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# Planning and Designing Roads for Older Driver Safety

*March 12, 2002 Workshop Report*

*Prepared for:*

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# Planning and Designing Roads for Older Driver Safety

*March 12<sup>th</sup> 2002 Workshop Report*

## PURPOSE

The purpose of this report is to provide recommendations to the Technology Transfer Program management and staff at the Center for Transportation Studies, University of Minnesota. The report also compiles participant feedback from the first Minnesota' workshop on this topic conducted by the Federal Highway Administration.

## RECOMMENDATIONS

The general and overall evaluations of this workshop by the students was quite positive, therefore I herewith recommend that this class be added to the CTS/LTAP Technology Transfer suite of annual classes beginning next fiscal year. This workshop could be a supplement to the Traffic Control – Using the MMUTCD workshop in the Traffic Control category.

In order to increase the number of students participating, the T2/LTAP program should:

- Schedule then advertise the workshop with at least 4 months lead-time instead of the 1 1/2 months for this first class.
- Reduce the class fee by partial sponsorship, i.e. Category B workshop vice the Category C of this first workshop.
- Consider using the State Patrol Arden Hills facility as a training site to get free parking for participants.
- Increase the 'flyer' distribution mailing to the entire LTAP distribution list.
- Update the 'flyer' to include the local FHWA engineer, Dave Kopacz, as the co-instructor instead of Mr. Hasson who did not teach.
- Continue the use of the CCE department for brochure publication, registration, and facility arrangements.

I also suggest that one or two civil engineering professors attend the next class to ascertain how and when to merge the salient content of older driver roadway design into the University's civil engineering curriculum.

## WORKSHOP INFORMATION

### When and Where

March 12, 2002 – 8:00 a.m. to 4:00 p.m.

Earle Brown Continuing Education Center – St. Paul, Minnesota

### Instructors & Workshop Coordination

The following people participated in the planning and conduction of this workshop:

- Fred Ranck, P.E., PTOE; Safety/Geometric Engineer for FHWA Midwestern Resource Center in Chicago.
- Dave Kopacz, P.E.; Safety Engineer for FHWA St. Paul District Office.
- Gene Amperano, P.E.; Safety Engineer for FHWA Kansas City Office.
- Teresa Washington, Program Associate – College of Continuing Education @ University of Minnesota; St. Paul Campus
- Jim Grothaus, Technology Transfer Engineer – Center for Transportation Studies @ University of Minnesota, Minneapolis Campus.
- Lowell A. Benson, ITS Technical Staff (retired) – Center for Transportation Studies @ University of Minnesota

### Student Participant Categories

City Engineers	1	Consultant Engineers	4
County Engineers	3	Employer Not Defined	1
Mn/DOT Engineers	7	Total Students	16

### Reference Materials

Guidelines and Recommendations – To Accommodate Older Drivers and Pedestrians, U.S. Department of Transportation – Federal Highway Administration, (FHWA-RD-01-051) October 2001.

Highway Design Handbook – For Older Drivers And Pedestrians, U.S. Department of Transportation – Federal Highway Administration, (FHWA-RD-01-103) October 2001.

Highway Design Handbook for Older Drivers and Pedestrians: Workshop Participant's Manual, U.S. Department of Transportation – Federal Highway Administration, November 2001.

Planning and Designing Roads for Older Driver Safety: Flyer University of Minnesota – Continuing Professional Education – College of Continuing Education, February 2002.

Learn how to design roads for older drivers, Minnesota Technology EXCHANGE, University of Minnesota – Center for Transportation Studies – Local Technical Assistance Program, January-March 2001 Vol. 9, No. 1.

New workshop highlights road design for older driver safety, Minnesota Technology EXCHANGE, University of Minnesota – Center for Transportation Studies – Local Technical Assistance Program, January-March 2002 Vol. 10, No. 1.

New workshop highlights road design for older driver safety, CTS REPORT - University of Minnesota – Center for Transportation Studies, February 2002.

## CLASS FEEDBACK

### FHWA forms

This form is included in the Workshop Participant's Manual, used by the FHWA in several states.

### Module: Age-Related Diminished Capabilities

How useful was the Module presenting Age-Related Diminished Capabilities to your understanding of the need for the Handbook, and appreciation for considering older drivers in highway design & operations? (Circle a number on the 1=>7 scale below where 1 is 'not useful at all' and 7 is 'extremely useful'.)

4 – 25%      5 – 12.5%      6 – 31.25%      7 – 31.25%

Did the Workshop format and props help to increase your awareness of the effects of aging on older driver performance?

Yes 100%      No 0%

What did you think about the length of this Module?

Too Long 0%      Too Short 12.5%      Appropriate 93.75%

Should this Module be changed in any way for future presentations?

Yes 6.25%      No 87.5%      Abstained 6.25%

### Module: Handbook Content

How useful was the Module presenting handbook Content, in providing you with an understanding of the kinds of recommendations contained in the Handbook? (Circle a number on the 1=>7 scale below where 1 is 'not useful at all' and 7 is 'extremely useful'.)

4 – 12.5%      5 – 31.25%      6 – 43.75%      7 – 12.5%

What did you think about the length of this Module?

Too Long 0%      Too Short 18.75%      Appropriate 81.25%

Should this Module be changed in any way for future presentations?

Yes 18.75%      No 81.25%

- More on geometric and less on signage
- More discussion is needed

- Lots of material to cover in the allotted time

### Module: Implementation Example and Exercise

How useful were the Implementation Example and Exercise in providing you with an understanding of how to use the handbook? (Circle a number on the 1=>7 scale below where 1 is 'not useful at all' and 7 is 'extremely useful'.)

3 – 18.75%   4 – 12.5%   5 – 18.75%   6 – 37.5%   7 – 12.5%

What did you think about the length of the Implementation Example and Exercise?

Too Long 6.75%   Too Short 6.75%   Appropriate 87.5%

Should the Implementation Example and Exercise be changed in any way for future presentations?

Yes 25%   No 75%

- Sheets weren't used in discussion
- A bit more discussion is needed
- First session after lunch is difficult, an earlier afternoon break for caffeine
- More detailed assumptions wasted group time, didn't need to be so specific.

### Overall Workshop Ratings

How useful was the Workshop approach overall? (Circle a number on the 1=>7 scale below where 1 is 'not useful at all' and 7 is 'extremely useful'.)

4 – 6.75%   5 – 18.75%   6 – 50%   7 – 18.75%

What did you think about the overall length of the Workshop?

Too Long 0%   Too Short 6.75%   Appropriate 93.25%

How effective were the Workshop presenters in familiarizing you with the handbook and its potential applications? (Circle a number on the 1=>7 scale below where 1 is 'not useful at all' and 7 is 'extremely useful'.)

5 – 37.5%   6 – 37.5%   7 – 25%

Comments and suggestions for improvement of Workshop content, format, length, or presenters:

- Very helpful in understanding how older people can react to different situations
- Excellent course, will recommend to others.

### U of MN; CCE forms

This College of Continuing Education form is used by the Continuing Professional Education Department for all of the classes sponsored by the Minnesota T<sup>2</sup>/LTAP Program.

### The Program

Was the level of the subject matter appropriate for you?

Good 62.5%      Excellent 37.5%

Overall quality of handouts and program materials?

Good 62.5%      Excellent 37.5%

Usefulness of the content to your professional development?

Good 43.8%      Excellent 56.3%

Did the program objectives meet your expectations?

Good 43.8%      Excellent 56.3%

### The Instructors

Knowledge of the subject?

Good 6.7%      Excellent 93.3%

Effectiveness of communicating subject matter?

Good 20%      Excellent 80%

Ability to maintain your interest?

Fair 6.7%      Good 40%      Excellent 53.3%

Instructor(s) use of technology to enhance your learning experience?

Fair 6.7%      Good 40%      Excellent 53.3%

Ability to maintain a positive learning environment?

Good 28.6%      Excellent 71.4%

Instructor(s) ability to engage participants in interaction?

Good 40%      Excellent 60%

### The Facility and Arrangements

Facility environment (comfort, lighting, atmosphere?)

Fair 14.3%      Good 28.6%      Excellent 57.1%

Registration process?

Fair 6.7%      Good 33.3%      Excellent 60%

Geographic location?

Fair 13.8%      Good 53.3%      Excellent 33.3%

Parking?

Poor 7.7%    Fair 30.8%      Good 38.5%      Excellent 23.1%

How would you rate the level of service provided by the University?

Fair 13.8%      Good 53.3%      Excellent 33.3%

### Overall Evaluation

Would you recommend this to others interested in this topic?

Yes 100%      No 0%

How did you hear about this program?

Brochure 75%    Word of Mouth 12.5%    Other 12.5%

What is the main reason you chose to take this program?

Career Enhancement 69.2%    CEU/License 15.4%    Personal Enrichment 15.4%

How long would you be willing to commute to take this course?

20 min. 21.4%      45 min. 35.7%      60 min. 14.3%      90 min. 28.6%

Job Title?

Sup/Mgr/Dir 21.4%      Consultant 28.6%      Bus/Eng/IT 50%

Your Age?

18-24, 6.7%      25-34, 33.3%      35-44, 26.7%      45-54, 33.3%

Ethnic Background?

White, 100%

Method of Payment?

Employer, 92.3%      Out of Pocket, 7.7%

Industry?

Trans, Comm, Util 35.7%    Eng, Arch, Acct 50%    Govt, Public Admn 14.3%

Education?

College Degree 86.7%      Some Grad School 13.3%

## BACKGROUND & PROCESS

The FHWA first issued the Older Driver Highway Design Handbook in January 1998. Planning for the conduction of this class in Minnesota began in January 2001 with communications between Maria Hanson of CTS and Cathy Satterfield of FHWA. Mr. David Kopacz was designated as the local FHWA office contact. Maria left CTS in April to become the City Engineer for St. Louis Park while Cathy transferred to the FHWA Denver Office. In May Laurie McGinnis, CTS Associate Director, asked part-time employee, Lowell Benson, to pick up the coordination task because of his interest in older driver training.

The 2001 updated handbooks arrived at CTS in November, in December Mr. Benson contacted FHWA's Patrick Hasson with half-a-dozen suggested class dates in the March and April time frame. Mr. Hasson identified two dates that he or Mr. Ranck would be available. Lowell then contacted Ms. Teresa Washington at the Continuing Professional Education Department to ascertain training facility availability. The date of March 12<sup>th</sup> was set. The CTS managing editor, Pam Snopl, was notified of the event and date at the request of T<sup>2</sup> engineer, Jim Grothaus.

In January, Mr. Benson drafted material for an advertising flyer. Ms. Washington coordinated flyer formatting and editing. Mr. Grothaus and Ms. Lori Graven determined the class fee after analyzing a cost estimate from Lowell. Flyers were printed then mailed to approximately 1,800 transportation engineers using the CTS LTAP mailing list. Ms Snopl inserted an informational article into the spring quarter T2/LTAP newsletter and the CTS February monthly newsletter.

In late February, Fred Ranck informed Mr. Benson that Gene Amperano of the Kansas City office would be helping with the workshop. Lowell sent FHWA suggestions for hotels and directions from the airport and directions to the Earle Brown Center. In early March Mr. Kopacz ordered the handbooks and teaching aids for the class. Lowell printed the workbook pages from a CD provided by Fred, then made copies for students at the CTS office. Teresa ordered refreshments and lunch for the class.

On 12 March, one student was already waiting when Teresa and Lowell arrived at the Earle Brown Center. Fourteen of the sixteen pre-registered students were early or on time, one was late and one was a no-show. There was one 'walk-in' person, taking the place of the no-show. All of the students filled out the two evaluation forms. Everyone appreciated the readily available coffee, juice, and rolls. The training room was ready including a projector for laptop power point connection.

The communications during the above process were 56 e-mails messages (saved on my PC), over a dozen phone calls, and about half-a-dozen face-to-face meetings.

Send questions about this report to the e-mail address at the bottom of the page.

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