

# ILLUMINATION OF THE JACQUES CARTIER BRIDGE



Ponts  
JACQUES CARTIER +  
CHAMPLAIN  
Bridges  
Canada

## LIVING CONNECTIONS | A MIRROR OF MONTREAL'S ENERGY

An iconic architectural feature of the Montreal landscape, the Jacques Cartier Bridge now has an ambitious and innovative lighting signature in homage to the unique engineering of its historic structure. Thanks to intelligent programming, this first “people-connected” bridge comes alive every night and changes with the rhythm of Montreal’s seasons and energy.

Flagship project for the city’s 375<sup>th</sup> anniversary and Canada’s 150<sup>th</sup> anniversary, the illumination of this steel giant was a major challenge. This is why The Jacques Cartier and Champlain Bridges Incorporated is proud to have used its expertise to pilot this unifying project, by combining its expertise in civil engineering and large-scale project management with the creative talent of Moment Factory and its collaborators.

- + Lighting directed to four areas of the bridge’s steel superstructure: the turrets, piers, interior core, and exterior skin.
- + The soft lighting is directed towards the structure, which minimizes light loss and avoids washing out starlight.
- + Art concept created by Moment Factory in collaboration with six Montreal multimedia and lighting studios: Ambiances Design Productions, ATOMIC3, Éclairage Public/Ombrages, Lucion Média, Réalisations and UDO Design.
- + Project management by The Jacques Cartier and Champlain Bridges Incorporated.
- + Engineering work done by the consortium WSP–AECOM.
- + Lighting system installation by Pomerleau.



## LIVING CONNECTIONS – ILLUMINATION OF THE JACQUES CARTIER BRIDGE

With the completion of the luminous interactive work *Living Connections*, the Jacques Cartier Bridge becomes the world’s first networked bridge. It lights up and comes to life every night thanks to intelligent programming that adapts to the seasons and the city’s energy. Activated by millions of human and natural connections, the bridge awakens at sunset and goes to sleep with the day’s first light. The city’s ambitious, innovative new luminous signature is a tribute to an iconic architectural feature of Montreal’s urban landscape.

### AS THE SEASONS CHANGE, SO DO THE LIGHTS

The bridge changes with the seasons thanks to a 365-colour calendar. Day after day, the bridge core gradually shifts from an energizing spring green to a radiant summer orange, a voluptuous fall red, and finally an icy winter blue. Thanks to the way its colours change gently with the seasons, the light subtly evokes the passage of time.



# ILLUMINATION OF THE JACQUES CARTIER BRIDGE

## A REFLECTION OF MONTREAL'S ENERGY

The bridge captures the pulse of Montreal life in real time. The intensity, speed and density of the light changes depending on how often Montreal is mentioned on Twitter. As the bridge pulses with the city's social conversations, it reflects Montreal's energy.

Every new tweet sent with the hashtag #IlluminationMtl, #Montreal, #Mtl, #Mtlmoments is sent to the bridge's illumination system. The tweet is then transformed into a moving light in the colour of the day. If the tweet is favoured, the moving light expands. If it is retweeted, it accelerates. Otherwise, the moving light disappears after a few moments.

## LIKE CLOCKWORK

As the day's first light appears on the horizon, the bridge comes to life in a dance of lights, gradually revealing that day's colour.

Every hour at night, short 5-minute animations visually translate Montreal's mood based on different types of daily data: the weather, traffic, news, major events, and more. The bridge is then taken over by luminous movement, coloured according to the hottest topic of the day in Montreal media:



HALF OF EACH HOUR IS MARKED BY A SCINTILLATION LASTING A LITTLE OVER A MINUTE.



## PROJECT HIGHLIGHTS

The illumination of The Jacques Cartier Bridge brings Quebec know-how to the forefront and strikes the imagination by carving a prominent place in the rich heritage of the metropolis.

### MORE THAN **200** PARTICIPANTS

from all professional backgrounds worked on it for almost two years (creatives, engineers, lighting designers, project managers, programmers, rope access technicians, steelworkers, electricians, traffic officers, and more).

### **86** YEARS

the Jacques Cartier Bridge has been a Montreal icon, a jewel of our heritage, and a source of pride for Montrealers since its inauguration in 1930.

### **10.4** KM

length of cabling needed to illuminate the bridge (for data transfer and electrical power).

### **2,807** LIGHTS

a combination of projectors and tube lighting illuminates the steel superstructure to reflect the activity of the city.

### **15,650** TONNES

a true iron giant, the bridge's superstructure definitely pulls its weight!

### **50,000** HOURS

estimated lifespan of the lighting fixtures with energy-efficient LED technology.

### **10,000** MOUNTING SYSTEMS

to secure the lighting fixtures to the steel supports on the bridge (about 5 per light).

