

**Materials Engineers' (MEO) Pre-meeting  
Tuesday, April 25, 2006**

Present: Rod Garver, John Hager, Jerry Geib, Perry Collins,  
Graig Gilbertson, Art Bolland, Tony Kempenich,  
Tom Meath (Recorder)

Absent: Willis Enloe, Dave Nelson

- Cert. of border plants – unclear what the issue was.
- Tolerance exceptions – unclear what the issue was.
- Audit Response – Dave Christensen did an audit on a D-2 county project – had some comments about D-2 district lab. Craig stressed you should attend close out meeting to respond to any comments.
- Staffing Issues – AEP – Craig has done some work on a letter and his position description. Craig thinks we need to continue with this effort. Shortage issues – talked about operations, budget and some of the labs are having a hard time staffing their labs. Talked about staffing shortages in maintenance and the effect on the roads.
- John – R-value handout – standard deviation – "outliers," had discussion on. John will discuss this issue with Tom Nordstrom. Design R value = average – std. deviation.
- John - Detour Routes – gas tax or equivalent overlay – D-7 polled districts on who is using which formula.
- John - TH 14 Project – PAB – change transverse subcut drain from PE to TP. Wants to change the subsurface.
- John will be project manager of a task force to look at subsurface drain typical.
- Graig passed out a handout on drainage design concerns. John Hager, Graig Gilbertson, Jerry Geib, Tim Anderson, Chris Dulian.
- Tony – IA inspectors – IA – Tony asked if IA should be charging his time to T98 number if construction is being done by consultant.
- Uniformity – Christie Olson – emphasized to the District Materials Engineers to support the uniformity meetings. There has been a problem with no shows. Complained about new course sieve shaker.
- Geosynthetics – pool of money – looking for a lead state – John Siekmeier. What's the interest in research using geosynthetics for use in Mechanistic design. We are interested in the results – don't know if we should be the lead state.

**Materials Engineer Organization Meeting**

**Bemidji District Office**

**April 25-26, 2006**

Attendees: Graig Gilbertson, Paul Johns, John Hager, Shelly Pedersen, John Garrity, Tom Meath (Recorder), Jerry Geib, Mike Robinson, Kristi Olson, Ron Garver, Art Bolland, Willis S. Enloe, Dave Nelson, Keith Shannon, Ben Worel, Todd Vonasek, Curt Turgeon, Jim McGraw, Dave Janisch, Jim Kochsiek, Roger Olson, Maureen Jensen, Doug Schwartz, Perry Collins, Tim Andersen, Andrew Eller, Tony Kempenich,

Craig Collison, Aamir Turk, David Palmquist, Ben Timerson,  
James Bittmann, Robin DeLage

### **Welcome – Graig Gilbertson**

- Craig Collison gave a welcome to District 2.
- Introductions were made.

### **Office of Materials – Keith Shannon**

- Budget – compared Mn/DOT to other DOT's across U.S. MN – 25% outsources. Other states – up to 100% (Florida).
- Several high level committees going on statewide – services provided, regionalizing functions, operating budget vs. construction budget. 2008-2009 could be tough period on operating budgets.
- Emphasized department priority of preservation – primarily pavements. Did not think Materials is a good area for a lot of outsourcing.
- Handed out draft summary for 2005 AMRL Program for comments from districts before it is handed out to top staff. (See attached.)
- Truck Weight Bill – bill will not happen this year. No support from trucking or safety organizations.
- Legislative amendment this November – encouraged everyone to vote for it.
- Art B. raised concerns about rising bituminous costs.

### **Pavement Engineering – Curt Turgeon**

- Personnel changes
- PM Engineer position is posted.
- Bruce Chadbourne will now be doing Bill Zerfas job (Pavement Engineering).
- Matt Oman is moving to Geotechnical area.
- Mike Robinson is retiring May 2 – will return to work part time.
- We will start putting ride into project proposals in IRI for bituminous overlays (existing IRI).

### **Pavement Design Office – Jerry Geib**

- Discussed Bruce Chadbourne's new duties.
- Geotech. & Pavement Manual update – 6 months to 1 year out – work is ongoing.
- Audit Procedure update – nothing new to report.
- EDMS/MDR Workflow – close to being finished.
- MnPave, AASHTO Design Guide – Maureen gave an update on MnPave work she is doing.
- Mn/Pave – FDR design using MnPave calls for thinner sections.

### **Bituminous Office -John Garrity**

- Two handouts of PowerPoint presentation and Annual Uniformity Committee Report. (See attached.) Mike Robinson handed out 2005 and 2006 bituminous mix prices spreadsheet.

### **Lunch**

#### **Concrete Office – Doug Schwartz**

- PowerPoint presentation. (See attached.)

#### **Pavement Management – Dave Janisch**

- PowerPoint presentation. (See attached.)

- County presentation and Commissioner's presentation.

### **Geotechnical Engineering - Glenn Engstrom**

- TH 241 pile supported fill – possible open house at MnROAD with tour of project.
- ABC project – needs projects for various criteria (handout attached) projects that we have written soils letters on.
- Mn/DOT is looking at scoping process on projects to do more scoping earlier in the process – discussion ensued.
- QC/QA Grading and Base – Glenn E. PowerPoint presentation. (See attached.)
  - intelligent compaction
  - statistical analysis
  - QC/QA field testing devices.
- **Mike Robinson, "Usually things that sound too good to be true – are."**

### **Grading and Base – Tim Andersen – PowerPoint Presentation (See attached.)**

- FDR discussion – Reclassified as a resurfacing or rehabilitation fix rather than reconstruction.

### **Break**

### **Materials – Jim Kochsiek**

- Retention schedule – gave committee update – Terry B. and Tom M. committee.
- Gyrotory molds – Terry is looking at electroplating gyrotory molds.
- Cost Management Committee – capturing true cost of testing – looking at true overhead costs.
- PAB, PASB, OBAB – small committee will look at this issue.
- Transverse drain - John, Tim A. Craig, Jerry G. Chris D. committee?
- R-value – John described (handout) – standard deviation – R-value situation.  
Resolution – John will talk to Tom Nordstrom about this situation.
- Detour Payments

### **Reclamation (FDR) Standards**

- Graig G. wrote a letter on this – Bob Winter is going to have a committee to resolve this issue. MEO should still have a position on this issue. Discussion ensued.

### **Bernard I.**

- Looking for concrete sections to do noise study on.

### **NTPEP US 169 – Belle Plain**

- 12 different sealants – 3 year evaluation, 5 contractors, rout & seal, compare different materials on 1 project – Jim McGraw talked about this project. Rubbilized and then 2003 overlay, left it up to contractor how to rout and seal – discussion ensued on this topic.
- Roger Olson mentioned Tom Wood – clean & seal spec. writing and a warranty spec. for contractors to seal cracks in road-perf. based.
- Jerry Geib – Spring Load Restrictions – discussed timing of lifting SLR this year.
- Keith Shannon – FHWA – Geotechnical Review – report – soil classification method is bad.
- **Mike Robinson, "It's only as good as the weakest link in the chain."**
- Lab calibration of Gyrotory – Budget – no one knows what the issue is.

## Day 2 – April 26, 2006, 7:30

### Project Manager Reports

- Preventative Maintenance – no work done – no meetings, Jerry G.
- Life Curve – some work being done but slowly – Dave Janisch.
- Swamp Typical – last forwarded to design group for approval, draft has been done, Perry.
- Culvert – finished, typical will be put in standard plan, Craig.
- Warranty – discontinued group.
- Statistics & Specifications – no work done lately, Art.
- Mechanistic Design – DVD – Maureen gave update yesterday.
- Tonn – DVD – Dai would like to be part of this committee.
- Some people would like the TONN spreadsheet to say how many tons over 10 ton a road computes to.

### Liaison Reports

- Todd Vanasek – Resident Engineers – talked about all of the new technical changes in construction.
- Christi Olson – Lab Chiefs. Verification of Field Testing out of tolerance form – form is out of date – particularly bit. Wondering if MEO wants its use continued. IA uses it. This info needs to be documented somewhere. Left up to districts whether to continue using it.
- Contractor contacts – about sampling – contacting state – emphasized they are enforcing this.
- IA report on IA program – is working well.
- Joint meeting in fall?
- Craig Collison – CMG – no issues.

### Research

Dave Johnson – Collaboration & Reimbursement

- Frozen 4 – Wisconsin, Michigan, Illinois, Minnesota – sharing research collaboration.
- Handed out research tables of current and completed research going on. (See attached.)
- TERRA – various agencies pooled together to do and pay for research, industries included.
- Handout attached – MnROAD/TERRA ideas for MnROAD in future 12 ideas - \$4.5 million worth of construction.

Tom Burnham (Representing Bernard) – Concrete. (See attached.)

- White topping design.
- Hollow tube dowels.
- Dr. Wilde – IRI ride – paving spec. for concrete
- Hydraulic fracture agg. study.
- Nancy Whiting – silane sealers for bridge decks.
- Cargill Bridge deck sealer – Bridge "chip seal" chip seal with salt imbedded into it - "safety product."
- Geo foam monitors.
- Porous concrete – MnROAD.

### Shong Tao Dai – Gave a GPR PowerPoint

### Ben Worel

- Geocomposite 27-28

- 52-34 PG Grade test sections
- Intell. Compaction
- Mainline repairs.
- Flexible slurry cells.
- Superpave cells.
- Low temp. crack study – 4 different universities – finished at end of 2006.
- Test section tracking on webpage – emphasized to contact Ben when it is time to document test sections.
- Geosynthetics – monitoring
- Seasonal materials affecting ride.

### **Roger Olson**

- Western Research Institute – test section using different binder sources – Olmsted Co. 58-28 – oil.
- Put rejuvenator on section
- Tack coat study.
- LRRB projects.
- Tom Wood – maintenance of rumble strips.
- Eddie – study roads with RAP.
- Flexible slurry.
- NCAT – taconite failings study.
- Fabric – crack reflective – petromat – Redwood Co.
- STRATA – 694 EB..

### **Misc.**

- Discussion of Resilience Modulus (Mr) of R-values by Geib.
- **Mike Robinson, "There is no law against having data to make a decision."**
- IA personnel – fill monitoring roles – not recommended.
- Request for FWD testing and skid testing
  - Rolling RWD (Rolling Weight Deflectometer)
- Need MEO Executive member from Maplewood.
- TH 12 Atwater – FWD back calculated strength. IC compacter – FWD 8.4 tons only. 30" design, 8" mix, 24" gravel. Something is wrong with FWD calculation. Luke came up with 12 tons. Re-examined calculations and temps and it came out at 10 tons. This road will be re-FWDed this summer.
- Uniformity letter – yearly group looks at consistency across district lines.
- Long discussion on scoping problems on preservation projects in districts.
- Fall Meeting October 11-12, 2006 – St. Cloud.

### **Round Robin**

- Willis – considering retirement.
- Tim A. - looking for projects with Class 7 (with agg. & bit) built before 2000. Looking for stripping in Cl. 7.
- Doug – new concrete manuals issued by pooled fund study.
- Roger – study different PG grade binders – track projects.
- Dave J. – Loren Hill retiring.
- Kristi – IC open house – July 20 – TH 64 project near Park Rapids.