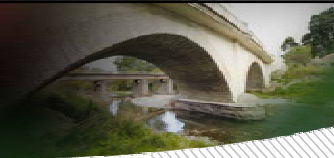**Bus-Pedestrian Interaction in Courtney Place: on a Budget**
19th March 2012

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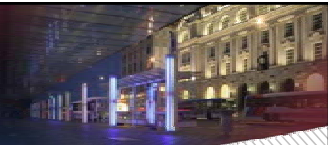Roger.Burra@opus.co.nz

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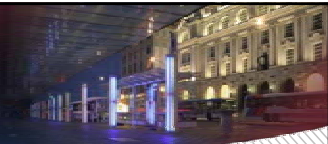
Today's Presentation

- The Courtenay Place Project
- Pedestrian Data Collection
- Pedestrian Modelling
- Lessons Learned

Courtenay Place

Courtenay Place

Courtenay Place

OPUS

Study Objectives

Identify:

- the effects of the proposed bus priority
- how it would work "on the ground"
- how the design could be improved

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Transport Modelling

- Stage 1 – SATURN Modelling
- Stage 2 – micro simulation modelling – but which package?

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Data Collection

- Classified Vehicle turning count surveys at intersections
- Journey time surveys
- Bus stop dwell time surveys
- General traffic behaviour observations
- **Pedestrian Surveys**
- Bus passengers volume surveys at Bus stops
- Other site observations

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Pedestrian Tracking Software

- Software is Windows, Linux and Android based
- Permits the tracking and collection of
  Space -Time details of any object within a defined
  surveyed area

An Application – Movie

An Application

PM Peak – Graphical Results

An Application

An Application

For the Two Hour AM, IP and PM peaks observed
- 35,000 pedestrian crossing movements observed
- PM Peak had most crossing movements with 15,000
- 4800 "Jaywalkers" = 14%
- 50% of "Jaywalkers" at the existing signalised crossings

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Courtenay Place Model

OPUS

Courtenay Place Model

- Pedestrian Level of Service Improvement
- Uncomfortable level of pedestrian density could be an issue
- Improved travel time (including buses)
- Signal Optimisation required
  - NOT just cycle time and phase time but ALSO Phase Plan
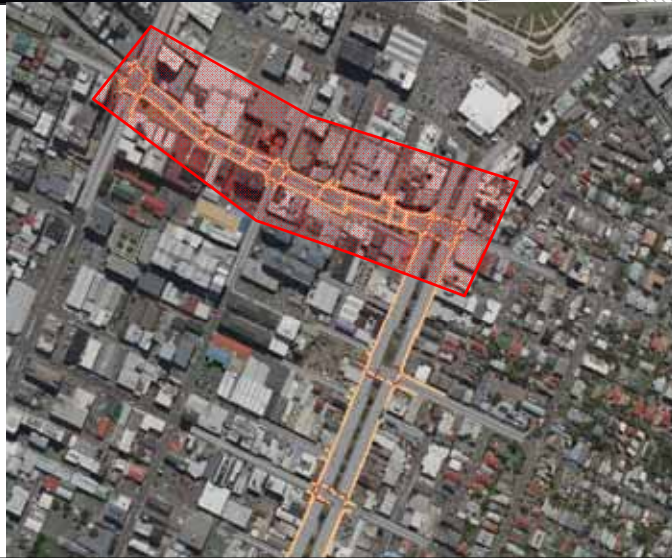- "Bus bunching "still an issue

OPUS

Future Applications

- Pedestrian Safety Assessment
- Pedestrian Crossing Facilities
- Public Transport Terminals
- Special Events
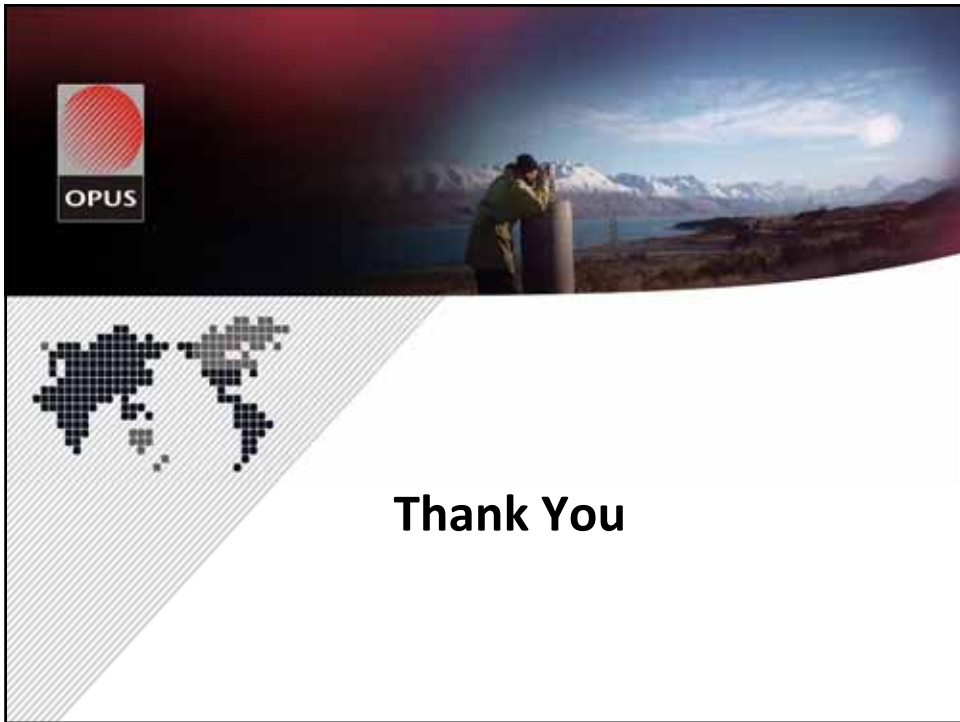- Urban Space Design
- Evacuation Analysis

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Lessons Learned

Lessons Learned

- Data Collection
  - Pedestrian Surveys limited to capture crossing movements
  - Movements along footpaths not captured and analyzed
  - Assumed desired lines along footpaths
  - Not enough boarding/alighting bus passenger data

Thank You