Date: September 21, 2026

BULLETIN #1 (2026-001)

Hot Mix Asphalt (HMA) and Concrete - Cold Weather Protocol

Background
The intent of this bulletin is to make sure Developers, Consultants, and Contractors are aware and mindful of Roads Current Specification regarding the winter specification.

Objective
In wintertime, the City identified that some developers and contractors are not following the Specification requirements of placing hot mix asphalt and concrete.

Hot Mix Asphalt (HMA) Placing Temperature
As per the Roads Construction Standard Specifications 2021 - Section 307.03.04 -Execution (3), HMA Placing Temperature, clarifies the temperature requirement for different lift thicknesses.
https://www.calgary.ca/roads/for-road-contractors.html

No hot mix asphalt shall be dispatched to the field unless the temperature, as issued by Environment Canada, is rising and meets the following minimum temperature requirements:

- Lift thickness less than 50 mm, 7°C
- Lift thickness greater than 50 mm and less than 70 mm, 4°C
- Lift thickness greater than 70 mm, 2°C
- No surface lift asphalt mix shall be placed regardless of temperature or thickness until the road surface is 5°C or higher.

For details, please check the specification as mentioned above.

Temperature Non-Compliance:

If the asphalt placement temperature does not meet the specifications outlined in Section 307.03.04.4, the contractor must submit the following daily reports as per Table 31 of the Roads Construction Standard Specifications.

- Quality Control Reports
- Hot Mix Analysis Test Reports
- Minimum 3 Core Test Reports for compaction and thickness determination

Material compliance statements will remain on hold until all required documentation is reviewed. The City Engineer reserves the right to accept or reject reports, and non-compliance will be addressed per the specifications.

Note: The hot asphalt mixture shall be laid upon a dry (free from ice, snow and standing water), firm surface that is true to grade and cross-section and free from all loose or foreign material. No hot mix shall be placed on asphalt that has not sufficiently cooled or when the surface is wet, or when other conditions prevent proper spreading, finishing or compaction.

Seasonal Requirement for Concrete Placement

Similarly, the requirements outlined in Section 311.01.06 – Cold Weather Requirements and Section 311.06.02 – Placing of Concrete must be followed when pouring concrete in cold weather conditions.

When the air temperature is at or below 5°C, or when there is a probability of the temperature falling below 5°C within 24 hours of placing as forecast by the nearest official meteorological office, cold weather requirements for concrete placement shall apply.

Between September 30 and the subsequent May 1 (off season concrete) the following applies:

- The minimum allowable concrete compressive strength shall be attained in 7 days.
- The contractor shall adequately cover and protect the freshly placed concrete and cure for minimum of 7 days; curing above 10°C is required as per CSA A23.1-09, Table 20 (Additional Curing Requirements-Curing Type 2).
- When concrete is placed in cold weather, all equipment needed for adequate protection and curing shall be on hand and ready for use before concrete placement is started.
- Snow and ice shall be removed using heat where necessary. In no case shall concrete be deposited on or against any surface that is at a temperature of less than 5°C.

Section 311.01.11 —Termination - at the sole discretion of the Engineer, the placing of concrete may be suspended or terminated at any time after September 30.

Contact

Any questions regarding this bulletin may be directed to Pavement and Materials Engineering Section, Construction and Materials, Mobility, The City of Calgary. (taher.baghaeemoghaddam@calgary.ca)

Prepared By:

Taher Baghaee Moghaddam Ph.D. P.Eng.
Pavement Engineer
Pavement and Materials Engineering Section
Construction and Materials, Mobility

Approved By:

Nasir-ul Mulk, P.Eng.
Sr. Pavement and Materials Engineer
Pavement and Materials Engineering Section
Construction and Materials, Mobility