

#### Content

Who we are

- Environmental Scan Whats changing?
- What we do
  - Programming
  - Procurement
  - Current Case Studies and Trials
- UK Study Tour Feedback





#### Crown Entity responsible for state highways

 The strategic roads and motorways that are about 12% (10,894 km) of all New Zealand's roads, but account for about half of the 36 billion vehicle kilometres every year.



Annual budget is currently over \$1
 billion and we have about 350 staff.



#### Transit's Locations



#### 3 Regions

National Office Wellington

#### •7 Regional Offices

Auckland, Hamilton, Napier,
 Wanganui, Wellington,
 Christchurch and Dunedin

#### 3 Satellite Offices

Whangarei, Tauranga and Blenheim



#### **Statutory Objective**

•To operate the state highway system in a way that contributes to an *integrated*, *safe*, *responsive*, and *sustainable* land transport system



 In meeting its objective, Transit must exhibit a sense of social and environmental responsibility





Ensure state highway corridors make the optimum contribution to an <u>integrated</u> multi-modal land transport system.

Provide <u>safe</u> state highway corridors for all users and affected communities.

State highways will enable improved and more <u>reliable</u> access & mobility for people and freight.

Improve the contribution of state highways to economic development.

Improve the contribution of state highways to the environmental and social well-being of New Zealand, including energy efficiency and public health.





- ✓ Functional Performance
  - Benfit from economic (including finacial), social and environmental performance
  - ✓ Includes all tangible benefits associated with BCR
  - ✓ Difficult to determine as includes intangibles
- ✓ Resources Consumed
  - ✓ Costs incurred to deliver the functionality sought





#### Capital Projects

Responsible for Capital Projects

- Programming,
- Procurement; and
- Delivery
- •2006/07 Fiscal Responsibility
  - Large Projects (> \$3.4M) \$455M

Block Projects (< \$3.4M)</p>
\$85M





### Over past 3 years Transit experiencing significant price pressure

- ✓ Input prices are increasing:
  - The world is growing fast and this is increasing competition for resources and services, especially energy and oil, steel and freight capacity
    - $\checkmark$  Particularly driven by growth in China and India
  - Domestic buoyancy in the roading sector and in other construction sectors also driving up prices
    - ✓ Growth constrained by labour and staff availability
    - Major capital investment in plant and resources required following a long period of marginal growth



#### Increased Cost of Road Construction Inputs

	Compounded % over 3 years
Construction material inputs	10.3%
(concrete, steel, quarry products, bitumen etc)	
Construction Plant and Equipment	2.2%
Fuel	6.5%
Manual Labour	6.1%
Contractors Staff	2.8%
Margin Expectation	2.0%
	30%



#### Australia Experiencing Similar Price Pressure





#### US Experiencing Similar Price Pressure





## Increasing level of capital works investment in State Highways consisting of larger, more difficult and higher value urban projects







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#### Current Procurement Model Portfolio

- Large Capital Projects
  - Traditional (Measure and Value / Lump Sum)
  - Design and Construct
  - Project Alliancing
- Block Capital Projects (< \$3.4M)</li>
  - Traditional (Individually tendered)
- Maintenance
  - Traditional (NMM / NMC)
  - Hybrid
  - Performance Specified Maintenance Contracts (10 year)





**Increasing quantum of scale, risk and complexity; and potential for innovation** 

VFM STARTS FROM GOOD PROCUREMENT!



# Current Case Studies

#### Wellington Inner City Bypass

- •\$40 M
- Traditional
- •Combined M&V and Lump Sum commercial arrangements



 Heritage building posed high risk as unknown quantum of restoration

Risk retained by Transit



#### Grafton Gully

- The \$66 million Grafton Gully Project (GGP) was successfully delivered using the innovative Alliance model.
- <u>Value for money</u> analysis was commissioned to compare the Alliance model with a theoretical DC and Traditional (M&V) model.



#### Alpurt B2

- The motorway involves the construction of twin tunnels, five major new culverts and seven major bridges.
- ALPURT B2 is the last stage of the realignment and extension of the Northern Motorway between Albany and Puhoi.
- Transit has established an alliance of organisations working in partnership to design and build ALPURT B2. The Northern Gateway Alliance.



## Key Differentiators

- Time performance ahead of schedule
- Fast procurement non-price
- Good risk management
- Non-adversarial aligned goals
- Focus on stakeholders
- Promotion of innovation/engineering excellence
- Flexibility to respond
- Whole of life focus







- Large Capital Projects
  - Dual TOC Alliance (D&C / Project Alliance Hybrid)
  - Early Contractor Involvement



#### Manukau Harbour Crossing

- Bridge duplication over Manukau Harbour
- Dual TOC Alliance
- DC / Alliance Hybrid
- Programme constrained
- Flexibility required
- Opportunity for innovation
- Tangible demonstration of VfM



#### **Centennial Highway Median Barrier**

•Wire rope median barrier installation

- •Early Contractor Involvement •\$15 M
- •Difficult Traffic and Constructability issues
- •Close stakeholder liaison
- •Fast tracked procurement



- Early results positive
- Successful negotiation of construction phase
- Excellent innovation achieved
- Good response from critical stakeholders
- Model requires refinement





- Block Capital Projects (< \$3.4M)</li>
  - Investigating Framework Contracts
    - Professional Services and Physical Works
    - Small market supplier impact
    - Small projects allow market entry
- Maintenance
  - Maintenance Alliance





- Two > \$1 Billion projects on the horizon
  - How will these be procured?
- More Collaborative Contracting
  - ECI model being refined and proposed for future projects
  - Project Alliances
  - Investigating DBFO





#### Whas on the cards

- Investigation of Framework contracts for Transit's Block programme (regional)
- Commitment to more collaborative contracting

   ECI and Project Alliance proposed for future contracts
- Demonstration projects proposed
  - Manukau Harbour Crossing and
  - Waterview Connection
- Likely that Transit will sign the CCG Charter
- DBFO under investigation (HA M25)
- Enhanced Supplier Relationship Management
- Lean contracting (useful background for evaluation)
- Will never ever eat eel and mash ever!



#### Tunnels team about to see daylight



The southbound tunnel takes shape underreath Johnstone's Hill.

#### Northern Busway – Constellation Station



#### **Otanerua Eco Viaduct**

