



Prince Edward Island  
Canada

**A World Leader in Innovation**  
**Come and grow with us!**

# STRATEGIC DESIGN'S FROST RESISTANT MANHOLE COVERS

**A SUMMERSIDE  
LIVING LAB  
CASE STUDY**



## **THE CHALLENGE**

Frost in northern climates causes manholes to shift and the pavement around them to crack, leading to potholes. For governments, potholes mean expensive repairs, road safety issues and citizen complaints about damage to vehicles.

## **THE APPROACH**

Local invention firm, Strategic Design, approached the City to install and test their innovative new product, the “Frost Resistant Manhole Cover” in its streets. After extensive consultation with various agencies, Summerside gave access to the City’s road infrastructure and provided the services of Municipal Works crews to assist with installation of 3 systems.

## **THE RESULTS**

Systems are currently undergoing a full 12-month test with the goal of establishing how they can save money and reduce lost time in the disruption of traffic.

## **BACKGROUND**

The patented “Frost Resistant Manhole Cover” expands and contracts with the ground's freezing and thawing cycles. It is basically two interlocking pieces. The bottom piece is attached to the manhole cone structure, while the top piece is embedded into the pavement. When the pavement shifts, the top piece moves with the asphalt but the bottom piece remains stationary, thus preventing damage. In addition to installation in a ready-made field, the City of Summerside also contributed to product refinements and partnered with the University of PEI for empirical data in support of the business case and validation of product claims.

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## LIVING LAB

City of Summerside  
Prince Edward Island

# About the Summerside Living Lab

A Living Lab is a platform for industry to collaborate with government in exploring real-world issues and demonstrating how innovation can provide solutions. The overarching goal of Summerside's Living Lab is to advance innovation and create export development opportunities in partnership with early start-ups or established enterprises, while assisting the City's growth.

The Lab brings together partners with a shared vision that will produce results for those who wish to build business models for advanced deployment in earlier stages of product life.

With its unique and empowering infrastructure, Summerside is a test bed for firms looking to develop real market solutions, validation, and full-scale deployment of products and services.

### In Summerside we understand...

- ▶ **The Problem:** A Business faces challenges validating its technology through rapid testing, prototyping and commercialization. Providing product credibility presents a major barrier.
- ▶ **The Solution:** A municipality devoted to reducing development time and validation in a fail-fast/fail-cheap environment — a unique opportunity for rapid commercialization.
- ▶ **The Bottom Line:** Summerside provides a robust and sophisticated environment with a unique range of empowering assets including its own electrical company, renewable energy and fibre optic network. It operates in a completely open and mutually beneficial collaborative manner.

## Come and grow with us!

If you are interested in validating your technology for North American markets:

### CONTACT

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