



PROJECT REPORT SHEET: PROJECT MANAGEMENT SERVICES

BluSeal Tunnel Liner Systems

AIRPORT LINK & NORTHERN BUSWAY TUNNELS, BRISBANE



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Australia's largest road infrastructure project being a 6.7km toll and 3km dedicated busway road network featuring twin 5.1km tunnels connecting Brisbane city with the northern suburbs and airport precinct.

PROJECT COMPLETION: DECEMBER 2011

CLIENT/END USER: THIESS JOHN HOLLAND
JOINT VENTURE

APPLICATION

WHERE WE USED BLUSEAL TUNNEL LINER SYSTEMS

External waterproof membrane system installed to all mined tunnel structural concrete lining, including:

- 8.7km Roadheader tunnelling with associated mainline transitions, caverns, ramps, cross-passages, substations and sump pits.
- 4km TBM tunnelling in twin formation with connecting mined cross-passages at 120m intervals.

WHY WE USED BLUSEAL TUNNEL LINER SYSTEMS

The project deed specified water ingress limits with reference to impact on local water tables and expectations of nil ground consolidation settlement of densely populated community areas above the tunnel alignment. Due to the length of the underground road network ingress limits were also important in respect to long term pumping maintenance commitments for the life of the tunnels.

FEATURES

- Drained and tanked tunnel profiles with associated groundwater drainage systems and external compartments between profiles
- System compatibility for both insitu concrete and shotcrete permanently lined tunnels
- Tanked connections between mined and TBM tunnels

BENEFITS

- Tunnel functionality for high speed tollway traffic flows with no 'drips' from above or visible damp patches from below
- Groundwater impacts minimised with tunnel inflows controlled and handled by the designed drainage and pumping systems

SUMMARY

Throughout the project Bluey Project Managers and Supervisors ensured the installation of the entire waterproofing system was completed and fully tested in accordance with the relevant International Standards. All project specified water ingress limitations were achieved.

