

Summer 2021 (For April 2021 Release)

Construction Starts Forecast

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Highlights

- Total US construction starts fell 12.4% year-on-year (y/y) in Q1 2021. Non-residential building experienced the steepest decline, down 27.5%. The pandemic has weighed heavily on sectors related to high-contact activities, travel, and office work, but construction in healthcare-related sectors has been more robust. Engineering construction contracted 6.3% y/y, with the biggest drop in new airport building. Residential construction fell 1.2% y/y, with growth in the single-family segment more than offset by a decline in apartment buildings.
- A steady vaccine rollout should allow for a wider reopening of the economy as we head into the summer. Strong pent-up demand, fiscal stimulus, and excess saving are expected to lead to a boom in household spending, and the passage of the \$2.3 trillion American Jobs Plan adds further upside risk to the economy. GDP is forecast to grow 7.2% in 2021 and 3.4% in 2022. Although inflation is temporarily expected to rise above 2%, expectations remain anchored, and we expect this price acceleration to prove temporary.
- Total construction starts are expected to return to modest growth of 6.9% in 2021, with significant differences between the subsectors. Buoyant growth in the residential and engineering sectors will be partially offset by a decline in non-residential construction starts. Should it pass, the American Jobs Plan would provide a boost to civil engineering and to some non-residential construction in sectors like manufacturing, transportation, and healthcare. But the pandemic has caused significant scarring to office and leisure-related sectors, and it could be some time before new construction in these sectors reaches pre-pandemic levels.
- Total construction starts in Canada declined 12.5% y/y in Q1 2021 with all three headline sectors shrinking. Sectors related to leisure and office working posted y/y declines of more than 90%, and apartment homebuilding was also extremely weak. But single-family homebuilding has been buoyant, and groundbreaking of new hospitals was robust.
- Canadian construction starts are expected to rise 1.7% this year, before accelerating in 2022. A slower vaccine rollout and renewed restrictions in Ontario mean the Canadian recovery is likely to lag the US. As in the US, there is expected to be significant scarring in construction related to offices and leisure, with a more favorable medium-term outlook in healthcare and engineering-related construction.

The most recent calculation of the U.S. GDP contraction in full year 2020 versus full year 2019 places it at -3.5%. For Canada, 2020's GDP results were even more dismal than in the U.S., -5.4% for the full year compared with full year 2019.



Sources: ConstructConnect®/Oxford Economics.
Forecast reflects actual starts through Q1 2021.

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Overview

US starts continue to decline in Q1

Total US construction starts fell 12.4% year-on-year (y/y) in Q1 2021. Q1 2020 was mostly before the peak impact of the pandemic-related lockdown, so this y/y decline is from a more normal level of activity. Y/y growth in construction should start to pick up again from Q2 as the extreme weakness from spring 2020 drops out of the annual calculation.

Non-residential building posted the largest y/y drop, down 27.5%. All sub-sectors posted y/y declines except for construction of prisons, military, and hospitals. The latter of these benefitted from groundbreaking on two large projects in March, a \$1.79 billion hospital in Ohio and a \$1 billion hospital in California. A GM factory extension in Tennessee in March, valued at \$2 billion, held the y/y decline in industrial construction to just 1.1%. By contrast, several sectors within non-residential building contracted by more than 50% from a year earlier, including private offices, transportation terminals, religious, libraries & museums, laboratories, nursing homes & assisted living, and hotels & motels. Several of these sectors are related to high-contact activities, travel, or office work, all of which have been hit hard by the pandemic. While the y/y growth calculation should start to look more favorable from next quarter, the pandemic's shift in working and travelling habits means it could take time for several of these sectors to return to pre-pandemic levels of activity.

Engineering construction starts contracted 6.3% y/y with considerable variability across the subsectors. New power infrastructure increased 98.7% thanks to a \$1 billion project in Maine. A \$2.6 billion pipeline project in Minnesota underpinned annual growth of 1.1% in miscellaneous civil, although the sector was also in a reasonably strong position in Q1 2020. Water & sewage also increased from a year earlier, up 6.3%. The biggest y/y decline was in airport construction – a sector hit by pandemic-related changes to travel – down 47.9%. New bridge and dam & canal construction also fell by around 30% y/y, while road building fell by a gentler 5%.

Residential construction declined 1.2% y/y with considerable differences between the two headline sectors. New single-family homebuilding increased 7.7% as growing demand for more living space and a shortage in existing homes sales has fuelled a construction boom in the sector. By contrast, apartment construction declined 21.7% y/y, driven by shifts away from urban living. Groundbreaking on a \$1.5 billion apartment project in New York City began

Table 1: Summary forecasts							
(Annual percentage changes unless specified otherwise)							
	2019	2020	2021	2022	2023	2024	2025
US							
Macro variables							
GDP	2.2	-3.5	7.2	3.4	1.1	1.2	1.5
Population growth	0.5	0.4	0.2	0.4	0.5	0.5	0.5
Unemployment rate (%)	3.7	8.1	5.1	4.1	4.0	3.8	3.7
Real disposable income*	2.2	5.8	3.7	-2.9	0.9	1.2	1.3
Central bank rate (%)	2.2	0.4	0.1	0.1	0.3	0.5	0.8
10-year government yield (%)	2.1	0.9	1.7	2.2	2.3	2.2	2.3
Construction starts (y/y % change of \$ volumes)							
Total starts	8.5	-16.6	6.9	12.2	8.8	7.8	6.4
Residential	0.4	-0.4	8.2	9.8	7.9	7.5	6.7
Non-res bldg	12.2	-29.4	-0.8	16.8	10.2	8.4	6.4
Civil engineering	16.1	-19.0	16.6	10.2	8.6	7.4	5.7
Canada							
Macro variables							
GDP	1.9	-5.4	6.2	2.6	2.1	2.0	1.9
Population growth	1.4	1.1	0.7	1.1	1.1	1.0	1.0
Unemployment rate (%)	5.7	9.6	7.9	7.0	6.7	6.4	6.2
Real disposable income*	2.2	8.9	-1.0	0.2	2.3	1.9	1.8
Central bank rate (%)	1.8	0.6	0.3	0.3	0.4	0.7	0.9
10-year government yield (%)	1.6	0.8	1.5	2.0	2.2	2.3	2.4
Exchange rate C\$ per US\$	1.33	1.34	1.27	1.29	1.25	1.22	1.19
Construction starts (y/y % change of \$ volumes)							
Total starts	-12.0	-17.3	1.7	17.5	11.6	9.0	7.0
Residential	4.3	-21.8	2.4	11.5	9.0	7.2	6.0
Non-res bldg	-35.9	-18.1	2.4	17.6	11.4	9.0	6.3
Civil engineering	5.9	-12.9	0.7	22.1	13.5	10.2	8.1

* In 2020, boosted by stimulus checks and unemployment insurance top-ups.

in February but given the overall size of the sector (just over \$77 billion in 2020), this was not sufficient to offset the structural weakness.

Other measures of construction activity have been somewhat more resilient. The Census Bureau's measure of put-in-place construction was up 5.3% y/y in February. But like with the starts data, there is a sharp divergence between the residential and non-residential segments, with the former up 21.1% y/y and the latter down 6.1% from a year earlier. Construction employment has mostly continued to trend up, with 66,000 net jobs added in Q1 (a 110,000 increase in March more than offset a 56,000 decline in February). Wages for construction workers have steadily risen, with hourly wages up 2.5% y/y in March.

Perhaps more worrying for the construction sector has been the recent increase in raw material prices. Producer prices for materials & components used in construction were up 9.9% y/y in March, the fastest rise since 2008. In particular, lumber prices

in several key categories are up by more than 50% y/y (and more than 80% y/y in the case of softwood lumber). This has resulted from strong demand from single-family homebuilding, an increase in DIY projects during the pandemic, and demand for outdoor furniture from the hospitality sector. At the same time, inventories dropped steeply through the course of 2020 as demand exceeded supply. However, inventory levels have been recovering since the start of the year, and we expect this blip to prove temporary.

Record GDP growth expected in 2021

An economic mini boom is underway, driven by a rapid vaccine rollout, increased fiscal stimulus, and warmer weather. The vaccine rollout will allow for a wider reopening of the economy as we head into the summer, with GDP growth expected to accelerate to 12.2% annualized in Q2, after posting 6.4% growth in the first quarter. We expect GDP to grow 7.2% in 2021 overall,

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before slowing to 3.4% in 2022. Although the pandemic remains the largest downside risk to the economy, this is now fading. At the same time, upside risks stemming from a faster-than-expected vaccine rollout and additional stimulus measures have grown.

Significant pent-up demand is expected to fuel a boom in consumer spending, projected to rise 8.4% this year, the strongest since 1946. As the economy reopens and virus fears dissipate, lower income families will spend more freely after receiving generous fiscal transfers from the \$1.9 trillion American Rescue Plan, while higher income families rely on steady income streams and tap into excess savings. The job market is also improving nicely, with an impressive 916,000 jobs added in March. The proposed \$2.3 trillion American Jobs Plan (AJP), if passed, would provide a further boost to a wide array of infrastructure projects.

Inflation is expected to heat up through the course of 2021, but it is unlikely to spiral out of control amid a lingering demand gap in some sectors of the economy. We see PCE inflation, the Fed's preferred measure, averaging 2.4% in 2021. The Fed has maintained an ultra-dovish stance, with the forward guidance suggesting no rate hikes through 2023. The Fed's cautious approach suggests a new policy framework that implicitly calls for the economy to run a bit hot, to promote broad and inclusive employment gains.

New construction activity returns to growth, accelerates in 2022

After a sharp decline in construction activity in 2020, total construction starts are expected to return to growth of 6.9% in 2021. This headline number masks stark differences between the construction subsectors, with buoyant growth in the residential and engineering sectors being somewhat offset by a decline in non-residential building construction starts. Construction growth is seen accelerating in 2022 as non-residential building starts join the recovery effort.

Civil engineering starts are forecast to lead the pack with growth of 16.6% in 2021. In addition, with most infrastructure projects classified in engineering, the passage of the AJP would provide a further boost to the sector from the end of this year. The AJP proposes to spend \$2.3 trillion on a wide array of projects, including transportation infrastructure, clean energy and broadband, as well as allocating significant subsidies to the manufacturing sector. Although the AJP will undergo changes as it moves through the legislative process, some version will likely become law later this year.

Table 2: Drivers of headline sectors

Sector	Short-term drivers	Long-term drivers
Residential	Unemployment rate; Household liabilities; Mortgage interest rates; House prices; Population trends	House prices; Incomes
Non-residential building	Output trends in relevant sector; Population trends; Capacity utilization; Borrowing costs; Employment in relevant sector; Disposable income	Output trends in relevant sector; Employment in relevant sector
Civil engineering	Federal/State/Provincial spending; Government borrowing costs; Employment in government sector; Output trends in relevant sector	Federal/State/Provincial spending; Output trends in relevant sector

Within the engineering sector, the strongest growth is expected in the power infrastructure sector, forecast to rise nearly 160% this year, in part boosted by a large project in Maine. Longer-term, this sector will be a focus of any infrastructure spending, as the electricity grid will need to be upgraded to green energy sources and to accommodate growth in e-mobility.

Investment in highways & roads is another area that has been targeted by the AJP, with growth above 10% expected in both 2021 and 2022. The miscellaneous civil sector is also expected to see robust growth this year, up 40.1%. This sector includes oil & gas projects and pipelines, as well as tunnel and railway projects. While a number of large tunnel and railway projects are expected to come on stream in the coming quarters, projects in the oil & gas sector are not in line with the Biden Administration's green agenda, so the outlook is more uncertain. By contrast, airport construction is expected to shrink a further 9.7% this year, as the pandemic continues to weigh heavily on travel.

Surging housing activity is expected to drive growth in the residential sector - new residential building is seen rising 8.2% in 2021 and 9.8% in 2022. Single-family home building is expected to continue underpinning the sector this year as people have left cities during the pandemic and increased home working has boosted demand for more space. Rising house prices and supply shortages have demonstrated the need for new home building to relieve some of these pressures. Moreover, the demographics of family formation in the millennial generation and structural shifts brought about by the pandemic are likely to favor single-family homebuilding for some time. The multi-family segment is expected to return to growth this year, after a steep decline in

2020, but it is not expected to return to its previous peak (in 2017) until the end of our forecast period in 2025.

After falling nearly 30% last year, new non-residential building is expected to shrink a further 0.8% in 2021. The sector includes several categories related to office working, travel, and leisure activities. Although these sectors are all expected to recover this year as the vaccine rollout continues apace, the pandemic has opened up such a wide hole that little investment is expected. Hotel construction, for example, is expected to shrink for a fourth consecutive year, and finish 2021 two-thirds below its 2017 peak, although a rebound is expected from next year to satisfy household's pent-up demand to travel. The outlook for private office building is similarly bleak, with a 25% contraction pencilled in this year, following a 35% decline in 2020. Warehouse construction - a bright spot in 2020 due to logistics investment - is expected to decline this year, as much of the needed investment has already occurred, and idle retail and office premises could be repurposed as warehouse space.

Nonetheless, there are some bright spots expected in non-residential building in the coming years. New hospital construction was a surprising source of weakness in 2020, but the outlook appears more positive from this year. During the peak of the crisis, healthcare budgets were allocated towards fighting the pandemic, and away from investment. However, this trend is expected to reverse, boosted by two projects already started and underpinned by the demographics of an aging population. In addition, healthcare is a sector targeted under the AJP, so it should receive a continued boost throughout the forecast period. Several transportation terminal projects are expected to come on stream in the coming years, and investment

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in public transportation is consistent with the Biden Administration's plan to boost the green economy. Factory construction is also likely to receive a lift from the AJP, since as proposed, it includes subsidies for manufacturing research & development and direct subsidies for semiconductor manufacturing investment.

Canadian construction to pick up after slow start to 2021

Total construction starts in Canada declined 12.5% y/y in 2021 Q1, with declines posted in all three headline sectors. From a sectoral perspective, residential building construction experienced the sharpest drop, down 25.7% y/y. Like in the US, there was a stark contrast between new single-family and multi-family homebuilding, with the former up 36.1% y/y and the latter down 70.4% y/y. New civil engineering construction declined 8.5% y/y. There was a particularly sharp drop of 90.4% y/y in the bridge subsector, as a C\$1.4 billion project in Surrey, BC dropped out of the annual calculation. But countering that, new power construction increased more than 300% y/y, the result of especially weak construction in the same period last year. Construction of miscellaneous engineering projects grew 172% y/y due to a C\$2.3 billion natural gas pipeline project in Alberta.

New non-residential building posted the smallest contraction, down 1.7% y/y, with significant divergences across the subsectors. New hospital construction, in particular, grew more than eightfold y/y due to groundbreaking on two large projects in Vancouver (valued C\$2.2 billion and C\$700 million). By contrast, sectors related to office working and travel posted y/y declines of more than 90%, including private office building, hotels & motels, parking garages, miscellaneous retail, and manufacturing. Shopping construction also declined steeply, down by 87%. Nonetheless, with restrictions on construction

activity in Quebec and Ontario in place in April 2020, the year-on-year calculation should start to look more favorable in Q2.

The Canadian economy largely shrugged off the second wave of coronavirus infections it experienced last winter and is expected to continue growing this spring despite a third wave. However, a recent deterioration in the health situation and subsequent tightening of restrictions increases the downside risk to growth in Q2. But the correlation between health conditions and economic activity seems to be eroding as consumers and businesses have adapted to the pandemic, leading us to believe the recovery will continue. Although the pace of vaccinations has lagged that in the US, it has started to pick up in recent months, which should allow for a sustained opening of the economy this summer. Inflation is set to rise above the Bank of Canada's 2% target this spring and will likely surpass 3% y/y in the next couple of months, the first time since 2011. We think that higher inflation should prove temporary and we forecast headline inflation to slow to 2% in 2022. As a result, we believe the Bank of Canada will keep rates at their lower bound until early-2023.

After a weak start to the year, construction starts in Canada are forecast to grow just 1.7%, accelerating to 17.5% in 2022. In Ontario, new restrictions on 'non-essential' construction went into effect in April, although a number of healthcare and infrastructure-related projects, as well as residential construction, are exempt. Modest growth is expected in all three headline sectors in 2021, of 2.4% in both the residential and non-residential building categories, and 0.7% in civil engineering. There's upside risk to the residential forecast, however, as groundbreakings reported by CMHC soared in the latest reporting month. All three sectors are seen accelerating to a double-digit pace in 2022.

As in the US, there are significant divergences in the outlook for non-residential building subsectors. Commercial sectors,

such as hotels, private offices, parking garages, and retail, are all expected to post a double-digit decline. Office building, in particular, is expected to fall 48% this year, after a decline above 50% in 2020. Although growth should return from 2022, it is not expected to regain its pre-pandemic high over our forecast period to 2025.

The 2021 outlook for new institutional construction is more robust. In particular, hospital construction is expected to increase 64% this year. Within institutional sectors, only construction of new transportation terminals is expected to post a double-digit decline this year, but that follows a rise of 270% in 2020 as a large project in Ottawa is expected to fall out of the annual calculation. Further out, a number of large projects are planned in this sector over the next 2-3 years.

New factory construction is expected to be the major engine of growth in 2021 and beyond, with several large projects in the oil & gas supply chain expected to come on stream.

The civil engineering sector, the largest part of Canadian construction, is forecast to grow by 0.7% this year. This modest rise will be powered by double-digit growth in the miscellaneous civil sector (including oil & gas projects) and the power sector. However, all other subsectors are expected to decline this year, with an especially steep fall of 27.2% in bridge construction as no major projects are expected to begin construction work this year.

As in the US, growth in the residential sector will be dominated by single-family homebuilding, with 13.5% growth forecast in 2021. The drivers are similar to the US: high house prices, demand for more space, and household formation among millennials. Starts of new apartment buildings are expected to decline 11% in 2021. With demographics likely to continue favoring houses over apartments, new multi-family homebuilding is expected to remain below its pre-pandemic level throughout the forecast period.

Table 3: U.S. Type-of-Structure Forecasts
(\$ Billions USD)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Single-family	198.781	219.390	240.088	261.238	279.800	299.368	317.822
Multi-family	99.042	77.263	80.997	91.453	100.664	109.494	118.435
TOTAL RESIDENTIAL	297.823	296.653	321.085	352.691	380.464	408.862	436.257
<i>(Yr/yr % change)</i>	<i>0.4%</i>	<i>-0.4%</i>	<i>8.2%</i>	<i>9.8%</i>	<i>7.9%</i>	<i>7.5%</i>	<i>6.7%</i>
Hotels/Motels	23.537	10.188	9.606	13.965	16.636	19.153	21.316
Shopping/Retail	16.510	11.951	12.227	16.230	18.865	21.024	22.528
Parking Garages	3.164	1.742	1.822	2.142	2.484	2.816	3.159
Amusement	7.596	6.290	6.412	7.119	7.839	8.344	8.819
Private Offices	36.585	23.900	17.985	21.371	23.284	25.136	26.844
Governmental Offices	11.749	10.783	10.798	11.584	12.303	12.734	13.207
Laboratories (Schools & Industrial)	2.417	2.302	2.497	3.026	3.161	3.295	3.433
Warehouses	22.563	24.789	21.831	25.043	26.174	27.281	28.532
Sports Stadium/Convention Center	9.835	4.480	4.613	6.138	7.915	9.183	9.783
Transportation Terminals	10.746	2.355	3.064	4.473	5.990	7.705	9.145
TOTAL COMMERCIAL	144.703	98.781	90.855	111.092	124.650	136.671	146.765
<i>(Yr/yr % change)</i>	<i>8.1%</i>	<i>-31.7%</i>	<i>-8.0%</i>	<i>22.3%</i>	<i>12.2%</i>	<i>9.6%</i>	<i>7.4%</i>
TOTAL INDUSTRIAL (manufacturing)	55.810	20.271	22.971	27.964	31.927	35.884	38.646
<i>(Yr/yr % change)</i>	<i>55.9%</i>	<i>-63.7%</i>	<i>13.3%</i>	<i>21.7%</i>	<i>14.2%</i>	<i>12.4%</i>	<i>7.7%</i>
Religious	1.889	1.525	1.628	1.797	1.871	1.943	1.990
Hospitals/Clinics	21.790	12.782	17.715	19.840	21.925	24.107	26.157
Nursing Homes/Assisted Living	9.599	7.173	7.530	8.535	9.912	11.025	11.980
Libraries/Museums	4.072	3.748	3.266	4.223	4.639	4.942	5.103
Courthouse	1.568	2.382	2.294	2.451	2.578	2.703	2.809
Police/Fire	3.260	3.309	3.476	3.668	3.819	3.957	4.087
Prisons	2.111	2.387	2.427	2.600	2.747	2.862	2.936
Military	5.049	9.242	10.546	11.140	11.751	12.147	12.305
Educational Facilities	75.879	66.877	62.896	70.811	75.721	80.157	84.073
MED misc	9.342	7.812	8.299	9.404	10.277	11.053	11.875
TOTAL INSTITUTIONAL	134.560	117.236	120.077	134.469	145.239	154.898	163.316
<i>(Yr/yr % change)</i>	<i>4.7%</i>	<i>-12.9%</i>	<i>2.4%</i>	<i>12.0%</i>	<i>8.0%</i>	<i>6.7%</i>	<i>5.4%</i>
Miscellaneous Non-Res Building	7.667	5.563	5.900	6.533	6.908	7.200	7.494
TOTAL NON-RES BLDG	342.740	241.851	239.803	280.059	308.724	334.652	356.220
<i>(Yr/yr % change)</i>	<i>12.2%</i>	<i>-29.4%</i>	<i>-0.8%</i>	<i>16.8%</i>	<i>10.2%</i>	<i>8.4%</i>	<i>6.4%</i>
Airport	7.393	6.043	5.457	6.877	7.664	8.626	9.242
Roads	65.315	63.577	70.515	77.883	84.211	89.804	95.041
Bridges	30.186	22.503	24.428	27.130	29.150	30.983	32.595
Dams/Canal/Marine	8.547	8.205	8.486	9.207	9.980	10.566	11.071
Water & Sewage Treatment	31.617	31.143	34.766	38.297	40.282	42.298	44.266
Misc Civil (Power, etc.)	46.189	21.895	35.156	37.737	42.826	47.614	50.863
TOTAL ENGINEERING	189.247	153.365	178.808	197.131	214.112	229.891	243.078
<i>(Yr/yr % change)</i>	<i>16.1%</i>	<i>-19.0%</i>	<i>16.6%</i>	<i>10.2%</i>	<i>8.6%</i>	<i>7.4%</i>	<i>5.7%</i>
TOTAL NON-RESIDENTIAL	531.987	395.216	418.610	477.189	522.836	564.543	599.298
<i>(Yr/yr % change)</i>	<i>13.6%</i>	<i>-25.7%</i>	<i>5.9%</i>	<i>14.0%</i>	<i>9.6%</i>	<i>8.0%</i>	<i>6.2%</i>
GRAND TOTAL	829.810	691.869	739.696	829.880	903.300	973.405	1,035.555
<i>(Yr/yr % change)</i>	<i>8.5%</i>	<i>-16.6%</i>	<i>6.9%</i>	<i>12.2%</i>	<i>8.8%</i>	<i>7.8%</i>	<i>6.4%</i>

EXPLANATION: Table 3 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 4 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 4: U.S. Type-of-Structure Forecasts
 Arranged to match the alphabetical category drop-down menus in INSIGHT (\$ Billions USD)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Summary							
CIVIL	189.247	153.365	178.808	197.131	214.112	229.891	243.078
NON-RESIDENTIAL BUILDING	342.740	241.851	239.803	280.059	308.724	334.652	356.220
RESIDENTIAL	297.823	296.653	321.085	352.691	380.464	408.862	436.257
GRAND TOTAL	829.810	691.869	739.696	829.880	903.300	973.405	1,035.555
Verticals							
Airport	7.393	6.043	5.457	6.877	7.664	8.626	9.242
All Other Civil	31.491	18.100	25.356	24.443	27.437	30.155	31.953
Bridges	30.186	22.503	24.428	27.130	29.150	30.983	32.595
Dams / Canals / Marine Work	8.547	8.205	8.486	9.207	9.980	10.566	11.071
Power Infrastructure	14.697	3.794	9.801	13.293	15.389	17.459	18.909
Roads	65.315	63.577	70.515	77.883	84.211	89.804	95.041
Water and Sewage Treatment	31.617	31.143	34.766	38.297	40.282	42.298	44.266
CIVIL	189.247	153.365	178.808	197.131	214.112	229.891	243.078
<i>(Yr/yr % change)</i>	<i>16.1%</i>	<i>-19.0%</i>	<i>16.6%</i>	<i>10.2%</i>	<i>8.6%</i>	<i>7.4%</i>	<i>5.7%</i>
Offices (private)	36.585	23.900	17.985	21.371	23.284	25.136	26.844
Parking Garages	3.164	1.742	1.822	2.142	2.484	2.816	3.159
Transportation Terminals	10.746	2.355	3.064	4.473	5.990	7.705	9.145
Commercial	50.496	27.997	22.871	27.987	31.758	35.658	39.148
<i>(Yr/yr % change)</i>	<i>32.9%</i>	<i>-44.6%</i>	<i>-18.3%</i>	<i>22.4%</i>	<i>13.5%</i>	<i>12.3%</i>	<i>9.8%</i>
Amusement	7.596	6.290	6.412	7.119	7.839	8.344	8.819
Libraries / Museums	4.072	3.748	3.266	4.223	4.639	4.942	5.103
Religious	1.889	1.525	1.628	1.797	1.871	1.943	1.990
Sports Arenas / Convention Centers	9.835	4.480	4.613	6.138	7.915	9.183	9.783
Community	23.392	16.043	15.919	19.276	22.263	24.412	25.696
<i>(Yr/yr % change)</i>	<i>14.0%</i>	<i>-31.4%</i>	<i>-0.8%</i>	<i>21.1%</i>	<i>15.5%</i>	<i>9.7%</i>	<i>5.3%</i>
College / University	19.675	17.605	16.042	17.965	19.281	20.454	21.662
Elementary / Pre School	21.456	19.671	19.033	20.657	22.381	23.979	25.049
Jr / Sr High School	32.841	27.673	25.990	30.086	31.822	33.404	34.989
Special / Vocational	1.908	1.929	1.831	2.103	2.238	2.320	2.373
Educational	75.879	66.877	62.896	70.811	75.721	80.157	84.073
<i>(Yr/yr % change)</i>	<i>6.1%</i>	<i>-11.9%</i>	<i>-6.0%</i>	<i>12.6%</i>	<i>6.9%</i>	<i>5.9%</i>	<i>4.9%</i>
Courthouses	1.568	2.382	2.294	2.451	2.578	2.703	2.809
Fire and Police Stations	3.260	3.309	3.476	3.668	3.819	3.957	4.087
Government Offices	11.749	10.783	10.798	11.584	12.303	12.734	13.207
Prisons	2.111	2.387	2.427	2.600	2.747	2.862	2.936
Government	18.688	18.861	18.995	20.303	21.447	22.257	23.040
<i>(Yr/yr % change)</i>	<i>-2.3%</i>	<i>0.9%</i>	<i>0.7%</i>	<i>6.9%</i>	<i>5.6%</i>	<i>3.8%</i>	<i>3.5%</i>
Industrial Labs / Labs / School Labs	2.417	2.302	2.497	3.026	3.161	3.295	3.433
Manufacturing	55.810	20.271	22.971	27.964	31.927	35.884	38.646
Warehouses	22.563	24.789	21.831	25.043	26.174	27.281	28.532
Industrial	80.790	47.362	47.300	56.034	61.262	66.459	70.610
<i>(Yr/yr % change)</i>	<i>33.6%</i>	<i>-41.4%</i>	<i>-0.1%</i>	<i>18.5%</i>	<i>9.3%</i>	<i>8.5%</i>	<i>6.2%</i>
Hospitals / Clinics	21.790	12.782	17.715	19.840	21.925	24.107	26.157
Medical Misc.	9.342	7.812	8.299	9.404	10.277	11.053	11.875
Nursing Homes	9.599	7.173	7.530	8.535	9.912	11.025	11.980
Medical	40.731	27.766	33.544	37.779	42.113	46.186	50.012
<i>(Yr/yr % change)</i>	<i>5.1%</i>	<i>-31.8%</i>	<i>20.8%</i>	<i>12.6%</i>	<i>11.5%</i>	<i>9.7%</i>	<i>8.3%</i>
Military	5.049	9.242	10.546	11.140	11.751	12.147	12.305
<i>(Yr/yr % change)</i>	<i>-3.5%</i>	<i>83.0%</i>	<i>14.1%</i>	<i>5.6%</i>	<i>5.5%</i>	<i>3.4%</i>	<i>1.3%</i>
Hotels	23.537	10.188	9.606	13.965	16.636	19.153	21.316
Retail Misc.	7.667	5.563	5.900	6.533	6.908	7.200	7.494
Shopping	16.510	11.951	12.227	16.230	18.865	21.024	22.528
Retail	47.715	27.703	27.733	36.729	42.409	47.377	51.337
<i>(Yr/yr % change)</i>	<i>-7.8%</i>	<i>-41.9%</i>	<i>0.1%</i>	<i>32.4%</i>	<i>15.5%</i>	<i>11.7%</i>	<i>8.4%</i>
NON-RESIDENTIAL BUILDING	342.740	241.851	239.803	280.059	308.724	334.652	356.220
<i>(Yr/yr % change)</i>	<i>12.2%</i>	<i>-29.4%</i>	<i>-0.8%</i>	<i>16.8%</i>	<i>10.2%</i>	<i>8.4%</i>	<i>6.4%</i>
Multi-Family	99.042	77.263	80.997	91.453	100.664	109.494	118.435
Single-Family	198.781	219.390	240.088	261.238	279.800	299.368	317.822
RESIDENTIAL	297.823	296.653	321.085	352.691	380.464	408.862	436.257
<i>(Yr/yr % change)</i>	<i>0.4%</i>	<i>-0.4%</i>	<i>8.2%</i>	<i>9.8%</i>	<i>7.9%</i>	<i>7.5%</i>	<i>6.7%</i>
GRAND TOTAL	829.810	691.869	739.696	829.880	903.300	973.405	1,035.555
<i>(Yr/yr % change)</i>	<i>8.5%</i>	<i>-16.6%</i>	<i>6.9%</i>	<i>12.2%</i>	<i>8.8%</i>	<i>7.8%</i>	<i>6.4%</i>

EXPLANATION: Table 3 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 4 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 5: U.S. States, Total Construction Starts — ConstructConnect

States (alphabetical by 2-letter code)	Actuals	Forecasts (Year versus previous year % change)				
	(Level in \$ Millions USD)	2021	2022	2023	2024	2025
	2020					
Alaska - AK	\$1,965	-10.7%	24.9%	6.5%	8.7%	6.3%
Alabama - AL	\$10,024	13.7%	16.7%	9.0%	8.6%	6.1%
Arkansas - AR	\$7,548	-3.2%	12.0%	8.9%	8.4%	6.0%
Arizona - AZ	\$21,033	4.2%	2.6%	7.4%	7.5%	5.7%
California - CA*	\$61,999	-0.9%	18.5%	9.5%	8.2%	7.4%
Colorado - CO	\$17,031	27.5%	3.9%	8.5%	8.3%	7.0%
Connecticut - CT	\$5,350	2.8%	19.7%	21.1%	6.6%	5.1%
District Of Columbia - DC	\$2,089	25.7%	11.0%	3.6%	4.8%	4.9%
Delaware - DE	\$3,114	-20.8%	5.5%	6.3%	7.1%	5.5%
Florida - FL*	\$52,670	5.6%	19.0%	8.9%	8.1%	6.8%
Georgia - GA	\$23,516	6.6%	16.5%	9.9%	8.6%	6.4%
Hawaii - HI	\$2,415	15.8%	2.7%	10.5%	2.6%	6.3%
Iowa - IA	\$6,958	12.5%	8.1%	8.5%	8.2%	6.0%
Idaho - ID	\$4,851	29.6%	5.8%	7.4%	6.3%	6.2%
Illinois - IL	\$19,322	-7.0%	25.9%	7.5%	7.3%	5.9%
Indiana - IN	\$13,763	2.1%	12.0%	9.8%	7.9%	5.8%
Kansas - KS	\$7,080	-12.5%	18.2%	8.5%	8.1%	6.4%
Kentucky - KY	\$7,933	-3.1%	15.5%	9.2%	8.3%	5.9%
Louisiana - LA	\$8,208	1.8%	14.7%	6.7%	7.6%	5.9%
Massachusetts - MA	\$12,692	-5.0%	32.4%	6.3%	6.9%	6.3%
Maryland - MD	\$10,534	-4.3%	12.2%	6.5%	7.6%	5.9%
Maine - ME	\$2,424	77.9%	-33.3%	5.4%	5.8%	5.4%
Michigan - MI	\$11,792	3.1%	8.9%	7.0%	7.0%	5.6%
Minnesota - MN	\$15,358	16.9%	7.0%	7.7%	7.8%	6.1%
Missouri - MO	\$14,167	-3.1%	7.7%	8.1%	7.5%	5.4%
Mississippi - MS	\$5,254	-17.6%	20.5%	8.8%	8.5%	5.9%
Montana - MT	\$2,083	1.2%	21.2%	7.7%	7.7%	5.6%
North Carolina - NC	\$25,891	11.5%	16.1%	9.0%	8.8%	6.8%
North Dakota - ND	\$2,962	4.9%	18.3%	7.3%	7.9%	6.9%
Nebraska - NE	\$5,928	-11.6%	19.0%	8.8%	8.8%	6.5%
New Hampshire - NH	\$1,997	18.5%	19.9%	6.5%	7.9%	6.1%
New Jersey - NJ	\$10,759	33.7%	0.5%	6.4%	6.4%	5.4%
New Mexico - NM	\$3,313	6.8%	11.9%	8.9%	7.3%	5.6%
Nevada - NV	\$6,837	15.8%	23.2%	8.5%	7.6%	6.7%
New York - NY*	\$27,557	11.1%	3.2%	19.1%	6.9%	6.7%
Ohio - OH	\$19,603	13.4%	2.9%	8.3%	8.2%	5.8%
Oklahoma - OK	\$7,957	12.8%	9.3%	9.2%	8.5%	6.2%
Oregon - OR	\$7,732	11.3%	21.0%	7.6%	8.4%	7.3%
Pennsylvania - PA	\$16,803	31.0%	8.7%	6.5%	6.5%	5.4%
Rhode Island - RI	\$976	52.9%	-0.7%	6.4%	7.0%	6.1%
South Carolina - SC	\$12,757	16.4%	9.3%	7.1%	6.3%	5.3%
South Dakota - SD	\$2,218	45.9%	2.1%	7.6%	8.3%	6.0%
Tennessee - TN	\$19,544	14.2%	-0.9%	8.2%	7.9%	6.0%
Texas - TX*	\$96,328	7.0%	10.3%	8.9%	7.5%	6.6%
Utah - UT	\$12,223	-3.7%	13.0%	8.2%	9.0%	7.6%
Virginia - VA	\$18,368	12.0%	9.4%	7.5%	7.8%	5.8%
Vermont - VT	\$912	8.8%	9.4%	5.5%	7.8%	6.2%
Washington - WA	\$22,326	-5.6%	22.0%	8.1%	8.3%	7.5%
Wisconsin - WI	\$13,395	1.7%	15.2%	8.2%	7.7%	5.7%
West Virginia - WV	\$2,946	-14.4%	28.7%	9.2%	7.8%	5.4%
Wyoming - WY	\$1,367	18.9%	31.0%	8.8%	9.7%	7.0%
United States	\$691,870	6.9%	12.2%	8.8%	7.8%	6.4%

*One in three Americans lives in one of the four shaded states, New York, Florida, Texas or California.
Sum of first column may not exactly equal total due to rounding.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect /
Table: ConstructConnect.

Table 6: U.S. Four Largest States: Type-of-Structure Forecasts
(\$ Billions USD)

		Actuals		Forecasts				
		2019	2020	2021	2022	2023	2024	2025
New York	Residential	10.761	8.089	10.033	9.285	11.220	12.199	13.043
	Non-res Building	21.070	14.195	9.988	13.035	15.025	15.765	16.917
	Engineering/Civil	7.802	5.273	10.589	9.278	11.385	12.271	12.973
	Total	39.632	27.557	30.610	31.598	37.630	40.235	42.933
	(Yr vs previous yr % Change)	3.9%	-30.5%	11.1%	3.2%	19.1%	6.9%	6.7%
Florida	Residential	28.887	28.798	29.986	35.592	38.351	41.454	44.477
	Non-res Building	18.938	15.273	14.719	17.694	19.770	21.503	22.937
	Engineering/Civil	14.363	8.599	10.932	12.930	14.005	14.998	15.837
	Total	62.188	52.670	55.637	66.216	72.126	77.956	83.250
	(Yr vs previous yr % Change)	11.9%	-15.3%	5.6%	19.0%	8.9%	8.1%	6.8%
Texas	Residential	44.134	45.332	47.653	51.305	54.394	57.714	61.752
	Non-res Building	63.303	31.663	32.960	37.301	42.605	46.441	49.451
	Engineering/Civil	24.006	19.333	22.456	25.109	26.864	28.967	30.699
	Total	131.444	96.328	103.069	113.715	123.863	133.122	141.903
	(Yr vs previous yr % Change)	36.7%	-26.7%	7.0%	10.3%	8.9%	7.5%	6.6%
California	Residential	24.358	23.051	23.067	26.210	28.972	31.723	34.359
	Non-res Building	25.881	20.755	22.158	27.698	29.999	32.167	34.571
	Engineering/Civil	15.566	18.192	16.199	18.861	20.707	22.332	23.684
	Total	65.806	61.999	61.423	72.769	79.678	86.222	92.614
	(Yr vs previous yr % Change)	-7.3%	-5.8%	-0.9%	18.5%	9.5%	8.2%	7.4%

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Tweeted by ConstructConnect:

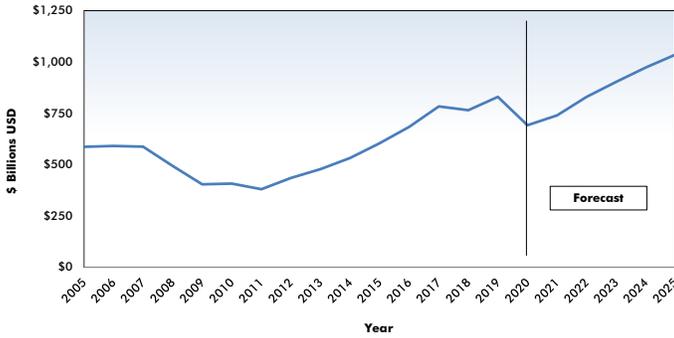
@ConstructConnx

U.S. total employment in March increased by +916,000 jobs. The total number of jobs in the economy, though, is still 6.7 million less than at this time last year. The seasonally adjusted (SA) unemployment rate in March improved to 6.0% from 6.2% in February.



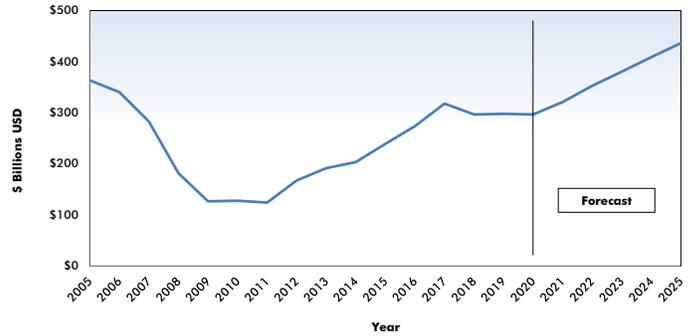
Link to article here: <https://bit.ly/3fUVRvR>

Graph 1: U.S. Grand Total Construction Starts — ConstructConnect



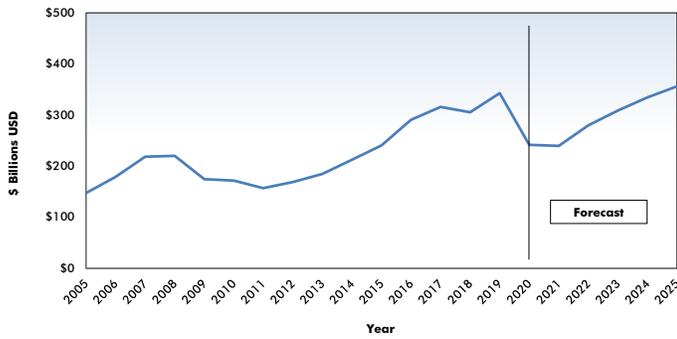
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 2: U.S. Total Residential Construction Starts — ConstructConnect



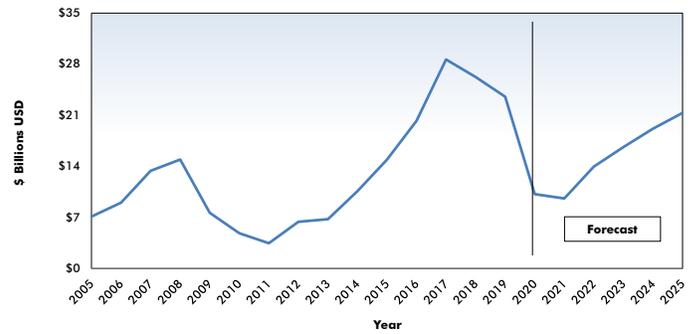
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 3: U.S. Total Non-Residential Building Starts — ConstructConnect



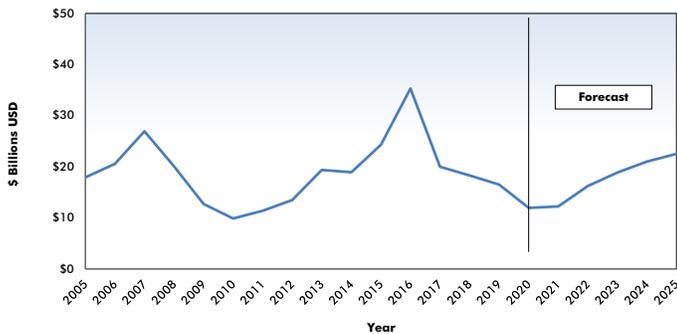
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 4: U.S. Hotel/Motel Construction Starts — ConstructConnect



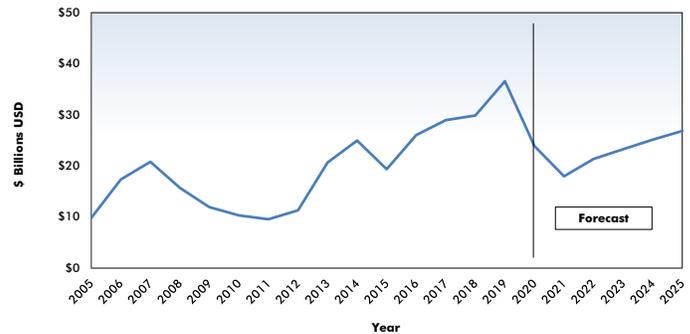
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 5: U.S. Shopping/Retail Construction Starts — ConstructConnect



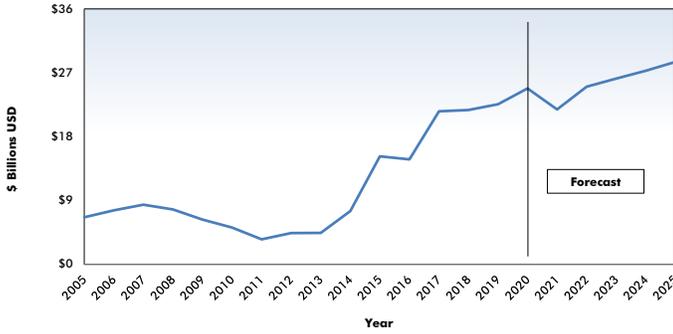
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 6: U.S. Private Office Building Construction Starts — ConstructConnect



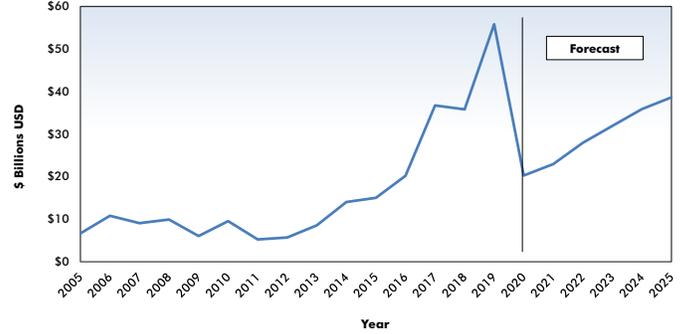
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 7: U.S. Warehouse Construction Starts — ConstructConnect



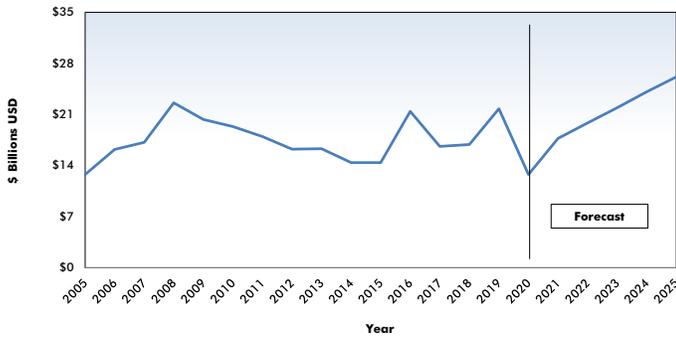
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 8: U.S. Industrial/Manufacturing Construction Starts — ConstructConnect



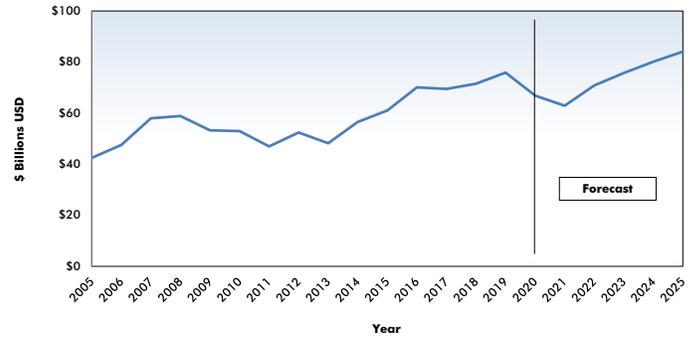
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 9: U.S. Hospital and Clinic Construction Starts — ConstructConnect



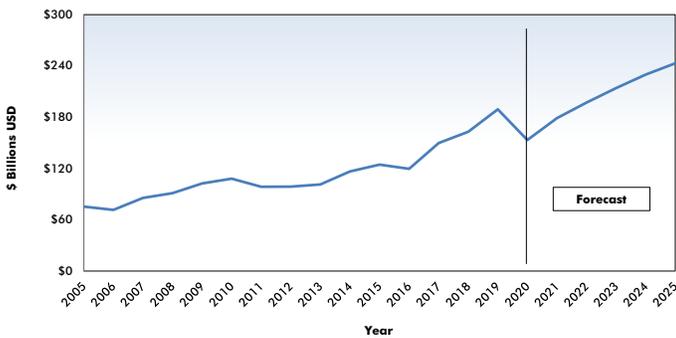
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 10: U.S. Total Educational Construction Starts — ConstructConnect



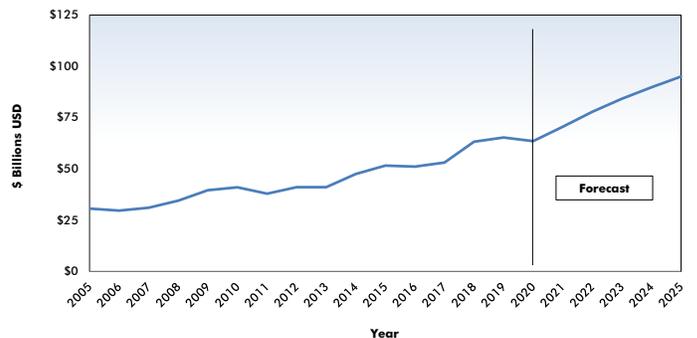
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 11: U.S. Total Heavy Engineering/Civil Construction Starts — ConstructConnect



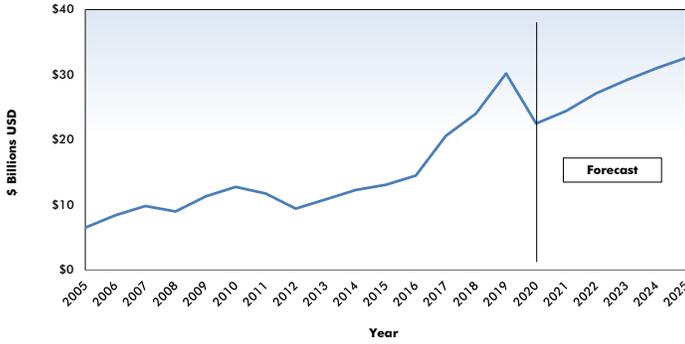
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 12: U.S. Roadwork Construction Starts — ConstructConnect



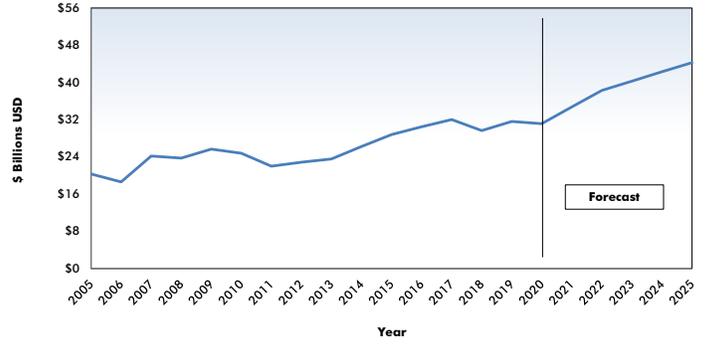
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 13: U.S. Bridge Construction Starts — ConstructConnect



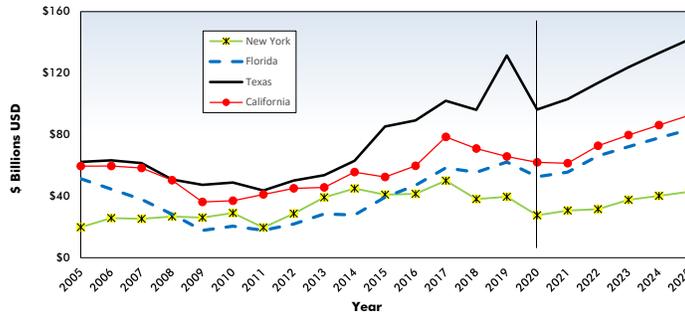
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 14: U.S. Water and Sewage Treatment Construction Starts — ConstructConnect



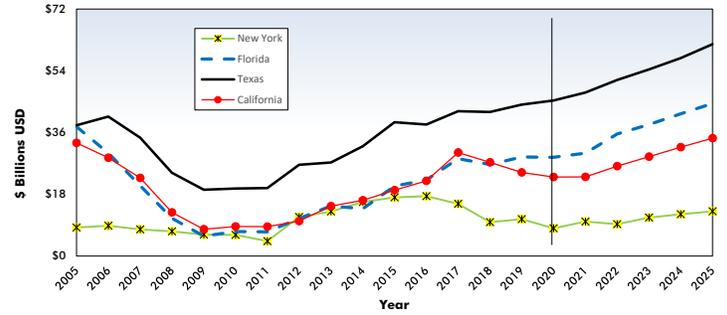
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 15: U.S. Four Largest States (by Population): Total Construction Starts — ConstructConnect



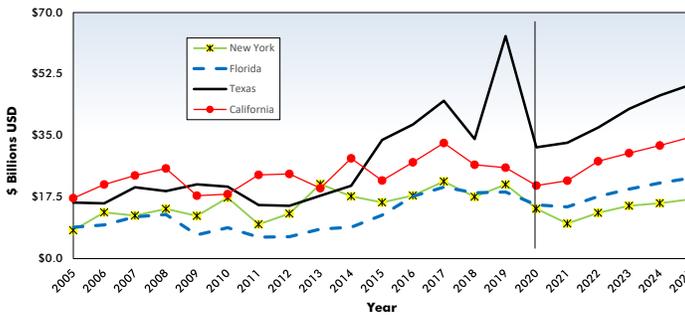
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 16: U.S. Four Largest States: Total Residential Construction Starts — ConstructConnect



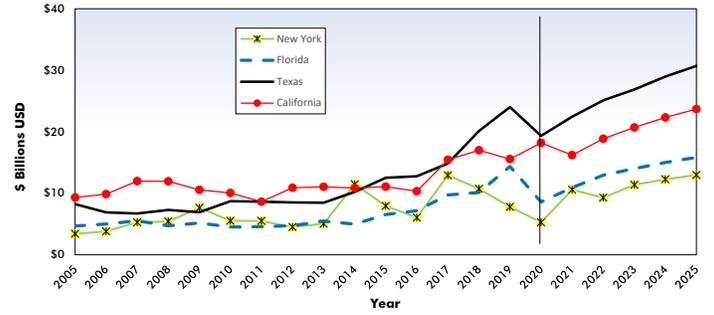
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 17: U.S. Four Largest States: Total Non-residential Building Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 18: U.S. Four Largest States: Total Engineering/Civil Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Table 7: Canada Type-of-Structure Forecasts
(\$ Billions CAD)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Single-family	12.331	13.291	15.082	16.410	17.351	18.290	19.259
Multi-family	18.703	10.991	9.784	11.320	12.869	14.093	15.078
TOTAL RESIDENTIAL	31.033	24.282	24.867	27.730	30.220	32.383	34.337
(Yr/yr % change)	4.3%	-21.8%	2.4%	11.5%	9.0%	7.2%	6.0%
Hotels/Motels	0.657	0.376	0.297	0.603	0.745	0.835	0.879
Private Offices	3.804	1.852	0.968	1.654	1.891	2.142	2.421
Governmental Offices	3.211	1.440	1.198	1.489	1.654	1.820	1.982
Shopping/Retail	2.337	0.348	0.301	0.623	0.774	0.934	1.028
Retail Miscellaneous	0.239	0.093	0.083	0.173	0.208	0.234	0.260
Parking Garages	0.383	0.143	0.103	0.148	0.175	0.205	0.237
Amusement	2.351	0.998	0.985	1.276	1.546	1.756	1.925
Warehouses	1.560	1.763	1.464	1.609	1.902	2.053	2.129
TOTAL COMMERCIAL	14.543	7.013	5.399	7.576	8.894	9.978	10.861
(Yr/yr % change)	52.6%	-51.8%	-23.0%	40.3%	17.4%	12.2%	8.8%
TOTAL INDUSTRIAL (manufacturing)	3.465	2.318	4.157	5.483	6.592	7.665	8.743
(Yr/yr % change)	-82.5%	-33.1%	79.3%	31.9%	20.2%	16.3%	14.1%
Religious	0.050	0.035	0.054	0.066	0.078	0.090	0.102
Hospitals/Clinics	3.674	3.489	5.711	4.779	4.898	4.901	4.501
MED misc	0.295	0.141	0.136	0.336	0.418	0.500	0.571
Transportation Terminals*	1.497	5.565	3.950	4.839	5.112	5.396	5.728
Police/Fire	1.028	0.819	0.832	0.962	1.064	1.134	1.206
Educational Facilities	5.265	5.052	4.771	5.379	5.730	6.068	6.278
TOTAL INSTITUTIONAL	11.809	15.100	15.454	16.361	17.300	18.089	18.386
(Yr/yr % change)	-31.4%	27.9%	2.3%	5.9%	5.7%	4.6%	1.6%
TOTAL NON-RES BUILDING	29.816	24.432	25.010	29.421	32.786	35.733	37.990
(Yr/yr % change)	-35.9%	-18.1%	2.4%	17.6%	11.4%	9.0%	6.3%
Bridges	2.280	3.657	2.663	3.302	3.595	3.644	3.658
Dams/Canal/Marine	0.714	0.605	0.545	0.665	0.750	0.805	0.841
Water & Sewage Treatment	3.847	3.178	3.040	3.729	4.218	4.802	5.368
Roads	9.701	10.094	9.079	10.127	10.763	11.342	11.886
Power Infrastructure	3.147	2.627	3.156	4.844	5.810	6.733	7.448
All Other Civil (Oil & Gas etc.)	17.492	12.208	14.095	17.106	20.020	22.419	24.579
TOTAL ENGINEERING	37.182	32.369	32.579	39.774	45.156	49.745	53.780
(Yr/yr % change)	5.9%	-12.9%	0.7%	22.1%	13.5%	10.2%	8.1%
TOTAL NON-RESIDENTIAL	66.998	56.800	57.589	69.195	77.942	85.478	91.770
(Yr/yr % change)	-17.9%	-15.2%	1.4%	20.2%	12.6%	9.7%	7.4%
GRAND TOTAL	98.031	81.082	82.456	96.925	108.162	117.861	126.107
(Yr/yr % change)	-12.0%	-17.3%	1.7%	17.5%	11.6%	9.0%	7.0%

* With respect to Tables 3 and 7, 'transportation terminals' is the one type-of-structure that is categorized differently in Canada (institutional) than in the U.S. (commercial), for reasons having to do with government statistics.

EXPLANATION: Table 7 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 8 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Table 8: Canada Type-of-Structure Forecasts

Arranged to match the alphabetical category drop-down menus in INSIGHT (\$ Billions CAD)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Summary							
CIVIL	37.182	32.369	32.579	39.774	45.156	49.745	53.780
NON-RESIDENTIAL BUILDING	29.816	24.432	25.010	29.421	32.786	35.733	37.990
RESIDENTIAL	31.033	24.282	24.867	27.730	30.220	32.383	34.337
GRAND TOTAL	98.031	81.082	82.456	96.925	108.162	117.861	126.107
Verticals							
All Other Civil	17.492	12.208	14.095	17.106	20.020	22.419	24.579
Bridges	2.280	3.657	2.663	3.302	3.595	3.644	3.658
Dams / Canals / Marine Work	0.714	0.605	0.545	0.665	0.750	0.805	0.841
Power Infrastructure	3.147	2.627	3.156	4.844	5.810	6.733	7.448
Roads	9.701	10.094	9.079	10.127	10.763	11.342	11.886
Water and Sewage Treatment	3.847	3.178	3.040	3.729	4.218	4.802	5.368
CIVIL	37.182	32.369	32.579	39.774	45.156	49.745	53.780
(Yr/yr % change)	5.9%	-12.9%	0.7%	22.1%	13.5%	10.2%	8.1%
Offices (private)	3.804	1.852	0.968	1.654	1.891	2.142	2.421
Parking Garages	0.383	0.143	0.103	0.148	0.175	0.205	0.237
Transportation Terminals	1.497	5.565	3.950	4.839	5.112	5.396	5.728
Commercial	5.684	7.559	5.021	6.642	7.178	7.743	8.386
(Yr/yr % change)	-38.4%	33.0%	-33.6%	32.3%	8.1%	7.9%	8.3%
Amusement	2.351	0.998	0.985	1.276	1.546	1.756	1.925
Religious	0.050	0.035	0.054	0.066	0.078	0.090	0.102
Community	2.401	1.033	1.039	1.342	1.624	1.846	2.027
(Yr/yr % change)	-9.6%	-57.0%	0.6%	29.1%	21.1%	13.6%	9.8%
Educational	5.265	5.052	4.771	5.379	5.730	6.068	6.278
(Yr/yr % change)	24.5%	-4.1%	-5.6%	12.7%	6.5%	5.9%	3.5%
Fire and Police Stations	1.028	0.819	0.832	0.962	1.064	1.134	1.206
Government Offices	3.211	1.440	1.198	1.489	1.654	1.820	1.982
Government	4.239	2.259	2.030	2.451	2.718	2.954	3.189
(Yr/yr % change)	17.3%	-46.7%	-10.1%	20.8%	10.9%	8.7%	7.9%
Manufacturing	3.465	2.318	4.157	5.483	6.592	7.665	8.743
Warehouses	1.560	1.763	1.464	1.609	1.902	2.053	2.129
Industrial	5.025	4.081	5.621	7.092	8.494	9.718	10.872
(Yr/yr % change)	-76.8%	-18.8%	37.7%	26.2%	19.8%	14.4%	11.9%
Hospitals / Clinics	3.674	3.489	5.711	4.779	4.898	4.901	4.501
Medical Misc.	0.295	0.141	0.136	0.336	0.418	0.500	0.571
Medical	3.969	3.630	5.847	5.115	5.316	5.401	5.072
(Yr/yr % change)	7.7%	-8.5%	61.1%	-12.5%	3.9%	1.6%	-6.1%
Hotels	0.657	0.376	0.297	0.603	0.745	0.835	0.879
Retail Misc.	0.239	0.093	0.083	0.173	0.208	0.234	0.260
Shopping	2.337	0.348	0.301	0.623	0.774	0.934	1.028
Retail	3.234	0.817	0.681	1.400	1.726	2.002	2.168
(Yr/yr % change)	120.0%	-74.7%	-16.7%	105.6%	23.3%	16.0%	8.2%
NON-RESIDENTIAL BUILDING	29.816	24.432	25.010	29.421	32.786	35.733	37.990
(Yr/yr % change)	-35.9%	-18.1%	2.4%	17.6%	11.4%	9.0%	6.3%
Multi-Family	18.703	10.991	9.784	11.320	12.869	14.093	15.078
Single-Family	12.331	13.291	15.082	16.410	17.351	18.290	19.259
RESIDENTIAL	31.033	24.282	24.867	27.730	30.220	32.383	34.337
(Yr/yr % change)	4.3%	-21.8%	2.4%	11.5%	9.0%	7.2%	6.0%
TOTAL NON-RESIDENTIAL	66.998	56.800	57.589	69.195	77.942	85.478	91.770
(Yr/yr % change)	-17.9%	-15.2%	1.4%	20.2%	12.6%	9.7%	7.4%
GRAND TOTAL	98.031	81.082	82.456	96.925	108.162	117.861	126.107
(Yr/yr % change)	-12.0%	-17.3%	1.7%	17.5%	11.6%	9.0%	7.0%

EXPLANATION: Table 7 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 8 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 9: Canadian Provinces, Total Construction Starts — ConstructConnect

Regions/Provinces (East to West)	Actuals (Level in \$ Millions CAD)	Forecasts (Year versus previous year % change)				
	2020	2021	2022	2023	2024	2025
Atlantic region	\$3,504	21.7%	29.0%	8.3%	6.6%	4.5%
Quebec	\$15,688	-15.2%	22.2%	6.4%	7.1%	6.1%
Ontario	\$32,239	-18.8%	17.3%	8.7%	8.0%	6.5%
Manitoba	\$1,689	23.3%	46.5%	27.0%	6.1%	9.1%
Saskatchewan	\$1,453	23.7%	36.1%	3.3%	15.1%	7.6%
Alberta	\$12,426	25.3%	11.6%	14.9%	9.5%	7.9%
British Columbia	\$14,083	36.7%	12.1%	16.6%	11.5%	7.8%
Canada	\$81,082	1.7%	17.5%	11.6%	9.0%	7.0%

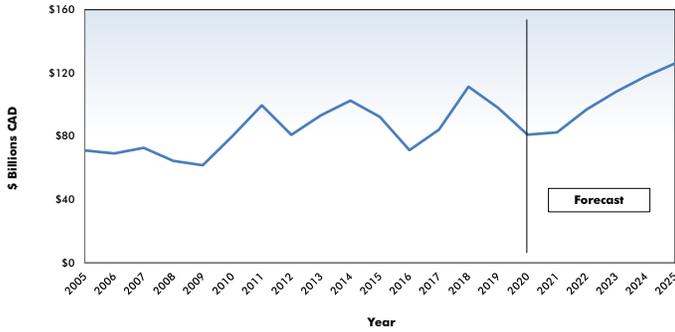
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Table 10: Canada Four Largest Provinces: Type-of-Structure Forecasts
(\$ Billions CAD)

		Actuals		Forecasts				
		2019	2020	2021	2022	2023	2024	2025
Quebec	Residential	4.934	3.570	3.721	4.190	4.380	4.632	4.886
	Non-res Building	8.351	4.813	5.262	6.578	6.774	7.122	7.488
	Engineering/Civil	7.711	7.306	4.314	5.477	6.131	6.763	7.274
	Total	20.996	15.688	13.298	16.245	17.285	18.517	19.649
	(Yr vs previous yr % Change)	-4.5%	-25.3%	-15.2%	22.2%	6.4%	7.1%	6.1%
Ontario	Residential	13.587	11.813	12.157	12.616	13.279	14.210	15.060
	Non-res Building	10.138	13.328	7.199	9.504	10.468	11.298	11.958
	Engineering/Civil	7.748	7.098	6.827	8.590	9.637	10.556	11.376
	Total	31.472	32.239	26.183	30.711	33.384	36.063	38.394
	(Yr vs previous yr % Change)	-11.3%	2.4%	-18.8%	17.3%	8.7%	8.0%	6.5%
Alberta	Residential	3.949	3.078	2.727	3.419	3.905	4.248	4.492
	Non-res Building	4.147	1.952	2.622	3.886	4.436	4.903	5.325
	Engineering/Civil	9.976	7.395	10.223	10.076	11.628	12.706	13.764
	Total	18.071	12.426	15.572	17.380	19.969	21.858	23.581
	(Yr vs previous yr % Change)	5.0%	-31.2%	25.3%	11.6%	14.9%	9.5%	7.9%
British Columbia	Residential	6.657	4.098	4.931	5.556	6.395	6.876	7.302
	Non-res Building	3.770	2.584	6.987	5.029	6.216	7.125	7.642
	Engineering/Civil	8.453	7.401	7.340	11.003	12.555	14.051	15.284
	Total	18.879	14.083	19.258	21.588	25.165	28.053	30.229
	(Yr vs previous yr % Change)	-29.0%	-25.4%	36.7%	12.1%	16.6%	11.5%	7.8%

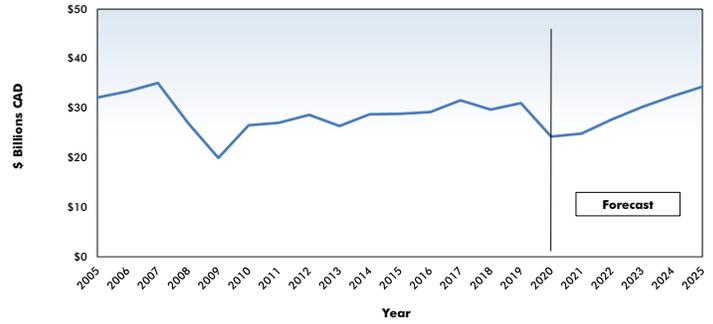
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Graph 19: Canadian Grand Total Construction Starts — ConstructConnect



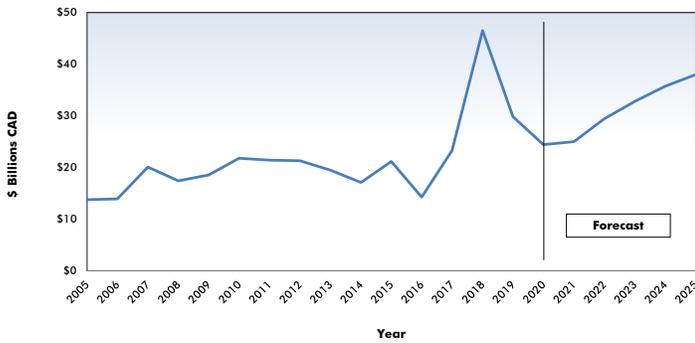
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 20: Canadian Residential Construction Starts — ConstructConnect



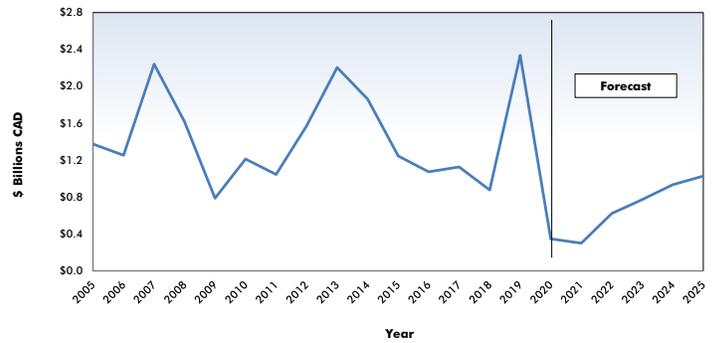
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 21: Canadian Non-Residential Building Starts — ConstructConnect



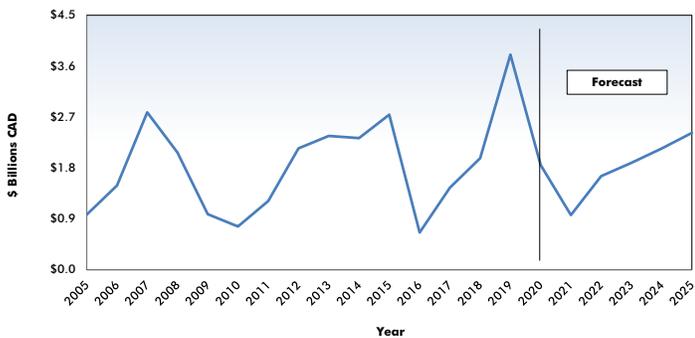
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 22: Canadian Shopping/Retail Construction Starts — ConstructConnect



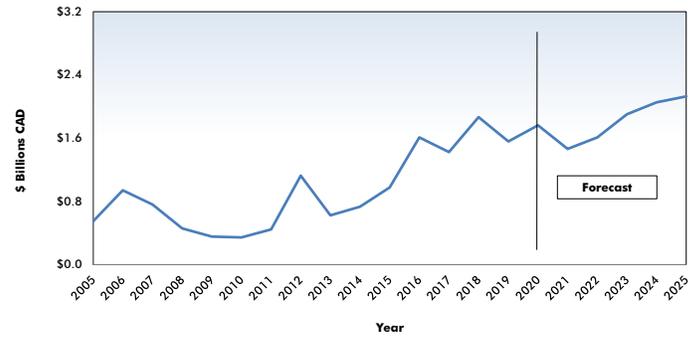
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 23: Canadian Private Offices Construction Starts — ConstructConnect



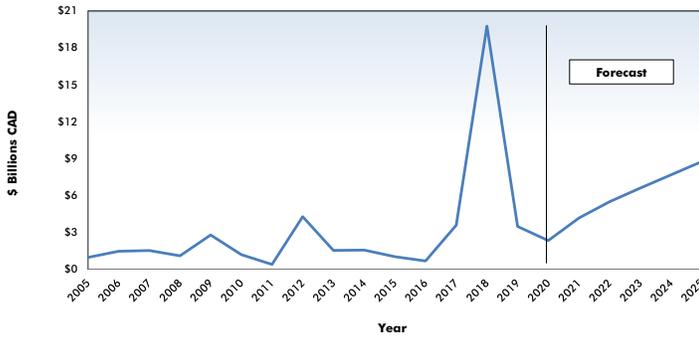
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 24: Canadian Warehouse Construction Starts — ConstructConnect



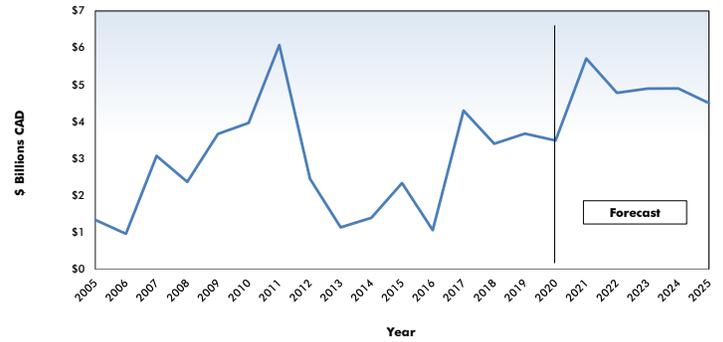
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 25: Canadian Industrial/Manufacturing Construction Starts — ConstructConnect



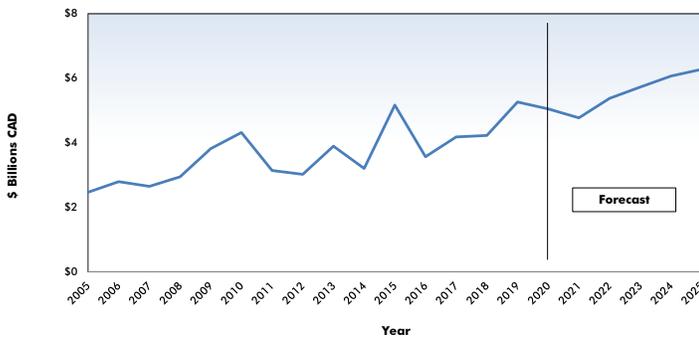
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 26: Canadian Hospital/Clinic Construction Starts — ConstructConnect



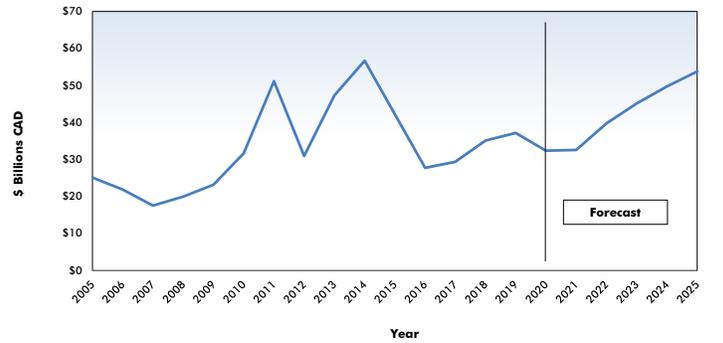
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 27: Canadian Education Construction Starts — ConstructConnect



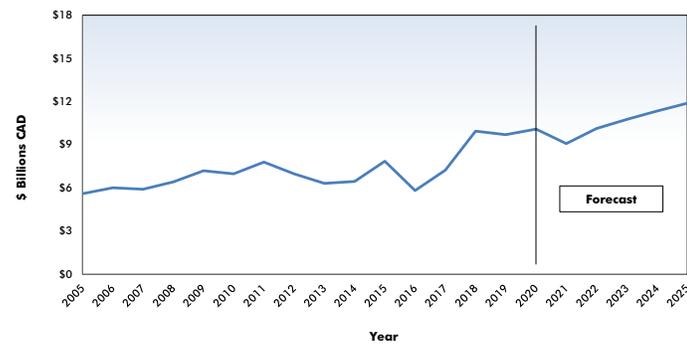
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 28: Canadian Engineering Construction Starts — ConstructConnect



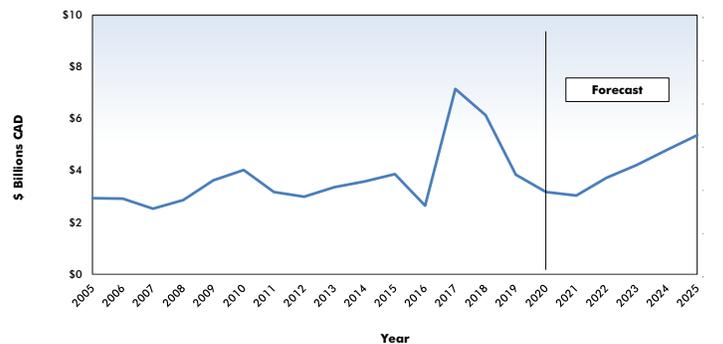
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 29: Canadian Roadwork Construction Starts — ConstructConnect



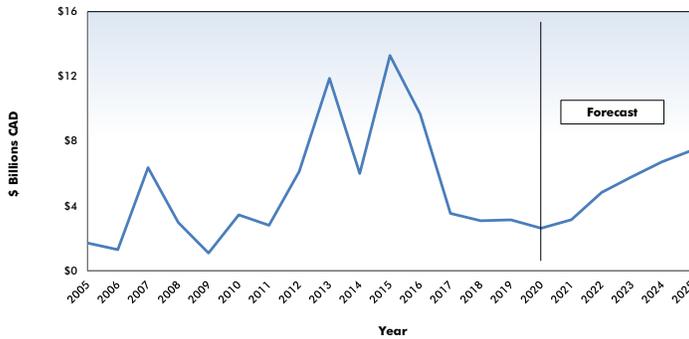
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 30: Canadian Water and Sewage Construction Starts — ConstructConnect



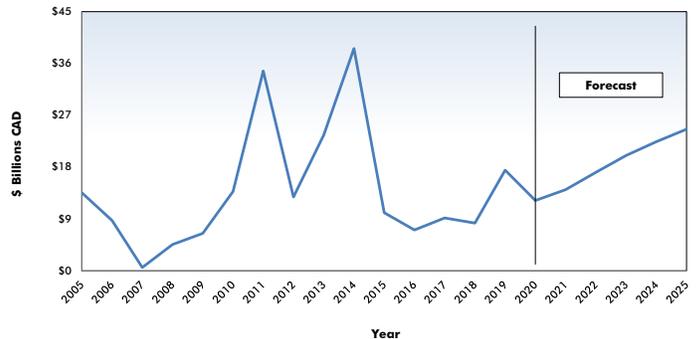
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 31: Canadian Power Infrastructure Construction Starts — ConstructConnect



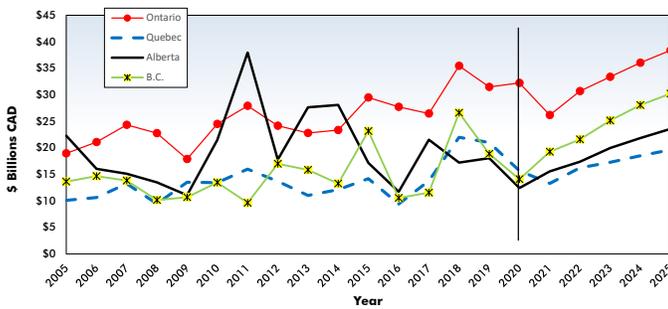
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 32: Canadian All Other Civil (Oil Sands, Pipelines, etc.) Construction Starts — ConstructConnect



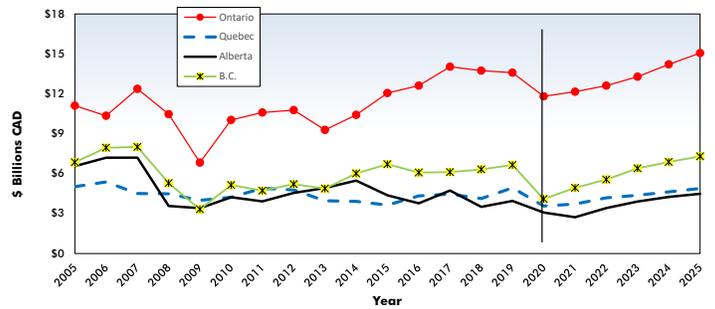
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 33: Canada Four Largest Provinces (by Population): Total Construction Starts — ConstructConnect



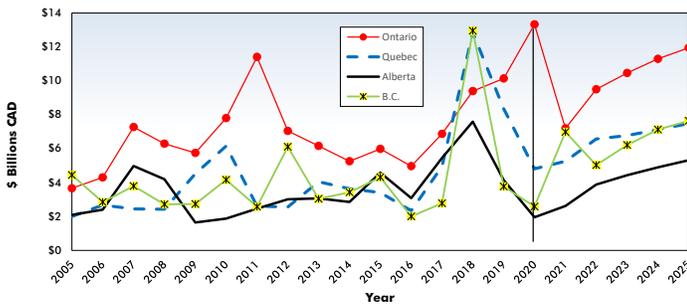
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 34: Canada Four Largest Provinces: Total Residential Construction Starts — ConstructConnect



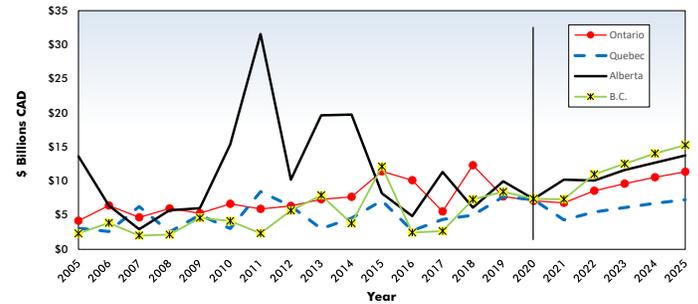
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 35: Canada Four Largest Provinces: Total Non-residential Building Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 36: Canada Four Largest Provinces: Total Engineering/Civil Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Table 11: U.S. Type-of-Structure Forecasts
(Square Feet Millions)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Single-family	1,643.6	1,814.0	2,006.3	2,176.2	2,317.6	2,476.3	2,628.1
Multi-family	555.0	444.4	458.9	522.7	573.6	623.7	674.0
TOTAL RESIDENTIAL	2,198.6	2,258.4	2,465.2	2,698.9	2,891.2	3,100.0	3,302.2
<i>(Yr/yr % change)</i>	<i>-0.1%</i>	<i>2.7%</i>	<i>9.2%</i>	<i>9.5%</i>	<i>7.1%</i>	<i>7.2%</i>	<i>6.5%</i>
Hotels/Motels	106.0	44.9	42.3	62.3	73.1	83.9	93.3
Shopping/Retail	69.0	49.3	51.8	69.0	78.9	87.6	93.8
Parking Garages	34.6	17.3	16.9	19.6	22.6	25.6	28.7
Amusement	23.9	21.5	24.0	25.6	28.1	29.9	31.6
Private Offices	107.8	70.6	57.5	66.4	72.0	77.6	82.9
Governmental Offices	17.2	13.7	15.8	16.0	16.9	17.4	18.1
Laboratories (Schools & Industrial)	3.5	3.1	4.0	5.9	6.3	6.6	6.9
Warehouses	207.4	217.8	187.9	218.8	232.7	243.6	255.0
Sports Stadium/Convention Center	21.0	12.6	13.4	18.2	24.0	27.9	29.8
Transportation Terminals	9.5	4.8	7.9	11.7	14.5	17.0	19.2
TOTAL COMMERCIAL	599.9	455.5	421.6	513.5	569.1	617.2	659.3
<i>(Yr/yr % change)</i>	<i>3.6%</i>	<i>-24.1%</i>	<i>-7.4%</i>	<i>21.8%</i>	<i>10.8%</i>	<i>8.4%</i>	<i>6.8%</i>
TOTAL INDUSTRIAL (manufacturing)	106.4	64.9	67.8	80.7	94.2	106.0	113.9
<i>(Yr/yr % change)</i>	<i>7.2%</i>	<i>-39.0%</i>	<i>4.4%</i>	<i>19.1%</i>	<i>16.8%</i>	<i>12.6%</i>	<i>7.4%</i>
Religious	5.1	3.8	4.4	6.2	7.0	7.6	8.0
Hospitals/Clinics	33.4	14.9	25.0	31.4	37.9	43.2	48.2
Nursing Homes/Assisted Living	40.6	30.7	31.9	36.2	42.0	46.7	50.7
Libraries/Museums	3.2	3.4	3.4	4.4	4.9	5.2	5.4
Courthouse	1.8	3.0	2.8	3.2	3.5	3.6	3.7
Police/Fire	7.6	8.2	8.8	9.0	9.2	9.6	9.9
Prisons	2.1	2.6	1.9	2.1	2.4	2.5	2.7
Military	11.7	22.7	25.6	26.6	28.3	29.3	29.7
Educational Facilities	168.1	147.4	125.4	145.8	159.9	170.3	178.8
MED misc	19.7	14.8	15.5	17.6	18.9	20.2	21.7
TOTAL INSTITUTIONAL	293.3	251.4	244.6	282.6	313.8	338.2	358.6
<i>(Yr/yr % change)</i>	<i>2.7%</i>	<i>-14.3%</i>	<i>-2.7%</i>	<i>15.6%</i>	<i>11.0%</i>	<i>7.8%</i>	<i>6.0%</i>
Miscellaneous Non-Res Building	26.7	19.7	20.0	22.6	23.8	24.7	25.8
TOTAL NON-RES BLDG	1,026.4	791.6	754.0	899.3	1,000.9	1,086.2	1,157.5
<i>(Yr/yr % change)</i>	<i>3.7%</i>	<i>-22.9%</i>	<i>-4.7%</i>	<i>19.3%</i>	<i>11.3%</i>	<i>8.5%</i>	<i>6.6%</i>
RESIDENTIAL + NON-RES BLDG	3,224.9	3,050.0	3,219.2	3,598.2	3,892.1	4,186.2	4,459.7
<i>(Yr/yr % change)</i>	<i>1.1%</i>	<i>-5.4%</i>	<i>5.5%</i>	<i>11.8%</i>	<i>8.2%</i>	<i>7.6%</i>	<i>6.5%</i>

EXPLANATION: Table 11 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 12 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

The square footage forecasts are largely determined by dividing the dollar value forecasts by an average dollar-per-square-foot value. The underlying dollar-per-square-foot calculation is based on the most relevant of current data. While the projected dollar values are generated through econometric modeling driven by key economic and demographic variables, both the dollar value and square footage forecasts also allow for discretionary overrides when warranted by extraordinary circumstances, such as unique mega project start-ups.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 12: U.S. Type-of-Structure Forecasts

Arranged to match the alphabetical category drop-down menus in INSIGHT (Square Feet Millions)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Summary							
NON-RESIDENTIAL BUILDING	1,026.4	791.6	754.0	899.3	1,000.9	1,086.2	1,157.5
RESIDENTIAL	2,198.6	2,258.4	2,465.2	2,698.9	2,891.2	3,100.0	3,302.2
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,224.9	3,050.0	3,219.2	3,598.2	3,892.1	4,186.2	4,459.7
Verticals							
Offices (private)	107.8	70.6	57.5	66.4	72.0	77.6	82.9
Parking Garages	34.6	17.3	16.9	19.6	22.6	25.6	28.7
Transportation Terminals	9.5	4.8	7.9	11.7	14.5	17.0	19.2
Commercial	151.9	92.7	82.3	97.7	109.1	120.2	130.8
(Yr/yr % change)	19.4%	-39.0%	-11.2%	18.6%	11.7%	10.1%	8.8%
Amusement	23.9	21.5	24.0	25.6	28.1	29.9	31.6
Libraries / Museums	3.2	3.4	3.4	4.4	4.9	5.2	5.4
Religious	5.1	3.8	4.4	6.2	7.0	7.6	8.0
Sports Arenas / Convention Centers	21.0	12.6	13.4	18.2	24.0	27.9	29.8
Community	53.2	41.3	45.2	54.6	63.9	70.6	74.7
(Yr/yr % change)	3.8%	-22.4%	9.6%	20.7%	17.2%	10.5%	5.9%
College / University	38.1	32.0	27.4	31.2	33.6	35.7	37.8
Elementary / Pre School	48.8	47.3	41.8	47.0	52.4	56.6	59.2
Jr / Sr High School	75.6	62.7	51.3	61.9	67.7	71.6	75.2
Special / Vocational	5.6	5.3	4.8	5.6	6.2	6.4	6.6
Educational	168.1	147.4	125.4	145.8	159.9	170.3	178.8
(Yr/yr % change)	7.5%	-12.3%	-15.0%	16.3%	9.7%	6.5%	5.0%
Courthouses	1.8	3.0	2.8	3.2	3.5	3.6	3.7
Fire and Police Stations	7.6	8.2	8.8	9.0	9.2	9.6	9.9
Government Offices	17.2	13.7	15.8	16.0	16.9	17.4	18.1
Prisons	2.1	2.6	1.9	2.1	2.4	2.5	2.7
Government	28.7	27.5	29.3	30.3	31.9	33.1	34.3
(Yr/yr % change)	-5.6%	-4.4%	6.6%	3.5%	5.3%	3.6%	3.6%
Industrial Labs / Labs / School Labs	3.5	3.1	4.0	5.9	6.3	6.6	6.9
Manufacturing	106.4	64.9	67.8	80.7	94.2	106.0	113.9
Warehouses	207.4	217.8	187.9	218.8	232.7	243.6	255.0
Industrial	317.4	285.8	259.6	305.3	333.2	356.2	375.8
(Yr/yr % change)	3.0%	-10.0%	-9.1%	17.6%	9.1%	6.9%	5.5%
Hospitals / Clinics	33.4	14.9	25.0	31.4	37.9	43.2	48.2
Medical Misc.	19.7	14.8	15.5	17.6	18.9	20.2	21.7
Nursing Homes	40.6	30.7	31.9	36.2	42.0	46.7	50.7
Medical	93.8	60.4	72.3	85.2	98.7	110.2	120.6
(Yr/yr % change)	0.2%	-35.6%	19.8%	17.8%	15.8%	11.6%	9.5%
Military	11.7	22.7	25.6	26.6	28.3	29.3	29.7
(Yr/yr % change)	7.8%	94.2%	12.8%	3.9%	6.2%	3.5%	1.3%
Hotels	106.0	44.9	42.3	62.3	73.1	83.9	93.3
Retail Misc.	26.7	19.7	20.0	22.6	23.8	24.7	25.8
Shopping	69.0	49.3	51.8	69.0	78.9	87.6	93.8
Retail	201.7	113.9	114.2	153.8	175.8	196.3	212.9
(Yr/yr % change)	-4.9%	-43.5%	0.3%	34.7%	14.3%	11.6%	8.5%
NON-RESIDENTIAL BUILDING	1,026.4	791.6	754.0	899.3	1,000.9	1,086.2	1,157.5
(Yr/yr % change)	3.7%	-22.9%	-4.7%	19.3%	11.3%	8.5%	6.6%
Multi-Family	555.0	444.4	458.9	522.7	573.6	623.7	674.0
Single-Family	1,643.6	1,814.0	2,006.3	2,176.2	2,317.6	2,476.3	2,628.1
RESIDENTIAL	2,198.6	2,258.4	2,465.2	2,698.9	2,891.2	3,100.0	3,302.2
(Yr/yr % change)	-0.1%	2.7%	9.2%	9.5%	7.1%	7.2%	6.5%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,224.9	3,050.0	3,219.2	3,598.2	3,892.1	4,186.2	4,459.7
(Yr/yr % change)	1.1%	-5.4%	5.5%	11.8%	8.2%	7.6%	6.5%

EXPLANATION: Table 11 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 12 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 13: Canada Type-of-Structure Forecasts
 (Square Feet Millions)

	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Single-family	106.4	114.8	130.0	141.6	149.8	157.9	166.3
Multi-family	94.7	55.1	49.5	57.4	65.2	71.4	76.4
TOTAL RESIDENTIAL	201.1	169.9	179.5	199.0	215.0	229.3	242.7
<i>(Yr/yr % change)</i>	<i>-2.3%</i>	<i>-15.5%</i>	<i>5.7%</i>	<i>10.8%</i>	<i>8.1%</i>	<i>6.7%</i>	<i>5.8%</i>
Hotels/Motels	2.6	0.8	0.7	1.3	1.8	2.0	2.2
Private Offices	11.2	4.3	1.4	3.3	4.7	5.9	7.1
Governmental Offices	2.4	1.7	1.3	1.6	1.8	2.0	2.1
Shopping/Retail	9.9	3.3	3.8	7.1	8.7	10.4	11.5
Retail Miscellaneous	1.3	0.3	0.3	0.5	0.6	0.7	0.8
Parking Garages	1.4	0.2	0.1	0.3	0.5	0.7	0.9
Amusement	3.9	1.4	1.2	1.8	2.5	3.1	3.6
Warehouses	10.5	8.7	8.4	9.1	10.7	11.6	12.0
TOTAL COMMERCIAL	43.1	20.8	17.1	25.1	31.2	36.3	40.1
<i>(Yr/yr % change)</i>	<i>10.4%</i>	<i>-51.7%</i>	<i>-17.7%</i>	<i>46.8%</i>	<i>24.3%</i>	<i>16.2%</i>	<i>10.6%</i>
TOTAL INDUSTRIAL (manufacturing)	6.4	4.9	4.8	5.3	6.3	7.2	7.9
<i>(Yr/yr % change)</i>	<i>-21.6%</i>	<i>-23.5%</i>	<i>-1.8%</i>	<i>11.0%</i>	<i>18.6%</i>	<i>14.0%</i>	<i>9.6%</i>
Religious	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Hospitals/Clinics	7.6	8.6	9.1	9.5	10.2	10.2	10.0
MED misc	1.2	0.2	0.1	0.5	1.0	1.3	1.5
Transportation Terminals*	0.3	0.5	0.5	1.0	1.3	1.6	1.8
Police/Fire	1.5	1.2	1.0	1.1	1.3	1.3	1.4
Educational Facilities	12.4	9.9	11.4	12.3	12.9	13.6	14.1
TOTAL INSTITUTIONAL	23.1	20.6	22.2	24.6	26.8	28.2	29.0
<i>(Yr/yr % change)</i>	<i>-19.8%</i>	<i>-11.0%</i>	<i>7.6%</i>	<i>11.0%</i>	<i>9.0%</i>	<i>5.2%</i>	<i>3.0%</i>
TOTAL NON-RES BLDG	72.6	46.3	44.1	55.1	64.4	71.7	77.1
<i>(Yr/yr % change)</i>	<i>-4.5%</i>	<i>-36.3%</i>	<i>-4.8%</i>	<i>24.9%</i>	<i>16.9%</i>	<i>11.4%</i>	<i>7.5%</i>
RESIDENTIAL + NON-RES BLDG	273.7	216.1	223.6	254.1	279.4	301.0	319.8
<i>(Yr/yr % change)</i>	<i>-2.9%</i>	<i>-21.0%</i>	<i>3.5%</i>	<i>13.6%</i>	<i>10.0%</i>	<i>7.8%</i>	<i>6.2%</i>

* With respect to Tables 11 and 13, 'transportation terminals' is the one type-of-structure that is categorized differently in Canada (institutional) than in the U.S. (commercial), for reasons having to do with government statistics.

EXPLANATION: Table 13 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 14 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Table 14: Canada Type-of-Structure Forecasts
 Arranged to match the alphabetical category drop-down menus in INSIGHT (Square Feet Millions)

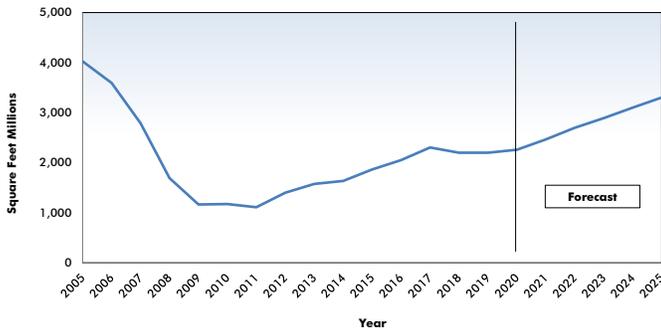
	Actuals		Forecasts				
	2019	2020	2021	2022	2023	2024	2025
Summary							
NON-RESIDENTIAL BUILDING	72.6	46.3	44.1	55.1	64.4	71.7	77.1
RESIDENTIAL	201.1	169.9	179.5	199.0	215.0	229.3	242.7
RESIDENTIAL + NON-RESIDENTIAL BUILDING	273.7	216.1	223.6	254.1	279.4	301.0	319.8
Verticals							
Offices (private)	11.2	4.3	1.4	3.3	4.7	5.9	7.1
Parking Garages	1.4	0.2	0.1	0.3	0.5	0.7	0.9
Transportation Terminals	0.3	0.5	0.5	1.0	1.3	1.6	1.8
Commercial	12.9	5.0	2.0	4.6	6.5	8.2	9.8
(Yr/Yr % change)	-4.7%	-61.5%	-59.5%	127.4%	42.4%	25.7%	19.6%
Amusement	3.9	1.4	1.2	1.8	2.5	3.1	3.6
Religious	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Community	4.0	1.5	1.3	2.0	2.7	3.3	3.8
(Yr/Yr % change)	-25.4%	-62.3%	-17.4%	56.2%	35.8%	22.8%	16.8%
Educational	12.4	9.9	11.4	12.3	12.9	13.6	14.1
(Yr/Yr % change)	3.2%	-19.7%	14.3%	8.7%	4.7%	5.5%	3.4%
Fire and Police Stations	1.5	1.2	1.0	1.1	1.3	1.3	1.4
Government Offices	2.4	1.7	1.3	1.6	1.8	2.0	2.1
Government	3.9	2.9	2.3	2.7	3.0	3.3	3.6
(Yr/Yr % change)	6.5%	-25.9%	-21.4%	19.5%	10.7%	8.6%	7.9%
Manufacturing	6.4	4.9	4.8	5.3	6.3	7.2	7.9
Warehouses	10.5	8.7	8.4	9.1	10.7	11.6	12.0
Industrial	16.9	13.6	13.2	14.4	17.0	18.8	19.9
(Yr/Yr % change)	-20.5%	-19.3%	-3.1%	9.4%	18.2%	10.2%	6.0%
Hospitals / Clinics	7.6	8.6	9.1	9.5	10.2	10.2	10.0
Medical Misc.	1.2	0.2	0.1	0.5	1.0	1.3	1.5
Medical	8.8	8.9	9.2	10.0	11.1	11.4	11.5
(Yr/Yr % change)	-16.8%	0.3%	4.4%	8.2%	11.1%	2.9%	0.6%
Hotels	2.6	0.8	0.7	1.3	1.8	2.0	2.2
Retail Misc.	1.3	0.3	0.3	0.5	0.6	0.7	0.8
Shopping	9.9	3.3	3.8	7.1	8.7	10.4	11.5
Retail	13.7	4.5	4.7	9.0	11.1	13.1	14.4
(Yr/Yr % change)	43.0%	-67.3%	5.8%	90.1%	22.8%	18.4%	10.3%
NON-RESIDENTIAL BUILDING	72.6	46.3	44.1	55.1	64.4	71.7	77.1
(Yr/Yr % change)	-4.5%	-36.3%	-4.8%	24.9%	16.9%	11.4%	7.5%
Multi-Family	94.7	55.1	49.5	57.4	65.2	71.4	76.4
Single-Family	106.4	114.8	130.0	141.6	149.8	157.9	166.3
RESIDENTIAL	201.1	169.9	179.5	199.0	215.0	229.3	242.7
(Yr/Yr % change)	-2.3%	-15.5%	5.7%	10.8%	8.1%	6.7%	5.8%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	273.7	216.1	223.6	254.1	279.4	301.0	319.8
(Yr/Yr % change)	-2.9%	-21.0%	3.5%	13.6%	10.0%	7.8%	6.2%

EXPLANATION: Table 13 conforms to the type-of-structure ordering adopted by many firms and organizations in the industry. Specifically, it breaks non-residential building into ICI work (i.e., industrial, commercial and institutional), since each has its own set of economic and demographic drivers.

Table 14 presents an alternative, perhaps more user-friendly and intuitive, type-of-structure ordering that matches how the data appears in ConstructConnect's on-line product 'Insight'.

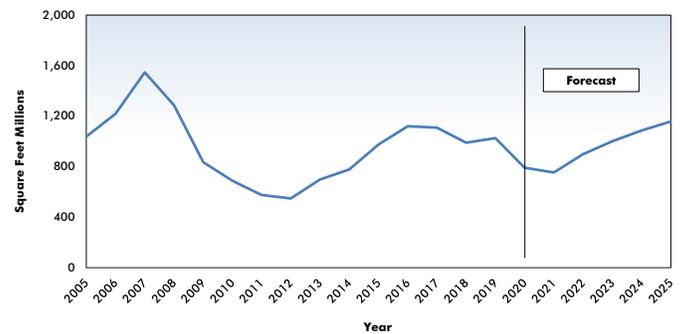
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

Graph 37: U.S. Residential Construction Starts — ConstructConnect



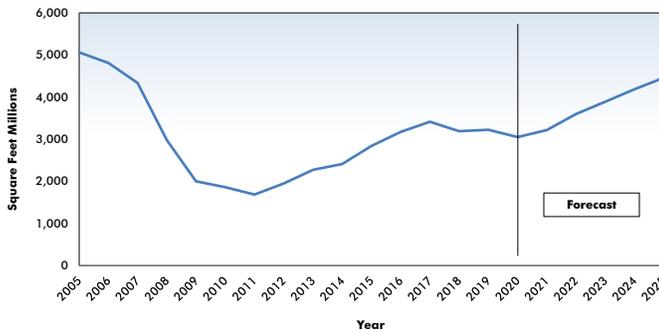
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 38: U.S. Non-Residential Building Construction Starts — ConstructConnect



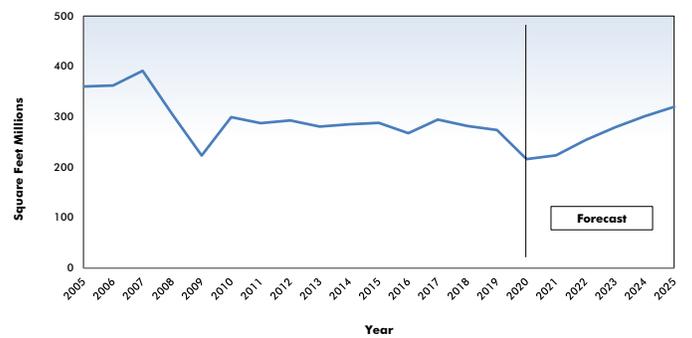
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 39: U.S. Residential + Non-Residential Building Construction Starts — ConstructConnect



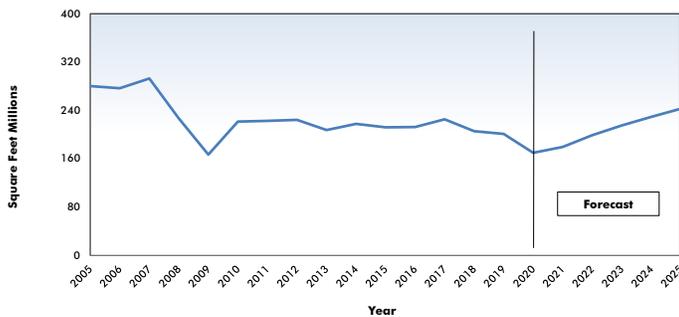
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 40: Canada Residential + Non-Residential Building Construction Starts — ConstructConnect



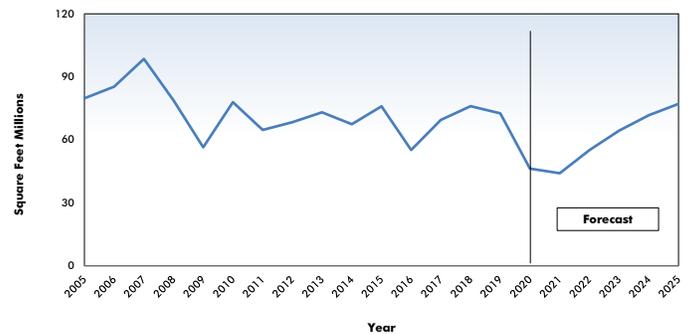
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 41: Canada Residential Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

Graph 42: Canada Non-Residential Building Construction Starts — ConstructConnect



Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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