GOVERNMENT OF WESTERN AUSTRALIA

Infrastructure Western Australia

# Major Infrastructure Proposal Assessment

Main Roads WA

Reid Highway Erindale Road Upgrade

Summary Assessment Report

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May 2025



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**Acknowledgment of Country**

Infrastructure WA acknowledges the Traditional Custodians of Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

## Purpose

This assessment report has been prepared in carrying out Infrastructure WA's (IWA) legislative function to assess and report to the Premier on major infrastructure proposals. The assessment is of the Main Roads WA (MRWA) Reid Highway Erindale Road Upgrade business case. Additional supporting information received from the proponent and consultation with relevant key stakeholders has also been used by IWA to support its analysis.

# 1. IWA observations

IWA considers that there have been previous decisions of government in relation to this project, including commitments by the Australian and WA Governments in early 2025 to fund the delivery of a grade separation of the Reid Highway and Erindale Road intersection. Due to these previous decisions, this assessment is primarily focused on the option assessment, the associated delivery aspects of the proposal, and areas for future improvement.

IWA considers that the proposal has strategic merit and contains sufficient information to support WA Government's investment decision. There is strong alignment with transport infrastructure priorities of both the Australian and WA Governments.

IWA considers that the key issues and risks have been sufficiently identified in the business case to inform WA Government's consideration of the proposal. The primary risks relate to environmental planning and approval processes, community acceptance and potential impacts on project timing due to regulatory and land acquisition lead times.

# 2. Context

## 2.1 Project background

Reid Highway and Erindale Road are important transport corridors in Perth's inner north, connecting residential, industrial, and airport precincts. Reid Highway serves as a key east-west route linking major north-south highways, including Mitchell and Tonkin Highways.

A joint commitment was made by the Australian and WA Governments in 2024 to fund the development of a business case for the grade separation of the Reid Highway and Erindale Road intersection.

The proposal's stated strategic imperative is to enhance road safety, improve the efficiency of freight and passenger traffic, and support development opportunities that may otherwise be constrained by traffic challenges. This is proposed through an upgrade of the current intersection to a partial grade-separated interchange.

# 3. Strategic merit

## 3.1 Alignment

IWA considers that the proposal has strategic merit, aligning with several key WA State Government strategies, including the State Infrastructure Strategy, Perth and Peel @ 3.5 million, and the state's Road Safety Strategy, all of which support targeted road improvements, active transport infrastructure, and safer travel outcomes.

The project also aligns with key Australian Government strategies such as the Australian Infrastructure Audit, Infrastructure Plan, and National Road Safety Strategy, which has supported the case for a 50% Australian Government funding contribution.

In addition, the proposal is consistent with MRWA's strategic planning frameworks and the City of Stirling's Local Planning Strategy.

## 3.2 Problems and opportunities

IWA considers that MRWA has provided appropriate evidence and data to support the outlined problem and opportunity.

The intersection at Reid Highway and Erindale Road is the last remaining at-grade, signalised intersection between these major highways, with over 60,000 vehicle movements daily. It experiences significant congestion and freight movement challenges which result in economic and traffic flow impacts. MRWA has identified the need to address capacity constraints and improve safety through intersection upgrades.

Supporting evidence highlights growing traffic volumes and high congestion costs ($21.3 million annually). The Reid Highway and Erindale Road intersection is ranked 1st for highest number of total (263) and casualty crashes (76) in the Perth metropolitan area between 1 January 2019 and 31 December 2023, with rear-end collisions linked to congestion concerns. Strategic planning has identified this location for grade separation to support long-term traffic and safety outcomes.

# 4. Options assessment

Six infrastructure options were evaluated, with Options 1 and 2—both grade-separated interchanges offering full connectivity—emerging as the preferred choices due to their strong safety, performance, and alignment with project objectives. Option 2 included all infrastructure in Option 1 but included additional connector-distributor roads between Mitchell Freeway and Reid Highway. The options evaluation process employed a rigorous and transparent methodology, incorporating fatal flaw screening, multi-criteria analysis, sensitivity testing, and cost-benefit analysis to ensure evidence-based decision-making. IWA recognises this approach as an example of good practice.

Option 2 was assessed as providing greater benefits related to travel time savings, safety, and freight efficiency but also had greater capital and operational costs compared to Option 1.

# 5. Societal impacts

## 5.1 Economic and financial assessment

The economic appraisal followed a structured five-step Cost-Benefit Analysis (CBA) methodology aligned with Infrastructure Australia (IA) and Australian Transport Assessment and Planning (ATAP) guidelines. The assessment compared 2 shortlisted options—Option 1 and Option 2—against a base case by quantifying and monetising a broad range of factors including travel time savings, vehicle operating costs, crash cost reductions, environmental externalities and residual value. Simulation and transport demand modelling were used to estimate benefits related to congestion and reliability over an appraisal period of 30 years, assuming 8 hours of daily congestion.

The analysis found that while both options deliver substantial economic benefits, Option 1 offers the highest Benefit Cost Ratio (BCR) and Net Present Value (NPV), under the P90 scenario with a 7% discount rate—achieving a BCR of 3.67 and an NPV of $700.12 million. Option 2, though offering slightly higher absolute benefits, incurs greater costs and results in a lower BCR of 2.01 and NPV of $579.11 million. Option 1 was found to deliver the greatest net societal benefit due to travel time reductions, safety improvements (with an estimated 437 crashes avoided annually) and overall cost-efficiency. The capital cost for Option 1 is estimated to be $445.61 million (P90).

IWA considers the economic analysis to be robust and consistent with relevant guidelines. The appraisal includes comprehensive sensitivity testing and provides a reliable and evidence-based foundation to support investment decision-making.

## 5.2 Social assessment

The proposal incorporates qualitative assessment of the inclusion of active transport infrastructure and improves travel efficiency and safety. Social impact assessments should be undertaken as part of the next project stage to explore impacts on local businesses, employment opportunities, and community cohesion. This is considered important to manage impacts of existing users and community during construction. Statutory requirements such as outcomes of cultural heritage assessments as well as land acquisition may also affect local communities.

### 5.3 Environmental assessment

While the project site is largely within the existing road corridor, there are expected to be environmental impacts including an expected increase in traffic noise as well as visual impacts due to vegetation clearing. These impacts will be managed with noise walls and visual screening. In addition to these, MRWA acknowledges that there will be a loss of over 10 hectares of Black Cockatoo habitat and Threatened Ecological Communities, and a cost provision is included. However, more detailed assessment of these impacts is needed to inform environmental approvals and offset strategies. IWA recommends that once the detailed assessments are completed, and the environmental plans, approvals and strategies are developed, that the impacts of these on project costs and schedule are reported back to WA Government.

## 6. Recommended Option: Project definition

The recommended Option 1 proposes a partial cloverleaf interchange at Reid Highway and Erindale Road, featuring two loop ramps, a grade-separated bridge, and upgraded signalised intersections to improve traffic flow and safety. Two new principal shared paths (PSPs) are also included in the scope for the proposal.

## 7. Deliverability

Currently the deliverability aspects of the proposal are at a high level. The preferred procurement model is yet to be confirmed, with a deliverability workshop required under MRWA procedures. Governance and stakeholder engagement processes are well established, but the business case timeline could have provided more detail —particularly regarding the duration of commuter and construction disruptions. While broad timeframes have been outlined, more detailed scheduling, risks to delivery, and potential contingency planning will be required as the proposal is further developed.

A risk workshop identified 29 risks, which MRWA are developing mitigating strategies for. Key risks include environmental approvals, possible community opposition, and potential delays from land acquisition processes. IWA recommends MRWA provide more detailed reporting on these in the final Project Definition Plan.

Benefits management is well documented in the business case.