



Building Envelope Council Ottawa Region

Webinar Session
Wednesday, May 21st, 2025
Noon to 1:00 PM

Case Study:
Urban Heat Island Effect (UHIE) Mitigation Project,
La Ressource, Gatineau

Urban areas can become significantly warmer than surrounding rural areas as a byproduct of the urban heat island effect (UHIE). The impact in a city can change based on its local environment. Heat can be reduced by tree cover and green space which act as sources of shade and promote evaporative cooling. Other options include green roofs, passive daytime radiative cooling applications, and the use of lighter-colored surfaces and less absorptive building materials. These reflect more sunlight and absorb less heat. Negative consequences of increased temperatures include: increased energy required for air conditioning and refrigeration, increased concentrations of air pollutants and increased heat illnesses, such as heat stroke, heat exhaustion and heat cramps. All these negative effects result in increased costs for health and building asset management.

This presentation explores the *Urban Heat Island Effect (UHIE)*—a growing environmental concern in urbanized areas where temperatures are significantly higher than surrounding rural regions. We'll examine the causes and consequences of UHIE, including its impact on public health, infrastructure, and energy consumption. The presentation will also highlight innovative mitigation strategies such as green roofs, reflective surfaces, urban forestry, and sustainable city planning. Through real-world case studies and data-driven insights, attendees will gain a deeper understanding of how integrated design solutions can help reduce heat stress, improve livability, and promote climate resilience in our urban environments.

<https://www.youtube.com/watch?v=1Ole3pVocLE>

Michel P. Gravel, O.N.M.; Senior Architectural Representative, Tremco Roofing & Building Maintenance



Professionally, Michel brings 30 years of experience in the roofing industry including materials, risk management in roof design and environmental design principles for green roofs. A trusted expert in industry regulations, products, and best-practices, he works alongside architects, engineers and building owners to negotiate and navigate the approval processes of industrial, institutional and commercial roofing projects. A published author and avid historian of WWI his research on the role of Canada's soldiers has been celebrated internationally. His first book, "Tough as Nails", is the biography of Ottawa roofer and war hero, John Hilliard Foley DCM MM.

For his volunteer work in France, Michel was elevated to the rank of 'Chevalier de l'Ordre national du Mérite' by the President of France in July, 2023, and confirmed by Canadian External Affairs in May, 2024. (Knight of the National Order of Merit.)

Michel was recently awarded the 'King's Coronation Medal' for his services to Canada in France.