2024-06-13

CEMATRIX (Canada) Inc. 9727-40 Street SE Calgary, AB T2C 2P4

Attn: Doug Lavis

Re: Letter of Recommendation

I had the opportunity to utilise CEMATRIX Cellular Concrete on the Trans Mountain Expansion Project in 2023/2024 and would like to thank CEMATRIX for their professionalism, technical support, performance, and commitment to safety throughout the project.

The work scope included pipeline backfill, tunnel grouting and annular grouting with multiple contractors on different segments of the alignment. The applications I was involved with required a self-compacting material with high pumpability and flowability that could be produced rapidly and pumped over long distances. There were strict tolerances for heat of hydration, density and strength, and constraints on mix design to protect the pipeline coating. There were also geotechnical considerations related to the rock tunnels and groundwater conditions.

CEMATRIX was hands-on and responsive from the beginning, recommending optimised mix designs, verifying with information from past projects and lab tests, and providing extensive technical information and support. Their Cellular Concrete proved to be the best solution to satisfy the project design needs while also meeting the challenges of tight timelines, remote sites, and for part of the work, winter conditions.

The onsite crew went above and beyond multiple times. This included brainstorming and executing solutions to adjust equipment setup in the face of unexpected site constraints, and helping to identify issues with slicklines and then stringing out hundreds of feet of extra hose to provide a workaround to maintain the schedule while the required repairs took place.

In summary, CEMATRIX worked collaboratively with both Trans Mountain and the contractors to adjust their pour plans and methods to satisfy site requirements and stay within the strict design parameters. They were flexible and responsive to changing conditions throughout the project, and I commend their project management, technical, and operations staff for a job well done.

I will continue to look for opportunities to utilise CEMATRIX Cellular Concrete on future projects.

Sincerely,

Michael M Thorne, P.Eng.

Project Manager