



SUBCOMMITTEE ON MATERIALS
101th Annual Meeting – Pittsburgh, Pennsylvania
Tuesday, August 4, 2015
10:15 am – 12:00 PM

TECHNICAL SECTION 4d
SAFETY DEVICES

I. Call to Order and Opening Remarks

II. Roll Call

FL	Tim Ruelke	TN	Danny Lane
GA	Rick Douds	TX	Darren Hazlett
IL	Matt Mueller	VA	William Bailey
KY	Derrick Castle	WA	Kurt Williams
MA	John Greico	WI	Steven Krebs, Vice Chair
MN	Curt Turgeon	AASHTO	Evan Rothblatt
MO	David Ahlvers	AASHTO	Henry Lacinak
OK	Scott Seiter	AMRL	Maria Knake
RI	Colin Franco, Chair	AMRL	Steven Lenker
		FHWA	Dennis Dvorak

Friends of TS 4d

TTI	Paul Carlson
3M	Todd Ballen

III. Approval of Technical Section Minutes – Live Meeting / Conference Call TS 4d Meeting Minutes, March 10, 2015.....Attachment 1
[Motion- AR Second- PA Minutes were approved.](#)

IV. Old Business

A. Previous Year SOM Ballot Items

SOM-14-02 – Comments received regarding **Ballot Items 92 – 94** listed below have been discussed and resolved during the midyear TS 4d conference call conducted on March 10, 2014. See minutes of that meeting for details.

- i. **Item 94** – M 333 “Detectable Warning Surfaces” – Task force to look into the 2011 PROWAG and compare to Section 4.2 and potentially make changes proposed by Texas/Nevada and Arizona.
[Section 4.2 discusses where these devices should be placed \(location\). The location can be specified by PROWAG. Section 4.2 for location will simply reference “As specified by](#)

PROWAG.” Sections 4.2.1, and 4.2.1 and 4.2.3 will be removed and replaced with 4.2 that will reference PROWAG.

Section 2.2 references provisional standard (TP103) dealing with testing these products (UV, resistance, bond strength, etc). We have test methods developed, do we need a specification? A specification would be a guide to help states figure out which products may fit best in their state. Should we poll states for individual specifications to potentially develop national specifications?

Darren Hazlett (TX) is to lead a task force to look into developing a specification through use of a survey. The survey should be developed and sent to the states to dig into the specification and figure out who is accepting what and what is this based on and how does it perform. The results of this survey would be analyzed and hopefully used to create a national standard. Darren will be assisted by Henry Lacinak (AASHTO), Danny Lane (TN), and Steve Krebs (WI).

B. Previous Year TS letter ballots

C. Task Force Reports

- i. TF M333(Krebs), M 333-15, Detectable Warning Surfaces, Task force to review TX/NV/AZ comments on 2014 SOM Ballot Item # 94 and compare Section 4.2 to Access Board to potentially make changes.

V. New Business

A. Research Proposals

Selection of Sign Sheeting Materials (Proposed 20-7 statement) – Research proposal submitted.

This project was approved by NCHRP but is still waiting funding according to the NCHRP website. Colin will verify the status of this proposal and resubmit it if it hasn't been approved yet.

Discussed NCHRP research study regarding how guardrail post punched react in the field compared to laboratory results. The study recommended looking at field performance. A discussion regarding acceptance of batch dipped and continuous dipped guardrail took place. Some states are hesitant to allow continuous dipped but are looking for guidance on potentially allowing it. No further action to be taken.

B. AMRL/CCRL Issues – No issues

C. NCHRP Issues - Nothing to report

D. Correspondence, calls, meetings/ Presentation by Industry

- i. Presentation by Paul Carlson on new method to determine night time performance of sign sheeting materials. Please reference presentation for more information. Paul recommends using retroreflectivity in the classification of materials and luminance for developing sheeting material selection guidelines. Retroreflectivity is material specific while luminance characteristics have several influencing factors that may not be material dependent.

E. Proposed New Standards

- **Tensioned Cable Guardrail Specification** – Review results of the report. Action to develop specification and test methods to be taken at 2015 SOM meeting.

This is a 20-05 report which does not recommend developing specifications it only looks into current specifications. We should develop a 20-07 NCHRP problem statement to develop a specification based off of results of this 20-05 report. Since the 20-05 report is not finalized, the new 20-07 proposal will have to wait until it is final. Colin will send final report to Kurt when it is available.

F. Proposed New Task Forces

Darren Hazlett (TX) is to lead a task force to look into developing a specification through use of a survey regarding Detectable Warning Surfaces. Darren will be assisted by Henry Lacinak (AASHTO), Danny Lane (TN), and Steve Krebs (WI).

Kurt Turgeon (MN) will lead a task force with Darren Hazlett (TX) and Bill Bailey (VA) to create a 20-07 NCHRP study to develop a specification for tensioned cable guardrail.

G. Standards Requiring Reconfirmation

None

H. SOM Ballot Items (including any ASTM changes)

M 333-15 “Detectable Warning Surfaces” – Revise section 4.2 to reference PROWAG for location of devices.

VI. Open Discussion

VII. Adjourn



**SUBCOMMITTEE ON MATERIALS
MID YEAR WEB CONFERENCE MEETING MINUTES**

**Tuesday, March 10, 2015
1:00 pm – 2:00 pm EST**

**TECHNICAL SECTION 4d
SAFETY DEVICES**

VIII. Call to Order and Opening Remarks – Chair Intro, Thank you, Awards

IX. Roll Call (see listing at end of minutes for all participants)

FL	Tim Ruelke – present	TX	Darren Hazlett – absent
GA	Rick Douds – absent	VA	Bill Bailey – present
IL	Kelly Morse proxy for Matt Mueller	WA	Kurt Williams – absent
KY	Derrick Castle – absent	WI	Steven Krebs, vice chair – absent
MA	John Grieco – absent	AASHTO	Evan Rothblatt – present
MN	Curt Turgeon – absent	AASHTO	Henry Lacinak – present
MO	David Ahlvers – absent	AASHTO	Brian Korschgen – present
OK	Scott Seiter – present	AMRL	Maria Knake – absent
RI	Colin Franco, chair – present	AMRL	Steven Lenker – absent
RI	Jose Lima – present	FHWA	Dennis Dvorak – present
TN	Danny Lane – present		

Friends of TS 4d

TTI	Jeff Miles proxy for Paul Carlson
3M	Todd Ballen – present
Orafol	Chris Gaudette – present

**X. Approval of Technical Section Minutes – Annual SOM TS 4d Meeting Minutes, July 29, 2014
Minneapolis, Minnesota. Attachment 1**

[Oklahoma motions to approve minutes, Second by VA. Motion to approve minutes passed.](#)

XI. Old Business

A. SOM Ballot Items Attachment 2

- Item 94 (MP 12) had 1 negative and 5 comments.
 - [Arizona comments- See Texas comments](#)
 - [Kentucky comments-Standard will be called M333](#)
 - [Nevada comments- See Texas comments](#)
 - [Rhode Island comments- Link has been fixed](#)

[Texas comments](#)- Task force (led by Steve Krebs) needs to look into Access Board and compare to Section 4.2 and potentially make changes proposed by Texas/Nevada/Arizona
Task force will review comments from AZ, NV and TX and recommend modifications to M 333.

B. TS Letter Ballots

[MP 12 becomes M333, M281 voted to keep the standard as is](#)

C. Task Force Reports

[TF M268 \(Morse\)](#) - A research proposal for the guide has been submitted to NCHRP but no further news.

[TF TP103 \(Krebs\)](#) - Going to modify and add comments as a result of M333 by the task force.

XII. New Business

A. Research Proposals

1. **Selection of Sign Sheeting Materials** (Proposed 20-7 statement)
[Research proposal has been submitted. Will be meeting at end of month to make selections.](#)
2. **Tensioned Cable Guardrail Specification-46-14**
[Awaiting results of report – should be completed prior to SOM 2015 Annual Meeting. Action on specification to be taken at SOM annual meeting.](#)

B. AMRL/CCRL Issues –No issues

C. NCHRP Issues -Nothing to report

D. Correspondence, calls, meetings/ Presentation by Industry-

Request was received from Chris Gaudette (Orafol) to give a presentation which relates to utilizing a new method to determine night time performance of sign sheeting materials. Relates to research coming from Europe and work by Paul Carlson (TTI).

There may be new methodology to classify sign sheeting material. Should TS 4d make recommendation for approval for a guide used in assessment of sign sheeting material? Does it relate to M268? Do we want presentation on this topic at annual SOM Meeting?

Sign sheeting task force chaired by Kelly Morse (IL) was assigned to take a look at the information provided and give recommendation to TS 4d. Kelly Morse will also get with Paul Carlson to gather additional information.

Kelly will discuss with task force in order to develop recommendation to technical section at least one month prior to annual meeting in Pittsburg.

- Recommend if it would be advantageous for TS 4d members to hear from Chris Gaudette or Paul Carlson regarding this matter
- Recommend if a new specification, a new test method or new guideline on how to better assess sign sheeting should be developed.

[Jason Davis \(LA\)](#) offered the following excerpt from the minutes of the last meeting of ASTM D04.38.

“Paul Carlson presented slides on a new specification based on TRB paper #15-2963, Performance Evaluation of Reflective Sign Sheeting (TC 4-40 report is the full report – the paper is a summary). Group discussed creating an ASTM document to parallel the CIE TC 4-40 document and how to use with existing ASTM methods. For June meeting, plan to have an outline to scope out what the group wants to do.”

[Chris Gaudette \(Orafol\)](#) stated this work originated from a CIE committee in Europe of which Paul Carlson is involved. This work is a result of research performed over the last 12 years. This group has a large

report (60-70 pages) coming out later this year. Report explains use of luminance values to determine performance of sign sheeting material.

Takes several hundred geometries to evaluate products. However, too many measurements for states to use. But tool does show geometries and sign positions indicating which sheetings can be most beneficial for drivers in different scenarios.

E. Proposed New Standards

No other new standards proposed outside of discussions earlier.

F. Proposed New Task Forces

May get a task force together at SOM annual meeting to draft problem statement for the Tensioned Cable Guardrail Specification after reviewing NCHRP 20-7 Project 46-14..

G. SOM Ballot Items (including any ASTM changes)

XIII. Open Discussion

XIV. Adjourn

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