



SUBCOMMITTEE ON MATERIALS
100th Annual Meeting – Minneapolis, Minnesota
Tuesday, July 29, 2014
10:15 am – 12:00 pm CST

TECHNICAL SECTION 1b
Subsurface Exploration, Soil Instrumentation,
Soil Stabilization, and Field Testing of Soils
Meeting Agenda

I. Call to Order / Opening Remarks / General Business meeting started at 11:30 – late due to speaker at plenary session; thanks given to tech section; 3 new provisional standards have been published out of this committee; been some discussion about TS membership – we currently have 15 members on 1b, pretty good representation around country but opportunity for other involvement, more members are welcome; Friends of Committee – really encourage participation, note on attendance sheet if you'd like to be a Friend; 1b has always done great job of getting ballots back in – when you don't vote, it's like a negative vote; you can forward ballots to those that are familiar with the test being balloted if you aren't; mid-year webinar has allowed us to be more flexible with what we do – we resolved comments at that webinar and changes were published in the book, frees us up to have good communication at summer meeting; experts in your state can sit in on webinar, especially if they can't attend the summer meeting

II. Roll Call no formal roll call taken

AL	Lyndi Blackburn (Vice-Chair)	RI	Colin Franco
CA	Phil Stolarski	SC	Merrill Zwanka
FL	David Horhota	TN	Bill Trolinger
GA	Georgene Geary	VA	Andy Babish
IN	Ron Walker	AMRL	Chris Breth (Non-Voting Member)
MD	Tim Smith	AMRL	Ron Holsinger (Non-Voting Member)
MS	James A. Williams, III (Chair)	AMRL	Greg Uherek (Non-Voting Member)
NM	Bryce Simons	FHWA	Aramis Lopez (Non-Voting Member)
NY	Robert Burnett	FHWA	Benjamin Rivers
OK	Scott Seiter	FHWA	Jack Springer (Non-Voting Member)

III. Approval of Technical Section Mid-Year Webinar Minutes March 31, 2014.

August 6, 2013 Technical Section Minutes were previously distributed and approved at the Mid-Year Webinar but are included as Appendix A to this agenda. Mid-Year Webinar Minutes are

included as Appendix B to this agenda. Motion to approve March 31st webinar minutes; FL motion, VA second, no discussion

IV. Old Business

A. Previous Year SOM Ballot Items

2013 SOM Ballot Items – Comments were addressed at Mid-year Meeting. No items were left outstanding.

B. Previous Year TS letter ballots

- TS Ballot to update T 298, *High-Strain Dynamic Testing of Piles* these revisions were result of TF work; did not have results in time to post with agenda; 13 affirmative votes, no negatives, 3 or 4 comments – all comments editorial in nature; proposal to address editorial comments prior to subcommittee ballot then move forward to subcommittee ballot in fall; motion VA, SC second, no discussion

C. Task Force Reports

TASK FORCE 10-02:

Research needed changes to update T 298.

- James Williams (MS) Lyndi Blackburn (AL), Bert Wentz (LA), David Horhota (FL)

Task Force 10-02 was initiated to address comments from Florida and Mississippi concerning the need to update T 298. Since publication of this standard, embedded and wireless transducers have become common and are not addressed in the current standard. FL said it's complete and went to TS ballot; work of TF is essentially done, will see if there are comments on full subcommittee ballot

TASK FORCE 10-04:

Development of a new provisional standard for the In-Place Determination of Density and Water Content of Soil and Aggregate by Subsurface Electrical Method.

- Dennis Anderson, Cecil Jones, Jim Pappas (DE), Reid Kaiser (NV), Georgene Geary (GA), Bob Burnett (NY)

Task Force 10-04 was initiated to develop a provisional standard for the In-Place Determination of Density and Water Content of Soil and Aggregate by Subsurface Electrical Method for future Technical Section Ballot.

At Mid-year Meeting it was determined that the Task Force will be continued for further improvement to the standard. There were some comments on ballot that were addressed, provisional standard will be published in this year's book; Reid Kaiser/NV gave presentation on electrical density gauge – document circulated during meeting outlining details about the gauge

Discussion – takes 5 minutes to run test; cost is about \$9,200 through Humboldt; ASTM test method already in books, AASHTO method (TP 112-14) will be the standard that we approve; Nevada is switching over to modified proctor – lab test for EDG is similar to modified proctor; optimum moisture and max density is loaded into the machine before going into field; GPS is part of the machine, reports are nice; can add additional data to initial soil model; NV would only use it on a consistent material (i.e. not embankment compaction tests); it's a struggle with testing on unclassified material; ID tried it and they were pleased with it, simple to use; questions about precision of equipment – as time goes

forward, we will have data to look at – hopefully will be able to determine a precision statement; Cecil – controlled experiments being conducted right now, different states with different soil types, if you have an interest in being a part of evaluation let them know; equipment that meets TP 112 is available today; machine will give you a warning if the test doesn't fit the parameters of the model/curve – could be that the soil type has changed (i.e. piece of metal in it); hope to be able to come back next year with data from states involved in evaluation; device has large memory and USB port – can have library of soil models; date/time/GPS-location stamps with each test; field calibration done with sand cone; looking for states to compare data from 3 different soil types to state standards; training takes about half hour; Cecil is point of contact for evaluation; differs from ASTM version – different approach, different technology (electrodes used are different)

TASK FORCE 12-01:

Address comments on Technical Section Ballot 12-01 to revise M 147.

- Andy Babish (VA), Jamie Blanton (LA), Georgene Geary (GA), Scott Seiter (OK), and James Williams, (MS)

Task Force 12-01 was established to address comments on Technical Section Ballot 12-01 to revise M 147. Andy Babish (VA) suggested clarification of the term “normal” as it relates to specific gravity and absorption. The Task Force agreed to propose wording for Section 1.1 for future consideration by the Technical Section. Andy Babish did a survey recently – had some comments regarding terminology used in the standard; back in 2012 there didn't seem to be much interest in this standard; proposed gauging use of standard before editing the standard – background behind survey; 26 states responded to survey, split on usage (13 did not use it, 13 use it to some degree but the majority of those users said it would be low impact if standard was deleted); did have some strong/persuasive comments from some states that we shouldn't delete it; need to do a thorough rewrite; James Williams asked if anyone in the room would be interested in updating the standard – we should continue to publish it but maybe it's worth an effort to update it; M 147-65 gives different classes of material for different types of applications (not a test procedure); we will “circle the wagons” one more time to see if anyone wants to participate

TASK FORCE 12-02:

Address negative votes and comments related to Technical Section Ballot 12-04 to revise T 99 and T 180.

- Garth Newman (WAQTC), Scott Seiter (OK), Jamie Blanton (LA), David Horhota (FL), James Williams (MS)

Task Force to address negative votes and comments related to TS-12-04 Ballot to revise T 99 and T 180. This Task Force will also address the revisions to T-135 and T 136 regarding the curing of specimen according to M 201. The Task Force members are: Jamie Blanton (LA), Scott Seiter (OK), Garth Newman (WAQTC), James Williams (MS), and David Horhota (FL). **See Appendix C for emails regarding the work of this task force and other questions concerning these standards.** T 99, T 180, T 272, T 224 – Garth of WAQTC has some information to share with us; we can probably take some of this to ballot; Garth spoke – T 99 has been around since the 1930's, everyone has “severe ownership” in it; method had replacement model or T 224 for oversize particles; replacement model was eliminated in the 1970's but some information from replacement model is still in it; T 224 should be an appendix to T 99/ T 180; T 272 also involved; did not want to duplicated ASTM D698/D1557; possible difference of 4 lbs/cubic foot with the two molds; need to calculate an exact mold volume and introduce T 224 into the method – not knowing, AMRL was doing the same

thing with the methods; we are now ready to introduce T 99/T 180 for either TS or concurrent ballot; Mark Felag said this is an opportune time to send them to different concurrent letter ballots (broken up into pieces that are appropriate) – probably 3 different ballots (addition of one/deletion of another is one ballot item); changes to T 99 must also be made to T 180; motion to put changes forward to concurrent ballot with Chair’s option of making separate ballot items; FL said they had concerns about adding T 224 back into the method; Annex is mandatory, Appendix is non-mandatory (T 224 was added as non-mandatory); NM suggested considering changing what is meant by “oversized”; Mark Felag/RI – motion, Merrill/SC second

II. New Business

A. Research Proposals (See Appendix E) Reid is the new TS research liaison

- *Dynamic Properties of Earth Material during Rolling Compaction*
TRB committees AFP60 and AFS20 already approved (in March)
- *Improved Rutting Prediction of Unbound Granular Materials for Mechanistic-Empirical Pavement Design*
TRB committee AFP70 where does this fit in our TS and SOM? Isn’t necessarily a lab test; joint technical committee on pavements mentioned by Georgene – this may be a good fit; we might not want to endorse this one as a TS – recommend that it goes to joint committee on pavements
- *Smart Sensing Systems Applied to Geotechnical Structures*
TRB committee AFS20 come up with guidebook for geotechnicals to use for instrumentation on geotechnical structures; previous synthesis mentioned; do we want to endorse something that wouldn’t necessarily result in a product that we would endorse; Georgene mentioned SHRP2 overlap; James thinks that maybe we do not want to endorse this; Reid will look into whether it’s being duplicated by SHRP2
- *Guidebook For Managing Subsurface Differing Site Conditions Risk In Design-build Projects* already approved (in March)
TRB committees AFS30 and AFH15
- *Improving Processes for Characterizing Corrosion Potential of Soils and Fill Materials*
TRB committees AFS10, AFP30, AFP40, and AFS30 this is a problem in Las Vegas; corrosive backfills; look at test methods and see if it should be more stringent – is it a problem nationwide? Results may end up in 1a; motion to endorse this TF – RI, FL second
- *An implementation manual for geotechnical asset management for transportation agencies*
TRB committee AFP 10 a lot of work is being done in asset management right now – may be some overlap; talk about a research need
***It should be noted that the following NCHRP projects were already approved for the 2015 fiscal year:
24-43, Problem E-04: Relationships between Erodibility and Fundamental Geotechnical Properties for Geomaterials.
24-44, Problem E-05: Guidebook for Managing Subsurface Differing Site Conditions Risk in Design-Build Projects.
24-45, Problem E-07: Dynamic Properties of Earth Material during Rolling Compaction.

B. AMRL/CCRL Issues

C. NCHRP Issues

D. Correspondence, calls, meetings/ Presentation by Industry

- Questions regarding T 99, T 180, T 224, & T 272. See Task Force 12-02 and Proposed New Task Force. See Appendix C.

E. Proposed New Standards

F. Proposed New Task Forces

- Revisions to T 99, T 180, T 224, & T 272 See Appendix C

G. Standards Requiring Reconfirmation (Standards Stewardship Table – Appendix D)

Expect reconfirmation in January time frame

- *M 092-10 Wire-Cloth Sieves for Testing Purposes*
- *M 231-95 (2010) Weighing Devices Used in the Testing of Materials*
- *T 099-10 Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop*
- *T 180-10 Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop*
- *T 224-10 Correction for Coarse Particles in the Soil Compaction Test Diamond Core Drilling for Site Investigation*
- *T 225-06 (2010) Measurements of Pore Pressures in Soils*
- *T 272-10 Progressing Auger Borings for Geotechnical Explorations*

H. SOM Ballot Items (including any ASTM changes)

III. Open Discussion

IV. Adjourn motion RI, second CA; adjourned at 12:56 p.m.

TP 100-12: TS needs to take action on it; James asked for motion to reconfirm/continue to publish the standard over the next 2 years; VA–motion, MD-second

James mentioned that other provisional standards (load testing) need to move forward next year as full standards

APPENDICES

A - Membership Roster

B – Technical Section 1b Minutes

- **Attachment 1:** 2014 Mid-Year Webinar Minutes
- **Attachment 2:** 2013 TS1b Meeting Minutes

C – Correspondence, White Paper from WAQTC and Miscellaneous Items regarding T 99, T 180, T 224, & T 272

D – Status of Standards and/or Standard Assignments

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Attendance Sheet

Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Williams, III, James A.	Mississippi Department of Transportation	jwilliams@mdot.state.ms.us		<input type="checkbox"/>	<input type="checkbox"/>
Blackburn, Lyndi D	Alabama Department of Transportation	blackburn@dot.state.al.us	334 206 2203	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rothblatt, Evan	American Association of State Highway and Transportation Officials	erothblatt@aaashto.org		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Barnhart, Tracy	AASHTO Material Reference Laboratory	tbarnhart@amrl.net		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Knake, Maria	AASHTO Material Reference Laboratory	mknake@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Breth, Christopher	AASHTO Material Reference Laboratory	cbreth@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Guherek, Greg	AASHTO Material Reference Laboratory	guherek@amrl.net	240-436- 4840	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Holsinger, Ronald Edward	AASHTO Material Reference Laboratory	rholsinger@amrl.net		<input type="checkbox"/>	<input type="checkbox"/>
Slenker, Steven E.	AASHTO Material Reference Laboratory	slenker@amrl.net	240.436.4770	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Davis, Kaye C	Alabama Department of Transportation	chancellor@dot.state.al.us		<input type="checkbox"/>	<input type="checkbox"/>
Cox, Bernard	Alabama Department of Transportation	coxb@dot.state.al.us		<input type="checkbox"/>	<input type="checkbox"/>
Stolarski, Phil J	California Department of Transportation	phil.stolarski@dot.ca.gov	916 227 7254	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lopez, Aramis	Federal Highway Administration	aramis.lopez@dot.gov		<input type="checkbox"/>	<input type="checkbox"/>
Rivers, Benjamin	Federal Highway Administration	benjamin.rivers@fhwa.dot.gov		<input type="checkbox"/>	<input type="checkbox"/>

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Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Springer, Jack	Federal Highway Administration	jack.springer@dot.gov		<input type="checkbox"/>	<input type="checkbox"/>
<i>M.D.</i> Voth, Michael D	Federal Highway Administration	michael.voth@dot.gov	720-963-3505	<input type="checkbox"/>	<input checked="" type="checkbox"/> Friend
Horhota, David J	Florida Department of Transportation	david.horhota@dot.state.fl.us		<input type="checkbox"/>	<input type="checkbox"/>
<i>G.D.</i> Geary, Georgene M.	Georgia Department of Transportation	ggeary@dot.ga.gov	404-608-4712	<input type="checkbox"/>	<input type="checkbox"/>
Walker, Ronald P.	Indiana Department of Transportation	rwalker@indot.in.gov		<input type="checkbox"/>	<input type="checkbox"/>
Smith, Timothy E.	Maryland Department of Transportation	tsmith2@sha.state.md.us	443-572-5037	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Simons, Bryce	New Mexico Department of Transportation	bryce.simons@state.nm.us		<input type="checkbox"/>	<input type="checkbox"/>
Burnett, Robert A.	New York State Department of Transportation	bburnett@dot.state.ny.us		<input type="checkbox"/>	<input type="checkbox"/>
Seiter, Scott	Oklahoma Department of Transportation	sseiter@odot.org		<input type="checkbox"/>	<input type="checkbox"/>
Franco, Colin A	Rhode Island Department of Transportation	cfranco@dot.ri.gov		<input type="checkbox"/>	<input type="checkbox"/>
Zwanka, Merrill E	South Carolina Department of Transportation	zwankame@scdot.org	803 737 6681	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trolinger, Bill	Tennessee Department of Transportation	bill.trolinger@tn.gov		<input type="checkbox"/>	<input type="checkbox"/>
Heinen, Caroline	Texas Department of Transportation	caroline.heinen@txdot.gov		<input type="checkbox"/>	<input type="checkbox"/>
Babish, Charles A. <i>CB</i>	Virginia Department of Transportation	andy.babish@vdot.virginia.gov	804 328-3102	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lane, Becca	Ontario Ministry Of Transportation	Becca.Lane@ontario.ca		<input type="checkbox"/>	<input type="checkbox"/>
<i>Newman Becca</i> Newman Becca	<i>WAQTC Idaho Trns Dept</i> WAQTC Idaho Trns Dept	<i>geetha.vasuman@idaho.gov</i> geetha.vasuman@idaho.gov	208 334 8039	<input type="checkbox"/>	<input checked="" type="checkbox"/> Friend
<i>Santi Mike</i> Santi Mike	<i>Idaho Transportation Dept</i> Idaho Transportation Dept	<i>Mike.Santie@idaho.gov</i> Mike.Santie@idaho.gov	(608) 334-8450	<input type="checkbox"/>	<input type="checkbox"/>
<i>Tim Ruelle</i> Tim Ruelle	<i>FDOT</i> FDOT	<i>timothy.tuelke@dot.state.fl.us</i> timothy.tuelke@dot.state.fl.us	1352955-6626	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Subcommittee on Materials 2014
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Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
V FELAG	RI DOT	mark.felag@dot.ri.gov		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Barry Paye	Wis DOT	barry.paye@dot.wi.gov	608-246-7945	<input type="checkbox"/>	<input type="checkbox"/>
Rezene Medhanie	DC DOT	rezene.medhanie@dc.gov	202-654-6030	<input type="checkbox"/>	<input type="checkbox"/>
DENIS BORSVERT	NH DOT	DBORSVERT@DOT.STATE.NH.US	603-271-1545	<input type="checkbox"/>	<input checked="" type="checkbox"/> FRIEND
Allen H. Myers	KY Transportation Cabinet	Allen.Myers@ky.gov	502-564-3160	<input type="checkbox"/>	<input type="checkbox"/>
TIM RAMIREZ	PENNSYLVANIA DOT	tramirez@pa.gov	717-783-6602	<input type="checkbox"/>	<input type="checkbox"/>
Bob Lotz	AASHTO			<input type="checkbox"/>	<input type="checkbox"/>
Dennis Anderson	Elec. Density Gauge	araif1@sbcglobal.net	775 883 1518	<input type="checkbox"/>	<input checked="" type="checkbox"/> Friend
Cecil Jones	DEE, Inc	cecil.jones@deecorp.com	301-612-8121	<input type="checkbox"/>	<input checked="" type="checkbox"/> Friend
Eric Ferrelle	American Concrete Pavement Association	eferrelle@acpa.org	815-351-0282	<input type="checkbox"/>	<input type="checkbox"/>
Bryce Simm	WM DOT	bruce.simm@dot.wv.gov	505 (979-3191)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tim Aschenbrener	FHWA - Resource Center	timothy.aschenbrener@dot.gov	(720) 963-3247	<input type="checkbox"/>	<input type="checkbox"/> Friend
Lea Williams	Washington State DOT	williekr@wsdot.wa.gov	(360) 709-5410	<input type="checkbox"/>	<input type="checkbox"/>
Carlo Hammons	MS DOT	jchammons@mddt.ms.gov	601-359-9770	<input type="checkbox"/>	<input type="checkbox"/>
Mike Sullivan	Ms DOT	mrsullivan@msdot.ms.gov	661-359-1666	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NAN MITCHELL	MS DOT	nmitchell@mddt.ms.gov	662-842-4541	<input type="checkbox"/>	<input type="checkbox"/>
Barley Gunn	OLGASTAR PRECAST	barley.gunn@olgastar.com	678 709 9287	<input type="checkbox"/>	<input checked="" type="checkbox"/> Friend
Todd Arnold	Pine Test Equipment, LLC	tarnold@pineivest.com		<input type="checkbox"/>	<input checked="" type="checkbox"/> friend



HANNY FEKRY

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Friend
Yes

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Name	Employer	Email Address	Phone Number	Member of TS?	Would you like to join this TS?
Reynolds Toney	OK DOT	rtonney@odot.org	405 521 2477	<input type="checkbox"/>	<input type="checkbox"/>
Scott Andrus	UDOT	scottandrus@utah.gov	801-965-4859	<input type="checkbox"/>	<input type="checkbox"/>
Haleh Azari	AASHTO	azari@aapr.org	301-975-2112	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ali Razjmand	Instrotek, Inc.	arazjmand@instrotek.com	919-878-8371	<input type="checkbox"/>	<input type="checkbox"/>
Dick REAVES	Troxler	dreaves@troxler.com	919-819-4551	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Emelia Ezekwumba	FHWA	mueemba.ezekwumba@dot.gov	651 2916108	<input type="checkbox"/>	<input type="checkbox"/>
BRAD NEITZKE	FLWA / WFLMD	BRAD.NEITZKE@DOT.GOV	360-619-7125	<input type="checkbox"/>	<input type="checkbox"/>
ROBIN GRAVES	VULCAN MATERIALS	GRAVESR@VMC.MAIL.COM	205-298-3334	<input type="checkbox"/>	<input type="checkbox"/>
Shawn Coombs	Advanced Drainage Systems	shawn.coombs@ads-pipe.com	704 451 8844	<input type="checkbox"/>	<input type="checkbox"/>
DAVE SAVAGE	CMEC	davesavage@cmeccorp.com	407 756 8105	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ben Franklin	Headwaters Resources	bfranklin@headwaters.com	34-924-5095	<input type="checkbox"/>	<input type="checkbox"/>
Ron Holsinger	AASHTO	rholsinger@amtl.net	240-436-4830	<input type="checkbox"/>	<input type="checkbox"/>
Pick Heider	KS DOT	pickheider@ksdot.org	785 291 1195	<input type="checkbox"/>	<input type="checkbox"/>
KEVIN KLEITHERMAN	FHWA-MN	KEVIN.KLEITHERMAN@DOT.GOV	651 271-6123	<input type="checkbox"/>	<input type="checkbox"/>
Chris Peoples	NCDOT	peoplecs@ncdot.gov	919 329-4000	<input type="checkbox"/>	<input type="checkbox"/>
WALLY HESLER	NDOT	wally.hesler@ndot.nd.gov	402-479-7677	<input type="checkbox"/>	<input type="checkbox"/>
Tim Martin	CTL Group	tim.martin@CTLGroup.com	512-695-2878	<input type="checkbox"/>	<input type="checkbox"/>

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