



2022
North American Engineering
and Construction Outlook
Second Quarter Edition



The background of the page features several abstract, three-dimensional geometric shapes. On the left side, there are several light gray, faceted, cone-like structures of varying sizes. In the bottom left corner, there is a larger, more complex structure with multiple rounded, bulbous protrusions. In the bottom center, there is a blurred, star-like or spiky shape. In the bottom right, there are more faint, spiky geometric forms. The overall aesthetic is modern and architectural.

Economic factors influencing this forecast include the known domestic and foreign impacts of COVID-19, supply shortages of key materials and labor across various industries, ongoing strain on domestic and international logistics infrastructure, volatility across financial and equity markets with additional Federal Reserve rate hikes through 2022 and 2023, and continued inflationary pressures tied to heightened living expenses, elevated energy costs and rising wages. We also considered wartime and economic turmoil in various countries (e.g., Russia, Ukraine, China) adding to strain and uncertainty on each of the items listed above.




Risk of a recession in the coming quarters has been elevated when accounting for the most recent changes to our predictive recessionary indicators (i.e., yield curve inversion, consumer sentiment, etc.) as of late March and early April. Though we plan to provide some insight into various potential scenarios in upcoming publications, it is important to note that this forecast minimizes recessionary factors based on these recent developments.

While many risk factors are present in an ever-changing environment, FMI anticipates that U.S. economic fortitude, as reflected by strong demand for labor, will provide future stability through the forecast period. Private investment in residential and nonresidential building may become challenged in the year(s) ahead as rising interest rates and inflation weigh on consumer spending behaviors. Conversely, infrastructure spending is historically insensitive to those challenges and will realize a significant boost in planned investment as outlined in the Infrastructure Investment and Jobs Act (IIJA).

U.S. Key Takeaways

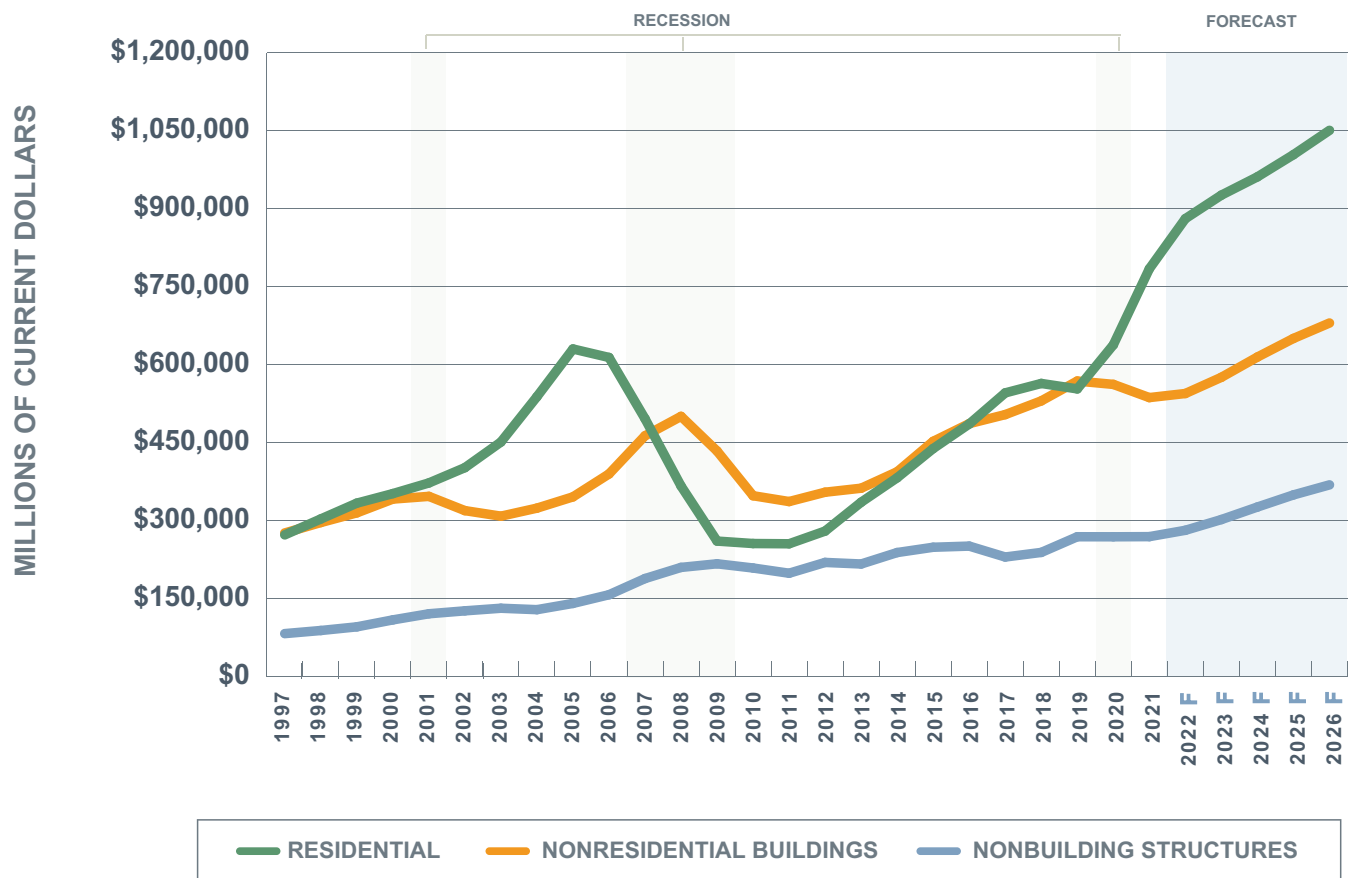
- Total engineering and construction spending for the U.S. is forecast to end 2022 up 7% compared to up 8% in 2021.
- Strong investment in residential and manufacturing will drive industry spending through 2022. Additionally, due to expected increases in infrastructure funding later this year, several nonbuilding segments, including highway and street, sewage and waste disposal, and water supply, are all anticipated to realize growth rates of more than 5% in 2022.
- Year-end 2022 growth will be tempered by ongoing spending declines across various nonresidential building segments, including lodging, office, educational, religious, public safety, and amusement and recreation.
- Commercial, health care, communication, power, and conservation and development are all expected to end the year with low growth, roughly in line with the historical rate of inflation, between 0% and 4%, and are therefore considered stable.
- The latest Nonresidential Construction Index (NRCI) of 53.8 suggests ongoing optimism heading into the second quarter of 2022, down slightly from 54.8 in the quarter prior. Sentiment is being upheld by strong demand and backlog expansion while challenges point to enduring economic uncertainty and high costs for materials and labor. The index continues to surpass the growth threshold of 50 and suggests increased engineering and construction opportunities ahead.

U.S. 2021 Segment Performance 2022/2021 Comparison

 UP 5% or more	 STABLE 0% to 4%	 DOWN Under 0%
Single-family Multifamily Improvements Manufacturing Highway and Street Sewage and Waste Disposal Water Supply	Commercial Health Care Transportation Communication Power Conservation and Development	Lodging Office Educational Religious Public Safety Amusement and Recreation



Total Construction Put in Place Estimated for the U.S.

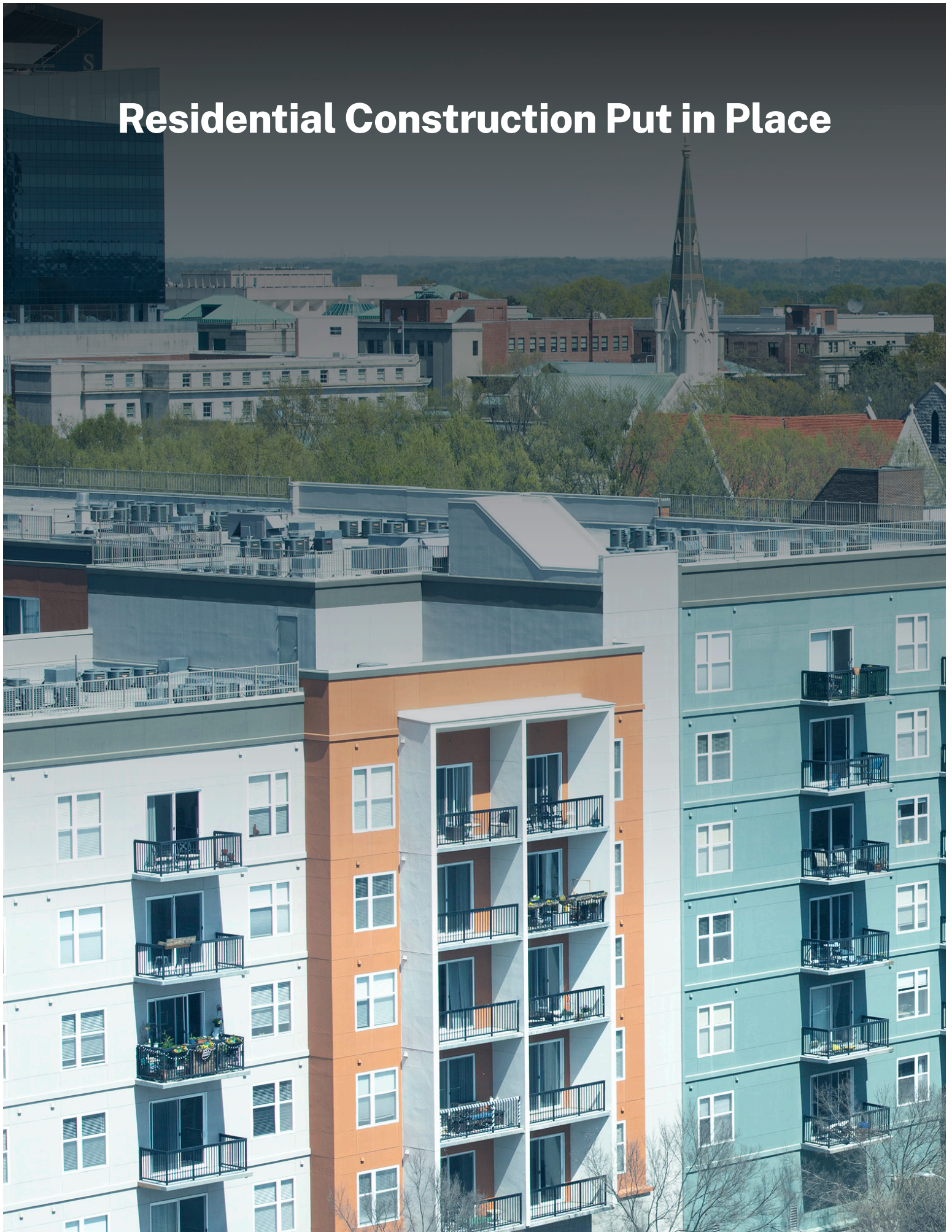


SOURCE: FMI FORECAST Q2 2022

Second quarter forecast based on fourth quarter 2021 actuals and first quarter 2022 assumptions.



Residential Construction Put in Place

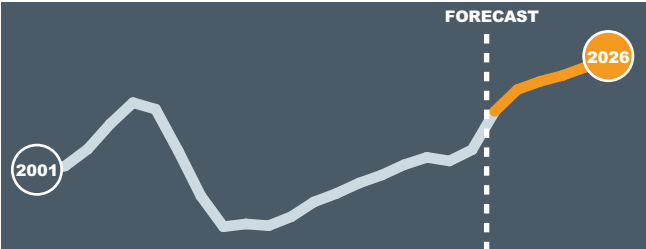




SINGLE-FAMILY RESIDENTIAL



- DRIVERS:**
- Unemployment rate
 - Core CPI
 - Income
 - Mortgage rates
 - Home prices
 - Housing starts
 - Housing permits



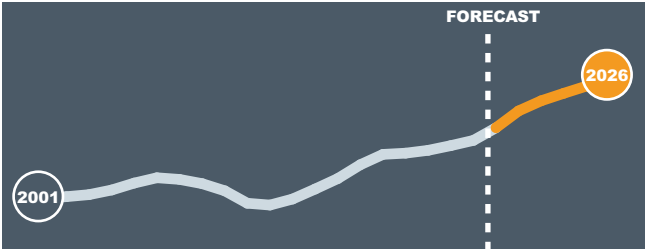
2023	UP	5%	\$491 B
2024	STA	3%	\$507 B
2025	STA	4%	\$529 B
2026	UP	5%	\$557 B

- Construction input costs, such as materials and labor, remain high through 2022 and 2023.
- Rising interest rates through 2022 result in increased affordability challenges and ultimately fewer buyers.
- Price tensions will shift investor interest away from single-family residential assets.
- Homeownership rates are expected to remain flat or lower over the next several years.

MULTIFAMILY RESIDENTIAL



- DRIVERS:**
- Unemployment rate
 - Core CPI
 - Income
 - Mortgage rates
 - Home prices
 - Housing starts
 - Housing permits

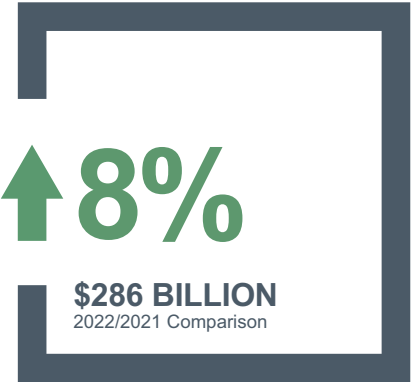


2023	UP	9%	\$136 B
2024	UP	6%	\$144 B
2025	UP	5%	\$152 B
2026	UP	5%	\$158 B

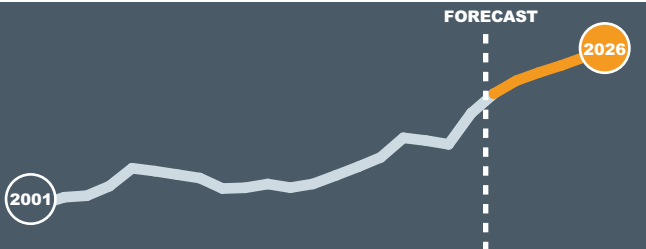
- Rapidly rising rental rates have drawn developers back into both urban and suburban multifamily and mixed-use investments.
- Affordable housing projects and rental caps will be encouraged as elevated living costs weigh on consumers.
- Rising rental rates provide additional fuel for longer-running inflation.



IMPROVEMENTS



- DRIVERS:**
- Unemployment rate
 - Core CPI
 - Income
 - Mortgage rates
 - Home prices
 - Housing starts
 - Housing permits



2023	UP	5%	\$299 B
2024	STA	4%	\$310 B
2025	STA	4%	\$323 B
2026	STA	4%	\$335 B

- Elevated material and labor prices, rising borrowing costs, reduced refinancing activity, fewer home sales and wavering price appreciation suppress residential improvements investment over the forecast period.
- Improvements spending will continue to transition away from consumers to investor interest in flips and rentals.

Nonresidential Construction Put in Place





Nonresidential Construction Index (NRCI) Q1 2011 to Q2 2022

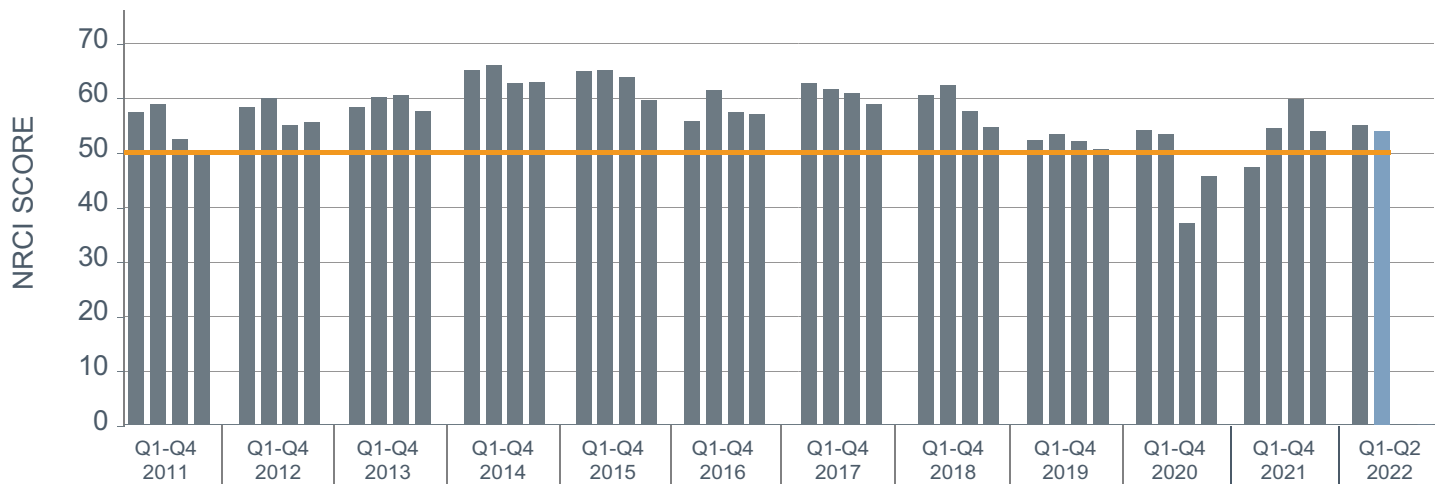
Scores above 50 indicate expansion, scores below 50 indicate contraction.

Current NRCI Reading
for Q2 2022
(March 2-15)

53.8

Q1 2022 Score

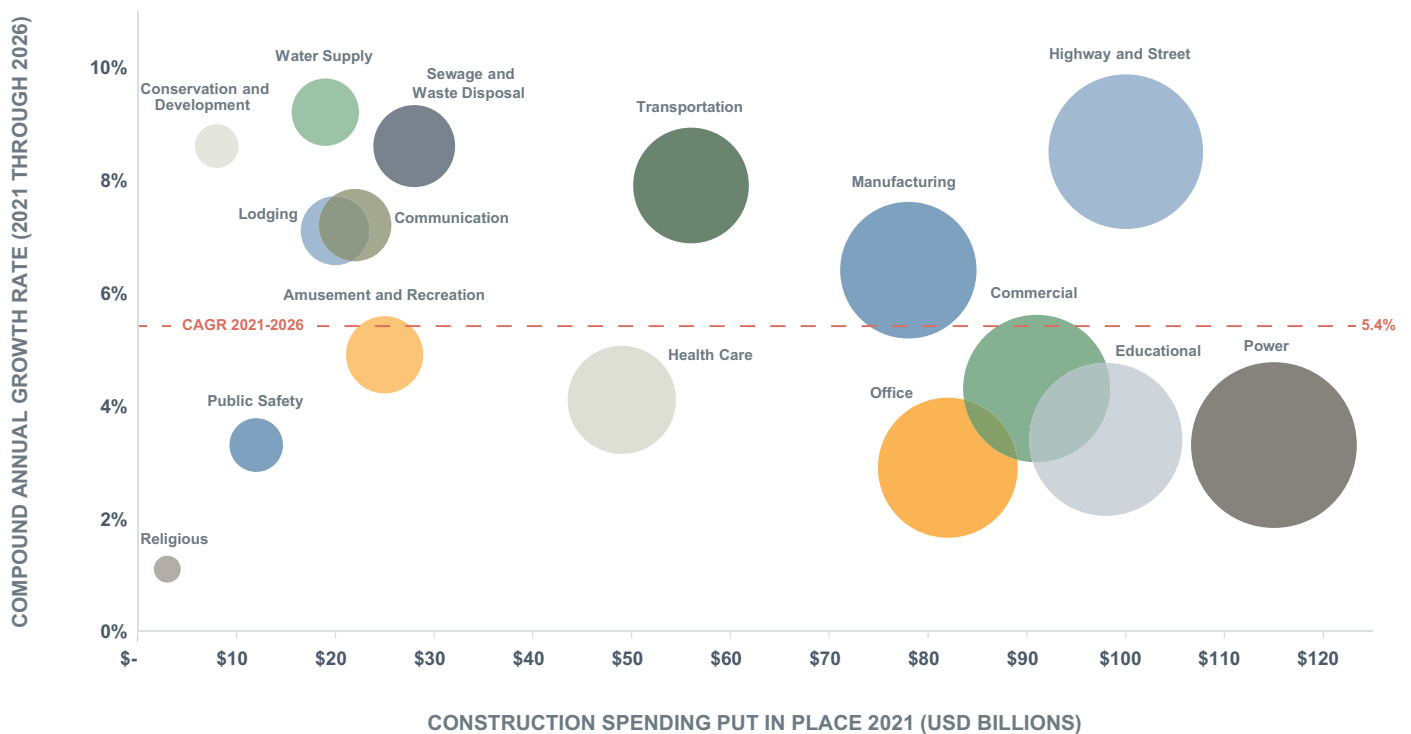
54.8



The data in the NRCI is presented as a sampling of construction industry executives voluntarily serving as panelists for this FMI survey. Responses are based on their experience and opinions, and the analysis is based on FMI's interpretation of the aggregated results.



Total Nonresidential Construction Spending Put in Place 2021 and Forecast Growth (2021 through 2026) by Construction Segment



SOURCE: FMI FORECAST Q2 2022

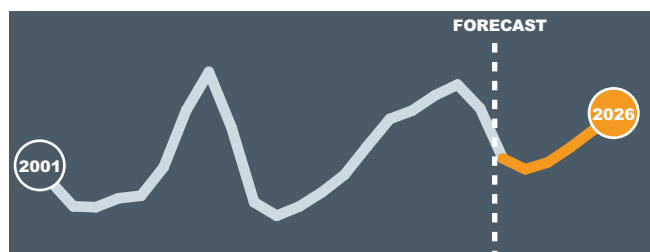


LODGING



DRIVERS:

- Occupancy rate
- RevPAR
- Average daily rate
- Room starts



2023	UP	7%	\$19 B
2024	UP	15%	\$22 B
2025	UP	15%	\$25 B
2026	UP	12%	\$28 B

- Revenue per available room (RevPar) ended 2021 at just over 80% of 2019 levels as industry performance continues a slow but steady rebound.
- Average daily rates (ADR) continue to exceed 2019 levels due to rising labor and overhead costs.
- Deferred maintenance and room upgrades will pick up this year, preceding a large wave of new and expansionary spending expected to begin in 2023.

OFFICE



DRIVERS:

- Office vacancy rate
- Unemployment rate



2023	STA	2%	\$81 B
2024	UP	6%	\$85 B
2025	UP	6%	\$90 B
2026	UP	5%	\$95 B

- Expect ongoing oversupply conditions through most of 2022 and 2023 as owners continue to scale back square footage.
- The rising cost of living and energy prices, along with tightening regulatory climate, will continue to encourage corporate relocations along with automation and energy efficiency upgrades.
- Data centers (a subset of office) are expected to see high investment growth over the forecast period.

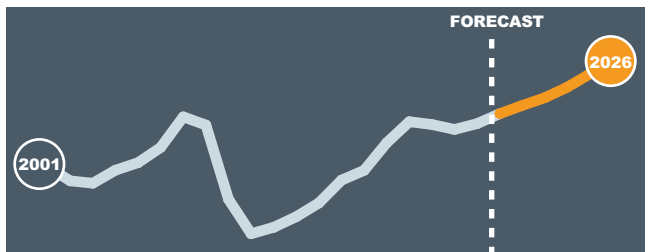
COMMERCIAL

4%

\$95 BILLION
2022/2021 Comparison

DRIVERS:

- Retail sales
- CPI
- Income
- Home prices
- Housing starts



2023	STA	3%	\$98 B
2024	UP	5%	\$102 B
2025	UP	6%	\$108 B
2026	STA	4%	\$112 B

- Discretionary spending on retail goods will be constrained by the reduction of inflation-led purchasing power.
- Big-box retailers will gain traction as consumers are pushed into more price-conscious spending, with bulk purchases providing some protection against inflation and shortages.
- Multifamily developments will drive future investments in traditional brick-and-mortar commercial buildings.
- Logistics infrastructure and warehousing (a subset of commercial) will be increasingly important to compete.

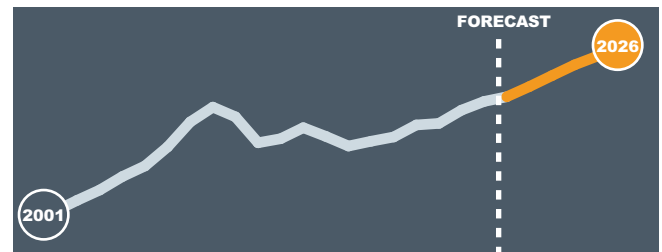
HEALTH CARE

4%

\$51 BILLION
2022/2021 Comparison

DRIVERS:

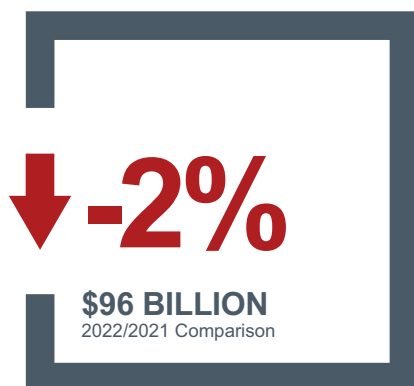
- Population change
- Population change in ages 75 and up
- Uninsured population
- Government spending
- Nonresidential structure investment



2023	UP	5%	\$54 B
2024	STA	4%	\$56 B
2025	STA	3%	\$58 B
2026	STA	4%	\$60 B

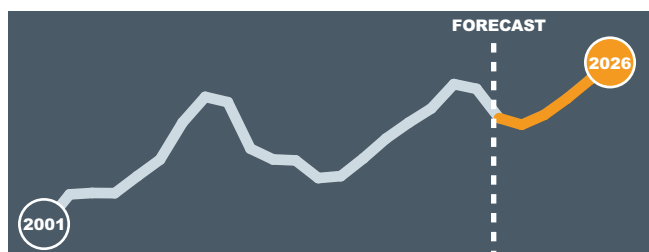
- Driven by increased demand for hospital and medical office facilities, health care remains the only institutional segment to experience growth in construction spending through 2022.
- Significant hospital investments are being planned across many major metropolitans, supported by aging and expanding populations.
- Specialty care and nursing home investments remain depressed with ongoing disruptions by advancements in home care services and associated technologies.

EDUCATIONAL



DRIVERS:

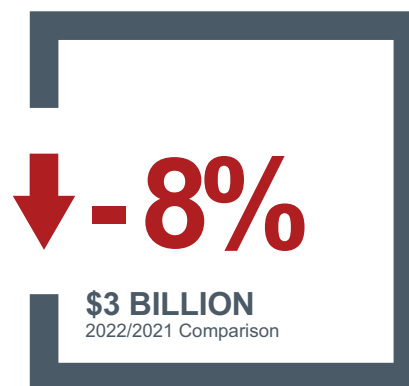
- Population change younger than age 18
- Population change ages 18-24
- Stock markets
- Government spending
- Nonresidential structure investment



2023	STA	3%	\$99 B
2024	UP	5%	\$104 B
2025	UP	6%	\$110 B
2026	UP	5%	\$116 B

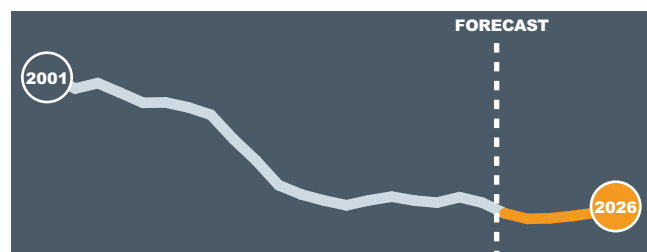
- Lifting of COVID-19 restrictions and requirements will push construction investment through the spring and summer months, especially across K-12 facilities.
- Short-term activity will be led by private higher education owners.
- Higher education enrollments are expected to remain depressed through 2023.

RELIGIOUS



DRIVERS:

- GDP
- Population
- Income
- Personal savings

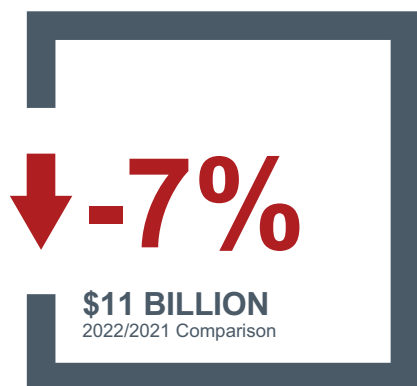


2023	STA	1%	\$3 B
2024	STA	3%	\$3 B
2025	UP	5%	\$3 B
2026	UP	5%	\$3 B

- The increasing number of religious services offered as COVID-19 restrictions have lifted has not resulted in a corresponding rise in membership or attendance. [Pew Research study](#)
- Opportunities for renovations or acquisitions of vacant worship, lodging, office and retail space will become more practical and attractive over the coming years.

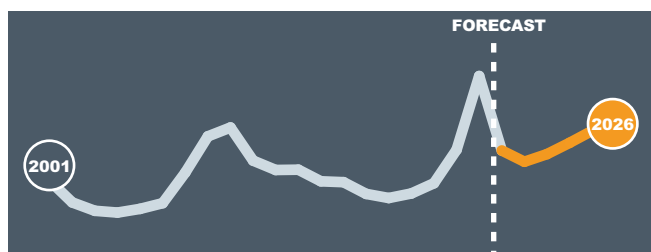


PUBLIC SAFETY



DRIVERS:

- Population
- Government spending
- Incarceration rate
- Nonresidential structure investment



2023	UP	5%	\$12 B
2024	UP	8%	\$13 B
2025	UP	8%	\$14 B
2026	STA	4%	\$14 B

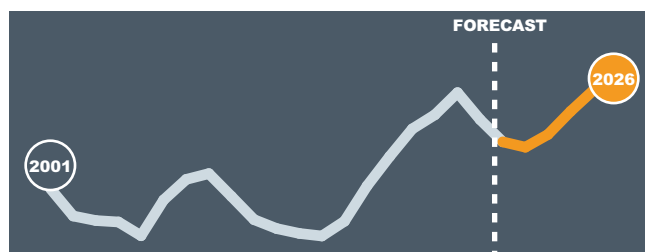
- Though many cities face record and rising violent crime rates, the Federal Bureau of Investigation's year-end 2021 statistics have been withheld due to a change in reporting tools and low participation.
- Addressing rising crime is expected to be a focus throughout the midterm elections.
- Ongoing and increased military and correctional spending is anticipated over the coming years.

AMUSEMENT AND RECREATION



DRIVERS:

- Income
- Personal savings rate
- Unemployment rate
- Employment

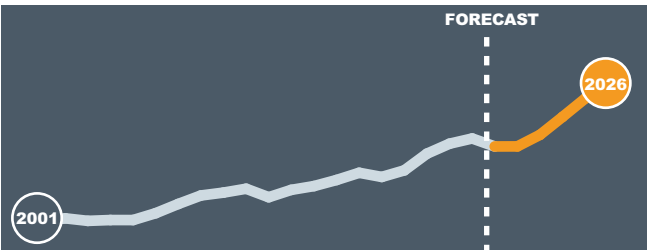
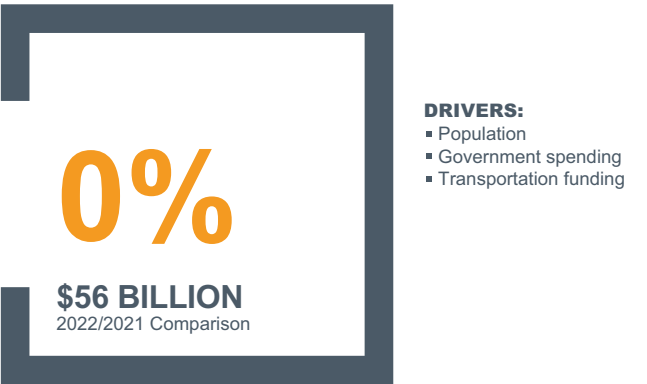


2023	UP	5%	\$26 B
2024	UP	9%	\$28 B
2025	UP	8%	\$31 B
2026	STA	4%	\$32 B

- Lifting COVID-19 restrictions and vaccination requirements will encourage some return to large gatherings, including conventions, concerts and sports venues.
- Lower discretionary spending, including vacation travel and entertainment, will weigh on industry revenue through 2022 while pent-up demand will be challenged against rising costs of nondiscretionary expenses (i.e., food, energy, shelter).
- Business travel will remain depressed through the forecast period.



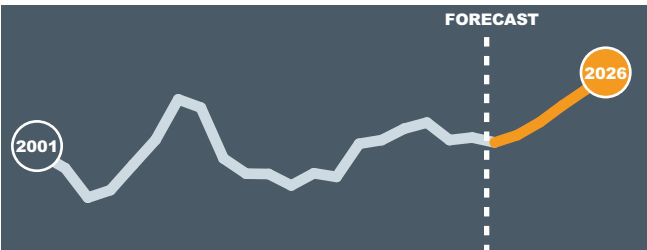
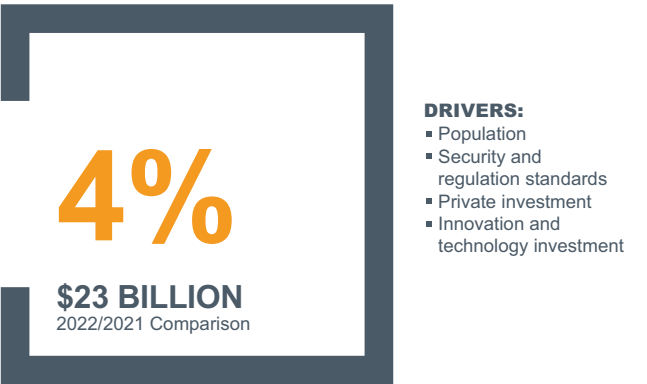
TRANSPORTATION



2023	UP	9%	\$61 B
2024	UP	12%	\$69 B
2025	UP	11%	\$77 B
2026	UP	8%	\$82 B

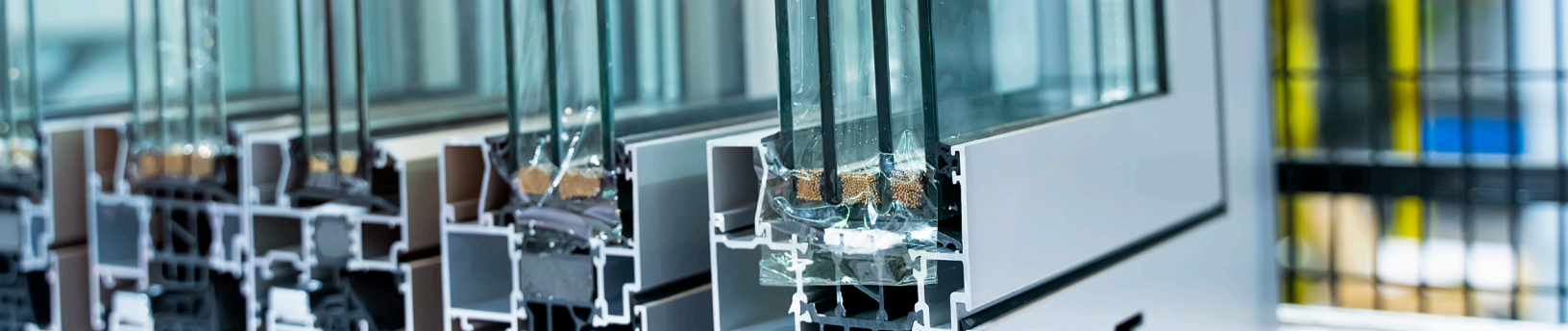
- The Infrastructure Investment and Jobs Act (IIJA) allocates nearly \$78 billion into construction over the next five years.
- Ridership levels will rebound as COVID-19 regulations are lifted, supporting an increasing number of projects moving forward.
- Electrification investments into transportation systems will be backed by IIJA funds.
- Business travel will remain depressed through the forecast period.

COMMUNICATION

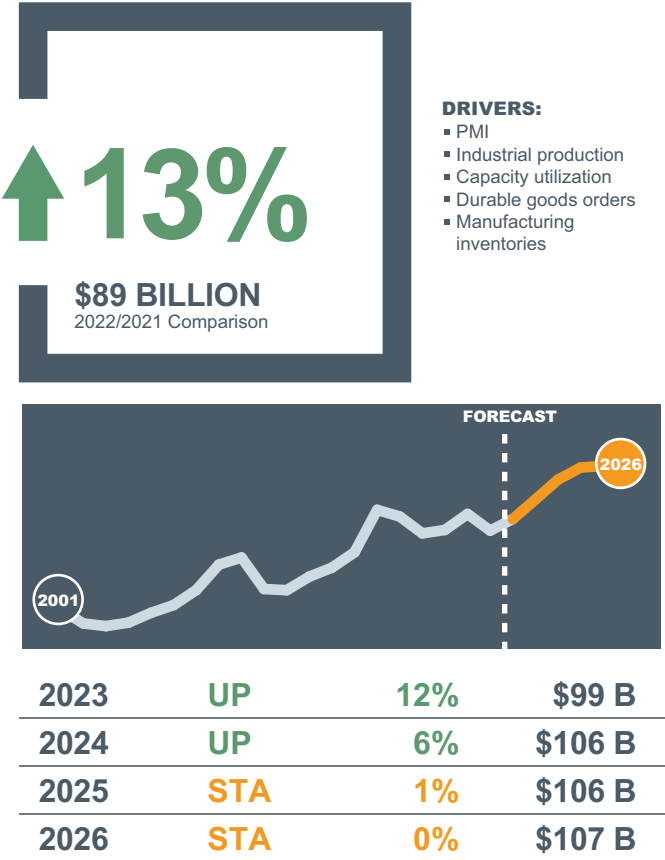


2023	UP	8%	\$25 B
2024	UP	9%	\$27 B
2025	UP	8%	\$29 B
2026	UP	8%	\$31 B

- IIJA allocates \$65 billion into construction over the next five years.
- Investment demand overlaps with growth across data centers (i.e., office) and logistics and distributions spending (i.e., commercial).
- There will be increased demand for flexible and fast networks, driven by changing consumer and business behaviors, such as hybrid working.



MANUFACTURING



- Manufacturing investment is expected to remain strong over the next 24 months due to producers addressing domestic demand in a climate of elevated prices, input shortages and rising trade tensions.
- International supply chain constraints (e.g., lumber, semiconductors, etc.) are expected to remain in place well into 2023 as the global economy faces new obstacles related to geopolitical tensions and restricted supply of select goods.
- Semiconductors, renewable generation technologies, batteries, food and beverage, and other industries sensitive to elevated oil prices (e.g., refining, plastics, chemical) will lead investment growth.

Nonbuilding Structures Construction Put in Place



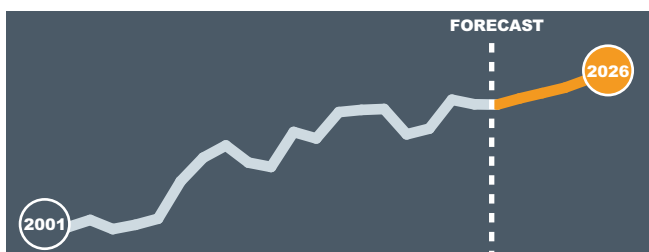
POWER

3%

\$119 BILLION
2022/2021 Comparison

DRIVERS:

- Population
- Industrial production
- Government spending



2023	STA	3%	\$122 B
2024	STA	3%	\$126 B
2025	STA	4%	\$131 B
2026	STA	3%	\$135 B

- The IIJA allocates \$65 billion into power investments and another \$7.5 billion into electric vehicle charging infrastructure.
- Ongoing supply chain disruptions are leading to investment delays across renewable energy, energy storage, microgrids and distributed generation.
- Sustained high energy prices support increased construction investment through the second half of 2022 in traditional energy sources.

HIGHWAY AND STREET

↑ 5%

\$105 BILLION

DRIVERS:

- Population
- Government spending
- Nonresidential structure investment

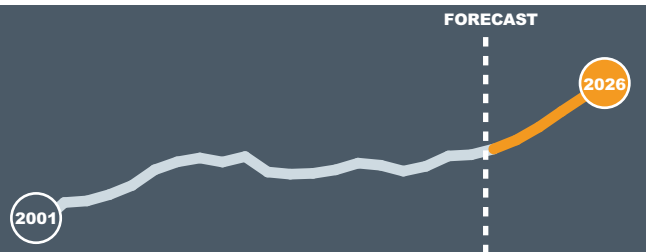
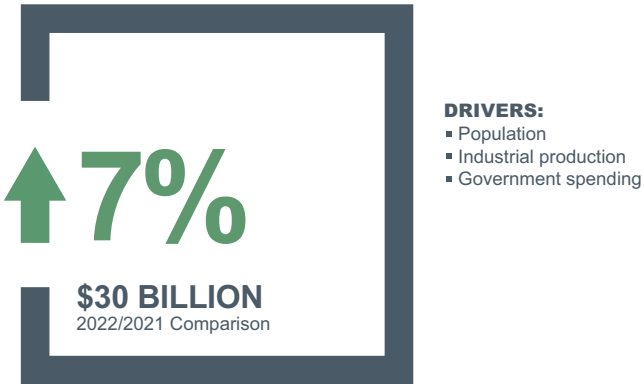


2023	UP	11%	\$117 B
2024	UP	12%	\$131 B
2025	UP	9%	\$142 B
2026	UP	6%	\$151 B

- The IIJA allocates more than \$365 billion over the next five years toward various road and bridge programs.
- Early funding is expected to favor smaller or shovel-ready projects over the next two years as states adjust to expanded budgets.
- Expect a significant wave of bridge construction over the next five years.



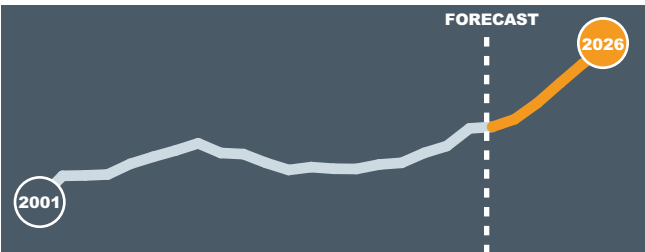
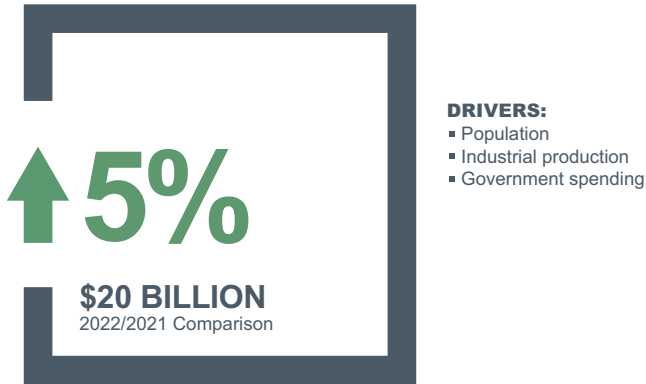
SEWAGE AND WASTE DISPOSAL



2023	UP	9%	\$32 B
2024	UP	10%	\$36 B
2025	UP	9%	\$39 B
2026	UP	8%	\$42 B

- The IIJA allocates \$50 billion into water and wastewater investments with a significant portion (\$15 billion, or 30%) directed into replacing an estimated 6 to 10 million lead water lines.
- Utilities continue to prioritize capital spending on electronic metering, data capture and efficiency, and lines.
- Industrial wastewater restrictions are on the rise, and we anticipate increased investment in decarbonization and decentralized water reuse technologies over the forecast period.

WATER SUPPLY

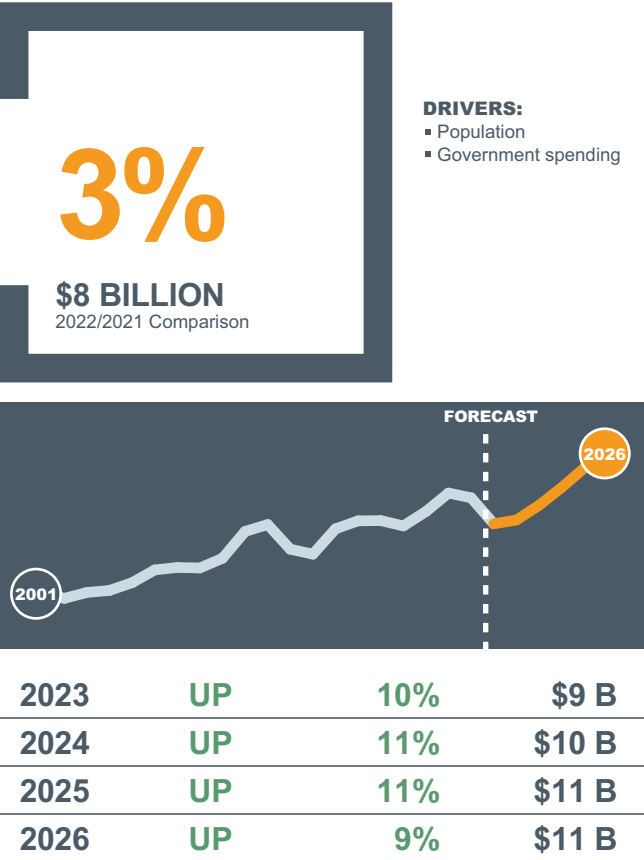


2023	UP	11%	\$22 B
2024	UP	12%	\$25 B
2025	UP	10%	\$27 B
2026	UP	8%	\$29 B

- Most of the forthcoming \$50 billion in IIJA funds will be made available through the Drinking Water State Revolving Funds.
- Through 2023 state match requirements have been dropped to 10% from 20%, and all match requirements have been eliminated for lead service replacements.
- Domestic manufacturing investment will drive capital spending into plant renovations and capacity expansion in select markets.



CONSERVATION AND DEVELOPMENT



- IIJA funds targeting U.S. Army Corps of Engineers resiliency will add more than \$12 billion in construction across harbors, navigation channels, and coastal storm and flood mitigation.
- An additional \$5 billion from the IIJA is set aside for the Environmental Protection Agency to address a list of 49 superfund sites and manage \$1.5 billion in brownfield programs and grants.

Construction Put in Place Estimated for the United States

Millions of Current Dollars

2nd Quarter 2022 Forecast (Based on 4th Quarter 2021 Actuals and 1st Quarter 2022 Assumptions)

	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F
RESIDENTIAL BUILDINGS										
Single-family	270,365	289,855	280,385	310,051	411,810	469,600	491,151	506,943	528,955	557,445
Multifamily	80,403	83,411	88,401	93,935	107,368	125,226	135,980	143,919	151,544	158,499
Improvements*	194,986	190,611	184,656	234,102	265,194	285,993	298,929	310,369	323,320	334,683
Total Residential	545,754	563,877	553,442	638,088	784,372	880,819	926,059	961,232	1,003,819	1,050,627
NONRESIDENTIAL BUILDINGS										
Lodging	28,660	31,464	33,461	29,053	19,759	17,741	19,039	21,841	25,010	27,904
Office	68,685	76,662	88,724	87,399	82,060	78,725	80,672	85,161	90,318	94,688
Commercial	87,626	86,422	84,345	86,816	91,034	94,539	97,818	102,324	107,992	112,403
Health Care	43,120	43,450	46,263	48,113	49,101	51,258	53,585	55,871	57,707	59,993
Educational	96,685	101,210	108,952	107,435	98,139	96,021	99,182	104,352	110,271	115,877
Religious	3,586	3,499	3,730	3,500	3,046	2,811	2,834	2,933	3,069	3,223
Public Safety	8,539	9,353	12,012	17,878	11,957	11,063	11,670	12,568	13,529	14,053
Amusement and Recreation	26,569	28,068	30,416	27,550	25,192	24,627	25,973	28,428	30,642	32,016
Transportation	46,137	53,219	57,448	59,661	56,273	56,298	61,214	68,846	76,639	82,435
Communication	23,696	24,502	22,184	22,521	21,869	22,842	24,558	26,779	28,816	30,978
Manufacturing	70,682	72,508	80,978	72,143	78,272	88,637	99,186	105,587	106,441	106,536
Total Nonresidential Buildings	503,985	530,357	568,513	562,069	536,702	544,562	575,731	614,691	650,434	680,105
NONBUILDING STRUCTURES										
Power	95,951	99,569	117,960	115,048	114,845	118,804	122,176	125,613	130,853	135,237
Highway and Street	89,620	91,745	99,402	99,888	100,354	105,456	117,087	130,838	142,125	151,099
Sewage and Waste Disposal	22,901	23,931	26,119	26,379	27,598	29,512	32,254	35,570	38,741	41,657
Water Supply	14,168	15,477	16,397	18,727	18,927	19,946	22,088	24,717	27,284	29,395
Conservation and Development	7,464	8,229	9,207	8,955	7,576	7,776	8,554	9,500	10,529	11,448
Total Nonbuilding Structures	230,104	238,951	269,085	268,997	269,300	281,495	302,159	326,238	349,532	368,837
Total Put in Place	\$1,279,843	\$1,333,185	\$1,391,040	\$1,469,154	\$1,590,374	\$1,706,876	\$1,803,949	\$1,902,161	\$2,003,784	\$2,099,569

Construction Put in Place Estimated for the United States

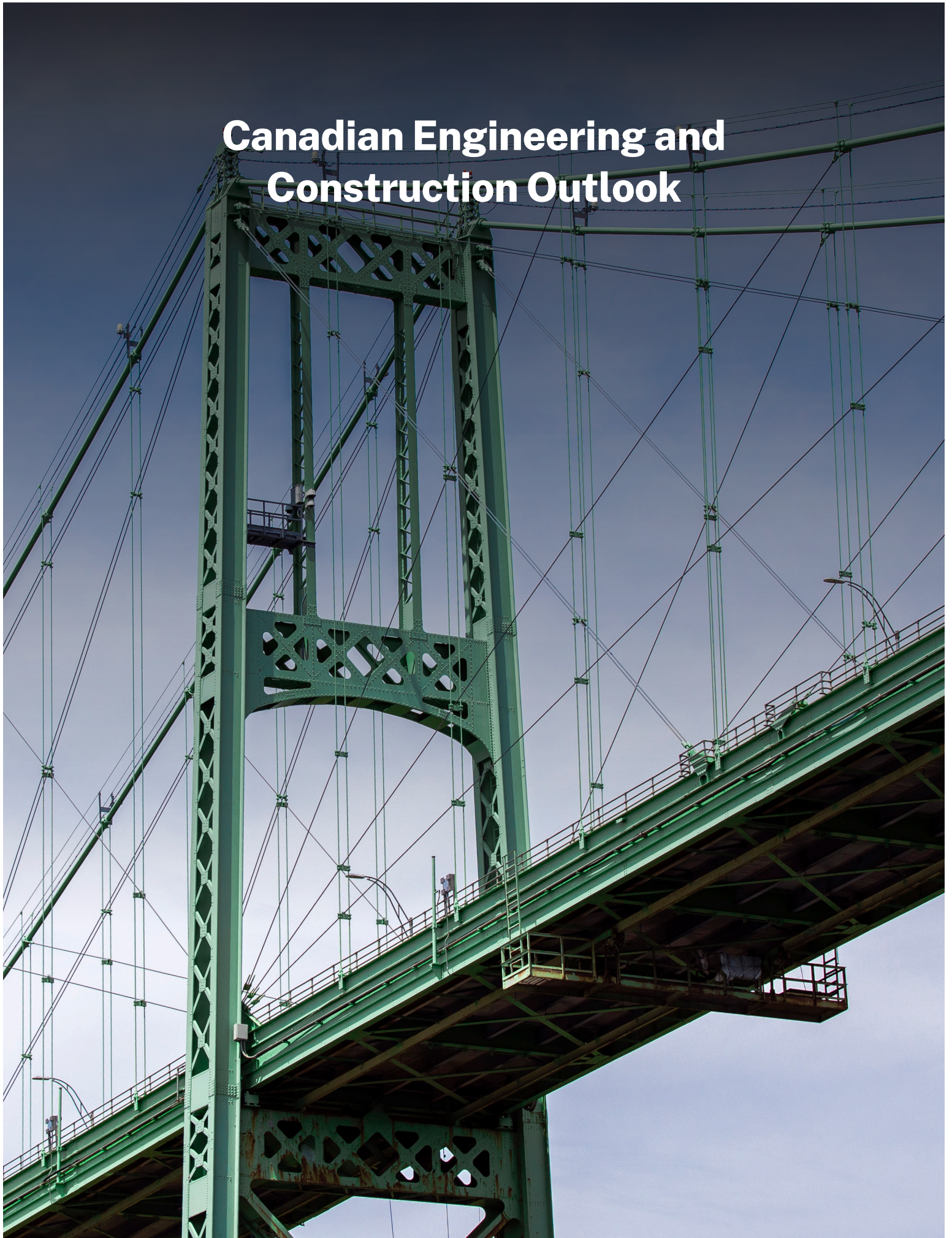
Change From Prior Year - Current Dollar Basis

2nd Quarter 2022 Forecast (Based on 4th Quarter 2021 Actuals and 1st Quarter 2022 Assumptions)

	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F
RESIDENTIAL BUILDINGS										
Single-family	11%	7%	-3%	11%	33%	14%	5%	3%	4%	5%
Multifamily	2%	4%	6%	6%	14%	17%	9%	6%	5%	5%
Improvements*	19%	-2%	-3%	27%	13%	8%	5%	4%	4%	4%
Total Residential	12%	3%	-2%	15%	23%	12%	5%	4%	4%	5%
NONRESIDENTIAL BUILDINGS										
Lodging	6%	10%	6%	-13%	-32%	-10%	7%	15%	15%	12%
Office	1%	12%	16%	-1%	-6%	-4%	2%	6%	6%	5%
Commercial	11%	-1%	-2%	3%	5%	4%	3%	5%	6%	4%
Health Care	6%	1%	6%	4%	2%	4%	5%	4%	3%	4%
Educational	6%	5%	8%	-1%	-9%	-2%	3%	5%	6%	5%
Religious	-4%	-2%	7%	-6%	-13%	-8%	1%	3%	5%	5%
Public Safety	4%	10%	28%	49%	-33%	-7%	5%	8%	8%	4%
Amusement and Recreation	12%	6%	8%	-9%	-9%	-2%	5%	9%	8%	4%
Transportation	6%	15%	8%	4%	-6%	0%	9%	12%	11%	8%
Communication	7%	3%	-9%	2%	-3%	4%	8%	9%	8%	8%
Manufacturing	-11%	3%	12%	-11%	8%	13%	12%	6%	1%	0%
Total Nonresidential Buildings	4%	5%	7%	-1%	-5%	1%	6%	7%	6%	5%
NONBUILDING STRUCTURES										
Power	-14%	4%	18%	-2%	0%	3%	3%	3%	4%	3%
Highway and Street	-4%	2%	8%	0%	0%	5%	11%	12%	9%	6%
Sewage and Waste Disposal	-5%	4%	9%	1%	5%	7%	9%	10%	9%	8%
Water Supply	2%	9%	6%	14%	1%	5%	11%	12%	10%	8%
Conservation and Development	-4%	10%	12%	-3%	-15%	3%	10%	11%	11%	9%
Total Nonbuilding Structures	-8%	4%	13%	0%	0%	5%	7%	8%	7%	6%
Total Put in Place	5%	4%	4%	6%	8%	7%	6%	5%	5%	5%

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

Canadian Engineering and Construction Outlook



Canadian Key Takeaways

- Total engineering and construction spending for Canada is forecast to end 2022 up 2% after growing 16% in 2021. The high growth last year was fueled by the residential sector.
- Declines in 2022 will be led by a softening of the private residential segments, including single-family and multifamily.

Segments expected to be stable or flat include lodging, office and commercial, meaning growth is roughly in line with the rate of inflation.

- Health care, education, transportation, public safety, communication, manufacturing, amusement and recreation, power, highway and

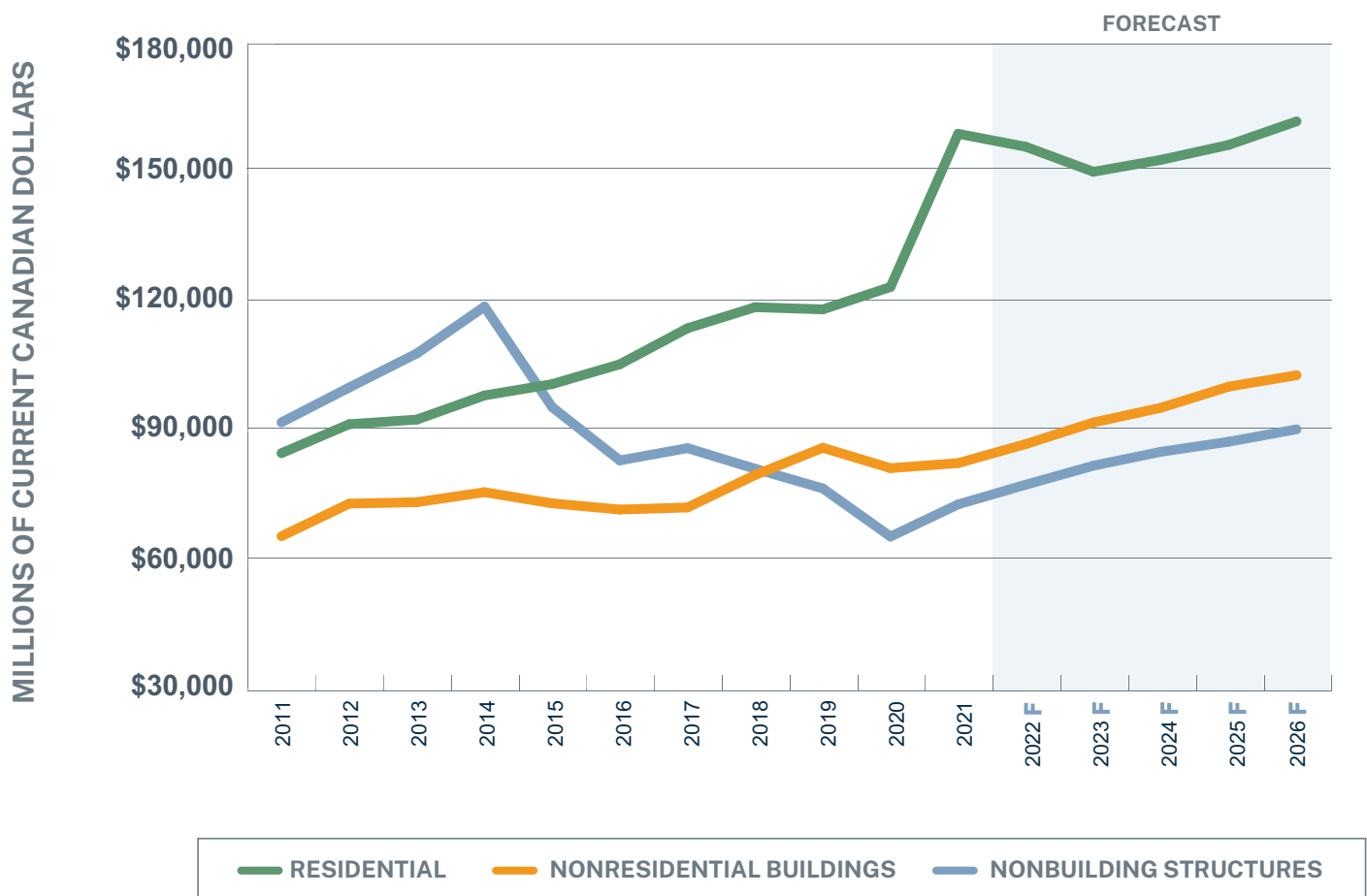
street, sewage and waste disposal, conservation and development, and water supply are strong growth segments, with each anticipated to experience 2022 year-end growth rates of more than 5%.

Canada 2021 Segment Performance 2021/2020 Comparison

 UP 5% or more	 STABLE 0% to 4%	 DOWN Under 0%
Health care Education Transportation Public Safety Communication Manufacturing Amusement and Recreation Power Highway and Street Sewage and Waste Disposal Conservation and Development Water Supply	Lodging Office Commercial	Single-family Multifamily Residential Improvements Religious



Total Construction Spending Put in Place Estimated for Canada

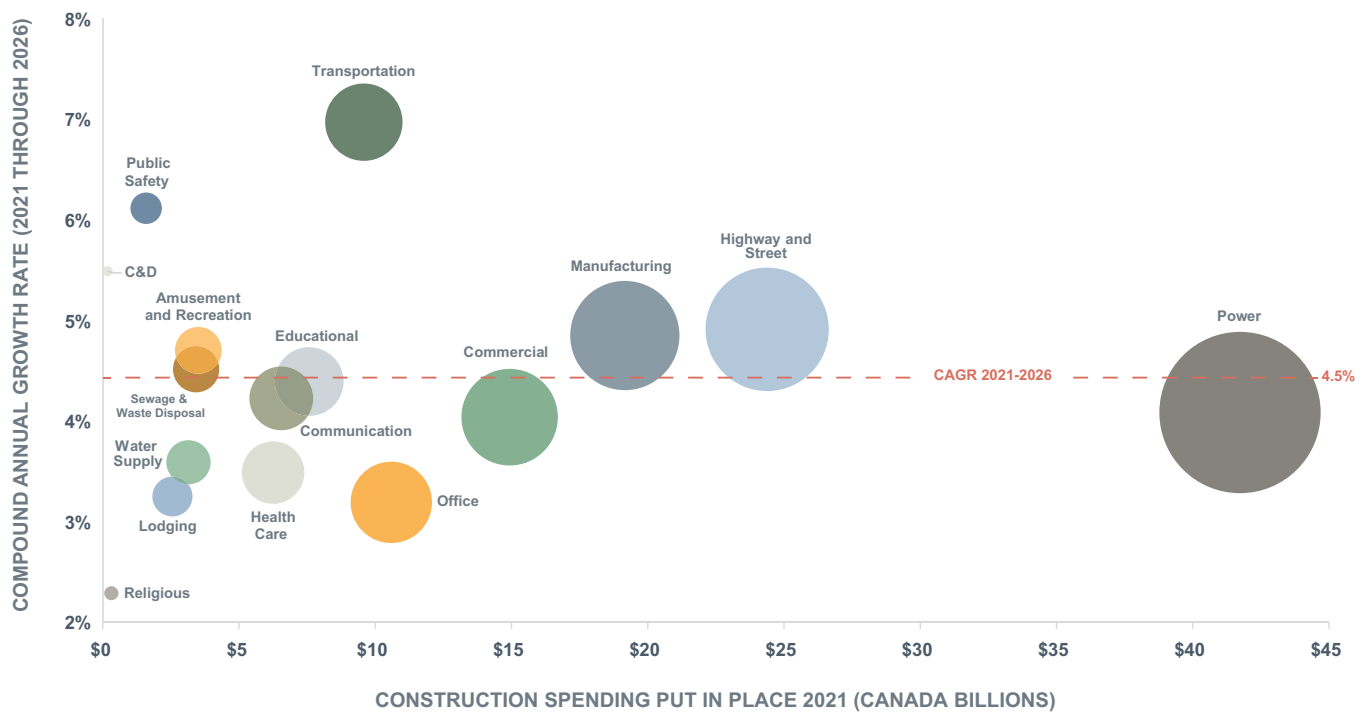


SOURCE: FMI FORECAST Q2 2022

Second quarter forecast based on fourth quarter 2021
actuals and first quarter 2022 assumptions.



Total Nonresidential Canadian Construction Spending Put in Place 2021 and Forecast Growth (2021 through 2026) by Construction Segment



SOURCE: FMI FORECAST Q2 2022

Construction Put in Place Estimated for Canada

Millions of Current Dollars

2nd Quarter 2022 Forecast (Based on 4th Quarter 2021 Actuals and 1st Quarter 2022 Assumptions)

	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F
RESIDENTIAL BUILDINGS										
Single-family	28,106	26,394	22,839	24,095	34,295	33,859	31,951	31,463	32,532	33,423
Multifamily	28,428	31,860	34,243	37,367	45,986	45,897	45,470	46,477	47,559	49,531
Improvements*	57,291	60,463	61,123	61,956	78,700	76,210	72,740	75,009	76,315	78,910
Total Residential	113,825	118,718	118,205	123,418	158,981	155,966	150,161	152,948	156,406	161,864
NONRESIDENTIAL BUILDINGS										
Lodging	2,557	2,766	2,695	2,606	2,555	2,633	2,685	2,779	2,893	2,998
Office	9,011	10,138	11,302	10,972	10,590	10,834	11,147	11,355	11,942	12,392
Commercial	13,472	14,002	15,748	15,228	14,929	15,081	15,874	16,784	17,641	18,199
Health Care	5,168	5,252	5,319	5,756	6,252	6,699	7,320	7,107	7,323	7,423
Educational	7,729	7,678	6,744	6,799	7,573	8,119	8,483	8,765	9,095	9,389
Religious	386	382	444	415	316	308	321	332	345	353
Public Safety	1,289	1,250	1,697	1,647	1,590	1,691	1,794	1,858	2,016	2,139
Amusement and Recreation	4,546	4,569	3,718	3,801	3,424	3,586	3,739	3,897	4,080	4,271
Transportation	6,050	7,761	8,894	8,576	9,582	10,348	10,914	11,822	12,899	13,421
Communication	5,785	5,835	5,907	5,962	6,549	7,524	8,218	7,949	7,870	8,055
Manufacturing	16,221	20,116	23,599	19,579	19,156	20,117	21,456	22,736	24,173	24,275
Total Nonresidential Buildings	72,214	79,749	86,067	81,342	82,515	86,940	91,952	95,381	100,277	102,915
NONBUILDING STRUCTURES										
Power	58,446	53,538	50,619	37,329	41,727	44,318	46,568	47,935	49,365	50,977
Highway and Street	19,710	20,029	20,119	22,017	24,381	26,038	27,727	29,283	29,976	30,987
Sewage and Waste Disposal	4,227	3,638	2,982	3,065	3,506	3,682	3,992	4,135	4,276	4,412
Water Supply	3,131	3,657	2,630	2,795	3,144	3,278	3,436	3,581	3,649	3,751
Conservation and Development	480	335	279	250	173	184	200	215	220	226
Total Nonbuilding Structures	85,994	81,197	76,629	65,456	72,931	77,501	81,922	85,149	87,486	90,353
Total Put in Place	\$272,033	\$279,663	\$280,901	\$270,216	\$314,427	\$320,407	\$324,035	\$333,478	\$344,169	\$355,132

Construction Put in Place Estimated for Canada

Change From Prior Year - Current Dollar Basis

2nd Quarter 2022 Forecast (Based on 4th Quarter 2021 Actuals and 1st Quarter 2022 Assumptions)

	2017	2018	2019	2020	2021	2022F	2023F	2024F	2025F	2026F
RESIDENTIAL BUILDINGS										
Single-family	4%	-6%	-13%	5%	42%	-1%	-6%	-2%	3%	3%
Multifamily	13%	12%	7%	9%	23%	0%	-1%	2%	2%	4%
Improvements*	8%	6%	1%	1%	27%	-3%	-5%	3%	2%	3%
Total Residential	8%	4%	0%	4%	29%	-2%	-4%	2%	2%	3%
NONRESIDENTIAL BUILDINGS										
Lodging	0%	8%	-3%	-3%	-2%	3%	2%	3%	4%	4%
Office	0%	13%	11%	-3%	-3%	2%	3%	2%	5%	4%
Commercial	1%	4%	12%	-3%	-2%	1%	5%	6%	5%	3%
Health Care	7%	2%	1%	8%	9%	7%	9%	-3%	3%	1%
Educational	16%	-1%	-12%	1%	11%	7%	4%	3%	4%	3%
Religious	-7%	-1%	16%	-7%	-24%	-2%	4%	3%	4%	2%
Public Safety	33%	-3%	36%	-3%	-3%	6%	6%	4%	8%	6%
Amusement and Recreation	16%	1%	-19%	2%	-10%	5%	4%	4%	5%	5%
Transportation	-5%	28%	15%	-4%	12%	8%	5%	8%	9%	4%
Communication	1%	1%	1%	1%	10%	15%	9%	-3%	-1%	2%
Manufacturing	-9%	24%	17%	-17%	-2%	5%	7%	6%	6%	0%
Total Nonresidential Buildings	1%	10%	8%	-5%	1%	5%	6%	4%	5%	3%
NONBUILDING STRUCTURES										
Power	3%	-8%	-5%	-26%	12%	6%	5%	3%	3%	3%
Highway and Street	11%	2%	0%	9%	11%	7%	6%	6%	2%	3%
Sewage and Waste Disposal	-25%	-14%	-18%	3%	14%	5%	8%	4%	3%	3%
Water Supply	4%	17%	-28%	6%	12%	4%	5%	4%	2%	3%
Conservation and Development	88%	-30%	-17%	-10%	-31%	6%	9%	7%	2%	3%
Total Nonbuilding Structures	3%	-6%	-6%	-15%	11%	6%	6%	4%	3%	3%
Total Put in Place	4%	3%	0%	-4%	16%	2%	1%	3%	3%	3%

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

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