CSQ

HORIZON 2032

IMAGINING QUEENSLAND'S FUTURE CONSTRUCTION WORKFORCE

2025 EDITION

Contents

Cover image:
Department of Transport and Main Roads

CEO foreword

The Queensland construction industry stands at a pivotal moment, poised to enter a decade of significant transformation and opportunity.

As we look ahead to 2032, the sector will play a crucial role in shaping the state's future, underpinned by record infrastructure investment and the demands of a rapidly expanding population.

However, alongside these opportunities, the industry faces formidable challenges—labour shortages, supply chain constraints, cost pressures, and the complexity of delivering large-scale projects.

This report, Horizon 2032: Imagining Queensland's Future Construction Workforce, provides a comprehensive analysis of the current state of construction in Queensland and a forecast of the construction pipeline and labour needs that will define the sector over the coming years through to 2032. It highlights key drivers of activity, the evolving global and domestic landscape, and the pressing need for workforce development.

Queensland's construction outlook

Queensland is forecast to have a robust construction pipeline over the eight years to 2032. It is forecast to increase from $53 billion in 2024-25 and reach $77 billion in 2026-27; a 50% increase.

This expansion will be driven by three major forces:

- **Population growth** – Queensland's population is projected to surpass 6 million by 2032, driving demand for housing, transport, healthcare, education, and utility infrastructure.
- **Net zero transition** – The shift toward renewable energy will require extensive investment in energy generation, storage, and transmission, positioning Queensland as a leader in the clean energy sector.
- **Brisbane 2032 Olympic and Paralympic Games** – The Games are acting as a catalyst for infrastructure development, accelerating projects in transport, accommodation, sporting venues, and urban renewal.

Workforce challenges and solutions

With this robust activity comes an urgent need for skilled labour. Workforce demand is projected to peak at 156,000 construction workers in 2026–27. However, with supply unlikely to keep pace, an average shortfall of 18,200 construction workers is expected over the 8-year period. Addressing this gap will require:

- Expanding apprenticeship and training programs to attract new entrants to the industry.
- Promoting diversity and inclusion, particularly increasing female participation, which currently stands at only 15% in construction industry employment and just 4% in trade roles.
- Strengthening retention strategies to reduce high dropout rates among apprentices.
- Encouraging regional workforce development to support the delivery of infrastructure in growth areas.

Industry collaboration and policy considerations

Successfully delivering Queensland's ambitious construction agenda will require a coordinated effort between government, industry, unions and training providers. Key policy considerations include:

- Investment in skills development programs tailored to industry needs.
- Strategic migration policies to supplement domestic labour shortages where required.
- Infrastructure planning that balances economic, social, and environmental priorities.

For our part, CSQ will be doubling down on our industry attraction programs, encouraging job seekers, school students and the broader community to take a fresh look at excellent career prospects in construction over the next decade and beyond.

A call to action

Queensland's construction industry is the backbone of the state's economy. The next decade presents a rare opportunity to build a more resilient, skilled, and diverse workforce while delivering transformative projects that will shape Queensland's future.

This report is a call to action via proactive workforce planning, investment in training, and a commitment to long-term industry sustainability. Through strategic planning, collaboration, and investment, we can ensure the sector remains strong, adaptable, and capable of delivering on the state's ambitious infrastructure vision.

I commend this report to all industry stakeholders and look forward to working together to secure Queensland's construction future.

Geoff Clare
Chief Executive Officer
Construction Skills Queensland (CSQ)

Global and domestic uncertainties

For the construction industry, an increasingly uncertain global and domestic landscape - with major policy shifts, geopolitical tensions, and global economic transitions – is more than just headlines. It presents real challenges that must be navigated as the industry adapts to changing risks and embraces new opportunities.


Image: Fulton Hogan

Construction activity, project costs, material availability, and workforce stability are all influenced by both global and domestic developments.

State and federal priorities in areas like infrastructure, housing, energy transition, regional development, migration, and skills reforms impact the industry's future opportunities and challenges.

In the US, the recent government change has introduced new policy directions, particularly in climate action, international trade, and foreign relations. Such policy shifts could impact labour markets, supply chains and the global economy. Early moves, such as exiting the 2015 Paris Agreement and halting offshore wind projects, signal shifting priorities. However, COP29 reaffirmed global commitments to climate financing and the energy transition, highlighting ongoing investment in these areas.

Geopolitical instability continues to pose risks. The prolonged Russia-Ukraine war, escalating tensions in the Middle East, and ongoing US-China rivalries could impact global trade, disrupt supply chains, and increase inflationary pressures. China's slowing economy, once a key driver of global growth, adds further uncertainty. The global race for AI and energy transition technologies are also reshaping global economic priorities.

On the domestic front, the overarching story for Queensland has been the new state government and the potential shifts in policy direction it may bring. While the new administration's full policy agenda is yet to be revealed, several key changes relevant to the construction industry have already emerged. Notably, a 100-day review[1] of the Brisbane 2032 Games plan, evaluating the infrastructure requirements for the international event, was completed in March this year. A 60-day review of the state's health capacity expansion program also commenced in January 2025[2]. The planned Pioneer-Burdekin pumped hydrogen project has been removed from the renewables pipeline, and the use of Best Practice Industry Conditions (BPICs) on new major government funded construction projects in the state has been paused. Additionally, the Queensland Productivity Commission has been reinstated, with a renewed focus on the construction industry. Some targeted initiatives are also being implemented to increase housing supply in the state.

Beyond Queensland, the upcoming Australian Federal Election and the growing debate over energy policy, including nuclear options, could lead to substantial shifts in both the national and state renewables infrastructure agenda. Additionally, potential changes in Federal investment in Queensland's infrastructure add another layer of uncertainty for the industry. Furthermore, the National Construction Industry Forum is developing a Building and Construction Industry Blueprint to address key challenges and drive long-term improvements in Australia's construction industry, with a draft report[3] released for consultation in late March this year.

The construction industry faces mounting pressures as it navigates shifting political and economic landscapes while also contending with increasingly frequent and severe weather events. Nowhere is this challenge more pronounced than in Queensland, Australia's most disaster-prone state[4]. The rising frequency and intensity of these disasters drive demand for construction services, both in proactive risk reduction and emergency preparedness, as well as in post-disaster recovery, where significant repairs to buildings and infrastructure are required. These efforts divert critical resources and cause delays to planned projects. As a result, the industry must account for the growing toll of extreme weather in its planning and productivity strategies, despite the inherent unpredictability of such events.

[1] The final report of the 100-day review is available at https://www.delivering2032.com.au/

[2] Information on review outcomes was not publicly available at the time of writing.

[3] The draft report is available at https://www.dewr.gov.au/australian-building-and-construction-industry/resources/draft-blueprint-future

[4] Queensland Fire and Emergency Services,2022. Queensland 2021-22 State Disaster Risk Report, Queensland Fire and Emergency Services, Brisbane

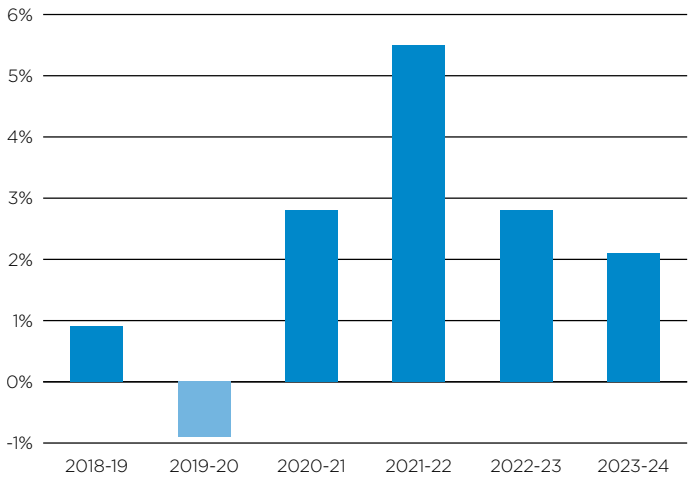
State economy continues to beat national trends

The Queensland economy continues to demonstrate resilience and stability amidst ongoing economic challenges. Over the past two decades, the state has consistently outperformed national trends, achieving an average annual growth rate of 3.0% compared to 2.6% nationally. Although growth slowed compared to previous years, Queensland ranked as the third-strongest growing state in 2023–24, with a 2.1% annual increase in GSP (**Figure 1**), outperforming the corresponding national growth rate of 1.4%.

The state's labour market remains strong, with unemployment at historically low levels. In December 2024, the seasonally adjusted monthly unemployment rate stood at 3.9%. Demand for workers in Queensland remains strong with 77,000 job vacancies advertised in November 2024 - nearly double the pre-pandemic levels for the same period.

With inflation easing, the Reserve Bank of Australia (RBA) cut the cash rate to 4.1% in February 2025, its first reduction in over four years. Annual headline inflation had eased to 2.4% in the December 2024 quarter (down from 2.8% in September), while underlying inflation, which excludes volatile items and provides a clearer view of inflation trends, moderated to 2.7% from 3.1%.

Figure 1: GROSS STATE PRODUCT, QLD



Source: ABS. Note: Annual % change, chain volume measures.


Image: Hutchinson Builders


Image: Hutchinson Builders


Image: CPB Contractors

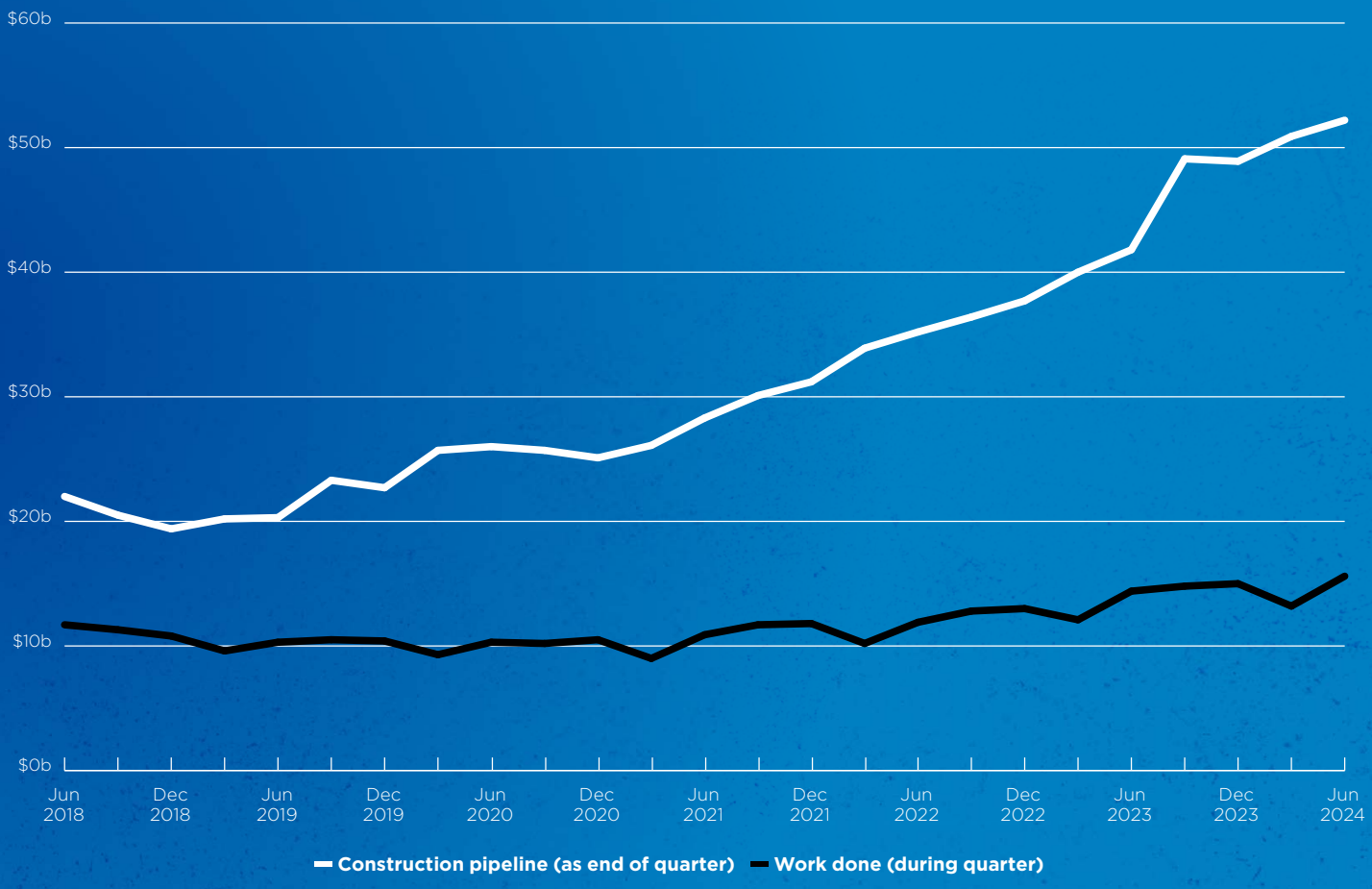
Current trends in Queensland's construction activity

Construction is now Queensland's third largest industry. It accounted for 6.8% of the state's Gross State Product (GSP) in 2023–24, behind mining (17.5%), healthcare and social assistance (8.0%).

It is also the third-largest employer, absorbing 9.4% of the state's workforce (277,000 workers) as of November 2024, behind healthcare and social assistance (15.5%) and retail trade (10.0%). In June 2024, Queensland was home to 87,026 construction businesses.

Despite broader economic challenges, construction activity in Queensland remained strong, with the state's construction pipeline reaching its highest point in years by June 2024 (**Figure 2**). The pipeline totaled $52.2b (current $) as of June 2024, a 25% increase from June 2023. The current gap between the value of the construction pipeline and work done is now double what it was just before the pandemic. About 42.4% ($22.1b) of the work in the pipeline is engineering work, 28.2% ($14.7b) is residential, and 29.4% ($15.4b) is non-residential. Unless the pace of work accelerates, new forthcoming activity will continue adding to this existing pipeline.

Figure 2: CONSTRUCTION PIPELINE VERSUS WORK DONE, QLD



Source: ABS

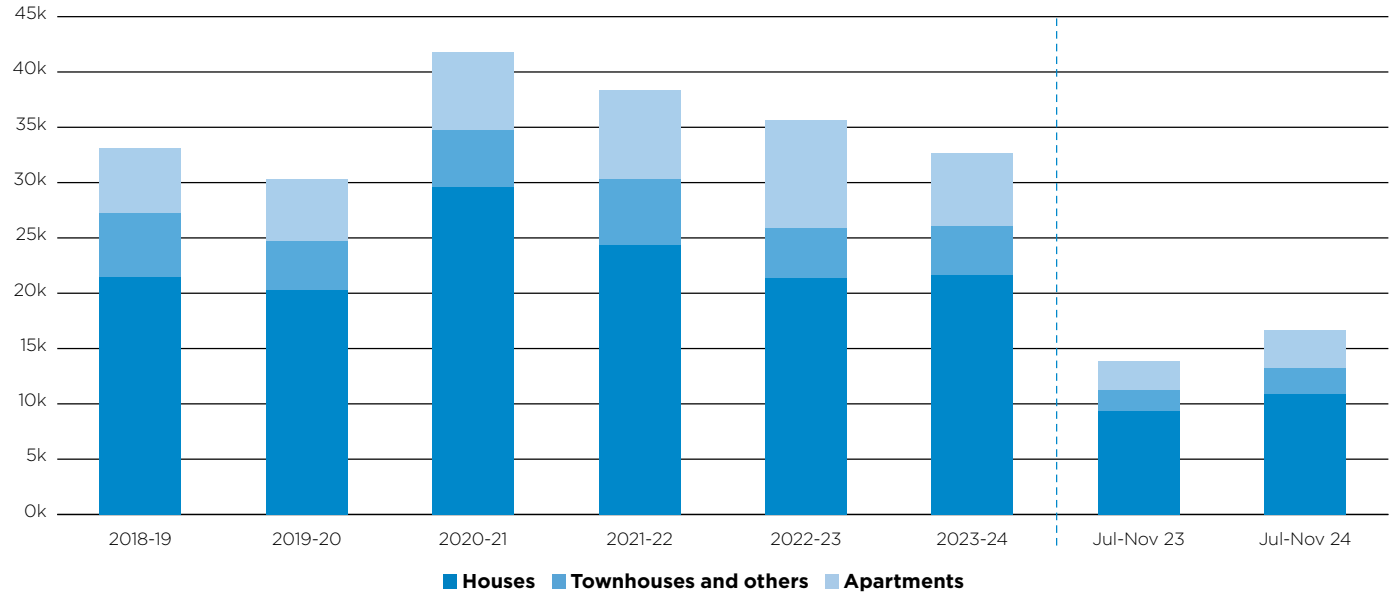
Current trends in Queensland's construction activity

The residential sector is showing possible signs of recovery after a prolonged downturn from 2021–22 to 2023–24. During this period, the number of new dwelling approvals declined by 7.8% on average (**Figure 3**), due to a combination of unfavourable market conditions.

However, in the first five months of 2024–25 (July to November 2024), approvals rose by 20.1% year-on-year, indicating a potential rebound.

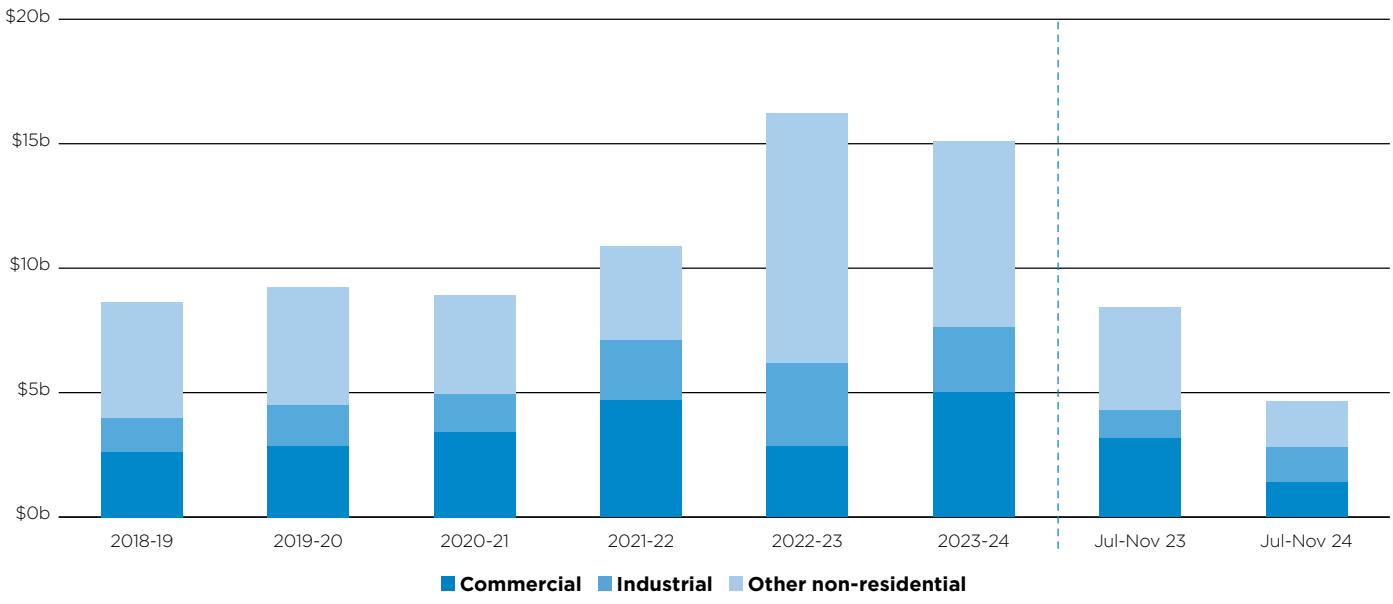
The non-residential sector appears to be slowing, following a period of heightened activity. The notable increases in non-residential building approvals (in current $) in 2022-23 and 2023-24, while partly reflecting cost escalations, were largely driven by significant health building projects (captured under "Other non-residential" in **Figure 4**). These projects contributed to a record-level spike in non-residential approvals, which peaked at nearly $16b in 2022–23 and remained elevated at $15.1b in 2023–24. Selected commercial building approvals also saw notable growth in 2023-24.

Figure 3: NUMBER OF NEW DWELLING APPROVALS BY TYPE, QLD



Source: ABS

Figure 4: VALUE OF NON-RESIDENTIAL BUILDING APPROVALS, QLD



Source: ABS

Current trends in Queensland's construction activity

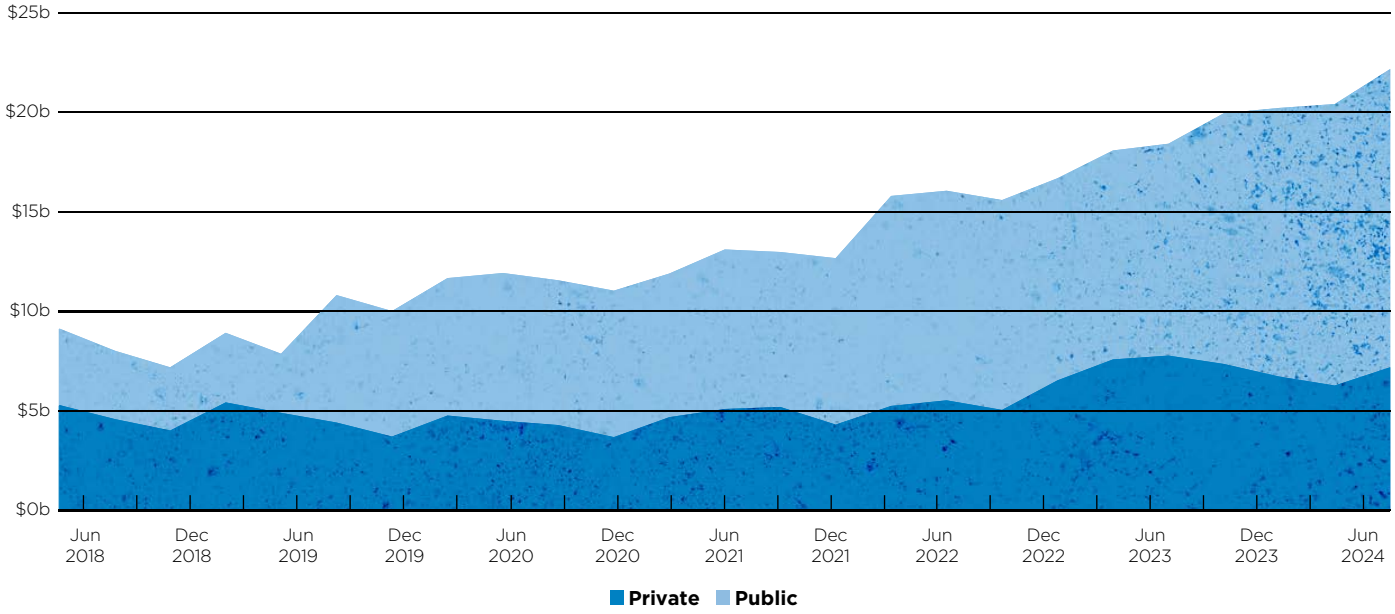
However, recent data for the first five months of 2024–25 indicates a decline. Non-residential approvals totalled $4.7b, down from approximately $8.4b during the same period in 2023–24. This reflects the waning impact of elevated health-related building approvals in the prior year. Approvals for selected commercial buildings also declined over this period.

The public sector continues to drive the engineering pipeline (**Figure 5**). In June 2024, the state's engineering pipeline, defined as outstanding work for commenced projects at the end of the reporting period, stood at $22.1b (in current $).

The public sector dominates the backlog with a 68% share ($15.0b), while the private sector makes up the remaining 32% ($7.2b).

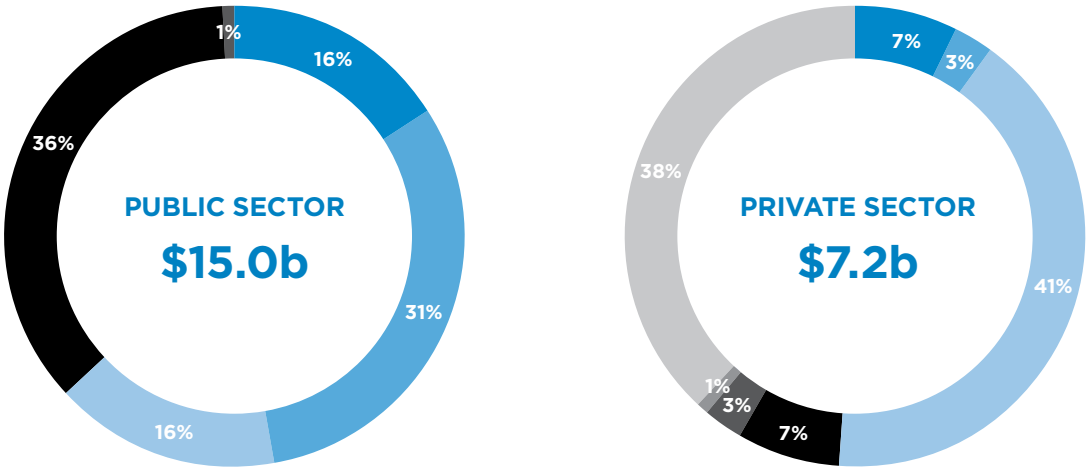
The public sector workload (**Figure 6a**) primarily comprises water projects (36%), bridges, railways, and harbours (31%), electricity & pipelines (16%), and roads, highways and subdivisions (16%). Meanwhile, the private sector backlog (**Figure 6b**) is dominated by electricity & pipelines (41%) and heavy industry (38%).

Figure 5: ENGINEERING WORK YET TO BE DONE BY SECTOR, QLD



Source: ABS

Figure 6a & 6b: DISTRIBUTION OF ENGINEERING WORK YET TO BE DONE BY SECTOR (JUNE 2024), QLD



Source: ABS

Current trends in Queensland's construction activity

Rising employment in construction industry, but female participation remains low

The state's construction industry employed approximately 277,000[5] workers as of November 2024, 18% (42,700) more workers than the same period three years ago (November 2021). Of these, around 71,900 were in building construction, more than double the 28,800 working in heavy and civil engineering construction. Meanwhile, about 176,200 were in construction services[6].

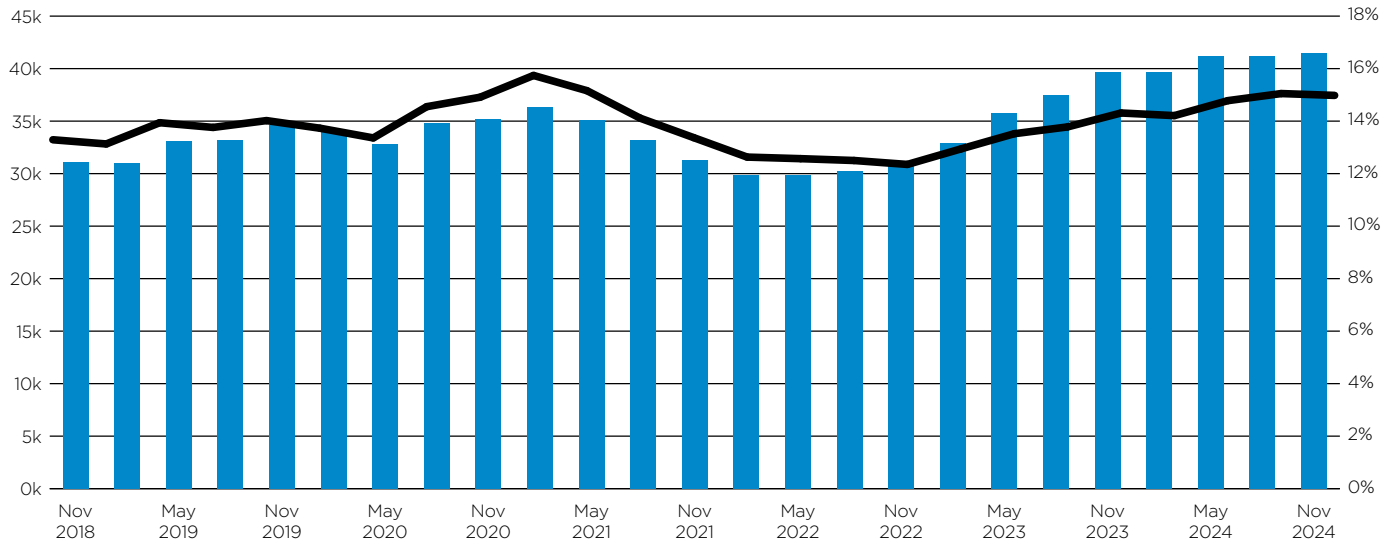
Internet vacancies for construction trades jobs have bounced back strongly from pandemic lows, signaling high demand for workers. By December 2024, there were 4,722 internet vacancies for construction trades jobs, 32% more than December 2020.

However, the construction industry continues to struggle with attracting more women to its workforce. Despite making up half of Queensland's total labour force, women remain significantly underrepresented in construction.

While recent trends with more women joining the industry is encouraging, these improvements are not sufficient for the industry's growing labour needs.

As of November 2024, female employment in Queensland's construction industry reached approximately 41,500; a 32% rise from the same period three years ago (**Figure 7**). Currently, women make up about 15% of the total construction industry employment. However, when narrowed to construction trades jobs, female representation is much lower at only around 4%.

Figure 7: FEMALE EMPLOYMENT IN CONSTRUCTION INDUSTRY, QLD



Source: ABS, CSQ

[5] Annual averages of the preceding 4 quarters are used for all employment data. The construction industry employment figure reported here (sourced from ABS) includes workers across all occupations employed in the construction industry. It includes those directly working on construction sites such as trades roles (e.g. bricklayers and stonemasons, carpenters and joiners, plasterers, machine operators), those involved in managing, planning, designing construction work such as construction managers, civil engineering professionals, as well as those not directly engaged in construction (e.g. clerical and administrative workers, solicitors, ICT managers, sales workers, accountants etc).

[6] Building, and heavy and civil engineering construction includes those directly engaged in construction activities as well as directly engaged in organizing, planning, managing of these construction activities. As per the Australia and New Zealand Standard Industrial Classification (ANZSIC, 2006) available on the ABS website, building construction (ANZSIC 30) contains units mainly engaged in residential building and non-residential building construction; heavy and civil engineering construction (ANZSIC 31) contains units mainly engaged in road and bridge construction and other heavy and civil engineering construction; construction services (ANZSIC 32) contain units mainly engaged in land development and site preparation services, building structure, installation, completion services and other construction services.

Current trends in Queensland's construction activity

Apprenticeship/traineeship are vital pathways into the construction industry

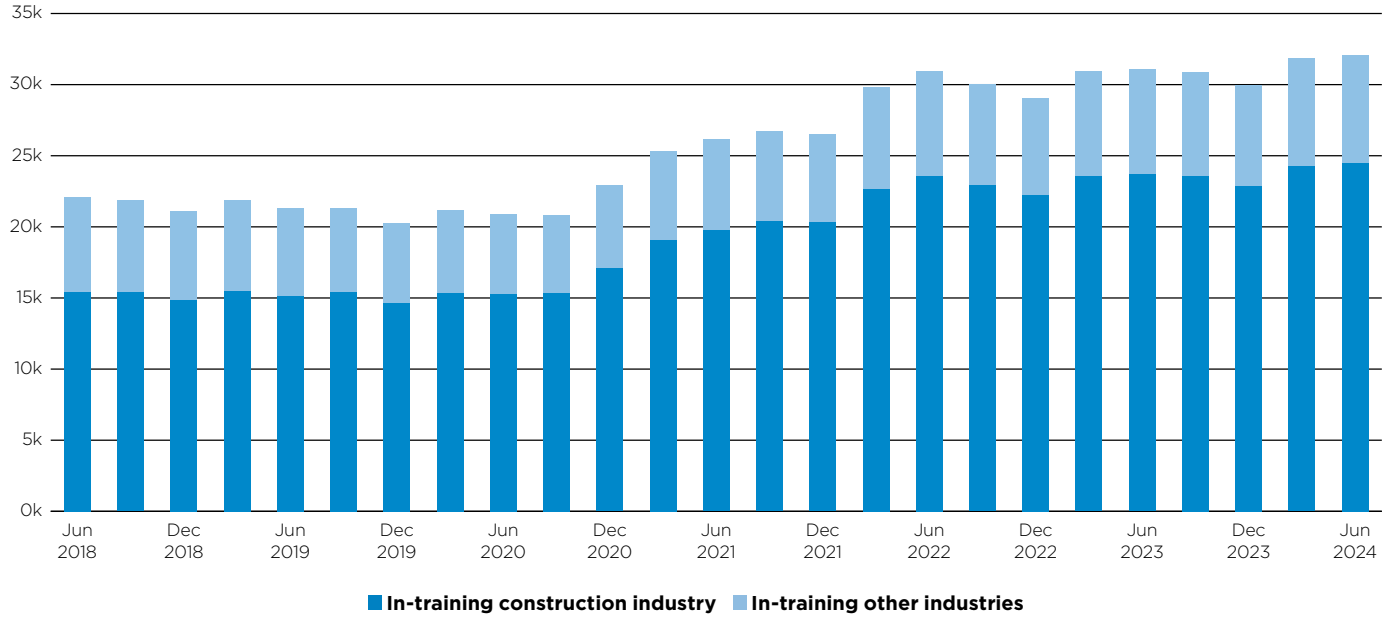
Apprenticeships/traineeships are essential to construction workforce development, offering meaningful career opportunities for new entrants and ensuring a steady pipeline of skilled workers.

The Boosting Apprenticeship Commencement (BAC) scheme drove new construction apprentice commencements (those pursuing a construction-related qualification in any industry) in Queensland above 14,000 in 2020–21 and 2021–22, with a 67% increase in 2020–21 followed by a 12% rise in 2021–22. However, since the initiative ended, commencements have declined to around 11,800 in 2023–24.

Beyond attracting new apprentices, supporting them through to completion and transition into skilled roles is crucial. Cancellations and withdrawals averaged 7,400 between 2021–22 and 2023–24, up from an average of 5,400 between 2019–20 and 2020–21. High dropout rates highlight the need for stronger retention strategies, including mentorship, financial support, and workplace incentives to ensure apprentices successfully complete their training.

At last count (June 2024) there were around 32,100 construction apprentices in-training (those pursuing a construction-related qualification in any industry in Queensland), reflecting a 3.2% increase from June 2023 (**Figure 8**). Of this total, around 76% (24,512) were training in the construction industry; a 3.5% increase from June 2023. However, only 4% of apprentices in-training in the construction industry were female, and about 6% were Indigenous.

Figure 8: NUMBER OF CONSTRUCTION APPRENTICES IN-TRAINING, QLD



Source: NCVER, CSQ

Current trends in Queensland's construction activity

Construction costs still a concern

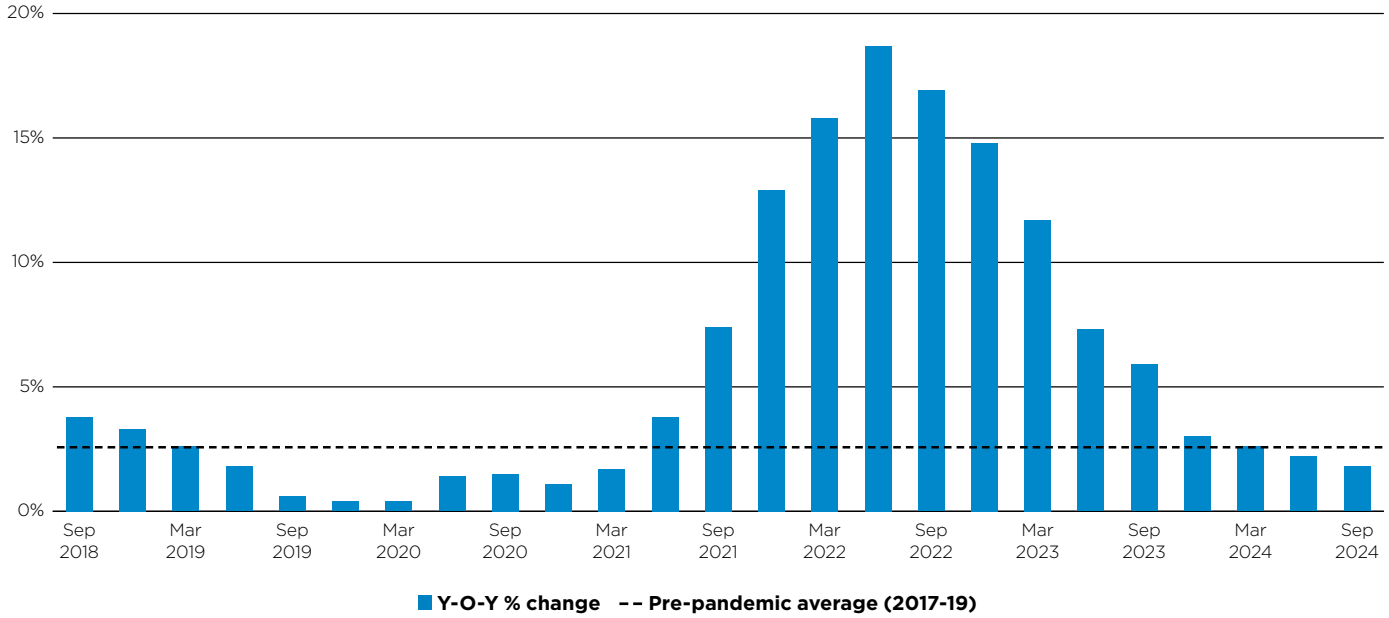
The annual growth in house construction material prices have stabilised but they remain above pre-pandemic levels, a burden that affects developers, builders, and homebuyers alike.

Brisbane house construction input prices surged between late 2021 and early 2023, with year-on-year increases ranging from 13% to 19%. Recent data shows a slowing, with a 1.8% year-on-year rise in September 2024, well below the 3-year pre-pandemic average of 2.6% (**Figure 9**).

Despite growth rates returning to normal margins, earlier sharp increases have had a lasting impact. Prices in the September quarter of 2024 are now 37.2% higher than the pre-pandemic September quarter of 2019.

Statewide, building construction output prices, which reflect the impact of input costs on final prices charged by builders and passed on to clients, increased by 4.7% in the year to September 2024. This was driven largely by the residential sector, where house construction output prices rose 2.6%, and prices for other residential buildings surged 7.6%. Non-residential construction output prices also climbed, rising 5.3%, while road and bridge construction prices saw a 3.0% increase during the same period.

Figure 9: HOUSE CONSTRUCTION INPUT PRICES, BRISBANE



Source: ABS

The road ahead – key drivers of construction activity

Significant construction activity is expected across Queensland through to 2032, presenting both challenges and opportunities for the industry. Strong population growth, the net zero transition, and the Brisbane 2032 Games are expected to drive demand across the state. These drivers are shaping a dynamic, multi-sector, and multi-regional construction pipeline, supported by anticipated large public sector investments alongside private sector collaboration.

Queensland's strong population growth

Queensland's population is one of the fastest growing in Australia. Net overseas and inter-state migration has largely contributed to this growth. During the pandemic, interstate migration into Queensland surged significantly so it was less affected than other states by the significant drop in overseas migration.

Latest available data shows the state's population continues to grow. It increased by an annual 2.3% in June 2024, to reach 5.6 million. This equates to around 21% of the national population. Net overseas migration was the biggest contributor, followed by net interstate migration and natural increase. The state's population is forecast to grow by another 1.5% in 2024-25 and 2025-26, and 1.3% in the subsequent two financial years[7]. By 2032, it is predicted to pass 6 million people, possibly as high at 6.6 million[8].

These demographic changes have a wide-reaching impact on construction activity, driving greater demand for social and economic infrastructure. Queensland is already in dire need of accommodation, for both permanent and temporary residents. Strong population growth continues to spur government investment in transport, education, health, housing, and utilities. Many projects in the state's infrastructure pipeline, including those already underway, reflect this ongoing transformation.

Net zero transition

The race to transform into a net zero economy presents a significant challenge for the Queensland construction industry. The transition requires extensive generation, storage, and transmission infrastructure. This shift will demand a rapid expansion of the construction workforce, particularly in regional areas.

The previous state government administration's $62b Queensland Energy and Jobs Plan (QJEP), now enshrined in state law, aimed to deliver 22GW of wind and solar projects by 2035, supported by significant investments in batteries and pumped hydro storage. With the new government in place, it remains to be seen if there will be any notable shifts in Queensland's net zero pathway. Some changes so far include the cancellation of the Pioneer-Burdekin Pumped Hydro Project in favour of smaller, more cost-effective alternatives. There are also indications that the proposed 2-gigawatt Borumba Pumped Hydro Project capacity could be downsized by at least a quarter to contain cost overruns[9].

Image: Borumba Pumped Hydro Project

Recent media reports indicate that the new administration supports Australia's 2050 net zero target, but favours a balanced energy mix, combining fossil fuels with selective renewables. It recognises that more comprehensive reform may be required to manage the scale and pace of renewable energy development in the future in a way that enhances environmental outcomes, supports community and provides certainty to industry. From February 2025, the Impact Assessable planning framework has been introduced for wind farm developments which translates into mandatory consultation with local councils, communities and other stakeholders for new projects. There are indications that other renewable energy projects will also be impact assessable, such as large-scale solar farm developments, as well as introducing a community benefit framework for renewable energy developments. Meanwhile, the upcoming

[7] Source: Queensland Budget 2024-25

[8] Source: Queensland Government population projections – 2023 edition update available at https://www.qgso.qld.gov.au/statistics/theme/population/population-projections. Range based on the low (6.0 million) and high projection series (6.6 million) for year 2032 (as of 30 June).

[9] Source: https://www.afr.com/companies/energy/qld-may-shrink-18-4b-hydro-project-to-save-venture-20250219-p5ldiy

The road ahead – key drivers of construction activity

Federal election and debates over nuclear power, along with potential shifts in US energy policy, could further influence the Australian and Queensland energy roadmap.

Queensland's net zero transition by 2050 could extend beyond renewable energy, creating significant opportunities in emerging sectors such as critical minerals and advanced manufacturing powered by renewables. The state is home to vast reserves of 51 critical minerals, which are essential to produce clean energy technologies, including batteries, electric vehicles, and solar panels. With growing global demand for these resources, Queensland is well-positioned to become a key player in the supply chain, supporting both domestic industries and international markets.

In summary, the net zero transition, and any additional opportunities (if and as they unfold), will inevitably drive construction activity to higher levels.

Brisbane 2032 Olympic and Paralympic Games

Delivering the necessary infrastructure to support the Brisbane 2032 Olympic and Paralympic Games (the Games) is a key priority for Queensland, with a focus on long-term social, economic, and environmental benefits. The state's approach emphasises pre-planning to ensure venues align with Queensland's broader growth needs, rather than being built solely for the Games.

Beyond sporting facilities, the Games are driving wider infrastructure development across South East Queensland (SEQ), including transport, accommodation, utilities, and connectivity upgrades. As mentioned in the SEQ Regional Plan, these projects, whether new or upgraded, have been designed to support the state's growth and are now being fast tracked for the international event.

The state government unveiled the new 2032 Games delivery plan in March this year. This follows a 100-day review of the previous Games Infrastructure plan commissioned in November 2024. In addition to transport works, the new plan will involve construction of eight new venues as well as upgrades to 12 existing venues. A key change from the previous Games plan is the decision to build a new $3.4b Brisbane Stadium at Victoria Park as the main venue. This replaces the original plan to rebuild the Gabba and the later proposal, following the 60-day review, to upgrade Suncorp Stadium and the Queensland Sports and Athletics Centre instead. Additionally, there are also indications of a private sector funded arena at the GoPrint site at Woolloongabba, and a new aquatic centre at the Centenary Pool at Spring Hill. A number of regional centres will also receive venue upgrades and transport improvements to support the event.

The state government has committed to keeping the budget within the $7.1b funding envelope. The 100-day review final report estimates venue costs at $8.8b, including $3.8b for the main stadium, $2.4b for the arena, and $2.6b for minor venues. To manage cost increases, the reviewing authority has recommended exploring private sector investment options to help offset expenses and ensure successful project delivery.

Image: Brisbane Stadium - artist impression

Image: National Aquatic Centre - artist impression

Images source: https://www.delivering2032.com.au

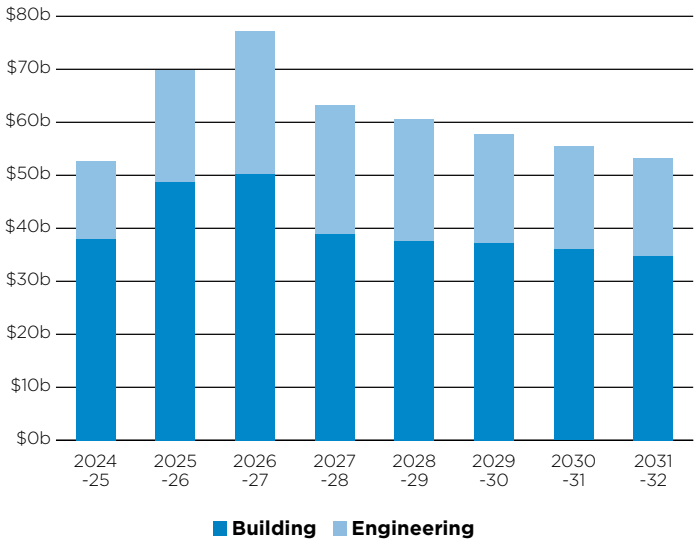
Queensland total construction pipeline and labour projections[10] to 2032

Queensland is forecast to have a robust construction pipeline over the 8-year horizon, driven by activity in both the building and engineering sectors[11].

The total construction pipeline is forecast to range from $53b to $77b over this period (**Figure 10**). After an expected $53b in the current financial year, it is forecast to peak at around $77b in 2026-27[12] and stay above $50b for the rest of the 8-year horizon.

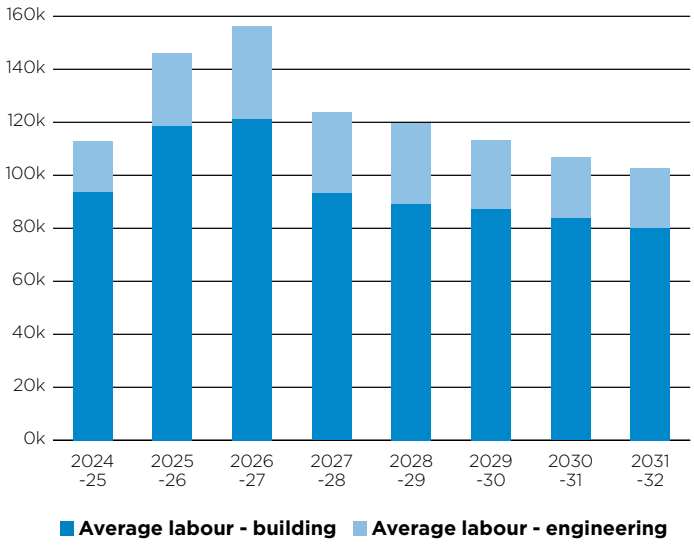
The forecast average construction workforce required to deliver the total construction pipeline ranges from around 102,000 to 156,000 over the eight years (**Figure 11**). Consistent with the total pipeline, labour demand is forecast to rise from around 113,000 in 2024-25 and peak at 156,000 in 2026-27. Beyond this peak, average labour requirements are projected to remain above 100,000 throughout the rest of the review period, reflecting sustained high levels of activity.

Figure 10: CONSTRUCTION PIPELINE BY SECTOR, QLD



Source: CSQ

Figure 11: AVERAGE LABOUR REQUIREMENT FOR THE CONSTRUCTION PIPELINE BY SECTOR, QLD



Source: CSQ

Note 1: Figure 10 presents the construction pipeline for each financial year; Figure 11 depicts the estimated average construction labour requirement to deliver the corresponding construction work for that year.

[10] The labour projections in this report include workers in construction-relevant occupations. This includes those directly involved in construction work such as tradespeople like carpenters and joiners, bricklayers and stonemasons, structural steel construction workers etc, and those who oversee, plan, and/or manage construction work like construction managers and civil engineering professionals etc. It does not include workers in support roles, such as clerical and administrative staff, accountants, or solicitors, who are not directly engaged in construction work.

[11] Note that all forecasts presented in this report are based on the available information as of 11th December 2024. Complete accuracy of these forecast should not be assumed. Variation above or below the forecasts provided is to be expected as projections rely on the assumptions as well as available data and information at the time of preparation. Any significant updates or changes to engineering and/or non-residential project data may impact the forecasted outlook.

[12] The forecasted peak in 2026-27 is driven by both, an elevated building and engineering pipeline. In the building sector, the peak reflects the distribution of the existing (as of June 2024) building pipeline (see Figure 14) over the first 3 financial years. Meanwhile, selected engineering sub-sectors (including electricity, transport, mining & heavy industry) are also expected to peak concurrently in 2026-27 (see Figure 19), followed by a slight moderation the following year.

Queensland total construction pipeline and labour projections to 2032

On average over the 8-year horizon, the construction pipeline is forecast to hover around $61.3b (**Figure 12a**). The building sector is expected to dominate this activity, accounting for 66% ($40.2b) of the average pipeline. The remaining 34% ($21.1b) is expected engineering construction. A breakdown of the average building and engineering pipeline are illustrated in **Figures 13a and 13b**.

Accordingly, the average number of construction workers needed to support this projected pipeline is forecast to be around 122,600 (**Figure 12b**). Of this, 78% (approximately 95,900) is for the building sector, while 22% (about 26,700 workers) for engineering.

Figure 12a:
DISTRIBUTION OF THE AVERAGE (2024-25 TO 2031-32) CONSTRUCTION PIPELINE BY SECTOR

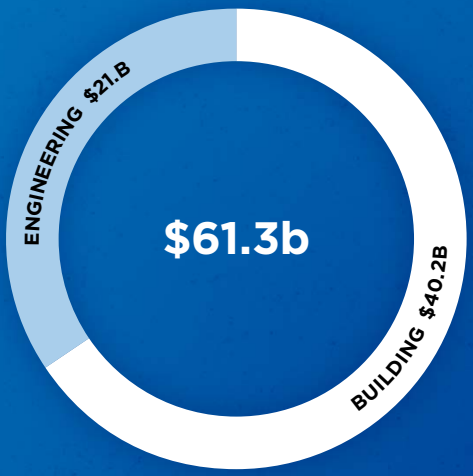


Figure 12b:
DISTRIBUTION OF THE AVERAGE (2024-25 TO 2031-32) LABOUR REQUIREMENT FOR THE CONSTRUCTION PIPELINE BY SECTOR

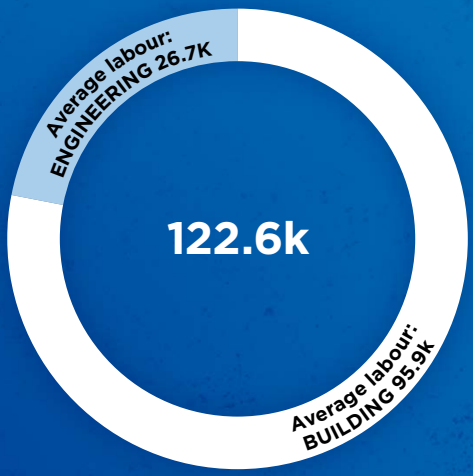


Figure 13a:
BREAKDOWN OF AVERAGE (2024-25 TO 2031-32) BUILDING PIPELINE BY SUB-SECTOR

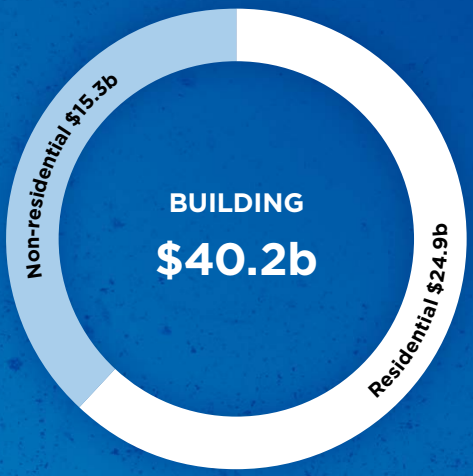
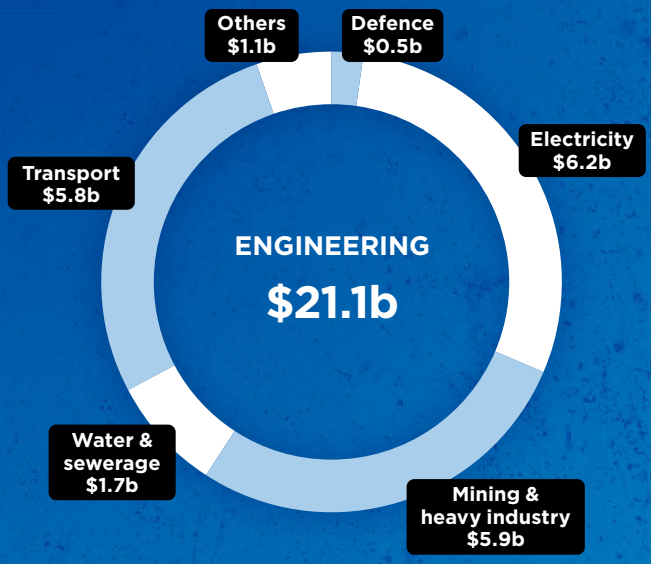


Figure 13b:
BREAKDOWN OF AVERAGE (2024-25 TO 2031-32) ENGINEERING PIPELINE BY SUB-SECTOR



BUILDING SECTOR


Image: Paynters


Image: McNab

The projected average labour demand by the building sector to deliver the forecast building pipeline ranges from around 80,000 to 121,000 workers


Image: McNab

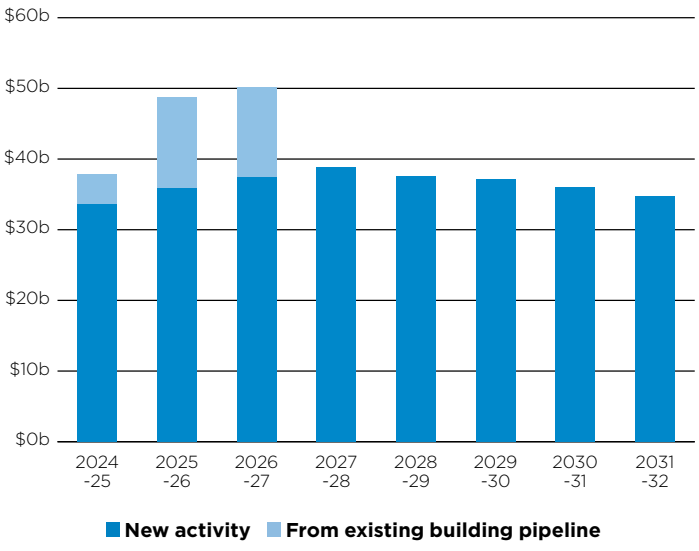
BUILDING SECTOR

Building pipeline and labour projections

The state's building pipeline is forecast to range from around $35b to $50b over the 8-year horizon (**Figure 14**). After an expected $38b in the current financial year, the pipeline is forecast to peak at around $50b in 2026-27 and stay above $35b for the rest of the 8-year horizon. The peaks observed in the first three financial years reflect the distribution of the existing building pipeline over this period (see note 2 below Figure 14). As of June 2024, Queensland's building pipeline (commenced but unfinished work and approved work yet to begin) stood at $30.1b. To estimate the average labour requirement, this backlog is distributed over the first three financial years.

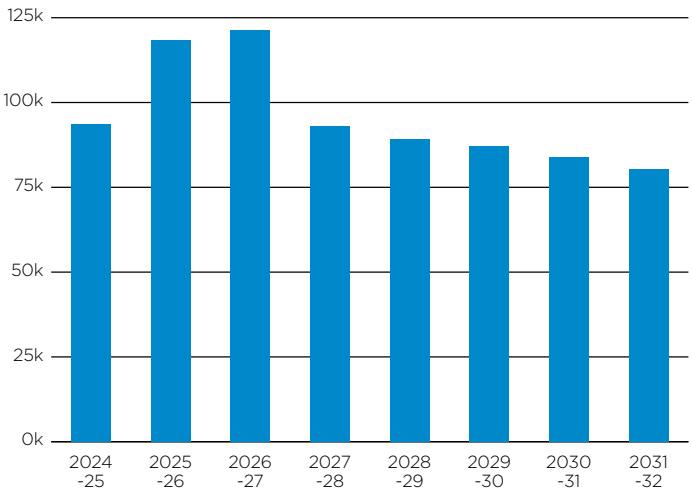
The projected average labour demand by the building sector to deliver the forecast building pipeline ranges from around 80,000 to 121,000 workers over the eight years (**Figure 15**). Consistent with the pipeline, labour demand is forecast to rise from around 94,000 in 2024-25 and peak at 121,000 in 2026-27. Beyond this peak, average labour requirements are projected to remain above 80,000 throughout the rest of the review period, reflecting high levels of activity.

Figure 14: BUILDING PIPELINE, QLD



Source: CSQ

Figure 15: AVERAGE LABOUR REQUIREMENT FOR BUILDING PIPELINE, QLD



Source: CSQ

Note 2: Figure 14 shows the building pipeline forecasts and Figure 15 illustrates the estimated average labour requirement for each financial year to deliver the construction work for the building pipeline corresponding to that year. The existing (as of June 2024) building pipeline of $30.1b is distributed as $4.3b in 2024-25, $12.9b in 2025-26, and $12.9b in 2026-27. The residential and non-residential discussions provide further information by sub-sector.

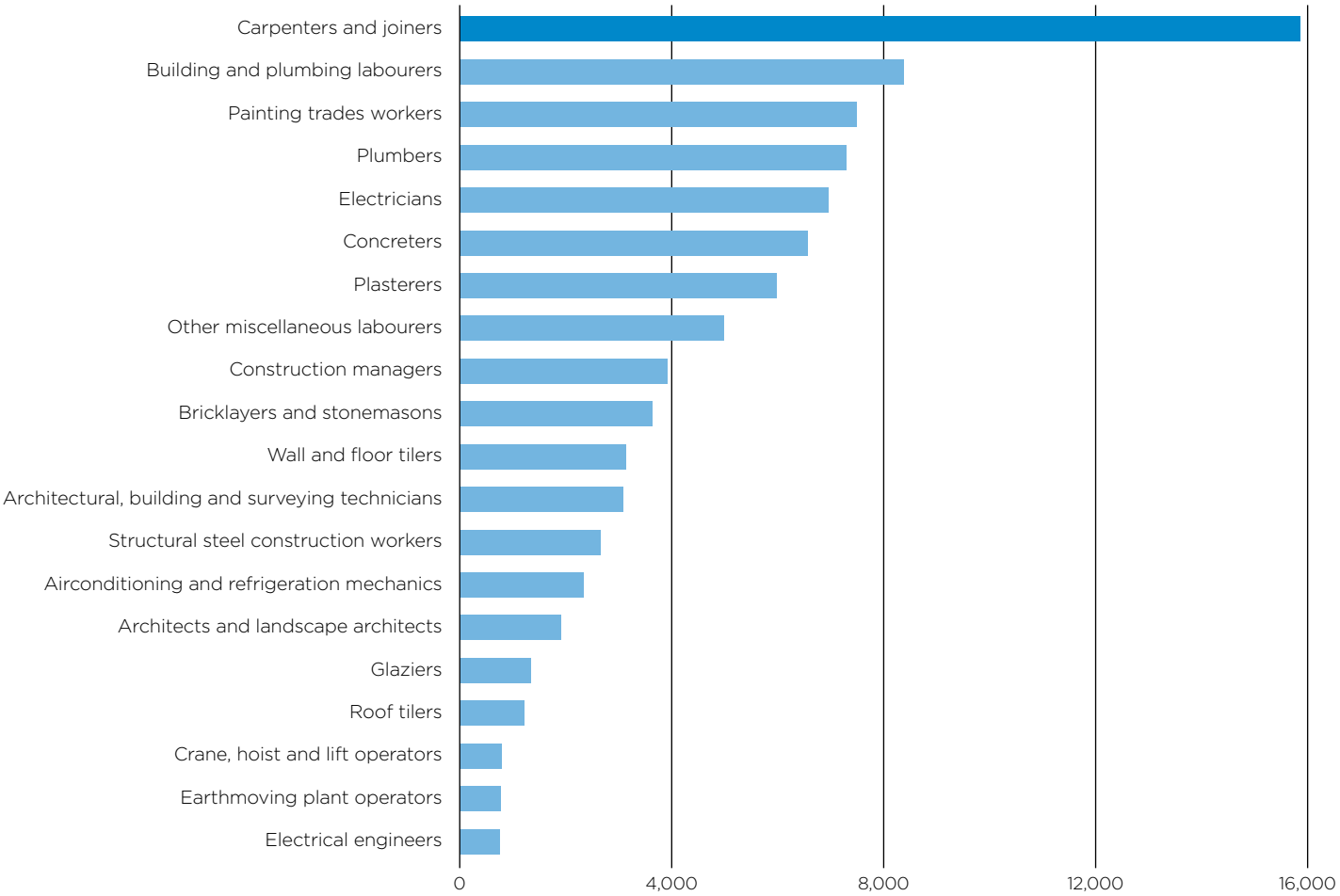
BUILDING SECTOR

Key occupations in demand for building pipeline

Delivering the state's building pipeline will require a diverse workforce, with a strong focus on trade roles (**Figure 16**). Demand for several key occupations is projected to exceed 5,000 on average across the 8-year period, including carpenters and joiners, building and plumbing labourers, painting trades workers, plumbers, electricians, concreters, and plasterers. Carpenters and joiners, key tradespeople in the building sector, are anticipated to lead demand, with an average 16,000 needed over the 8-years, to fill these roles.


Image: Hutchinson Builders

Figure 16: KEY CONSTRUCTION OCCUPATIONS IN DEMAND (8 YEAR AVERAGE) - BUILDING SECTOR, QLD



Source: CSQ

BUILDING SECTOR

Residential building pipeline projection

Queensland's residential building pipeline is projected to average $25b over the 8-year horizon, ranging from $22b to $29b (**Figure 17**).

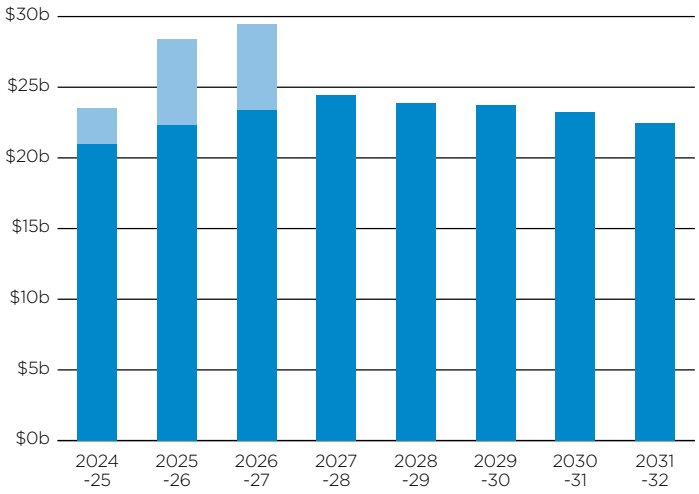
Over the first three financial years, the residential pipeline is forecast to average approximately $27b. This elevated activity reflects the allocation of the state's existing residential pipeline across this period (see note 3 below Figure 17). As of June 2024, Queensland's residential pipeline (commenced but unfinished work and approved work yet to begin) stood at $14.7b. This backlog has been growing steadily since mid-2020 and is now nearly double the levels recorded in June 2020. Approximately 86% ($12.7b) of the backlog consists of commenced but unfinished work, while the remaining 14% ($2b) represents approved work yet to begin.

Beyond 2026–27, the pipeline is expected to remain robust, averaging $24b annually between 2027–28 and 2031–32, underpinned by expected strong demand for housing in Queensland.

A combination of demand and supply challenges resulted in continuous declines in the residential sector over the past three financial years. The unwinding of these challenges is expected to support growth in residential construction. Factors such as improved housing affordability, driven by expectations of easing cost of living pressures and interest rate cuts, easing supply constraints, and a robust population growth are expected to support this recovery.

Previous downturns have prompted government stimulus measures to address housing shortages at both the federal and state levels. In Queensland, recent initiatives include the formation of the Queensland Ministerial Housing Taskforce Cabinet Committee, the re-establishment of the Productivity Commission with a focus on construction, and targeted housing pathways like the rent-to-buy scheme. Additionally, the state government has appointed a new state planner to support its goal of unlocking one million homes over the next 20 years. On a national level, the target to build 1.2 million homes within five years highlights a strong commitment to addressing housing shortages and promoting long-term growth in the sector.

Figure 17: RESIDENTIAL BUILDING PIPELINE, QLD



Source: CSQ

Note 3: The existing (as of June 2024) residential building pipeline of $14.7b is distributed as $2.5b in 2024-25, $6.1b in 2025-26, and $6.1b in 2026-27.

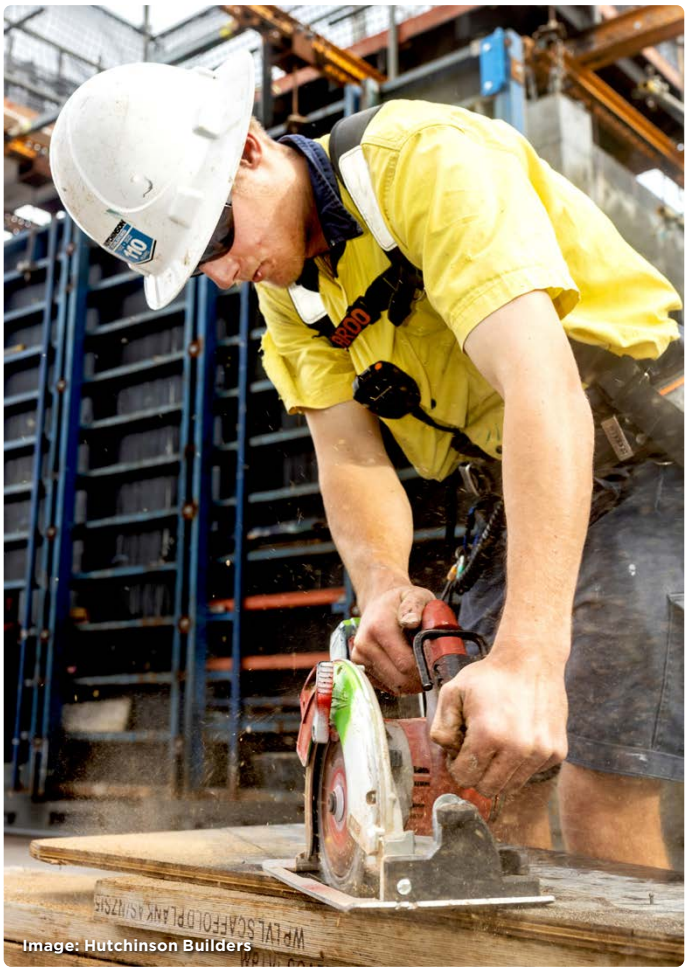


Image: Hutchinson Builders

BUILDING SECTOR

Non-residential building pipeline projection

Queensland's non-residential building pipeline is forecast to average $15.3b over the 8-year horizon, fluctuating between $12b and $21b (**Figure 18**).

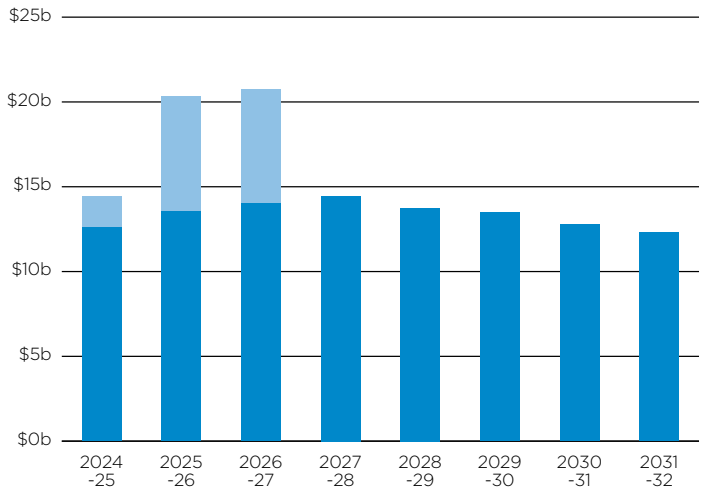
For the current financial year, the pipeline is forecast at $14.4b, rising to around $20b in both 2025–26 and 2026–27. Beyond this, the pipeline is anticipated to stabilise, averaging approximately $13.3b between 2027–28 and 2031–32.

The pronounced peaks in the first three financial years of the 8-year horizon reflect the distribution of the state's existing $15.4b pipeline over this period (refer note 4 below Figure 18). As of June 2024, Queensland's non-residential building pipeline, which includes the value of non-residential work that has commenced but is yet to be finished and approved work yet to commence, reached $15.4b. This marks a 50% increase compared to June 2023. Approximately 59% ($9.0b) of the current backlog represents work that has commenced but not yet finished, while the remaining 41% ($6.3b) corresponds to approved work awaiting commencement.

Since mid-2023, the surge in the non-residential pipeline has been largely driven by increased state investment in health buildings. In January 2025, the new government launched a 60-day review of the health capacity expansion program to evaluate governance, project management, delivery, costs, and timelines. At the time of writing, review outcomes were not publicly available. The review will assess governance, project management, delivery, costs, and timelines. While it remains uncertain if the number of health projects will change, government statements have reaffirmed a commitment to completing all projects, but with possible re-sequencing and adjustments to costs. The forecasts in this report reflect the current available information.

Image: Hutchinson Builders

Figure 18: NON-RESIDENTIAL BUILDING PIPELINE, QLD



Source: CSQ

Note 4: The existing (as of June 2024) non-residential building pipeline of $15.4b is distributed as $1.8b in 2024-25, $6.8b in 2025-26, and $6.8b in 2026-27.

ENGINEERING SECTOR


Image: Acciona Georgiou JV

The primary drivers of the engineering pipeline are electricity, transport, and mining and heavy industry sub-sectors.


Image: Cross River Rail

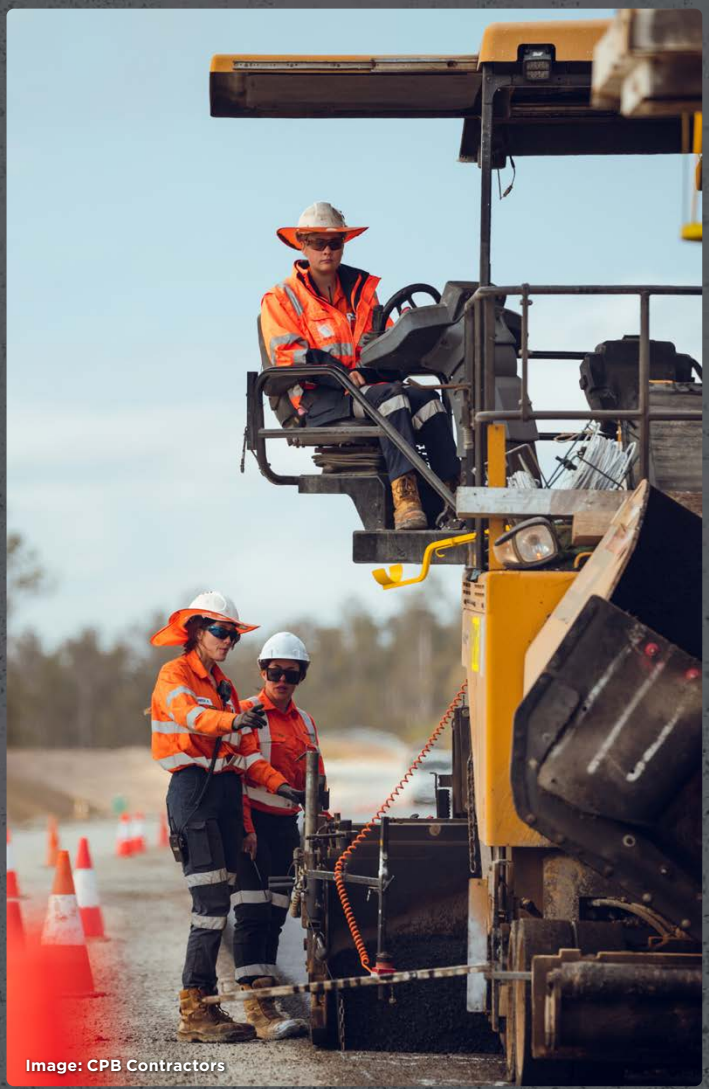


Image: CPB Contractors

ENGINEERING SECTOR

Engineering pipeline and labour projections

Queensland's engineering construction pipeline is projected to average approximately $21b over the 8-year horizon, with activity expected to range between $15b and $27b during this period (**Figure 19**).

The primary drivers of the engineering pipeline are electricity, transport, and mining and heavy industry sub-sectors. Together, these three are expected to dominate the engineering pipeline throughout the 8-year horizon[13].

Transport infrastructure continues to be a major investment focus in Queensland, underpinning the state's broader economic development strategy. A robust pipeline of transformative transport projects is being advanced across Queensland to address both short- and long-term needs. Key priorities include preparing the state's infrastructure for the Brisbane 2032 Olympic and Paralympic Games and accommodating the travel demands of a growing population and expanding economy.

Electricity-related construction is also a major contributor, driven by Queensland's commitment to achieving net zero emissions. The transition to renewable energy sources has spurred an unprecedented wave of investments in generation, storage, and transmission infrastructure.

The growing pipeline of engineering work is set to surge labour requirements over the 8-year horizon.

The forecast average labour required to deliver the engineering pipeline ranges from around 19,000 to 35,000 workers over the eight years (**Figure 20**). Consistent with the pipeline, labour demand is forecast to rise from around 19,000 in 2024-25 and peak at 35,000 in 2026-27. Beyond this peak, average labour requirements are projected to remain above 20,000 throughout the rest of the review period, reflecting sustained high levels of activity.

Average labour requirements vary significantly across the engineering sub-sectors, with the electricity sub-sector expected to dominate over the forecast period. This sub-sector is projected to require between 4,000 and 14,000 workers on average, with peak demand anticipated in 2026–27, aligning with the activity pipeline. Following electricity, the transport sub-sector is expected to require between 5,000 and 9,000 workers on average over the same period, with its peak labour demand coinciding with that of the electricity sub-sector. Meanwhile, the mining and heavy industry sector is forecast to need between 4,000 and 7,000 workers on average over the forecast horizon.

Figure 19: ENGINEERING PIPELINE BY SUB-SECTOR, QLD

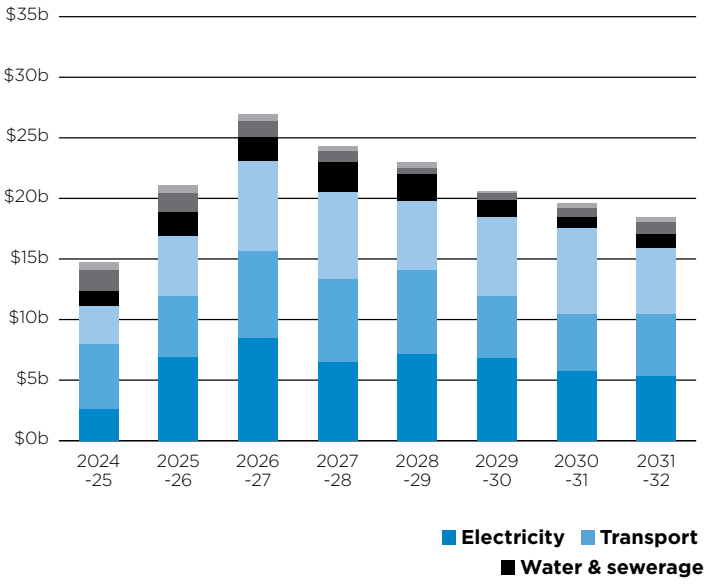
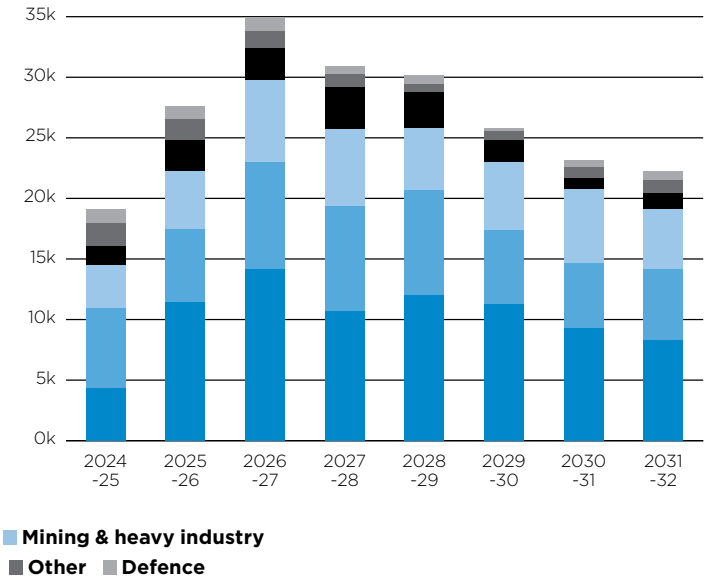


Figure 20: AVERAGE LABOUR REQUIREMENT BY ENGINEERING SUB-SECTOR, QLD



Source: CSQ

Note 5: Figure 19 shows the forecast engineering pipeline by sub-sector. Figure 20 illustrates the estimated average labour requirement by sub-sector for each financial year to deliver the construction work for the engineering pipeline corresponding to that year.

[13] The Other category in Figures 19 & 20 includes telecommunications, pipelines, recreation, subdivision works.

ENGINEERING SECTOR

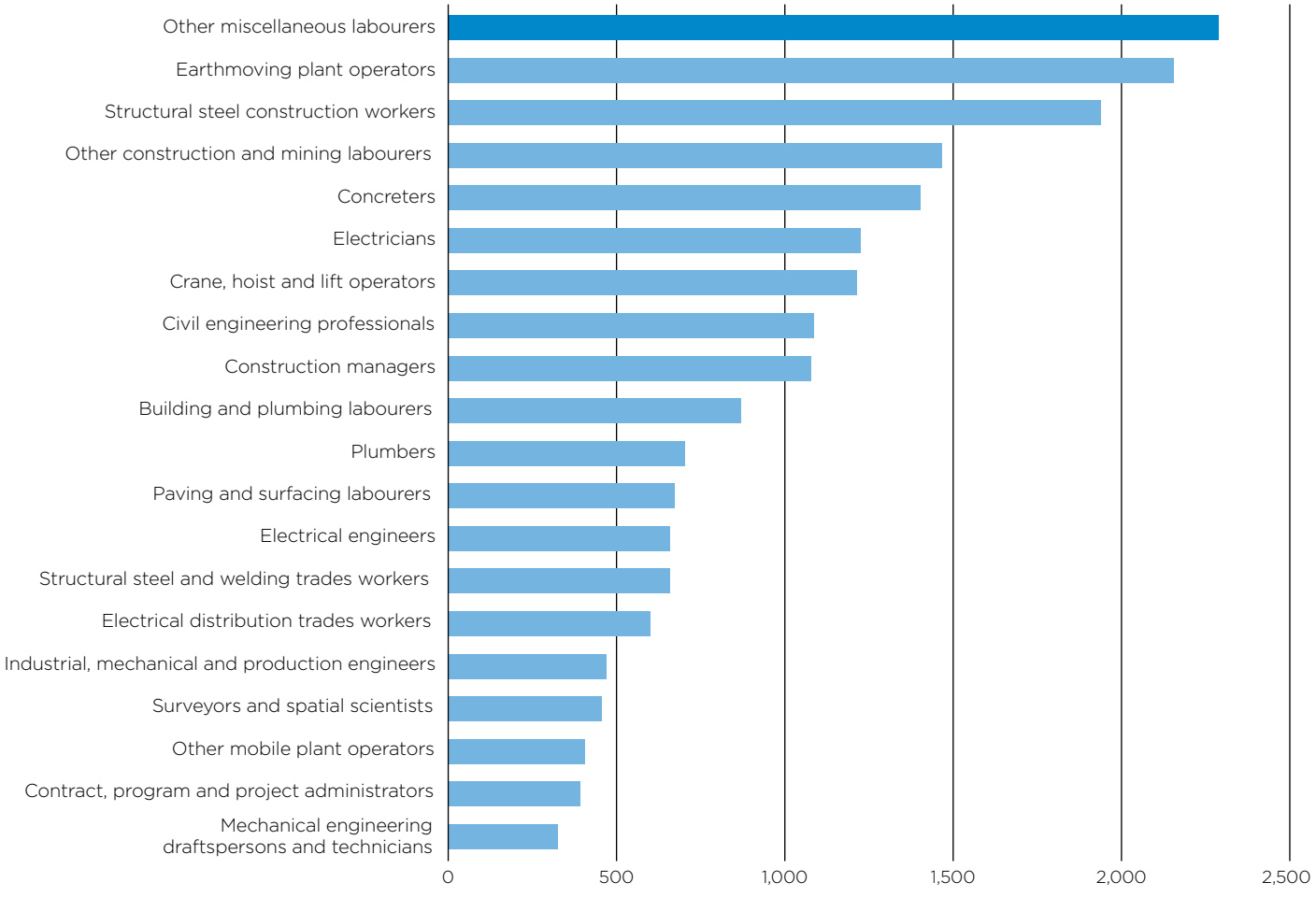

Image: Hutchinson Builders

Key occupations in demand for engineering pipeline

The construction workforce required to deliver the engineering pipeline covers a broad range of occupations (**Figure 21**).

Construction roles in highest demand (on average) over the 8-year period are expected to be: structural steel workers, miscellaneous labourers[14], earthmoving and other plant operators, electricians, concreters, civil engineers and construction managers.

Figure 21: KEY CONSTRUCTION OCCUPATIONS IN DEMAND (8 YEAR AVERAGE) - ENGINEERING SECTOR, QLD



Source: CSQ

[14] Other miscellaneous labourers (Figure 21) include electrical or telecommunications trades assistants, railways assistants, sign erectors, road traffic controllers and others. Other construction and mining labourers include roles such as crane chaser, drillers assistant, surveyor's assistant.

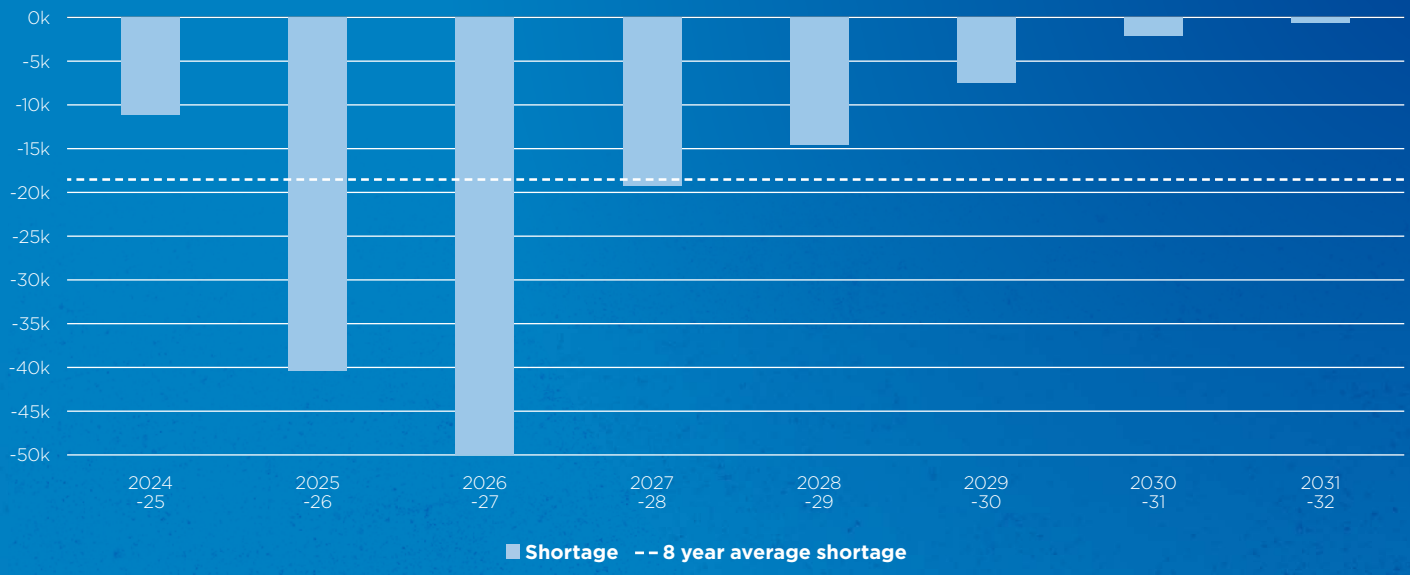
The workforce challenge

Given so much construction activity on the horizon, there's one big challenge ahead: meeting the increased labour requirement. Delivering the construction pipeline will be challenging under current tight labour market conditions, particularly with an already sizeable backlog of construction activity still in progress. Finding and retaining a skilled workforce remains an ongoing challenge for the industry and is a key factor contributing to the growing gap between Queensland's construction pipeline and work done.

Over the eight years, the industry will require a significantly larger pool of construction workers to deliver the work in the pipeline. Amid strong competition for talent and ongoing supply constraints, an average shortfall of approximately 18,200 construction workers (**Figure 22**) is anticipated throughout this period, which will be more severe in the short to mid-term. Consistent with the total construction pipeline, the shortage is expected to widen as the workload increases, with shortages rising from around 11,000 in 2024-25 to 50,000 in 2026-27. Labour supply challenges in the construction workforce are anticipated to take time to moderate, with constraints entrenched in the mid-term.

Addressing these workforce shortages will be critical to ensuring Queensland's construction pipeline can be delivered on schedule. Without targeted interventions, persistent labour shortages could lead to project delays, increased costs, and long-term capacity constraints for the industry.

Figure 22: AVERAGE CONSTRUCTION LABOUR SHORTAGE, QLD



Source: CSQ


Image: Hutchinson Builders


Image: SEE Civil

Conclusion

Image: CPB Contractors

Queensland is undergoing a transformative phase in its construction activity, driven by a combination of economic, social, global, and environmental factors. Over the coming years, the state will need to meet infrastructure demands arising from population growth, the Brisbane 2032 Games, and the transition to net zero.

Queensland's construction pipeline is forecast to be substantial, averaging around $61.3b over the 8-year horizon. The building sector is expected to dominate, accounting for 66% of the average pipeline, with the remaining 34% expected to be engineering construction, driven largely by electricity, transport, and mining and heavy industry sub-sectors.

The diversity, scale, and complexity of projects in the pipeline, public and private collaboration, and a strong emphasis on long-term sustainability, highlight both opportunities and challenges for the industry. Workforce constraints are expected to intensify as projects compete for a limited pool of skilled workers, particularly in regional areas, where attracting and retaining labour has been difficult.

Meeting future construction workforce demand is crucial for sustaining industry growth. About 122,600 construction workers will be needed on average over the forecast period to deliver the pipeline. However, with supply of construction workers unlikely to keep pace, an average shortfall of 18,200 is expected, particularly in the short to mid-term.

As Queensland navigates this sustained period of construction activity, a proactive approach to workforce planning and capacity building will be essential to ensuring the industry remains resilient and capable of delivering the state's ambitious infrastructure agenda.

It is critical to find new ways to encourage more entrants to join the construction industry. Migration alone cannot resolve the issue. While ongoing migration reforms may offer short-term relief for some construction roles and medium-term support for others, they will not bridge all labour gaps.

A broader, long-term approach is needed.

Increasing apprenticeships and promoting gender diversity are crucial for workforce expansion and sustainability. Expanded apprenticeship/traineeship opportunities will provide pathways into the industry. Not all construction occupations have established apprenticeship/traineeship pathways. Developing structured and visible pathways for these occupations will be crucial in creating additional entry routes into the construction industry. It is also important to support apprentices and trainees to complete their qualifications and become skilled workers of the construction industry.

It will be essential to increase the diversity of people coming into construction. Female participation in the construction sector has always been low. Despite representing almost half of the state's active workforce, females are severely underrepresented. Tapping into this underutilised pool of talent and lifting female workforce participation in construction has never been more crucial.

There may be scope for increasing participation from Indigenous people, and migrants from culturally and linguistically diverse backgrounds. Regional areas will host most renewable infrastructure, however, expanding the regional workforce through traditional channels—sector shifts, new recruits, and spare capacity—is highly limited. Increasing participation from locally based Indigenous people and migrants from culturally and linguistically diverse backgrounds should be investigated.

Labour shortages are here to stay, but better outcomes are possible by addressing key issues.

To keep pace with the ambitious construction pipeline, an equally ambitious workforce and skills development plan is needed to prevent project delays.

Tackling this complex challenge requires coordinated action from the government, industry, unions and training providers.