

## 5. LICHFIELD/TUAM SWAP

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The purpose of this report is to provide the Council with information on the proposed Lichfield/Tuam one-way swap project and seek approval to begin consultation at the beginning of June.

### EXECUTIVE SUMMARY

The Council is considering moving the eastbound arterial road function to Tuam Street and making Lichfield Street a local two way road.

The swap of the function of the two streets is proposed because it is considered to have a number of significant advantages for the city. The proposal originated from the City Services Committee which proposed the change in the previous term of the Council as a means of making Lichfield Street more suited to a central city shopping and residential street. The siting of the Bus Xchange added another reason. In traffic terms, the main benefits occur for public transport, cycling and pedestrian movement in the city core, as well as amenity improvements along the Avon River.

The main report, separately circulated, contains reasonable detail on the proposal, its objectives, issues, design details and subsequent effects. The paragraphs immediately following offer a summary of the main points of that report and the paragraph numbering is consistent with the main report.

### BACKGROUND

At its 17 December 1999 meeting, the then City Services Committee resolved:

*That the staff investigate the advantages and implications of changing Lichfield Street to a two-way street and Tuam Street to a one-way street from west to east."*

### INTRODUCTION

In 2001 the Central City Strategy was adopted incorporating the City Services Committee proposal as follows:

***"One Way Streets Swap.*** *Further investigate changing Lichfield Street into a two way road and Tuam Street into a one-way road to support improvements in public transport and efficient use of the Bus Exchange, enhancing the river environment (on Oxford Terrace) and amenity improvements for heritage character group buildings on Lichfield Street."*

Extensive technical work has been conducted which has looked at the issues and effects of the possible swap, some consultation with interested parties, and subsequent development and assessment of a draft scheme. The work has been reported to a number of Council forums. The latest being the STU Committee seminar in March 2002. This report now contains the latest information available for the reporting process.

### ISSUES AND OBJECTIVES

The Central City Strategy contains a series of objectives. This proposed one-way swap project is considered to address a number of issues relevant to transport, environment and amenity, and city shape. The stated strategy objectives, and the primary issues relating to them are identified immediately below:

**Transport Objective:** *"To enhance pedestrian, cyclist, and public transport accessibility and safety in and around the Central City, maintain vehicle access but reduce its dominance in some areas of the Central City, and ensure excellent links with the wider metropolitan area."*

The key issues in relation to this objective are:

- **Public transport:** The public transport system is currently unable to meet its stated performance objectives. This is largely due to increasing roading congestion in the central city. In addition, the current routing system for buses, using peripheral termini, requires significant extensions to bus journey distance and travel times, and also impacts on the numbers of bus movements in the central city.
- **Pedestrians:** Pedestrians face safety and access difficulties on Lichfield Street, in front of the Bus Exchange, due to the arterial function of the road, and the entry and exit of buses and vehicles into the building.

- Cyclists: Cyclists continually rate the central city as the most hazardous area in the city to cycle around.
- Traffic: Frequent queuing of the buses and parking building cars on Lichfield Street impede the arterial function of the road. Road layout currently requires extensive vehicle movement into the central city core.
- Safety: Existing intersections on Lichfield and Tuam Streets rank highly as at-risk intersections in the city, with high associated social costs for crashes.
- Sustainability: Increasingly viable cycle, pedestrian and public transport access is required to the central city to reduce traffic gridlock and pollution effects.

**Environmental and Amenity Objective:** *To safeguard, sustain and enhance the environmental quality, heritage, natural features and visual amenity of the Central City and to mitigate threats to the continued protection and improvement of these values."*

The key issues in relation to this objective are:

- Natural Features: The Avon River is prime environmental asset in the city. It is currently flanked by heavy arterial vehicle flows
- Heritage: Retention of heritage buildings is dependent on viable commercial/retail use. Research shows pedestrian based retailing is better suited to two way streets.

**City Form Objective:** *"Slow Movement Core Area (bounded by one-way system). Review/introduce a 30-40 kph speed zone and provide greater priority for slow modes including introduction of a new hierarchy: 1) pedestrians, 2) cyclists, 3) public transport, 4) vehicles. Improvements would include more pedestrian crossing points, improving cyclist facilities, improvements to public transport, and appropriate traffic calming and speed reductions which achieve a "pedestrian friendly zone".*

The key issue here is that, with heavy pedestrian volumes, Lichfield St is increasingly part of the city core, but is inconsistent, as a one-way street, with the "slow movement" concept.

## PROJECT SCHEME DEVELOPMENT

A scheme plan has been developed to address the issues relevant to the Central City Strategy. In summary the plan proposes:

- Tuam Street is converted to a one-way street, heading west to east.
- Lichfield Street and Oxford Terrace are converted to two-way movement, but with limited access in some sections.
- St Asaph Street, at its western end, becomes fully one way, from Antigua to Hagley Ave.
- Hagley Ave, between St Asaph and Riccarton/Tuam, becomes one-way, north bound.
- Provision of cycle/bus/pedestrian/taxi only areas on Oxford Terrace (between Hagley and Antigua), and at the Montreal/Oxford and Colombo/Lichfield intersections.
- Active, variable signage for car parking and improved directional signage in central city.

These design concepts can be seen in more detail in the attached scheme plan documents.

The conversion of the street functions (one-way to two-way, and vice versa) will change the vehicle movement pattern around the central city, enhancing the slow core concept. The conversion will also allow large savings in bus travel times and operating costs. The bus/cycle/pedestrian only areas will allow improved access for these modes over that permitted for vehicles, while also directing vehicle flows to appropriate streets. These measures will also significantly improve pedestrian safety, and allow the opportunity for riverbank enhancements.

## ASSESSMENT OF EFFECTS

The effects of the swap are described below:

- Traffic Effects: The street change will extend vehicle delays at some city intersections, and decrease delays at others. The overall result will be a slight decrease in the level of service for general traffic. It will, however, significantly increase the benefits and service to public transport. In financial terms, there would be a net service gain of approximately \$1.1M per year. There will be some limitations on the routes that can be used to access to various sections of Oxford Terrace - Lichfield Street.

- **Bus Operation Effects:** The swap will allow major changes to bus-routing to proceed. It will become more efficient and effective to move to a cross-routing system (east-west routes cross north-south routes at the Exchange). This will allow a major reduction in bus distances as main bus route journeys to peripheral termini are eliminated. Further, the cross-routing will remove the need for east-west routed bus movements on Colombo Street, thereby reducing peak bus movements to about 25% of existing levels). It will also allow some peripheral termini to be moved or removed. A small disadvantage is that passengers on east-west routes with a destination north of the Square will need to transfer buses at the Exchange, or alternatively use the free Shuttle service.
- **Safety Effects:** There are significant safety benefits with the swap. Major vehicle safety improvements will occur at Hospital Corner, Montreal/Oxford and Colombo/Lichfield as the potential for collisions is reduced or removed by changes to movement patterns.
- **River Promenade Effects:** The project provides future opportunities to enhance the southbank of the Avon River between Antigua and Durham Streets by providing a more accessible riverbank with pedestrian river promenade.
- **Heritage Effects:** The listed heritage buildings and character groups of buildings in Lichfield and Tuam Street would not appear to be greatly affected by the proposed changes to the one-way system.
- **Street Amenity Effects:** The project offers excellent opportunity for amenity improvement along the riverbank section of the work, and limited streetscape opportunities for Lichfield and Tuam.
- **Parking Building Effects:** The general impacts on all of the parking buildings along Lichfield/Tuam Streets are more than minor, with the prime difficulty being access to the entry and exit points. Most of these effects can be mitigated by active signage and improved directional signage.
- **Property Access and Valuations:** There are expected to be minor effects only on property accesses. Land valuations are also anticipated to be mainly unchanged.
- The overall economic effect on the city is expected to be neutral.

#### **PLANNING AND RESOURCE CONSENTS**

There are planning and legislative issues that need to be considered in the swap.

- **City Plan:** Roading hierarchy will need to be amended in the city plan, which will require formal amendment processes.
- **Resource Management Act:** An assessment of effects will be required under the RMA, and subject to possible appeal processes, may take up to two years.
- **Transport Act:** The Council is empowered to change roading by-laws to allow Tuam Street to become one-way and the St Asaph St one-way to be extended. The process takes approximately 10 weeks.

#### **PROJECT PROGRESS AND TIMELINE**

This report seeks Council approval of the consultation strategy and for consultation to proceed on the project. Should the Council give approval to the consultation strategy and for consultation to proceed it will commence on 3 June 2002. The consultation period will continue until 16 August 2002.

Construction is programmed to commence in August 2004 and continue for 6 months with construction occurring before and after the "Swap" occurs in November 2004 in time for the awarding of the new through routed bus contracts by Environment Canterbury.

#### **ESTIMATED PROJECT COST AND BUDGET**

The draft annual plan includes the following budget provision

- 2003/04        \$600,000
- 2004/05        \$600,000

Latest estimates of the project cost is \$2.8m which includes new procedures for contingency estimation, higher inner city construction costs, inclusion of variable parking signage and lighting costs, and changes to the proposed scheme design. The scope of the project is being reviewed to define which elements are essential, and which can be deleted or deferred as separate projects. Other issues affecting costs may be identified during the consultation process.

The economic analysis of the project indicates a benefit / cost ratio in excess of Transfund New Zealand's cut off level. This means that subject to a detailed application being submitted to, and being accepted by Transfund, funding for 48% of the project cost will be available. Transfund funding would be \$1.34m and the net cost of the project to Council \$1.46m, or \$0.26m more than currently budgeted for.

- Recommendation:**
1. That the consultation strategy be adopted.
  2. That consultation on the project proceed from 3 June.
  3. That the consultation process be amended to provide the opportunity for any disadvantaged parties to meet directly with the Sustainable Transport and Utilities Committee and to also provide for a survey of road users.