AMENDMENT TO THE

2017 CONSTRUCTION ADMINISTRATION AND INSPECTION TASK MANUAL (CAITM) Part A

March 2018

Summary of Changes in 2018 March CAITM Amendment Part A

A. Changes to the following section and sub-section are related to MTO general CAITM updates:

- **1.2 ADMINISTRATION USING WBCMS**
- **2.1.11 Sampling and Material Testing**
- **2.1.12 Year-end Summaries**
- **2.1.13 Off-Site Inspection of Structural Items**
- **2.1.12 Year-end Summaries**
- **3.1.4 Pre-Paving Meeting**
- **3.1.8 Pre-fabrication Meeting for Precast Concrete Elements**

B. Changes to the following sections and sub-section are related to the elimination of quality verification services:

- **2.1.13 Off-Site Inspection of Structural Items**
- **3.2 Submission Review Responsibilities and General Administration**
- **3.6 Assessing Compliance to the Quality Processes**

Section '1.2 ADMINISTRATION USING WBCMS' is deleted in its entirety and replaced with the following:

Web-Based Contract Management Services (WBCMS) means the MTO's browser based solution that provides an electronic means to record, collect, transmit and store "contract data".

WBCMS shall be used to administer "contract data". After award of an assignment, submissions of deliverables shall only be accepted by MTO through WBCMS.

WBCMS is replacing paper submissions therefore when the electronic equivalent record is available for use, as directed by MTO, it is mandatory to fill all necessary data fields and attaching a scanned paper version is not acceptable. When the electronic equivalent record is not available for use, the Service Provider shall complete and attach the MTO form, as directed by MTO, within WBCMS.

Additional details can be found in the CA Agreement (RFP/RFQ).

Sub-section '2.1.11 Sampling and Material Testing' is deleted in its entirety and replaced with the following:

2.1.11.1 General

Material sampling and testing shall be according to the Contract Documents, CAITM, Field Guide for the Acceptance of Hot Mix Asphalt and Bridge Deck Waterproofing, and Directives Memoranda.

The Contractor shall obtain, in the presence of the CA or a designated representative, all samples to be tested by the Owner or the Owner's agent for:

a) Quality Assurance Testing
b) Referee Testing; and
c) Other testing requested by the Owner

Multi-component systems, such as structural steel coatings, field reacted polymer pavement markings and two-part epoxies, shall be sampled as per Contract Documents and shall be delivered together.

The Owner may take samples for its own purposes at any time from any location.

2.1.11.2 Referee Testing

Referee Testing may be invoked by the Contractor provided that the associated contractual conditions have been met. The Contractor shall identify in writing the material and specific property or properties, attribute(s) and lot or sublot(s) for which the referee testing is being requested.

The Contract Administrator shall coordinate the referee request as follows:

1. Confirm that the Contractor has met the timeframes to request referee as detailed in the Contract Documents.
2. Obtain a referee testing request form from the MTO's Registry, Appraisal, and Qualification System (RAQS) at www.raqs.merx.com.
3. Complete the referee request form in accordance to the Contractor's request and send to the appropriate Quality Assurance Officer (QAO) for the Contract. Include all pertinent data required to complete the referee testing, e.g., Gsb, briquette mass, and re-compaction temperature. The QAO will provide the next referee laboratory and contact information from the appropriate MERO referee roster.
4. Contact the referee laboratory to inform them that they have been selected as the referee laboratory and communicate the quantity of samples and testing required verbally. If the referee laboratory cannot carry out the referee testing in a reasonable timeframe, inform the appropriate QAO of this issue, who will provide another referee laboratory from the MERO referee roster.
5. Contact the Regional Quality Assurance Laboratory for this Contract and instruct them to ship the referee samples within a reasonable timeframe to the referee laboratory.
6. Once the schedule for the referee testing has been set with the referee laboratory, issue an Instruction Notice to the Contractor (include the QAO) with the details of the referee laboratory, dates and times. The CA shall confirm that the notification is a minimum three (3) Business Days in advance of the date and time for Referee Testing. Provided that such notice is given, Referee Testing shall be carried out regardless of the absence of observers.

The referee laboratory will issue the resulting referee test results to the CA, which will be used for final evaluation and payment of the material refereed.

The CA will forward the referee results and final payment adjustment to the Contractor.

The CA will forward the referee results together with a cover letter to the applicable QAO for the Contract.

Note: This protocol should be confirmed with the QAO for amendments or additional requirements.

2.1.11.3 Other Testing Requested by the Owner

When other testing is requested by the Owner, the CA arrange for the Contractor and the CA to furnish all reasonable assistance to the Owner.

2.1.11.4 Location of Sampling

The CA is responsible for determining the random location of sampling for all samples

to be tested, noting any restrictions as specified in the Contract Documents. The frequency of testing shall be according to the requirements specified in the Contract Documents.

The CA shall make certain that the Contractor uses a covermeter capable of detecting the reinforcing material(s) in the component to establish the location of reinforcement in all concrete components prior to coring. Steel reinforcement, non-metallic reinforcement, and other embedded material shall be avoided while coring concrete.

The CA shall contact the QAO regarding steel reinforcement or other embedded material prior to undertaking or eliminating coring.

2.1.11.5 Sampling and Witnessing

All samples shall be obtained in the presence of the CA or a designated representative. This includes where off site sampling or inspection locations are specified in the Contract Documents (eg. PGAC at hot mix plants, precast plants, etc.). Once samples are taken, the CA shall maintain custody of the samples and keep the samples in their presence at all times. Samples shall not be left unattended or in the care of the Contractor.

The Contractor shall supply all the sample containers as specified in the Contract Documents. All containers used for samples of material controlled under WHMIS shall be appropriate for the materials being shipped.

The CA shall monitor the Contractor’s operation to check that sampling techniques are according to the Contract requirements and inspect all samples to make sure they are the proper size, weight and volume and free of any damage or contamination.

All samples shall be properly packaged by the Contractor, in the presence of the CA, to minimize risk of damage during transport. The CA should not accept samples unless satisfied that they have been properly packaged.

2.1.11.6 Sampling and Supplying of Bearings

When strip bearings have been specified for precast boxes placed side-by-side, the CA shall make sure that the bearing strip supplied is at least 600 mm longer than required. The sample shall be cut from one end of the strip bearing, in the presence of the CA, in the field.

When elastomeric bearings have been specified, the CA shall make sure that all bearings are available for sampling either at the project site or at a location acceptable to the CA.

All sample bearings for testing purposes shall be selected by the CA from all the

bearings of each size and thickness fabricated for the Contract according to the requirements specified in the Contract Documents. The CA shall advise the Contractor, by Instruction Notice, which bearings have been selected for testing.

2.1.11.7 Sample Labelling and Identification

All samples shall be clearly labelled according to the requirements specified in this section and the Contract Documents.

All samples, including those handled by a commercial carrier, shall be accompanied by:

- a security seal (label or tag) which shall include a unique number for identification purposes
- WHMIS labels according to the applicable Dangerous Goods Legislation
- relevant Safety Data Sheets supplied by the Contractor
- additional documents, such as mill certificates, material weight tickets, as specified elsewhere in the Contract Documents

Sample identification shall include all information as required by this document and Contract Documents (for example: Date Sampled, Contract Number, Lot/Sublot Number, Location or Station of Sampling, Material Sampled, etc.).

Once the CA determines that the sample is acceptable for delivery, the CA shall review the sample data information, as submitted by the Contractor, and enter the additional sample data information. Below are some examples:

a) Testing code
b) Security seal reference number
c) Regional Quality Assurance Laboratory

2.1.118 Application of Security Seals

The CA is responsible to retain possession of all bags and seals, and to properly apply security seals onto sample bags.

The sample can be placed in the plastic security bag once the sample has been taken and is properly packaged by the Contractor. Separate bags must be used for each portion of a duplicate sample and each of these bags shall be sealed with a different security seal. The CA/Inspector shall apply the security seal once the sample is in the bag.

Security bags and seals shall be used for the following samples:

a) Hot Mix Bulk QA and referee samples
b) Hot Mix compaction core QA and referee samples
c) Hot Mix thickness cores
d) CIR and CREAM bulk samples
e) CIR and CREAM compaction slabs and cores
f) HIR Bulk QA and referee samples

g) HIR compaction core QA and referee samples
h) HIR thickness cores
i) PGAC and asphalt cement QA and referee samples
j) Emulsion QA and referee samples
k) Release agent
l) Soils, Aggregates and Granular QA and referee samples
m) Soils, Aggregates and Granular physical properties QA and referee samples
n) Open Graded Drainage Layer aggregate QA and referee samples
o) Open Graded Drainage Layer core QA and referee samples
p) Geotextile QA and referee samples
q) Cement, supplementary cementing materials and limestone filler
r) Admixtures and water for concrete
s) Curing compound
t) Concrete Cores
u) Salt-scaling slabs
v) Waterproofing
w) Pavement Markings

Samples not requiring security bags and seals shall require a security seal (label/tag) with a unique number for identification purposes, to be provided by the regional QA section. These samples include but are not limited to concrete cylinder samples, steel reinforcement, elastomeric bearings, etc.

Security bags and seals may be applied to other types of samples in special circumstances at the direction of MTO.

MTO security bags and seals are supplied by the Regional QA Section. At the end of the Contract, the CA shall account for and return all unused MTO sample bags and security seals to the regional QA Section.

2.1.11.9 Sample Storage and Delivery by the Contract Administrator

The CA is responsible to deliver all samples identified in SP No. 199F57 to the designated laboratory (regional quality assurance laboratory or Materials Engineering Research Office (MERO)), according to the Contract Documents, and the CAITM. All samples delivered to MERO shall be delivered to the following address:

Ontario Ministry of Transportation
Materials Engineering and Research Office
Shipping and Receiving
145 Sir William Hearst Avenue
Downsview, ON M3M 0B6

The samples to be delivered to MERO include but are not limited to:

- Additional aggregate and hot mix samples taken for QA purposes, at the discretion of MTO, for Superpave 12.5FC1, Superpave 12.5FC2, SMA9.5, and SMA12.5

aggregates. These samples shall be shipped, no later than one (1) Business Day from the date of sampling to MERO Soils and Aggregates section.
- Open Graded Drainage Layer core samples shall be delivered to MERO Soils and Aggregates section's laboratory.
- Geotextiles shall be delivered to MERO Soils and Aggregates section.
- Performance Graded Asphalt Cement (PGAC) samples shall be delivered to MERO Bituminous section's laboratory in accordance to Table 2 of SP 111F09.
- Pavement Marking and Structural Coating materials shall be delivered to MERO Concrete section.
- Salt-scaling Slabs for precast concrete components such as box culverts and retaining soil systems shall be delivered to MERO Concrete section.
- Cementing Materials, Limestone Filler and Reinforcing Steel shall be delivered to MERO Concrete section.
- Bridge Deck Waterproofing, Protection Board, Primer, Non-woven Reinforcement, Hot Poured Rubberized Asphalt Joint Sealant, Expansion Joint Seals, Elastomeric/Rotational Bearings and Plain Bearings (Approach Slab Bearings, Ballast Wall Bearings) shall be delivered to MERO Concrete section.

The CA shall take and maintain possession of the samples from when they are taken by the Contractor until they are received by the testing laboratory. Maintaining possession of the samples would not preclude the use of commercial/third party carriers as long as they are not associated with the Contractor. The third party carrier would be an extension of the CA.

Samples shall be delivered in a suitable testing condition with a security seal label including a unique number for identification purposes, Safety Data Sheets supplied by the Contractor, and WHMIS labels according to the applicable Dangerous Goods Legislation within the time limits and locations specified in the Contract Documents. If the time limits or locations for delivering samples are not specified elsewhere in the Contract Documents, then the samples shall be delivered by the CA according to the time limits and location specified in the RFP/RFQ.

All samples shall be securely stored and transported in such a manner to protect the samples from damage and contamination. Further, all samples shall not be subjected to freezing temperatures at any time and in the case of asphalt cores temperatures shall not exceed 40 degrees Celsius. Considerations include:

- Maintaining the samples in a dry environment (or in such condition as specified in the Contract Documents)
- Not exposing samples to direct ultraviolet light
- Avoid jarring, rolling or hitting samples

The CA shall normally deliver samples during normal business hours. Normal business hours are deemed to be from 8:00 a.m. to 5:00 p.m., Monday through Friday. Where a sample has to be delivered outside these hours, the CA shall give the laboratory one full

Business Day notice. The CA shall sign the testing laboratory's records to confirm the date and time of delivery.

The regional QA laboratory will be designated by the Owner. Sample delivery time to the laboratory and maximum distance to the QA laboratory are identified in the RFP/RFQ.

2.1.11.10 Sample Delivery by the Contractor

All samples are to be delivered in a timely fashion, free of any damage or contamination, in a testable condition with proper identification (e.g. Contract number, date sampled, material type, lot, sublot, contact person, etc.). Safety Data Sheets and WHMIS labels shall be included with the sample(s) according to the applicable Dangerous Goods Legislation (supplied by the Contractor). The CA is to review deficiencies in these operations as identified by the CA's staff or the laboratory and take appropriate action if problems arise.

When the Contractor is responsible for delivery of the samples to the designated laboratory, the Contractor shall be responsible for any samples that are deemed to be "non-conforming". This could include samples that are lost, damaged, contaminated, do not conform to Contract Documents (e.g. incorrect sample size/weight), or delivered outside the timelines specified in the Contract Documents.

When the Contractor delivers samples deemed unsuitable for testing by the laboratory or the Owner, the Contractor shall be responsible for all costs associated with obtaining new samples and delivering them to the designated laboratory.

The CA shall confirm that all the required samples have been delivered to the appropriate laboratory for testing.

2.1.11.11 Contact with Laboratories

The CA must provide the laboratory with the pertinent Contract details (Contract number, WP number, phone and fax numbers and e-mail addresses for CA and for Contractor) as well as all pertinent information which affects testing procedures (hot mix re-compaction temperatures etc.). The CA shall clearly indicate what samples are to be tested and the specific tests required.

The CA shall investigate all sample non-conformance identified by the QA laboratory, and shall provide written direction to the QA laboratory to resolve the problems(s) in a prompt and efficient manner on the form provided. The CA is responsible for communicating such instances to MTO staff (e.g. CSA, Head of QA and QAO) as appropriate, and taking further administrative action as may be required by the Contract Documents.

The CA should liaise directly with the laboratories on routine matters as required, however, issues related to the performance of the Regional Quality Assurance Laboratory and/or MERO testing laboratories (e.g. turnaround times and quality of results) or any other related concerns shall be brought to the attention of the CSA, Head of QA, and QAO. Although most QA testing is done by the Regional Quality Assurance Laboratories, some specialized materials testing is conducted through MERO as listed below. MTO may add other samples as required.

Bituminous:
Additional samples of asphalt mix or asphalt cement
Additional Samples of Aggregates, Asphalt Mix or RAP

Concrete:
Portland Cement, Limestone Filler, Hydraulic Slag or Fly Ash Material Quality
Salt-scaling Slabs
Latex Modifier Quality
Post Tension Cables
Shotcrete Cores
Bridge Deck Waterproofing and Protection Board Quality, Primer, Non-woven Reinforcement
Hot Poured Rubberized Asphalt Joint Seal Quality
Expansion Joint Seals
Elastomeric/Rotational Bearings
Plain Bearings (including Approach Slab Bearings, Ballast Wall Bearings)
Structural Steel Coating Material Quality
Metal Wire Galvanizing
Galvanized Steel
Steel Reinforcement
Mechanical Connectors
Traffic Paint Quality (not thickness)
Glass Beads Quality
Thermoplastic Pavement Markings
Field Reacted Polymer Pavement Marking
Pre-formed Pavement Marking Tape

Soils & Aggregates:
Geotextile Quality
Additional Samples of Aggregates, Asphalt Mix or RAP

Foundations:
Wick Drains
Expanded Polystyrene
Geogrids
Slag

2.1.11.12 Maintaining a Log of All Samples

A log shall be maintained of all the samples delivered to the laboratories. This log shall include:

a) Type of sample
b) Quantity
c) Security seal (label/tag) with a unique number for identification purposes
d) Lot and sublot numbers as applicable
e) Sample location
f) Date sampled
g) Name of all persons witnessing sampling (CA and/or Contractor's staff);
h) Date shipped and method of shipping
i) Date the samples were received by the laboratory; and
j) Date the test results were received from the laboratory.

2.1.11.13 Review of Concrete and Asphalt Mix Designs

2.1.11.13.1 General

The CA shall review all concrete and asphalt mix designs (including cold in-place recycling mix designs) for compliance with the Contract Documents.

2.1.11.13.2 Asphalt Mix Designs

The asphalt mix design package, including the independent Superpave Mix Design check/one point mix check, shall be completed together with a summary of the review indicating compliance of the design within four (4) Business Days of the design being properly submitted by the Contractor.

2.1.11.13.3 Concrete Mix Designs

It is the Contractor's responsibility to ensure that Form A is acceptable and Form B is submitted prior to the placement of concrete. Should the Contractor choose to place concrete without a Form A being submitted in accordance with the Contract, the Contractor shall be subject to a major deviation. Should the Contractor choose to place concrete without a Form B being submitted in accordance with the Contract, the Contractor shall be subject to: a minor deviation for a late but correct submission, a major deviation for late and incorrect submission. Repeated non-compliance may be subject to the MTO Infraction Report process.

The CA must determine whether an acceptable Form A and Form B were in place prior to concrete placement, and take appropriate action.

The CA shall provide the Contractor an Instruction Notice confirming that Form A and the mix design supporting information meet the requirements as specified in the

Contract Documents. The CA shall provide the Contractor a completed MTO **"Letter to Contractor – Re: Concrete Mix Design"**, indicating Option #1 – Placement of this mix may now commence on this contract or Option #2 – advising the Contractor of any requirements that have not been met.

2.1.11.14 Review and Submission of Test Results

The CA is responsible for determining if the material meets the Contract requirements and using the results to calculate payments and adjustments, standard deviations, averages, lot summaries, etc., as required by the contract. The role of the lab is only to provide raw data and not determine acceptability.

After review by the CA, copies of test results should also be sent as detailed in the "Guidelines For Test Result Submissions" to the CSA and/or Head of QA (as determined by the Regional Operations Office). Test results are to be submitted within 4 Business Days of the results having been submitted to the CA or within 4 Business Days of the samples being available for testing in cases where the CA is responsible for testing. The CA shall monitor, record, and check that the test result submissions are meeting the required time frames. All test results are to be submitted in an electronic format.

All submissions must be sent identifying the material represented, the acceptability of results, and any actions required as a result of not meeting the specification requirements. Where price adjustments are to be imposed, the price adjustments should be confirmed and indicate the responsibility for cost of referee and/or additional QA testing.

For materials that are decided using lots and sublots, individual test results need only be submitted when the results are outside of specified requirements (e.g. low cylinder breaks). These submissions should be accompanied by comments regarding any action that is being taken.

The "Guidelines for Test Result Submissions" has been developed as an aid to CAs in order to more clearly identify which test results must be submitted to MTO. It is a general list that is to be used in conjunction with the Contract Documents and does not include all possible items which may be required to be submitted. If a conflict exists between the list and the Contract Documents, then the Contract Documents take precedence.

Not all materials are covered in the guideline for test result submissions. As a general rule, copies of all Quality Assurance results should be submitted to MTO.

2.1.11.15 Guidelines for Test Result Submissions

ITEMS	DETAILS OF SUBMISSIONS
Bituminous	
Asphalt ERS Test Results	ERS spreadsheet to be completed upon completion of the lot. Individual test results are not required to be submitted unless specifically requested. If Referee Testing is invoked, the final spreadsheet shall also be submitted.
Smoothness By Inertial Profiler	Sketch of sublot locations and list of exempted sublots, indicating stations on both. Request for inertial profiler for QA/re-test/referee testing Summary of IRI results on the Summary Acceptance Forms to be submitted including localized roughness and pay factors. This includes profiles taken for sublots re-tested. Final summary of payment for the entire lot indicating pay factors and any pay adjustment imposed for localized roughness. Deliver all unfiltered and filtered electronic data files generated by the inertial profiler or the ProVAL software. Confirmation indicating that the inertial profiler has completed the measurements and complete the required electronic data.
Hot Mix Aggregates Physical Properties	QA results Referee results if applicable
Pavement Markings	Pavement Marking forms (glass bead application rates, paint thickness, paint quality samples taken and submitted) to be submitted within thirty (30) days of completion of pavement marking.
Segregation	Listing of areas of segregation including a description of severity as required by the “FIELD GUIDE FOR THE ACCEPTANCE OF HOT MIX ASPHALT AND BRIDGE DECK WATERPROOFING”
Miscellaneous Asphalt Products	QA test results. Referee results if applicable.

ITEMS	DETAILS OF SUBMISSIONS
PGAC Granular sealing Rout and Seal Tack Coat Anti-strip etc.	Limiting Grade Report for Extended BBR Test and DENT Test Reporting Sheet shall accompany applicable QA or Referee results.
Cold In-Place Recycling Mixes	QA test results Control strip results to be submitted upon completion of control strip and QA compaction results.
Granular	
Granular O, A, B, M, SSM Physical Properties	QA test results Referee results if applicable
Granular O, A, B, M, SSM Production Samples	ERS spreadsheet to be completed upon completion of the lot. Individual test results are not required to be submitted unless specifically requested. If referee testing is invoked, the final spreadsheet including referee data shall also be completed.
Surface Treatment (Aggregates) Physical Properties and Gradation	QA test results Referee results if applicable
Compaction Checks	Monthly summary of QC and QA compaction results and summary of acceptability on the Compaction Summary Sheet Trial Strip/Proctor results and QA/QC correlation results to be submitted upon completion.
Reinforced Earth Walls	All QC data required by the Contract
Miscellaneous Soils and Aggregates Products Geotextiles Seeding etc.	QA test results Referee results if Applicable

ITEMS	DETAILS OF SUBMISSIONS
Concrete & Structural Items	
Compressive Strength Results	ERS spreadsheet to be submitted electronically monthly and upon completion of each lot of concrete. QA results (for Contracts without ERS for compressive strength). If Referee Testing is invoked, the final spreadsheet shall also be completed.
Temperature Records	Cold and Hot weather temperature records after completion of the curing and protection (if applicable) period. Temperature records for HPC after completion of curing (and protection) period.
Concrete Aggregates Physical Properties	QA results Referee results if applicable
Air Voids in Hardened Concrete	QA test results Referee test results if applicable
Tensile Bond Test	QA test results
Rapid Chloride Permeability	QA test results Referee test results if applicable
Waterproofing	Copy of Thickness Report and payment adjustment calculations for membrane and protection board Material Quality test results for membrane and protection board.
Half Cell Survey	Copy of Half Cell Survey and continuity check form to be submitted to QA and Regional Structural Office (or as indicated by CSA). Note: Submitted immediately upon completion of field testing and prior to initiation of removals.
Water test for expansion joints (if applicable)	Copies of the Record Of Expansion Joint – Water Testing to be completed to the Regional QA section and the Bridge Office.

ITEMS	DETAILS OF SUBMISSIONS
Proprietary Products	On an as required basis: - Name of product - Test data for compressive strength, rapid chloride permeability, shrinkage and tensile bond or in accordance with specification - Type of repair it is being used for - Contractors proposal for use
Structural Steel Coating	QC data as required by SP plus Daily Coating Reports and Summary Report.
Miscellaneous Testing: • Portland Cement, Limestone Filler, Hydraulic Slag, Fly Ash • Water • Curing Compounds • Admixtures, Air Entraining • Expansion Joint Seals • Elastomeric Bearings • Post Tension Cables • Grout results • Hot Poured Rubberized Joint Sealant • Shotcrete test results • Mechanical Connectors	QA Test results Referee results if applicable

Section 2.1 is amended with the addition of Sub-section '2.1.12 Year-end Summaries' with the following:

Year-end summaries for Granular, Concrete, and Bituminous materials are to be submitted in electronic form no later than thirty (30) days from last placement of the relevant material. For carry-over contracts, summaries shall be submitted at the end of each calendar year (by December 31) for the Work completed to that date. The summaries shall include the completion of forms provided by the ministry for that purpose.

Sub-Section '2.1.12 Off-Site Inspection of Structural Items' is deleted in its entirety and replaced with the following

2.1.13 Off-Site Inspection of Structural Items

- Check CA Agreement for components identified for off-site inspection
- Examples: Precast Girders, Precast Concrete Elements, Structural Steel and Aluminium Sign Supports
- For some manufactured products, a Manufacturer's Certificate of Conformance and Precast Report may be required

CA may be responsible for arranging for witnessing of sampling and delivery of samples from production facilities, such as for precast girders, remote from the Contract site to a local Regional QA laboratory in accordance to the requirements of the Contract Documents.

The header sub-sections within Section 2.1 shall be renumbered as:

2.1.14 Geotechnical
2.1.15 Electrical
2.1.16 Post Pipe Installation Inspections
2.1.17 Environmental
2.1.18 Traffic Management and Public Information Services
2.1.19 MTO Roles
2.1.20 Service Provider's Performance Appraisal
2.1.21 Well Investigations

Section 3.1.Meeting Requirements is amendment as follows:

Section 3.14 Pre-Paving Meeting is amended by deleting the "Suggested Topics" in its entirety and replacing with the following:

Suggested Topics:

1. Review all mix design with MTO representatives.
2. Review of Special Provisions.
3. Review of quality control performance measures.
4. Review of Field Guide for the Acceptance of Hot Mix Asphalt and Bridge Deck Waterproofing.
5. Review plans, Traffic Control, Scheduling, etc.
6. Review Construction Administration and Inspection Task Manual milestones.
7. Request that all paperwork is in order prior to commencement of paving.
8. Review documentation of the AC storage including identification of the storage tank and required notification for AC grade changes and/or tank changes
9. Review hot mix production schedule including any planned storage of mix in silos, and how sampling notifications for AC will reflect when mix is being produced.
10. Discuss sampling procedures and inspection at the plant (contact person, asphalt plant Health and Safety Plan).
11. Review sketch of sublots to be measured by PMD, areas to be exempt from surface smoothness measurements/pay adjustments and all other additional measurements required (e.g. existing surface beneath single lifts).
12. Discuss Contractor's duties to facilitate smoothness measurements using an inertial profiler.
13. Discuss any new technologies that may be used on contract.
14. Review MSCR test temperature for the Contract.

Sub-Section '3.1.8 Pre-fabrication Meeting for Precast Concrete Elements' is added in its entirety as follows:

- A precast meeting for concrete elements shall be a combination of a normal concrete pre-start meeting and concrete pre-placement meeting prior to manufacturing of any precast concrete elements on the contract. The agenda should be reviewed with the Quality Assurance Officer
- A precast meeting shall be arranged prior to manufacturing of concrete elements, including precast girders, fabricated on or off site
- This meeting provides an opportunity:
  - For manufacturers to seek clarifications
  - To communicate the lot parameters in accordance with the requirements for concrete acceptance,
  - To review sampling, testing and inspection requirements, and
  - To review placement details of significant concrete operations prior to the event

NOTE: Key submissions, such as working drawings, mix designs, concrete plant certifications, and design proposals, shall be received and distributed to all attendees for review prior to the start of the meeting.

Suggested Attendees:

1. Service Provider: Contract Administrator
   Precast Concrete Plant Inspectors
   Materials Testing Service Provider
2. Contractor
3. Contractor's Engineer (if applicable)
4. Precast Concrete Manufacturer's Representative
5. Precast Concrete Manufacturer's Engineer
6. Subcontractors (if applicable)
7. MTO Contract Services Administrator
8. MTO Quality Assurance Officer
9. MTO Area Contracts Engineer
10. MTO Structural Section Engineer

Suggested Topics:

1. Identify primary persons and representatives from the Contractor and the Precast Concrete Manufacturer and their responsibilities.
2. Identify primary persons responsible for the production, inspection, sampling and delivery of precast concrete elements.
3. Check that submissions have been received as required (e.g. mix design, working drawings, etc.).
4. Review submissions are complete and meet Contract Document requirements.
5. Review drawings as required.
6. Review all applicable Special Provisions and specifications (such as OPSS 909, SP999S31, PCI MNL-116, etc.) including construction practices and concrete acceptance.

7. Review each of the Precast Report submission requirements.
8. Review critical issues related to reinforcement, stressing and de-stressing operations, use of self-consolidating concrete, temperature, curing practices, measuring dimension tolerances, etc.
9. Review health and safety protocols when visiting the precast/pre-stressed concrete plant.
10. Establish and review the lot sampling, testing and acceptance procedures with the Contractor.
11. Review acceptance/rejection procedures for defects and deficiencies.
12. Review the Inspection Milestones.
13. Issue all relevant concrete forms to the Contractor.
14. Discuss distribution of inspection and test results.
15. Discuss possible concerns regarding installation/erection of precast concrete elements.

SECTION 3.2 SUBMISSION REVIEW RESPONSIBILITIES AND GENERAL ADMINISTRATION is amended with the addition of the following:

3.2.10 CA RESPONSIBILITY FOR SPECIALIST INSPECTIONS

The CA shall monitor the work of the Specialist. The CA shall keep the Specialist informed of the Contractor's schedule to make sure they are available to carry out the necessary inspections.

The CA shall check all records and/or reports produced by the Specialist to confirm that they meet the requirements of the CAITM, related CAITM amendments, the Contract Documents, and the Agreement. This information shall be used to confirm if any further action is required.

When MTO hires Specialists, the CA shall respond accordingly when an issue is identified. Additional details may be found in the CA Agreement (RFP/RFQ).

SECTION 3.6 ASSESSING COMPLIANCE TO THE QUALITY PROCESSES is deleted in its entirety and replaced with the following:

REFERENCES

- SSP 199S66 – Quality Conformance Requirements

GENERAL

The Contractor is responsible for all Quality Control (QC) activities and shall provide the staff and resources necessary to implement QC processes that result in conformance to the quality performance requirements. The Contractor shall identify and address all non-conformances according to the requirements specified in SSP 199S66.

Throughout the duration of the Contract, the CA shall be responsible for:

a) Monitoring the performance of the Contractor by verifying the Contractor's processes, quality of the Work, and assessing the conformance to the quality performance requirements.
b) Providing the staff and resources necessary to meet the requirements of the SSP 199S66, CAITM, and the Contract Documents.
c) Maintaining open communications with the Contractor and MTO. If the CA notices that the work does not meet the requirements of the Contract Documents, at any time throughout the duration of the Contract, the CA shall immediately have a discussion with the Contractor.
d) Encourage the Contractor to review the work if there are any issues. Keeping the Specialist informed of the Contractor's schedule to make sure they are available to carry out the necessary inspections.
e) Taking appropriate steps to prevent or mitigate the occurrence of a non-conformance by proactively enforcing the requirements of the Contract Documents.

f) Monitor the work of the Specialist.
g) Checking all records and/or reports produced by the Specialist to confirm that they meet the requirements of the CAITM, the Contract Documents, and the Agreement. This information shall be used to confirm if any further action is required.
h) Checking that the Contractor's Engineer is a license holder by the Professional Engineers of Ontario (PEO). Information can be found in PEO's Directory.
i) Issue Notices to Proceed to the next operation, to the Contractor in a timely manner.
j) Check that work conforms to the requirements of the Contract Documents for all specifications, including when a Certificate of Conformance, or Manufacturer Certificate of Conformance, and/or Contractor's Engineer is inspecting the work.

ASSESSMENT OF CONFORMANCE

During the course of construction, and within 30 Days after the date of certification of Contract Completion, the CA shall assess the conformance to the quality performance requirements related to the following activities:

a) The production, supply and placement of all Material used in the Work;
b) The removal, rehabilitation, modification or construction of temporary or permanent elements of the Work; and
c) Sampling, testing and QC records associated with a) and b) above.

The CA shall carry out any or all of the following, as a minimum, to assess conformance of the work:

a) Random inspections;
b) Milestone inspections;
c) Continuous inspection;
d) Review of sampling procedures;
e) Review of material test results;
f) Audit of quality control documents;
g) Verify Certificate of Conformance (CoC), Manufacturer's Certificate of Conformance (MCoC), other certificates, Request to Proceed (RtoP), and Request to Place Concrete, issued by the Contractor, are according to the Contract Documents;
h) Review any reports prepared by a Specialist hired either by the CA or MTO.

In addition, MTO may perform audits to assess conformance.

QUALITY CONFORMANCE REQUIREMENTS

The CA, and/or Specialist (as specified in the CA Agreement and CAITM Part B) shall:

1) Monitor the Contractor's operations and clearly document the Contractor's compliance, during the Work. Inspection of the work shall be carried out according to the inspection tasks detailed in Part B of the CAITM.

2) For "Certificates of Conformance", "Manufacturer's Certificate of Conformance", "Request to Proceed", "Request to Place Concrete", and any other certificates for construction:
   a) Receive documents
   b) Sign and date the "Request to Proceed", "Request to Place Concrete" to confirm receipt
   c) Confirm, document and report whether the documents:
      i. Meet the Contract Document requirements
      ii. Are submitted within the specified time frames
   d) Confirm whether the Contractor's Engineer has been on-site to carry out an inspection of the work, or at the fabrication plant, when required in the Contract Documents.
   e) Confirm whether the Contractor has not proceeded to the next operation until receiving a "Notice to Proceed" issued by the CA.

3) Attend the on-site inspection with the Contractor's Engineer during the inspection of work, component or product requiring "Certificates of Conformance", and "Manufacturer's Certificates of Conformance".

4) Conduct an assessment of the work, component or product that pertains to the specific certificate or request to confirm that the requirements of the Contract Documents have been met. Inspection of the work, component, or product shall be carried out according to the inspection tasks detailed in Part B of the CAITM.

5) Issue a "Notice to Proceed" only when the requirements of the Contract Documents are met.

6) When the Contractor identifies a non-conformance:
   a) Check and confirm that the non-conformance has actually occurred.
   b) Notify MTO that the Contractor has identified a non-conformance.

7) When the CA identifies a non-conformance before the Contractor identifies the non-conformance:
   a) Immediately notify the Contractor in writing.
   b) Immediately document the non-conformance
   c) Notify MTO, in writing, that the Contractor has been informed of the non-conformance.

8) Check and confirm that the Contractor implements preventative measures prior to continuing with the associated activity.

9) Check and confirm that the Contractor does not proceed with any subsequent activities that would prevent or impede corrective action.

10) Check and confirm that the Contractor completes a NCR, within 3 Business Days, unless otherwise mutually agreed in writing, of a non-conformance being identified by the CA or the Contractor.

11) If the Contractor hasn't submitted a completed NCR within 3 Business Days, unless otherwise mutually agreed in writing, initiate the NCR.
    a) Complete "Date and Time of the Occurrence" and "Description of the Non-Conformance" within 2 Business Days.
    b) Check and confirm that the Contractor completes the NCR within 3 Business Days of the CA initiating the NCR.
    c) Assess a deviation when the CA identified a non-conformance and the Contractor hasn't submitted a completed NCR within 3 Business Days, unless otherwise mutually agreed in writing (consult with MTO staff for further action).

12) Receive the NCR, and any supporting documents and notify MTO of the receipt.

13) Review the NCR, and any supporting documents, to determine if the report is complete, accurate, and has been submitted according to the Contract Documents.

14) Review the proposal for corrective actions to achieve conformance with the Contract Documents, payment reductions, or mitigating action.
    a) Identify any issues with the submission.
    b) Determine if the corrective action to be taken is appropriate. Consideration shall be given to the effect of the proposed corrective action on the quality of the end product.
    c) Discuss any issues and CA's recommendations with MTO.
    d) Liaise between MTO and the Contractor to request any clarifications.

15) If the proposal for corrective actions includes amendments to the Contract Documents, forward the proposal to MTO for approval before implementation of such proposed amendment.
    a) If the proposed amendment is approved, issue a Change Order to incorporate the amendment into the Contract Documents.

16) Notify the Contractor if the proposal was approved or rejected.

17) Check and confirm that only approved amendments to the Contract Documents are appended to a related certification.

18) Confirm that Contractor does not proceed to the next operation until all non-conformances have been addressed according to SSP 199S66 and the Contract Documents, and the CA has issued a “Notice to Proceed”, when required in the Contract Documents.

19) Within 3 Business Days of receiving a completed NCR from the Contractor:
    a) Determine the status of non-conformance.
        i. A deviation, including the reason for the deviation
        ii. not a deviation, or
        iii. under review

    Note: A deviation will not be waived regardless of the Contractor’s subsequent conformance (consult with MTO staff for further action).

    b) Notify the Contractor by completing the status of non-conformance.

20) When the status of non-conformance is identified as “under review”, update the status to “major deviation” or “minor deviation” a) or b), in a timely manner after discussions with MTO.

21) Follow subsections 3.4.2 Assessment of Deviations and 3.4.3 Classification of a Deviation of SSP 199S66 to determine the classification of a deviation. Obtain MTO involvement through the Contract Services Administrator (CSA), or Area Contracts Engineer (ACE) where the classification of the deviation is not obvious or precedent setting.

22) Check and confirm that the Contractor carries out the corrective action, payment reductions or mitigating action according to the approved proposal.

    a) For each non-conformance, the CA shall check and confirm that the Contractor has completed the approved corrective actions in a timely manner.

    b) The CA shall consult with MTO if the Contractor fails to complete the approved corrective action.

    c) A further deviation shall be considered if the Contractor fails to complete the approved corrective action in a timely manner. (Consult with MTO staff for further action).

23) Record all non-conformances and deviations from the QC requirements (using the Monthly Summary of Processes Non-Conformance form) and submit to MTO according to the distribution list on a monthly basis.

24) Review all quality process deviations as part of the monthly progress meetings as detailed in the Contract Progress/Site Meetings section of the CAITM.

CONTRACTOR'S RIGHT TO CHALLENGE A DEVIATION

If the Contractor challenges the assessment of a deviation, the CA shall:

1) Check and confirm that the challenge is within 3 Business Days of the notification of the classification of a deviation.

2) Request documentation supporting the Contractor's position prior to the monthly progress meeting where it will be discussed. Make sure that the Contractor documents the reason that the deviation is being disputed, and justification of why the deviation should not be assessed as indicated.

3) Complete a timely review of the Contractor's submission (within 30 days of receipt of the submission).

4) Consult with MTO field staff and the Quality Assurance Section.

5) Issue the final decision on the deviation in writing, giving reasons for the decision.

The CA may also need to consult with MTO staff up to the Regional Contracts Engineer/Head of Operational Services.

APPEAL PROCESS:

If the Contractor disagrees with the decision of the CA to issue a deviation, the Contractor has the option to appeal the decision using the CPR Appeal process and not through the Clarification and Claims process.

The impact of a deviation is only to the Contractor's Performance Rating.

NON-CONFORMANCE PROCESS FLOW DIAGRAM

This flow chart summarizes the process the CA shall follow when a non-conformance is identified as guidance. The process explained in the section above takes precedence.