

RAILWAY TUNNEL

Canada's First – 1860



Restoration of Canada's First Railway Tunnel
Brockville's New Railway Tunnel Park



Inside of tunnel looking out to river
(photo by John McQuarrie)

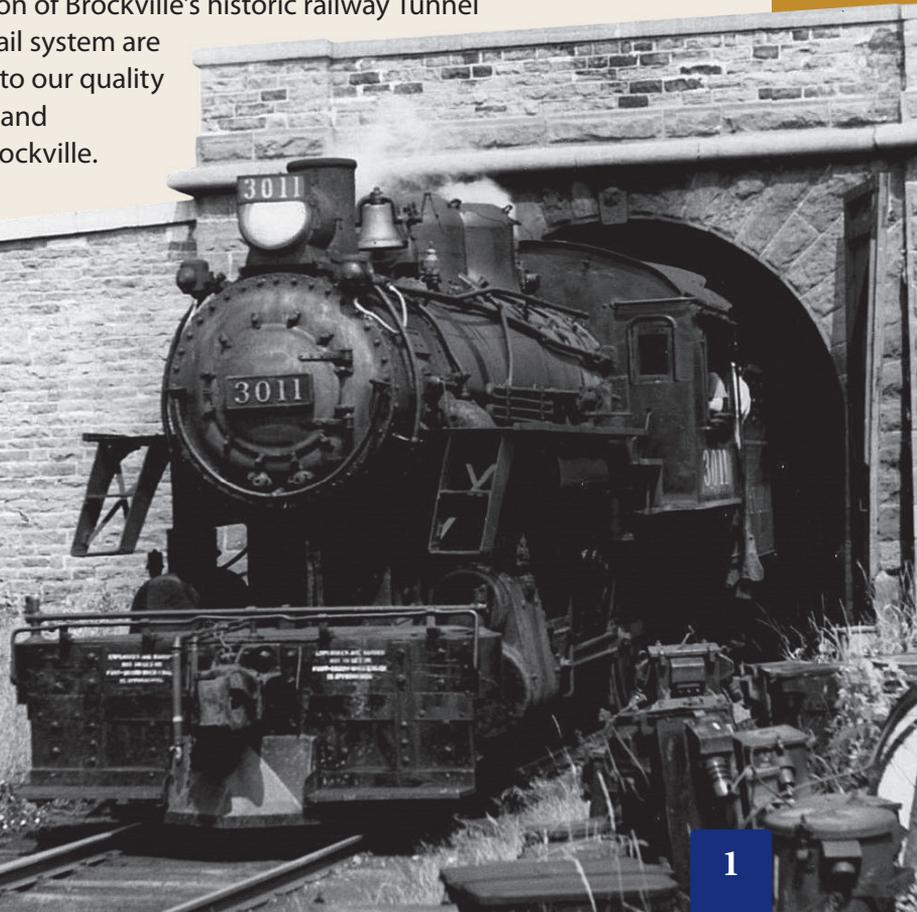
Brockville, Home to Canada's First Railway Tunnel

Incorporated in 1832, Brockville is one of Canada's oldest municipalities and one of its oldest railway centres. The Grand Trunk Railway connected Brockville and Montreal in 1855. Canada's First Railway Tunnel, part of the Brockville and Ottawa Railway, was built here between 1854 and 1860. This historic Tunnel was completed 21 years before construction of the Canadian Pacific Railway even began and predates all of the rail tunnels in the Western Rockies. Controversial for its time, our Tunnel was a major feat of engineering and it remains a remarkable example of Canada's pre-Confederation industrial heritage.

Railway Tunnel Will Expand Brock Trail System

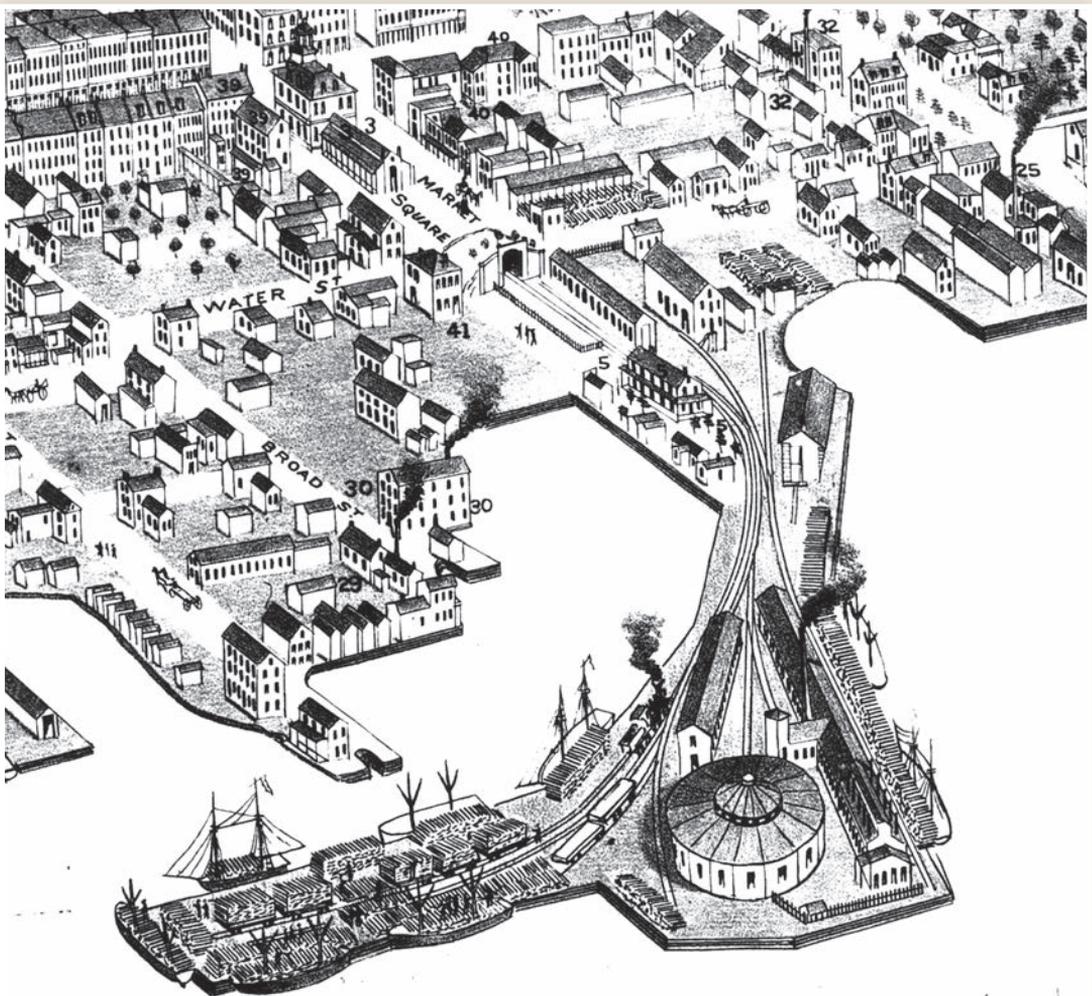
Brockville is campaigning to restore Canada's First Railway Tunnel and its north gorge area in order to open these properties as Brockville's new Railway Tunnel Park - the new central hub of our city's Brock Trail recreational pathway. The Trail, some 7 km of pathway, stretches across Brockville's scenic riverfront and follows Buell's Creek north to the trailhead of the Mac Johnson Wildlife Area at the City's northern boundary. Recreational trails enhance the beauty of our 1000 Islands region and attract visitors and new residents to our city. Restoration of Brockville's historic railway Tunnel and expansion of the Brock Trail system are excellent investments adding to our quality of life and promoting tourism and economic development for Brockville.

Steam engine 3011
departing Tunnel's south portal
(photo from Brockville Museum)

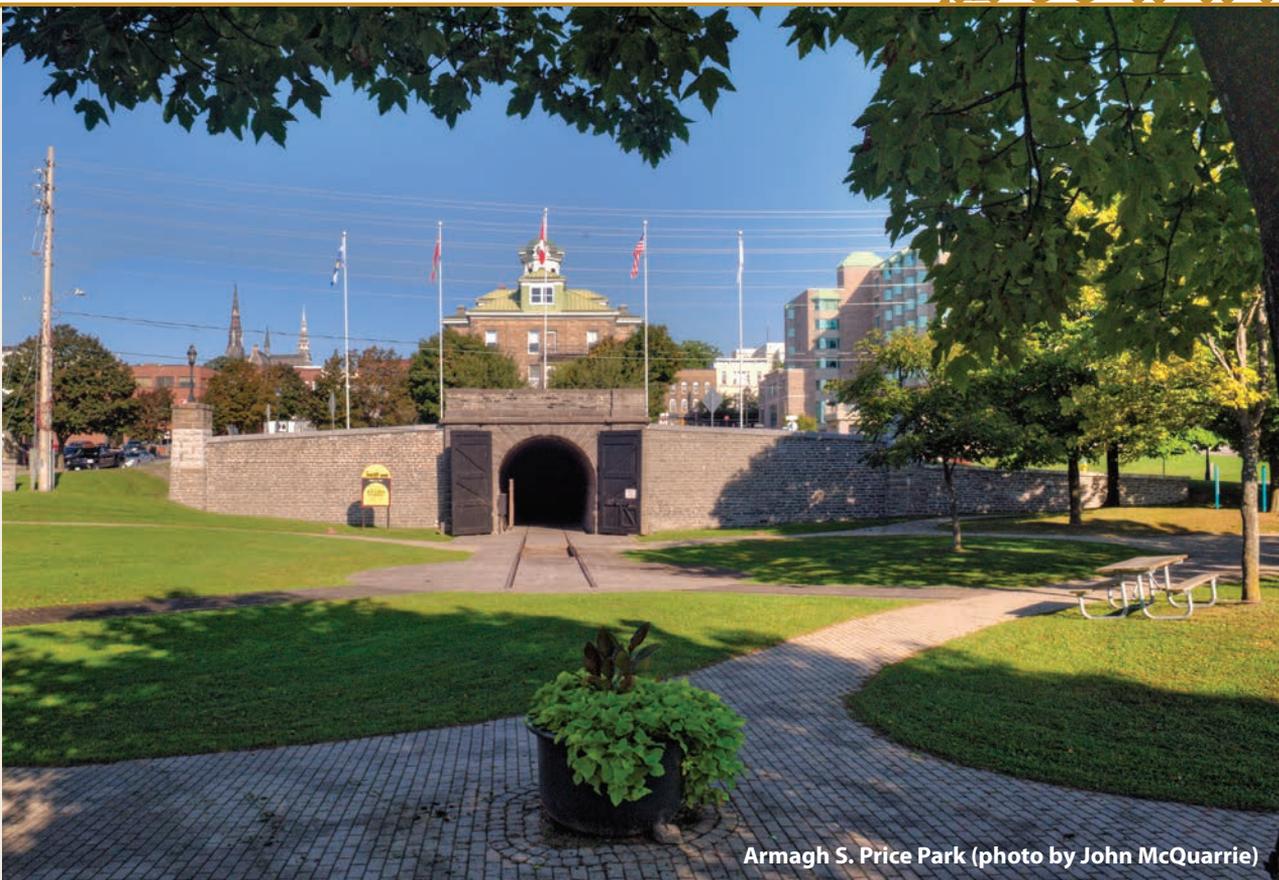


Blockhouse Island Developed into Major International Railway and Shipping Terminal

At 525 metres long (1721 feet), about 5 metres high (14 feet) and 5 metres wide, our Tunnel once connected an engine roundhouse, a train station, and rail yard at Brockville's shipping and ferry docks on the St. Lawrence River to the railways running north, west and east of the city. The rock and soil excavated from the Tunnel was used to connect Blockhouse Island to the Tunnel's entrance. In use for over a century, the last Canadian Pacific train went through the Tunnel in 1969 and the tracks were removed in 1976. The City of Brockville purchased the property from CP in 1983 (for the sum of one dollar and the assumption of maintenance costs) and our beautiful waterfront Armagh S. Price Park was dedicated at the Tunnel's south end in 1988.



Drawing of Blockhouse Island in the 1870's (drawing from Brockville Museum)



Armagh S. Price Park (photo by John McQuarrie)

Armagh S. Price Park, a Gift to the Brockville Community

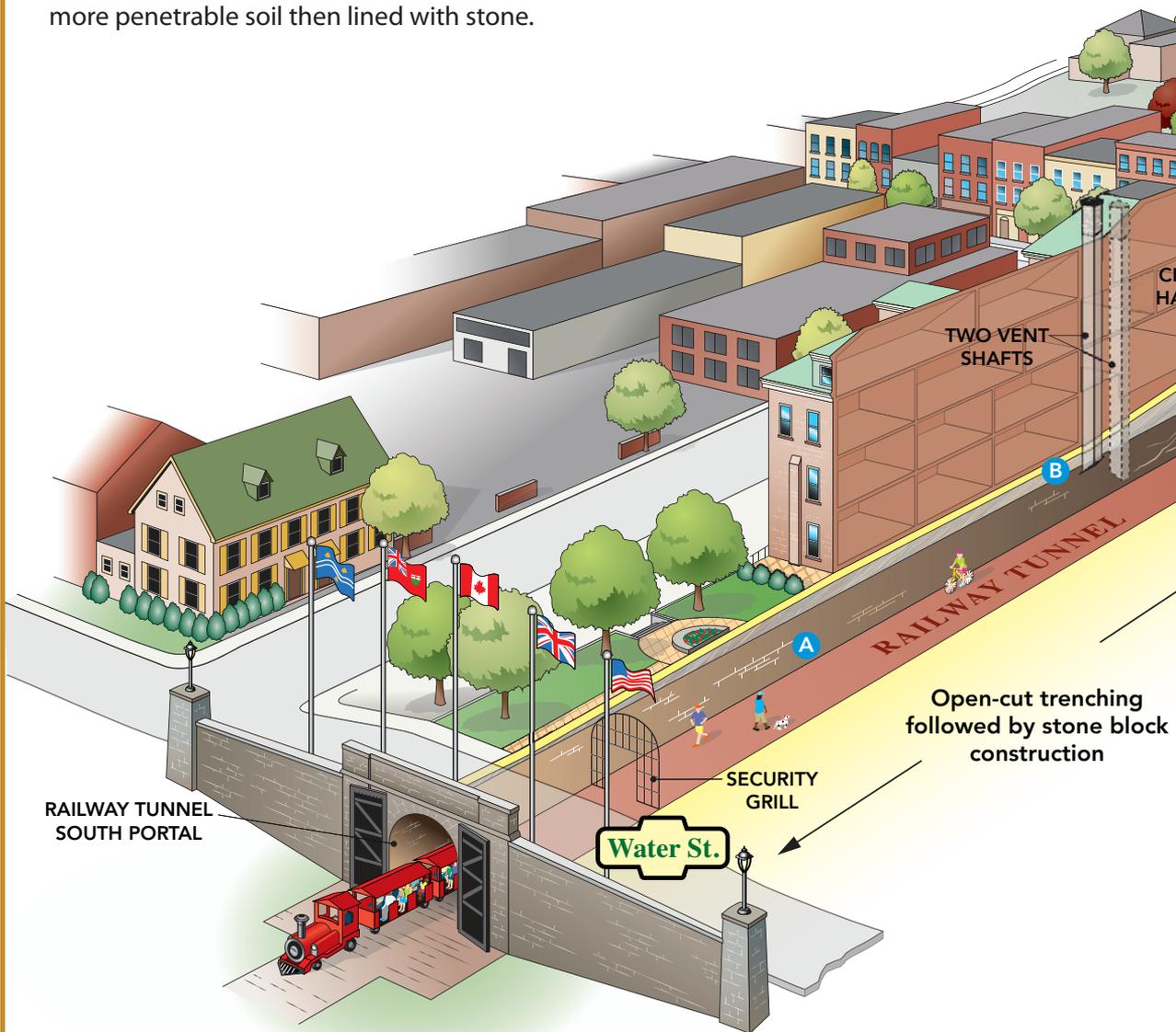
For nearly thirty years since its dedication, Armagh S. Price Park has been enjoyed by citizens and visitors year-round as a central part of our downtown community life, for recreation, tourism, summer festivals, and other events. However, with the exception of the first 24 metres at the Tunnel's south entrance open only during the summer months, the Tunnel and its adjacent gorge at Pearl Street and Victoria Avenue remain off-limits to the public.

BROCKVILLE RAILWAY TUNNEL RECOGNIZED

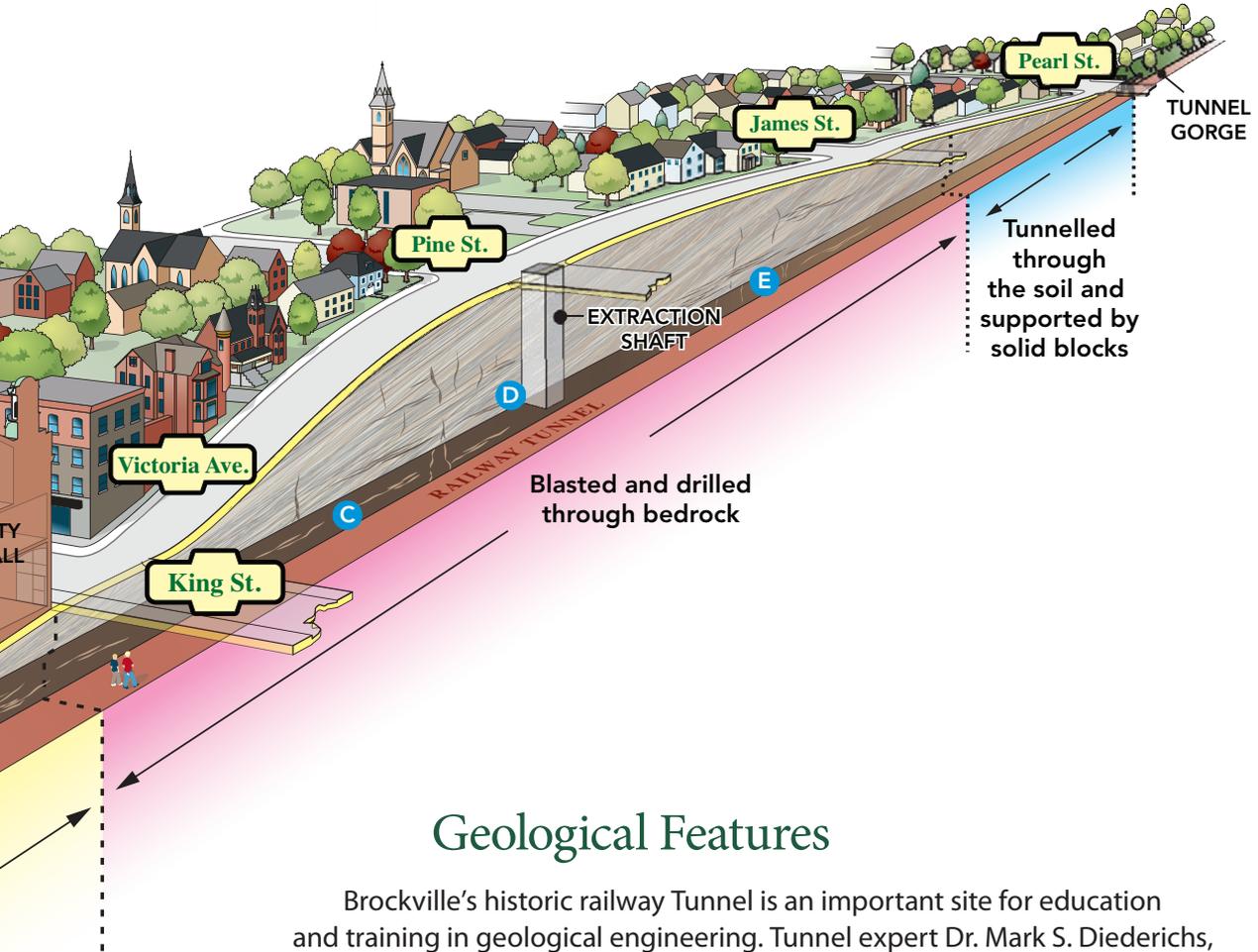
Brockville's efforts to restore Canada's First Railway Tunnel and open it to the public were recognized by the Canadian Railway Historical Association in 2012 with the organization's Preservation Award. Brockville's Tunnel was entered into Canada's Railway Hall of Fame in 2013.

Three Distinct Tunnelling Methods Used

Three distinct tunnelling methods were used and are depicted in the illustration below. Open-trenching was used from the south up to King Street. The trench was excavated; the tunnel constructed, then earth back-filled over the tunnel. From King Street north to James Street, the tunnel was blasted through solid bedrock. Workers used chisels to create holes then filled with gun powder to blast the rock as dynamite had not been invented yet. The northern sector used standard tunnelling techniques through the more penetrable soil then lined with stone.



Schematic drawing of Tunnel (illustration by Margo Davies-Leclair)



Geological Features

Brockville's historic railway Tunnel is an important site for education and training in geological engineering. Tunnel expert Dr. Mark S. Diederichs, Professor of Geological Sciences and Engineering at Queen's University has explored the Tunnel and says that "Brockville's Tunnel project represents an invaluable resource for teaching and research at the undergraduate and graduate level. The Tunnel has the most magnificent precipitate formations of calcite and iron adorning the ancient walls of the tunnel – these rival some of the famous natural cave formations of the world".



Queen's University student collecting sample (Photo by Keith Hare)

Our Tunnel Vision

For many years, Brockville residents have talked about what to do with our historic Tunnel. In 2011, the City of Brockville's Railway Tunnel Committee was re-established and began undertaking engineering, geological, and environmental studies and market research to prepare the Tunnel and its adjacent vacant properties for future public use. Our Committee's vision is to take these long unused and neglected heritage assets and re-purpose them for the recreational enjoyment of residents and visitors alike. With generous financial support from the City of Brockville, from other governments, from charitable foundations, and from private donors, the Committee is working to restore and open the Tunnel as part of a new Railway Tunnel Park for Brockville, in celebration of Canada's 150 birthday in 2017.



Conceptual drawings of Tunnel through City and North and South Parks (illustration by Margo Davies-Leclair)

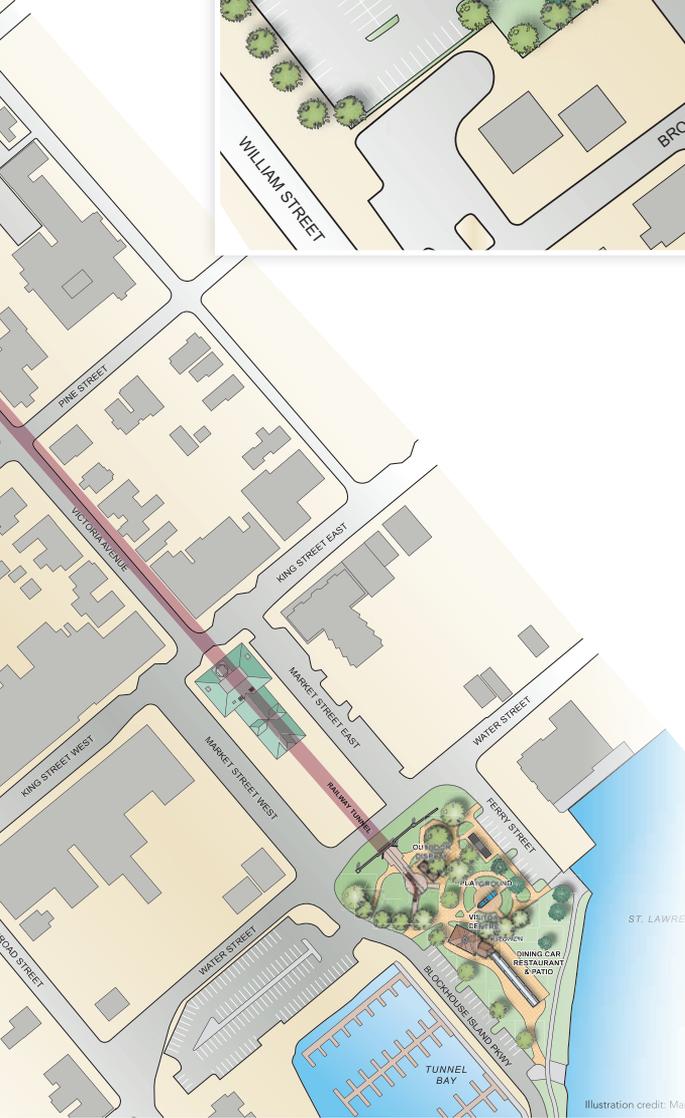
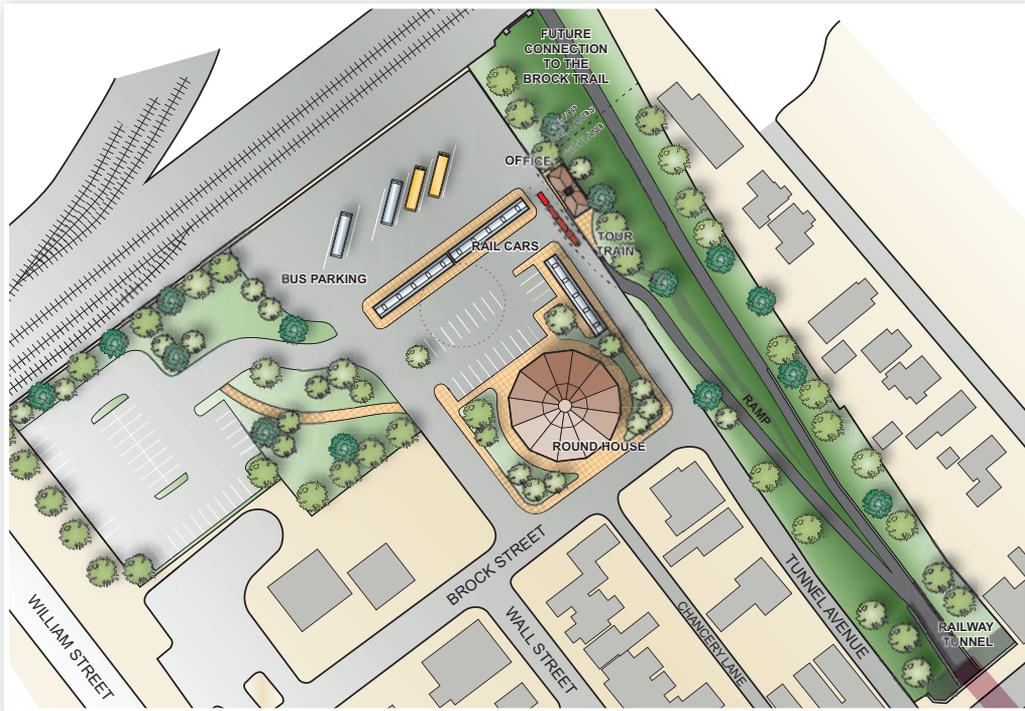


Illustration credit: Margi

A New Railway Tunnel Park

Brockville's new Railway Tunnel Park will integrate these key properties:

- Canada's First Railway Tunnel and the gorge north of the Tunnel.
- Armagh S. Price Park south of the Tunnel at Brockville's waterfront.
- Development of the former railway lands northeast of William and Brock Streets, just west of the Tunnel gorge, for a new Roundhouse Visitor Centre and parking area.

Once open, the Tunnel and Railway Tunnel Park will become an integral part of our city's beautiful Brock Trail, providing a new connecting point for residents and visitors alike to access Brockville's downtown and waterfront attractions.



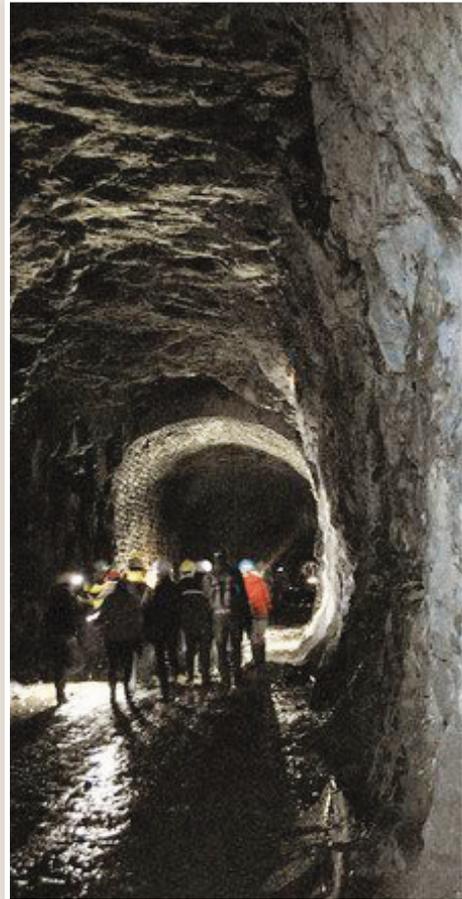
Inside of Tunnel (photo by Andrew Kizell)



Restoration of the Tunnel

Activities to restore the Tunnel include: masonry repairs and rock stabilization, an up-to-date drainage system, a smooth paved travel surface, a ventilation system, safety and security features, wheelchair accessibility features, resting benches, state-of-the-art energy-efficient lighting for safety and to highlight the Tunnel's architectural and geological features, and educational displays about the Tunnel's history, engineering and geological features.

Mineral deposits within Tunnel (photos by Keith Hare)



Once open, Canada's First Railway Tunnel will be a safe brightly-lit, dry, smoothly paved and wheelchair accessible place to explore for all ages.

Roundhouse Visitor Centre Tour-Train - Parking Area

Development of the former railway lands west of the Tunnel gorge will include:

- New parking for cars and tour buses visiting Brockville's downtown.
- Construction of a replica railway Roundhouse Visitor Centre – a multi-purpose space for special exhibits, festivals, fairs, shows, films, receptions, weddings, meetings, and conferences, including public restrooms with capacity to accommodate visiting tour buses.
- Operation of a new soft-tired tour train providing convenient transportation for residents and visitors from the roundhouse and parking area. The tour train will depart at frequent intervals, travelling south through the Tunnel to downtown attractions such as events and festivals at Armagh S. Price Park and Blockhouse Island, 1000 Islands boat cruises, the Aquatarium, the Brockville Museum, the Brockville Arts Centre, King Street shopping, dining, and entertainment, and the Fulford Place Museum east of downtown, before returning through the Tunnel to the Roundhouse parking area.

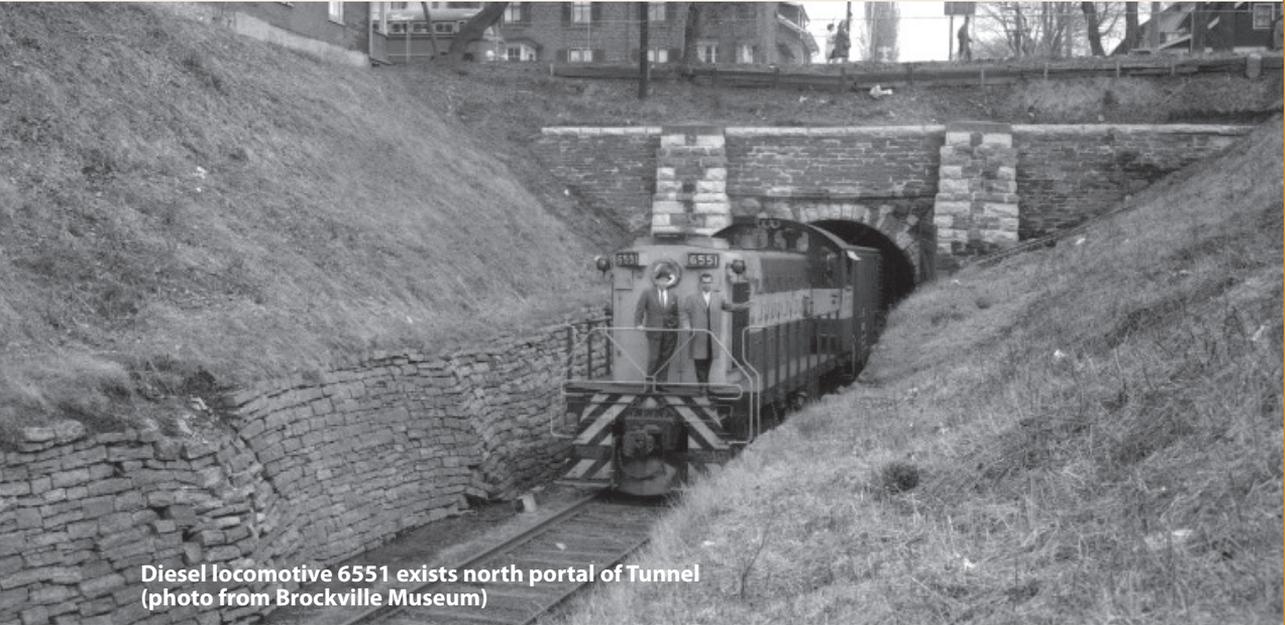


Conceptual drawing of Tunnel's North Gorge and proposed Roundhouse Visitors Centre (illustration by Margo Davies-Leclair)



Restoration of the North Gorge

Activities to transform the gorge north of the Tunnel include rock and slope stabilization, drainage, landscaping, energy-efficient lighting, a paved smooth travel surface, safety and security features, and a wheelchair accessible ramp and resting benches.



Diesel locomotive 6551 exists north portal of Tunnel
(photo from Brockville Museum)

North Gorge Area had Major Engine Works

The lands adjacent to the gorge had extensive engine works as part of the Grand Trunk Railway's Brockville divisional point. The gorge is just beyond the eleven engines and turntable. Development of the new Railway Tunnel Park, will highlight Brockville's extensive rail history.



Turntable west of Tunnel's north gorge
(photo from Brockville Museum)

Armagh S. Price Park Improvements

Improvements planned for Armagh S. Price Park to complete Brockville's new Railway Tunnel Park include: a visitor centre with public restrooms, a railway dining car restaurant and outdoor patio with a view of the St. Lawrence River and a children's playground



Conceptual drawing of proposed improvements at Armagh S. Price Park (illustration by Margo Davies-Leclair)

RAILWAYS ARE OUR HISTORY AND OUR FUTURE

Rail transportation was central to the founding of Canada. Brockville played a significant role as an early major railway divisional point. Railways are even more important today to our future economic prosperity. It is fitting therefore to preserve and promote Canada's First Railway Tunnel as a symbol of Brockville's contribution to our country's railway history.



Project Benefits

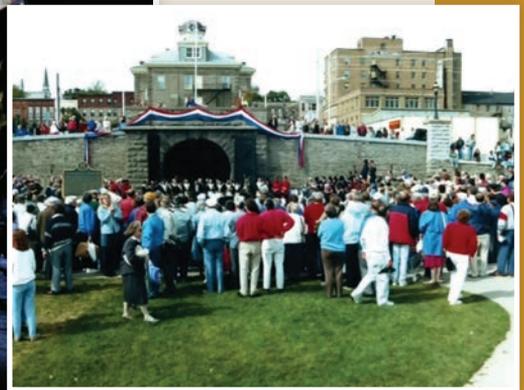
Restoration of Canada's First Railway Tunnel will benefit Brockville by promoting:

- **RECREATION** – Railway Tunnel Park will be an exciting and active place for residents and visitors alike to enjoy walking, jogging, running, cycling, and other outdoor activities every day.
- **TOURISM** – According to market research firm TCI, Railway Tunnel Park is projected to attract an additional 30,000 visitors per year to Brockville's downtown. The Tunnel and Park will encourage more people to visit Brockville and to stay longer.
- **ECONOMIC DEVELOPMENT** – TCI projects that Railway Tunnel Park will bring in \$1 million per year in new revenues for local businesses, especially those downtown. The Tunnel and Park will provide yet another reason for new employers to locate their workforces in Brockville.
- **RAILWAY HERITAGE** – Railway Tunnel Park will preserve Brockville's history as a pre-Confederation railway centre. Young people will be able to explore this history in the context of 21st Century rail transportation, in order to share it with the next generations.
- **CIVIC PRIDE** – No other community in Canada has a railway tunnel of such historic importance. Canada's First Railway Tunnel at Railway Tunnel Park will be Brockville's internationally recognized landmark.



Commemorative 150th anniversary dinner in 2010, Brockville Museum

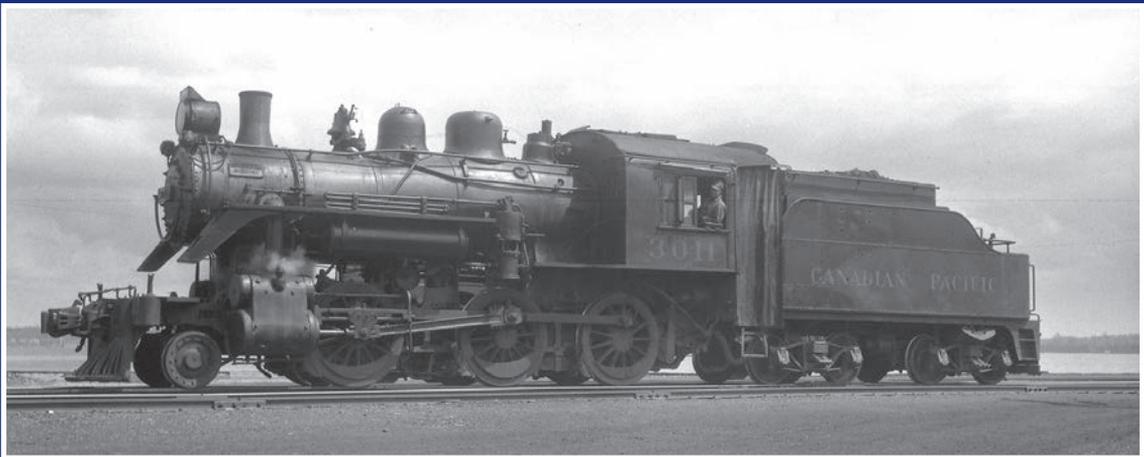
Re-enactment celebrating tunnel's 130th in 1990, Brockville Museum



“A Tunnel Is Not A Tunnel Unless You Can Go Through It”

Get Involved!

- Support restoration of Canada’s First Railway Tunnel and creation of Brockville’s new Railway Tunnel Park.
- Make a donation - donors contributing \$500 or more will be recognized publicly on our campaign donor wall.
- Join our email newsletter list and follow us on Facebook.
- Organize a special event to raise awareness and funds to support the tunnel project.
- Book a Tunnel tour or speaker for your office, organization, team, or club.
- Invite your family and friends to celebrate Canada’s 150th birthday in 2017 by visiting Canada’s First Railway Tunnel at Brockville’s new Railway Tunnel Park.



Steam engine 3011 at Blockhouse Island (photo from Brockville Museum)

For more information
about how you can help, contact

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