AMERICAN ASSOCIATION OF STATE HIGHWAY
AND TRANSPORTATION OFFICIALS

COMMITTEE CORRESPONDENCE

October 9, 2002

Address Reply to

William A. Prosser, Secretary
AASHTO Task Force on Geometric Design
Federal Highway Administration, HIPA-20
400 Seventh Street, SW
Washington, DC 20590

Members
AASHTO Task Force on Geometric Design

Dear Member:

The annual meeting of the AASHTO Subcommittee on Design, Task Force on Geometric Design was held in Albuquerque, New Mexico during the period June 30 – July 3, 2002. The Task Force met jointly with the TRB Committee on Geometric Design (A2A02) and the Committee on Operational Effects of Geometrics (A3A08) on Monday July 1.

Mr. Robert Walters, Chair, called the meeting to order at 1:45 p.m. on June 30. After welcoming the members and guests, Mr. Walters announced that Mr. Charles Goessel has retired from the New Jersey Department of Transportation and left the Task Force. Mr. Walters will be seeking a replacement. A roster and a mailing list were circulated for correction and additions. A copy of each of these lists is attached.

Mr. Charlie Trujillo announced he expects to retire in December.

ATTENDANCE

The following members were present:

Mr. Rezi Amini, Oklahoma Department of Transportation
Mr. Don T. Arkle, Alabama Department of Transportation
Mr. Paul Bercich, Wyoming Department of Transportation
Mr. James O. Brewer, Kansas Department of Transportation
Mr. Philip J. Clark, New York Department of Transportation
Mr. David Hutchison, National League of Cities
Mr. Jeff Jones, Tennessee Department of Transportation
Mr. Wayne Kinder, Nevada Department of Transportation
Mr. John LaPlante, American Public Works Association
Mr. Donald A. Lyford, New Hampshire Department of Transportation
Mr. Mark A. Marek, Texas Department of Transportation
Mr. John Pickering, Mississippi Department of Transportation
Mr. William A. Prosser, Federal Highway Administration
Mr. Norman H. Roush, West Virginia Department of Transportation
Mr. Joe Ruffer, National Association of County Engineers
Mr. Larry Sutherland, Ohio Department of Transportation
Mr. Charlie V. Trujillo, New Mexico State Highway and Transportation Department
Mr. Robert L. Walters, Arkansas Highway and Transportation Department
Mr. Ted Watson, Nebraska Department of Roads

Mr. Tim Craggs, California Department of Transportation represented Ms. Karla Sutliff, California Department of Transportation. Mr. Robert Parisi, The Port Authority of New York and New Jersey, and Mr. Ron Erickson, Minnesota Department of Transportation, were unable to attend due to travel restrictions.

Also in attendance during all or part of the meeting were:

Mr. Jim McDonnell, AASHTO Associate Program Director for Engineering,
Mr. Richard D. Wilder, Senior Engr, New York State Dept. of Transportation,
Mr. Douglas Harwood, Principal Traffic Engr, Midwest Research Institute, and
Ms. Kathy King, Geometrics Engr, Ohio Dept of Transportation.

RESEARCH

Joint Meeting

The primary focus of this meeting was research. The Task Force met with the two TRB Committees for a full day to discuss research activities. The meeting included reports on recently completed geometric design research on Design and Operating Speeds, and Geometric Design for Older Drivers; discussion on emerging issues and new design tools including new pedestrian design policies for ADA compliance, release of IHSDM software, and safety relationships and the safety manual; and research needs for the next edition of the 2001 Green Book. The meeting closed with an open discussion concerning future cooperation between the TRB Committees and the Task Force.

The discussions on the next edition of the Green Book focused on 6 chapters (2,3,4,7,9,10). The authors of the chapters presented a brief overview of the changes incorporated into the 2001 Green Book and identified areas the authors believed needed new or additional research. After each chapter presentation, an open
discussion was conducted to identify additional areas the TRB committee members believed merited consideration for research. A wide range of topics for each chapter was identified. During their meeting, the TRB committees planned to prioritize the list of topics developed and asked the Task Force to determine a short list of priority projects from the areas identified during the joint meeting.

Task Force Meeting

The Task Force expended a significant amount of time discussing the topics identified during the joint meeting. The list of identified topics was reviewed with each member suggesting 5 priority areas of concern. This list was winnowed to six areas – speed, medians, tradeoffs, passing sight distance, ADA impacts and ADA tolerances. Within these areas, specific subjects were identified. Included within the speed area, speed prediction and selection, relationship to driver expectancy, and relationships to the various design elements were identified. In the median area, high speed cross over design, turn lanes, median width and shape, vehicle cross over prevention, and truck accommodation were noted. The concerns in the tradeoff area included the effect on safety/operations/speed in the selection of the cross section design elements and the ability to evaluate various combinations of the selected elements. The passing sight distance model and the currency of the data used in the development of the model were the identified concerns. It was believed the impacts of ADA on geometric criteria should be investigated to determine adequacy of geometric criteria. The use of tolerances in design and construction in relation to ADA standards should be investigated, possibly as an NCHRP 20-7 project. Bob Walters will be the lead in developing the project statements for these research areas.

Other

NCHRP Project 15-18, Design Speed and Operating Speed, is being closed at the recommendation of the project panel. The final report is being prepared. The researchers did not identify any alternatives to current design speed approach used in design.

A report on informational items including a list of new NCHRP projects related to the activities of the Task Force, prepared by Ray Derr, was distributed (Copy attached).

NCHRP REPORT 439 SUPERELEVATION DISTRIBUTION METHODS AND TRANSITION DESIGNS

The Task Group appointed to review this NCHRP report presented the results of their review. Phil Clark introduced Mr. Richard Wilder, Senior Engineer, New York State Department of Transportation, to present the findings and suggested revisions on superelevation for the group. Mr. Wilder made an excellent power point presentation of the issues and recommended revisions to the existing discussion in the 2001 Green Book (A copy of the report had been provided in advance of the meeting for review.)
After the presentation, the task force members discussed their concerns and suggested additions and corrections to the proposed rewrite of the Green Book section on superelevation, at length. Mr. Wilder noted the comments. The Task Force voted to accept the report with the revisions incorporated. A revised recommended update for the superelevation discussion will be prepared and circulated to the Task Force.

Norm Roush noted that some research is underway to look at truck operations on superelevated sections on steep grades. The results of this work may provide additional information for the discussion on superelevation.

**AASHTO CHANGES**

The Standing Committee on Highways has been reorganized. With the reorganization, each subcommittee and its subdivisions are to develop a work plan, revise the charge statement as necessary, and develop a list of products that the group has oversight responsibilities. The list would include anticipated milestones and timelines for revisions to its products. The Task Force on Geometric Design has oversight responsibility for:

- A Policy on Geometric Design of Highways and Streets (Green Book)
- A Policy on Design Standards – Interstate System
- Guide for the Development of Rest Areas on Major Arterials and Freeways
- Guide for the Development of Bicycle Facilities
- Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)
- A Policy on the Accommodation of Utilities on Freeway Right-of-way
- A Guide for Accommodating Utilities within Highway Right-of-way
- Guide for the Planning, Design and Operation of Pedestrian Facilities
- Context Sensitive Design for Integrating Highway and Street Projects with Community and the Environment (Design Chapter)

**A POLICY ON THE ACCOMMODATION OF UTILITIES WITHIN FREEWAY RIGHT-OF-WAY**

**A GUIDE FOR ACCOMMODATING UTILITIES WITHIN HIGHWAY RIGHT-OF-WAY**

The proposed draft revisions to both documents were reviewed and discussed. Several changes to the text and exhibits were proposed. It was decided to retain the two documents rather than combining them. The policy was revised in accordance with the Task Force comments and distributed to the members on September 5. The guide was revised in accordance with comments received and distributed to the Task Force on September 24. Any additional comments received by October 31 will be incorporated before forwarding to the Subcommittee on Design for balloting.
Mr. Walters will send a letter to Dr. Movassaghi expressing the Task Force’s interest in reviewing any guidance developed on accommodating fiber optic installations on the right-of-way.

TECHNICAL CORRECTIONS TO THE 2001 GREEN BOOK

A list of technical corrections was reviewed and agreed upon. The list included numerical corrections, editing revisions to clarify intent and four exhibits. A few additional corrections were added to the list. The final list was forwarded to AASHTO Headquarters and is posted on the AASHTO web site at www.transportation.org/download/GreenBookErrata.pdf.

A POLICY ON DESIGN STANDARDS – INTERSTATE SYSTEM

Because of the concerns raised by several members, the “final” draft policy was again discussed and three changes made. The latest version will be forwarded to the Subcommittee on Design for adoption.

GUIDELINES FOR GEOMETRIC DESIGN OF VERY LOW-VOLUME LOCAL ROADS (ADT ≤ 400)

This guide became available in December 2001. Two technical corrections were noted. An earlier edition of Exhibits 14 and 15 were included in the guide. The correct Exhibits are posted on the AASHTO web site at www.transportation.org/download/errata-VLVLR-1.pdf.

GUIDE FOR THE PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES

The coordination of the guide with the State Pedestrian Coordinators, State Traffic Engineers, the AASHTO Subcommittee on Design, and AASHTO Standing Committee on Planning generated approximately 2000+ comments (1290 technical, 795 editorial, 48 general). Midwest Research Institute has been hired under NCHRP 20-7 to incorporate comments, as appropriate, into the guide. They will make the proposed changes, recommend alternatives and prepare a 2nd draft for review by the panel. The final version will be prepared after the panel review as a ballot draft.

CONTEXT SENSITIVE DESIGN

An update was given on the status of the guide under preparation. This guide will be a standalone document to supplement the Green Book. There have been delays in
developing the legal chapter. An Ad hoc committee has been organized to complete this chapter.

EUROPEAN SCAN TOUR

Phil Clark made a brief presentation on the European Scan Tour. The tour did not include a great amount on geometrics. Europeans are emphasizing speed reduction and surveillance using roundabouts, speed tables and mini roundabouts.

ADA

An announcement was made concerning posting on the web of a draft proposed rule for accessibility in the public right-of-way. The Access Board is soliciting comments on the draft, either positive or negative, to assist in preparing the rule.

CLOSING

The next meeting of the Task Force will be at an as yet undetermined location and time.

The meeting was adjourned at 11:30 a.m. on July 3 with an expression of appreciation to Charlie Trujillo for his work in making the meeting successful.

Sincerely yours,

/Signed William A. Prosser

William A. Prosser
AASHTO Task Force on Geometric Design