

Kentucky Transportation Center

University of Kentucky • College of Engineering

Proceedings Kentucky's Twenty-Fifth Forum on Transportation



Held on the Lexington Campus
November 16-17, 1988

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PROCEEDINGS

**Kentucky's Twenty-Fifth Forum on Transportation
November 16-17, 1988
University of Kentucky Campus**

SPONSORS:

Kentucky Transportation Cabinet
University of Kentucky
College of Engineering

COORDINATING AGENCY:

The Kentucky Transportation Center
University of Kentucky
College of Engineering
Telephone: 1-800-432-0719 / 1-606-257-4513

PROGRAM PLANNING ORGANIZATIONS:

- Consulting Engineers Council of Kentucky
- American Public Works Association
(Kentucky Chapter)
- American Society of Civil Engineers
(Student Chapter)
- Area Development Districts
- Equipment Distributors Association
- Kentucky Association of Counties
- Kentucky Association of Highway Contractors
- Kentucky County Judge/Executive Association
- Kentucky Crushed Stone Association
- Kentucky Municipal League
- Kentucky Port and River Development Commission
- Kentucky Public Transit Association
- Kentucky Ready Mixed Concrete Association
- Kentucky Society of Professional Engineers
- Kentucky Transportation Cabinet
- Plantmix Asphalt Industry of Kentucky

**KENTUCKY TRANSPORTATION CENTER
LIBRARY**

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PREFACE

THE UNIVERSITY OF KENTUCKY . . .

was established in 1865 as a land-grant institution and today is made up of 18 colleges: Agriculture, Arts and Sciences, Communications, Engineering, Fine Arts, Law, Business and Economics, Education, Pharmacy, Medicine, Nursing, Dentistry, Architecture, Allied Health Professions, Home Economics, Library Science, Social Work, and the Graduate School. Enrollment for the 1988-89 school year totaled approximately 22,300 on the Lexington campus and 33,000 in the fourteen community colleges operated by the University. University staff in the areas of engineering and transportation total 35 in the Transportation Center and 19 on the faculty of the Civil Engineering Department.

On July 1, 1987, Dr. David P. Roselle became the ninth president of the University of Kentucky.

THE KENTUCKY TRANSPORTATION CENTER . . .

was established in 1979 as part of the College of Engineering by the University Board of Trustees. The purpose of the Center is to conduct research in the area of transportation, and bring together industry, government, and academia in an effort to address transportation problems through research and the dissemination of research findings through technology transfer.

An Advisory Board for the Center was created by the Kentucky General Assembly to assist in policy formulation and to provide direction for the Center. Membership on the Board consists of the Secretary of the Kentucky Transportation Cabinet, the State Highway Engineer, the Dean of the College of Engineering, one member each recommended by the Kentucky Association of Counties, the Kentucky County Judge/Executive Association, and the Kentucky Municipal League, and three at-large members. The Board is appointed by the governor.

Since July 1, 1984, the Center has been designated as one of the 44 Technology Transfer Centers in the United States. This technology transfer function at the Center is sponsored by the Federal Highway Administration and serves as a mini-transportation extension service to local government transportation agencies.

In September 1988, the Center merged with UK's Transportation Research Program to become one unit in the College of Engineering. The newly realigned unit retained the name Kentucky Transportation Center and yields more efficient management of transportation resources currently available at the University and will allow the Center to be more productive and more responsive to the needs of the Transportation Cabinet, local governments, the private sector, and the University.

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The Technology Transfer section of the Center conducts over 30 workshops annually throughout the Commonwealth, publishes two newsletters (one focusing on research conducted at the Center and the other focusing on Kentucky transportation issues of specific interest to local government transportation agencies), provides on-site assistance, maintains a lending library, produces non-technical publications on transportation issues, and is the coordinating agency for the annual Transportation Forum.

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The research section of the Center continues to be the primary research agency for the Kentucky Transportation Cabinet. Engineers and their support staff at the Center are currently conducting over 65 research projects and annually publish over 30 reports. To assist project engineers in their research and to provide experience and training in the area of transportation research, the Center also employs undergraduate and graduate engineering students.

KENTUCKY'S 25TH TRANSPORTATION FORUM . . .

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brought together over 350 professionals from various disciplines throughout the Commonwealth to address transportation concerns. It provided an opportunity for governments, universities, and industries to interact by discussing important current and emerging transportation issues.

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This was Kentucky's Twenty-fifth Annual Transportation Forum, the second Forum coordinated by the Center, and was held on the campus of the University of Kentucky on November 16 and 17, 1988. The Forum was co-sponsored by the Kentucky Transportation Cabinet.

The sessions addressed all modes of transportation and included topics such as perspectives from government, industry, and academia on research needs, personnel requirements, current and anticipated technology, planning, and funding.

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THE PROCEEDINGS OF THE FORUM . . .

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documents the activities and exchange of ideas that occurred during the two-day forum and is published as a source of reference for those who participated, and as an incentive for others to participate in future forums.

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Calvin G. Grayson, Director of the Kentucky Transportation Center since 1983, holds a BS degree in Civil Engineering from UK. He served the Commonwealth as Secretary of Transportation from March 1977 thru December 1979. Prior to that, he held positions as State Transportation Planning Engineer, Assistant State Highway Engineer, Assistant Director of Planning, Design Engineer, and Bridge Design Engineer, a career spanning three decades. He also was Vice President for Wilbur Smith and Associates.

FROM THE DIRECTOR . . .

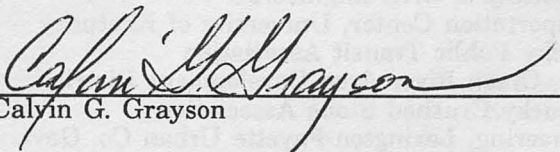
The University of Kentucky is an institution, not only of higher learning, but with an outstanding reputation for its research programs. It is my belief that the knowledge available at any institution is only as good as that institution's ability to transmit that knowledge to those who might benefit from it.

The Forum is the Center's effort not only to transfer technology, but to provide an opportunity to bring about actual innovation and change through the interaction of governments, academia, industry, and the community.

The 25th Transportation Forum was organized to foster open discussion and audience participation and, therefore, was most conducive to the accomplishment of our purpose to share expertise and discuss issues and ideas relative to how we move people and their goods.

The Forum is a continuance of the concept started in 1949 with the first Kentucky Highway Conference sponsored by the University of Kentucky and the Kentucky Department of Highways. This year's Forum was planned around the theme "Transportation's Future," and looked at issues with long-term implications. Topics included perspectives from government, industry, and academia on research needs, personnel requirements (and, therefore, educational needs), current and anticipated technology, planning, and funding. All modes of transportation were addressed.

These proceedings have been prepared and published by the Center in its continuing effort to serve the University and the Commonwealth of Kentucky by providing a better understanding of the needs for Kentucky's transportation system both now and in the future.


Calvin G. Grayson

**IN RECOGNITION OF . . .
CONTRIBUTORS**

Sincere gratitude is offered to those organizations who provided financial support for various activities vital to the success of the 25th Transportation Forum. Their insight into the need for the Forum and their confidence in the Center to provide the environment to address that need are most appreciated.

Those organizations include:

Consulting Engineers Council of Kentucky
Kentucky Crushed Stone Association
Kentucky Association of Highway Contractors
Plantmix Asphalt Industry of Kentucky
Kentucky Ready Mixed Concrete Association

SPONSORS

The sponsorship of the Kentucky Transportation Cabinet and the University of Kentucky's College of Engineering is gratefully acknowledged by the Kentucky Transportation Center.

PROGRAM PLANNING COMMITTEE

The following individuals, and the organizations they represent, provided valuable guidance in the planning of the program for the 25th Transportation Forum. Their time, technical expertise, and personal interest provided the support needed for the success of the Forum. The staff of the Kentucky Transportation Center is most appreciative of the input of the following:

Dean Blake, Executive Director, Plantmix Asphalt Industry of Kentucky
Dick Cirre, Executive Director, Ky. Port & River Dev. Commission
Fred Creasey, Executive Director, Kentucky Association of Counties
Edwin Griffin, Executive Director, Kentucky Municipal League
Jim Havens, President, Kentucky Chapter, American Public Works Assn.
Tony Huff, President, Student Chapter, American Soc. of Civil Engineers
Otto Ingram, Former Commissioner, Department of Rural and Municipal Aid, Kentucky Transportation Cabinet
Cy Layson, Asst. State Highway Engr., Kentucky Transportation Cabinet
Michael Magee, Executive Director, Ky. County Judge/Executive Assn.
B. C. Meeks, Executive Director, Ky. Association of Highway Contractors
Gary Messmer, Vice President, Equipment Distributors Association
William L. Morris, American Society of Civil Engineers
Jerry Pigman, Kentucky Transportation Center, University of Kentucky
Brenda Rice, President, Kentucky Public Transit Association
Jiten Shah, Executive Director, Green River Area Development District
John Sullivan, President, Kentucky Crushed Stone Association
Andy Terwilliger, Traffic Engineering, Lexington-Fayette Urban Co. Govt.

Kentucky's 25th Forum on Transportation

Campus of the University of Kentucky
November 16 - 17, 1988

PROGRAM

Wednesday, November 16

Opening General Session

Presiding/
Welcome: Calvin G. Grayson, Director
Kentucky Transportation Center

Address: *University of Kentucky and
Transportation*
Dr. David P. Roselle
President
University of Kentucky

Keynote Address: *A View of the Future*
Lowell B. Jackson
Deputy Administrator
Federal Highway Administration

Address: *Transportation Alternatives for the
Nation*
Francis B. Francois
Executive Director
American Association of State
Highway and Transportation
Officials

Address: *Kentucky's Transportation Needs*
Jim Wiseman
President
Kentucky Chamber of Commerce

Luncheon

Presiding: Ray M. Bowen
Dean, College of Engineering
University of Kentucky

Speaker: Milo D. Bryant
Secretary
Kentucky Transportation Cabinet

Concurrent Work Sessions

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Intermodal Freight Transportation

Moderator: Dick Cirre, Executive Director
Ky. Port and River Development
Commission

Panelists: Larry Prather, Asst. Chief, Planning
U.S. Army Corps of Engineers

Tony Reck, President
Paducah & Louisville Railway, Inc.

Charlie Lehman, Vice President
American Commercial Barge Lines

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Future Trends in Construction

Moderator: O. Gilbert Newman
State Highway Engineer
Kentucky Transportation Cabinet

Panelists: Paul Faulkner, President
Highway Structures, Inc.

Gary White, Professor
UK Civil Engineering Department

Gary Sharpe, Chief Research Engr.
Kentucky Transportation Center

Craig Avery, President Elect
Kentucky Society of Professional
Engineers

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Careers in Transportation

Co-Moderators: Tony Huff, Past President
Student Chapter of American
Society of Civil Engineers

John Carr, Transportation Engineer
Division of Specialized Programs
Kentucky Transportation Cabinet

Panelists: Joe Dougherty, Executive Director
Kentucky Society of Professional
Engineers

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Jack Deacon
Associate Director for Research
Kentucky Transportation Center

R. R. Dawson, Jr., President
R. R. Dawson Bridge Company

Terry Chism
Assistant Engineering Coordinator
Federal Highway Administration

Passenger Transportation in Rural Areas

Moderator: Brenda Rice, President
Ky. Public Transit Association
Project Director, Rural America

Panelists: Donald R. Cress, President
Cress and Associates

Ned Colcord
Transportation Planning Specialist
Barren River Area Dev. District

Rick Sparer, Senior Transit Planner
Lexington-Fayette Urban Co. Govt.

Local Roads Clinic

Moderator: Otto Ingram, Former Commissioner
Dept. of Rural and Municipal Aid

Panelists: James Allen, Co. Judge/Executive
Clark County

Patsy Anderson, Associate Director
for Technology Transfer
Kentucky Transportation Center

Tom Layman, Asst. State Highway
Engineer for Construction
Kentucky Transportation Cabinet

W. P. Davenport
Chief District Engineer
Kentucky Department of Highways

Reception UK Faculty Club

Thursday, November 17

General Session

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Panel Discussion: *Financing Future Transportation*

Moderator: Merl Hackbart, Associate Dean
College of Business and Economics
University of Kentucky

Panelists: Kevin Hable, Secretary
Ky. Finance and Administration
Cabinet

Senator Mike Moloney, Chairman
Senate Appropriations and Revenue
Committee

Representative Joe Clarke
Chairman, House Appropriations
and Revenue Committee

Panel Discussion: *Kentucky's Highway System After
1990*

Moderator: O. Gilbert Newman
State Highway Engineer
Kentucky Transportation Cabinet

Discussion Leaders: Jack Fish, President
Kentuckians for Better
Transportation

Kamyar Maboub, Asst. Professor
UK Civil Engineering Department

Panelists: Representing the Kentucky Highway
Department:

David Smith, Assistant State
Highway Engineer for Planning

Glen Kelly, Assistant State Highway
Engineer for Preconstruction

Tom Layman, Assistant State
Highway Engineer for Construction

Representing the Highway Industry:

James Codell III
Executive Vice President
Codell Construction

Dean Blake, Executive Director
The Plantmix Asphalt Industry of
Kentucky

Alan Sparkman, President
Kentucky Ready Mixed Concrete
Association

Concurrent Session

Public Transportation Operators

Luncheon

Presiding: Wimberly Royster
Vice President for Research
University of Kentucky

Address: *Prospects for Future Transportation*

Speaker: Thomas Deen, Executive Director
Transportation Research Board

Recognition of Outstanding Local Road Programs

Presiding: Patsy Anderson

Recognition of Former Secretaries and Commissioners

Presiding: Calvin G. Grayson

Recognition of Highway Scholarship Recipients

Presiding: Calvin G. Grayson

Adjournment

Association meetings held after adjournment:

Kentucky Public Transit Association
Kentucky Port and River Dev. Commission
KyTC Young Engineers Meeting

OPENING SESSION
Wednesday, November 16, 1988

OPENING REMARKS
Calvin G. Grayson, Director
Kentucky Transportation Center

Good morning. Welcome to the 25th Annual Transportation Forum. You'll notice we have changed the name from conference to forum. There are two reasons for that. Number one, there are other transportation conferences planned during the year, such as Kentuckians for Better Transportation and others, and we felt there was some confusion with the public, so we changed the name to forum, hoping that it would help. Secondly, in looking up the definition of forum, it aptly defines what we really want to have happen. By definition, the forum is a meeting for open discussion or expressions of ideas. That says what we want to say at the University of Kentucky and at the Transportation Center -- we would like for this to be an annual meeting where we have open discussion and expression of new ideas relative to how we move people and their goods.

Since our last meeting in March 1987, the Transportation Center has consolidated its research and technology transfer activities. The director of the research activities, Dr. Bob Deen, passed away and the Dean of the College of Engineering (after several interviews) made the recommendation, and it was approved by the Chancellor, that the technology transfer and research functions be consolidated.

I want to introduce some people at the Center so you'll know their responsibilities. Dr. John Deacon is now responsible for all the research function in the Kentucky Transportation Center. We're indeed fortunate to have Jack in this position; he is recognized nationally for his transportation research. Patsy Anderson is the Associate Director in charge of technology transfer. She had the most successful year of any of the 44 technology transfer centers, at least I thought so; I'm a little prejudice though. She had 31 workshops and over a thousand people attended those workshops, so she did an outstanding job. Ron Hughes is Associate Director responsible for special investigations and studies. Because I'm so proud to have these three people in the Center, would you give them a round of applause.

In the program package, we have included a sheet for you to fill in your ideas and comments relative to how we can make next year's Forum more meaningful. The Forum will be no better and will benefit you no more than the help you give us for planning each of these annual forums. So, I would encourage you to fill out this sheet and return it to us.

Another item in your packet is our second edition of the Transportation Directory. We think this one is a whole lot better than the last one. We would recognize very quickly that we probably have some things that need to be changed, but we tried hard up to the last minute to get names of people in responsible positions in transportation.

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Also, the Proceedings from last year's Forum are available at the registration table, and I would encourage you to pick up a copy, if you haven't already done so. I think the staff did an excellent job for the first time in compiling the workshops and the papers that were presented in the conference last year.

I would like to express appreciation to those people who have helped make this Forum possible. First of all, to the Kentucky Transportation Cabinet, who is our co-sponsor along with the University of Kentucky and the Transportation Center, also to the Planning Committee members who participated in the planning for this year's Forum, and those people who have made a financial contribution to the Forum: the Consulting Engineers Council of Kentucky, the Kentucky Crushed Stone Association, Kentucky Association of Highway Contractors, the Plantmix Asphalt Industry of Kentucky, and the Kentucky Ready Mixed Concrete Association. Without their help, we could not have a successful Forum. We are most appreciative of those people who have helped and who have made contributions to this Forum.