Toward sustainable infrastructure: The journey so far with Gateway Upgrade North (GUN)

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Defining ‘sustainable infrastructure’

- What is sustainable infrastructure?
- Where has it come from?
Infrastructure Sustainability Council of Australia (ISCA) Overview

- Infrastructure Sustainability Council of Australia
- Member based, not-for-profit, industry council
- Developed and oversee the use of the Infrastructure Sustainability (IS) rating tool
- Voluntary but can be mandated.
Role of ISCA in the Industry

Authority
- Building the business case for infrastructure sustainability
- Facilitating IS upstream
- Education and awareness

Assurance
- Administration and independent certification for IS Rating Scheme
- Ongoing benchmarking and development of IS tools
- Accreditation of professionals

Advocacy
- Representing our members and their interests
- Promote knowledge sharing in the industry
- Advocate across key IS policy related areas
ISCA Benefits

- **Common national language** for sustainability in infrastructure
- **Consistent application and evaluation of sustainability** in tendering processes
- **Scoping whole-of-life sustainability risks** for projects and assets, enabling **smarter solutions** that reduce risks and costs
- **Fosters resource efficiency and waste reduction**, reducing costs
- **Fosters innovation** and continuous improvement
- **Builds an organisation’s credentials and reputation** in its approach to sustainability in infrastructure
Whole of Life

Initiation ➔ Development ➔ Procurement ➔ Design ➔ Construction ➔ Operation

Planning Guideline ➔ Design Rating ➔ Operation Rating ➔ As Built Rating
Infrastructure Sustainability (IS) Rating Scheme

- IS rating tool comprises
  - IS Rating Tool Scorecard
  - IS Materials Calculator

- Assessment process involves
  - Registration
  - Assessment support
  - Independent Verification
  - Certification and rating award.

- Education and training programmes
  - IS Accredited Professional (ISAP).
IS registrations by location

Complete | Registered
---|---
3 ($3.3b) | 10 ($6.8b)
1 ($0.9b) | 3 ($1.5b)
7 ($6.1b) | 15 ($32.0b)
- | 6 ($11.5b)
- | 1 ($0.3b)
1 ($0.6b)

CONFIDENTIAL | 2 ($5.5b)
- | 4 ($3.0b)
Commitment to sustainability

Our people
encourage a dynamic, safe and healthy workplace

Our society
ensuring a safe, secure and resilient transport system.

Our stakeholders
Partnering to create and find innovative products/process

Our business
building a transport system that is resilient and understanding the economics of our business

Our environment
Reducing the impact and looking for efficiencies

BE GOOD NEIGHBOURS
Anticipating, listening and responding to community needs

USE LESS
Reducing the impacts of our operations on the community and environment

THINK LONG TERM
Improving transport networks to help people, goods and services move more efficiently and safely across our cities
What is GUN?

- Six lane upgrade – between Nudgee and Bracken Ridge (11.3 km)
- Four lanes renewal - Bracken Ridge to Wyampa Road (3.5 km)
- Four lane upgrade – Deagon Deviation
- Interchange upgrades
- Intelligent Transport Systems (ITS)
- Active transport connections.
Sustainability on the project

- First state road project in Queensland to seek ‘excellent’ rating
- Catalyst for innovation
- Drives contractor behaviours
- Project rated by ISCA
- Contractual requirement to achieve score of 65 at design and as-built.
Project sustainability outcomes

• Waste reduction and management
• Innovation
• Sustainable site offices
• Local industry participation
• Community participation.
Driving innovation

- High modulus asphalt (EME2) pavement
- Reclaimed asphalt pavement
- Bridge load testing
- Hybrid lighting.
Sustainability in practice

% Achieved

Design Rating Status

% Achieved

As-Built Rating Status
Lessons learned to date

• Capture sustainability initiatives prior to contract award
• Engage stakeholders early to secure credits
• Sustainability involves all area participation.
Thank you