bty

MARKET INTELLIGENCE REPORT 2017

Infrastructure and Non-Residential Lead Construction Growth

People to count on.
Knowledge to build with.

BTY.COM

MESSAGE FROM THE PARTNERS

EXPANDING FUNDING SOURCES

to strengthen infrastructure – and the construction industry

OVER THE PAST DECADE, PRIVATE SECTOR FINANCING HAS CONTRIBUTED SIGNIFICANTLY TO CANADA'S ABILITY TO REBUILD ITS INFRASTRUCTURE THROUGH SOME 250 PUBLIC-PRIVATE PARTNERSHIP (P3) AND ALTERNATIVE FINANCE AND PROCUREMENT (AFP) PROJECTS VALUED AT $120 BILLION.

Those projects brought much needed new bridges, highways, power plants, transit lines, airports, and hospitals across the country. But as P3s add to government debt, they have started looking at other creative ways to finance infrastructure projects.

Two innovations for expanding sources of funding promise to further strengthen the nation's capability for renewing and replacing aging infrastructure. The first is the Canada Infrastructure Bank, which seeks to attract private sector financing at a ratio of $4 to $5 in private funding for every $1 of federal money. The federal government has committed $35 billion to launch the bank. The second is Quebec's plan to harness its public-sector pension fund for major infrastructure projects, the first of which is a $5.6-billion Light Rail Transit network.

The sustained investment in building infrastructure over the past decade has helped the construction industry remain remarkably stable through some very rough patches in, and uncertainty about the economy. Today, major projects in the energy, transit, transportation, and aviation sectors are leading the way in supporting overall stability for the construction industry across Canada. We expect that this strength in infrastructure will help cushion an overall decline in residential building, with the exception of some urban markets. We also see it complementing a slight increase in other non-residential building, with regional variations.

ENERGY SECTOR LEADS IN INVESTMENT

Four of the country's top 10 construction projects are multi-billion dollar hydro projects in BC, Manitoba, Quebec and Newfoundland. Two major nuclear energy facilities are undergoing billion-dollar refurbishments, and Canada's renewables continue to expand. The wind sector now ranks among the world's top 10 countries — and the solar sector among the top 15 — for installed capacity.

Four of the country's top 10 construction projects are multi-billion dollar hydro projects in BC, Manitoba, Quebec and Newfoundland.

Even with the sharp decline in capital investment in the oil-and-gas sector over the past two years, the total is still expected to top $30 billion in 2016. With oil prices also anticipated to rise, and multiple LNG plants and pipelines at various stages of development, the longer-term prospects for expansion in the oil and gas sector are improving. Two newly approved oil pipelines valued at $14.3 billion will have an immediate impact. *(Read more on the Energy Sector on page 62)*

TRANSPORTATION AND TRANSIT ADVANCE

There are almost a dozen multi-billion dollar transit projects advancing across the country. Ontario has five major LRT and subway projects underway or in the pipeline. Alberta has two, and Montreal and Vancouver are planning major extensions to existing lines. Big-ticket bridges in BC, Ontario and Quebec top the transportation list, with major highway expansions and road network improvements in Alberta, Manitoba, Ontario and Quebec. And in the U.S., the incoming administration has pledged massive new investment in infrastructure. *(Read more on the Transit and Transportation Sectors on page 60)*

AVIATION ACHIEVES P3 LIFTOFF

The aviation sector is also seeing a surge of activity across North America and globally. Toronto's Pearson, Vancouver's YVR, St. John's International and Quebec City's Jean Lesage International lead the pack in redevelopment and/or expansion at more than a dozen airports across Canada.

In the U.S. there is major modernization or redevelopment planned or underway at the main airports in Denver, Orlando, Tampa and New Orleans as well some of the country's busiest operations: Chicago's O'Hare, Los Angeles International (LAX) and New York's LaGuardia, where BTY is providing Lenders' Technical Advisory Services on the $4-billion Central Terminal Building project, the largest aviation P3 to date in the U.S. The North American expansion is part of a larger global trend that has seen airports experience an average 5% growth in passenger traffic since the global financial crisis. *(Read more on the Aviation Sector on page 56)*

OVERALL STRENGTH IN CONSTRUCTION

While 2016 is projected to fall short of earlier economic expectations, and forecasts for 2017's performance have been scaled back, we believe that the construction industry will show steady, stable growth through 2017 in Canada, and continued strength in the U.S.

BTY has been a part of the service export trend and international infrastructure work for almost a decade.

We see a number of factors supporting demand in Canada. Continued low interest rates, record immigration that supports positive population growth, sustained substantial increases in infrastructure investment, and foreign direct investment top the list. The continuing strength of the U.S. economy, which buoys Canadian non-energy exports and spurs domestic capital investment by business, also plays a key role.

The best-known non-energy exports are vehicles and auto parts, machinery, metals and minerals, agricultural products and wood. But three out of the five fastest-growing Canadian exports over the past decade have been in the service sector: financial services, computer services and management services.

Canada has also quietly become the world's fourth largest exporter of engineering services, many of them focused on infrastructure projects around the world. It is estimated that some $40 trillion in investment is required worldwide for infrastructure work.

BTY has been a part of the service export trend and international infrastructure work for almost a decade. We started with exporting our P3 expertise to the U.S. in 2008 and have had tremendous success in projects in the transportation, social infrastructure and aviation sectors. The growth of our Lenders Services in working with multiple sectors of the U.S. industry over the past two years has led to the opening of four new offices in 2016 — and increasing opportunities for providing BTY's expertise in other areas, such as Scheduling and Project Delivery. (*Read more on the outlook for the USA on page 46*)

In 2015, we discovered that there is considerable appetite for Canadian P3 expertise in Turkey, Europe and the Middle East and have since been engaged on more than a dozen overseas projects in those regions. And over the past year the confluence of our expertise in advising on energy, transit, transportation, and aviation projects has led us into new geographic markets in the Caribbean, Central America and Africa.

Despite the global economic uncertainties that continue to hover, our experience and intelligence gained in the sectors and regions we know well supports our positive outlook. The farther afield we go, the more opportunities we see to serve.

CANADA CONSTRUCTION OUTLOOK

OVERVIEW

LOW TO MODERATE
escalation forecast in 2017

THE CONSTRUCTION INDUSTRY CAN EXPECT TO EXPERIENCE THE SAME MODEST GROWTH AS THE OVERALL ECONOMY IN 2017.

The infrastructure spending that helped to keep the industry stable in 2016 will continue to be a steadying influence, and overall escalation will remain low to moderate.

Most analysts see the long-expected cooling off in the residential sector finally arriving in 2017, with a few exceptions in some urban centres. A slight increase in non-residential spending is forecast in nearly every province in 2017. That bump — combined with the sustained federal and provincial infrastructure spending and the prospect of more to come through the proposed Canada Infrastructure Bank — will help strengthen the industry in the long term. Put-in-place projections call for rising investment in almost every non-residential building sector — commercial, industrial and institutional.

Oil prices are also projected to rise in 2017, boosting the economies of the oil-producing provinces. Even so, the weakness in the Canadian dollar is expected to continue, supporting non-energy exports that have not been as strong as anticipated in 2016. Low global commodity prices will also continue to temper investment in resource projects.

One of the steady drivers of demand for construction across Canada has been — and will remain — higher immigration. The plan for 2016 was for 300,000 new permanent residents — the highest projected immigration level in modern history, and around a 7% increase on the 2015 plan.

The federal government's commitment to accepting 300,000 immigrants in 2017 as well should help keep Canada's population growth among the G-7's highest. The level of foreign direct investment also continues to increase. It was up 6.8% to $768.5 billion in 2015, after rising by 5.7% in 2014. The increased foreign investment and sustained high immigration augur well for stable near-term construction activity — and more robust levels in the longer-term.

AS USUAL, THE OUTLOOK FOR 2017 VARIES BY PROVINCE:

BC will again be one of the national leaders, with a diversified economy, steady immigration, strong non-residential demand and several large infrastructure projects underway.

Alberta is on the road to recovery after a tough few years of flood, fire, and low oil prices. Rising energy prices and sustained infrastructure investment will help push the province into positive growth territory.

Saskatchewan is following a similar upward trajectory, buoyed by rising oil prices, increased infrastructure investment and renewed demand for uranium.

Manitoba's balanced economy, rising immigration and major energy projects are keeping construction healthy.

Ontario will also be a front-runner with stronger performance in almost all construction sectors, anchored by massive infrastructure spending, strong immigration and vibrant commercial and industrial sectors.

Quebec is launching a new round of major transportation and social infrastructure projects that complement strong commercial building activity.

Atlantic Canada will include a mixed bag of economic performance forecasts, with Nova Scotia leading the pack and Newfoundland and Labrador still struggling.

The Bank of Canada is expected to continue keeping interest rates at or near historic lows. The Bank expects the economy to grow by 1.1% in 2016, and by 2% in 2017. Major private sector forecasters expect that Canada's GDP will range from 1.2 to 2.2% in 2016 and 1.9% to 2.5% for 2017.

2017 ESCALATION SUMMARY

DOWNWARD PRESSURE IS COMING FROM:

- Forecast for continued modest growth both domestically and globally
- Softer commodity prices
- Cooling residential sector

UPWARD PRESSURE ON PRICING IS COMING FROM:

- A still weakening Canadian dollar
- Rising oil prices
- Increased spending on infrastructure
- Continuing high immigration

ESCALATION FORECAST 2017

Ontario	2-3%
British Columbia	2-3%
Alberta	0-1%
Saskatchewan	1-2%
Manitoba	1-2%
Quebec	2-3%
Atlantic Region	0-1%

CANADIAN REGIONAL SNAPSHOTS

ONTARIO

Building Strength in Every Sector

ONTARIO'S CONSTRUCTION INDUSTRY CAN EXPECT STRONG PERFORMANCES FROM NEARLY EVERY SECTOR IN 2017 AND BEYOND.

Propelled by a robust provincial economy, housing, infrastructure (social and transportation), industrial and commercial sectors are all moving into 2017 with a full head of steam.

Residential construction investment is projected to rise 12.1% in 2016 and 9.1% in 2017, and total non-residential construction investment is expected to increase by 1.0% in 2016 and 3.6% in 2017.

Still low oil prices and interest rates, a weak Canadian dollar, and continuing U.S. economic expansion are all helping to drive growth well above the national average that is returning Ontario to its traditional role as the engine of the national economy. Provincial GDP is forecast to increase by nearly 2.5% in both 2016 and 2017.

With one of the country's strongest economies, Ontario will be busy in every construction sector: infrastructure, commercial, residential, industrial and institutional. The positive momentum is attracting a wave of new residents that will help the population grow – and spur demand for more building.

Darren Cash *Director*

That economic optimism has helped to reverse net interprovincial outflows of people, which, in combination with higher immigration inflows bolstered by Syrian refugees, should spur population growth to 1.3% in 2016 and 1.2% in 2017. Net migration to Ontario is expected to rise to 114,000 in 2017 and 118,600 in 2018. This steady increase in population will help support household formation and residential spending.

Following a post-recession high of an estimated 28,000 units in 2016, single-detached starts will slowly decline and range from 19,800 to 23,700 in 2017, and from 13,900 to 18,100 units in 2018. Multi-unit starts will stay at high levels, ranging between 44,000 and 46,500 in 2016, between 43,500 and 48,000 units in 2017, and between 46,000 and 51,000 units in 2018.

The continuing success of the Queens Quay revitalization, with ongoing projects such as Daniels City of the Arts combination of residential, office, post-secondary education and creative industry spaces, provides a backbone for the continuing revitalization of the Toronto waterfront.

The sale of two key properties in 2017 will add momentum to the trend for major investment in the area, which represents one of the largest urban redevelopment efforts underway in North America. The first sale is 215 Lakeshore Blvd. East, one of the largest, measured in total dollars, residential condo development sites in Toronto's history. The second is the sale of the waterfront LCBO lands, where a large new mixed-use development is planned.

Several large new mixed-use projects, such as Honest Ed's/Mirvish Village, and Downsview Park, will help keep that momentum going. And Rogers Real Estate Development Ltd. has announced a $1.5-billion master planned community with 10 condo towers in Mississauga.

Provincial GDP is forecast to increase by nearly 2.5% in both 2016 and 2017.

Office building is expected to remain strong, although reduced from the levels that will have seen nearly 6 million sf of office space delivered in the GTA between 2015 and 2017. A notable new educational addition is the $100-million

Daphne Cockwell Health Sciences Complex at Ryerson University. That project reflects a growing trend for organizations to reduce their real estate footprint, and move back downtown from the suburbs as part of the generational shift to Workplace 2.0, which features more remote workers using sophisticated IT infrastructure and collaborative workspaces.

Industrial construction continues to grow as overall economic conditions improve and the manufacturing sector expands capacity.

Annual multi-billion dollar infrastructure spending — part of the largest investment in public infrastructure in the province's history (about $160 billion over 12 years) — will continue to support healthy workloads across the province.

Some of the major projects underway in the GHTA include the $5.3-billion Eglinton Crosstown LRT, the $2.6-billion York-Spadina Subway extension, the $1.2-billion Highway 407 East Phase 2 Project, the Metrolinx Big Move, and the $250-million Mackenzie Vaughan Hospital. Many more are in the pipeline: the Gardiner Expressway rehabilitation, New Toronto Courthouses, the Centre for Addiction and Mental Health Phase 1C, the new West Park Hospital, the Hurontario LRT and the Finch West LRT.

Outside the GHTA, major projects include the $2.5-billion Bruce Power Unit 4 Life Extension project, the $2.1-billion Gordie Howe Bridge, Highway 417 improvements, a four-lane divided Highway between Thunder Bay and Nipigon, the Waterloo Rapid Transit Project, and the Confederation Line LRT in Ottawa. The last two are under construction.

The provincial government has also committed $2.7 billion for repairs and renewals at the province's 4,900 schools from 2016 to 2018. The federal government is also investing $400 million in the CFB Borden Data Centre Addition. Major federal projects in Ottawa include the $1.2-billion Centre Block renovation of Parliament, the $190-million Government Conference Centre, and the $110-million National Arts Centre.

As well, there are 2-million sf of office and commercial space under construction in suburban markets. Expansions at Yorkdale, Square Sherway Gardens, and Square One are scheduled for delivery in 2016-2017.

Industrial construction continues to grow as overall economic conditions improve and the manufacturing sector expands capacity. Warehousing and logistics are expected to show strong growth, as reflected by CN's proposed $250-million intermodal and logistics hub adjacent to its main line in Milton.

The province's ambitious infrastructure program features some of the biggest transit and transportation projects in Canada – with a full pipeline of social infrastructure projects in the works, including new healthcare and education facilities as well as government buildings.

George Chen *Associate Director*

ONTARIO OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*

* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

2.3% – 2.5%

PROJECTED POPULATION GROWTH 2017

1.2%

ESCALATION RATE 2017

2% – 3%

CANADIAN REGIONAL SNAPSHOTS

BRITISH COLUMBIA

Balance Keeps Economy Moving Forward

BC'S STRONG CONSTRUCTION PERFORMANCE IN 2016 IS EXPECTED TO REMAIN ROBUST IN 2017 DESPITE A COOLING OF THE RED-HOT RESIDENTIAL MARKET IN METRO VANCOUVER, AND CONTINUED DELAY IN LONG-AWAITED LIQUEFIED NATURAL GAS (LNG) PROJECTS THAT IS DAMPENING PROSPECTS IN THE NORTHERN PART OF THE PROVINCE.

The first project to move forward is Woodfibre, a $1.6-billion LNG plant about 45 minutes northwest of Metro Vancouver.

Vancouver's empty-homes tax, the province's 15% tax on residential properties purchased by foreign nationals in Metro Vancouver, and the federal government's further tightening of mortgages and closure of a tax loophole that benefitted foreign buyers are all expected to contribute to a pull back on housing starts in Metro Vancouver.

Single-detached home starts are expected to range from 11,100 to 11,500 units in 2016, from 10,200 to 10,800 in 2017 and from 9,500 and 10,300 in 2018. The forecast for multi-family units is for 26,400 to 27,900 units in 2016 and 21,900 to 23,500 units in 2017, with some moderation expected in 2018.

At the same time, continuing uncertainty over investment decisions on major LNG projects and low prices will combine to curb private capital investment in energy and mining projects.

Significant public sector capital investment in hydro projects will help offset limited private sector activity. The $8.3-billion Site C dam, one of Canada's largest hydro projects, leads the way in BC Hydro's planned investment of $7.6-billion in other capital projects from 2016 to 2018. Site C completion is slated for 2024.

While GDP is projected to slip from an estimated increase of 2.5% to 2.8% in 2016 to a 2% to 2.5% rise in 2017, the overall outlook remains favourable thanks to BC's diversified economy. A strong forestry sector, driven by demand from the U.S. and China, growing tourism strengthened by a lower loonie, thriving film and TV production, an expanding technology sector and an $8-billion federal shipbuilding contract all bode well for balanced economic growth.

Population growth is also helping to sustain demand in both residential and non-residential sectors. BC's population is expected to grow in 2016 by 1.2% after a couple of lacklustre years, and continue to increase by 1.3% in 2017. Much of the earlier decline in growth was due to the departure of non-permanent residents.

Conversely, the flow of landed immigrants, which drives economic growth through long-term consumption, income and investment, is rebounding after weak levels from mid-2014 to mid-2015. High interprovincial migration, primarily from Alberta, has also bolstered the influx into BC. Net interprovincial migration was 13,138 in the first half of 2016 — more than the total for 2015.

The humming economy and growing population give ample reason for optimism about continued healthy construction workloads with substantial investment in transportation and social infrastructure, tourism and accommodation and food services, as well as commercial and retail-oriented capital expenditures.

Major transportation projects include the $2.5-billion Massey Tunnel Replacement Project, the $1.8-billion Vancouver International Airport expansion, the $600-million G3 Terminal Vancouver Project, the Demolition and replacement of the Georgia and Dunsmuir Viaducts, and the $2-billion Roberts Bank Terminal 2 Project.

Metro Vancouver may be the hotspot, but Victoria and the Okanagan's urban centres of Kelowna, Kamloops and Vernon have also seen strong demand for housing that should keep those markets busy in the coming year.

Ian Wilkinson *Partner*

Major social infrastructure projects include UBC's $822-million investment in on-campus housing, other educational facilities, an aquatic centre and a student union building, and the $312-million Penticton Regional Hospital Patient Care Tower. Leading projects in the tourism sector include the $1.5-billion Garibaldi at Squamish resort and the $345-million Whistler Blackcomb Renaissance projects.

As expected, the rapid transit Evergreen Line has spurred residential and retail development near stations in Metro Vancouver's eastern suburbs.

Other proposed infrastructure projects in the pipeline include two big-ticket rapid transit items — the Millennium Line Broadway extension and the South of Fraser Rapid Transit Project — and the $1.2-billion St. Paul's Hospital relocation.

As the long-running Vancouver office building boom winds down, only three towers will be under construction after mid-2017. They are due for delivery in 2018-2019, when a new cycle is projected to begin. More than 10 new towers have been proposed.

As expected, the rapid transit Evergreen Line has spurred residential and retail development near stations in Metro Vancouver's eastern suburbs. Projects include more than a dozen high-rise towers as well as multiple mixed-use developments, townhome and single-family communities. Of particular note is The City of Lougheed, a master-planned 40-acre community which, when complete, will be home to more than 23 towers and 10,000 residents.

There are four separate projects under way in the River District, which will have 7,000 homes and 15,000 residents including 7.2 million sf of residential space, 250,000 sf of retail space and 260,000 sf of office space when built out.

There is another building boom taking place on Vancouver Island. Led by a sharp rise in residential construction in Victoria, high levels of activity are expected in every sector — infrastructure, industrial, commercial and residential — right through to 2018. The Okanagan is also experiencing a residential building boom, with starts trending up sharply in the first half of 2016 in Kelowna, Kamloops and Vernon that should help sustain healthy activity through 2017.

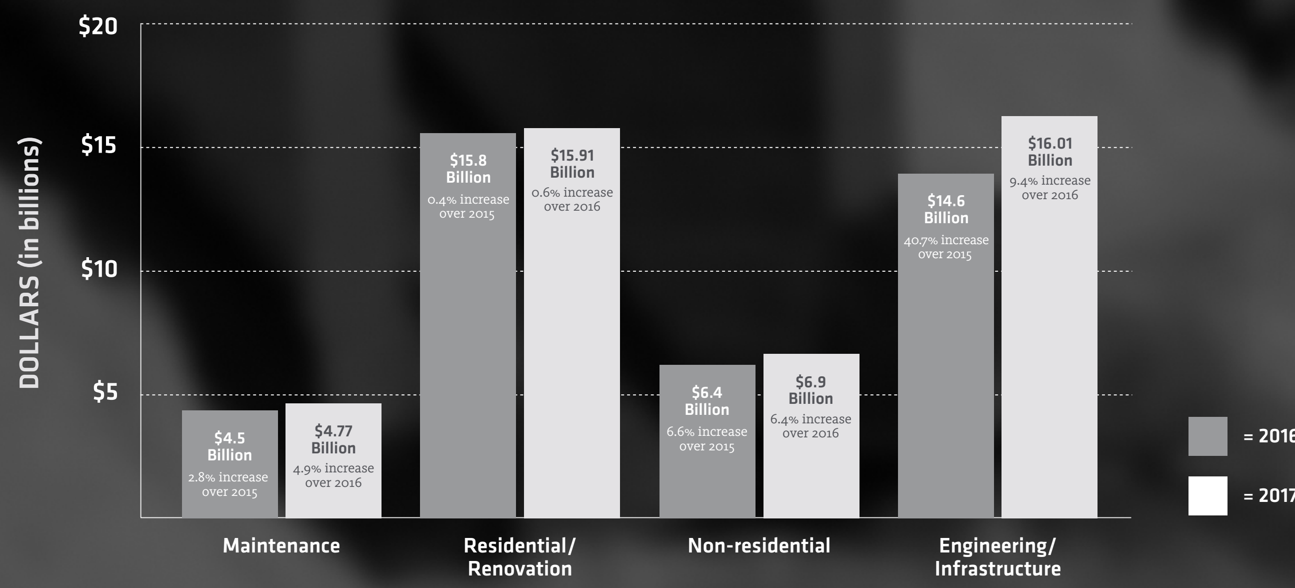
BC's diversified economy should help drive activity levels high, with the strongest showing in Metro Vancouver. Multi-billion dollar investments in port and airport expansions and a new bridge will help rebalance workloads as the residential market cools down.

Eldon Lau *Partner*

BRITISH COLUMBIA OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

2% – 2.5%

PROJECTED POPULATION GROWTH 2017

1.3%

ESCALATION RATE 2017

2% – 3%

ALBERTA

Economic Outlook Improves, but Construction Remains Weak

ALBERTA HAS SHOWN REMARKABLE RESILIENCE IN THE FACE OF THE 2013 FLOOD, THE PROLONGED SLUMP IN OIL AND GAS PRICES THAT STARTED IN 2014, AND THE WILDFIRES THAT RAVAGED FORT MCMURRAY AND DISRUPTED OIL PRODUCTION IN 2016.

While the province's GDP is again projected to contract in 2016 by between 2.5% and 3.0%, many see an expected rise in oil prices supporting Alberta's return to GDP growth of up to 1.5% in 2017. Even so, construction will remain generally weak as many major projects wind up. But there is some welcome news that arrived late in 2016 for construction in the energy sector.

The federal government's approval of two new pipelines collectively valued at $14.3-billion in late November 2016 will help spur construction in the short term and oil exports in the long term. And the provincial government has committed to having 30% of its electrical supply coming from sources such as wind, solar and hydro by 2030. It estimates the renewable plan will bring in $10.5 billion in private sector capital investment by 2030.

Expect Alberta to start its rebound from several tough years that featured flood, fire and falling oil prices. With a boost from infrastructure spending and an anticipated rise in both oil production and prices, the province should slowly move back to growth mode.

Michael Gabert *Director*

Sharp declines in the oil and gas sector's engineering construction investment in both 2015 and 2016 have radiated into the wider economy and driven up unemployment rates. That in turn has slowed immigration, long a growth driver in the province.

Even so, Alberta continued to have Canada's highest average weekly wage as well as the country's fastest growing population in the first half of 2016. Several years of high net migration have given the province a younger population than most — yielding years with bumper crops of babies to complement still high, if slightly diminished, immigration. Population is projected to increase by 1.6% in 2016 and 1.7% in 2017.

Detached housing starts are projected to decline from 2015 to range between 10,000 and 11,000 units in 2016. They are expected to rise to between 10,300 and 11,300 units in 2017, and between 11,300 and 12,300 in 2018. After years of high levels of activity, multi-family starts are projected to decline in 2016 to 11,200 to 13,800, and continue the downward trend in 2017 with between 10,700 to 13,300 units. By 2018, lower inventories and an improved economy and market are expected to boost production to between 11,600 and 14,400 units.

The provincial government's continued commitment to infrastructure spending to help offset the decline in private sector activity will also help support construction levels. Some $8.5 billion has been allocated in 2016-2017 to help build and modernize key public infrastructure, including $1.2 billion for the Calgary Cancer Centre, scheduled to start construction in late 2017.

Among the major infrastructure allocations are $953 million for roads and bridges, $634 million for various climate change initiatives, $271 million for flood recovery and nearly $1.7 billion in municipal infrastructure supports.

By 2018, lower inventories and an improved economy and market are expected to boost production to between 11,600 and 14,400 units.

Other high profile infrastructure projects include Calgary's $1.4-billion Southwest Calgary Ring Road and proposed $4-billion Green Line LRT, and Edmonton's $1.8-billion Valley Line LRT. Calgary will also invest $600 million in the Bonnybrook Wastewater Treatment Plant D Expansion and $200 million in the new CNG Bus Storage and Transit Facility.

The Alberta and federal governments are making more than $1.08-billion in funding available under two new federal programs — the Public Transit Infrastructure Fund and the Clean Water and Wastewater Fund. The federal government is providing up to 50% of funding — more than $543-million — for projects supported through these programs.

Downtown Edmonton remains a strong performer despite the province's economic troubles.

The list includes 46 transit projects across Edmonton to support critical planning for the city's next LRT expansion, as well as buses, LRT cars and significant infrastructure upgrades for the city's existing transit system. It also includes 17 water and wastewater projects, including a regional water supply system extension in Bonnyville.

Downtown Edmonton remains a strong performer despite the province's economic troubles. A number of projects, including the now operational $480-million arena, are completing in fall 2016, but others will help keep activity high through 2018. They include the $500 million, 66-storey Stantec Tower, MacEwan University's $180-million Centre for Arts and Culture, and the 54-storey JW Marriott Hotel.

Calgary also has multiple office and commercial projects under construction that will add close to 2.5 million sf of space to the market by 2018. At the same time, a high vacancy rate due to the oil and gas slump is seeing some projects delayed or suspended.

Calgary's growing role as a logistics and distribution centre for Western Canada is acting as a hedge against weakness in the sector. Both Walmart and UPS have opened distribution centres there in recent years, and it is hoped that the proposed $1.5-billion Stonegate industrial, warehouse and office complex will capitalize on demand for those services.

The rebuilding of Fort McMurray will also help sustain the construction industry. The wildfires damaged or destroyed an estimated 2,400 buildings, including 1,600 private dwellings that were completely destroyed.

Another bright spot in the economy includes the agriculture sector, which saw the value of its food manufacturing output — $1.2 billion — exceed that of Alberta's refined petroleum production, which fell to $971 million (seasonally adjusted) in June 2016 from more than $2 billion in 2014.

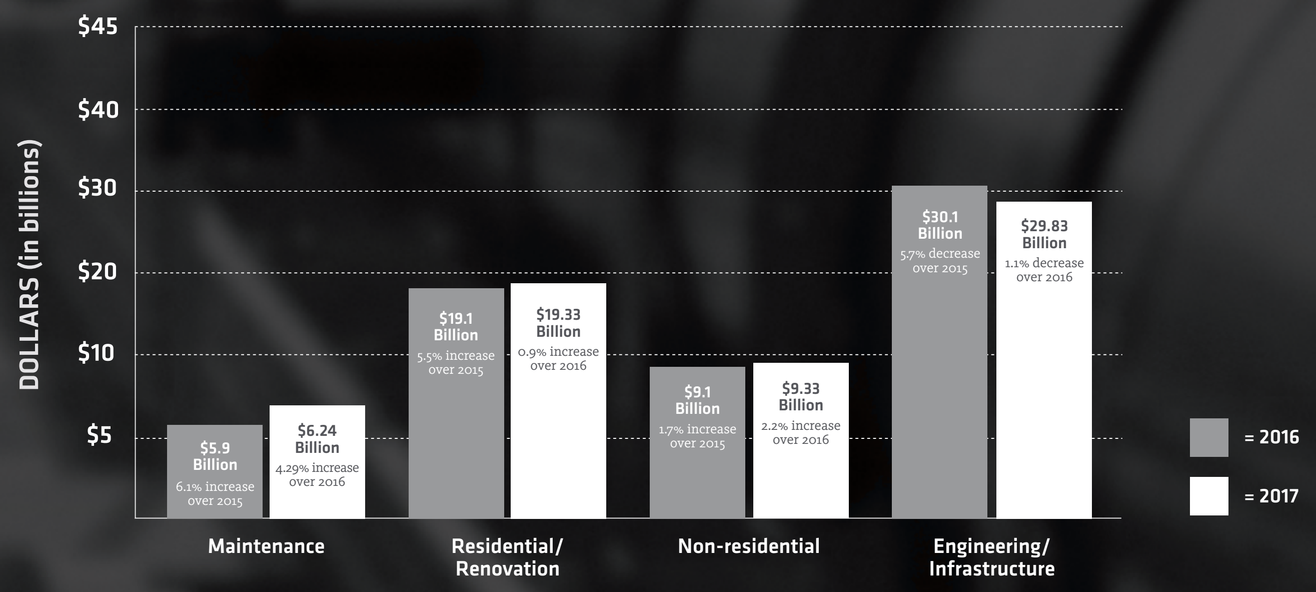
While residential building will see a slight decline province wide, the rebuilding of Fort McMurray after the devastating wildfire and a general projected uptick in oil production will help cushion the overall pull back in housing. Edmonton's downtown renaissance remains one of Alberta's bright spots.

Nathan Gerbrecht *Director*

ALBERTA OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

1% – 1.5%

PROJECTED POPULATION GROWTH 2017

1.7%

ESCALATION RATE 2017

0% – 1%

CANADIAN REGIONAL SNAPSHOTS

SASKATCHEWAN

Infrastructure Investment Supports Construction

AFTER TOUGH YEARS IN 2015 AND 2016, SASKATCHEWAN CAN EXPECT TO SEE A RETURN TO GROWTH IN 2017. ANALYSTS FORECAST GDP GROWTH OF BETWEEN 0.2% AND 0.6% IN 2016 WILL RISE TO BETWEEN 1.5% AND 2% IN 2017.

The optimism is rooted in an anticipated rise in the price of oil, a strong performance in the agriculture sector and record infrastructure spending. Overall the prospects are favourable for the energy and mining sectors in Saskatchewan for the next two years. Increased demand for uranium is expected to boost production, and the mining sector overall has more than a dozen projects valued at nearly $30-billion underway, and there are another 20 projects valued at $5-billion in oil and gas development and pipeline expansion.

Even with the rebound, the provincial economy will feel the drag from the last two years with higher unemployment, lower population growth due to out-migration as people have left to seek work elsewhere, and continuing low prices for one of its primary exports, potash. Each factor plays a role in lower private-sector capital investment.

To help counteract that drag, the provincial government's 2016-2017 budget calls for an investment of more than $3.5 billion in infrastructure projects, a single-year record for infrastructure investment. The funding will flow through the Saskatchewan Builds Capital Plan and the province's Crown corporations.

The focus will be on energy distribution, power transmission and telecommunications networks, schools, hospitals and highways. Some $875.7 million is allocated for transportation infrastructure, including $500 million to continue construction of the Regina Bypass.

There is $391 million committed to K-12 schools and other educational facilities, $239 million in health-care capital commitments, including the continued construction of the Saskatchewan Hospital North Battleford and Integrated Correctional Facility. Other ongoing major projects include the $258 million Children's Hospital of Saskatchewan and the $211 million North Commuter Parkway.

The province is also planning significant investment to support its goal of supplying 50% of the province's electricity through renewables by 2030. SaskPower plans to have the first 10-megawatt utility project up and running in 2018.

Increased international migration is projected to keep Saskatchewan's population growing at a faster rate in 2016 than in 2015 despite negative interprovincial migration flows. Improving economic conditions should

The record infrastructure investment undertaken by the provincial government will help keep construction levels healthy as the province starts the rebound from no growth or low growth to a more robust expansion.

Louis Guilbeault *Director Project Delivery*

slow the net outflow in 2017 and 2018. As international migration moderates, the population in Saskatchewan is projected to increase by 1.4% in 2016 and then by 1.3% through 2018.

The focus will be on energy distribution, power transmission and telecommunications networks, schools, hospitals and highways.

The residential sector will see single-family starts increase from 2015 levels to range from 2,600 to 2,800 units in 2016, and from 2,700 to 2,900 units in 2017. As markets improve with a rebounding economy, 2018 should see production increase to between 2,800 to 3,000 units. Multi-family starts will continue their decline from 2015 and range between 1,800 and 2,200 units in 2016, and then plateau in 2017 at between 1,800 and 2,400 before rising to between 2,200 and 2,600 in 2018.

While some major potash projects have been put on hold, others are moving forward, including the $1.7-billion expansion at Mosaic's K3 mine in Esterhazy. Another proposed new potash mine is moving ahead, and perhaps establishing a new model for future mineral development. The $3-billion project — a partnership between Encanto and the Muskowekwan First Nations — is unique because the bands will have a 100% share and full control over the mine. When completed, it will be the first potash mine in Saskatchewan on First Nations land.

An innovative approach is also helping oil producers expand in Saskatchewan even when oil prices are still low. Alberta's oil-sands sites typically take years to build and require hundreds or thousands of acres of land. With many new oil-sands projects in neighbouring Alberta shelved, miniature oil-sands plants are popping up in Saskatchewan.

These smaller operations benefit from lower construction costs, faster production ramp-ups and higher prices for their crude than traditional supersize oil-sands projects. In western Saskatchewan, the oil-sands crude is slightly less dense than in Alberta, which means it requires less steam to extract and doesn't need to be processed into a lighter grade or diluted as much when shipped by pipeline.

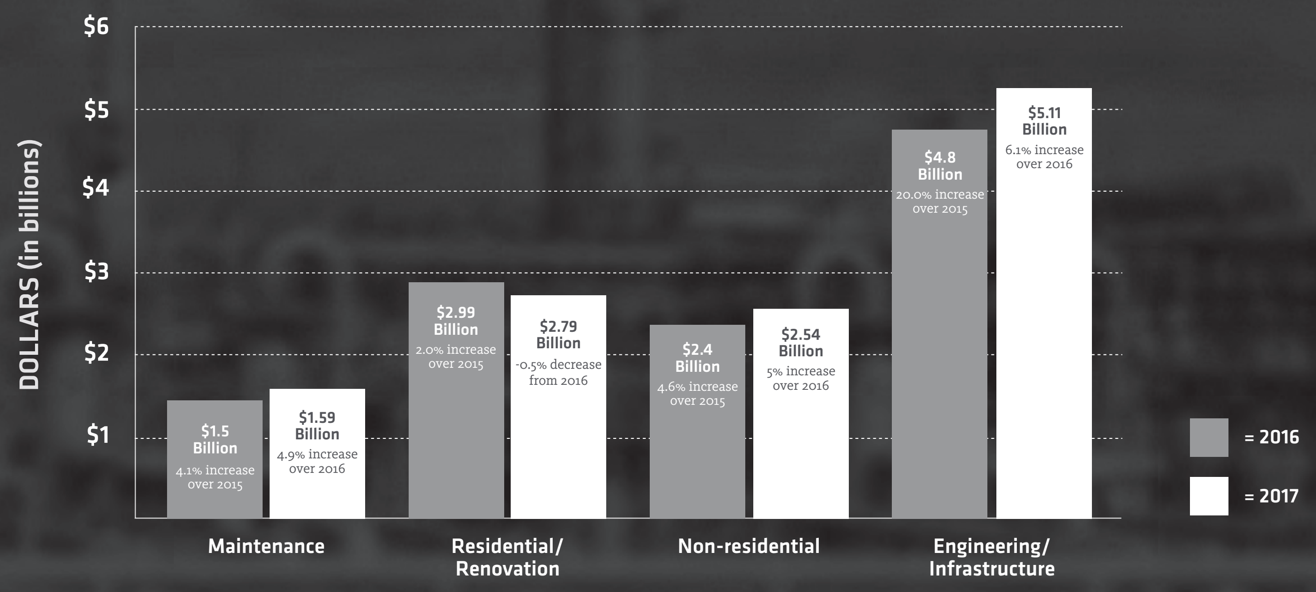
Look for Saskatchewan to return to positive growth with increased oil field activity, higher demand for uranium, strong agricultural output and continued population growth buoyed by international immigration.

Steve Botsio *Project Consultant*

SASKATCHEWAN OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

1% – 2%

PROJECTED POPULATION GROWTH 2017

1.3%

ESCALATION RATE 2017

1% – 2%

CANADIAN REGIONAL SNAPSHOTS

MANITOBA

Strength in Most Sectors Builds Momentum

MANITOBA HAS GOOD REASON TO BE CONFIDENT ABOUT 2017. IT WILL JOIN BC AND ONTARIO AS THE ONLY PROVINCES WITH PROJECTED GDP GROWTH ABOVE THE NATIONAL AVERAGE. THE FORECAST IS FOR GDP TO INCREASE IN 2016 BY BETWEEN 2% AND 2.5% IN 2016 AS WELL AS IN 2017.

Rising exports in manufacturing, a healthy agricultural sector, increased spending on infrastructure, steady population growth, and low unemployment are all contributing to strong economic performance. The construction sector is also expected to shift to high gear in every sector with major engineering projects providing a solid anchor for the industry.

The 2016 construction season was the first of two peak construction seasons for the $4.6-billion Keeyask Generating Station Phase 2, which is advancing in parallel with the associated Keeyask Transmission Project. Other major engineering projects in the energy sector include the $4.5-billion Bipole III Transmission Line, one of the largest in North America.

Major transportation initiatives include the province's $3.7-billion, five-year transportation infrastructure program, and the long-term $3-billion East Side Transportation initiative, 1,028 km of all-season road that connects the east side of Lake Winnipeg with the larger road network.

The provincial transportation infrastructure program and water treatment facilities will be receiving an additional $200 million in joint federal-provincial funding in 2016-2017. Also underway are the $215-million Southwest Transitway Stage 2 and Pembina Highway Underpass, a bus rapid transit project between downtown Winnipeg and the University of Manitoba, and the $400-million Wastewater Treatment Plant Alterations at the North End Water Pollution Control Centre.

The commercial sector will see a sharp increase in activity with projects that will transform downtown Winnipeg. The largest is True North Square, a $400-million mixed-use development with four towers in downtown Winnipeg with flexible office space, retail shops, residences, a full service hotel and services. A new 43-storey, $165-million tower — a block from the iconic corner of Portage and Main — will be the tallest in the city. An existing 30-storey tower on Main Street will also get a $27-million facelift, with new exterior cladding and front entrance.

The construction sector is also expected to shift to high gear in every sector with major engineering projects providing a solid anchor for the industry.

Population growth in Manitoba — bolstered by increased international immigration and slower interprovincial outflows — is projected to accelerate in 2016 by 1.7%, and ease in 2017 and 2018 to about 1.3%. That increase, combined with economic growth is expected to support housing demand.

A large number of units under construction are expected to keep supply levels high in the multi-family market.

Starts of single-detached homes are projected to rise from 2,325 in 2015 to about 2,600 in 2016, rising to 2,700 in 2017, and to between 2,800 and 2,900 units in 2018. Multi-family starts are projected to decline from 3,176 units in 2015 to between 2,500 and 2,900 units in 2016, and between 2,400 and 2,800 in 2017 and 2018. A large number of units under construction are expected to keep supply levels high in the multi-family market.

Those high levels are reflected in projects such as the $27-million Bridgewater Trail Apartments that broke ground in 2016. Construction on the three building complex is expected to finish by 2018. Another large-scale mixed-use development, Grant Park Pavilions, is also under way. The Red River Exhibition is set to embark on a $140-million development plan that calls for the construction of a small hotel, as well as a massive expansion of its exhibition hall and doubling of the fairgrounds.

The stability and diversity of Manitoba's manufacturing sector is reflected in investments in upgrades and expansions. Maple Leaf Foods Inc. is investing $35 million to upgrade its facility in Winnipeg, and high-end apparel maker Canada Goose is preparing to move to a new 103,000 sf facility in 2017 to support international expansion. Construction is also under way on Winnipeg's first premium fashion-outlet mall. The $200-million Outlet Collection Winnipeg mall is set to open in Q2 2017.

Social infrastructure projects include Red River College's $60-million Skilled Trades and Technology Centre, scheduled to open in 2017, and a new, $25.2-million emergency department at the Flin Flon General Hospital to be completed by Q4 2017.

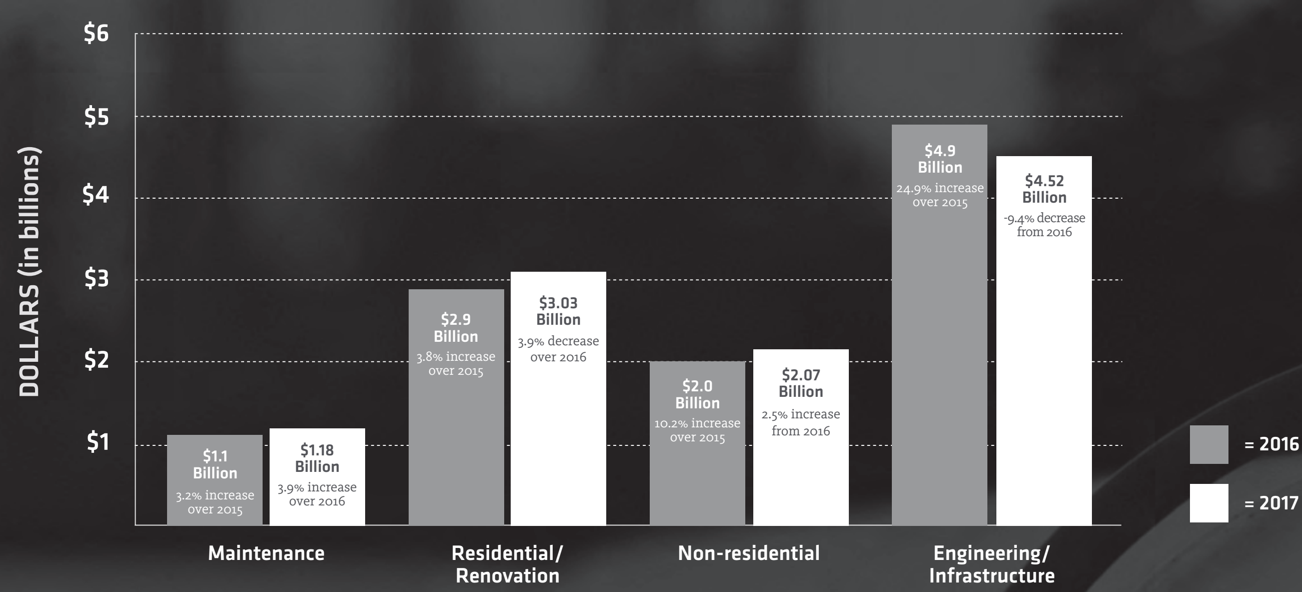
Manitoba's stable, steady economic growth is reflected in its balanced construction activity – massive long-term energy projects and investment in transportation infrastructure complement healthy residential and commercial sectors.

Alistair Dearie *Partner*

MANITOBA OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

2.0% – 2.5%

PROJECTED POPULATION GROWTH 2017

1.3%

ESCALATION RATE 2017

1% – 2%

CANADIAN REGIONAL SNAPSHOTS

QUEBEC

Strong Infrastructure Investment to Power Construction

QUEBEC WILL ENJOY HEALTHY WORKLOADS THANKS TO HIGH LEVELS OF PUBLIC SECTOR INVESTMENT IN TRANSPORTATION INFRASTRUCTURE, MUCH OF IT IN THE MONTREAL AREA.

That surge, along with substantial commercial and industrial activity, will help offset flat growth in housing starts and a lull in the launch of major new social infrastructure projects.

Spending on large transportation projects will lift the construction industry for several years after recent declines. Leading the way is the $4.2-billion Champlain Bridge, the $3.7-billion Turcot Interchange and associated work on the Ville Marie Expressway, and a $100-million repair and revamp of two kilometres of Ste. Catherine Street.

The proposed $5.5 billion Train de l'Ouest, a 67-km electric light-rail network for the Montreal area, promises to keep the transportation momentum rolling. The Caisse de dépôt et placement du Québec, the province's pension fund manager, would provide $3 billion in funding for the project. The Caisse has the power to finance infrastructure projects it deems profitable. The balance of funding would come from federal and provincial governments.

Major social infrastructure projects include Phase 2 of the $2.6-billion Centre hospitalier de l'Université de Montréal, a newly announced $800-million Centre Hospitalier Vaudreuil-Soulanges (just west of the island of Montreal), $700-million for educational infrastructure across the province, and the $345-million Complexe des sciences Outremont at the Université de Montréal.

The strong infrastructure investment is taking place as Quebec achieved its second consecutive balanced budget in 2016. Lower growth tied with that public sector restraint is now expected to pick up with provincial GDP forecast to increase by between 1.0% and 1.5% in 2016, and 1.6% to 1.8% in 2017. The low loonie continues to benefit Quebec's exports and generate an increase in business investment.

Stronger economic activity is helping the province attract an increasing number of immigrants. Total net migration in 2016 is expected reach 35,000 in 2016 and 38,000 in 2017. This will help support stability in the residential sector, which will see single-family starts range from 9,700 to 10,300 in 2016 and from 9,100 to 10,900 in 2017, and 8,800 to 9,800 in 2018. Multi-family starts will also be steady with 24,900 to 26,100 in 2016 and 24,500 to 26,100 in 2017.

Commercial construction activity is also healthy in Montreal and Quebec City. Downtown Montreal saw eight new buildings totalling nearly 1.5 million sf under construction in early 2016 with most to be delivered over 2017 and 2018.

The province has some of the largest transportation and transit projects in Canada – and is set to launch another round of major social infrastructure projects that will keep construction levels high for the next few years.

Darren Cash *Director*

They include the $114-million Maison Manuvie and the Sommer Building expansion. A new $250-million Four Seasons hotel will connect to the Ogilvy department store, which is undergoing a $60-million expansion and rebranding.

The strong infrastructure investment is taking place as Quebec achieved its second consecutive balanced budget in 2016.

Major downtown residential projects include the second 50-storey Tour des Canadiens condo tower, part of Cadillac-Fairview's $2-billion, 15-year redevelopment program, and Le Rocabella, two 40-storey buildings consisting of residential units and a shopping complex. The proposed $1.7-billion Royalmount Shopping Centre would add 4 million sf of shopping and entertainment facilities in suburban Mount Royal. Quebec City's next major project is Le Phare de Québec, a $600-million, mixed-use, four-tower project that will be built over the next 10 years.

One of the largest undertakings in the industrial sector is a plan by TELUS to invest $2 billion in new communications infrastructure across Quebec through 2020. In 2016-2017, TELUS is investing $340 million to extend fibre-optic infrastructure directly to thousands of homes and businesses in both rural and urban communities.

While the province's Plan du Nord, which supports resource development in the north will spend $175-million in 2016-2017 to improve infrastructure, low commodity prices continue to delay mining developments. Arcleor Mittel suspended the $2-billion expansion of its Port-Cartier development, and the proposed and permitted $3-billion Dumont Mine is still securing financing. The proposed $1.2-billion Lac à Paul phosphate mine is expected to start construction in late 2016 or 2017 once financing is in place.

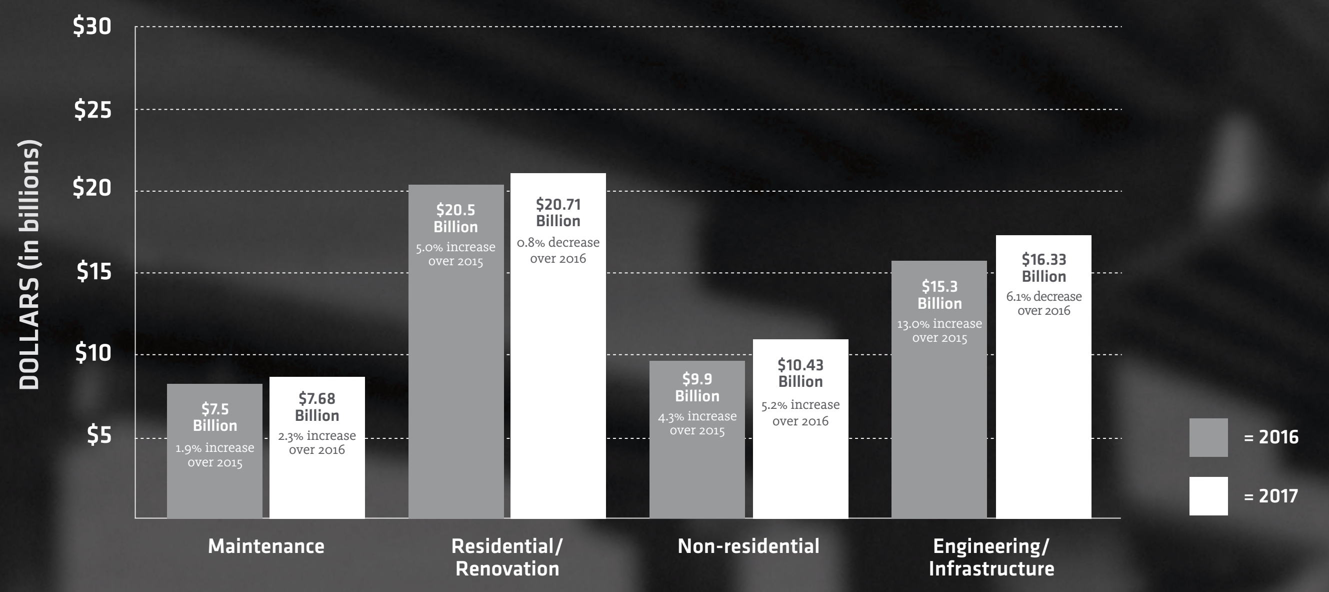
Quebec is on firm ground for modest growth in construction with a good balance between infrastructure and strong residential and industrial activity. As well, a surging commercial sector features large mixed-use projects in Montreal and Quebec City.

Antonio Niro *Director*

QUEBEC OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

1.6% – 1.8%

PROJECTED POPULATION GROWTH 2017

0.9%

ESCALATION RATE 2017

2% – 3%

CANADIAN REGIONAL SNAPSHOTS

ATLANTIC REGION

Mixed Bag of Provincial Performance

EXPECTATIONS FOR CONSTRUCTION IN 2017 FOR THE FOUR ATLANTIC PROVINCES RANGE FROM ROBUST IN NOVA SCOTIA TO ANEMIC IN NEWFOUNDLAND AND LABRADOR.

New Brunswick's workload will get a boost from government infrastructure spending and Prince Edward Island will see modest gains. The projected sharp declines in non-residential and engineering infrastructure investment are due largely to steep drops in investment in Newfoundland's oil and gas sector.

While Nova Scotia shines with commercial and residential activity and mega LNG projects, Newfoundland and Labrador – beset by declines in oil investment and population – lag behind. New Brunswick and Prince Edward Island can expect to make modest progress in the coming year.

Marie Foley *Director P3 Advisory*

NOVA SCOTIA

CONSTRUCTION WILL BE A GROWTH DRIVER FOR THE PROVINCIAL ECONOMY IN 2016 AND 2017.

With more than a dozen residential and commercial projects in the pipeline, Halifax's building boom remains in full bloom. Spurred by the $26-billion long-term federal shipbuilding contract, expansion at Pratt & Whitney's manufacturing facility, and proposed mega-projects in the natural gas sector, provincial GDP is projected to increase by between 1.0% and 1.5% in 2016 and 1.0% and 1.2% in 2017.

The healthier economy is encouraging record immigration, slowing migration out of the province and delivering net migration of an estimated 1,500 in 2016 and 2017. Single-family starts are forecast at between 1,375 to 1,425 in 2016, 1,350 to 1,450 in 2017 and 1,325 to 1,475 by 2018. Multiple starts are projected to decline from 2015's high levels, plateauing at between 1,775 to 1,925 units in 2016, and between 2,200 to 2,500 units in 2017, and 2,050 to 2,450 to 2,035 units in 2018

NEW BRUNSWICK

WHILE DELAYS IN MINING AND ENERGY PROJECTS HAVE CLOUDED PROSPECTS IN THOSE SECTORS, multiple projects in the province's Strategic Infrastructure Initiative, including a new $107-million downtown entertainment and sports centre in Moncton, are expected to boost the construction sector in both 2016 and 2017. GDP growth is forecast to be about 0.5% in 2016 and 2017.

Immigration gains — aided by the influx of more than 1,500 Syrian refugees — are expected to offset losses to out-migration in 2016. Normal levels of immigration in 2017 will lead to negative net migration. Single-family starts are forecast to hover at about 1,075 to 1,125 in 2016 and 2017, and increase to between 1,100 and 1,200 units by 2018. Multi-family starts are expected to fall to 735 units for 2016 before increasing to between 740 and 860 units in 2017 to meet the demands of an aging population.

PRINCE EDWARD ISLAND

PRINCE EDWARD ISLAND CAN EXPECT A MODEST BUMP IN ACTIVITY IN 2016 WITH AN INCREASE IN INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL CONSTRUCTION PROJECTS THAT WILL CARRY ON INTO 2017.

With the support of $112 million in funding — half of it from the federal government's Investing in Canada plan — 23 infrastructure projects to improve water and wastewater treatment and public transit have been approved for 2016 and 2017.

Prince Edward Island and Nova Scotia will be the region's bright spots in 2016 and 2017.

Single-family starts are forecast to range from 300 to 320 in 2016, from 310 to 340 in 2017, and from 320 to 360 starts in 2018. The provincial economy, buoyed by growing exports in agriculture and seafood processing and a strong tourism sector (all aided by the low loonie), is expected to have GDP growth between 1% and 1.5% in both 2016 and 2017.

NEWFOUNDLAND AND LABRADOR

LOW OIL AND COMMODITIES PRICES HAVE SPURRED A SHARP DECLINE IN INVESTMENT IN ENERGY AND MINING PROJECTS. THIS HAS HELPED TO PUSH THE PROVINCE INTO NEGATIVE OR FRACTIONAL GDP GROWTH.

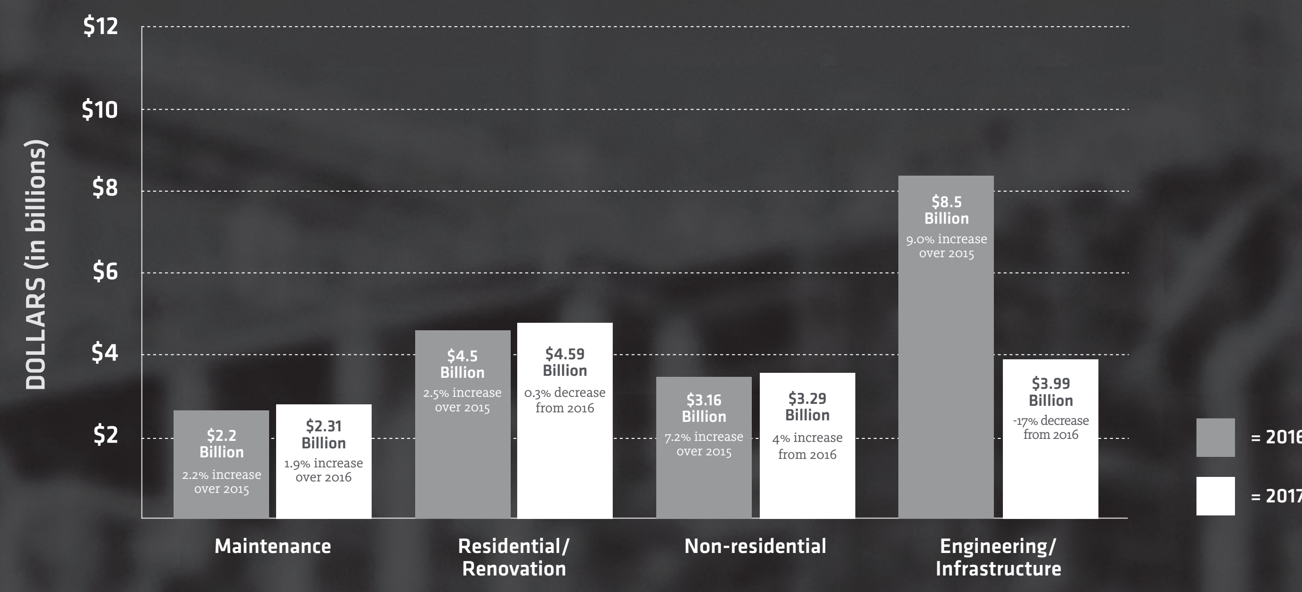
Even so, Newfoundland and Labrador can expect some relief as major new projects move ahead, such as the $250-million AGS Flurospar Mill and the development of an underground mine at Voisey's Bay nickel mine. GDP growth is projected to remain below 0.5% in 2016 and slip into negative territory hovering between -1.0% and -2% in 2017.

Work also continues on the multi-billion Muskrat Falls hydro project and the Maritime Transmission Link. Infrastructure spending will also increase, with more than $150 million in combined federal, provincial and municipal funding available to support water, wastewater and public-transit infrastructure projects. Out-migration will rise, and single-family starts will fall from between 1,125 and 1,155 in 2016 to between 950 and 1,000 in 2017, and between 900 and 1,000 in 2018. The range for multi-family will be from 275 to 325 units in 2016, 225 to 325 units in 2017 and between 250 to 350 units in 2018.

ATLANTIC REGION OUTLOOK

PRELIMINARY CONSTRUCTION INVESTMENT PROJECTIONS FOR 2017

2007 dollars*



* 2007 dollars indicates that the money values are in year 2007 dollars (base year), that is, adjusted by inflation. This is used to calculate the real physical change of the values, factoring out growth due to increases in prices.

Source: BuildForce Canada

PROJECTED GDP GROWTH 2017

0.6% to **1.2**%

PROJECTED POPULATION GROWTH 2017

0.3%

ESCALATION RATE 2017

0% to **1**%

CANADIAN COST DATA PARAMETERS COMPARISON

BTY has been publishing the annual Market Intelligence Report and a comparison of Cost Data Parameters since 2003. The Cost Data includes unit rates for selected project categories, based on in-house data surveyed on a provincial level, and tendered data where available. The comparison provides actual data for 2016 and forecast data for 2017, using escalation levels generated by BTY.

PROJECT CATEGORY	BRITISH COLUMBIA				ALBERTA			
	ACTUAL 2016		FORECAST 2017		ACTUAL 2016		FORECAST 2017	
	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²
HEALTH CARE								
Residential Care	2,430 - 2,710	226 - 252	2,490 - 2,780	231 - 258	2,570 - 3,100	239 - 288	2,600 - 3,130	242 - 291
Ambulatory Care	4,810 - 4,990	447 - 464	4,930 - 5,110	458 - 475	4,610 - 5,040	428 - 468	4,660 - 5,090	433 - 473
Acute Care	5,940 - 6,720	552 - 624	6,090 - 6,890	566 - 640	5,940 - 6,940	552 - 645	6,000 - 7,010	557 - 651
LABORATORIES								
Research Laboratories	6,060 - 6,720	563 - 624	6,210 - 6,890	577 - 640	6,190 - 6,860	575 - 637	6,250 - 6,930	581 - 644
Teaching Laboratories	4,720 - 5,220	439 - 485	4,840 - 5,350	450 - 497	5,050 - 5,880	469 - 546	5,100 - 5,940	474 - 552
Animal Research	7,530 - 8,360	700 - 777	7,720 - 8,570	717 - 796	7,360 - 8,060	684 - 749	7,430 - 8,140	690 - 756
HIGH-RISE RESIDENTIAL								
Rental Units	2,150 - 2,730	200 - 254	2,180 - 2,770	203 - 257	2,150 - 2,700	200 - 251	2,160 - 2,710	201 - 252
Market Units Mid End Specifications	2,480 - 3,120	230 - 290	2,520 - 3,170	234 - 295	2,480 - 3,120	230 - 290	2,490 - 3,140	231 - 292
Market Units High End Specifications	2,920 - 3,780	271 - 351	2,960 - 3,840	275 - 357	2,850 - 3,680	265 - 342	2,860 - 3,700	266 - 344
LOW- & MID-RISE RESIDENTIAL								
Rental Units	1,610 - 1,870	150 - 174	1,630 - 1,900	151 - 177	1,470 - 1,810	137 - 168	1,480 - 1,820	137 - 169
Market Units Mid End Specifications	1,850 - 2,380	172 - 221	1,880 - 2,420	175 - 225	1,660 - 2,230	154 - 207	1,670 - 2,240	155 - 208
Market Units High End Specifications	2,310 - 2,920	215 - 271	2,340 - 2,960	217 - 275	2,100 - 2,600	195 - 242	2,110 - 2,610	196 - 242
TOWNHOUSES (WOOD FRAME)								
Rental Units	1,300 - 1,630	121 - 151	1,320 - 1,650	123 - 153	1,150 - 1,510	107 - 140	1,160 - 1,520	108 - 141
Market Units Mid End Specifications	1,420 - 1,860	132 - 173	1,440 - 1,890	134 - 176	1,460 - 1,740	136 - 162	1,470 - 1,750	137 - 163
Market Units High End Specifications	1,670 - 2,320	155 - 216	1,700 - 2,350	158 - 218	1,680 - 2,270	156 - 211	1,690 - 2,280	157 - 212
SHOPPING CENTRES								
Strip Plaza	1,008 - 2,460	94 - 229	1,030 - 2,510	96 - 233	1,200 - 2,010	111 - 187	1,210 - 2,020	112 - 188
Enclosed Mall	2,340 - 3,350	217 - 311	2,390 - 3,420	222 - 318	2,380 - 3,090	221 - 287	2,390 - 3,110	222 - 289
Anchor/Department Store	2,060 - 2,490	191 - 231	2,100 - 2,540	195 - 236	2,215 - 2,870	206 - 267	2,230 - 2,880	207 - 268
Supermarket	1,590 - 2,120	148 - 197	1,620 - 2,160	151 - 201	1,750 - 2,300	163 - 214	1,760 - 2,310	164 - 215
Discount Store	1,240 - 1,790	115 - 166	1,260 - 1,830	117 - 170	1,700 - 2,200	158 - 204	1,710 - 2,210	159 - 205
OFFICE								
Under 5 Storeys	1,880 - 2,260	175 - 210	1,920 - 2,310	178 - 215	1,900 - 2,700	177 - 251	1,910 - 2,710	177 - 252
5–10 Storeys	2,040 - 2,630	190 - 244	2,080 - 2,680	193 - 249	2,210 - 2,830	205 - 263	2,220 - 2,840	206 - 264
10–20 Storeys	2,240 - 2,850	208 - 265	2,280 - 2,910	212 - 270	2,290 - 2,960	213 - 275	2,300 - 2,970	214 - 276
20–30 Storeys	2,570 - 3,550	239 - 330	2,620 - 3,620	243 - 336	2,590 - 3,670	241 - 341	2,600 - 3,690	242 - 343
EDUCATIONAL								
Elementary Schools	1,980 - 2,690	184 - 250	2,020 - 2,740	188 - 255	2,150 - 2,810	200 - 261	2,170 - 2,840	202 - 264
Secondary Schools	2,210 - 3,010	205 - 280	2,250 - 3,070	209 - 285	2,270 - 2,880	211 - 268	2,290 - 2,910	213 - 270
Higher Education	2,650 - 3,920	246 - 364	2,700 - 4,000	251 - 372	2,620 - 3,545	243 - 329	2,650 - 3,580	246 - 333
LIGHT INDUSTRIAL								
Warehouse	900 - 1,200	84 - 111	910 - 1,220	85 - 113	1,150 - 1,620	107 - 151	1,160 - 1,630	108 - 151
HOTELS								
Low Rise	1,870 - 2,630	174 - 244	1,900 - 2,670	177 - 248	1,960 - 2,650	182 - 246	1,970 - 2,660	183 - 247

PROJECT CATEGORY	BC ACTUAL 2016	BC FORECAST 2017	AB ACTUAL 2016	AB FORECAST 2017
ROADS - PAVING	$/Lane km	$/Lane km	$/Lane km	$/Lane km
Paved Highway - Linear Roadworks	959,000 - 1,210,000	983,000 - 1,240,300	945,000 - 1,180,000	954,500 - 1,191,800
ROAD OVERPASS BRIDGE STRUCTURE	$/m²	$/m²	$/m2	$/m²
Highway Overpass Structures	3,800 - 5,300	3,900 - 5,500	3,600 - 5,700	3,700 - 5,800

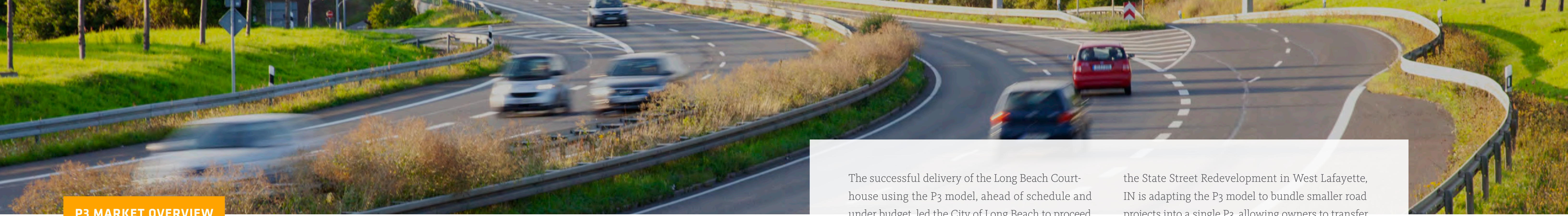
PROJECT CATEGORY	SASKATCHEWAN				ONTARIO				QUEBEC			
	ACTUAL 2016		FORECAST 2017		ACTUAL 2016		FORECAST 2017		ACTUAL 2016		FORECAST 2017	
	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²	$/m²	$/ft²
HEALTH CARE												
Residential Care	2,740 - 3,020	255 - 281	2,790 - 3,080	259 - 286	2,460 - 2,800	226 - 256	2,520 - 2,870	232 - 264	2,550 - 2,900	237 - 269	2,610 - 2,970	242 - 276
Ambulatory Care	4,950 - 5,600	460 - 520	5,050 - 5,710	469 - 530	4,530 - 5,100	415 - 467	4,640 - 5,230	427 - 481	4,690 - 5,220	436 - 485	4,810 - 5,350	447 - 497
Acute Care	5,730 - 6,650	532 - 618	5,840 - 6,780	543 - 630	5,900 - 6,340	540 - 581	6,050 - 6,500	556 - 598	5,100 - 6,520	474 - 606	5,230 - 6,680	486 - 621
LABORATORIES												
Research Laboratories	6,590 - 7,460	612 - 693	6,720 - 7,610	624 - 707	6,130 - 6,920	561 - 634	6,280 - 7,090	578 - 652	6,210 - 7,130	577 - 662	6,370 - 7,310	592 - 679
Teaching Laboratories	5,360 - 5,820	498 - 541	5,470 - 5,940	508 - 552	5,180 - 5,950	474 - 544	5,310 - 6,100	488 - 561	5,150 - 6,130	478 - 569	5,280 - 6,280	491 - 583
Animal Research	8,550 - 8,770	794 - 815	8,720 - 8,950	810 - 831	6,110 - 7,990	559 - 731	6,260 - 8,190	576 - 753	6,310 - 8,270	586 - 768	6,470 - 8,480	601 - 788
HIGH-RISE RESIDENTIAL												
Rental Units	2,170 - 2,670	202 - 248	2,200 - 2,710	204 - 252	2,240 - 2,890	215 - 277	2,270 - 2,930	220 - 283	1,800 - 2,300	167 - 214	1,820 - 2,320	169 - 216
Market Units Mid End Specifications	2,490 - 3,120	231 - 290	2,530 - 3,170	235 - 295	2,580 - 3,330	246 - 319	2,620 - 3,380	253 - 327	2,200 - 2,800	204 - 260	2,220 - 2,830	206 - 263
Market Units High End Specifications	2,870 - 3,650	267 - 339	2,910 - 3,700	270 - 344	3,090 - 4,000	295 - 383	3,140 - 4,060	303 - 392	2,700 - 4,000	251 - 372	2,730 - 4,040	254 - 375
LOW- & MID-RISE RESIDENTIAL												
Rental Units	1,330 - 1,710	124 - 159	1,340 - 1,730	124 - 161	1,270 - 1,500	111 - 132	1,290 - 1,520	113 - 135	1,200 - 1,420	111 - 132	1,210 - 1,430	112 - 133
Market Units Mid End Specifications	1,520 - 2,120	141 - 197	1,540 - 2,140	143 - 199	1,500 - 1,750	132 - 153	1,520 - 1,780	135 - 156	1,300 - 1,650	121 - 153	1,310 - 1,670	122 - 155
Market Units High End Specifications	2,250 - 2,590	209 - 241	2,270 - 2,620	211 - 243	1,850 - 2,210	164 - 195	1,880 - 2,240	167 - 199	1,700 - 2,100	158 - 195	1,720 - 2,120	160 - 197
TOWNHOUSES (WOOD FRAME)												
Rental Units	1,410 - 1,540	131 - 143	1,420 - 1,560	132 - 145	1,220 - 1,440	111 - 132	1,240 - 1,460	113 - 135	1,000 - 1,350	93 - 125	1,010 - 1,360	94 - 126
Market Units Mid End Specifications	1,460 - 1,660	136 - 154	1,470 - 1,680	137 - 156	1,340 - 1,560	123 - 142	1,360 - 1,580	125 - 145	1,300 - 1,610	121 - 150	1,310 - 1,630	122 - 151
Market Units High End Specifications	1,610 - 2,220	150 - 206	1,630 - 2,240	151 - 208	1,560 - 1,900	142 - 174	1,580 - 1,930	145 - 177	1,500 - 2,100	139 - 195	1,520 - 2,120	141 - 197
SHOPPING CENTRES												
Strip Plaza	1,350 - 2,200	125 - 204	1,360 - 2,220	126 - 206	1,340 - 1,680	123 - 153	1,370 - 1,710	125 - 156	920 - 1,530	85 - 142	940 - 1,560	87 - 145
Enclosed Mall	2,370 - 3,020	220 - 281	2,390 - 3,050	222 - 283	1,680 - 2,000	153 - 183	1,710 - 2,040	156 - 187	2,140 - 2,950	199 - 274	2,190 - 3,010	203 - 280
Anchor/Department Store	2,270 - 2,870	211 - 267	2,290 - 2,900	213 - 269	2,030 - 2,390	186 - 219	2,070 - 2,440	190 - 224	1,830 - 2,440	170 - 227	1,870 - 2,490	174 - 231
Supermarket	1,220 - 2,170	113 - 202	1,230 - 2,190	114 - 203	1,500 - 1,920	137 - 176	1,530 - 1,960	140 - 179	1,220 - 1,680	113 - 156	1,250 - 1,720	116 - 160
Discount Store	1,440 - 1,810	134 - 168	1,450 - 1,830	135 - 170	1,220 - 1,440	111 - 132	1,240 - 1,470	113 - 135	1,170 - 1,530	109 - 142	1,200 - 1,560	111 - 145
OFFICE												
Under 5 Storeys	2,170 - 3,610	202 - 335	2,190 - 3,650	203 - 339	1,680 - 2,000	153 - 183	1,710 - 2,040	156 - 187	1,470 - 1,780	137 - 165	1,500 - 1,820	139 - 169
5–10 Storeys	2,330 - 3,480	216 - 323	2,350 - 3,510	218 - 326	1,790 - 2,230	164 - 204	1,830 - 2,270	167 - 208	1,780 - 2,240	165 - 208	1,820 - 2,290	169 - 213
10–20 Storeys	2,400 - 2,990	223 - 278	2,420 - 3,020	225 - 281	2,020 - 2,460	185 - 226	2,060 - 2,510	189 - 230	1,830 - 2,470	170 - 229	1,870 - 2,520	174 - 234
20–30 Storeys	2,760 - 3,400	256 - 316	2,790 - 3,430	259 - 319	2,270 - 2,830	208 - 259	2,320 - 2,890	212 - 265	2,320 - 2,980	216 - 277	2,370 - 3,050	220 - 283
EDUCATIONAL												
Elementary Schools	2,270 - 2,820	211 - 262	2,320 - 2,880	216 - 268	1,690 - 2,010	154 - 184	1,720 - 2,050	159 - 190	1,630 - 1,940	151 - 180	1,670 - 1,990	155 - 185
Secondary Schools	2,370 - 2,920	220 - 271	2,420 - 2,980	225 - 277	1,790 - 2,230	164 - 204	1,830 - 2,270	168 - 211	1,730 - 2,190	161 - 203	1,770 - 2,240	164 - 208
Higher Education	2,680 - 3,630	249 - 337	2,730 - 3,700	254 - 344	2,060 - 2,500	189 - 229	2,100 - 2,550	194 - 236	2,550 - 4,080	237 - 379	2,610 - 4,180	242 - 388
LIGHT INDUSTRIAL												
Warehouse	1,560 - 2,070	145 - 192	1,580 - 2,090	147 - 194	1,030 - 1,260	94 - 115	1,050 - 1,280	96 - 117	820 - 1,120	76 - 104	840 - 1,150	78 - 107
HOTELS												
Low Rise	1,850 - 2,520	172 - 234	1,870 - 2,550	174 - 237	1,760 - 2,320	164 - 215	1,790 - 2,350	163 - 215	1,730 - 2,340	161 - 217	1,770 - 2,390	164 - 222

PROJECT CATEGORY	SK ACTUAL 2016	SK FORECAST 2017	ON ACTUAL 2016	ON FORECAST 2017	QC ACTUAL 2016	QC FORECAST 2017
ROADS - PAVING	$/Lane km	$/Lane km	$/Lane km	$/Lane km	$/Lane km	$/Lane km
Paved Highway - Linear Roadworks	1,143,000 - 1,292,000	1,177,300 -1,330,800	868,000 - 1,059,000	889,700 - 1,085,500	1,225,000 - 1,375,000	1,249,500 - 1,402,500
ROAD OVERPASS BRIDGE STRUCTURE	$/m²	$/m²	$/m²	$/m²	$/m²	$/m²
Highway Overpass Structures	4,300 - 6,200	4,500 - 6,400	3,800 - 5,800	3,900 - 6,000	4,600 - 6,600	4,700 - 6,800

Note: The unit rates reflect hard construction costs, including general requirements and fees, and exclude site works and tenant improvements. Variances in unit rates and escalation will occur due to the remoteness of some regions and prevailing local market conditions. Construction costs can also be affected by a multitude of factors that may not be limited to market conditions.

BTY strongly recommends that readers seek the advice of a Professional Quantity Surveyor (PQS) prior to establishing a budget for their specific projects.

UNITED STATES CONSTRUCTION OUTLOOK



P3 MARKET OVERVIEW

P3s STAKING NEW GROUND WITH WIDER ACCEPTANCE

AFTER A SLUGGISH 2015, A STRING OF MAJOR P3S ACHIEVED FINANCIAL CLOSE OR WENT INTO CONSTRUCTION IN QUICK SUCCESSION IN 2016, REFLECTING A POSITIVE SHIFT IN P3 ACCEPTANCE AS WELL AS GROWTH IN NEW SECTORS.

The pledge of massive new funding for infrastructure from the incoming Trump administration promises to further accelerate P3 growth in 2017 and beyond.

The spate of new P3s shows continuing diversification away from traditional highways and bridges to new airports, civic buildings and university facilities. Most major U.S. P3 infrastructure projects have been for transit or transportation, with the balance for civic, educational and health facilities.

P3 projects achieving financial close included the $4-billion LaGuardia Central Terminal Building Project, the $1.3-billion University of California Merced 2020 Project, and the $400-million Long Beach Civic Centre as well as traditional transportation projects such as the $815-million SH 288 toll lanes and the $1.35-billion North Tarrant Express Extension, both in Texas, and the $50-million State Street Redevelopment Project in Indiana.

BTY has provided Lenders' Technical Advisory (LTA) Services on all the projects noted above except the North Tarrant Express, and has delivered that role on 16 P3 projects in the U.S. since 2014. BTY is continuing to provide LTA services and Construction Monitoring on the US36 in Denver, the I-4 Ultimate in Orlando, FL, and the Pennsylvania Rapid Bridge Replacement Project (PA). This deep involvement in multiple project types has given BTY has a unique vantage point to assess the evolution of P3 procurement taking place across the country.

"We see more willingness to embrace P3s in more sectors," said Ryan Brady, BTY's U.S. P3 Lead and the firm's Operations Lead in the United States. "Public entities are taking note of the advantages of P3s and the confidence level is rising. Sometimes the examples are right next door, as is the case with the Long Beach Courthouse and the Long Beach Civic Center."

The successful delivery of the Long Beach Courthouse using the P3 model, ahead of schedule and under budget, led the City of Long Beach to proceed with P3 procurement for the Long Beach Civic Center in quick succession. Another example of wider acceptance of the P3 model for social infrastructure is the UC Merced project, which will nearly double the physical capacity of its young campus by fall 2020.

The neighbouring project influence may also be at work in the plans of Delta Airlines and the Port Authority of New York and New Jersey (PANYNJ) to use the P3 model for redeveloping Terminals C and D at LaGuardia in a separate Public-Private Partnership. The Delta Terminal Project is part of the overall redevelopment of the airport that started with the Central Terminal Building — the largest aviation P3 project to date in the U.S.

The largest P3 procurement ever in California is the $5-billion Landside Access Modernization Program at Los Angeles International Airport (LAX). The centerpiece of the Program will be a 3.6 km (2.25-mile) automated people mover that will connect the Central Terminal Area with a new consolidated rental car facility, with stops at new airport parking facilities and a station connecting to the regional transit system. BTY is engaged to provide Pre-Bid LTA services on these projects as well.

The P3 model is also showing itself to be adaptable to smaller applications. While transportation P3s have been traditionally associated with large highway projects featuring a single stretch of road, the State Street Redevelopment in West Lafayette, IN is adapting the P3 model to bundle smaller road projects into a single P3, allowing owners to transfer risk through consolidation.

BTY is continuing to provide LTA services and Construction Monitoring on multiple projects across the United States.

Another innovative P3 application BTY is working on is for flood control. The Fargo-Moorhead Area Diversion Project in North Dakota is building a 30-mile long, 1,500-foot-wide diversion channel to create permanent flood protection measures for the region.

"The expansion of, and innovation in P3s reflects the steady growth of the toolbox for public and private partners to adapt the model and secure funding to meet specific project requirements," said Brady.

A number of earlier developments over the past several years had primed the P3 pump. They have included enabling legislation in 35 states for the use of the P3 model, the passage in 2015 of the FAST Act, a bill authorizing $281-billion in funding for transportation over five years. Other key advances were the establishment of the Build America

We expect to see a healthy bump in P3 projects across the country and in more sectors. The commitment from the incoming administration to fund more infrastructure projects–and the success of P3s to date – should add even more momentum to wider acceptance of the model.

Ryan Brady *Director, U.S. Operations*

Transportation Initiative, which engages with state and local governments and private sector investors to expand the P3 market, and the Water Infrastructure Finance and Innovation Act, which makes low interest federal loans available to partially fund water and waste water infrastructure.

RESIDENTIAL AND NON-RESIDENTIAL SECTORS CONTINUE HEALTHY IF SLOWER GROWTH

In addition to working on P3 projects across the United States, BTY is also providing Lenders Services on more than 30 private sector projects in more than a dozen cities across the country. They include residential towers, multi-family and mixed-use projects and master-planned communities, industrial facilities, hotels, and recreation facilities.

"Almost 80% of our projects were new in 2016," said Director Erin Price, who leads the Lenders Services team in the U.S. as well as the Atlanta office. "It's been a very busy year with many new mixed-use and industrial warehouse projects. We expect steady growth to continue, if at a slightly slower pace in 2017."

The projects range from mixed-use high-rise towers of 300 units and warehouses for big-box retailers and online retailers to branded hotels and very large multi-family projects — one has 18 buildings with a clubhouse and stand-alone parking garage. A steady economy is expected to support healthy activity in both residential and non-residential building in 2017 in the United States. Housing construction is forecast to be strongest, if slightly slower, in multifamily, with non-residential strength in healthcare, industrial and education segments as growth in office and hotel segments moderates.

BTY ADDS FOUR NEW OFFICES IN U.S.

Opportunities for serving expanding U.S. markets — sectoral and geographic — led BTY to open four new offices across the country in 2016: Orlando, Cleveland, Denver and Seattle. They join existing offices in Atlanta, Phoenix and Los Angeles.

BTY is also finding success outside of the Technical Advisory services it offers for P3s and the Lenders Services for private developers. The firm is experiencing more opportunities to also provide Scheduling services, which are proving especially attractive to owners, lenders and contractors because they help ensure that complex projects are delivered on time. Another BTY service that is gaining traction is a Project Delivery hybrid that combines the firm's expertise in Cost Management and Lenders' Technical Advisory services.

The U.S. residential market has seen strong growth over the past two years and it will continue to do so, although at a somewhat slower pace. Expect non-residential to pick up and keep overall activity levels very healthy.

Erin Price *U.S. Director, Lenders Services*

GLOBAL CONSTRUCTION OUTLOOK

P3 MARKET OVERVIEW

P3s EXPANDING IN NEW SECTORS, NEW COUNTRIES

THE ROBUST EXPANSION OF P3s IN TURKEY THAT BTY HIGHLIGHTED IN THE 2016 MARKET INTELLIGENCE REPORT IS EXPANDING INTO NEW SECTORS – AND INTO NEW COUNTRIES.

More than 20 projects launched in Turkey over the past four years have used P3 procurement, which has proven to be a central element in the Turkish government's ambitious €94-billion, 10-year infrastructure development plan.

The projects have been primarily in transportation and healthcare, and success in those sectors is leading the Turkish government to plan the further expansion of P3 procurement into water and wastewater plants, educational facilities and utilities, as well as projects paired with project finance deals through energy and utilities privatization. Upcoming transportation projects include the Great Istanbul Tunnel project crossing the Bosphorus, the third such underground crossing, and the Canakkale (Dardanelle) Bridge. Close to a dozen new healthcare projects are also in the planning stages.

BTY's P3 team in Turkey sees the expansion of the model there as a reflection of the growing interest in alternate finance in several other countries, in particular oil producing states in the Middle East. Many are seeking to engage the private sector to help offset the effect of low oil prices has had on their infrastructure funding capacity. Turkey's success in embracing the model is also encouraging states in the surrounding region to seek alternate project delivery methods to fuel their economies, noted Regional Director, Tunca Ataoglu.

The interest also extends beyond the region and oil producing states to include North Africa, former Soviet republics, and Central Asian nations. The firm is also targeting a fresh wave of infrastructure projects in northern and eastern European countries, primarily in the transportation sector.

To support the development of P3s in all of these areas, in 2016 BTY added three more members to the team, establishing the office in Ankara as a hub for developing new projects in Europe, the Middle East and Africa, according to Ataoglu.

"The expansion of the P3 model has also created new opportunities to offer a wider range of services — in a wider range of sectors — than we had on the first wave of Turkish healthcare products," says Ataoglu.

The success of that first wave of healthcare projects — with three projects beginning operations in 2017, one achieving financial close in 2016, and five awaiting final negotiations and formal contract award augurs well for the launch of the second wave.

The project that achieved financial close in 2016, the €292-million Konya Karatay Integrated Healthcare Campus — is the third of the five healthcare projects BTY has been involved in over the past two years, primarily as Lenders' Technical Advisors. The other three were also integrated health campus projects: the €606-million Izmir-Bayrakli, the €328M Kocaeli, and the €198-million Manisa Education and Research Hospital. BTY also provided fire and life safety code consulting services for the €1.25-billion Ankara Etlik, one of the world's largest hospitals.

The firm is also expanding services into Environmental and Social compliance aspects of these mega-projects, which has become a hot button issue for international and local lenders in emerging markets, according to Ataoglu.

The expanded service opportunities also include commissioning agency, facilities management and operations planning, operational readiness and transitioning, engineering management and Owner's Representation mandates. Another growth area for BTY in the region is Lender Services. A growing appetite among lenders for commercial risks on projects in Project Finance schemes is driving demand for Lender Services. They are recognizing the value of increased due diligence to support informed decision-making.

The success of the P3 model in Turkish healthcare expansion has attracted the interest of companies across the region – especially in oil producing states seeking to offset the effect of lower revenue on their infrastructure funding capacity.

Tunca Ataolgu *Director*

The effectiveness of the Canadian P3 model – and the ease with which it can be adapted to existing national practices and programs – augurs well for continued expansion in Africa and Asia as well as Europe. It's an export of expertise that adapts well to new building environments.

Connor Falls *Director*

SECTORS DRIVING MAJOR INVESTMENT

SECTORS DRIVING MAJOR INVESTMENT

AVIATION

Airport Expansion, Redevelopment and New Builds Take Off

AN ESTIMATED US$638.7-BILLION OF INVESTMENT IN EXPANSION, REDEVELOPMENT AND NEW BUILDS IS DRIVING A MASSIVE MAKEOVER OF THE WORLD'S AIRPORTS.

The aviation industry has experienced an average 5% increase in passenger traffic over the past seven years, and airport infrastructure is attempting not only to catch up but also accommodate future growth. The scope and cost of some of the largest projects reflect the ever-expanding scale of air travel.

- The New Istanbul Airport, estimated to cost US$36-billion, will have six runways, the world's largest duty free shop, and a capacity of 200 million passengers when completed in 2028.
- London's Heathrow airport expansion plan involves building a third runway and a sixth terminal at an estimated cost of US$22-billion dollars. The airport now serves 75 million passengers a year; the expansion would nearly double its capacity to 138 million passengers by 2050.
- A new US$9-billion airport in Mexico City is expected to begin operations in 2020 with three runways and a passenger capacity of 50 million per year. When fully completed, it will have two terminals and six runways with an annual passenger capacity of 120 million.

Overall, the largest airport investments are in the Asia Pacific, the Middle East and Africa, but North America is also seeing significant growth in airport modernization.

CANADA'S AIRPORTS EXPANDING FROM COAST TO COAST

Canada has more than a dozen new airport improvement projects — collectively valued in the billions of dollars — from coast to coast. Expanded retail and passenger amenities, and airport improvement fees are key components in many new airport upgrades and expansions.

St. John's is spending $40-million in the first year of a 10-year $250-million refurbishment program. Quebec City's $277-million expansion and redevelopment program will complete in 2018. Toronto's Pearson Airport is completing a Terminal 3 enhancement and moving ahead with Terminal 1 upgrades that will finish in 2019. Vancouver's YVR has a $1.8-billion expansion program underway and Victoria is partnering with the private sector in a retail centre with 10 buildings over a 7.5-acre site.

There are also upgrades in the works or underway at airports in Bathurst, NB, Kingston and Pickering, ON, Brandon MB, Regina, SK, Fort McMurray, AB, and Iqaluit, Nunavut.

P3 AIRPORT PROCUREMENT IN US SET TO GROW

Both LaGuardia and part of the LAX modernization are being procured using the P3 model. Denver International Airport is also planning to use the P3 model for the overhaul of the 1.5-million-sf Jeppesen Terminal. More airports are expected to follow suit following the success of the first U.S. airport P3 project, which was in Puerto Rico.

BTY has been involved in multiple airport P3 projects in both Canada and the U.S., including our current role as Lenders' Technical Advisor for the LaGuardia Redevelopment.

While these projects indicate growing interest in airport P3s in the United States, the U.S. airport P3 market is still in a relatively undeveloped stage. Globally, by contrast, approximately 40 of the biggest 100 airports are fully or partially privately owned and/or operated.

The possibility of greater private sector engagement in airport redevelopment is also emerging in Cuba, which is planning to overhaul Jose Marti Airport in Havana with the assistance of major European firms. The island nation seeks to modernize, expand and operate its airport in Havana to cope with a tourism boom as the United States and Cuba continue to work to normalize relations.

LAGUARDIA LEADS U.S. AIRPORT PROJECTS

In the U.S., the $4-billion LaGuardia Airport Central Terminal Building project is the latest to get underway in a string of major aviation redevelopments. Ongoing multi-billion modernization programs at O'Hare in Chicago and LAX in Los Angeles will soon be joined by projects New Orleans, Tampa, and Orlando.

Image Courtesy of LaGuardia Gateway Partners

SECTORS DRIVING MAJOR INVESTMENT

TRANSIT AND TRANSPORTATION

Increased Funding Supports Favourable Outlook for 2017

INVESTMENT IS TRANSPORT INFRASTRUCTURE IS EXPECTED TO INCREASE AT AN AVERAGE ANNUAL RATE OF ABOUT 5% WORLDWIDE FOR THE NEXT EIGHT YEARS.

Growth will be strongest in the Asia Pacific, Middle East and Latin America. Roads will likely remain the biggest area of investment, especially in growth markets where increasing prosperity is driving a rise in car ownership — and demand for expanded road networks.

In the U.S. and Canada, which have more developed road networks, investment is expected to grow by an average of just 3% per year over the coming decade. But expansion could get a boost from proposed measures to strengthen infrastructure in both countries.

In addition to the $125-billion in infrastructure spending announced in early 2016, Canada's proposed infrastructure bank intends to further increase funding by attracting private sector investment. In the U.S., President-elect Donald Trump has pledged to make massive infrastructure investment during his administration. That would build on the $305-billion Fixing America's Surface Transportation Act (FAST), the long-term federal highway-funding bill passed in December 2015. The list of states — more than 15 to date — that have increased their gas taxes or other highway funding mechanisms is also expanding. Many of these provisions will have contributed enough to state coffers to allow a further increase in contract awards in 2017.

TREND TOWARD MEGA PROJECTS

The trend toward megaprojects between $500 million and $1 billion has gained ground and procurement patterns are also shifting as owners seek to attract teams capable of producing large, complex or otherwise specialized projects, such as transit, airports, and bridges. Such projects require so much specialized talent or initial investment that only large companies can effectively compete for them. This has accelerated the influx of international firms to North American markets.

MAJOR BRIDGE AND ROAD PROJECTS

Big-ticket bridges in Quebec ($4.5-billion Champlain Crossing), British Columbia ($2.5-billion Massey Tunnel Replacement), and Ontario ($2.1-billion Gordie Howe Crossing) top Canada's transportation list. There are also major highway expansions and road network improvements in Alberta ($2.5-billion SW Calgary Ring Road), Manitoba ($1.25-billion East Side Transportation Initiative), Ontario ($1.2-billion HWY 407 extension Phase 2) and Quebec ($3.6-billion Turcot Interchange).

Some of the larger, new and ongoing U.S. projects include the $1.35-billion North Tarrant Extension and $847-million SH 183 managed lane projects (TX), the $2.3-billion I-4 Ultimate project (FL), and the $1.6-billion Pennsylvania Rapid Bridge Replacement Project (PA).

One of the largest proposed undertakings in the U.S. pipeline is the Amtrak Gateway Project. Gateway would build two new tunnels under the Hudson River, and a Penn Station south annex, replace and build a second Portal Bridge, and build additional tracks in New Jersey and a loop for Bergen County trains to travel to New York. Preliminary estimates are for Gateway to cost US$23 billion.

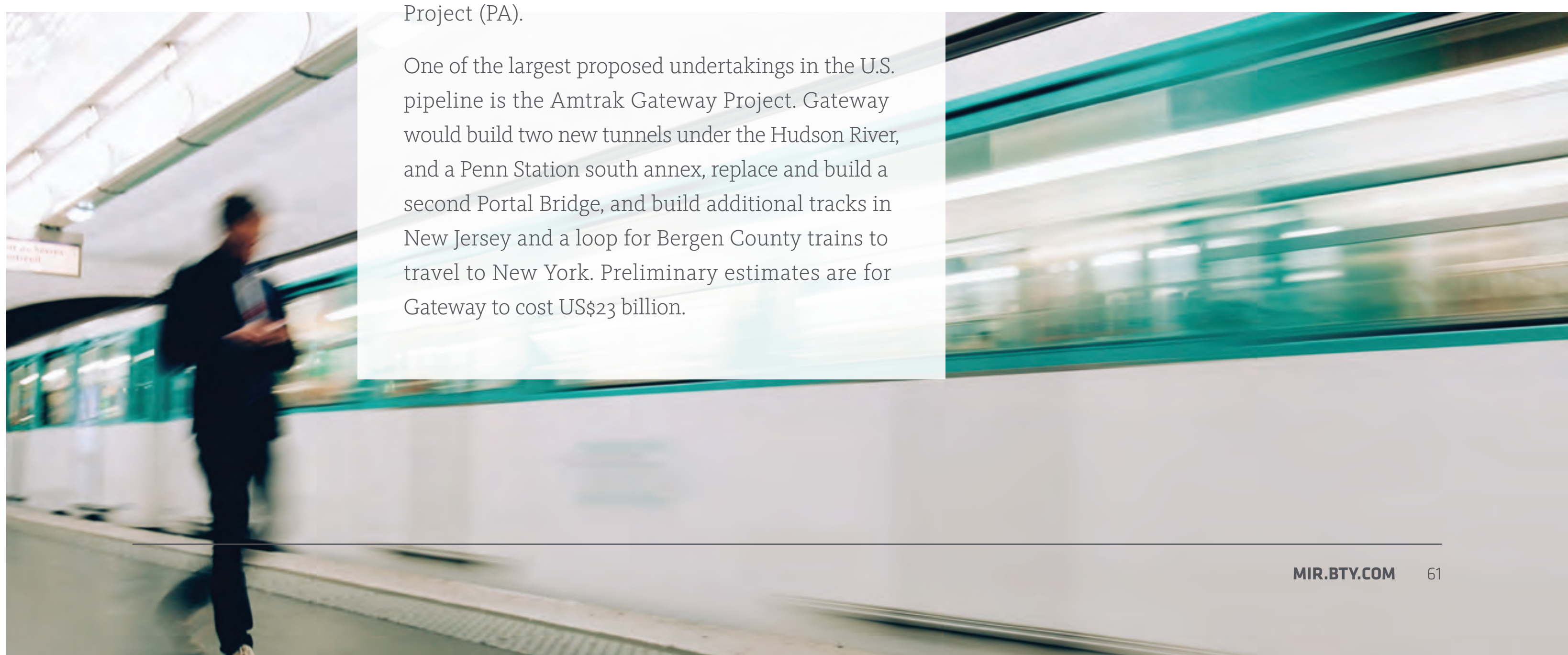
TRANSIT INVESTMENT

In the U.S., Canada, and Mexico, projects valued at $70 billion and representing more than 750 km of new, fixed-guideway transit will be under construction by the end of 2016, with completion expected in the coming decade.

There are almost a dozen multi-billion dollar transit projects advancing across Canada. Ontario has five major LRT and subway projects underway or in the pipeline, including the $5.3-billion Eglinton Crosstown LRT. Alberta has two, the $1.8-billion Valley Line in Edmonton and proposed $4.8-billion Green Line in Calgary, and Montreal and Vancouver are planning major extensions to existing lines.

Major U.S. transit projects expected to start or continue construction in 2016 include, by category:

- Light Rail: Maryland's $5.6-billion Purple Line and Seattle's $4-billion East Link
- Commuter Rail: Fort Worth's $1-billion Tex Rail
- Streetcar: $97-million El Paso Streetcar; $123.9-million Milwaukee Streetcar, and $131-million Oklahoma City Streetcar
- Bus Rapid Transit: Chicago's Pace Pulse Milwaukee Line, Richmond's Pulse Line; San Diego's South Bay Rapid; San Francisco's Van Ness BRT



ENERGY

Rising Demand Supports Long-Term Growth In Construction

WORLDWIDE ENERGY DEMAND IS FORECAST TO INCREASE BY 48% BETWEEN 2012 AND 2040, ACCORDING TO THE U.S. ENERGY INFORMATION ADMINISTRATION.

Renewable energy will be the fastest-growing source of energy, at an average rate of 2.6% a year, while nuclear energy use will increase by 2.3% a year, and natural gas by 1.9% a year.

The greatest increase in demand — at 71% — will be in developing nations with expanding populations and strong economic growth. Slower growing developed countries with mature energy consumption such as Canada will see total energy use rise by only 18% in that timespan.

CANADA IS A TOP PRODUCER FOR MEETING GROWING DEMAND

In terms of production, Canada ranks among the top five in the world for hydroelectricity, crude oil, natural gas and uranium. Canada is also a large consumer of energy. In 2012, Canadian total final energy consumption was 2.3% of the global total. On a per capita basis, Canada's energy intensity is amongst the highest in the world.

Canada's energy production is expected to grow significantly to meet domestic as well as global demand. The forecast is for oil production to rise by 56% and natural gas by 22% (from 2014 to 2040), with Liquid Natural Gas (LNG) exports being a key driver of that production growth. Total electricity generation capacity will increase by about 1% a year to 2040, or about 28% in total. The majority of additions to this capacity will come from natural gas, wind and hydroelectric power.

OIL AND GAS, AND LNG INVESTMENT

While investment in oil production infrastructure has yet to rebound from the record levels prior to 2014, it is expected to increase again as oil prices rise. The proposed pipelines to move oil for export as well as domestic use, such as the newly approved twinning of the TransMountain pipeline and the proposed Energy East project, will require multi-billion dollar investment. And the prospect of increasing long-term demand for LNG has seen more than 20 projects proposed in BC alone. The proposed $11-billion Pacific NorthWest LNG facility and marine terminal would be one of the largest private sector projects in Canada's history.

MASSIVE INVESTMENT IN ELECTRICITY GENERATION

Current and near-term investment in hydro and nuclear projects is substantial:

- → $8.3 billion for BC's Site C Dam
- → $4.6 billion for Manitoba's Keeyask Generating Station Phase 2 and $4.5 billion Bipole III Transmission Line
- → $12.8 billion for Ontario's Darlington Nuclear refurbishment (4 Units) and $2.5 billion Bruce Power Unit 4 Life Extension project
- → $6.5 billion for Romaine (1 – 4; now in Phases 3 and 4), and the proposed $3.6 billion Petit Mecatina hydro projects in Quebec
- → $9.2 billion for the Muskrat Falls hydro project in Newfoundland and Labrador

RENEWABLES ALSO EXPECT TO SEE SUBSTANTIAL GROWTH

Globally there is a major shift in investment toward low-carbon sources of power generation. New low-carbon generation — renewables and nuclear — from capacity coming online in 2015 exceeds the entire growth of global power demand in that year. Renewables investment, primarily in wind, solar PV and hydropower was almost US$290 billion in 2015.

CANADA'S WIND AND SOLAR EXPANDING RAPIDLY

Wind energy has been the largest source of new electricity generation in Canada for five years. It now ranks 7th in the world for installed capacity.

The provincial leaders, in order of rank, are Ontario, Quebec and Alberta, which is looking largely to wind energy to replace two-thirds of its coal-fired generation by 2030. Saskatchewan seeks to increase wind energy generation 10-fold by 2030.

Solar has become the fastest growing electricity generation technology in Canada, which is approaching 3 gigawatts worth of installed solar energy systems, which represents about a million homes. In 2015 alone, a record 700 MW was added earning Canada a place on the top fifteen largest national markets globally. The majority of that is in the province of Ontario, which has been among the top three solar North American jurisdictions since 2013.

RESIDENTIAL

Housing starts to decline slightly in Canada; U.S. momentum strongest in single-family

HOUSING STARTS IN CANADA ARE EXPECTED TO SEE A SMALL DIP IN 2016 AND 2017 BEFORE LEVELING OFF IN 2018. AS USUAL, CONSTRUCTION ACTIVITY WILL VARY BY REGION AND HOUSING TYPE.

The U.S. forecast calls for a 9% increase in single-family starts and a 2% decrease in multi-family after several years of robust growth.

Ontario will see single-family starts decline while multi-unit projects remain robust. Starts in BC will trend downward across the board after a strong first half in 2016, but will get support from strong in-migration and economic activity. BC's imposition in summer 2016 of a 15% tax on residential properties purchased by foreign nationals in Metro Vancouver is expected to contribute to the pullback there.

The federal government's tightening of access to mortgage insurance and closure of a tax loophole that benefitted foreign buyers are also expected to dampen demand in both Vancouver and Toronto.

Housing construction in the oil-producing provinces will edge up slowly over the next two years as they recover from the effects of the oil price collapse with anticipated increases in both oil production and price. Quebec and Manitoba's positive net migration and steady economies will help sustain stable levels, while the Atlantic Provinces — except for Newfoundland and Labrador — will generally see a healthy uptick. *(See Provincial snapshots for details on each province's residential projections)*

In Canada, housing starts are projected to range between:

- → 185,100 to 192,900 units in 2016
- → 174,500 to 184,300 in 2017
- → 172,700 and 183,100 in 2018

As demand will shift from more expensive single-detached homes to more affordable lower-priced alternatives in multi-unit buildings, single-detached units are expected to range from between:

- → 68,800 and 70,600 in 2016
- → 61,800 and 63,800 in 2017
- → 56,100 and 58,500 in 2018

The forecast is for multi-unit starts to keep declining in 2016 and 2017 in comparison to 2015. They are expected to rebound in 2018. Multi-unit starts are projected to range between:

- → 111,400 units and 127,200 units in 2016
- → 108,400 units and 124,800 units in 2017
- → 111,800 and 129,400 in 2018

PACE OF GROWTH MODERATES IN US RESIDENTIAL CONSTRUCTION

After posting double-digit increases in 2015, the pace of growth in the U.S. residential sector is projected to moderate in 2016 to 7.6%, to be followed by small increases to 8.4% in 2017, and to 9.8% in 2018.

Spending on residential construction starts was up 14% in 2015, led by multi-family, an 18% annual increase, and with a strong showing for single-family, up 14%.

There are a number of factors supporting a moderate transition into a more sustainable growth rate expansion, which saw starts reach 1.1 million in 2015, the highest level since 2007. Steady job growth, near record-low interest rates, and low unemployment, energy costs, and inflation are all boosting consumer confidence.

Growth is expected to be strongest in the single-family sector, with a projected rate of between 9% and 14% in 2016. With employment growth and improved access to mortgage loans, and low mortgage rates, Millennials now in their early 30s forming new households are projected to spur demand for single-family housing.

Multi-family housing is expected to see a decline of between 2% and 4% in 2016 following several years of robust growth following the financial crisis. That expansion appears to have peaked in 2015, buoyed by exceptional levels of activity in the New York City area. But continued growth there and in other expanding metropolitan areas is expected to moderate the decline and sustain healthy activity. The growth leaders are Houston, Dallas, Austin and San Antonio in Texas, Los Angeles and San Francisco in California, Orlando and Tampa in Florida, and Chicago, Washington, DC, Boston, Seattle, Phoenix, Denver, Nashville, and the Twin Cities in Minnesota.

BTY AROUND THE WORLD

OFFICE LOCATIONS

BTY provides independent property and infrastructure delivery expertise to public and private sector clients worldwide.

To learn more about BTY, please visit bty.com.

People to count on.
Knowledge to build with.

CANADA

PACIFIC REGION

CONNOR FALLS
Director
E connorfalls@bty.com
T 604 734 6426

PRAIRIES REGION

MICHAEL GABERT
Director
E michaelgabert@bty.com
T 306 242 9210

EASTERN REGION

DARREN CASH
Director
E darrencash@bty.com
T 416 639 1412

UNITED STATES

RYAN BRADY
Director
E ryanbrady@bty.com
T 480 359 8618

EUROPE

JACK MCINERNEY
Director
E jackmcinerney@bty.com
T + 353 1 402 9400

MENA

TUNCA ATAOLGU
Director
E tuncaataolgu@bty.com
T +90 312 295 6355

MEDIA INQUIRIES

SAIRA MUZAFFAR
Director
E sairamuzaffar@bty.com
T 416 639 1409

BTY.COM

Design: Creative-Engine.ca