

Meeting Notes

MTO-OAPC Hot Mix Asphalt Subcommittee

Date	February 26, 2026
Time	10:00 am to 1:00 pm
Meeting Hosted By	Ontario Ministry of Transportation (MTO)
Location	ORBA Roadhouse & Microsoft Teams

Attendance:

Attendee

Fernando Magisano
 Donn Bernal
 Alexis Del Rosario
 Sina Varamini
 Amma Agbedor
 Mark Latyn
 Ronald Abdul (for Hashim Anwar)
 Kevin Martin
 Joel Magnan
 Gelu Vasiliu
 Stephen Lee
 Heather Bell
 Sonja Dambremont
 Gizelle Cotton

Organization

Canadian Asphalt Industries Inc.
 Ontario Asphalt Pavement Council (OAPC)
 Ontario Road Builders Association (ORBA)
 CRM of Americas
 Asphalt Institute (AI)
 Capital Paving Inc.
 CRH Canada

 Fermar Paving Ltd.
 MTO, Engineering Materials Office (EMO)
 MTO, EMO
 MTO, EMO
 MTO, Construction Central
 MTO, Construction Northeast
 MTO. Construction East

Regrets

Trevor Moore
 Selena Lavorato
 Steve Manolis
 Dana McLachlin
 Kourtney Adamson
 Jenn Meleschuk
 Warren Lee
 Imran Bashir

Organization

COLAS Construction
 GIP Inc.
 GIP Inc.
 Morrison Hershfield
 Yellowline Asphalt Products Ltd.
 MTO, Construction Management Office (CMO)
 MTO, EMO
 MTO, EMO

Introduction / Announcements:

- MTO delivered a safety talk on refresher training.

Open Items

2019-12-8 Mix Performance Testing

Description:

- MTO to develop specification for Mix Performance Testing (MPT) that can be included on any project.
- OAPC wondering if MTO has preferred method for Balanced Mix Designs (BMD).
- MTO is conducting ongoing MPT lab correlations.

Discussion:

- MTO sent out Round 2 in January. Analysis is on-going. MTO has shared the mix properties from sample I.
- OAPC requested mix properties from all MPT correlation samples.
- OAPC is starting O-MAP round 4, it is just a desktop study. Currently, in the proposal step and may send invitation to MTO to request participation in this round.
- MTO is updating the LS methods for MPT to provide clarifications identified by laboratories performing these tests.
- OAPC suggested adding a note in the correlation analysis document to indicate the date these LS methods were implemented to help explain the differences in variation.
- OAPC asked if there are any provisions for HWT field cores to attain the height requirements by adding plaster.
- MTO is reviewing test methods in detail to reduce variability.
- MTO will post a notification if LS methods are updated on the TCP. No comments will be requested as they are administrative changes.

Action Items:

- MTO to provide mix properties for all MPT correlation samples.

2022-03-10 Environmental Product Declarations (EPDs) for Asphalt in Ontario

Description:

- As part of the net zero emissions goal, OAPC is seeking to understand MTO's perspectives on EPDs for Ontario asphalt mixes and forging a collaborative approach to make it work.

Discussion:

- Consultant has over 30 plants' data and is in the data scrubbing phase. 8 different mixes categorized, includes HL mixes too. Good distribution for each mix. Not broken out by region yet. Aiming for mid-March review with the consultant.

Action Items:

- None.

2022-05-13 SMA Applications – SMA Grit Specification Revisions

Description:

- OAPC suggests MTO can look at revising specification due to lack of grit sand sources available.
- OAPC indicated that there is variability in how Contract Administration (CA) firms accept gritting material on MTO contracts.

Discussion:

- MTO is finalizing SMA grit correlation data from last round. Trying to determine if specification requires a complete re-write or minor updates with a phased-in approach. Internal consultation is the next phase.
- MTO will continue with 2 rounds of SMA grit correlation per year. First round coming soon. Also, requirements for a 1000 g sample and the use of a 12 in sieve for SMA grit only to avoid overloading the sieve will be added to the LS.

Action Items:

- MTO to update LS-282.

2022-12-13 Additional OAPC Research Program Outline

Description:

- OAPC initiated a study in collaboration with Carleton University. The expected timeline to complete the study is 3 years.
- The study objective is to quantify the Green House Gas (GHG) emissions at asphalt plants. This study supports the move to net zero emissions.
- OAPC is also conducting an Ontario-Mix Asphalt Program (O-MAP) study on MPT.

Discussion:

- OAPC O-MAP study proposal is coming.
- This item is not needed since O-MAP study can be discussed under MPT.

Action Items:

- Close item.

2023-06-1 HMA Optimization

Description:

- Warm Mix Asphalt (WMA) coupled with higher Reclaimed Asphalt Pavement (RAP) combinations to reduce environmental impacts.
- OAPC wants to promote using recycled material.

Discussion:

- OPAC requested to close this item. Still need to distribute presentations from Fall Seminar.

- OAPC to send limits of York Region RAP trial to MTO to get ARAN data.
- MTO stated that measurements can be performed, and ARAN data shared with York Region.
- MTO to try to add it to the annual plan to measure it every year.
- OAPC wanted to discuss the regression method and agreed it should be a new separate item (see New Item 2026-02-2 below).

Action Items:

- OAPC to send presentation from Fall Seminar.
- OAPC to send limits of the projects to do ARAN.
- Close HMA Optimization item.
- New item created for Regression Method discussion.

2023-09-1 Balanced Mix Design

Description:

- OAPC wants to understand MTO's process on BMD.

Discussion:

- MTO trained 4 CCIL inspectors on February 12 and 13, 2026. These inspectors will be involved with auditing laboratories for Type G certification.
- OAPC held a BMD workshop where CCIL presented the Type G certification and timelines. Panel discussion with good information sharing. OAPC is working on a second round of this workshop and will ask MTO if they want to present. Looking at May 2026 for the next workshop.
- MTO asked if there will be a workshop or course on how to do BMD.
- OAPC responded at this time it is both and inquired if MTO would like to see industry led courses on BMD or MTO taught courses.
- MTO said mix design expertise is with OAPC, so BMD course should be done by OAPC.
- OAPC has already educated members on MPT but not a standalone course on BMD.
- MTO said OAETG did a good job but still needs to share their findings with members and laboratory technicians performing this work.
- OAPC said Asphalt Institute has a 3-day course for advanced asphalt mix technology including MPT and troubleshooting of test results and quality. This is specific to BMD. Truncated the mix design course portion since advanced but still need to discuss some fundamentals of mix design.
- OAPC said workshops are still valuable to inform members of what BMD and MPT are and their impacts. The course can also be taken to a lab in Ontario for training for ORBA.
- MTO asked if the course could be tailored to Ontario.
- OAPC said yes, it can be specific to the region.

Action Items:

- OAPC to share outline of BMD Asphalt Institute course with MTO for comments.

2023-09-3 OPSS 313 – Revisiting Quality Evaluation

Description:

- How can OAPC increase or strive for better quality in asphalt pavement?

Discussion:

- MTO investigated the statement that 1% increase in compaction results in 10% increase in life. All publications refer to a 1989 paper from Linden. Figure 3 “Pavement Life Reduction vs Air Voids” was shared by MTO and is based on data from the paper. Marshall mix was used at the time. MTO then presented Figure 1, with 2016 data from 55 pavement sections from New Jersey DOT. In which a linear relationship is applied across all levels of air voids. It implies that if compacted down to only 1% air voids still get a good service life. In Figure 2, MTO re-examined the data and identified 3 different zones. Under 93% compaction, the linear trend is consistent with the 1989 Linden paper. Between 93% and 95% compaction a parabolic trend was found, while higher than 96% showed a 1% increase in compaction results in a 10% loss in service life. This shows the importance of being within limits and raises the question, should the upper and lower compaction limits should be adjusted?
- OAPC said difference in air voids in design vs in-place. Looked at air void changes only 1-1.5% change in air voids. Superpave 5 came in to get more AC at 5% air voids. Are these studies initial compaction or final compaction? In the 1989 paper we don't know where cores were taken from and no ARAN available to determine performance. OAPC asked where MTO thinks compaction should be.
- MTO stated that the New Jersey DOT data suggested 93 to 97% compaction is ideal. However, MTO is going to look at compaction limits and do our own analysis. Need to look at our mixes, currently SMA requires 93 to 98% compaction and Superpave 12.5FC2 requires 92 to 98% compaction and all other mixes require 92 to 97% compaction. We need to determine how these limits were selected.
- OAPC asked what compaction we are getting in the field for MTO jobs.
- MTO has presented PWL of compaction to show 70% of lots had PWL of 96-100% for compaction. We did increase our lower limit for compaction based on MTO's past compaction data.
- OAPC said if compaction is not more important than other attribute then we should make all the attributes equal to 1. Another season of no incentive for compaction when we know if going to improve performance is not good. Don't need to reinvent the wheel and prove compaction is important when we already know it.
- MTO said don't go to referee for compaction much, so industry is getting compaction.
- OAPC said their members did slip a bit on compaction.
- MTO reiterated that the lower limit was increased in 2017 from 91.5% to 92% and may account for some of the reduction in PWL.
- OAPC already agreed that below 92% penalty because know lower than that impacts performance.
- MTO wants to look at higher compaction since it is a penalty too.

- MTO wanted to inform OAPC of the on-going work to justify the importance of compaction.

Action Items:

- MTO to continue analysis as planned.

2025-06-1 Change Proposals for RAP in Surface Mixes

Description:

- MTO is still interested in receiving change proposals for RAP in surface mixes but haven't been receiving these. Are asked about it internally. So, MTO has developed some guidelines for what the MTO would expect.

Discussion:

- MTO provided an updated Guideline for Change Proposals for RAP in Surface Mixes.
- MTO added clear expectation on restrictions to not request to add RAP to SMA and not on bridge decks. Also concerned that only one or two RAP samples would get tested, so increased frequency of sampling to 2,000 t instead of 10,000 t.
- Added information only testing for Micro-Deval Abrasion (MDA) and freeze thaw at the same frequency (every 2,000 t).
- OAPC asked if RAP can be added to shoulders.
- MTO wants trials exposed to traffic and that have the same pavement structure to collect the most valuable performance data on the inclusion of RAP. Maybe consider excluding shoulders in the next version of the guidelines. Members can still submit change proposals to add RAP to shoulders without the additional testing.
- OAPC questioned the 6 mm HWT requirement as tight for traffic category E mixes. Said can meet 6 mm if go over 15% RAP. It is doable, but hard to meet in a tight timeline, could take 2-3 months to do the balancing.
- MTO said this 6 mm is the target for BMD only, MPT of the production mix is for information only.
- OAPC questioned if they can talk to their members about RAP proposals to help them with change proposals.
- MTO reminded to bring this up before pre-pave as could take a lot of time to develop.
- OAPC would like to determine contracts ahead of time that may be suitable.
- MTO doesn't know where the RAP piles are, and which contractors would be interested. If OAPC wants to be proactive suggest they look at advertised jobs, who it is awarded to, and then OAPC can approach them about a RAP change proposal.
- OAPC to send out a memo to their members about the RAP guidelines and offer guidance.
- MTO mentioned that TAC is working on guidelines for the use of RAP. They have sent out a survey and enquired if OAPC members have completed the survey since OAPC is a paying member of this TAC project.
- OAPC said they haven't followed up on this and would add it to the memo to their members.

Action Items:

- None.

2025-09-1 Anti-Stripping Treatment Clauses

Description:

- Ongoing concerns regarding inconsistent application of anti-stripping treatment clauses in certain tenders.

Discussion:

- MTO is working on administrative changes to the specification to correct the typos. Meantime, MTO is also working to figure out why this is being added to contracts.
- MTO is looking into other anti-stripping tests.

Action Items:

- MTO to publish the updated specification on TCP.

2025-09-2 Update on the Harmonization Initiative

Description:

- ORBA/OAPC is seeking MTO's perspective on the harmonization initiative, as well as an update on the progress achieved to date.

Discussion:

- MTO provided the update that there is a posting on the regulatory registry currently and comments are due by March 30, 2026.
- MTO has posted on TCP to inform more people to go to the regulatory registry to submit comments.

Action Items:

- None.

2025-12-2 Warm Mix Implementation

Description:

- OAPC requested an update on warm mix implementation.

Discussion:

- MTO shared 2 graphs containing compaction of WMA contracts, one with plant temperatures and one with mat temperatures. There are concerns that emissions and plant temperature were not met. There are claims that compaction is improved by addition of WMA additive regardless of temperatures. Graph shows compaction is not always better with WMA. Graph of mat temperature vs compaction shows the same trend. Some cases HMA mixes had better compaction and few cases WMA better. Several projects where HMA and WMA performed the same. Still 1-1.5 years of WMA trials to collect more data.
- OAPC asked if there are there more WMA tenders coming this year.

- MTO said don't think any new ones coming, but focus is now on the awarded contracts that are not paved yet.
- OAPC asked if there is a study that shows pavements oxidize less with WMA.
- MTO mentioned that claims of oxidation are speculative at this point, and more studies need to be examined.
- OAPC asked if we can differentiate based on the WMA product used.
- MTO stated that there are too few products to share that data at this time. OAPC should be able to get this based on their members' data.
- OAPC asked what time of year the HMA is paved vs WMA. Maybe wrong dosage too.
- MTO mentioned that the HMA trial section is small and is to be paved right before the WMA.
- MTO found on old trials that WMA performed the same as HMA slightly better at joints; however, at the time the GHG reduction was not achieved nor the temperature reductions, due to the burners not being tuned. Despite this, a permissive specification was adopted; however, the temperature reduction and GHG reductions were not reached once again with burners still not being tuned and WMA was underbid by HMA, and industry claimed the quantities of WMA are not high enough to allow plants to stabilize to WMA temperatures. BITU0029 mandating the use of WMA was published and it included a list of approved WMA additives. Foaming and wax WMA additives did not perform well in the past so were not included in this specification.

Action Items:

- OAPC to discuss with their members why they are not getting compaction with WMA on some jobs.
- OAPC to find a plant to go see temperature monitoring after the next meeting.
- MTO to send list of things they want to see at the plant.

New Items

2026-02-1 Tack Coat

Description:

- Interlayer Shear Stress (ISS) test is required on all contracts for information only. MTO is conducting correlations.

Discussion:

- No ISS update.

Action Items:

- None.

2026-02-2 Regression Method

Description:

- Regression Method is a mix design method to increase AC content of mixes. OAPC is interested in why this method is not being adopted.

Discussion:

- OAPC requested update on regression method. Should it be pursued?
- MTO said it is an available tool and suggested closing the item.
- OAPC said if it is only an option it won't be used.
- MTO said in the northern regions there are some contractors that like it and some that don't.
- MTO stated that contractors get paid for the extra AC so that is not the reason they are not doing it.
- OAPC asked if it is possible to discuss why some like it and others don't. Determine if we want to promote or retire this methodology.
- MTO said some contractors that didn't like it haven't tried it in a long time, and experiences may be outdated. Ones that have success, have figured out how to do it and ERS looks good. At network level there may not be a significant difference in the performance.
- OAPC said it was introduced to address durability. Turnover in contractor staff may have forgotten about regression tool. MPT may have taken over this.
- MTO suggested that OAPC could survey members on the regression method to better understand members approach towards regression.
- OAPC said members won't go above and beyond the specification, so won't do it unless specified. If MTO wants regression it needs to be bid in to the contracts.
- MTO said it may be a competitive edge that contractors won't discuss. Could aid in compaction.
- OAPC asked if we could do MPT and regression at two AC contents. It's a portion of a BMD.
- OAPC offered to facilitate discussion on regression projects.
- MTO said it was a great idea for OAPC to survey members and create a list of regression contracts based on their members' information. Alternatively, OPAC can access the publicly available tender documents to find the regression method contracts.

Action Items:

- OAPC to survey members regarding regression.

Roundtable Discussion

- MTO reminded OAPC that their members should get all ERS Excel tabs issued in an INC as per CAIS 5.11 ERS Payment. The latest PH-CC-868-D, available on MTO's Technical Publications website, has a new visual guide tab to aid in the completion of the HMA ERS properly and can be used for all ERS HMA forms. OAPC members need to be proactive when they get an INC that they ensure they get all the data.

Also, reminded that the last page has AC price adjustment for amount of AC used in the mix vs the separate Price Index AC payment adjustment.

- OAPC asked if MPT core and plate samples can be entered into CMS.
- MTO clarified that they should be entered under MISX unless there is a specific AQA code available for it.

Action Items:

- OAPC for them to share reminders with their members.

Information Shared for this Meeting

Documents Share by MTO

1. 2024 HMA MTO I Information.pdf
2. Air Voids vs Service Life Figure 1.pdf
3. Air Voids vs Service Life Figure 2.pdf
4. Air Voids vs Service Life Figure 3.pdf
5. Guidelines for Evaluating RAP Change Proposal for Surface Course -Feb 18 2026.pdf
6. Plant_Mat Temp. vs PWL for Compaction.pdf
7. Plant_Mat Temp. vs PWL for Compaction – MAT Temp.pdf

Documents Shared by OAPC

1. None

Next Meeting

- 2026 Meeting Dates (10 am to 1 pm):
 - ~~Feb 26 (OAPC to host)~~
 - May 28 (MTO to host)
 - September 24 (OAPC to host)
 - December 10 (MTO to host)
- Meeting Adjourned 1:00 pm