having been involved with transportation research for more than thirty years, I can look back and marvel at the tremendous strides that have been made as a result of a lot of cooperative research efforts," Stewart added. "Research is vital to every organization in order to develop new ideas, new processes and new materials. We have the greatest transportation system in the world and much of this success is the result of good research. Research must continually be encouraged, funded and supported by the leaders of our industry and this country."

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(Stewart -- Continues from Page 2)

Although Stewart's new duties are expected to demand most of his time, he will continue to participate in many of the AASHTO and TRB functions with which he is presently involved.

Milt Fletcher, who formerly held the position of State Materials Engineer, has been named Interim Research and Materials Engineer. ♦

Traffic Safety Facts



Did you know ...

- In 1999, a traffic crash was reported somewhere in South Carolina on the average of every five (5) minutes. A total of 104,484 crashes were reported in 1999, representing a 4.7% increase above 1998 figures.
- In 1999, one out of every 14 licensed drivers was involved in a reportable traffic crash. More than 1 out of every 7 of all licensed male drivers between the ages of 15 and 24 years of age were involved in a traffic collision in 1999; about 1 in 9 of the female drivers the same age were involved in a collision.

South Carolina Hosts Region 4 LTAP Meeting



The South Carolina Technology Transfer Service served as host for the 2000 Region 4 Local Technical Assistance Program (LTAP) meeting April 5-7 in Myrtle Beach, South Carolina.

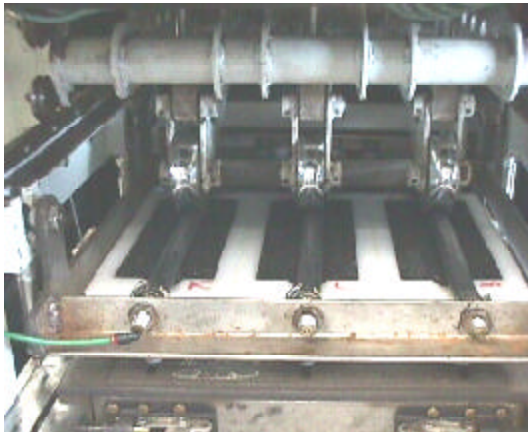
The annual meeting attracted over 40 participants, including attendees from FHWA, NHI, LTAP Clearinghouse and members from the region's Transportation Technology Centers. Region 4 is made-up of representatives from Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee.

Participants at the Myrtle Beach meeting heard reports on a variety of subjects, including work zone public relations and training, cooperative training, a circuit rider program, and computer and internet training. Also, FHWA and NHI representatives made reports on their associated activities.

The annual meeting allows the directors from each of the eight states' centers to sit down together in a central location and discuss their respective programs. The open forum format permits the exchange of information between states. North Carolina will host the 2001 Region 4 LTAP meeting. ♦

Investigation of SCDOT Asphalt Mixtures Using the Pavement Analyzer, Phase I – Laboratory Mixture Analysis

The SCDOT is currently conducting an in-house SPR research project entitled “Investigation of SCDOT Asphalt Mixtures Using the Pavement Analyzer, Phase I – Laboratory Mixture Analysis.” The Department recently purchased an Asphalt Pavement Analyzer (APA) for testing the rutting resistance of asphalt mixtures. The APA was developed by the Georgia DOT. Since forthcoming AASHTO/ASTM procedures and specifications will be primarily based on GaDOT methods, SCDOT has adopted their testing techniques.



Asphalt Specimens being tested in the Asphalt Pavement Analyzer (APA).

Because the APA provides empirical data, a database must be established using existing SCDOT asphalt mixtures. Therefore, the

objective of this study is to use the APA with the GaDOT test procedure and specifications to evaluate the rutting characteristics of SCDOT high performance asphalt mix types (including Superpave) based on replicate testing and statistical analysis. To evaluate the rutting resistance of these mixtures, a fluctuating compaction level, dust-to-asphalt ratio, and polymer usage are being analyzed.



The Department recently purchased an Asphalt Pavement Analyzer (APA) for testing the rutting resistance of asphalt mixtures.

The first phase of this project, a short-term laboratory correlation study, is scheduled to be completed this summer. A second phase will then be initiated with a long-term study of field performance.

If you would like additional information on this project, please contact Chad Hawkins at (803) 737-6700.◆

***Research Projects Started Between
January 1, 2000 and June 30, 2000***

SPR No. 610, "Aggregate and Concrete QC/QA Certification of Contractors and SCDOT Personnel, Phase II: Pilot and Implementation of Coarse Aggregate Program"
Principal Investigator: Dr. M. Hanif Chaudhry, University of South Carolina

SPR No. 611, "Impact Assessment of the New Cooper River Bridge, Charleston, SC"
Principal Investigator: Dr. Arthur Felts of the College of Charleston

SPR No. 612, "Establishment and Management of Native Grasses and Forbs in Highway Corridors"
Principal Investigator: Dr. William C. Stringer, Clemson University

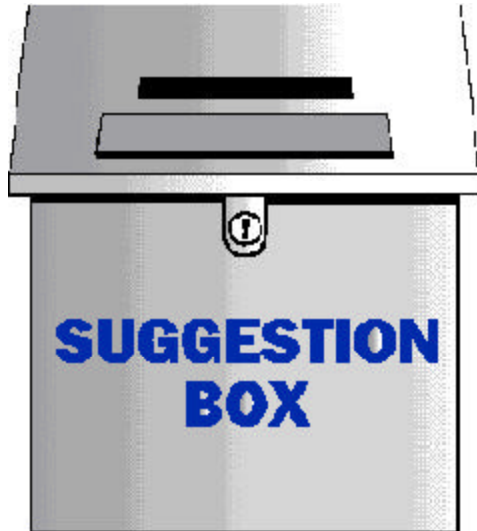
SPR No. 613, "Technology Transfer Programs for Concrete QC/QA Certification of Contractors and SCDOT Personnel"
Principal Investigator: Dr. M. Hanif Chaudhry, University of South Carolina

***Research Projects Completed Between
January 1, 2000 and June 30, 2000***

SPR No. 597, "Bridge to the Future: State-of-the-Art Pedestrian Bridge and Gateway to Columbia"
Principal Investigator: Dr. Michael F. Petrou, University of South Carolina

If you would like a copy of the final report for this project, please contact:

Mike Sanders, P.E., Research Engineer
P.O. Box 191
Columbia, SC 29202
(803) 737-6691, fax: (803) 737-6649
e-mail: sandersmr@dot.state.sc.us



If you have any suggestions for improving our newsletter or know of any topics that should be included, please contact Mr. Mike Sanders at (803) 737-6691. You may also send it to the RD & T Newsletter, SCDOT, Research and Materials Laboratory, P.O. Box 191, Columbia, SC 29202.



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South Carolina Department of Transportation
Research and Materials Laboratory
P.O. Box 191
Columbia, SC 29202**