

# APRIL REPORT

A monthly report on transportation research, education, and outreach activities at the University of Minnesota

## SPRING LUNCHEON WILL FEATURE MELVIN M. WEBBER

The Center's spring quarter luncheon presentation on May 19 will feature **Melvin M. Webber**, professor emeritus of the Department of City and Regional Planning and director of the University of California Transportation Center, University of California, Berkeley. Webber will present "The Marriage of Autos and Transit: How to Make Transit Popular Again." Webber has been a member of the UC-Berkeley faculty in city and regional planning since the 1950s, and served as director of its Institute of Urban and Regional Development during the 1970s and 1980s. His current research involves alternative organizational forms for transportation services, particularly the use of small vehicles--such as autos, vanpools, and minibuses--as important components of more individualized and service-oriented public transit systems. The spring luncheon is being held in conjunction with the Center's Fourth Annual Transportation Research Conference (see below). The cost of the luncheon is included in the conference registration fee, so you do not need to register separately if you attend the conference. However, if you plan to attend the Webber luncheon only, please return the enclosed registration form. For additional information, call **Lori Graven** at (612) 625-9023.

## CTS CONFERENCE REMINDER

Registration is under way for the Center's Fourth Annual Transportation Research Conference, to be held May 19-20 at the Sheraton Park Place Hotel in Minneapolis. As noted above, **Melvin M. Webber** will be the featured luncheon speaker on May 19. Other honored speakers are **Thomas F. Humphrey**, director of the Region One University Transportation Center at MIT in Cambridge, Mass., who will discuss "Involvement of the Private Sector in University Transportation Research" at the opening plenary session; and U.S. DOT Secretary **Federico Peña** or his designee, who will discuss "A Season of Change: Transportation Policy in the Clinton Administration," at the closing luncheon on May 20. If you need additional copies of the preliminary conference program and registration form, please call **Lori Graven** at (612) 625-9023.

## RESEARCHERS STUDY CONGESTION COSTS/PRICING IN TWIN CITIES

Professor **Herbert Mohring** of Economics, together with Professor **Thomas Luce** and Senior Fellow **Barbara Lukermann** of the Humphrey Institute, began working last month on a preliminary study of congestion costs and congestion pricing in the Twin Cities metropolitan area road network. Their study is supported by a grant from the Minnesota legislature through the Metropolitan Council. Using data from the 1990 Travel Behavior Inventory (see item below), the researchers will quantify the costs that morning and afternoon peak-period travelers impose on each other by contributing to road congestion. Affordable technology exists that would make it possible to impose on each vehicle in a traffic stream a "congestion toll" equal to the costs that vehicle imposes on all other vehicles by adding to the level of congestion. The study will estimate a system of equilibrium congestion tolls for the road network and examine the effects on travel patterns and travel costs in general, and mass-transit use in particular, of imposing such tolls.

## DATA BEING DEVELOPED FOR TRANSPORTATION AND LAND USE RESEARCH

In 1992 CTS joined the Lincoln Institute of Land Policy, the Metropolitan Council, the Minnesota Department of Transportation, and the Regional Transit Board to fund a survey of households in the Twin Cities area in

order to better understand the decisions people make about where to work and live. The 1,002 households surveyed had also participated in the 1990 Travel Behavior Inventory (TBI), which surveyed approximately 10,000 Twin Cities households. Together, the two surveys provide a rich source of information for researchers wanting to better understand the relationships between travel and land use. CTS has asked Geography Professor **John S. Adams** to lead analysis efforts within the University. Adams, with the help of **Elvin Wyly** and **Jae-Heon Choi**, has recently completed a preliminary evaluation of the 1992 data. These data, and eventually the large data set from the 1990 TBI, will be available through Adams for University researchers. TBI technical reports are currently available from the Metropolitan Council Data Center at (612) 291-8140.

### **HUMPHREY INSTITUTE COLLABORATES WITH IOWA RESEARCHERS**

The Humphrey Institute is in the process of completing its report to Congress on the grant it received to explore new models for transportation and economic development. This study involved the development of close working relationships with policymakers and researchers from Iowa, North Dakota, and South Dakota. A key relationship has been with the University of Iowa's Public Policy Center, headed by Professor **David J. Forkenbrock**, who has been leading a related study in Iowa funded by the Northwest Area Foundation. The collaboration and synergy between the two universities has been valuable for both studies. The University of Iowa recently published a book, *Transportation and Iowa's Economic Future*, authored by Forkenbrock, **Norman Foster**, and **Michael Crum**, which is an excellent resource for people wanting to better understand the relationship between transportation and the economy. To request copies, call the Public Policy Center at (319) 335-6800. **Gary DeCramer** of the Humphrey Institute is currently involved in coordinating efforts between the two universities.

### **STUDENT RECEIVES NATIONAL LEADERSHIP AWARD**

The Eno Center for Transportation Leadership Development has selected **Lucy I. Klain**, a graduate student in the Humphrey Institute, to be a fellow in the 1993 Transportation Leadership Conference, which will be held in Washington, D.C., May 9-12. The award is sponsored by the Eno Transportation Foundation, through a grant from the United Parcel Service Foundation. During the conference Klain will meet with policymakers in government, industry, and Congress, and be shown how the nation's transportation policies are formed, debated, shaped, and ultimately adopted and applied. Ten fellows will be attending the conference from schools associated with transportation throughout the United States. Klain is currently assisting CTS in the initial stages of a project that will result in a booklet of transportation-related courses and programs at the University.

### **ANNUAL ADVISORY BOARD AND SPRING COUNCIL MEETINGS SCHEDULED**

Each spring on the day prior to the CTS conference, the Center's Advisory Board holds its annual meeting in the evening and the six CTS Councils hold their concurrent meetings in the afternoon. This year these meetings will occur on May 18 at the Sheraton Park Place Hotel in Minneapolis. Council meetings, which are open to anyone interested, will start at 3:00 p.m. The Advisory Board meeting will include discussion of new initiatives being proposed by the CTS Councils and staff. These discussions will provide input to an updated strategic plan that will be approved by the Executive Committee this summer for next fiscal year. The keynote speaker at the Advisory Board meeting will be **Anne Petersen**, vice president for research at the University of Minnesota.

### **CTS COMMITTEE GUIDELINES PUBLISHED**

The CTS Executive Committee approved the document *Guidelines for Committee Structures, Responsibilities, and Operations* at its winter meeting. These guidelines outline roles, terms, rotations, and other information for the CTS Advisory Board, six CTS Councils, and the Executive Committee. New membership terms for all committee members will begin July 1, 1993. The six CTS Councils will also designate "friends" of the council,

who will receive mailings, be invited to council meetings, and have opportunities to participate. Council membership is limited to 30 people, while anyone can become a friend. People who are interested in becoming friends of a council should write a note to the Center specifying the council in which they are interested. The Executive Committee Nominating Committee and the six CTS Council chairs are currently recommending membership appointments for all committees for the new terms. If you would like to receive a copy of the *Guidelines*, please call the Center at (612) 626-1077.

### **EMPLOYERS SOUGHT FOR UNIVERSITY ENGINEERING INTERNSHIP PROGRAM**

The Department of Civil and Mineral Engineering (CME) is seeking engineering employers who are interested in partnering with the University of Minnesota in creating valuable work experiences for civil and geological engineering students. Students selected for the six-month internship program will have an opportunity to enhance their classroom education by learning practical engineering methodology. Through their student outreach, employers will have an opportunity to identify and attract talented engineering students for future professional positions. Engineering companies and government agencies that have summer-fall six-month internship opportunities, which include but are not limited to surveying and soils/materials exploration and testing, are encouraged to contact the CME department at (612) 625-9834. Student hiring for summer-fall internships will begin in May.

### **APPLICANTS SOUGHT FOR GRADUATE STUDENT AWARD**

Applications are now being accepted for the 1993 Milton Pikarsky Memorial Award, given annually to two graduate students in transportation for the best Ph.D. dissertation and M.S. thesis. Students must submit a one- to two-page abstract that describes their research (completed within the past two years), and a nomination letter from their advisor explaining the importance of the research and significance/impact of the findings. Submissions will be reviewed by a committee from the Council of University Transportation Centers (CUTC). Winners will be recognized at the CUTC meeting held during TRB week next January. Cash awards are \$1,000 for the Ph.D. dissertation, and \$500 for the M.S. thesis. Submit your abstract and letter c/o Dr. **Lester A. Hoel**, Univ. of Virginia, Thornton Hall, Charlottesville, Va., 22903-2442, or for further information contact Dr. Hoel at (804) 924-6369. Deadline for submission is **May 1, 1993**.

### **SPRING QUARTER EVENTS SCHEDULED; WINTER QUARTER EVENTS COMPLETED**

Details for the Center's spring quarter transportation events are announced in the enclosed calendar. Information is also included for an Intelligent Vehicle/Highway Systems (IVHS) seminar by Professor **Stephen Ritchie** of the University of California, Irvine, that is being offered through the Civil and Mineral Engineering departmental seminar series. CTS winter quarter events concluded in March with a faculty seminar by Professor **Peter Hancock** and Research Associate **Stirling Stackhouse** of the Human Factors Research Laboratory, who spoke on "The Role of Simulation in Studying Traffic Safety." Also, two courses in the Minnesota Technology Transfer Program were held last month. "Gravel Road Maintenance" was given in Rochester, Brooklyn Park, and Duluth, and "Traffic Signing and Work Zone Control" was held in Mankato, St. Cloud, and Crookston.

### **FACULTY AND STAFF ACTIVITIES**

Two Minnesotans--**Mary Stroup-Gardiner**, a research fellow in the Department of Civil and Mineral Engineering (CME), and **Roger Olson** of Mn/DOT--were involved in a recent series of regional workshops on "Crumb Rubber Modifier" (CRM) sponsored by the Federal Highway Administration. Stroup-Gardiner presented "CRM Costs" in Denver, Atlanta, and Merrillville, Ind.; Olson spoke in Merrillville. Stroup-Gardiner and Olson will also be giving presentations at the CTS conference in May. **Dennis Foderberg**, director of the Center's IVHS Institute, gave two presentations in March. He discussed "Smart Cars Technology Today" at the 32nd Annual

Concrete Paving Seminar in Rochester, Minn., and "IVHS" at the 4th Annual Midwest Traffic Engineering and Parking Seminar in Peoria, Ill. CME Professor **Catherine French** gave an invited seminar on high strength concrete research in March at Princeton University. Professor **Theodore Galambos**, also of CME, gave a presentation on bridge rating at the University of Alberta in Edmonton on March 23.

#### UPCOMING TRANSPORTATION EVENTS

If you wish to publicize an event, call **Pam Snopl**, Center editor, at (612) 624-0841, or fax your announcement to (612) 625-6381. For other Center information, please call (612) 626-1077.

- Apr. 14-17 "Surface Transportation: Mobility, Technology and Society," IVHS AMERICA Third Annual Meeting, Sheraton Washington Hotel, Washington, D.C. Contact IVHS AMERICA at (202) 857-1202, fax (202) 296-5408.
- Apr. 15 Minnesota T<sup>2</sup> Course: "Principles of Quality Management and Certified Plants," Nolte Center, St. Paul. Call **Bev Ringsak** at (612) 625-6689.
- Apr. 21 CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **Jim Newland**, Engineering and Management Consultant, 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- May 3 CTS Faculty Seminar: "Advanced Traffic Flow Modeling" by **Anastasios Lyrintzis**, Aerospace Engineering and Mechanics, 1:25-2:15 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- May 5 CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **William Kline**, Vice President - Area Manager, Parsons Brinckerhoff Quade & Douglas, 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- May 14 CME Faculty Seminar: "Applications of Artificial Intelligence to Advanced Traffic Management," **Stephen Ritchie**, University of California, Irvine, 1:25 to 2:15 p.m., Room 210 Civil and Mineral Engineering.
- May 18 CTS Council meetings, Sheraton Park Place, Minneapolis. Held currently 3:00-5:00 p.m. Contact CTS at (612) 626-1077.
- May 19 CTS Spring Quarter Luncheon Presentation: "The Marriage of Autos and Transit: How to Make Transit Popular Again," by Dr. **Melvin M. Webber**, Director, University of California Transportation Center, UC-Berkeley. Sheraton Park Place, Minneapolis. Contact **Lori Graven** at (612) 625-9023.
- May 19-20 Fourth Annual CTS Transportation Research Conference, Sheraton Park Place, Minneapolis. Contact **Lori Graven** at (612) 625-9023.
- May 26 CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **John Flora**, Director of Public Works, City of Fridley, 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- June 2-4 "Expanding the Horizons: Planning New Transportation Partnerships," 1993 MPO and RDC Transportation Conference, Radisson Hotel, Duluth. Hosted by the Duluth-Superior Metropolitan Interstate Committee. Contact **Michelle Hummel** at (218) 722-5545 or 1 (800) 232-0707.
- June 3 CTS Faculty Seminar: "Cracking of Asphalt Concrete at Low Temperatures" by **Joe Labuz**, Civil and Mineral Engineering, 3:35-4:25 p.m., 202 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- July 6-7 "Reviving Interest in Public Involvement," Sheraton Burlington Hotel and Conference Center, Burlington, Vt. Sponsored by the TRB Committee on Citizen Participation in Transportation, Federal Highway Administration, and Federal Transit Administration. Contact the TRB for details.
- July 28-30 TRB 18th Annual Summer Conference on Ports, Inland Waterways, Intermodal Distribution, and International Trade, Portland Hilton Hotel, Portland, Ore. Contact **Jeffrey Fantine** or **Christina Casgar** of TRB at (202) 334-3205.