

## OAPC-MTO HOT MIX TECHNICAL COMMITTEE MEETING MINUTES

**Date:** December 8, 2022

**Time:** 10:00 am to 12:00 pm

**Location:** Virtual meeting via Microsoft Teams

<b>ATTENDEE</b>	<b>ORGANIZATION</b>	<b>ATTENDEE</b>	<b>ORGANIZATION</b>
<b>Doubra Ambaiowei (DA)</b>	OAPC/ORBA	<b>Joel Magnan (JM)</b>	MTO
<b>Vincent Gangaram (VG)</b>	Dufferin Construction	<b>Gelu Vasiliu (GV)</b>	MTO
<b>Selena Lavorato (SL)</b>	GIP (formerly COCO)	<b>Giselle Cotton (GC)</b>	MTO
<b>Sina Varamini (SV)</b>	Engtec Consulting	<b>Heather Bell (HB)</b>	MTO
<b>Kevin Martin (KM)</b>	Fermar Paving	<b>Sonja Dambremont (SD)</b>	MTO
<b>Fernando Magisano (FM)</b>	Canadian Asphalt	<b>Stephen Lee (SL)</b>	MTO
<b>Trevor Moore (TM)</b>	COLAS Construction	<b>Warren Lee (WL)</b>	MTO
<b>Amma Wakefield (AW)</b>	Asphalt Institute	<b>Fiona Tam (FT)</b>	MTO

### REVIEW/APPROVAL OF PREVIOUS MEETING MINUTES/WELCOME AND INTRODUCTIONS

- **Previous Meeting Minutes** – sent November 2022. All other items are on the agenda for today

## OPEN ITEMS

ITEM #	ITEM NAME AND INFORMATION	ACTION BY
1.	<p><b>Safety Item</b></p> <p><b>To promote a safety culture, this is being implemented at each stakeholder committee by MTO</b></p> <ul style="list-style-type: none"> <li>• MTO received a Coroner's Inquest Jury report with 13 recommendations due to a death of worker in 2014 who was directing loaded dump trucks that were reversing up a ramp from an excavation. The worker was run over by a truck he was guiding, sustaining severe and immediate fatal injuries.</li> <li>• The Ontario Occupation Health and Safety Act (OHSA) provides detailed regulations governing construction projects. <ul style="list-style-type: none"> <li>○ When heavy equipment (such as a dump truck) is reversed on a construction site:</li> <li>○ Reversing should be minimized;</li> <li>○ The driver is guided by a competent flag person, as known as the signaler in the OHSA, who is performing no other tasks;</li> <li>○ The flag person communicates with the driver either by telecommunications device or pre-arranged signals; and,</li> <li>○ The flag person remains in full view of the driver, away from the path of the vehicle, and able to see the path over which the vehicle is reversing.</li> </ul> </li> <li>• One of the issues examined at this inquest is that the wording of the current regulations makes the flag person responsible for remaining in view of the driver but does not specify what a driver should do upon losing sight of the flag person.</li> <li>• Issues in preventability of the death included: <ul style="list-style-type: none"> <li>○ Regulations governing this work activity;</li> <li>○ Training of drivers for licensure;</li> <li>○ Planning of construction site and traffic plan, especially decision to reverse trucks up the long ramp;</li> <li>○ Site-specific training of workers who perform tasks together;</li> </ul> </li> </ul>	

	<ul style="list-style-type: none"> <li>○ Communication between drivers and flag persons during reversal; and,</li> <li>○ Necessity for driver to stop immediately if flag person no longer in view</li> </ul> <ul style="list-style-type: none"> <li>• To support the finding of the Coroner’s Jury, MTO wishes to reinforce the importance of flag person safety</li> <li>• Going forward, MTO proposed to keep a Safety Item at the start of each meeting</li> </ul>	
<p>2.</p>	<p><b>TACK COAT SPECIFICATION</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• In early 2020, MTO implemented an updated version of the tack coat specification. OAPC-MTO working group was established.</li> <li>• MTO continues to share ISS information with OAPC when available.</li> <li>• Specification published on MTO Technical Publication Site</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• From last meeting OAPC asked whether a Field Guide for visual assessment will be provided in the future. OAPC noted that it did not accompany the posting on TCP.</li> <li>• MTO notes that the Field Guide for Hot Mix Acceptance currently contains photographs of uniform and non-uniform application, for reference. OAPC would like future updates of the guideline to expand on providing more examples. MTO agrees in future updates, this suggestion will be considered and will reach out to Regional QA Offices for photos.</li> </ul> <p><b><i>ACTION – In the next update to the Field Guide for Hot Mix Asphalt and Waterproofing, MTO will add more photos of tack coat application</i></b></p>	<p>MTO</p>
<p>2.</p>	<p><b>MIX PERFORMANCE TESTING (MPT)</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• ORBA members were asked to take extra samples. Samples are for evaluating MPT. ORBA asked MTO for continued updates on progress. MTO currently conducting correlation testing.</li> </ul>	

- MTO to develop specification for MPT that can be included to any project.
- OAPC wondering if ministry has preferred method for balanced mix designs
- OAPC enquiring about Ideal CT, a consideration for Ontario?

Discussion:

- MTO provided latest round of lab correlation results to OAPC for their comments. OAPC requested a review of MTO's comments to current round results.
- MTO clarified a previous comment from OAPC that the number of labs participating in the correlation was not stated. The statement is incorrect and MTO has historically always provided this information.
- For the Hamburg Wheel Track Testing, data from 2021 was updated to include individual wheels, capturing rut depth at different level of passes. Rut levels now include up to 20000 passes, and air void content has been added.
- From the testing, it was noticed that at 10000 passes, most of the labs passed the testing however beyond that threshold, few labs were passing the test.
- MTO notes the next step in the study is to review the Coefficient of Variation (CoV) on a mix that is historically more successful at passing Hamburg Test. More data still needs to be collected.
- A discussion was held between MTO and OAPC regarding the CoV. OAPC notes that the CoV from this round was at 47% and inquired if this is due to different labs using various gyratory equipment for the testing. OAPC asked if MTO can provide the name of the manufacturer for the equipment. MTO confirmed all labs are using Pine and reporting the angle of gyration at 1.16 +/- 0.02. The only exception is one lab with an angle of 1.2 but this lab did not participate in the Hamburg Testing correlation. OAPC notes that at 47% CoV, almost half of the labs participating have specimens that had failed the test, and questioned the reliability of the Hamburg Test. MTO confirmed they will clarify for the next round of test result sharing, what the angle of gyration is reported at.
- OAPC inquired about the sample preparation for Hamburg Testing. MTO notes that all labs participating in the correlation must be CCIL certified, as an accredited lab is experienced in handling the specimens. No further procedures or detailed instructions need to be provided

	<p>as they are to follow standard lab procedures for preparing samples.</p> <ul style="list-style-type: none"> <li>• OAPC inquired if there is a precision and bias statement for the Hamburg Wheel Tracking Test in the procedures? MTO to review and confirm</li> </ul> <p><b>SCB and DCT Test Results:</b></p> <ul style="list-style-type: none"> <li>• 14 labs participated in the SCB Test and there were no outliers in the results. MTO reviewed the results for angle of gyration, air void content and CoV.</li> <li>• OAPC notes that 30% CoV is a better outcome compared to the Hamburg Test and perhaps there is less of an issue with the sample preparation. The SCB Test requires a core sample while Hamburg Test is performed on a gyrated sample.</li> <li>• OAPC notes the flexibility index is in line with other studies which Industry has reviewed.</li> <li>• OAPC commented that MTO may have established some preliminary min. and max. thresholds for MPT. MTO notes that further work needs to be done in collecting data from contracts as well as this study, before any conclusions can be drawn. MTO confirmed that MPT thresholds have not been established.</li> </ul> <p>OAPC members noted that in the previous meeting, it was agreed that contracts with MPT (info only) data can be shared. OAPC member had attempted to collect the data but was not successful for some contracts.</p> <ul style="list-style-type: none"> <li>• MTO reiterated that MPT is only on select contracts and prior to making the request, members need to confirm if MPT is a requirement. Furthermore, results are electronic however they may not be correctly filed on WBCMS. MTO prefers that members reach out to the Contract Administrator first and if assistance is needed, then request specific contracts with MPT from the Bituminous Section.</li> </ul> <p><b><i>Action – MTO will send out letters to all participants in HM and MPT correlations – mandating reporting of angle of gyration and certificate of calibration according to AASHTO T312</i></b></p>	<p>MTO</p>
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	<p><b>Action – MTO to clarify if there is a precision and bias statement for the Hamburg Wheel Track Testing procedures</b></p>	<p><b>MTO</b></p>
<p><b>3.</b></p>	<p><b>REGRESSION METHOD TRIAL CONTRACTS</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• Status update on the regression mix design method trial contracts.</li> <li>• Regression method is a way to add more AC into asphalt mixes.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC raised concerns that they are hearing not many members are opting into the regression method of mix design. OAPC inquired if MTO can advocate to the Regions in order to promote more contracts to use Regression Method. MTO noted that regular meetings are held with the Regions where this is requested however, it is still approved on a case-by-case basis to include where appropriate. There have not been any comments where the Regions are opposed this regression method.</li> </ul> <p><b>No Action</b></p>	
<p><b>4.</b></p>	<p><b>REDUCING # OF GYRATIONS for CAT. E &amp; D MIXES</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• MTO is looking at reducing the number of gyrations for Category E and D mixes as another way to increase AC content. Suggested study is to review reduction of gyration from 125 to 100 for Category E mix, and from 100 to 85 gyrations for Category D mix.</li> <li>• OAPC Lab performance testing on a traprock mix is complete, with draft of findings being reviewed for CTAA conference submission. Findings generally support the ORBA Quality of Asphalt recommendation to increase AC contents in Ontario mixes by 0.5 – 1.0%. The 0.3% AC increase seen from reduced gyrations on the traprock mix, is consistent with earlier trials completed on a granite type mix.</li> <li>• The traprock mix met or exceeded all performance thresholds for rutting and cracking, with a general trend of improved performance with increasing AC</li> </ul>	

	<p>content; particularly at the lower and upper limits of the optimum AC. The performance at optimum AC needs further review. At this time, variation in specimen air voids is the only viable interpretation.</p> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC presented at 2022 Fall Asphalt Seminar “Lower Gyration and the Impact on Mix Durability”</li> <li>• Overall the testing was successful with minor concerns on the performance when increasing AC content and the impacts to air void content. OAPC stated these areas can be explored in further studies and is interested in reviewing “greener” mixes. OAPC inquired if MTO still is interested in this study.</li> <li>• MTO’s position is there is interest but points to limited data from the Study. Furthermore in the data provided in the publication “Asphalt Topics” MTO noted there was some bias when comparing SCB/ DCT and more information needs to be provided (i.e. confirm if AC Content can be verified in QA labs by extraction). MTO also suggested if the traprock mix had successfully passed the mix performance testing, perhaps it can be used by OAPC in their correlation.</li> </ul> <p><b><i>ACTION – OAPC to continue testing</i></b></p>	<p><b>OAPC</b></p>
<p><b>5.</b></p>	<p><b>END RESULT SPECIFICATION (ERS) REVIEW of FINANCIAL ADJUSTMENT AND CPR IMPACTS</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• This item is included as a placeholder at OAPC’s request.</li> <li>• MTO has met with executive level of ORBA and MTO has provided a clear response to industry at that level. This is the anticipated direction for the near future, and any discussions of this committee are to take place within that context.</li> <li>• OAPC inquired about the ERS pay factor adjustments. OAPC inquired if MTO would consider bringing back bonuses. MTO indicated that there is no known intention to do so. OAPC position is the original standard deviation curves included bonus payments to</li> </ul>	

	<p>contractors and with the removal of bonuses, the curves should be adjusted.</p> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• OAPC inquired about the ERS pay factor adjustments. OAPC reiterated the review objective is to ensure that payment penalties are fair to contractors and should be adjusted to be representative of the quality of asphalt mix supplied.</li> <li>• MTO noted after the 2016 AG Report, all ERS parameters were reviewed in conjunction with the requirements for other jurisdictions to ensure fairness.</li> <li>• OAPC noted that historically with the continual development of OPSS 313, adjustments were made to specification limits and standard deviation curves. Since the AG Report, this has halted. As a result adjustments for payment no longer fairly reflect the asphalt quality.</li> </ul> <p><b><i>ACTION ITEM – MTO to provide response regarding reviewing ERS payment adjustment curves.</i></b></p>	<p><b>MTO</b></p>
<p>6.</p>	<p><b>MTO TECHNICAL CONSULTATION PORTAL</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• OAPC would like to provide recommendations for TCP.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• In previous discussion, there were concerns raised by OAPC about several decision notices posted without consultation. MTO acknowledged the incident was due to a system glitch. This has now been corrected and a staff members have been asked to monitor each posting.</li> <li>• There was some confusion about the TCP process.</li> </ul> <p><b><i>Action – MTO to confirm if there is a TCP Guideline with processes that may be shared with OAPC</i></b></p>	<p><b>MTO</b></p>
<p>7.</p>	<p><b>ENVIRONMENTAL PRODUCT DECLARATIONS (EPD'S) FOR ASPHALT IN ONTARIO – MTO'S POSITION?</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• As part of the net zero emissions goal, OAPC seeking to understand MTO perspectives on EPD's for</li> </ul>	



	<p>Ontario Asphalt Mixes and forging a collaborative approach to make it work.</p> <ul style="list-style-type: none"> <li>• MTO in receipt of documents related to EPD and it is under review. Review requires consultation with other offices (i.e. MTO Climate Change Office).</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO acknowledged that the requirements for EPDs have not been incorporated into specifications but recognizes the need to stay aware of these initiatives in preparation for any future mandates.</li> <li>• OAPC will continue to stay aware of the requirements such that Industry is prepared for future implementation.</li> </ul> <p><b>No Action</b></p>	
<p>8.</p>	<p><b>CONSULTATION REVIEWS IN PROGRESS</b></p> <p><b>1) OPSS 510 Specification</b></p> <p><b>2) Cross Slope Tolerances</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• MTO interested in more precise milling operations when the road is being shaped by variable milling. Two specifications amending OPSS 510 developed and posted on TCP for comments.</li> <li>• MTO developed a specification to address cross slope tolerances and acceptance criteria that was sent to TCP for comment.</li> <li>• <b>NEW</b> CAIS for specification has been published</li> </ul> <p><i>Discussion:</i></p> <p><u>OPSS 510</u> No discussion</p> <p><u>CROSS SLOPE TOLERANCES</u> OAPC inquired if additional language will be included into the cross slope specification, rather than reliance on supplementary documents (i.e. CDED) for clarifications. There is concern that information from additional documents will be missed.</p> <p>MTO acknowledged that there is ongoing work to review the specification language and its implementation including:</p>	

	<ul style="list-style-type: none"> <li>• Review of how automated measurements compare to manual measurements, and the high degree of variance between the results</li> <li>• Review of specification language and overall workability of the requirements</li> </ul> <p>To conclude, OAPC thanked MTO for considering the workability of the specification. This item will stand as trials continue and there is also a separate conversation ongoing at executive level</p> <p><b>No Action</b></p>	
<p>9.</p>	<p><b>MTO'S GREENPAVE RATING SYSTEM</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• Ministry provided a presentation on GreenPave and OAPC would like to see some updates to the rating system for asphalt to make the rating more applicable and fair.</li> </ul> <p><i>Discussion:</i></p> <p>Current OAPC's Trillium Award program contains an Environmental Practices Guide with a checklist of items used to encourage producers of asphalt to meet requirements. OAPC noted the checklist has not been factored into the GreenPave System. OAPC looking to incorporate the requirements within GreenPave into the guideline.</p> <p>OAPC notes the Environmental Practice Guide is under review internally by an Environmental Subcommittee. Their target is to complete the final guide by next meeting.</p> <p><b>No Action – Standing Item</b></p>	

10.	<p><b>SMA Applications – Grit Sand Specification Revisions</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"><li>• OAPC is looking to see if the ministry can look at revising specification due to lack of grit sand sources available.</li><li>• *NEW* Grit Sand information from recent contracts provided by Regions is under review</li></ul> <p><i>Discussion:</i></p> <p>MTO provided an update that they have received the information from OAPC. The data is being cross reviewed against MTO contract data. Some safety aspects which are important in the review include changing performance of pavement from a finer gradation, and it's implication to friction, temperature of compaction, AC%, etc. More information will be shared once an analysis is done and a future trial may be required.</p> <p><b><i>No Action – MTO to continue study</i></b></p>	
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<p>11.</p>	<p><b>Developments from OAPC – 2022 ATS &amp; MTO Feedback</b></p> <ul style="list-style-type: none"> <li>• <b>The OAETG O-MAP Study &amp; Next Steps</b></li> <li>• <b>PAV DSR Criterion</b></li> </ul> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• OAPC seeking feedback on the 2 presentations from the Asphalt Technical Symposium (ATS)</li> </ul> <p><i>Discussion:</i></p> <p><u>OAPC: The OAETG O-MAP Study</u></p> <p>OAPC shared that the Phase 2 O-MAP Study funding was approved. Samples have been collected and distributed to 9 Labs. The focus of this round of testing will be on the Hamburg Test with samples gyrated to 60mm &amp; 115mm in height. The top portion of the sample and fractured surface will be tested. Also SCB/DCT Testing will be carried out with test procedures and temperatures established by MTO. Depending on the findings from this round, the lab study will be adjusted.</p> <p>The goal is to have results by February 2023, with a draft report provided to MTO for comments shortly after. Information from the Study will be presented at the ATS conference in June 2023.</p> <p><b><i>No Action – OAPC to continue testing</i></b></p>	
<p>12.</p>	<p><b>Smoothness Specification – Future Changes</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• MTO wants to review the current smoothness specification and the list of exemptions for existing pavements.</li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• MTO noted that currently projects have excluded entire lanes from smoothness measurements due to the tie-in exemption. MTO clarified that the section they would like to review is 8.01.02 Paragraph F.</li> <li>• OAPC inquired if any proposed changes were included in the recent publication on TCP. MTO confirmed no changes were included.</li> <li>• MTO noted in new major expansion projects, there needs to be consideration for tie-in of smoothness. The matching existing surface adjacent to these projects have high roughness and should not serve as a baseline for new pavement. Additional work is being considered (i.e. pre-milling adjacent pavement</li> </ul>	

	<p>to match new construction). Furthermore, the specification should be updated to reflect advancements in technologies.</p> <ul style="list-style-type: none"> <li>• OAPC supports the review and suggested that a working group can be considered to expedite the process.</li> </ul> <p><b>No Action – Standing Item</b></p>	<p><b>OAPC</b></p>
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**NEW ITEMS**

ITEM #	ITEM NAME AND INFORMATION	ACTION BY
<p><b>13.</b></p>	<p><b>Additional OAPC Research Program Outline</b></p> <p><i>Background:</i></p> <ul style="list-style-type: none"> <li>• 2022 Fall Seminar is scheduled for December 1<sup>st</sup></li> </ul> <p><i>Discussion:</i></p> <ul style="list-style-type: none"> <li>• In addition to commitments of the O-MAP Study, OAPC is initiating another study in collaboration with Carleton University aimed to quantify greenhouse gas emissions at asphalt plants. The objective is to move to net zero emission and some other areas that will be reviewed include incorporating higher % of RAP in asphalt mixes. OAPC noted the study timeline is 3 years and is currently awaiting funding approval.</li> </ul> <p><b>NO ACTION ITEM</b></p>	
<p><b>14.</b></p>	<p><b>2023 Council Events</b></p> <p>OAPC provided the scheduled to 2023 events which include:</p> <ul style="list-style-type: none"> <li>• Partners in Quality Road Tour – to be held on April 4<sup>th</sup> (London), April 6<sup>th</sup> (GTA), April 11<sup>th</sup> (Ottawa) and April 13<sup>th</sup> (Sudbury);</li> <li>• Asphalt Technical Symposium will be held on June 13<sup>th</sup> (location TBD). There may be an asphalt plant visit planned, and will likely be held on June 12<sup>th</sup> (location TBD);</li> <li>• Fall Asphalt Seminar will be held on November 30<sup>th</sup> (location TBD)</li> </ul>	

	<p>OAPC encourages MTO to participate in all events and provided dates early so they may seek approvals.</p> <p><b>No Action</b></p>	
15.	<p><b>MTO Participation at 2022 CTAA</b></p> <p>OAPC noted MTO was not present at 2022 CTAA (in Kelowna) and inquired about participation in the 2023 CTAA (in Charlottetown, PEI)</p> <p>MTO clarified that out of province travel requests require approval from Premier’s Office and recently, it has become difficult for staff to be granted approval. MTO will continue to put forth strong business cases and is committed to participate when possible.</p> <p><b>No Action</b></p>	
16.	<p><b>Subcommittee Terms of References</b></p> <p>As part of the response to the 2016 OAGO to MTO, TORs are prepared for all stakeholder subcommittees. This document speaks to mandates, memberships, meeting frequencies and processes. A draft copy of the TOR for this subcommittee was provided to OAPC for their review. OAPC confirmed receipt and will provide any comments shortly.</p> <p><b>Item closed</b></p>	
17.	<p><b>Roundtable</b></p> <p><b>No item</b></p>	
18.	<p><b>NEXT MEETINGS</b></p> <p>Initial 2023 meeting dates proposed were all on Fridays. Due to conflicts, new dates have been suggested post meeting, which are:</p> <ul style="list-style-type: none"> <li>- Meeting #1 (OAPC Host): <b>Thursday, March 30<sup>th</sup></b></li> <li>- Meeting #2 (MTO Host): <b>Thursday, May 18<sup>th</sup></b></li> <li>- Meeting #3 (OAPC Host): <b>Thursday, September 21<sup>st</sup></b></li> <li>- Meeting #4 (MTO Host): <b>Thursday, December 7<sup>th</sup></b></li> </ul> <p>All meeting scheduled from 10 am - 1 pm</p>	

	<b>Action – All parties to confirm if new 2023 dates are viable</b>	<b>MTO</b>
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