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## Movement Infrastructure Analysis

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### 1. The Proposal

To undertake Movement Infrastructure Research and Analysis work using Space Syntax for the Central City to support and test, urban design and infrastructure interventions in and around the Central City.

This work is integral to the delivery of Wellington 2040 and the project cost is to set up a base model for vehicles and pedestrians to include all streets and pedestrian connections within central Wellington and three kilometres beyond. The work has been recommended for the Central City given its significance to Wellington and the region in terms of economic productivity, quality of life, quality of job and international competitiveness.

There are limited suppliers for this service. An estimate has been obtained from the supplier for what the cost would be for a Wellington project. Examples of where it has been used include:

- **Manukau City Centre**, Manukau
- **University of Otago Masterplan**, Dunedin
- **Trafalgar Square**, London
- **Olympic Games 2012**, London
- **British Museum**, London
- **Hong Kong Waterfront**, Hong Kong
- **Yarra Plan**, Melbourne
- **Green Square Town Centre**, Sydney

The base data will make use of existing data where available within council to ensure that work already done will not be duplicated.

### 2. Proposal Costs

Outline project costs per year										
Project Component	Operating expenses \$000									
	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Space Syntax, Movement Infrastructure Analysis (External)	180									
Total	180									

The cost of undertaking a wider city model (three times the Central City area) is estimated at \$360,000. The inclusion of just Kilbirnie and Johnsonville into the model would be approximately \$250,000. These costs need to be formally confirmed by Space Syntax.

### **3. Project Outline**

Significant changes to the current public transport and public spaces are currently under development in the city and will have far reaching impacts on the development, economy and commerce in the localised and wider areas.

There is currently no analytical method available within Council to analyse designs and future interventions to ensure that proposed changes will have a positive effect on the movement, economic and development potential of the changes prior to implementation. The model will illustrate how busy each particular street or thoroughfare is. It is then able to test a range of options. It can predict how street activity can be increased or decreased by introducing or removing street connections and/or vehicles, and public transport into the system.

The funding request is to develop a Space Syntax model to enable proposed interventions relating to movement be tested at the design stages to ensure that the best outcome will be achieved for the city in terms of movement, socio economic and business longevity of the Central City. The costs of physical interventions into urban areas are extremely high. This can be direct capital costs; costs of reinstating and/or reconfiguring unsuccessful public space schemes; cost of and to failed businesses; and the lowering of property values.

Once the model has been built the testing of new initiatives can be ongoing. The information provided would provide a clear direction as to the validity of any proposal such as the opening of pedestrianising Lambton Quay, and also provides information that can be included in future strategy, planning and infrastructure development projects.

### **4. Recommendation**

It is recommended that the base model be funded for the Central City to test current and future changes.

Given the impact that urban design and heritage changes make to the City, and the potential for design changes to elevate to high profile public and commercial debate, the use of a robust analytical tool to support the councils design decisions, would have the potential of guiding Council and alleviating concerns early in the consultation process.