Successful Projects and Technology
Helping us work smarter

Marieke Simons
Successful Project and Technology

Asset Management of Structures using RAMM for Bridges as an Asset Reporting Tool in the Auckland Motorway Alliance

Marieke Simons
Introduction – Auckland Motorway Alliance

- What is the Alliance?
  - Participating organizations
    - NZTA, Fulton Hogan, Opus, Beca, Resolve, and Armitage
  - Maintaining the Auckland Motorway Network
Our Structures Asset Management team provides:

- Professional engineering services
- Design, supervision and advice
Activities that we are involved with………

Structural Inspection equipment
Natural Hazards

Hazards faced by Inspectors
Structural Inspections
Alliance Structural Assets

- 1200 structures including:
  - Bridges and Culverts
  - CCTV and High Masts Lights
  - Tunnels, Tunnel Utility services, Water Tanks
  - Dams and Drainage Structures
  - Retaining Walls
  - Noise Walls
  - Crash Cushions
  - Sign Gantries
  - Weigh Stations
  - Works of Art
Structures within Auckland Region
Inspection Faults
1914 - Old Mangere Bridge
Information Storage, Analysis and Reporting

- RAMM for Bridges
- Benefits of an Electronic System
- Storage of Historical knowledge
- Produces Inspection and Summary Reports
- Assist in programming and budgeting
RAMM for Bridges

- Electronic storage system
- Produces Inspection and Summary Reports
- Prioritise structural and routine maintenance work
RAMM for Bridges

- Complies with the S/6 NZTA National Inspection Policy.
- 10yr Inspection Programme
- Contains all 1200 structures
Benefit of an Electronic System

- Interrogate any item or marking code
- Filters maintenance problems by category
- Information is retrievable and available online
- Stores maintenance works
- Capturing the right data
Storage of Historical knowledge

- Historical knowledge is available
- Work smarter
- Region wide condition picture
- Possible deterioration trends
Produces Inspection and Summary Reports

- Structures are inspected every 2 years
  - Detailed inspection every 6 years
  - Monitoring Inspections
- Uniqueness
- Clarifies programming of maintenance

Final Quarterly Inspection Report
Assist in programming and budgeting

- Predict Maintenance work
  - Program work into AMATRAC

- Asset Management Purposes;
  - Forward Work Program for 10 years
  - Funding Program for 3 years
  - Annual Plan for 1 year

- Risk Management System
Innovations

- Alliance Culture of Innovation
- Ipad Benefits
  - Entered on site
  - Previous inspected faults or maintenance issues
  - Special interest items
  - Historical knowledge
Innovations Continued

- Highway Information Sheet System
- Deterioration Model
Conclusion

- Cost efficient maintenance solutions
- Working smarter using technology
- Best value for money services
- Robust future asset management model
Thank you for listening

ANY QUESTIONS??