



NORTH EAST LINK - DELIVERY

Client: VIDA Roads (part of the Victorian Infrastructure Delivery Authority, formerly NELP)

Location: VIC, Australia

Project value: \$26 billion

Contract form: Public-Private Partnership (PPP) and Alliance

Project lifecycle stage: Delivery

Duration: 2017 – ongoing

At a glance: North East Link is Victoria's largest ever road project. It is a mixture of an availability-based PPP under the Partnerships Victoria framework and a range of collaborative contracts with a total budget in excess of \$ 26 billion.

The project:

- Completes Melbourne's orbital road network by connecting the Eastern Freeway to the M80 Ring Road, featuring twin tunnels and new interchanges at key arterial roads.
- Includes major upgrades to the Eastern Freeway, introducing express lanes and collector-distributor roads to ease current bottlenecks and accommodate future traffic demand.
- Includes enhancements to the M80 Ring Road, adding capacity and delivering a free-flow interchange with North East Link and the Greensborough Bypass.

As part of the works, North East Link, the Eastern Freeway, and the M80 Ring Road will become fully integrated smart motorways with ramp metering, lane-use management, and vehicle detection systems to improve safety and efficiency.

Objectives

The Victorian Government set out to deliver the missing link between the Eastern Freeway and the M80 Ring Road to reduce congestion and freight traffic on local roads. As the State's largest ever road infrastructure initiative, the North East Link Project (NELP) is procured through multiple, separate works packages, spanning collaborative PPP and Alliance contract models across both greenfield and brownfield assets.

A challenge of construction within a brownfield alignment is to minimise the impacts of construction to the surrounding road network, as well as residents and businesses.

Our services

SmedTech was engaged by NELP at the project's inception in January 2017 and has provided ongoing technical support and strategic direction throughout the project's lifecycle. SmedTech has provided critical support to NELP throughout the project delivery phase, including the following key activities:

- Development of the project requirements for the construction phase of the project.
- Secondment of staff into a construction package, acting as Senior Design Manager for the Northern Package. This role included end to end design management and the coordination of interfaces between the Northern and Central Packages.
- Review, commentary, and resolution of outstanding issues across a range of Project Plans, including the Design Management Plan and associated sub plans for early works, post IFC changes, and temporary works across multiple packages.
- Development of the post IFC change management process for the Alliance.
- Supported the alliances in developing operational models along the Eastern Freeway, M80 Ring Road, and Doncaster Road. These models were used to assess construction impacts and inform the development of mitigation measures.



- Drafting updates to the project specifications to address issues as they were identified throughout delivery such as scope changes and departures.
- Review and modelling of any scope changes to assess whether they still meet the project performance requirements. If needed, work with the alliances to optimise the designs to improve the performance.
- Comprehensive review of the Worksite Traffic Management Plans (WTMPs) for all five project packages. This included assessment of traffic impacts for each construction stage, review of traffic models, undertaking operational modelling to test alternative scenarios, and developing mitigation measures collaboratively with each package with the goal of minimising construction impacts to the surrounding road network.
- Working with the alliances to improve processes and provide greater working windows for access to roads and ramps. This helps increase the amount of time crews can work on-road, reducing the duration of some construction stages.
- Engagement with key stakeholders including DTP, local councils, and transport operators to address identified concerns.

Our impact

Due to our in-depth knowledge and previous experience on the project, SmedTech was able to provide valuable assistance to the State during the delivery phase of the project, through:

- Developing the delivery strategy that has been applied across all five packages of the NEL Project.
- Developing the project specification, outlining the project requirements across all packages.
- Supporting NELP during the delivery phase through secondments of staff as design manager, including managing interfaces between project packages.
- Developing the testing of operational models to assess and improve construction staging to minimise the impact to the surrounding road network.