

CLEVELAND STATE UNIVERSITY WORK ZONE SAFETY & EFFICIENCY TRANSPORTATION CENTER

"Working to Save Lives"

JANUARY 2007



INSIDE

2

Director's Column

3

Center Personnel

Welcome

2006-7: The first full year of operation for the Cleveland State University Work Zone Safety & Efficiency Transportation Center.

Dr. Stephen Duffy, CSU-UTC Director, presents faculty and staff associated with the new Center.

Members of the External Advisory Board hail from regional industry and government.

Inside, the first half of 2006-7 is detailed: another year of improving awareness and saving lives on Ohio's roadways.



Center Director Stephen F. Duffy PhD, PE, ASCE

TRANSPORTATION CENTER ORGANIZATION 2006-2007

Stephen F. Duffy PhD, PE, ASCE

Center Director

Norbert Delatte, PhD, PE

Associate Director

Nancy Grugle, PhD

Faculty Researcher

Saini Yang, PhD

Faculty Researcher

UNDER CONSTRUCTION: On The Events of 2006-2007

Director's Column

Welcome to the inaugural edition of the Cleveland State University Work Zone Safety & Efficiency Transportation Center newsletter. In this edition, we will introduce you to the overarching concepts that our Center focuses on (i.e., work zone safety and congestion), and the individuals who support the Center.

Since Congress created and funded the concept of University Transportation Centers in 1987, many universities have initiated these federal partnerships to advance a variety of transportation research and technology concepts from land use planning and economic development to multi-modalism.

CSU's sole focus on work zone safety and congestion, represents an opportunity to partner with the transportation industry and government agencies. So far our ability to raise matching funds from stakeholders and our success obtaining externally funded projects has contributed greatly to our initial success.

The successful startup efforts at CSU's Transportation Center point to a promising future in turning scholarly research into better educated civil engineers, increasing training opportunities, and developing

safer products that can impact work zone safety and efficiency and potentially save lives.

The need for safer work zones has never been greater. While highway construction and maintenance have continued to improve safety for motorists, the challenge has been in preserving that safety while the improvements are implemented by the nation's heavy highway industry.

The Center is an offspring of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act – Legacy for Users (SAFETEA-LU), enacted in 2005. This act authorized up to \$76.7 million per year from federal fiscal year 2005 to 2009 to establish and operate up to 60 UTCs throughout the United States. Each facility receives a grant for each of the four years. These federal funds must be matched dollar for dollar by local funds.

Today, there are four transportation centers in Ohio including the Universities of Akron, Toledo, Youngstown State as well as CSU - each authorized to receive a federal grant in the amount of \$500,000 per year.

(Continues on pg. 2)

Center Personnel

The Work Zone Safety Transportation Center at CSU employs expertise from faculty members in two different departments within the Fenn College of Engineering, i.e., the Civil and Environmental Engineering (CVE) Department and the Industrial and Manufacturing Engineering (IME) Department. In this newsletter, we are pleased to introduce the faculty who will make significant contributions to the success of the Center.

Norbert Delatte PhD, PE Associate Director Professor, CVE

Professor Delatte joined Cleveland State University in 2004. His research interests have focused on designing concrete pavements as well as forensic engineering. He has been awarded the American Concrete Institute (ACI) Walter P. Moore, Jr., Faculty Achievement Award for work associated with NSF sponsored Research Experience for Undergraduates (REU) project. He has developed a series of seminars that address basic concepts in ethics, fraud, ethical issues in research, and ethical issues in engineering practice. Dr. Delatte has recently been integrally involved in the organization of a national forensics conference and a conference on issues relating to the design of porous concrete – both held at CSU. He serves as the editor of the ASCE Journal of Professional Issues in Engineering Education and Practice.

Nancy Grugle PhD Faculty Researcher Assistant Professor, IME

Professor Grugle joined the faculty at CSU in September 2005. As a member of the IME department, she focuses on human factors engineering and work zone safety. She has also been the recipient of several research grants. Her dissertation research focused on the effects of sleep deprivation on cognitive function and situation awareness. This work was conducted at the Walter Reed Army Institute of Research. She received her Ph.D. from Virginia Tech in May of 2005.

Saini Yang PhD Faculty Researcher Assistant Professor, CVE

Saini Yang received her doctorate degree in the Department of Civil and Environmental Engineering at the University of Maryland, College Park in July, 2006 and joined the faculty at CSU two months later. Her Ph.D. dissertation topic is "Integrated Emergency Response Vehicle Fleet Management." She teaches Traffic Flow Theory and other transportation courses. She focuses on issues relating to work zone efficiency and sustainable transportation systems. Projects she works on span the disciplines of operations research, traffic engineering, highway safety and its applications.

Director's Column

(Continued from pg. 3)

The idea to create a UTC focusing exclusively on work zone safety began in January 2002 at an OCA Student Bid Competition. I had a conversation with OCA member and President of Great Lakes Construction, George Palko. George, who is a former student, gave me an overview of the current UTC program and suggested that CSU implement a program of this type. Through discussions with George and others associated with the heavy highway industry, a model was envisioned for a Transportation Center that will hopefully be distinct from typical university research centers. We will equally focus on research, education and training as they relate to work zones.

I hope to meet the readers of this and future newsletters as our efforts progress. If you have any questions or need information concerning our center, please contact me by email at s.duffy@csuohio.edu.

Stephen F. Duffy PhD, PE, F.ASCE



-- CSU-UTC --

Center Welcomes Advisory Board

The External Advisory Board's mission consists of the following:

- Helping the CSU Transportation Center define and address problems and issues of importance to Northeast Ohio and equally ensure they are consistent with national and state initiatives in the areas of work zone safety and efficiency.
- Providing contacts and liaison with governmental agencies, the private sector, nonprofit organizations, and the public that will facilitate the Transportation Center to work creatively and cooperatively with all interested and concerned stakeholders.
- Serving as contacts to personnel and experts who will be willing to work on interdisciplinary teams to carry out research on significant safety and efficiency issues.
- Facilitating mutual understanding and delineating the constraints that will define workable solutions to safety issues affecting work zones and the heavy highway industry.
- Acting as a review board for proposed plans and policies developed by the Center Director and Staff on the operation and management of the Center.

Cleveland State University University Transportation Center

107 Stilwell Hall
1960 East 24th St.
Cleveland, OH 44115-2214
(216) 687-2555
<http://www.csuohio.edu/engineering/utc/>



The advisory board for the past academic year consisted of the following individuals:

George Palko PE (board chair)
The Great Lakes Construction Company

Bruce Owens
Plastic Safety Systems
(ATSSA National Board Member)

Mark Potnick
Director, Labor Relations & Safety Affairs
Ohio Contractors Association

Tracy Scriba
Work Zone Mobility and Safety Team
Federal Highway Administration
Office of Transportation Operations

William A Fink
President, Area Wide Protective

Anthony D. Liberatore, Jr.
Business Manager/Secretary Treasurer
Laborers Local 860

Dennis O'Neil
Ohio Department of Transportation
District 12

This group of individuals helped the Center carry out its mission during the past year and we are pleased to have such a distinguished and knowledgeable group of individuals to consult regarding best practices and future endeavors.