



# Summary of OAETG 5-year vision

#### **SINA VARAMINI**

OAETG, Chair Research and Development Manager, McAsphalt Industries Ltd.



#### **Ontario Asphalt Expert Task Group (OAETG)**

Established in Fall 2020 to satisfy specific mandates

- Brainstorm asphalt-related and emerging issues particularly on subjects of RAC and Mix Performance acceptance
- Identify improvements to binder and mixture specification and testing methods Ontario-specific climate and traffic conditions
- Act as an advisory group to recommend and/or perform asphalt research interests and needs
- Contribute to content development and organization of the Asphalt Technical Symposium (ATS)

#### **Ontario Asphalt Expert Task Group (OAETG)**

#### **Executive Committee Member**



Sina Varamini, Ph.D., P.Eng., Chair Manager, Research & Development, McAsphalt Industries Ltd.



**Pejoohan Tavassoti**, Ph.D., Vice Chair Senior Research Associate, University of Waterloo

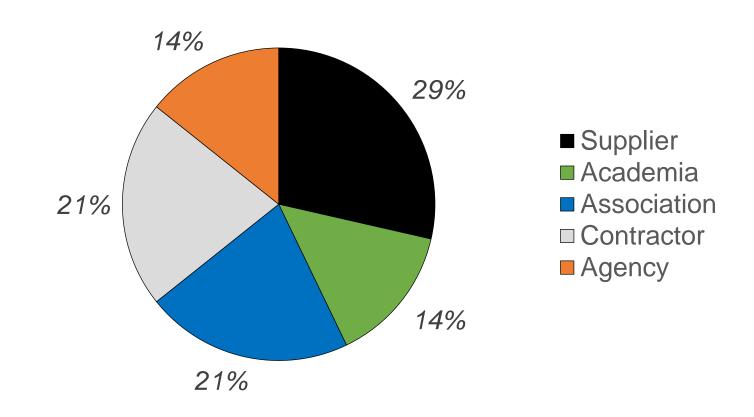


**Amma Wakefield,** MASc., P.Eng., Secretary Canadian Regional Engineer, Asphalt Institute



#### **Ontario Asphalt Expert Task Group (OAETG)**

Total of 14 Members





### **OAETG – Five Year Vision**

Bridge the knowledge gap in "Performance Testing methods and Acceptance"

Literature search on practice-ready performance thresholds

Develop a framework to execute industry-wide mix exchange program

*2021* 

*2022* 

*2023* 

*2024* 

2025

*2026* 

Short-term topics led by volunteers from this committee Few months time-frame to complete



Execute an industry exchange program on EMD/BMD

Results analysis [coarse-tuning]

Provide input to contract language/spec development, and quantifying suggested pay factor adjustment

*2021* 

LONG TERM

*2022* 

*2023* 

2024

*2025* 

2026

1-Year Distress Survey Threshold adjustments (if needed)

LONG TERM

Execute an industry exchange program on EMD/BMD

Results analysis [coarse-tuning]

Provide input to contract language/spec development, and quantifying suggested pay factor adjustment

1-Year Distress Survey Threshold adjustments (if needed)

Multi-Year field follow-ups

Utilize any upcoming changes on performance test methods – threshold adjustments [fine-tuning]

Create a performance database for contractual purposes and members

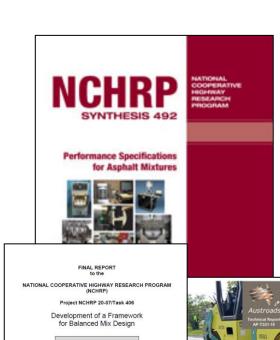


# **Completed Tasks**

Selected international publications reviewed, summarized, and presented by committee members

- 1. "Framework For Development Of Performance-related Specifications For Hot-mix Asphaltic Concrete" NCHRP Report 332

  Reviewed/Presented by A. Mneina (OGRA)
- 2. "Development of a Framework for Balanced Asphalt Mixture Design" NCHRP 20- 07/Task 406 Reviewed/Presented by P. Lubana (PNJ Consulting)
- **3.** "National Performance-based Asphalt Specification Framework" by Austroads Reviewed/Presented by Dr. Y. Alamdary (Coco Paving)
- **4.** "Performance Specifications for Asphalt Mixtures" NCHRP Synthesis 492 Reviewed/Presented by M.Farashah (York Region) & S.Salehiashani (UW)
- 5. "FHWA-NJ-2015-1010: Performance Testing for HMA Quality Assurance" Reviewed/Presented by M. Aurilio (Yellowline)
- 5. "The French Approach to Asphalt Mixture Design: A Performance-related System of Specifications" AAPT 2000 proceeding (Reviewed by F. Magisano)



Randy West
Carolina Rodezno
Fabricio Leiva
Fan Yin

r for Aschalt Technology at Auburn University

National Center for Asphalt Technology at Auburn University Auburn, AL

August 30, 2018

National Performance-based Asphalt Specification Framework



# **Completed Tasks**

ORBA members' Survey on Testing Capabilities

- Communicated by ORBA team
- Asphalt Mixture and Binder Testing Capability
  - Intermediate Fatigue Cracking
  - Rutting
  - Low-Temp Cracking
  - Overall Mixture Stiffness
  - Binder Testing (PG, and PG+)
  - Mix preparation (Gyratory, Slab, Coring/Cutting)



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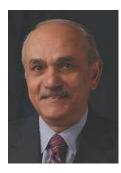
Survey of Performance Testing of Asphalt Mixtures – Members'
Testing Capability





# **Completed Tasks**

Committee meeting presentations to generate "owner-contractor" balanced expert review on short-term topics & Industry-Trends



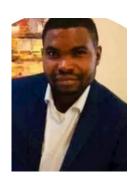
Responsible Use of RAP in Surface Mixes Prof. H. Bahia University of Wisconsin-Madison



Evaluation of Asphalt Mixture Cracking
Performance Tests at Full-Scale Pavement
Facility: Lessons Learned and Knowledge Gaps
Dr. M. Elwardany
Manager of the Asphalt Binder and Mixture
Laboratories at FHWA Turner-Fairbank Highway
Research Center



Review of OAPC-CPATT Study – RAC and Performance Testing Amma Wakefield Canadian Regional Engineer, Asphalt Institute



Lowering Gyrations in Superpave Mixes – An Ontario Perspective
Dr. D. Ambaiowei
Technical Director – ORBA/OAPC

#### **GET INVOLVED - JOIN US**

- Contact any of Executive Committee members to join
- Bi-Monthly Meetings
- Open forum discussing what matters in improving quality of asphalt mixtures

