Delivering Major Projects
State Highway 88 Realignment

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How To Survive a Wind Storm when you are in the middle of it
A Selection of Interesting Management Challenges

- Short Timeframe
- Project Management Structure
- Selection Process for Consultant & Contractor
- Funding Hurdles
- Early Enabling Works Contract
- Building demolition
- Budget Pressures
- Adjacent Stadium Activities
- Media Interest
Short Timeframe

- Rugby World Cup Deadlines (fixed)
- Stadium not approved until last minute
- Typically need 36 months for design, consents and construction.
- We had just 24 months
- Large number of unknowns and uncertainties
- Consultation times very tight
- No land, no funding, no consents!
- Classis Hospital Pass
Project Management Structure

- Set Up Project Control Group for high level control & co-ordination
- Engaged Specialist Project Manager (Callum Wood from Primecorp Consultants) for day to day control & co-ordination
- Many DCC departments and other Authorities had vested interest
- Relationships Critical
- *Need the right people in key roles*
Selection Process for Design Consultant

- Knew there were 5 consultants likely to tender
- Went through simple Pre-registration to keep Consultants tendering costs down
  - Relevant Experience
  - Track Record
  - Technical Skills
- Needed someone who could “Hit the Ground Running”
Final Selection of Consultants

- Two made the final cut
- Further detailed submission made
  - Methodology
  - Price
Contractor Selection

- Open tender
- Lowest Price Conforming
- Won by “Out of Town” contractor who had not worked in Dunedin before
- Used a different contracting style
- Had a strong desire to do well
Funding Hurdles

- Funding Partnership
  - DCC funding 35%
  - NZTA funding 65%
- Not approved until VERY late
- Significant uncertainty over land costs
- Project estimate over $20m required thorough economic assessment
- Peer Reviews, parallel estimates, traffic modelling reviews etc
- Time delays!! Critical start date pushing out.
Two Enabling Works Contracts to Fast Track Progress

1. Relocation of underground services at bridge site
2. Bridge piling in Water of Leith
Bridge Piling

- Timing issue with ORC consent – restrictions on waterway work (Salmon spawning)
- Decision to award contract to contractor already at Stadium
- Obtained second price for reality check
- Good co-operation from NZTA
- In stream work completed by May 2010 (before main contract let)
Relocation Of Underground Services

- Conflict with existing U/G service at bridge
  - Water
  - Stormwater
  - Sewer
- Would add 6 weeks to programme if not done separately
- Negotiated with Delta with price review by WWSBU
Building Demolition & Impact on Site Availability

- Not a True Green Field Project
- Removal of numerous buildings
- Different owners, some with heritage value
- Heritage Assessment prior to demolition
- Demolition work managed by others so risk of time slip – needed constant liaison
- Forced a staggered site availability
- Complicated the construction programme
Budget Pressures

- Unexpected Contaminated Material
- Risk assessment highlighted sites in stadium area, but not in new road alignment
- Low Level Contamination was found, but in large quantities
- Not petroleum based contaminants
- Heavy Metals
- Thought to be due to activities in late 19th century
Budget Pressures

- Fixed Budget
- Contingency gone within 3 months!
- Alternative designs introduced to contain costs. Everything considered.
  - Consultants ideas
  - Contractors ideas
  - Clients ideas
- Great co-operation from all parties
- Budget tracked relatively well afterwards
Christchurch Earthquake

- Put strain on local resources
- Delays with bridge material supply from Chch
- Second earthquake had impact on some critical path elements
- Only good luck that no delays
Key Contractor Goes into Liquidation...

- Main roading contractor went into Liquidation 3 months before project due date
- Little warning, but some earlier alarm bells
- Head contractor very quick to react
- Productivity dropped
- Lost about 2 weeks
Adjacent Stadium Activities

- Major construction activity next door with their own objectives & timelines
- Space at a premium
- Critical to Maintain Stadium Access
- Main access via Parry St
- Cut eastern portion of site in two
- Late switch in Stadium access put pressure on programme
- Immense media interest in Stadium
- Needed to consider what is best for DCC
Media

- Media not the enemy
- Use media to showcase the project
- Keep media well informed and invite them to site
- Establish relationships
- Plan media release to hit project milestones
  - Funding confirmed
  - Contractor on site
  - Bridge completed
  - Opening
Summary

- Significant Achievement
- Advanced planning limited
- Co-ordinating different teams involved
- Quick decision making critical
- No decision is a bad decision
- Very good co-operation across many parties
- Critical to have good people in all key roles
- Received high praise from GM Hawkins Infrastructure
Acknowledgements

- Opus International Consultants
- Primecorp Consultants
- Hawkins Infrastructure
- MWH Ltd
- NZTA (Funding)
- NZTA (Highways)
- DCC Planning
- DCC Water & Waste
Questions?