

Winter 2022-2023 (For November 2022 Release)

Construction Starts Forecast

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Highlights

- Total US construction starts increased by 7.4% year-on-year (y/y) in Q3 2022 and by 15.1% year-to-date (ytd). Construction in Q3 was supported by nine mega projects— projects valued at over \$1 billion—with a combined value of \$27.5 billion. Non-residential building and civil engineering projects underpinned growth, with residential groundbreaking lagging.
- GDP grew at an annualized rate of 2.6% in Q3 following declines in the previous two quarters. Headline inflation remains elevated, and the Federal Reserve has maintained its hawkish monetary policy stance. The US economy is expected to experience a mild recession in 2023 with economic activity contracting by 0.5% in 2023, after 1.7% growth this year.
- Total construction starts are expected to rise 11.8% in 2022 before declining in 2023. Rising interest rates and ongoing affordability issues are expected to weigh on homebuilding. Meanwhile, non-residential building is expected to contract after bumper growth this year. Of the headline sectors, only new engineering construction is expected to post positive growth in 2023.
- Total Canadian construction starts by fell 32.4% y/y and 19.3% ytd in Q3 2022. The decline was broadly based, as all three major subsectors decreased in both y/y and ytd terms.
- Total Canadian construction starts are forecast to decrease by 19.8% in 2022 with declines projected in the three headline sectors of residential, non-residential building, and civil engineering. Growth of 19.6% is predicted to resume in 2023, with pickups in non-residential building and civil engineering projects, but a continued decline in new residential construction.

Link to article here: <https://bit.ly/3DFSi7g>

Sources: ConstructConnect®/Oxford Economics.
Forecast reflects actual starts through Q3 2022.

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Overview

US construction propped up in Q3 by continued surge of large projects

Total US construction starts increased by 7.4% year-on-year (y/y) in Q3 2022 and by 15.1% year-to-date (ytd). Construction in Q3 was underpinned by groundbreaking on several mega projects—projects that are valued at more than \$1 billion—although there were fewer such projects than in Q2. Q3 had nine mega projects with a combined value of \$27.5 billion, down from twelve projects worth \$45 billion in Q2. By contrast, construction on only one such project started in Q1.

Total non-residential building grew 21.5% y/y and 31.8% ytd. New factory construction has been the strongest market so far in 2022—it rose 62.7% y/y and 172.3% ytd in Q3. Moreover, the y/y figure is potentially understated, as an \$8 billion Intel factory started in Q3 2021, weighing on the percentage change calculation. Five of the mega projects started last quarter were in the industrial sector, including a \$9 billion Samsung factory in Texas and a \$7 billion GM battery plant in Michigan.

Other strong performing non-residential sectors include laboratories (up 116.3% y/y and 93.8% ytd), police and fire (up 119.3% y/y and 43.2% ytd), and hotels and motels (up 87.1% y/y and 46.2% ytd). However, hotels saw particular steep declines in new construction during the pandemic, and solid growth this year will only return it to its 2020 level. By contrast, private office building is particularly weak—down 58.9% y/y and 11.4% ytd—and this comes on top of two consecutive years of steep decline.

New engineering construction starts were also solid, growing by 21.9% y/y and 23.2% ytd. There was broad-based strength across most sectors, except the miscellaneous civil and power sectors, which both declined. New bridge construction increased 93.2% y/y and 58.3% ytd. While there were no projects valued over \$1 billion in the sector, there was a \$800 million bridge expansion in New York. New airport construction was also robust, growing 74.5% y/y and 39.5% ytd, despite an absence of mega-projects. Road construction—the largest sector in engineering—grew 22.8% y/y and 27.4% ytd. This included a \$3 billion mega project in Texas, but because the sector is larger, outsized projects have only a limited impact on sector growth.

New residential construction has been the weakest performer through 2022. Residential starts fell by 10.7% y/y and 0.8% ytd with an especially weak outturn in new single-family construction, which fell 18.9% y/y and 6.7% ytd. Apartment building, by contrast, grew 9.9% y/y and 14.3% ytd.

Table 1: Summary forecasts
(Annual percentage changes unless specified otherwise)

	2020	2021	2022	2023	2024	2025	2026
US							
Macro variables							
GDP	-2.8	5.9	1.7	-0.5	1.6	2.2	2.2
Population growth	0.4	0.1	0.2	0.4	0.5	0.5	0.5
Unemployment rate (%)	8.1	5.4	3.7	4.5	4.5	3.9	3.6
Real disposable income	6.2	1.9	-6.4	0.6	2.1	2.2	1.7
Central bank rate (%)	0.4	0.1	1.7	4.4	3.4	2.1	2.0
10-year government yield (%)	0.9	1.4	2.9	3.3	2.8	2.8	2.8
Construction starts (% growth in U.S.\$)							
Total starts	-15.0	10.7	11.8	-1.4	9.9	9.8	6.9
Residential	1.2	20.2	-2.7	-0.4	13.9	11.5	7.6
Non-res bldg	-27.2	5.2	25.2	-7.3	7.5	8.9	7.0
Civil engineering	-18.3	1.1	22.8	6.9	6.6	8.0	5.3
Canada							
Macro variables							
GDP	-5.2	4.5	2.9	-1.3	2.5	3.8	2.9
Population growth	1.1	0.6	1.7	1.4	1.3	1.3	1.2
Unemployment rate (%)	9.6	7.4	5.5	7.4	8.1	7.3	6.4
Real disposable income	8.4	0.1	0.1	-0.7	1.9	2.3	2.3
Central bank rate (%)	0.6	0.3	2.0	4.3	3.3	2.0	2.0
10-year government yield (%)	0.8	1.4	2.8	3.4	2.9	2.9	2.9
Exchange rate C\$ per US\$	1.34	1.25	1.31	1.39	1.34	1.26	1.19
Construction starts (% growth in C\$)							
Total starts	-11.3	15.6	-19.8	19.6	18.6	11.5	5.4
Residential	-12.1	31.7	-19.2	-4.0	18.9	13.0	6.7
Non-res bldg	-10.9	36.8	-31.2	30.3	14.2	9.4	-0.2
Civil engineering	-11.1	-14.4	-6.0	34.9	22.3	12.2	8.9

Put-in-place (PIP) construction, a measure of work-in-progress, increased by 10.9% y/y in September. Since the pandemic, residential construction has been running at a double-digit pace of annual growth, but momentum has been slowing considerably in recent months. By contrast, non-residential PIP construction had been falling since the pandemic, but its fortunes have turned around since the start of 2022. Construction starts are generally a leading indicator for PIP construction, and this pattern between residential and non-residential construction is consistent with what we have seen in the starts data through 2022. ConstructConnect, in partnership with Oxford Economics, a world-leading economic forecasting firm, have developed a service covering PIP by type of structure for US states, cities, and counties. The service includes data and forecasts and uses ConstructConnect's starts data and forecasts to derive the PIP forecasts.

Input prices for some key building materials have started to come down in recent months, although they remain at high levels. Construction input cost infla-

tion slowed to 11.5% y/y in September, from more than 20% from February to March. In particular, lumber and metals prices appear to be on a downward trend. By contrast, inflation has accelerated for concrete, cement, and related products. Meanwhile, inflation in final demand for construction rose to a record high of 23.1% in September, suggesting that construction firms are now better able to pass on higher costs.

Labor shortages are another constraint, especially since the sector is relatively labor-intensive. The JOLTS survey of job openings has been hovering around record highs throughout 2022, and the (non-seasonally adjusted) construction sector unemployment rate fell to 3.8% in September 2022, a 1.1 percentage point drop from a year earlier. Annual growth in hourly earnings was 5.5% in September, ahead of the economy-wide average of 5.0%.

Rising rates as recession looms

GDP grew at an annualized rate of 2.6% in Q3 following declines in the previous two quarters. The US economy is expected

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to experience a mild recession in 2023 as elevated prices and rising interest rates provide headwinds. Meanwhile, weaker corporate earnings will dampen business investment and hiring, particularly in H1. We expect economic activity to contract by 0.5% in 2023, before returning to growth in 2024.

The labour market remains hot, although wage growth in Q3 dropped marginally from its rate in Q2. A healthy 372,000 jobs were added on average per month during Q3, but annual hourly wage hikes softened to 5% in September, from a high of 5.6% in March. The unemployment rate has fallen back to its pre-pandemic level of 3.5%, though it is expected to increase in Q4 and throughout 2023 as the recession takes hold and activity tapers. Job losses are forecast to be particularly acute in Q2 2023.

Rising prices and falling consumer confidence amid the looming recession contributed to cautious household spending in Q3, leading to soft consumption growth of 1.4% annualized. Softer wage growth and reduced hiring, as well as job losses, are expected to drive a decline in consumer spending early next year.

Headline inflation was 8.2% in September, with prices rising 0.4% on the month despite falling energy prices. The Federal Open Market Committee (FOMC) has reiterated its unconditional commitment to lowering inflation, and as a result we expect the Fed to continue the trend of aggressive rate hikes, with further increases at the approaching November and December meetings, of 75 basis points (bps) and 50bps respectively. This follows the increase of 75bps in September and would lift the policy rate to 4.25%-4.5% by the end of the year. We expect rates to remain stable throughout 2023 until inflation is contained and economic growth slows, enabling policymakers to cut the federal funds rate starting in 2024.

US construction set for contraction in 2023

We expect total construction starts, in current US dollar terms, to increase by 11.8% in 2022. Growth will be driven by strong performance in engineering projects and non-residential building, while residential construction is set to fall for the first time since 2018. Next year we forecast total starts to contract by 1.4% with a weak outlook for housing and a decline in industrial starts following bumper growth this year.

However, construction in square foot terms is expected to slightly contract in 2022, by 0.3%. Historically, the value and square footage of construction tend to

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

follow a similar trajectory, but this year will be an exception. The divergence is largely being caused by projects that do not have an associated square foot measurement. Engineering projects, as well as many manufacturing projects—both of which have performed well this year—do not have an associated square footage. Additionally, the value of construction is affected by inflation, while square foot construction is a volume metric, and therefore not impacted by price movements. We expect square foot construction to fall a further 1.8% in 2023 before returning to growth thereafter.

After a sluggish 2021, we expect new engineering projects to surge, with growth of 22.8% this year, with a double-digit pace of growth expected in most sectors. The sector will continue to be bolstered by the bipartisan Infrastructure Investment and Jobs Act passed in November last year, with over \$500 billion of federal funding allocated to infrastructure projects. The Inflation Reduction Act passed into law in August is likely to benefit some sectors, particularly those related to green energy projects. While the environment remains favorable in 2023, growth in the strong performing sectors in 2022 is expected to normalize, and overall sector growth is forecast at 6.9%.

Miscellaneous civil and power infrastructure are the only civil engineering sub-sectors expected to decline this year, by 9.4% and 4.2% respectively. But growth in both sectors is forecast to bounce back in 2023, by 81.9% in power infrastructure and 38.2% in miscellaneous civil. These sectors are expected to be the main driver of growth over the next four years with several large projects scheduled, including wind farms, nuclear reactors, and rail tunnels. Numerous tailwinds will support the sector

in the coming years. The green transition will demand improvements to the national power infrastructure, while persisting political and trade tensions with Russia may bolster domestic oil and gas projects in the near-term, notwithstanding Washington's generally dim stance on further development of fossil-fuel based energy sources.

Similarly, non-residential building is expected to surge this year with growth of 25.2%, before shrinking by 7.3% in 2023. The industrial sector dictates the performance of non-residential building, and after rising over 130% this year, it is expected to fall 37% next year as many major 2022 projects drop out of the annual calculation. However, major projects are expected in LNG terminals, chipmaking and oil refining during 2023, with other manufacturing projects planned over the longer term. Elsewhere, ongoing global tensions will support military construction in the coming years, and an aging population will drive activity in healthcare-related sectors.

The outlook for commercial construction has improved significantly since the lows of the pandemic. Private office building is expected to return to growth in 2023 for the first time since 2019 but is not expected to surpass its pre-pandemic levels during the forecast period, as many employers continue with remote and hybrid working practices. Conversely, retail, amusement, and hotels & motels are all expected to perform particularly well from 2023 onwards, as the pent-up demand for these services is released since social restrictions have been removed. Warehouse construction continued to rise during the pandemic as demand for goods storage was relatively unaffected, though as household budgets are squeezed in the looming recession, falling demand for goods will feed through

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to lower demand for new warehousing and logistics space. As a result, the warehousing sector is expected to contract in both 2022 and 2023.

The 30-year fixed mortgage rate has risen nearly 400bps so far this year, which is the fastest rate of increase in three decades. Coupled with elevated home prices, this is driving a decline in sales of both new and existing homes. Nonetheless, multi-family housing starts have remained positive this year, increasing 9.4%. Much of the population that opted to move away from urban areas during the pandemic is now looking to return, so demand remains strong. The outlook for single-family starts is not so bright. The 7.6% slump forecast for this year is expected to be compounded by a further 1.5% fall in 2023 due to affordability concerns. Overall, the residential sector is expected to slightly contract next year, before returning to growth from 2024 onwards.

Canadian construction to rebound in 2023, but residential weakness to persist

Total Canadian construction starts fell by 32.4% y/y and 19.3% ytd in Q3 2022. All three subsectors decreased in both y/y and ytd terms. Residential building fell by 29.0% y/y and 17.9% ytd, non-residential building decreased by 36.2% y/y and 32.9% ytd, while civil engineering fell by 33.6% y/y and 6.3% ytd.

Since volumes are smaller in Canada, construction starts are more volatile in growth terms. Within non-residential buildings, the only segments that grew in y/y terms in Q3 were private offices, shops, manufacturing, and miscellaneous medical, with the latter three up at a triple-digit pace. None of these segments saw any new mega projects, so such strong growth rates reflect weakness in the same period in 2021. Non-residential sectors to post growth in ytd terms—often reflecting growth earlier in the year—include government offices, shops, miscellaneous retail, warehouses, miscellaneous medical, and transportation terminals.

New construction of civil engineering projects declined in all sectors in y/y terms in Q3. In fact, road construction fell just

4.1% y/y—the only sector to fall by less than 15%. New power and miscellaneous civil projects decreased more than 50% y/y, while water and sewage projects fell 48% y/y. Construction of roads, miscellaneous civil, and dams, canals, and marine work all grew in ytd terms. The latter segment grew 128% ytd, boosted by strong growth in Q2 in Alberta.

In the residential sector, both single-family and multi-family starts fell in Q3. Single-family construction contracted by 4.8% y/y and 11.5% ytd. Multi-family homebuilding fell by an even sharper 50% y/y and 23.9% ytd. The outturn for single-family homebuilding is an improvement on recent quarters, although apartment building has weakened.

Multiple headwinds have likely drawn Canada's GDP growth to a near-stop in Q3, following a pick-up in activity earlier in the year. The downward trend is forecast to continue, with a moderate recession beginning in Q4 and persisting through to Q3 next year. The Bank of Canada increased its policy rate by 50bps in October, bringing the rate to 3.75%, with indications that further hikes will be implemented in the coming months to contain inflation. The recent increases in rates have been felt particularly strongly by the housing sector—the housing market is in the midst of a substantial correction, and we forecast home prices will fall significantly peak-to-trough by mid-2023.

Households have also been feeling the pressure of the highest rate of inflation in decades, further squeezing budgets. Inflation has shown signs of slowing following the raising of interest rates, but a weaker Canadian dollar will push up the price of imports and apply upward pressure on prices throughout 2023.

Unemployment fell in September for the first time since May, but this is unlikely to continue as the recession takes hold and reduced activity leads to job losses. We forecast the unemployment rate could climb above 8% by early 2024. Overall, we expect GDP to rise 2.9% in 2022 before falling by 1.3% next year.

All major construction sectors are set to decline this year, and as a result total construction starts are forecast to fall 19.8% overall. We expect this to reverse next year,

with construction starts expanding 19.6% with growth in non-residential building and civil engineering projects, but a continued decline in new residential construction.

The backdrop for the Canadian housing market continues to worsen, with the typical home price reaching 133% of the borrowing capacity of median-income households in Q2 this year. The rising policy rate is expected to drive up the 5-year mortgage rate to 5.8% by the end of 2022 and continue to drive the ongoing housing correction. Short-term fixed rates are particularly important in Canada as housing demand tends to fluctuate inversely. The outlook for multi-family construction is much brighter than single-family, though both are facing restrictive public policy and rising development fees. As a result, we forecast residential construction will fall by 19.2% this year and a further 4% in 2023, before returning to growth from 2024 onwards.

Non-residential building construction starts are expected to fall 31.2% this year, driven by a 50% slump in manufacturing construction. Manufacturing posted triple-digit growth in 2021, however, hence the decline this year. Transportation terminals are forecast to post impressive growth in 2023 of over 850%, as multiple improvements and extensions are planned to rail and subway networks in Quebec and Ontario. The manufacturing sector is also set to return to significant growth next year, with several large projects expected to start, including LNG projects and oil refining facilities. Nearly all sub-sectors are expected to return to growth in 2023 after mixed performance this year, and we therefore expect total new non-residential building to increase by 30.3%, before slowing over the subsequent three years.

Dams, canals & marine work is expected to post bumper growth of 88.4% this year, before falling back again next year. Power infrastructure construction is expected to fall 46% in 2022 after a strong performance last year but is expected to surge next year with multiple projects in the pipeline. Miscellaneous civil also has major upcoming infrastructure projects and is expected to grow at a triple-digit pace in 2023. Total engineering starts are forecast to grow 34.9% in 2023, with growth slowing, but solid, each year out to 2026.

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

	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Single-family	219.284	257.699	238.191	234.534	272.905	304.603	329.477
Multi-family	82.135	104.486	114.322	116.614	126.933	141.153	150.122
TOTAL RESIDENTIAL	301.419	362.184	352.513	351.148	399.838	445.756	479.599
<i>(Yr/yr % change)</i>	<i>1.2%</i>	<i>20.2%</i>	<i>-2.7%</i>	<i>-0.4%</i>	<i>13.9%</i>	<i>11.5%</i>	<i>7.6%</i>
Hotels/Motels	10.194	7.152	10.189	11.358	14.923	19.111	20.642
Shopping/Retail	12.279	12.880	14.395	14.945	17.035	20.152	23.257
Parking Garages	1.740	1.768	2.147	2.251	2.462	2.720	2.983
Amusement	6.300	6.557	7.118	7.012	7.784	8.924	9.724
Private Offices	25.893	20.820	18.566	21.391	24.484	27.231	29.865
Governmental Offices	10.663	11.641	12.904	13.014	13.603	14.148	14.569
Laboratories (Schools & Industrial)	2.351	2.447	4.195	3.156	3.393	3.628	3.801
Warehouses	26.219	28.123	26.453	24.931	26.453	28.956	30.331
Sports Stadium/Convention Center	4.516	6.043	6.056	8.668	7.210	7.876	8.345
Transportation Terminals	2.361	9.970	10.569	10.986	10.823	10.017	9.730
TOTAL COMMERCIAL	102.516	107.400	112.592	117.713	128.170	142.764	153.246
<i>(Yr/yr % change)</i>	<i>-29.2%</i>	<i>4.8%</i>	<i>4.8%</i>	<i>4.5%</i>	<i>8.9%</i>	<i>11.4%</i>	<i>7.3%</i>
TOTAL INDUSTRIAL (manufacturing)	21.741	34.780	81.860	51.458	52.410	55.374	59.214
<i>(Yr/yr % change)</i>	<i>-61.0%</i>	<i>60.0%</i>	<i>135.4%</i>	<i>-37.1%</i>	<i>1.8%</i>	<i>5.7%</i>	<i>6.9%</i>
Religious	1.623	1.216	0.971	1.039	1.191	1.342	1.411
Hospitals/Clinics	13.352	18.730	20.181	20.822	22.786	24.006	25.415
Nursing Homes/Assisted Living	7.485	5.965	4.359	4.846	5.824	7.105	8.182
Libraries/Museums	3.807	3.591	3.543	3.757	4.021	4.377	4.620
Courthouse	2.376	2.477	1.667	1.849	2.117	2.381	2.675
Police/Fire	3.313	3.035	3.926	3.555	3.752	3.946	4.128
Prisons	2.389	2.236	2.366	2.448	2.715	2.943	3.059
Military	9.207	9.211	10.170	10.737	11.471	11.838	12.541
Educational Facilities	67.540	59.896	70.496	69.679	74.829	79.566	84.020
MED misc	8.212	7.473	9.150	9.532	10.857	13.226	14.785
TOTAL INSTITUTIONAL	119.305	113.831	126.829	128.266	139.564	150.729	160.837
<i>(Yr/yr % change)</i>	<i>-11.3%</i>	<i>-4.6%</i>	<i>11.4%</i>	<i>1.1%</i>	<i>8.8%</i>	<i>8.0%</i>	<i>6.7%</i>
Miscellaneous Non-Res Building	5.794	6.324	7.196	7.187	7.317	7.664	8.127
TOTAL NON-RES BLDG	249.356	262.336	328.477	304.624	327.461	356.531	381.424
<i>(Yr/yr % change)</i>	<i>-27.2%</i>	<i>5.2%</i>	<i>25.2%</i>	<i>-7.3%</i>	<i>7.5%</i>	<i>8.9%</i>	<i>7.0%</i>
Airport	6.028	5.202	7.252	6.842	7.093	7.845	8.553
Roads	63.653	67.378	85.810	88.311	93.703	99.865	103.673
Bridges	22.761	17.995	27.695	26.749	27.865	29.473	30.694
Dams/Canal/Marine	8.283	8.555	8.998	9.508	10.644	11.240	11.744
Water & Sewage Treatment	31.247	33.897	40.634	40.228	42.661	45.456	48.048
Misc Civil (Power, etc.)	22.727	23.420	21.688	33.763	37.090	42.685	46.429
TOTAL ENGINEERING	154.699	156.447	192.076	205.402	219.057	236.563	249.141
<i>(Yr/yr % change)</i>	<i>-18.3%</i>	<i>1.1%</i>	<i>22.8%</i>	<i>6.9%</i>	<i>6.6%</i>	<i>8.0%</i>	<i>5.3%</i>
TOTAL NON-RESIDENTIAL	404.055	418.783	520.553	510.026	546.518	593.095	630.565
<i>(Yr/yr % change)</i>	<i>-24.0%</i>	<i>3.6%</i>	<i>24.3%</i>	<i>-2.0%</i>	<i>7.2%</i>	<i>8.5%</i>	<i>6.3%</i>
GRAND TOTAL	705.474	780.967	873.067	861.174	946.356	1,038.851	1,110.164
<i>(Yr/yr % change)</i>	<i>-15.0%</i>	<i>10.7%</i>	<i>11.8%</i>	<i>-1.4%</i>	<i>9.9%</i>	<i>9.8%</i>	<i>6.9%</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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
CIVIL	154.699	156.447	192.076	205.402	219.057	236.563	249.141
NON-RESIDENTIAL BUILDING	249.356	262.336	328.477	304.624	327.461	356.531	381.424
RESIDENTIAL	301.419	362.184	352.513	351.148	399.838	445.756	479.599
GRAND TOTAL	705.474	780.967	873.067	861.174	946.356	1,038.851	1,110.164
Verticals							
Airport	6.028	5.202	7.252	6.842	7.093	7.845	8.553
All Other Civil	18.166	14.387	13.032	18.016	21.373	24.866	26.271
Bridges	22.761	17.995	27.695	26.749	27.865	29.473	30.694
Dams / Canals / Marine Work	8.283	8.555	8.998	9.508	10.644	11.240	11.744
Power Infrastructure	4.560	9.033	8.656	15.747	15.717	17.819	20.158
Roads	63.653	67.378	85.810	88.311	93.703	99.865	103.673
Water and Sewage Treatment	31.247	33.897	40.634	40.228	42.661	45.456	48.048
CIVIL	154.699	156.447	192.076	205.402	219.057	236.563	249.141
<i>(Yr/yr % change)</i>	<i>-18.3%</i>	<i>-1.1%</i>	<i>22.8%</i>	<i>6.9%</i>	<i>6.6%</i>	<i>8.0%</i>	<i>5.3%</i>
Offices (private)	25.893	20.820	18.566	21.391	24.484	27.231	29.865
Parking Garages	1.740	1.768	2.147	2.251	2.462	2.720	2.983
Transportation Terminals	2.361	9.970	10.569	10.986	10.823	10.017	9.730
Commercial	29.994	32.558	31.282	34.629	37.770	39.968	42.579
<i>(Yr/yr % change)</i>	<i>-40.6%</i>	<i>8.5%</i>	<i>-3.9%</i>	<i>10.7%</i>	<i>9.1%</i>	<i>5.8%</i>	<i>6.5%</i>
Amusement	6.300	6.557	7.118	7.012	7.784	8.924	9.724
Libraries / Museums	3.807	3.591	3.543	3.757	4.021	4.377	4.620
Religious	1.623	1.216	1.031	1.039	1.191	1.342	1.411
Sports Arenas / Convention Centers	4.516	6.043	6.056	8.668	7.210	7.876	8.345
Community	16.246	17.407	17.688	20.477	20.206	22.520	24.100
<i>(Yr/yr % change)</i>	<i>-30.5%</i>	<i>7.1%</i>	<i>1.6%</i>	<i>15.8%</i>	<i>-1.3%</i>	<i>11.4%</i>	<i>7.0%</i>
College / University	17.920	15.081	17.895	18.326	19.630	20.669	22.211
Elementary / Pre School	19.834	15.820	21.700	20.179	21.441	22.712	23.900
Jr / Sr High School	27.830	26.942	28.961	29.183	31.583	33.819	35.450
Special / Vocational	1.955	2.053	1.940	1.991	2.175	2.366	2.459
Educational	67.540	59.896	70.496	69.679	74.829	79.566	84.020
<i>(Yr/yr % change)</i>	<i>-11.0%</i>	<i>-11.3%</i>	<i>17.7%</i>	<i>-1.2%</i>	<i>7.4%</i>	<i>6.3%</i>	<i>5.6%</i>
Courthouses	2.376	2.477	1.667	1.849	2.117	2.381	2.675
Fire and Police Stations	3.313	3.035	3.926	3.555	3.752	3.946	4.128
Government Offices	10.663	11.641	12.904	13.014	13.603	14.148	14.569
Prisons	2.389	2.236	2.366	2.448	2.715	2.943	3.059
Government	18.742	19.390	20.862	20.867	22.187	23.419	24.431
<i>(Yr/yr % change)</i>	<i>0.3%</i>	<i>3.5%</i>	<i>7.6%</i>	<i>0.0%</i>	<i>6.3%</i>	<i>5.6%</i>	<i>4.3%</i>
Industrial Labs / Labs / School Labs	2.351	2.447	4.195	3.156	3.393	3.628	3.801
Manufacturing	21.741	34.780	81.860	51.458	52.410	55.374	59.214
Warehouses	26.219	28.123	26.453	24.931	26.453	28.956	30.331
Industrial	50.312	65.350	112.508	79.546	82.256	87.958	93.345
<i>(Yr/yr % change)</i>	<i>-37.7%</i>	<i>29.9%</i>	<i>72.2%</i>	<i>-29.3%</i>	<i>3.4%</i>	<i>6.9%</i>	<i>6.1%</i>
Hospitals / Clinics	13.352	18.730	20.181	20.822	22.786	24.006	25.415
Medical Misc.	8.212	7.473	9.150	9.532	10.857	13.226	14.785
Nursing Homes	7.485	5.965	4.359	4.846	5.824	7.105	8.182
Medical	29.048	32.168	33.690	35.201	39.466	44.336	48.381
<i>(Yr/yr % change)</i>	<i>-28.7%</i>	<i>10.7%</i>	<i>4.7%</i>	<i>4.5%</i>	<i>12.1%</i>	<i>12.3%</i>	<i>9.1%</i>
Military	9.207	9.211	10.170	10.737	11.471	11.838	12.541
<i>(Yr/yr % change)</i>	<i>82.4%</i>	<i>0.0%</i>	<i>10.4%</i>	<i>5.6%</i>	<i>6.8%</i>	<i>3.2%</i>	<i>5.9%</i>
Hotels	10.194	7.152	10.189	11.358	14.923	19.111	20.642
Retail Misc.	5.794	6.324	7.196	7.187	7.317	7.664	8.127
Shopping	12.279	12.880	14.395	14.945	17.035	20.152	23.257
Retail	28.267	26.356	31.780	33.489	39.275	46.927	52.025
<i>(Yr/yr % change)</i>	<i>-40.8%</i>	<i>-6.8%</i>	<i>20.6%</i>	<i>5.4%</i>	<i>17.3%</i>	<i>19.5%</i>	<i>10.9%</i>
NON-RESIDENTIAL BUILDING	249.356	262.336	328.477	304.624	327.461	356.531	381.424
<i>(Yr/yr % change)</i>	<i>-27.2%</i>	<i>5.2%</i>	<i>25.2%</i>	<i>-7.3%</i>	<i>7.5%</i>	<i>8.9%</i>	<i>7.0%</i>
Multi-Family	82.135	104.486	114.322	116.614	126.933	141.153	150.122
Single-Family	219.284	257.699	238.191	234.534	272.905	304.603	329.477
RESIDENTIAL	301.419	362.184	352.513	351.148	399.838	445.756	479.599
<i>(Yr/yr % change)</i>	<i>1.2%</i>	<i>20.2%</i>	<i>-2.7%</i>	<i>-0.4%</i>	<i>13.9%</i>	<i>11.5%</i>	<i>7.6%</i>
GRAND TOTAL	705.474	780.967	873.067	861.174	946.356	1,038.851	1,110.164
<i>(Yr/yr % change)</i>	<i>-15.0%</i>	<i>10.7%</i>	<i>11.8%</i>	<i>-1.4%</i>	<i>9.9%</i>	<i>9.8%</i>	<i>6.9%</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)	2022	2023	2024	2025	2026
	2021					
Alaska - AK	\$1,814	14.1%	-0.2%	12.9%	9.9%	6.7%
Alabama - AL	\$12,591	3.5%	6.2%	12.0%	10.5%	6.7%
Arkansas - AR	\$6,624	13.4%	6.6%	11.2%	10.9%	6.9%
Arizona - AZ	\$31,294	-27.4%	10.5%	17.3%	13.0%	9.4%
California - CA*	\$65,465	7.7%	7.8%	7.7%	9.1%	8.2%
Colorado - CO	\$20,133	-10.3%	23.2%	13.9%	11.7%	7.5%
Connecticut - CT	\$4,098	13.3%	10.7%	29.6%	10.0%	5.5%
District Of Columbia - DC	\$2,341	7.1%	7.3%	15.7%	1.2%	4.1%
Delaware - DE	\$2,773	9.5%	-17.1%	8.3%	9.1%	5.7%
Florida - FL*	\$62,749	6.1%	7.9%	9.0%	11.4%	7.5%
Georgia - GA	\$25,891	11.9%	10.0%	9.4%	10.9%	7.3%
Hawaii - HI	\$3,918	-24.0%	10.0%	16.8%	7.2%	6.4%
Iowa - IA	\$7,670	-4.6%	2.7%	10.2%	9.8%	6.3%
Idaho - ID	\$5,446	19.9%	19.2%	9.7%	8.5%	3.8%
Illinois - IL	\$18,490	9.1%	12.0%	8.9%	9.4%	5.6%
Indiana - IN	\$15,843	23.2%	-10.0%	8.3%	9.8%	6.1%
Kansas - KS	\$5,826	23.2%	-9.8%	9.9%	9.6%	6.5%
Kentucky - KY	\$8,763	65.9%	-39.8%	12.0%	10.5%	7.0%
Louisiana - LA	\$12,117	75.6%	-30.2%	11.1%	9.3%	5.7%
Massachusetts - MA	\$15,675	-13.9%	32.1%	8.8%	6.4%	5.8%
Maryland - MD	\$10,573	5.0%	-20.1%	10.2%	9.6%	7.2%
Maine - ME	\$4,432	0.9%	-26.9%	10.8%	11.8%	5.4%
Michigan - MI	\$14,179	64.4%	-26.6%	8.2%	9.2%	6.6%
Minnesota - MN	\$17,845	-14.8%	17.8%	8.7%	9.8%	6.4%
Missouri - MO	\$14,141	1.8%	-2.0%	11.0%	9.7%	5.9%
Mississippi - MS	\$4,952	0.8%	-8.2%	10.5%	9.5%	6.3%
Montana - MT	\$2,267	11.4%	2.6%	10.0%	13.5%	6.8%
North Carolina - NC	\$35,090	15.1%	-16.3%	9.1%	9.0%	7.6%
North Dakota - ND	\$2,635	73.2%	-29.7%	13.7%	11.3%	6.4%
Nebraska - NE	\$5,564	17.8%	-17.9%	11.7%	9.8%	6.2%
New Hampshire - NH	\$2,568	-25.0%	45.2%	11.9%	13.5%	7.0%
New Jersey - NJ	\$12,770	5.6%	16.9%	-2.5%	10.7%	5.4%
New Mexico - NM	\$3,735	19.8%	-20.8%	9.2%	9.1%	6.0%
Nevada - NV	\$9,094	4.4%	-14.9%	12.2%	12.1%	7.9%
New York - NY*	\$33,285	18.2%	4.2%	13.5%	-4.2%	2.8%
Ohio - OH	\$22,440	-5.7%	20.0%	6.3%	9.1%	6.3%
Oklahoma - OK	\$8,918	12.7%	0.4%	12.9%	12.1%	6.7%
Oregon - OR	\$10,059	-8.0%	14.4%	11.4%	12.3%	7.9%
Pennsylvania - PA	\$21,447	12.6%	0.2%	7.8%	10.4%	6.6%
Rhode Island - RI	\$1,510	-10.9%	1.0%	9.2%	10.2%	5.6%
South Carolina - SC	\$15,962	-1.8%	-4.5%	11.1%	12.3%	7.2%
South Dakota - SD	\$3,054	33.8%	-27.1%	12.2%	10.0%	6.4%
Tennessee - TN	\$22,720	-6.7%	0.2%	11.0%	11.4%	7.6%
Texas - TX*	\$105,358	40.0%	-17.2%	9.6%	11.4%	7.3%
Utah - UT	\$12,796	-3.5%	29.9%	14.2%	11.9%	7.6%
Virginia - VA	\$19,073	-1.5%	11.2%	13.9%	10.9%	6.8%
Vermont - VT	\$809	7.9%	-7.8%	11.0%	12.1%	6.6%
Washington - WA	\$17,455	14.6%	-2.1%	11.6%	12.0%	7.8%
Wisconsin - WI	\$13,365	0.9%	1.1%	11.3%	9.6%	5.4%
West Virginia - WV	\$1,895	33.3%	5.2%	8.5%	9.0%	5.7%
Wyoming - WY	\$1,455	25.7%	153.0%	-41.6%	11.4%	7.6%
United States	\$780,967	11.8%	-1.4%	9.9%	9.8%	6.9%

*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				
		2020	2021	2022	2023	2024	2025	2026
New York	Residential	8.432	10.824	10.536	12.159	14.921	14.508	14.526
	Non-res Building	14.357	14.451	17.459	16.286	18.590	16.760	17.242
	Engineering/Civil	5.280	8.011	11.340	12.528	12.982	13.278	14.023
	Total	28.069	33.285	39.335	40.974	46.493	44.547	45.790
	<i>(Yr vs previous yr % Change)</i>	-29.2%	18.6%	18.2%	4.2%	13.5%	-4.2%	2.8%
Florida	Residential	29.171	37.412	39.165	40.536	44.844	50.117	54.157
	Non-res Building	15.329	16.717	17.684	18.286	19.423	22.025	23.764
	Engineering/Civil	8.806	8.620	9.704	13.002	14.025	15.110	15.868
	Total	53.306	62.749	66.553	71.823	78.291	87.252	93.788
	<i>(Yr vs previous yr % Change)</i>	-14.3%	17.7%	6.1%	7.9%	9.0%	11.4%	7.5%
Texas	Residential	45.589	55.425	54.896	50.644	56.718	63.731	69.261
	Non-res Building	32.705	29.928	64.073	45.780	48.660	54.293	57.948
	Engineering/Civil	19.360	20.004	28.530	25.773	28.540	31.157	32.827
	Total	97.653	105.358	147.499	122.197	133.918	149.181	160.036
	<i>(Yr vs previous yr % Change)</i>	-25.7%	7.9%	40.0%	-17.2%	9.6%	11.4%	7.3%
California	Residential	23.581	24.593	29.014	27.363	30.281	33.890	37.020
	Non-res Building	21.696	26.371	25.459	29.674	30.809	32.772	35.502
	Engineering/Civil	18.305	14.502	16.045	18.982	20.820	22.718	24.154
	Total	63.582	65.465	70.518	76.019	81.910	89.380	96.676
	<i>(Yr vs previous yr % Change)</i>	-3.4%	3.0%	7.7%	7.8%	7.7%	9.1%	8.2%

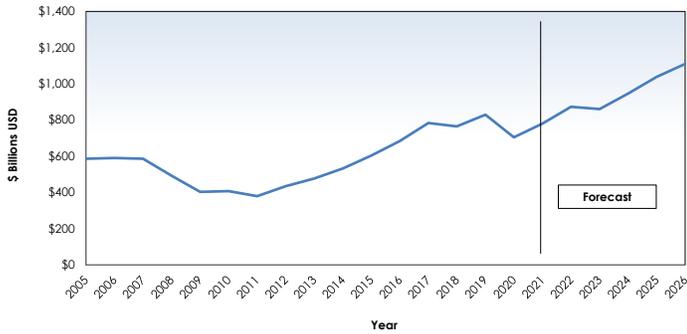
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Tweeted by ConstructConnect:

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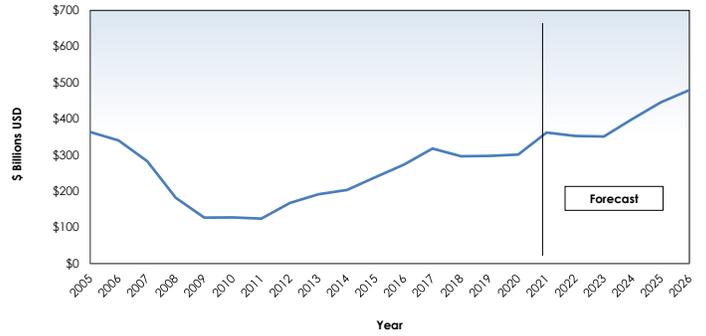
Link to article here: <https://bit.ly/3sWYaUq>

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



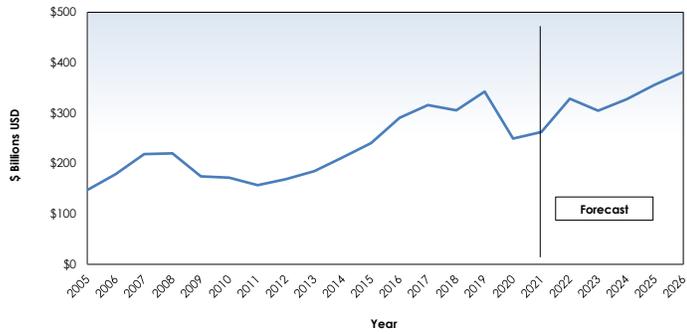
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



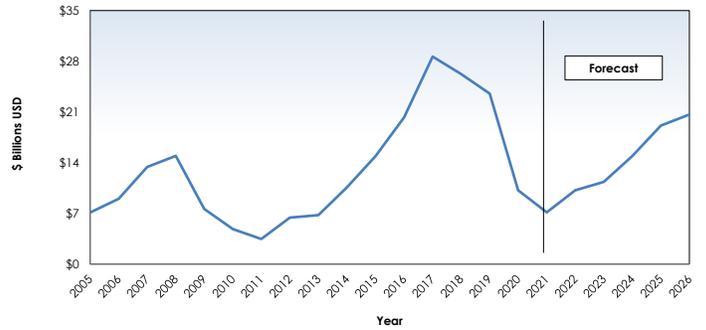
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



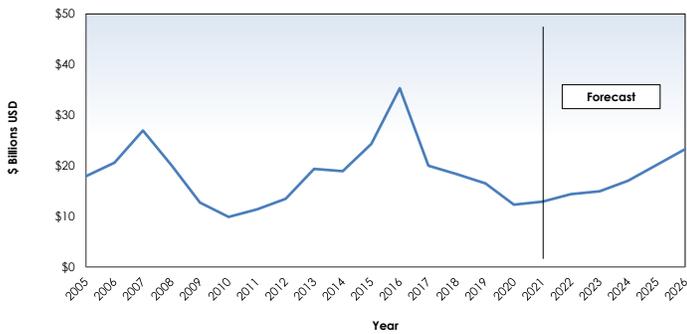
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



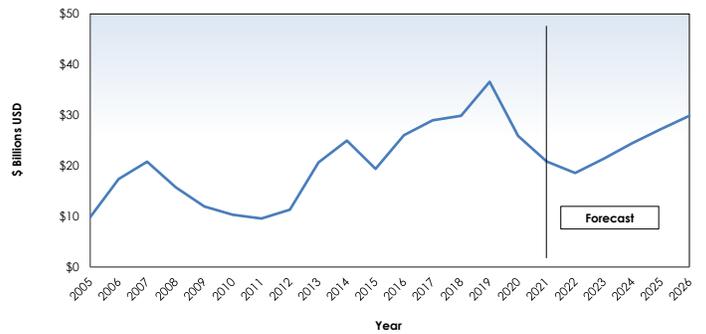
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



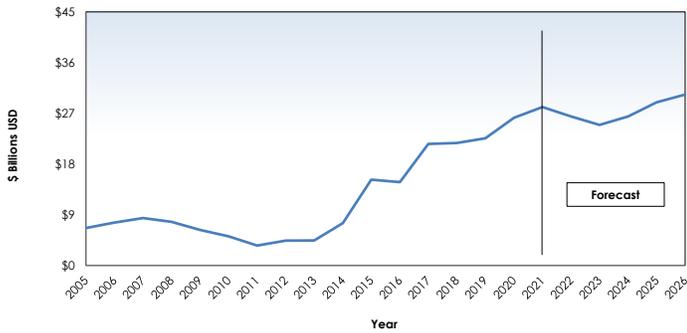
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



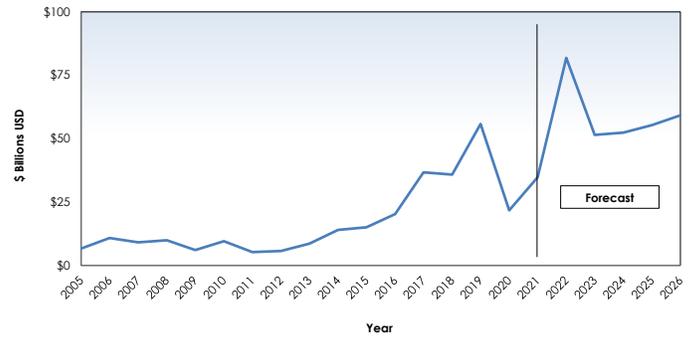
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



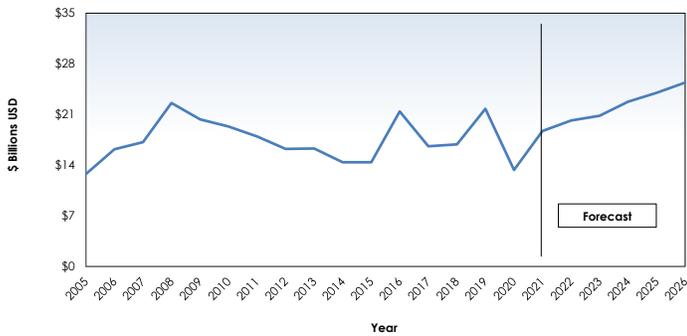
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



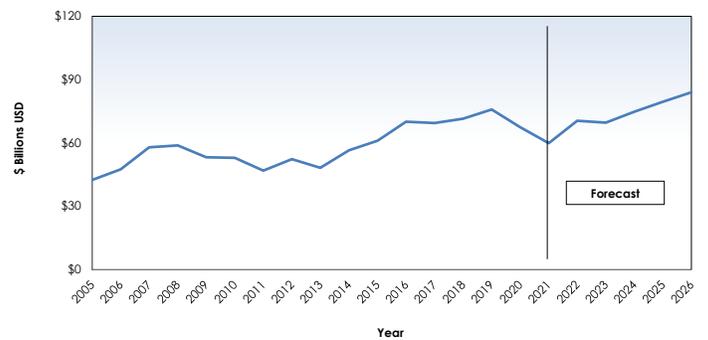
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



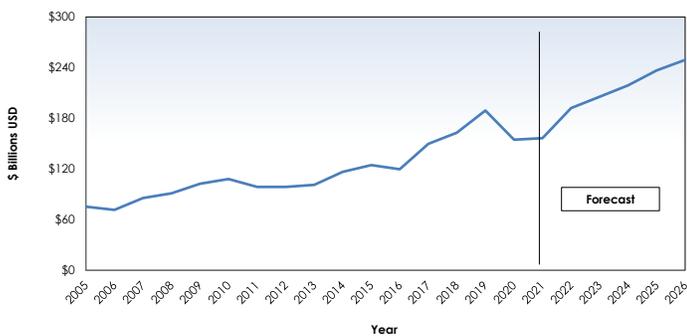
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



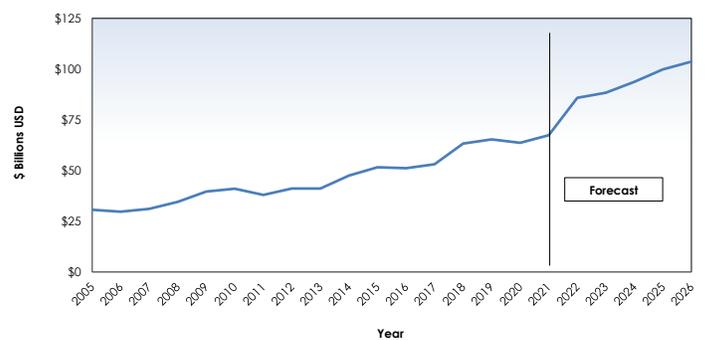
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



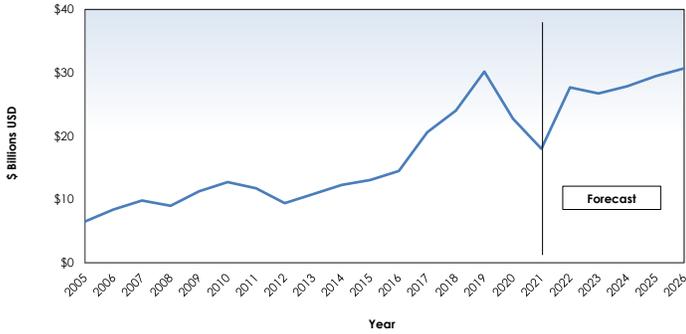
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



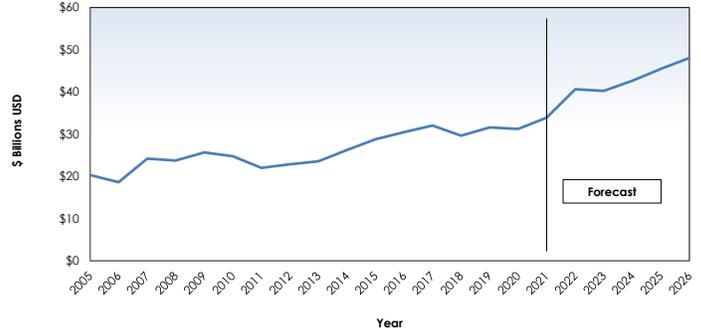
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



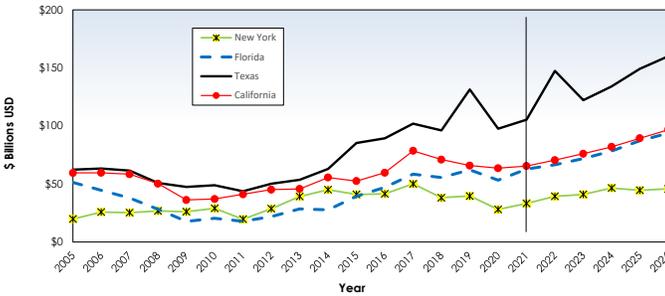
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



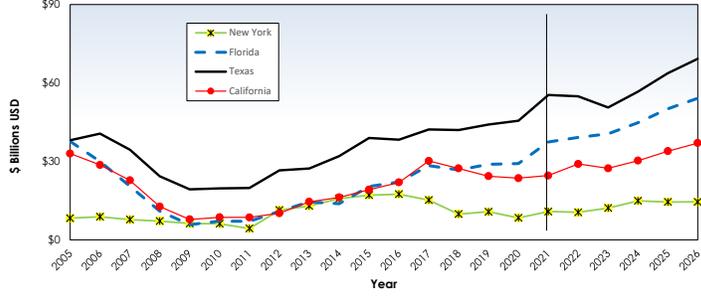
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



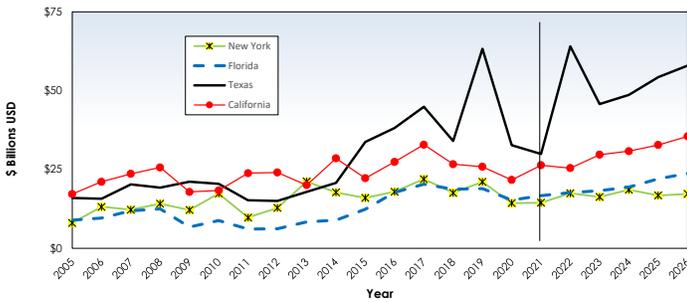
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



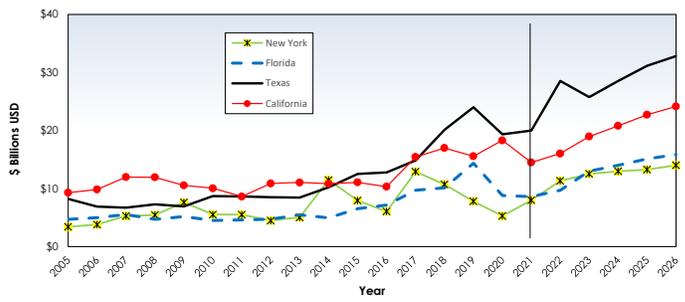
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	13.301	17.868	15.409	14.334	16.338	17.849	18.730
Multi-family	13.985	18.055	13.601	13.503	16.763	19.544	21.154
TOTAL RESIDENTIAL	27.286	35.924	29.010	27.836	33.101	37.393	39.885
(Yr/yr % change)	-12.1%	31.7%	-19.2%	-4.0%	18.9%	13.0%	6.7%
Hotels/Motels	0.385	0.143	0.124	0.153	0.353	0.541	0.714
Private Offices	2.122	1.254	0.804	0.861	1.308	1.950	2.306
Governmental Offices	1.509	1.180	1.681	2.140	1.804	1.910	1.996
Shopping/Retail	0.361	0.302	0.547	0.546	0.796	1.065	1.244
Retail Miscellaneous	0.101	0.069	0.168	0.166	0.196	0.230	0.255
Parking Garages	0.144	0.154	0.099	0.109	0.150	0.193	0.221
Amusement	1.123	2.545	1.527	1.673	2.074	2.390	2.657
Warehouses	2.478	2.267	2.268	2.212	2.278	2.454	2.620
TOTAL COMMERCIAL	8.223	7.914	7.218	7.858	8.959	10.733	12.012
(Yr/yr % change)	-43.7%	-3.8%	-8.8%	8.9%	14.0%	19.8%	11.9%
TOTAL INDUSTRIAL (manufacturing)	2.404	11.582	5.736	7.455	8.587	8.616	7.617
(Yr/yr % change)	-30.6%	381.8%	-50.5%	30.0%	15.2%	0.3%	-11.6%
Religious	0.042	0.095	0.033	0.037	0.047	0.054	0.060
Hospitals/Clinics	3.817	7.950	3.489	3.626	4.748	6.023	6.864
MED misc	0.153	0.105	0.488	0.329	0.376	0.461	0.531
Transportation Terminals*	5.566	0.334	0.578	5.574	6.130	5.802	3.921
Police/Fire	1.050	1.561	1.323	1.344	1.516	1.716	1.918
Educational Facilities	5.400	6.930	6.212	6.458	6.943	7.408	7.826
TOTAL INSTITUTIONAL	16.027	16.975	12.123	17.369	19.760	21.463	21.121
(Yr/yr % change)	35.2%	5.9%	-28.6%	43.3%	13.8%	8.6%	-1.6%
TOTAL NON-RES BUILDING	26.655	36.471	25.077	32.682	37.306	40.812	40.750
(Yr/yr % change)	-10.9%	36.8%	-31.2%	30.3%	14.2%	9.4%	-0.2%
Bridges	3.679	2.331	2.246	2.376	2.648	3.068	3.427
Dams/Canal/Marine	0.723	0.541	1.020	0.729	0.862	0.945	0.993
Water & Sewage Treatment	3.426	4.825	4.157	4.323	4.690	5.067	5.418
Roads	10.301	10.922	11.313	11.723	12.651	13.752	14.503
Power Infrastructure	3.019	4.326	2.336	4.564	6.755	7.841	8.487
All Other Civil (Oil & Gas etc.)	12.379	5.766	5.913	12.691	16.933	19.317	21.630
TOTAL ENGINEERING	33.528	28.712	26.985	36.406	44.538	49.992	54.459
(Yr/yr % change)	-11.1%	-14.4%	-6.0%	34.9%	22.3%	12.2%	8.9%
TOTAL NON-RESIDENTIAL	60.183	65.183	52.061	69.087	81.844	90.804	95.209
(Yr/yr % change)	-11.0%	8.3%	-20.1%	32.7%	18.5%	10.9%	4.9%
GRAND TOTAL	87.469	101.106	81.071	96.924	114.946	128.198	135.094
(Yr/yr % change)	-11.3%	15.6%	-19.8%	19.6%	18.6%	11.5%	5.4%

* 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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
CIVIL	33.528	28.712	26.985	36.406	44.538	49.992	54.459
NON-RESIDENTIAL BUILDING	26.655	36.471	25.077	32.682	37.306	40.812	40.750
RESIDENTIAL	27.286	35.924	29.010	27.836	33.101	37.393	39.885
GRAND TOTAL	87.469	101.106	81.071	96.924	114.946	128.198	135.094
Verticals							
All Other Civil	12.379	5.766	5.913	12.691	16.933	19.317	21.630
Bridges	3.679	2.331	2.246	2.376	2.648	3.068	3.427
Dams / Canals / Marine Work	0.723	0.541	1.020	0.729	0.862	0.945	0.993
Power Infrastructure	3.019	4.326	2.336	4.564	6.755	7.841	8.487
Roads	10.301	10.922	11.313	11.723	12.651	13.752	14.503
Water and Sewage Treatment	3.426	4.825	4.157	4.323	4.690	5.067	5.418
CIVIL	33.528	28.712	26.985	36.406	44.538	49.992	54.459
(Yr/yr % change)	-11.1%	-14.4%	-6.0%	34.9%	22.3%	12.2%	8.9%
Offices (private)	2.122	1.254	0.804	0.861	1.308	1.950	2.306
Parking Garages	0.144	0.154	0.099	0.109	0.150	0.193	0.221
Transportation Terminals	5.566	0.334	0.578	5.574	6.130	5.802	3.921
Commercial	7.832	1.742	1.481	6.543	7.588	7.945	6.448
(Yr/yr % change)	37.7%	-77.8%	-15.0%	341.8%	16.0%	4.7%	-18.8%
Amusement	1.123	2.545	1.527	1.673	2.074	2.390	2.657
Religious	0.042	0.095	0.033	0.037	0.047	0.054	0.060
Community	1.165	2.640	1.560	1.710	2.120	2.444	2.717
(Yr/yr % change)	-52.2%	126.6%	-40.9%	9.6%	24.0%	15.2%	11.2%
Educational	5.400	6.930	6.212	6.458	6.943	7.408	7.826
(Yr/yr % change)	2.2%	28.3%	-10.4%	4.0%	7.5%	6.7%	5.6%
Fire and Police Stations	1.050	1.561	1.323	1.344	1.516	1.716	1.918
Government Offices	1.509	1.180	1.681	2.140	1.804	1.910	1.996
Government	2.559	2.741	3.004	3.484	3.320	3.626	3.914
(Yr/yr % change)	-39.8%	7.1%	9.6%	16.0%	-4.7%	9.2%	7.9%
Manufacturing	2.404	11.582	5.736	7.455	8.587	8.616	7.617
Warehouses	2.478	2.267	2.268	2.212	2.278	2.454	2.620
Industrial	4.882	13.850	8.004	9.666	10.865	11.070	10.237
(Yr/yr % change)	-2.9%	183.7%	-42.2%	20.8%	12.4%	1.9%	-7.5%
Hospitals / Clinics	3.817	7.950	3.489	3.626	4.748	6.023	6.864
Medical Misc.	0.153	0.105	0.488	0.329	0.376	0.461	0.531
Medical	3.970	8.055	3.977	3.956	5.124	6.484	7.396
(Yr/yr % change)	-0.4%	102.9%	-50.6%	-0.5%	29.5%	26.5%	14.1%
Hotels	0.385	0.143	0.124	0.153	0.353	0.541	0.714
Retail Misc.	0.101	0.069	0.168	0.166	0.196	0.230	0.255
Shopping	0.361	0.302	0.547	0.546	0.796	1.065	1.244
Retail	0.847	0.515	0.839	0.864	1.345	1.836	2.213
(Yr/yr % change)	-74.0%	-39.2%	63.1%	3.0%	55.6%	36.5%	20.5%
NON-RESIDENTIAL BUILDING	26.655	36.471	25.077	32.682	37.306	40.812	40.750
(Yr/yr % change)	-10.9%	36.8%	-31.2%	30.3%	14.2%	9.4%	-0.2%
Multi-Family	13.985	18.055	13.601	13.503	16.763	19.544	21.154
Single-Family	13.301	17.868	15.409	14.334	16.338	17.849	18.730
RESIDENTIAL	27.286	35.924	29.010	27.836	33.101	37.393	39.885
(Yr/yr % change)	-12.1%	31.7%	-19.2%	-4.0%	18.9%	13.0%	6.7%
TOTAL NON-RESIDENTIAL	60.183	65.183	52.061	69.087	81.844	90.804	95.209
(Yr/yr % change)	-11.0%	8.3%	-20.1%	32.7%	18.5%	10.9%	4.9%
GRAND TOTAL	87.469	101.106	81.071	96.924	114.946	128.198	135.094
(Yr/yr % change)	-11.3%	15.6%	-19.8%	19.6%	18.6%	11.5%	5.4%

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)				
	2021	2022	2023	2024	2025	2026
Atlantic region	\$4,126	3.3%	43.9%	11.4%	7.9%	5.0%
Quebec	\$21,977	-30.0%	12.3%	17.3%	12.4%	5.9%
Ontario	\$31,146	-6.5%	1.6%	19.4%	10.5%	4.3%
Manitoba	\$2,521	-0.7%	-0.4%	9.7%	11.9%	7.5%
Saskatchewan	\$10,364	-80.8%	25.5%	21.6%	16.9%	8.0%
Alberta	\$15,935	-8.6%	26.8%	17.6%	14.2%	10.1%
British Columbia	\$15,037	-11.9%	54.6%	22.3%	10.2%	1.7%
Canada	\$101,106	-19.8%	19.6%	18.6%	11.5%	5.4%

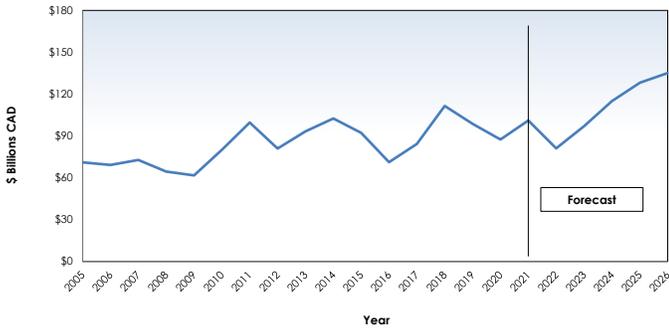
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

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

		Actuals		Forecasts				
		2020	2021	2022	2023	2024	2025	2026
Quebec	Residential	4.087	6.871	3.984	4.120	5.199	5.993	6.604
	Non-res Building	5.259	9.494	6.353	6.658	7.336	8.059	8.086
	Engineering/Civil	7.509	5.611	5.042	6.492	7.728	8.730	9.447
	Total	16.856	21.977	15.379	17.271	20.263	22.782	24.136
	(Yr vs previous yr % Change)	-20.3%	30.4%	-30.0%	12.3%	17.3%	12.4%	5.9%
Ontario	Residential	13.383	15.747	11.930	10.793	13.353	15.335	16.305
	Non-res Building	14.514	7.271	8.744	10.600	12.137	12.774	12.622
	Engineering/Civil	7.352	8.128	8.456	8.192	9.844	10.943	11.811
	Total	35.249	31.146	29.130	29.585	35.334	39.052	40.738
	(Yr vs previous yr % Change)	11.7%	-11.6%	-6.5%	1.6%	19.4%	10.5%	4.3%
Alberta	Residential	3.158	4.720	4.218	4.686	5.252	5.909	6.576
	Non-res Building	2.011	2.467	2.835	3.800	4.234	5.078	5.547
	Engineering/Civil	7.617	8.749	7.515	9.985	12.227	13.819	15.182
	Total	12.785	15.935	14.568	18.471	21.713	24.806	27.304
	(Yr vs previous yr % Change)	-29.2%	24.6%	-8.6%	26.8%	17.6%	14.2%	10.1%
British Columbia	Residential	4.892	5.900	6.386	6.372	7.236	7.870	8.019
	Non-res Building	2.798	7.292	4.380	6.793	8.255	8.932	8.203
	Engineering/Civil	7.581	1.845	2.476	7.312	9.549	10.784	11.842
	Total	15.271	15.037	13.242	20.478	25.040	27.586	28.064
	(Yr vs previous yr % Change)	-20.5%	-1.5%	-11.9%	54.6%	22.3%	10.2%	1.7%

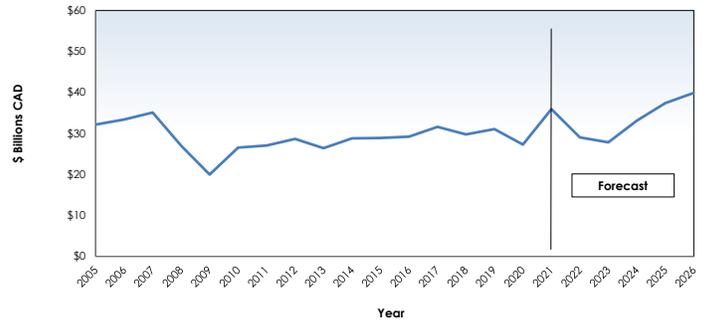
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
Table: ConstructConnect.

Graph 19: Canadian Grand Total Construction Starts — ConstructConnect



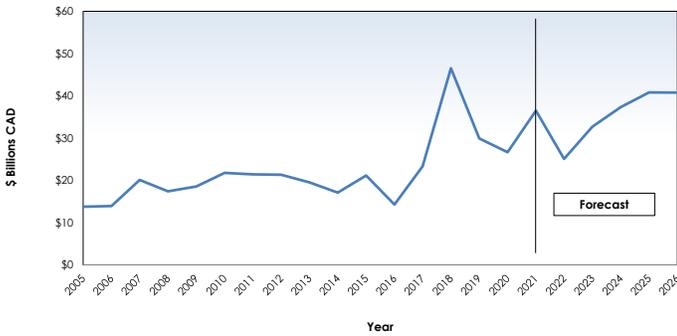
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 20: Canadian Residential Construction Starts — ConstructConnect



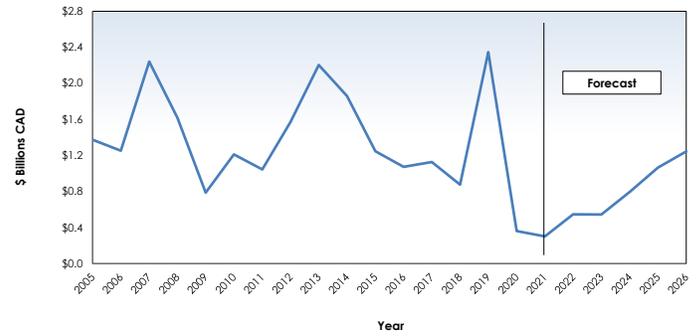
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 21: Canadian Non-Residential Building Starts — ConstructConnect



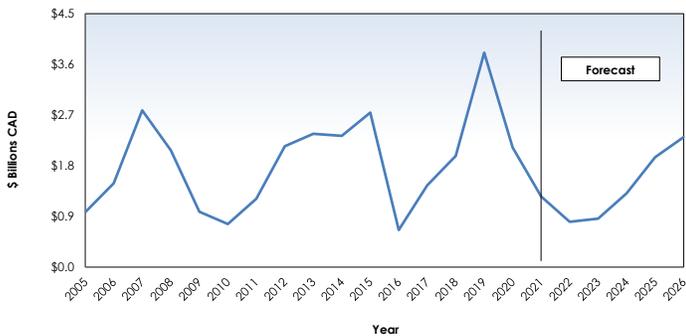
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 22: Canadian Shopping/Retail Construction Starts — ConstructConnect



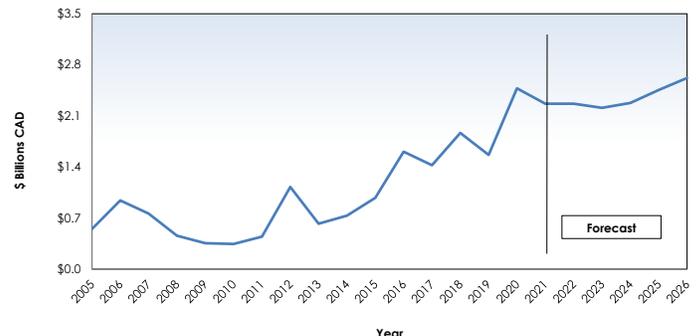
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 23: Canadian Private Offices Construction Starts — ConstructConnect



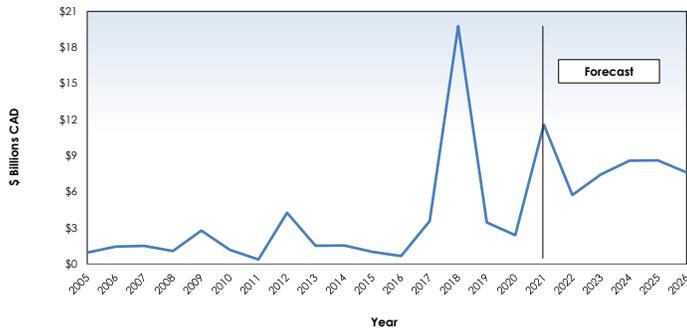
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 24: Canadian Warehouse Construction Starts — ConstructConnect



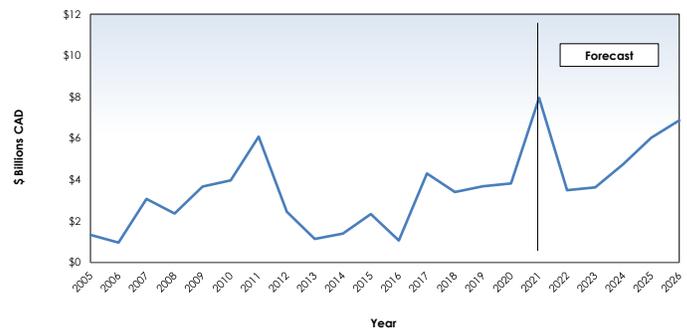
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 25: Canadian Industrial/Manufacturing Construction Starts — ConstructConnect



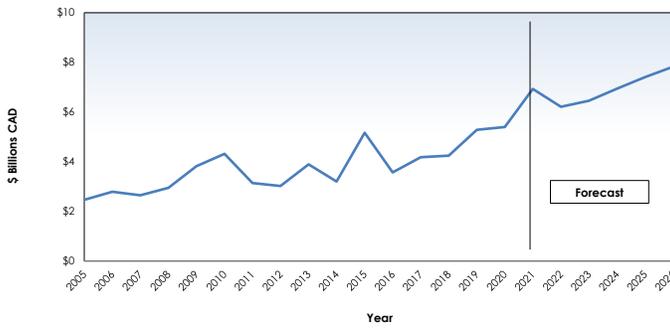
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 26: Canadian Hospital/Clinic Construction Starts — ConstructConnect



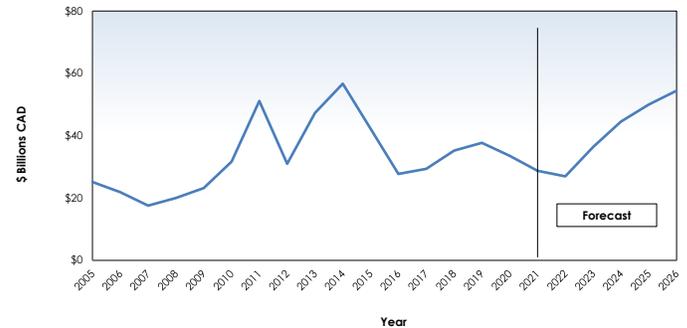
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 27: Canadian Education Construction Starts — ConstructConnect



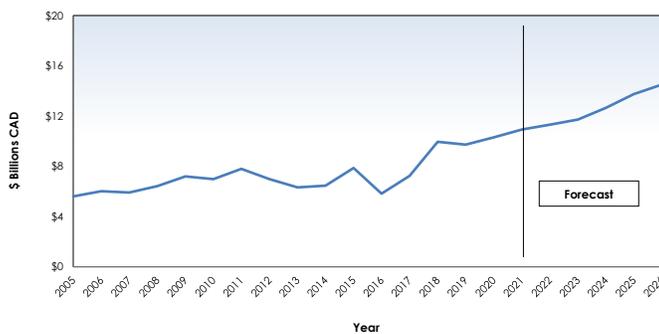
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 28: Canadian Engineering Construction Starts — ConstructConnect



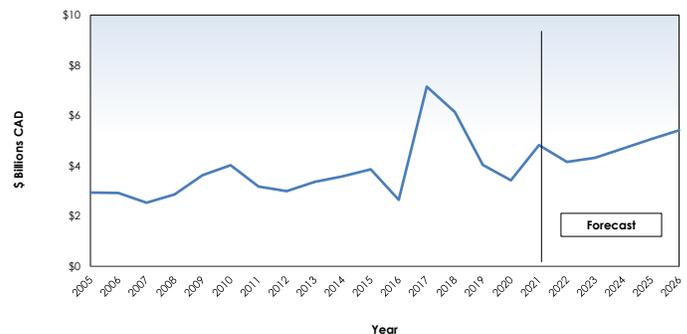
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 29: Canadian Roadwork Construction Starts — ConstructConnect



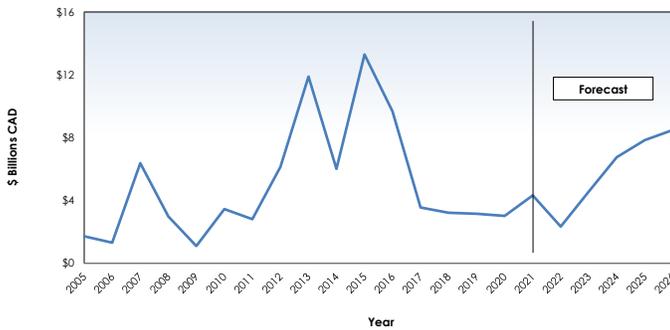
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 30: Canadian Water and Sewage Construction Starts — ConstructConnect



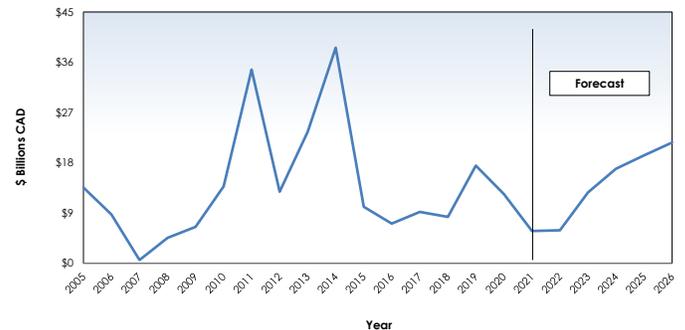
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 31: Canadian Power Infrastructure Construction Starts — ConstructConnect



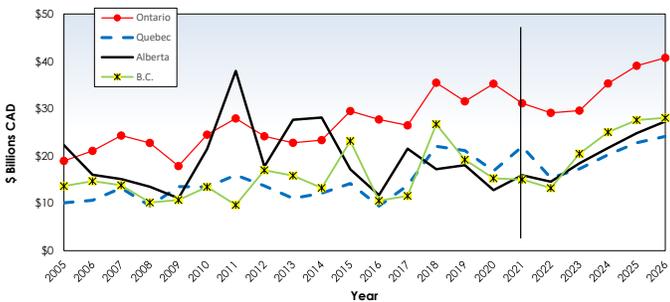
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

Graph 32: Canada All Other Civil (Oil Sands, Tunnels, RRs) Construction Starts — ConstructConnect



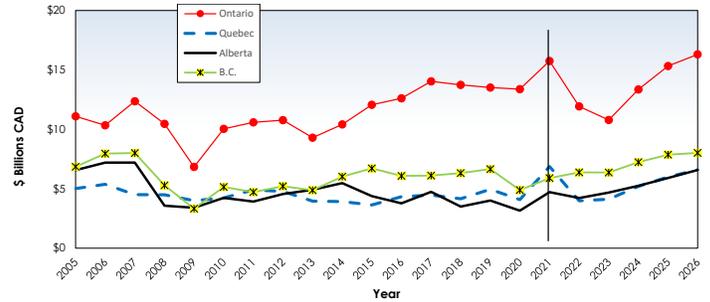
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



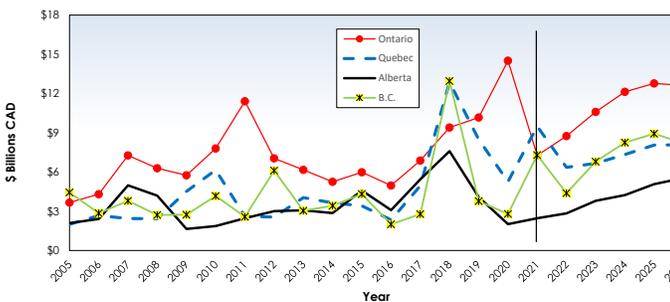
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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



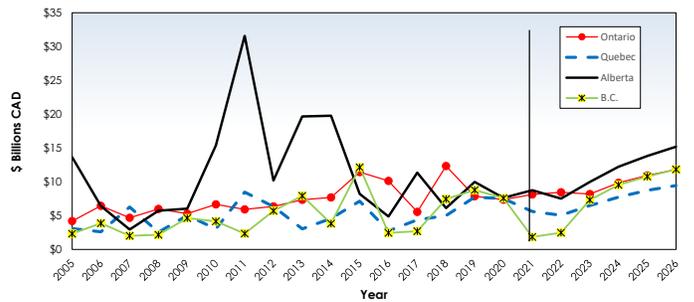
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect. Chart: ConstructConnect.

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	1,813.1	2,130.7	1,969.5	1,939.2	2,256.5	2,518.6	2,724.2
Multi-family	475.0	596.9	688.5	690.6	739.9	819.6	870.9
TOTAL RESIDENTIAL	2,288.1	2,727.7	2,658.0	2,629.8	2,996.4	3,338.1	3,595.1
<i>(Yr/yr % change)</i>	<i>4.1%</i>	<i>19.2%</i>	<i>-2.6%</i>	<i>-1.1%</i>	<i>13.9%</i>	<i>11.4%</i>	<i>7.7%</i>
Hotels/Motels	45.1	31.5	43.3	48.9	63.4	81.0	87.4
Shopping/Retail	51.0	49.4	47.8	53.9	68.8	86.9	104.2
Parking Garages	17.1	15.5	19.2	20.8	21.8	23.8	26.1
Amusement	21.6	23.3	19.8	19.8	22.4	27.8	32.1
Private Offices	76.4	71.8	70.3	82.3	91.8	101.5	111.1
Governmental Offices	13.3	16.6	19.7	19.7	20.7	21.5	22.2
Laboratories (Schools & Industrial)	3.1	5.5	10.4	7.5	8.2	8.9	9.6
Warehouses	232.1	267.3	230.0	205.3	225.1	248.5	260.8
Sports Stadium/Convention Center	12.7	14.8	16.5	17.8	12.8	13.5	14.2
Transportation Terminals	4.9	8.4	7.9	12.9	13.9	13.3	13.1
TOTAL COMMERCIAL	477.1	504.1	484.8	488.9	548.9	626.7	680.7
<i>(Yr/yr % change)</i>	<i>-20.5%</i>	<i>5.7%</i>	<i>-3.8%</i>	<i>0.8%</i>	<i>12.3%</i>	<i>14.2%</i>	<i>8.6%</i>
TOTAL INDUSTRIAL (manufacturing)	72.1	93.6	172.9	122.9	114.5	118.7	126.3
<i>(Yr/yr % change)</i>	<i>-32.3%</i>	<i>29.8%</i>	<i>84.8%</i>	<i>-28.9%</i>	<i>-6.9%</i>	<i>3.6%</i>	<i>6.4%</i>
Religious	3.8	3.4	2.9	3.1	3.7	4.4	5.0
Hospitals/Clinics	17.1	24.5	23.6	28.3	34.7	42.7	50.3
Nursing Homes/Assisted Living	32.4	23.9	15.3	17.5	22.1	27.3	31.5
Libraries/Museums	3.4	6.6	2.9	3.3	3.9	4.3	4.6
Courthouse	3.0	4.4	2.1	2.4	2.8	3.1	3.5
Police/Fire	8.3	7.5	9.2	8.3	8.6	8.9	9.3
Prisons	2.6	1.8	2.1	2.1	2.3	2.4	2.5
Military	22.5	20.8	13.4	14.5	16.6	18.4	20.9
Educational Facilities	148.7	126.1	144.8	144.3	156.0	166.1	175.4
MED misc	15.7	15.5	18.5	19.3	21.3	25.7	28.7
TOTAL INSTITUTIONAL	257.4	234.5	234.8	243.2	271.8	303.4	331.8
<i>(Yr/yr % change)</i>	<i>-12.3%</i>	<i>-8.9%</i>	<i>0.1%</i>	<i>3.6%</i>	<i>11.8%</i>	<i>11.6%</i>	<i>9.4%</i>
Miscellaneous Non-Res Building	20.4	21.5	20.7	20.8	21.3	22.4	23.8
TOTAL NON-RES BLDG	827.0	853.7	913.3	875.9	956.5	1,071.1	1,162.6
<i>(Yr/yr % change)</i>	<i>-19.4%</i>	<i>3.2%</i>	<i>7.0%</i>	<i>-4.1%</i>	<i>9.2%</i>	<i>12.0%</i>	<i>8.5%</i>
RESIDENTIAL + NON-RES BLDG	3,115.1	3,581.3	3,571.2	3,505.7	3,952.9	4,409.3	4,757.7
<i>(Yr/yr % change)</i>	<i>-3.4%</i>	<i>15.0%</i>	<i>-0.3%</i>	<i>-1.8%</i>	<i>12.8%</i>	<i>11.5%</i>	<i>7.9%</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				
	2020	2021	2022	2023	2024	2025	2026
Summary							
NON-RESIDENTIAL BUILDING	827.0	853.7	913.3	875.9	956.5	1,071.1	1,162.6
RESIDENTIAL	2,288.1	2,727.7	2,658.0	2,629.8	2,996.4	3,338.1	3,595.1
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,581.3	3,571.2	3,505.7	3,952.9	4,409.3	4,757.7
Verticals							
Offices (private)	76.4	71.8	70.3	82.3	91.8	101.5	111.1
Parking Garages	17.1	15.5	19.2	20.8	21.8	23.8	26.1
Transportation Terminals	4.9	8.4	7.9	12.9	13.9	13.3	13.1
Commercial	98.3	95.8	97.4	116.0	127.5	138.6	150.3
(Yr/yr % change)	-35.2%	-2.6%	1.7%	19.1%	9.9%	8.7%	8.4%
Amusement	21.6	23.3	19.8	19.8	22.4	27.8	32.1
Libraries / Museums	3.4	6.6	2.9	3.3	3.9	4.3	4.6
Religious	3.8	3.4	2.9	3.1	3.7	4.4	5.0
Sports Arenas / Convention Centers	12.7	14.8	16.5	17.8	12.8	13.5	14.2
Community	41.5	48.0	42.2	44.0	42.7	50.0	55.9
(Yr/yr % change)	-22.0%	15.7%	-12.2%	4.4%	-2.9%	17.1%	11.7%
College / University	32.8	25.4	35.0	35.0	37.0	38.8	41.7
Elementary / Pre School	48.1	36.5	43.9	41.6	45.1	48.1	50.6
Jr / Sr High School	62.3	58.3	60.6	62.3	68.0	73.0	76.5
Special / Vocational	5.4	5.9	5.2	5.4	5.8	6.3	6.5
Educational	148.7	126.1	144.8	144.3	156.0	166.1	175.4
(Yr/yr % change)	-11.5%	-15.2%	14.8%	-0.3%	8.1%	6.5%	5.6%
Courthouses	3.0	4.4	2.1	2.4	2.8	3.1	3.5
Fire and Police Stations	8.3	7.5	9.2	8.3	8.6	8.9	9.3
Government Offices	13.3	16.6	19.7	19.7	20.7	21.5	22.2
Prisons	2.6	1.8	2.1	2.1	2.3	2.4	2.5
Government	27.2	30.3	33.1	32.6	34.2	36.0	37.5
(Yr/yr % change)	-5.5%	11.5%	9.3%	-1.6%	5.1%	5.1%	4.2%
Industrial Labs / Labs / School Labs	3.1	5.5	10.4	7.5	8.2	8.9	9.6
Manufacturing	72.1	93.6	172.9	122.9	114.5	118.7	126.3
Warehouses	232.1	267.3	230.0	205.3	225.1	248.5	260.8
Industrial	307.2	366.4	413.3	335.7	347.8	376.0	396.6
(Yr/yr % change)	-3.2%	19.3%	12.8%	-18.8%	3.6%	8.1%	5.5%
Hospitals / Clinics	17.1	24.5	23.6	28.3	34.7	42.7	50.3
Medical Misc.	15.7	15.5	18.5	19.3	21.3	25.7	28.7
Nursing Homes	32.4	23.9	15.3	17.5	22.1	27.3	31.5
Medical	65.1	63.9	57.3	65.1	78.1	95.7	110.6
(Yr/yr % change)	-30.5%	-1.9%	-10.2%	13.5%	19.9%	22.6%	15.5%
Military	22.5	20.8	13.4	14.5	16.6	18.4	20.9
(Yr/yr % change)	92.9%	-7.6%	-35.4%	8.1%	14.4%	10.5%	13.9%
Hotels	45.1	31.5	43.3	48.9	63.4	81.0	87.4
Retail Misc.	20.4	21.5	20.7	20.8	21.3	22.4	23.8
Shopping	51.0	49.4	47.8	53.9	68.8	86.9	104.2
Retail	116.4	102.4	111.8	123.6	153.6	190.3	215.4
(Yr/yr % change)	-42.3%	-12.0%	9.1%	10.6%	24.3%	23.9%	13.2%
NON-RESIDENTIAL BUILDING	827.0	853.7	913.3	875.9	956.5	1,071.1	1,162.6
(Yr/yr % change)	-19.4%	3.2%	7.0%	-4.1%	9.2%	12.0%	8.5%
Multi-Family	475.0	596.9	688.5	690.6	739.9	819.6	870.9
Single-Family	1,813.1	2,130.7	1,969.5	1,939.2	2,256.5	2,518.6	2,724.2
RESIDENTIAL	2,288.1	2,727.7	2,658.0	2,629.8	2,996.4	3,338.1	3,595.1
(Yr/yr % change)	4.1%	19.2%	-2.6%	-1.1%	13.9%	11.4%	7.7%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	3,115.1	3,581.3	3,571.2	3,505.7	3,952.9	4,409.3	4,757.7
(Yr/yr % change)	-3.4%	15.0%	-0.3%	-1.8%	12.8%	11.5%	7.9%

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				
	2020	2021	2022	2023	2024	2025	2026
Single-family	114.9	154.2	135.5	125.6	141.4	154.0	161.5
Multi-family	69.4	83.2	66.0	64.4	79.5	95.1	102.3
TOTAL RESIDENTIAL	184.2	237.4	201.5	190.0	221.0	249.1	263.9
<i>(Yr/yr % change)</i>	<i>-8.2%</i>	<i>28.9%</i>	<i>-15.1%</i>	<i>-5.7%</i>	<i>16.3%</i>	<i>12.8%</i>	<i>5.9%</i>
Hotels/Motels	0.9	0.7	0.5	0.6	1.4	2.1	2.8
Private Offices	5.5	5.4	3.2	3.4	5.0	7.9	9.3
Governmental Offices	1.8	1.2	1.0	1.5	1.2	1.2	1.3
Shopping/Retail	3.4	2.4	3.2	3.2	4.6	6.2	7.2
Retail Miscellaneous	0.4	0.3	0.7	0.7	0.8	0.9	0.9
Parking Garages	0.2	0.5	0.2	0.3	0.4	0.6	0.8
Amusement	1.6	3.7	2.0	2.4	3.1	3.6	4.0
Warehouses	11.5	13.9	15.1	13.6	13.9	14.9	15.9
TOTAL COMMERCIAL	25.3	28.1	25.9	25.5	30.4	37.5	42.2
<i>(Yr/yr % change)</i>	<i>-42.2%</i>	<i>11.1%</i>	<i>-8.0%</i>	<i>-1.4%</i>	<i>19.3%</i>	<i>23.3%</i>	<i>12.6%</i>
TOTAL INDUSTRIAL (manufacturing)	5.1	4.9	2.6	3.7	4.7	5.0	4.5
<i>(Yr/yr % change)</i>	<i>-20.4%</i>	<i>-3.4%</i>	<i>-47.9%</i>	<i>46.1%</i>	<i>25.5%</i>	<i>5.8%</i>	<i>-8.8%</i>
Religious	0.1	0.3	0.1	0.2	0.4	0.4	0.4
Hospitals/Clinics	8.1	10.1	6.1	6.5	8.0	9.4	10.9
MED misc	0.2	0.3	0.9	0.7	0.7	0.9	1.1
Transportation Terminals*	0.5	0.2	0.3	2.4	2.9	2.6	1.3
Police/Fire	1.7	1.8	1.5	1.5	1.7	1.9	2.1
Educational Facilities	10.5	13.7	8.0	8.8	10.2	11.1	11.8
TOTAL INSTITUTIONAL	21.1	26.3	16.9	20.1	23.9	26.4	27.6
<i>(Yr/yr % change)</i>	<i>-9.3%</i>	<i>24.7%</i>	<i>-36.0%</i>	<i>19.5%</i>	<i>18.7%</i>	<i>10.3%</i>	<i>4.8%</i>
TOTAL NON-RES BLDG	51.5	59.4	45.3	49.4	59.0	68.8	74.4
<i>(Yr/yr % change)</i>	<i>-29.8%</i>	<i>15.2%</i>	<i>-23.7%</i>	<i>9.1%</i>	<i>19.5%</i>	<i>16.6%</i>	<i>8.1%</i>
RESIDENTIAL + NON-RES BLDG	235.7	296.8	246.8	239.4	280.0	318.0	338.3
<i>(Yr/yr % change)</i>	<i>-14.0%</i>	<i>25.9%</i>	<i>-16.8%</i>	<i>-3.0%</i>	<i>17.0%</i>	<i>13.6%</i>	<i>6.4%</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)

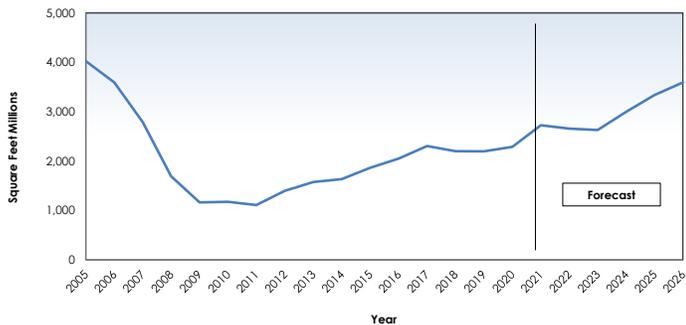
	Actuals		Forecasts				
	2020	2021	2022	2023	2024	2025	2026
Summary							
NON-RESIDENTIAL BUILDING	51.5	59.4	45.3	49.4	59.0	68.8	74.4
RESIDENTIAL	184.2	237.4	201.5	190.0	221.0	249.1	263.9
RESIDENTIAL + NON-RESIDENTIAL BUILDING	235.7	296.8	246.8	239.4	280.0	318.0	338.3
Verticals							
Offices (private)	5.5	5.4	3.2	3.4	5.0	7.9	9.3
Parking Garages	0.2	0.5	0.2	0.3	0.4	0.6	0.8
Transportation Terminals	0.5	0.2	0.3	2.4	2.9	2.6	1.3
Commercial	6.2	6.1	3.7	6.0	8.4	11.1	11.3
(Yr/yr % change)	-52.3%	-1.0%	-38.8%	61.4%	38.7%	32.9%	1.9%
Amusement	1.6	3.7	2.0	2.4	3.1	3.6	4.0
Religious	0.1	0.3	0.1	0.2	0.4	0.4	0.4
Community	1.7	4.0	2.1	2.6	3.4	4.0	4.4
(Yr/yr % change)	-58.6%	134.1%	-48.2%	23.8%	31.7%	16.8%	11.1%
Educational	10.5	13.7	8.0	8.8	10.2	11.1	11.8
(Yr/yr % change)	-15.4%	31.0%	-41.4%	10.2%	15.8%	8.7%	6.1%
Fire and Police Stations	1.7	1.8	1.5	1.5	1.7	1.9	2.1
Government Offices	1.8	1.2	1.0	1.5	1.2	1.2	1.3
Government	3.5	3.0	2.4	3.0	2.8	3.1	3.4
(Yr/yr % change)	-12.4%	-16.5%	-17.6%	21.2%	-3.8%	9.5%	8.7%
Manufacturing	5.1	4.9	2.6	3.7	4.7	5.0	4.5
Warehouses	11.5	13.9	15.1	13.6	13.9	14.9	15.9
Industrial	16.6	18.8	17.6	17.3	18.6	19.9	20.5
(Yr/yr % change)	-1.5%	13.3%	-6.4%	-1.8%	7.3%	7.1%	2.8%
Hospitals / Clinics	8.1	10.1	6.1	6.5	8.0	9.4	10.9
Medical Misc.	0.2	0.3	0.9	0.7	0.7	0.9	1.1
Medical	8.3	10.4	7.0	7.2	8.8	10.4	12.0
(Yr/yr % change)	-6.2%	24.5%	-32.3%	2.5%	22.0%	18.4%	15.6%
Hotels	0.9	0.7	0.5	0.6	1.4	2.1	2.8
Retail Misc.	0.4	0.3	0.7	0.7	0.8	0.9	0.9
Shopping	3.4	2.4	3.2	3.2	4.6	6.2	7.2
Retail	4.7	3.3	4.3	4.4	6.8	9.2	11.0
(Yr/yr % change)	-67.1%	-28.1%	29.0%	2.8%	52.7%	35.3%	19.5%
NON-RESIDENTIAL BUILDING	51.5	59.4	45.3	49.4	59.0	68.8	74.4
(Yr/yr % change)	-29.8%	15.2%	-23.7%	9.1%	19.5%	16.6%	8.1%
Multi-Family	69.4	83.2	66.0	64.4	79.5	95.1	102.3
Single-Family	114.9	154.2	135.5	125.6	141.4	154.0	161.5
RESIDENTIAL	184.2	237.4	201.5	190.0	221.0	249.1	263.9
(Yr/yr % change)	-8.2%	28.9%	-15.1%	-5.7%	16.3%	12.8%	5.9%
RESIDENTIAL + NON-RESIDENTIAL BUILDING	235.7	296.8	246.8	239.4	280.0	318.0	338.3
(Yr/yr % change)	-14.0%	25.9%	-16.8%	-3.0%	17.0%	13.6%	6.4%

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'.

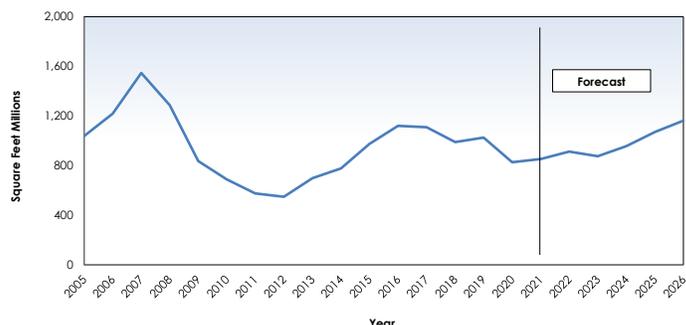
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect / Table: ConstructConnect.

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



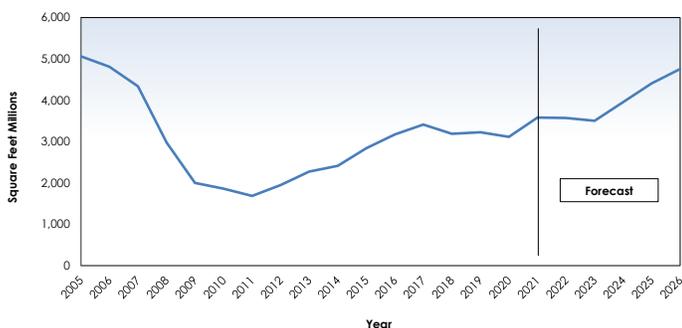
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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



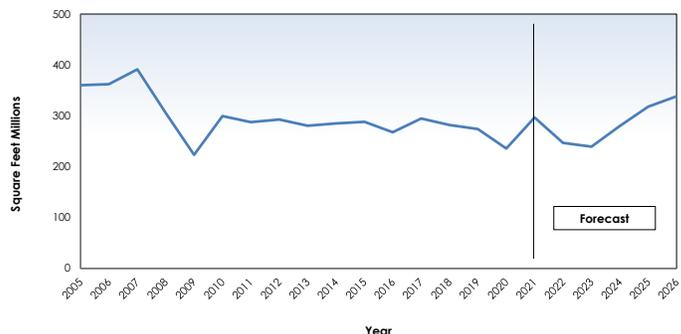
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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



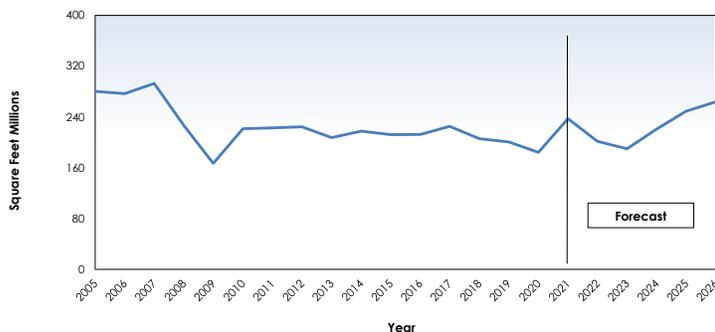
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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



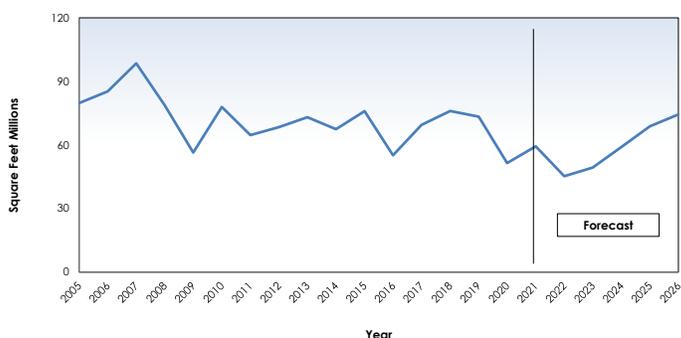
Source of actuals: ConstructConnect "Insight" / Forecasts: Oxford Economics and ConstructConnect.
 Chart: ConstructConnect.

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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