

Project Role: Drainage Design and Flood Mitigation Advice

Construction Cost: \$1.88 Billion

Client: SMEC-Maunsell JV



Project Description:

The Gateway Motorway Upgrade project involves the upgrade of the existing Gateway Motorway to allow for future economic growth and alleviate current and predicted congestion. The project involves:

- A two lane widening to six lanes of the existing Gateway Motorway between Mt Gravatt-Capalaba Road and Wynnum Road;
- A four lane widening to eight lanes of the existing Gateway Motorway between Wynnum Road and Lytton Road;
- A new six lane bridge crossing of the Brisbane River downstream of the existing bridge;
- Removal of the existing toll plaza and the inclusion of full electronic toll collection (ETC) facilities at the existing bridge;
- A new four lane Motorway through the old and new Brisbane Airport site across Airport Drive, Airtrain and Kedron Brook Floodway to reconnect with the existing Gateway Motorway south of Nudgee Road; and
- A new interchange for additional access to Brisbane Airport.

Yeats Consulting Involvement:

Yeats Consulting was involved in the project through a sub-consultancy agreement with the Design Team of SMEC and Maunsell joint venture. Yeats Consulting provided specialist advice on various drainage aspects of the project including:

- Design of the longitudinal road drainage using DRAINS;
- Design of approximately 50 cross drainage structure using Rational method, XP-Rafts, Drains, and Hec-Ras;
- Design of various open channels
- Design of water quality treatment devices including basins, wetlands, and gross pollutant traps; and
- Design of spill containment devices.

Co-ordination with the larger team including geotechnical, road alignment, structures (bridges, RSS Walls, abutments, and noise walls), ITS and environment.