

TBM Tunnels

Statement of Qualifications

HATCH



A world leader in TBM driven tunnels

With over 11,000 professionals across more than 65 offices on six continents, Hatch offers a full range of services to deliver tunnel projects of any scale. Our global reach and depth of expertise enable us to scale our efforts from small inspection assignments to world-class, multibillion-dollar programs.

Possessing a specialist tunnel capability is a core technical strength at Hatch. Our expertise spans a broad range of capabilities, including feasibility studies, planning and implementation of new facilities, and inspection and rehabilitation of existing facilities. Hatch has successfully delivered underground solutions for roadways; passenger and freight rail systems; subway and light rail transit; energy infrastructure; water and wastewater systems; and utility and communication tunnels for both public- and private-sector clients worldwide.

Hatch offers clients a complete range of tunnel specialist services across the entire project life cycle—from planning and design through contract procurement, construction and program management, to operations support—using the latest project delivery models.

A long tunnels legacy at Hatch

Globally, Hatch has over 150 specialists and over 500 tunnel support staff engaged in tunnel planning, design, program management, and construction management. Our professionals apply in-depth construction knowledge during design and a strong understanding of design theory during construction.

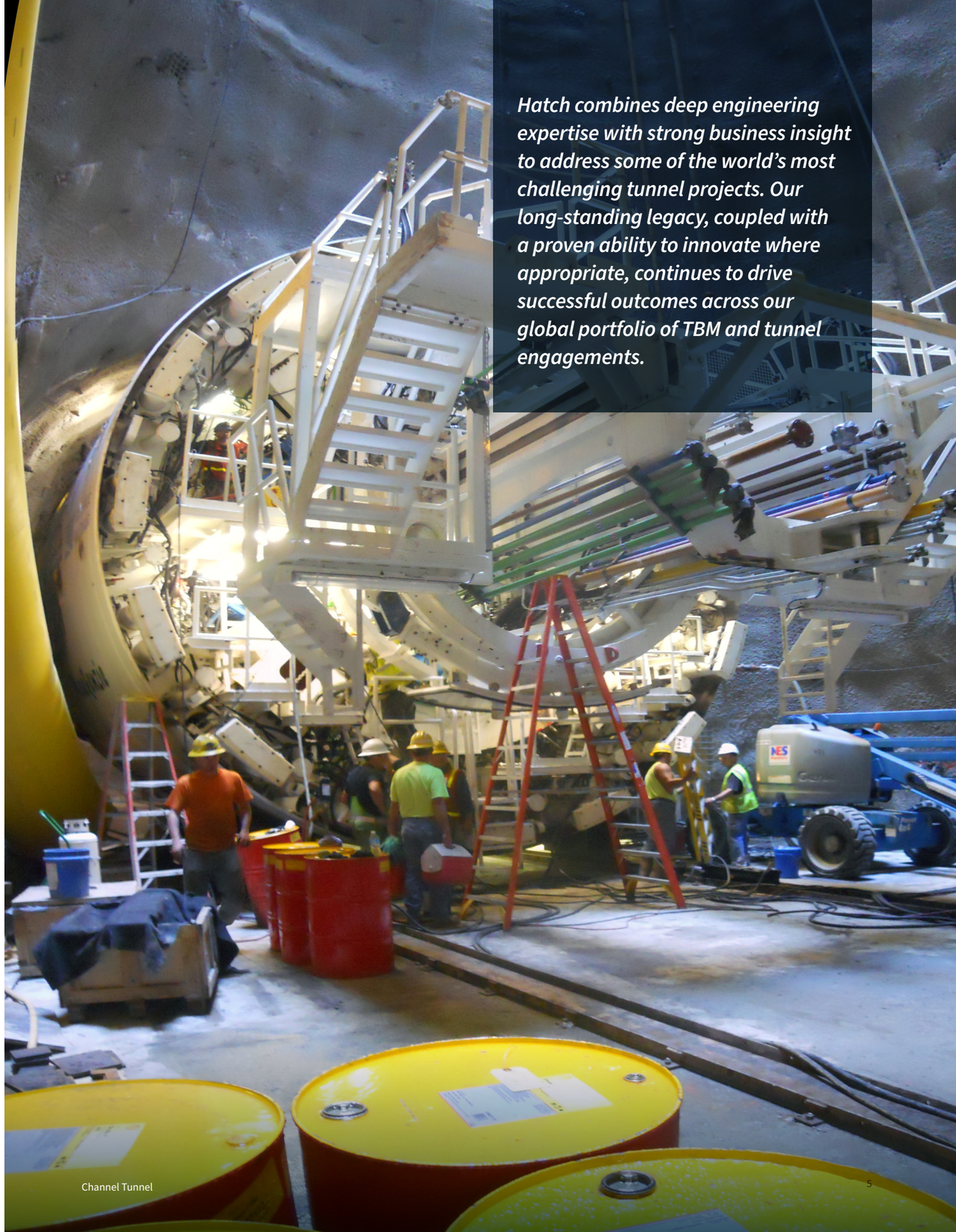
Hatch's culture of innovation and pioneering design drives the application of international expertise on complex tunnel projects in new and emerging markets.

Tunnel Boring Machine (TBM) construction is a specialized niche within the tunnel industry, with demand increasing as applications for complex design and construction continue to grow. Hatch has developed leading expertise in this area since its early adoption, gaining firsthand experience with cutting-edge TBM technologies attaining several world and regional firsts in the process.

A defining example of this expertise is the Lesotho Highlands Water Project, which included the design of a system of water-transfer rock tunnels totaling an unprecedented 120 km to convey fresh water from Lesotho to South Africa. The project incorporated several state-of-the-art TBM methods and the use of precast concrete tunnel lining (PCTL) in rock.

In the late 1980s and early 1990s, Hatch designed and provided construction supervision for the CN St. Clair River Rail Tunnel, a major heavy-rail project connecting the US and Canada under the St. Clair River between Michigan and Ontario. At the time of construction, the project set a North American record for the largest-diameter Earth Pressure Balance (EPB) TBM.

Our world-class hydro capability in TBM rock-tunnel engineering also led to a landmark hydropower tunnel project beneath Niagara Falls. This project established a world record for the largest diameter rock TBM at the time.



Hatch combines deep engineering expertise with strong business insight to address some of the world's most challenging tunnel projects. Our long-standing legacy, coupled with a proven ability to innovate where appropriate, continues to drive successful outcomes across our global portfolio of TBM and tunnel engagements.

Channel Tunnel

Successful project delivery by TBM

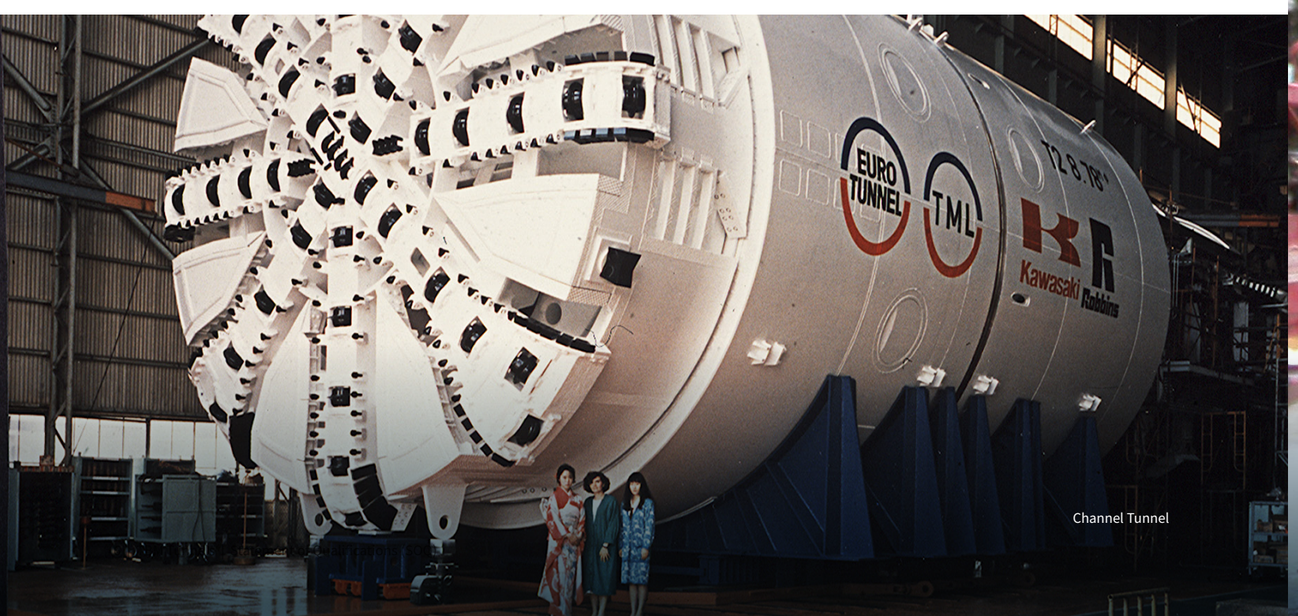
Hatch has long been a leader in the selection and application of mechanized boring equipment, working closely with manufacturers to develop bespoke solutions. Hatch consistently advocates for the adoption of advanced technologies across TBM projects to optimize cost, schedule, risk, quality, and safety, while enabling tunnel construction approaches that were previously not feasible. This expertise is reinforced by numerous first-of-their-kind applications of TBM technologies.

In Canada, Hatch has become an industry leader with the implementation of owner-procured TBMs, supporting accelerated schedules and reduced project risk. Key projects include the Southeast Collector Trunk Sewer (York Region), Sheppard Subway (TTC), Toronto-York Spadina Subway Extension, CN St. Clair River Tunnel, and the Eglinton Crosstown LRT.

Landmark achievements in TBM tunnels

- CN St. Clair River Rail Tunnel – Largest Earth Pressure Balance Machine (EPBM) used in North America at the time of construction
- Sound Transit Seattle SR99 Highway Tunnel – Constructed using “Big Bertha,” the world’s largest pressurized-face TBM
- Niagara Hydropower Tunnel – World’s largest hard rock TBM at the time of construction
- New York Harbor Siphon Project – First use of an EPBM in New York City
- Edmonton SLRT North Tunnels – First use of a large-diameter slurry-pressure TBM in North America
- Keswick Effluent Outfall Project – First curved micro-tunnel in Canada
- Leaders in use of two-component grout using a single shielded rock TBM
- Yonge Subway Project – First use of segmental tunnel lining for a transit tunnel in North America

Understanding the wide variety and ever-increasing constraints that societal growth places on existing and new infrastructure, combined with the confident application of advanced TBM tunnel technology through our specialist expertise, leads to successful project delivery for our clients.



Channel Tunnel

Atlanta West Area CSO Tunnel

Subaqueous tunnels: Crossing the water divide to tunnel beneath the waves

Historically, water bodies such as oceans, seas, lakes, reservoirs, rivers, and creeks presented major barriers to infrastructure development and expansion. As TBM technology improved, subaqueous tunneling has become a preferred solution, offering environmental benefits, extended operational life of the facility, improved effectiveness, and access to infrastructure corridors that would otherwise not have been feasible.

TBM driven subaqueous excavations, including tunnels and caverns, have been used for water-conveyance systems, transit and rail, highways, combined sewer overflow (CSO) facilities, and high-voltage, hydropower, and oil and gas infrastructure. Hatch has delivered numerous TBM projects involving significant and technically challenging subaqueous crossings.

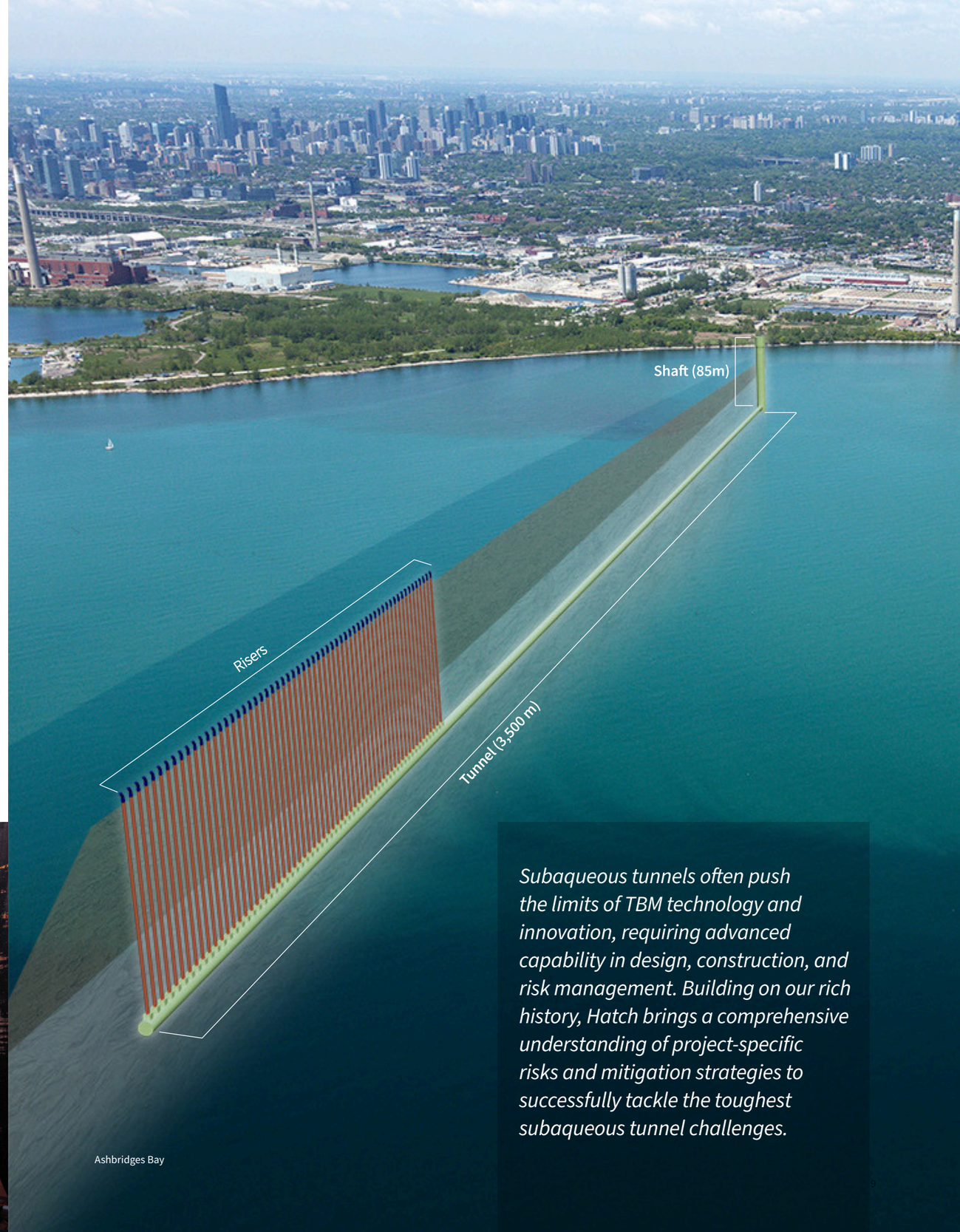
Our heritage includes pioneering projects such as the Channel Tunnel between England and France, which at the time of construction was the longest undersea crossing in the world and, to this day, includes the world's largest undersea cavern. Hatch applies this depth of experience to effectively identify and manage risk and overcome the inherent challenges associated with subaqueous tunneling

Specialist TBM capabilities and expertise:

- Owner-procured TBMs
- TBM type selection
- TBM specification
- Factory acceptance testing and site acceptance testing
- Refurbishment and remanufacturing
- Pressure calculation
- Soil conditioning
- TBM wear prediction and intervention
- Design of PCTL in collaboration with TBM design and suppliers
- Claim management for TBM-related issues
- TBM data analysis (TIMS, TPC) during operation, post construction, claims, etc.
- Muck conveyance (slurry, conveyors, muck boxes)
- TBM power supply estimates
- Logistics supply
- Spare parts and consumables
- Maintenance inspection



Tunnel Photo Archive - Channel Tunnel Project



Ashbridges Bay

Subaqueous tunnels often push the limits of TBM technology and innovation, requiring advanced capability in design, construction, and risk management. Building on our rich history, Hatch brings a comprehensive understanding of project-specific risks and mitigation strategies to successfully tackle the toughest subaqueous tunnel challenges.

Moving through a mountain underground

TBM tunneling is inherently challenging and risky, especially when digging through mountains that are often in isolated regions and subject to harsh environmental conditions. These challenges often occur simultaneously and require a high degree of technical expertise and disciplined execution to be managed and mitigated.

Hatch addresses these conditions through advanced engineering methodologies, adaptive excavation techniques, and the application of deep technical expertise. For example, the Kemano T2 Tunnel project in remote British Columbia faced extreme weather conditions and restricted site access, requiring careful management of transportation, accommodations, logistics, and avalanche control to sustain project execution. Hatch used a TBM with a single-pass lining system to minimize the project schedule and specified a shielded TBM with a precast concrete tunnel lining, including a provision for pea-gravel backfilling, to reduce risks associated with high groundwater pressure.

The Lesotho Highlands Water Project involved the application of several tunneling techniques through a range of rock types. River crossings were constructed using TBMs through sandstone, siltstone, and basalt, while traversing major fault zones and intersecting numerous intrusive geologic features. High-stress tunneling conditions were encountered with the potential for bursting, slabbing, block failure, popping, and spalling requiring monitoring and mitigation.

A defining characteristic of TBM driven mountain tunnels is the need to address high groundwater pressures associated with faults and fissures, often requiring tunnel grouting in advance of excavation. This demands a deep, specialized understanding of mountain geology, tunneling technologies and materials, and their potential impacts on design and construction.

Tunneling through mountains often requires a high degree of skill and judgment, as approaches must accommodate limited subsurface data when excavating under extreme topographic features. Hatch brings extensive experience and technical depth to overcome the inherent challenges of tunneling in remote mountainous environments, ensuring the successful delivery of TBM tunnels through complex geological conditions.



Kemano T2 Tunnel

Complex urban tunnels: Protecting cities and infrastructure

Modern urban tunnels are increasingly constructed at greater depths, placing heightened constraints on TBM tunneling while requiring protection of existing infrastructure and minimizing disruption to daily city life.

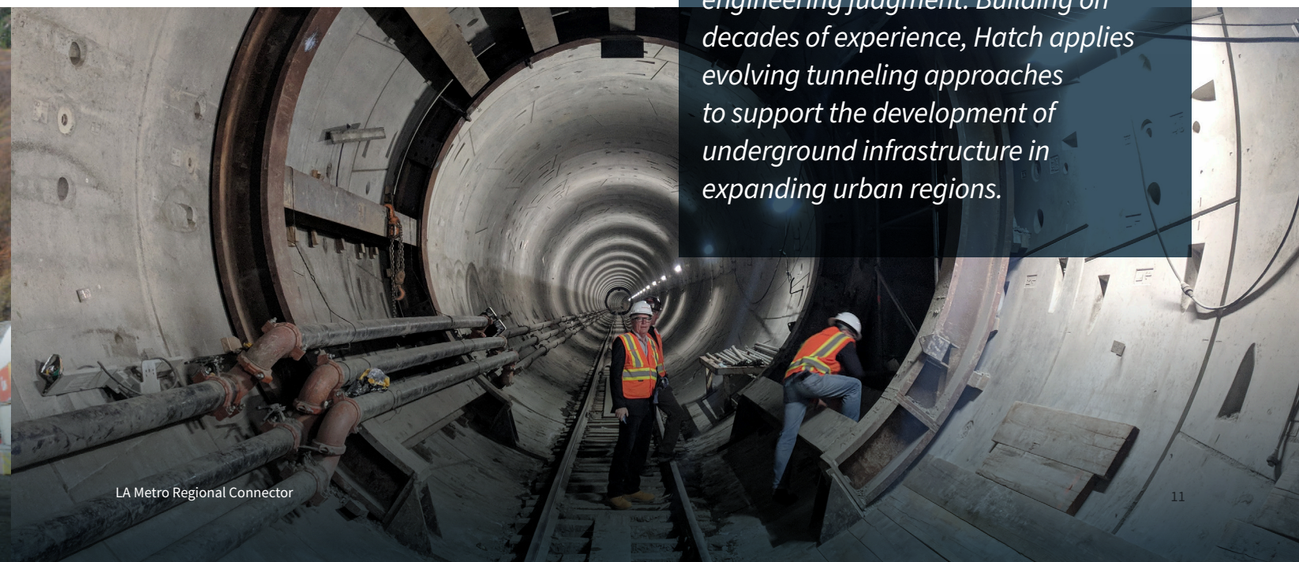
To address these challenges, Hatch employs a variety of innovative and bespoke solutions to manage project-specific tunnel risks. Selecting appropriate tunnel construction methods is critical to success, including the application of advanced mechanized tunneling technologies such as hybrid, multimode, slurry, and EPB TBMs. These specialized technologies can be integrated with ground improvement techniques, where appropriate.

Hatch has developed state-of-the-art techniques for reducing surface settlement during TBM tunneling. On the Toronto-York Spadina Subway Extension, Hatch carried out shallow-cover tunneling directly under a glass-fronted high-rise building with no measurable surface settlement.

Hatch's proprietary construction impact assessment methods enable efficient evaluation of potential ground movements and their effects on nearby buildings and utilities. These methods are supported by comprehensive geotechnical instrumentation and monitoring programs implemented in design and carried through construction, allowing for continuous adjustment of tunneling parameters as conditions evolve.

Each project highlights Hatch's approach to working under challenging urban constraints, with a focus on minimizing construction impacts, managing ground performance, and providing continuous support throughout construction.

As urban growth places increasing demands on existing and new infrastructure, the successful delivery of complex tunnels depends on the informed application of advanced TBM tunnel technologies and sound engineering judgment. Building on decades of experience, Hatch applies evolving tunneling approaches to support the development of underground infrastructure in expanding urban regions.



LA Metro Regional Connector

Hard to soft rock: Tunnel excavation through the full range

Hatch has extensive experience in TBM driven rock tunneling, covering feasibility studies, design, and construction management for projects across a wide range of geological conditions. These include the stadium conglomerate formations in San Diego County (California, US); the soft rocks of the Channel Tunnel (UK-France); hard limestone encountered on the Buffalo Light Rail system (New York, US); gneisses and basalts present in wastewater tunnels in Atlanta (Georgia, US); granite associated with rock and rail tunnels (Hong Kong, China); Silurian sandstones in Melbourne (Australia); and basalts in the mountainous regions of southern Africa, where a world record for TBM advance rates was achieved.

Hatch's hard rock tunneling experience encompasses methods that include drill-and-blast, drill-and-split, and full-face TBMs. Applications for rock TBMs include unshielded main beam machines, single and double shielded configurations. Hatch also has substantial experience in designing primary rock tunnel support systems, including rock bolts and dowels, mesh, lattice girders, steel arches, and sprayed concrete linings, as well as final linings such as cast-in-place and precast concrete, and steel linings for hard rock tunnels.

Urban Tunnel

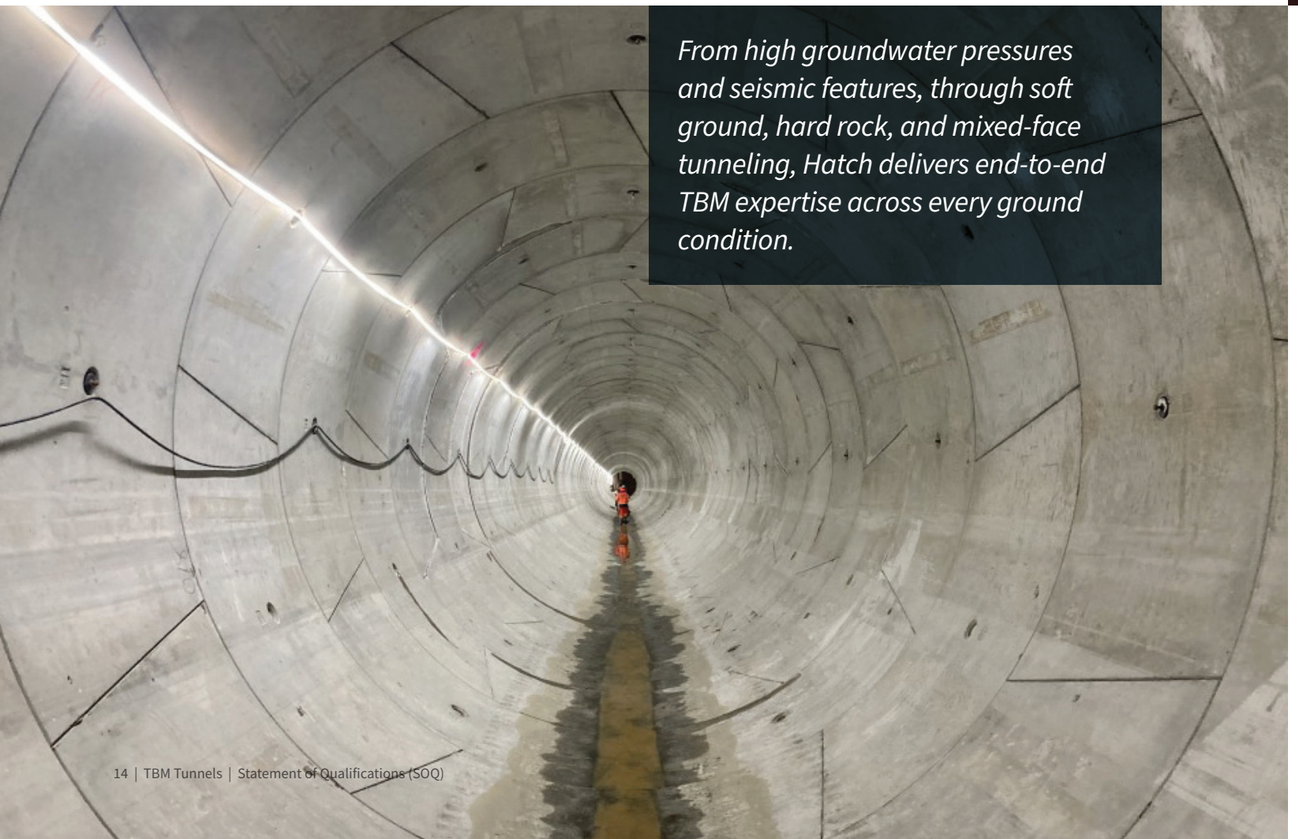
Soft ground tunnels: Where clays, sands, gravels, and water meet

Hatch has a long-standing track record in soft ground tunneling that spans more than 70 years. This experience ranges from early hand-mined construction to today's highly mechanized methods employing sophisticated TBMs.

Hatch's soft ground TBM experience includes tunneling through sands, clays, silts, gravels, cobbles and boulders, glacial deposits, mixed soil-and-rock faces, and high hydrostatic pressure conditions. Hatch also specializes in the application of ground treatment and control measures, including grouting, ground freezing, dewatering, and compressed-air working. These approaches are applied in conjunction with single-pass precast concrete linings, variable-density slurry shields, and EPB TBMs, across a wide range of tunnel applications.



Tunnel Archive Photo - Port Mann Water Supply Tunnel



From high groundwater pressures and seismic features, through soft ground, hard rock, and mixed-face tunneling, Hatch delivers end-to-end TBM expertise across every ground condition.

Leading the way with precast concrete tunnel lining

Today's tunneling industry demands tunnel linings that are more resilient, durable, and cost-effective than ever before. Precast concrete tunnel lining (PCTL) is one way to meet this demand. PCTL systems have been used to safely support tunnels and are commonly used with TBMs both in soft ground and, to a lesser extent, in rock conditions, for all types of tunnel applications.

As a pioneer of this technology, Hatch understands the challenges associated with the design, manufacturing, installation and repairs of PCTL. Hatch has extensive experience applying state-of-the-art tools and innovative approaches to deliver high-quality lining solutions throughout design and construction. This knowledge allows Hatch to support clients throughout the full life cycle of a project, from design, program, and construction management through to completion.

PCTL expertise:

- Design of PCTL in soft ground or hard rock
- Assessment of PCTL response under seismic motion
- Assessment of impacts on existing tunnel linings due to future adjacent structures, such as building basement excavation or undercrossing tunnel
- Rehabilitation and repair of existing tunnel lining
- Simulation of tunnel mining process to evaluate compatibility of PCTL with the TBM
- Modeling of steel fibre reinforced concrete (SFRC), including simulation of energy absorbance benefits of SFRC to ensure a safe and cost-effective replacement for rebar

- Assessment of PCTL response under fire, including simulation of heat transfer, prediction of concrete spalling, and enhancement of PCTL design to improve fire resistance
- Selection and assessment of PCTL accessories (gaskets, connectors, guide rods, grout ports, packers)
- Development of specifications to meet clients' requirements while ensuring durability and cost effectiveness of the design
- Design of openings in PCTL, such as cross passages and adits, including design of temporary support requirements to facilitate the construction of the openings
- Optimization of ring geometry
- Advanced 3D numerical modeling of PCTL considering ground-structure interaction tailored to clients' requirements and challenges encountered during design.
- Assessment of splitting of the key segment in PCTL systems



Tunnel Photo Archive - Howard Street Tunnel



Hatch TBM Project Experience

1	Basement Flooding Protection Program, Phase 4, Toronto, ON (Canada)	Water
2	East Side Access, LIRR, New York, NY (US)	Heavy Rail
3	Ingham Pumped Hydro Energy Storage, Queensland (Australia)	Hydro
4	Channel Tunnel (UK)	Heavy Rail
5	Polihali Transfer Tunnel, Lesotho (Africa)	Hydro
6	Mohale-Katse Water Tunnel, Lesotho (Africa)	Hydro
7	Water Tunnel No. 3, New York, NY (US)	Water
8	Jamaica Bay Outfall Tunnel, Long Island, NY (US)	Wastewater
9	Easterly CSO Advanced Facilities Plan, Cleveland, OH (US)	Wastewater
10	Eglinton Crosstown LRT Twin Tunnels, Toronto, ON (Canada)	Transit
11	Lower Northwest Interceptor, Sacramento, CA (US)	Wastewater
12	Henderson CSO Tunnel, Seattle, WA (US)	Wastewater
13	LA Metro Redline, North Hollywood Extension, Los Angeles, CA (US)	Transit
14	Dulles Airport APM Tunnels, Washington, DC (US)	Airport
15	TTC Toronto – Toronto-York Spadina Subway Extension Twin Tunnels, ON (Canada)	Transit
16	Boston Harbor Effluent Outfall, MA (US)	Wastewater
17	Western Beaches CSO Tunnel, Toronto, ON (Canada)	Wastewater
18	SR 99 Alaskan Way Replacement Tunnel, Seattle, WA (US)	Highway
19	Southeast Collector Trunk Sewer, Toronto, ON (Canada)	WW
20	Seymour-Capilano Twin Water Tunnels, North Vancouver, BC (Canada)	Hydro
21	Melbourne Metro Tunnel - Independent Reviewer (Australia)	Transit
22	West Area CSO Storage Tunnel and Pumping Station, Atlanta, GA (US)	Wastewater
23	TTC Sheppard Subway Twin Tunnels, Toronto, ON (Canada)	Transit
24	Sydney Metro - Western Sydney Airport Line's Station Boxes & Tunneling (Australia)	Transit
25	Coronado Highway Tunnel, San Diego, CA (US)	Highway
26	Kuznetsovsky Tunnel, Khabarovsk Krai (Russia)	Heavy Rail
27	Niagara Tunnel, Niagara Falls, ON (Canada)	Hydro
28	DC Cook Water Intake Tunnel, Bridgman, MI (US)	Power
29	Melbourne Underground Rail Loop - now called City Loop (Australia)	Transit
30	Detroit River Railway Tunnel Study (Detroit, US and Windsor, ON, Canada)	Heavy Rail
31	Southerly CSO Tunnel, Cleveland, OH (US)	Wastewater
32	Boston Harbor Inter-Island Tunnel, MA (US)	Wastewater
33	Ohio Canal Interceptor Tunnel, Akron, OH (US)	Wastewater
34	Dugway Tunnel, Cleveland, OH (US)	Wastewater
35	CAHST California High-Speed Train Project, CA (US)	Heavy Rail
36	Grosvenor Coal Mine Tunnels, Queensland (Australia)	Mining
37	Karahnjukar Water Delivery Tunnel (Iceland)	Hydro
38	RM Clayton to Utoy Creek WW Tunnel, Atlanta, GA (US)	Wastewater

39	Trans Hudson Express, Palisades, NJ (US)	Heavy Rail
40	Kemano T2 Project, BC (Canada)	Hydro
41	North East Link, Melbourne - Proof Engineering (Australia)	Transit
42	North East Link, Melbourne - Nominated Authority (Australis)	Transit
43	Mid-Halton Outfall, Oakville, ON (Canada)	Wastewater
44	TTC Scarborough Subway, Toronto, ON (Canada)	Transit
45	Anacostia River CSO Tunnel, Washington, DC (US)	Wastewater
46	REM, Montréal, QC (Canada)	Transit
47	Second Narrows Water Supply Tunnel, Vancouver/Burnaby, BC (Canada)	Water
48	Northern Gateway Pipeline Tunnels, Alberta and BC (Canada)	Energy
49	Peel West Trunk Diversion, Mississauga, ON (Canada)	Wastewater
50	LA Metro Mid-City/Westside Corridor Study, Los Angeles, CA (US)	Transit
51	LA Metro Redline, Santa Monica Mountain Tunnels, CA (US)	Transit
52	MTA No. 7 (Flushing) Line Extension, New York, NY (US)	Transit
53	Detroit River Outfall Tunnel No. 2, Detroit, MI (US)	Wastewater
54	Inner Harbour West WWF Tunnel, Toronto, ON (Canada)	Wastewater
55	Coxwell Bypass Tunnel, Toronto, ON (Canada)	Wastewater
56	Buffalo Light Rail Transit, NY (US)	Transit
57	Burnhamthorpe Water Project, Peel, ON (Canada)	Wastewater
58	Lake Mead Intake Tunnel No. 3, NV (US)	Water
59	St. Clair River Tunnel (Original), Port Huron, MI (US) and Sarnia, ON (Canada)	Heavy Rail
60	Euclid Creek Tunnel, Cleveland, OH (US)	Wastewater
61	Spadina Subway Rapid Transit Structures, ON (Canada)	Transit
62	Ashbridges Bay WWTP Effluent Outfall, Toronto, ON (Canada)	Wastewater
63	Eglinton Crosstown West Extension - Advance Twin Tunnels, Toronto, ON (Canada)	Transit
64	LA Metro - Regional Connector, Los Angeles, CA (US)	Transit
65	Elm Road Generating Station Water Intake Tunnel, Oak Creek, WI (US)	Power
66	San Jose BART Extension, CA (US)	Transit
67	Minneapolis Airport LRT, MN (US)	Transit
68	Calgary Green Line LRT Tunnel Design, AB (Canada)	Transit
69	Edmonton South LRT Extension Tunnel, AB (Canada)	Transit
70	San Jose - Diridon Tunnels, CA (US)	Transit
71	Inland Feeder Arrowhead Tunnels (East & West), San Bernardino, CA (US)	Water
72	Skagit River Hydro Power Project, Seattle, WA (US)	Hydro
73	Kemess North Mine Conveyor Tunnel, BC (Canada)	Mining
74	Beacon Hill Tunnel and Station, Seattle, WA (US)	Transit
75	Burnaby Mountain Pipeline Tunnel (Trans Mountain), Vancouver, BC (Canada)	Energy
76	Peer Review Tunnel Liner Evaluation, Toronto, ON (Canada)	Transit

77	Zapolyarnaya Mine Tunnel, Vorkuta, Komi Republic (Russia)	Mining
78	Richmond Airport - Vancouver Link Tunnel (Canada Line)	Transit
79	Brightwater East, King County, Seattle, WA (Canada)	Wastewater
80	Transfer Tunnel (Katse/Muela), Lesotho (Africa)	Hydro
81	• Evergreen Line Tunnel, Metro Vancouver, BC (Canada)	Transit
82	• Sky Harbor APM Guideway Tunnels, Phoenix, AZ (US)	Airport
83	• Annacis Water Supply Tunnel, New Westminster, BC (Canada)	Water
84	Inland Feeder Riverside Badlands Tunnel, San Bernardino, CA (US)	Water
85	TTC Bored Tunnels - Original Yonge St. Toronto Subway, ON (Canada)	Transit
86	Oregon Avenue Flood Relief Tunnel, Philadelphia, PA (US)	Wastewater
87	Wanjiazhai Water Diversion Project, Shanxi Province (China)	Water
88	Lesotho Highlands Water Project North & South Transfer Tunnels, (Africa)	Hydro
89	Lesotho Highlands Water Project (Phase 1a & 2b), SA (Africa)	Hydro
90	Coquitlam Main No.4, BC (Canada)	Water
91	Brightwater Central, King County, Seattle, WA (US)	Wastewater
92	MCUA Secondary Force Main Tunnel, Sayreville, NJ (US)	Wastewater
93	Big Walnut Rickenbacker Sewer, Columbus, OH, (US)	Wastewater
94	St. Clair River Rail Tunnel, Port Huron, MI (US) and Sarnia ON (Canada)	Heavy Rail
95	Bay Division Pipeline Upgrade, San Francisco, CA (US)	Water
96	Keswick WPCP Effluent Outfall, York Region, ON (Canada)	Wastewater
97	Mamquam Hydroelectric Project, Squamish, BC, (Canada)	Hydro
98	East Central & North East Interceptor Sewer, Los Angeles, CA (US)	Wastewater
99	Northern Kentucky Western Regional Conveyance Tunnel, Boone County KY (US)	Wastewater
100	North Dorchester Bay CSO Storage Tunnel, MA (US)	Wastewater
101	Lower Olentangy Tunnel, Columbus, OH (US)	Wastewater
102	Ashlu Creek Hydroelectric Tunnel, Squamish Valley, BC (Canada)	Hydro
103	Las Vacas Hydroelectric Project, Chinautla, Guatemala (Central America)	Hydro
104	Brightwater West, King County, Seattle, WA (US)	Wastewater
105	Upper Northwest Interceptor, Sacramento, CA (US)	Wastewater
106	Braintree-Weymouth Relief Project A, MA (US)	Wastewater
107	Big Walnut Overflow Augmentation Sewer, Columbus, OH (US)	Wastewater
108	Port Mann Water Supply Tunnel, Surrey/Coquitlam, BC (Canada)	Water
109	Annacis Wastewater Treatment Plant Outfall Tunnel, Delta BC (Canada)	Wastewater
110	Nipawin Hydroelectric Project, SK (Canada)	Hydro
111	NEWPCC Headworks Facilities Project, Winnipeg, MB (Canada)	Wastewater
112	Ninth Line/16th Ave Trunk Sewer, Toronto, ON (Canada)	Wastewater
113	Natomas Force Main, Sacramento, CA (US)	Wastewater
114	Stormwater Management and Road Tunnel, Kuala Lumpur (Malaysia)	Highway/Water
115	Durban Harbour Services Tunnel Replacement, KwaZula-Natal (South Africa)	Wastewater
116	West Vaughan Sewage Servicing EA, Vaughan, ON (Canada)	Wastewater
117	Blacklick Creek Sanitary Interceptor Sewer, Columbus, OH (US)	Wastewater
118	Ottawa Combined Sewage Storage Tunnel, ON (Canada)	Wastewater
119	Etobicoke Creek Trunk Sanitary Sewer Twinning, Mississauga, ON (Canada)	Wastewater
120	Beach Interceptor Tunnel, Laguna Beach, CA (US)	Wastewater

121	Fairbank-Silverthorne Storm Sewer System, Toronto, ON (Canada)	Wastewater
122	Fort Point Channel CSO, Boston, MA (US)	Wastewater
123	West Side Interceptor/Des Plaines River Tunnel, Chicago, IL (US)	Wastewater
124	London Burbrook Trunk Sewer, London, ON (Canada)	Wastewater
125	Williams Parkway Watermain, Brampton, ON (Canada)	Water
126	Bathurst Langstaff Sewer Tunnels, York Region, ON (Canada)	Wastewater
127	19th Ave Sewer Tunnel, Markham, ON (Canada)	Wastewater
128	Bradshaw Interceptor 5A, Sacramento, CA (US)	Wastewater
129	Sacramento Bradshaw Interceptor, CA (US)	Wastewater
130	New York Harbor Water Siphon Replacement, NY (US)	Water
131	West Becher Street Tunnel, Milwaukee, WI (US)	Wastewater
132	Elizabeth Water Company 72-inch' Eastern Transmission Reinforcements Phase lll, Elizabeth, NJ (US)	Water
133	CP Rail Hamilton Culvert, ON (Canada)	Water
134	Bassin Lavigne, Montréal QC (Canada)	Wastewater
135	MDC Clean Water Project Tunnels, Hartford, CT (US)	Wastewater
136	Alloa Feedermain & Mississauga Trunk Sanitary Sewer, Brampton, ON (Canada)	Wastewater
137	Milton Alternative Water Supply Feedermain, Milton, ON (Canada)	Water
138	Victoria Feedermain, Peel, ON (Canada)	Water
139	Scarborough Trunk Watermain, Toronto, ON (Canada)	Water
140	Overpeck Valley Relief Sewer Design, Little Ferry, NJ (US)	Wastewater
141	Brock Road Feedermain, Durham, ON (Canada)	Water
142	Sacramento Force Main, CA (US)	Wastewater
143	Biscayne Bay Sewer Tunnel, Miami, FL (US)	Wastewater
144	Braintree-Weymouth Relief Project B, MA (US)	Wastewater
145	West End Trunk Line, Chester County, PA (US)	Wastewater
146	Bloor Street Watermain, Durham, ON (Canada)	Water
147	Edenvale Sanitary Sewer Supplement Phase V.A, San Jose, CA (US)	Wastewater
148	Cooksville Creek & CPR Interceptor, Peel Region, ON (Canada)	Wastewater
149	Highway 50 Trunk Sewer Sanitary Sewer, Brampton, ON (Canada)	Wastewater
150	9th Line Stouffville YDSS Extension, York Region, ON (Canada)	Wastewater
151	Air Canada Ductbank Replacement , Toronto Pearson International Airport, ON (Canada)	Airport
152	Valley Belt Gravity Sewer, Independence, OH (US)	Wastewater
153	Navajo Generating Station Cooling Water Tunnel, AZ (US)	Power
154	Southerly Early Action Plan, Cleveland, OH (US)	Wastewater
155	Sheppard Avenue Sanitary Sewer, Toronto, ON (Canada)	Wastewater
156	Yonge Subway Extension, Toronto, ON (Canada)	Transit
157	Yonge North Subway Extension (YNSE), Toronto, ON (Canada)	Transit
158	Billy Bishop Airport Pedestrian Tunnel, Toronto, ON (Canada)	Airport
159	Millwoods Double Barrel Replacement Storm Trunk, Edmont, AB (Canada)	Wastewater
160	South Edmonton Sanitary Sewer SA10A, BC (Canada)	Wastewater
161	Coxwell Sanitary Sewer Bypass, Toronto, ON (Canada)	Wastewater
162	RER 401 Rail Tunnel, Toronto, ON (Canada)	Heavy Rail
163	Coquitlam Lake Water Supply Tunnel, BC (Canada)	Water
164	ALCOSAN Allegheny River Tunnel, Pittsburgh, PA (US)	Wastewater



About Hatch

Hatch is a global engineering, project delivery, and professional services firm. Whatever our clients envision, our teams can design and build. With over seven decades of business and technical experience in the mining, energy, and infrastructure sectors, we know your business and understand that your challenges are changing rapidly. We respond quickly with solutions that are smarter, more efficient, and innovative. We draw upon our 11,000 staff with experience in over 150 countries to challenge the status quo and create positive change for our clients, our employees, and the communities we serve.

At Hatch, underground infrastructure is more than a specialty; it is a foundational part of our heritage. Since our earliest projects, our tunnelling expertise has played a critical role in some of the world's most complex underground developments. Supported by the full breadth of Hatch's multidisciplinary capabilities, we deliver innovative, comprehensive solutions for underground projects of every scale, complexity, and stage of development.

Find out more on **www.hatch.com**

20260134 | 05/2026