

AASHTO

TECHNOLOGY IMPLEMENTATION GROUP



TIG:

Driving Innovation for Transportation

John Polasek, P.E.
Vice Chair, TIG Executive Committee
AASHTO
Subcommittee on Construction



Presentation Overview:

- How TIG Works
- Projects related to Construction
- How you can get involved



What does TIG do?

Promotes Focus Technologies that are:

- used by a DOT
- market-ready
- high pay-off



How does TIG work?

- Two Tier System
 - Executive Committee (top DOT executives)
 - Lead State Teams



How does TIG work?

- Executive Committee (top DOT executives)
 - Solicit and Select the Technologies (Annually - 3-4 Focus Technologies, 2-3 Additional Selected Technologies)
 - Program Oversight and Management



How does TIG work?

- Types of Technologies
 - Focus Technology
 - Lead State Team is Formed
 - Dedicated budget for marketing/implementation
 - Additional Selected Technologies (AST)
 - No Team assembled
 - Produces a White Paper



How does TIG work?

- Lead State Teams
 - Formed for every Focus Technologies
 - 4-7 State DOT Subject Matter Experts
 - 1-2 FHWA
 - 1-2 Industry



TIG Projects related to Construction



TIG Focus Technologies related to Construction

- Self-Propelled Modular Transporters (SPMT)
- Construction Analysis Software Tools (CAST)
- Automated Machine Guidance (AMG)
- Precast Concrete Paving Slabs (PCPS)



Tell us about Self-Propelled Modular Transporters...

- **Why SPMT? Why now?**
 - Significantly reduce traffic congestion/impact
 - Open highways to traffic in minutes/hours
 - Improve quality and constructability
 - Improve work zone safety
 - Increase contractor and owner options

Tell us about Construction Analysis Software Tools...

Why CAST? Why now?

- CAST provides Information on construction options that helps agencies:
 - “Try before they buy”
 - Minimize traffic congestion during construction
 - Maximize safe mobility
 - Gather and organize data for IA and TMP, per new FHWA rule

CAST options include:

- Traffic simulation/analysis
- Construction Staging
- Construction options/cost analysis
- Combination of these options



Tell us about Automated Machine Guidance...

- **Why AMG? Why now?**
 - Links software with construction equipment
 - Directs the operation of machinery
 - Provides a high level of precision
 - Improves speed and accuracy



AMG also means:

- Less changes, busts, reengineering and rework
- Less labor /time to produce high quality results
- Improved worker safety
- Agencies/contractors save time and money
- Better ride quality for customers



Tell us about Precast Concrete Paving Slabs...

Why PCPS? Why now?

- Proven quality, durability and long-term performance
- Accelerate construction scheduling and sequencing
- Reduce work zone duration and size limits
- Reduce construction delays/congestion
- Economically viable



PCPS Types and products:

- Prestressed/Post-Tensioned Paving Panel
- Full-Depth Repair/Joint Replacement
- Uretek Precast Panel using High Density Polyurethane
- “Super-Slab™”
- Kwik Joint Coupling system



How can we get involved?

- Contribute to the TIG (Work with your Research Manager and Chief Engineer)
- Serve on a Lead States Team
- Submit your agency's technology



How do I learn more?

www.aashtotig.org

Or contact:

Keith Platte, P.E.

Program Director of Materials and Product Evaluation

kplatte@ashto.org

202/624-7830

AASHTO

TECHNOLOGY IMPLEMENTATION GROUP



Thank you!