

Transport  
for NSW

# Transport for NSW Road & Rail Cost Escalation Indices

## July 2023 Update

Applicable for State funded projects

July 2023

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# Road and Rail Cost Escalation Indices

This cost escalation update provides road and rail cost escalation indices to 2026/27 and supersedes the Road and Rail Cost Escalation Indices 2022. The rates are to be used as general guidance only in the absence of other guidance issued by, for example, Federal Government for federal funded projects and or specific evidence of variation in the forecast of key inputs.

The forecasts in this report cover the 5-year period from 2022/23 to 2026/27. These updates are mainly based on latest available ABS data, forecasts from the Australian Construction Industry Forum (ACIF), Federal and NSW Treasury and the NSW Valuer General for property prices in Sydney and Regional NSW. No change has been made to the current TfNSW construction and maintenance cost escalation methodology.

## Cost escalation forecasts

In 2022/23, total building activities in NSW are projected to be largely consistent with the 2021/22 levels. With ongoing major investments in infrastructure and renewable energies, the engineering construction sector is expected to sustain the construction and building industry in the immediate term.

From a macro-economic perspective, tightened monetary policy, high inflation and labour shortages added significant stress to the industry. This high-risk environment resulted in an overall low confidence in delivery amongst construction firms. Despite the global supply chain starting to recover and growth in global commodity prices starting to ease, the cost escalation rates forecasts remain very high in the immediate term. Over the medium term, these constraints will continue to ease, the economic environment is expected to recover with inflation to return to target.

Table 1 and 2 set out the cost escalation forecasts for road, rail, and maintenance and operating costs, with and without property prices.

**Table 1: Forecast Escalation of the Road and Rail Costs (excluding property prices)**

Construction Cost Escalation Rates 2023 (Excluding Property Prices)							
Year ending June	Road TCI	Road TCI - Rural	Road TCI - Urban	Rail TCI	Rail TCI - Rural	Rail TCI - Urban	Maintenance & operations
2022/23	7.0%	7.0%	7.0%	6.7%	6.7%	6.7%	7.4%
2023/24	4.7%	4.7%	4.7%	5.6%	5.6%	5.6%	4.8%
2024/25	4.1%	4.1%	4.1%	4.7%	4.7%	4.7%	4.1%
2025/26	3.7%	3.7%	3.7%	4.0%	4.0%	4.0%	3.8%
2026/27	3.3%	3.3%	3.3%	3.2%	3.2%	3.2%	3.2%

**Table 2: Forecast Escalation of the Road and Rail Costs (including property prices)**

Construction Cost Escalation Rates 2023 (Including Property Prices)							
Year ending June	Road TCI	Road TCI - Rural	Road TCI - Urban	Rail TCI	Rail TCI - Rural	Rail TCI - Urban	Maintenance & operations
2022/23	6.7%	6.5%	6.8%	6.4%	6.4%	6.6%	7.4%
2023/24	5.1%	4.8%	5.3%	5.7%	5.5%	5.8%	4.8%
2024/25	4.7%	4.4%	4.9%	5.1%	4.8%	5.2%	4.1%
2025/26	4.4%	4.1%	4.6%	4.6%	4.2%	4.7%	3.8%
2026/27	4.1%	3.8%	4.4%	4.1%	3.5%	4.1%	3.2%

The weighting applied to property costs in the calculation of a Transport Cost Index (TCI) in Table 2 is about 11% (7% for urban and 4% for rural). Therefore, project teams should be cautious when using the escalation factors as higher proportion of property costs in total costs will lead to a different escalation factor.

- If the property acquisition allowance is less than 11% of the total project cost, the escalation rates can be applied as per Table 2.
- If the property acquisition allowance is greater than 11% of the total project cost, project specific escalation rates should be estimated. Refer to section: Land and property acquisition cost escalation for more details.

The TfNSW cost escalation model was designed to provide the escalation rate forecast to 2026/27. There is an increasing uncertainty to forecast beyond 5 years. It is recommended that a 2.5% cost escalation rate is used for all index categories from 2027/28 and beyond.

## Forecasts and assumptions

Table 3 shows the expected trends in the cost of various inputs into road and rail construction and market conditions compared to the CAGR (Compound Annual Growth Rate).

**Table 3: Assumptions Regarding Key Inputs and Drivers**

Economic / market drivers	2022/23	2023/24	2024/25	2025/26	2026/27
Engineering Construction	>CAGR+2%	0%-CAGR	0%-CAGR	CAGR	0%-CAGR
Building Construction	CAGR	>CAGR+2%	CAGR+2%	CAGR	CAGR
Residential construction	CAGR	0%-CAGR	0%-CAGR	CAGR+2%	>CAGR+2%
Steel prices	>CAGR+2%	CAGR+2%	CAGR+2%	CAGR	CAGR
Copper prices	USD\$4/lb	USD\$4/lb	USD\$4/lb	USD\$4/lb	USD\$4/lb
Oil Prices	\$75-\$90/bbl	\$75-\$90/bbl	\$75-\$90/bbl	\$75-\$90/bbl	\$75-\$90/bbl
Market crowding	High crowding	High crowding	Some crowding	Some crowding	Some crowding
Consumer price index	>4%	3-4%	3-4%	2-3%	2-3%
FX rate (AUD/USD)	.65-.75	.65-.75	.65-.75	.65-.75	.75-.85
Enterprise Wage bargain	Positive outlook	Highly positive outlook	Positive outlook	Neutral	Neutral

Table 4 provides commentary on each of the key drivers for cost escalation forecasts.

**Table 4: Commentary on each key input**

Input	Commentary
Engineering Construction <sup>1</sup>	Ongoing major investment in transport infrastructure of nearly \$80 billion over the next four years by the NSW Government and increasing investments in renewables energies such as wind farms will sustain growth in the sector.
Building Construction <sup>1</sup>	Constructions of office building, schools and health infrastructure will support growth in the non-residential building sub-sector.
Residential construction <sup>1</sup>	The residential building sub-sector will experience lowered activities in the short term due to tightening monetary policies and fiscal stimulus being withdrawn. Further growths are expected to be driven by new builds (townhouses and apartments) in the medium term.
Steel prices <sup>2</sup>	Domestic production is lagging construction demand until FY24 due to overall growth in the construction sector. World steel demand will remain stronger than supply, driven by extensive levels of infrastructure / non-residential construction, and a long-term loss of steel production from Europe as a result of the war in Europe.

<sup>1</sup> Australian Construction Market Report 2023, ACIF

<sup>2</sup> Resource and Energy Quarterly March 2023, Australian Government

<b>Copper prices<sup>3</sup></b>	Supply side disruptions continues in major exporters in Americas, Africa and Asia, supporting copper prices amid a lower demand from China. Over the longer horizon, uptake in electric vehicles, renewable energies and the associated electric grid infrastructure will drive additional demand.
<b>Oil prices<sup>2</sup></b>	Despite economic recovery in China supporting demand, weaker growth prospects in advanced economies are weak and lower production volumes will put downward pressure on oil prices from the peak in 2022.
<b>Market crowding<sup>4</sup></b>	A backlog of work created by global supply chain issues, skilled labour shortage, record high infrastructure investments along with increasing construction insolvency in 2022 creates a high level of market crowding.
<b>Consumer price index<sup>5</sup></b>	Inflation is expected to have peaked in the Q2 FY23 and is forecast to decline from here onwards. Overall demand is slowing down, while on the supply side, commodity prices have been growing more slowly or started to fall.
<b>FX rate (AUD/USD)<sup>6</sup></b>	The AUD fell against USD at a steady rate in 2022. However, USD dominance is expected tail off from 2023 as global currencies become more influenced by domestic drivers, rather than those of a global scale. AUD is expected to trend upwards in the upcoming years.
<b>Enterprise Wage bargain<sup>5</sup></b>	Australia-wide skill shortages, low unemployment rate and tightening monetary policies have flow on effects on nominal wages beyond a temporary shock. Furthermore, some enterprise agreements are CPI-linked which contributes to heightened wage growth.

## Land and property acquisition cost escalation

The land and property cost escalation varies significantly by location and by project. For large projects when land and property acquisition can cause noticeable changes in a local property market, the project team should estimate the project specific cost escalation rates whenever possible. If such an analysis is not feasible, the project team can use the following generic escalation rates estimated from this update:

- 6.5% land and property cost escalation rate for projects in Greater Sydney areas.
- 5.5% land and property cost escalation rate for projects in Outer Metropolitan areas.
- 5% land and property cost escalation rate for projects in regional or rural areas.

## Feedback and enquiries

Please contact the Economic Advisory Team via email:

[EconomicAdvisory@transport.nsw.gov.au](mailto:EconomicAdvisory@transport.nsw.gov.au)

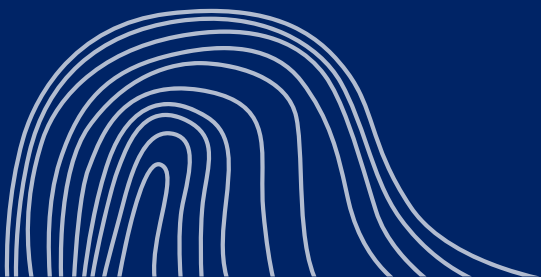
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<sup>3</sup> Commodity Markets Outlook April 2023, World Bank Group

<sup>4</sup> Infrastructure Market Capacity April 2023, Infrastructure Australia

<sup>5</sup> NSW Budget 2022-23 Half Yearly Review; Reserve Bank of Australia Statement on Monetary Policy May 2023

<sup>6</sup> Westpac; National Australia Bank; Forbes



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