

12. SUBURBAN PUBLIC TRANSPORT INTERCHANGES CRITERIA

General Manager responsible:	General Manager Environment
Officer responsible:	Transport and City Streets Manager
Author:	Robert Woods, DDI 941-8060

PURPOSE OF REPORT

1. The purpose of this report is to seek the Council's approval of certain criteria to identify locations for the development of three suburban bus interchanges. A further report will then present an analysis of potential locations using these criteria and a recommendation of the three locations for scheme development.

EXECUTIVE SUMMARY

2. The development of suburban interchanges are integral to achieving the Council's vision and goals for public transport as set out in its Christchurch Public Passenger Transport Strategy. In this Strategy, the Council has a target for the adoption of a plan identifying locations of interchanges and construction of three interchanges by June 2006.
3. In December 2005 staff conducted a seminar for Council and Community Boards on the role of interchanges and highlighted the particular functions of them in Christchurch (refer attached presentation). The seminar outlined the aim of achieving positive community outcomes through transport improvements that encourage increased suburban transfer between services forming the metro network and also between public transport and other modes of travel. This is currently an under-utilised aspect of the system because despite the metro services being largely in place for people to move around the network, there are not the appropriate passenger interchange facilities at key points in the network to encourage transfers. By encouraging people to maximise the flexibility of the system by interchanging between services and modes, they will be able to make better use of the metro system to access a wider range of destinations, rather than be limited to just a single bus trip. This will improve the convenience of the system to present customers whilst also allowing new customers to take advantage of an improved metro system as the overall level of service becomes more aligned with their travel requirements and expectations.
4. The success of suburban interchanges depends upon improvements in a number of key areas. These improvements may be considered the key objectives for the development of the interchanges and comprise :
 - the provision of quality interchange passenger facilities at the right locations
 - appropriate passenger services to facilitate interchange
 - the provision of good access and arrangements for other modes
 - strong ongoing marketing and promotion of the facility once it is up and running

Success in these areas will require the Council to engage with other key stakeholders, such as Environment Canterbury, local businesses and the surrounding local Communities.

5. In order to identify a fair and technically robust process for selecting the first three interchange sites, a number of different criteria options were considered. These comprised site selection by:
 - (a) geographical spread.
 - (b) existing passenger demand.
 - (c) existing level of passenger services.
 - (d) surrounding population catchment.
 - (e) importance of the suburban centre in comparison to other centres.

- (f) status of the centre within the metro network.
 - (g) land availability and complexity of procurement.
 - (h) traffic management implications and impacts on other road users.
 - (i) extent of changes required to the existing metro services and for existing passengers.
 - (j) impacts on neighbouring land owners and uses.
 - (k) project cost.
 - (l) time to complete and time implications with other projects.
6. Having assessed these options it is recommended that criteria (d) to (l) form the criteria for selecting interchange sites as these are the most important aspects to achieving positive outcomes on the aims and objectives of the project. Criteria (d) to (f) cover matters of site significance, (g) to (j) cover matters of project feasibility and criteria (k) and (l) cover issues of project deliverability. Whilst criteria (a) to (c) qualify as equitable in one way or another they would not have any supporting technical rationale to indicate they would be the best opportunities for the Council to take. If however assessments using (d) to (l) result in equal ratings of sites, (a) to (c) could be used to separate them by a second tier assessment.

FINANCIAL AND LEGAL CONSIDERATIONS

7. Funding for interchanges was first identified through adoption of the Metropolitan Christchurch Transport Statement stage 1 in December 2003. Budgets for suburban interchanges are currently identified in the Council's current draft LTCCP 2006/16.

STAFF RECOMMENDATIONS

It is recommended that the Council:

- (a) Note the aims and objectives of the project.
- (b) Adopt the proposed criteria for the development of a priority list of interchange locations. These being :
 - (d) surrounding population catchment.
 - (e) importance of the suburban centre in comparison to other centres.
 - (f) status of the centre within the metro network.
 - (g) land availability and complexity of procurement.
 - (h) traffic management implications and impacts on other road users.
 - (i) extent of changes required to the existing metro services and for existing passengers.
 - (j) impacts on neighbouring land owners and uses.
 - (k) project cost.
 - (l) time to complete and time implications with other projects.
- (c) Request that staff prepare the priority list using these criteria and present a report recommending the locations of three suburban interchange locations for adoption.

BACKGROUND ON SUBURBAN INTERCHANGES

8. The development of three suburban interchanges by June 2006 is a City Council target of the Christchurch Public Passenger Transport Strategy. It sits amongst a range of other targets for both the City Council and Environment Canterbury, emphasising the importance of ongoing and combined improvements in passenger services and infrastructure to achieve the vision set out in the Strategy.
9. Suburban interchanges aim to encourage people to transfer between different metro services and between metro public transport and other modes. With the availability of an urban network of convenient services and attractive interchanges, people will increasingly be able to move efficiently within it, making public transport a convenient alternative to most private car journeys. Interchange is a concept where customers can hop on and off different routes to reach their destination, as well as to join and leave the system via another mode. This will occur at its most optimal when the services have sufficient coverage and are of an appropriate cost, reliability and frequency to make their use realistic, supported by passenger interchange facilities that provide attractive surroundings of sufficient quality and functionality to make interchanging easy and convenient. The bus exchange is an excellent example of such a facility (albeit on a larger scale).
10. Interchanges and the supporting passenger services must therefore support the needs of people moving efficiently within a network and must also recognise where and how customers choose to join and leave the network (whether it be on foot, by bike or other mode¹) and what other business they may undertake on the way, such as shopping, entertainment, leisure or personal business. Interchanges thus operate on a number of levels, with the locations that will deliver the greatest benefits being those that can most effectively deliver the interchange concept in an area with a high passenger catchment. Criteria are needed to identify the extent to which any given location is likely to perform on these fronts and therefore their priority in terms of achieving the Council's aims and objectives.

AIMS

11. The Council works towards the achievement of a number of Community Outcomes, some of which relate directly to improvements in the transport system. These include "An attractive and well designed city", "A safe city", "A city of people who value and protect the natural environment" and "A prosperous city". Contributions to these Community Outcomes through transport improvements should be recognised as an important aim of the interchanges project. To achieve these outcomes interchanges aim to encourage more trips by public transport and less by private car by encouraging transfer between metro services and also between metro and other modes of arrival and departure from the interchange. In this way better use will be made of the existing road network, improving its efficiency and safety and making higher value road trips such as freight movement faster and more reliable.

OBJECTIVES

12. From these high level aims arise certain specific project objectives. The achievement of these objectives depend largely upon addressing the differences between metro and private transport in terms of time, cost, coverage, safety, image and accessibility (being the main drivers of mode choice). The project objectives are outlined below.

¹ Park 'n' ride is a form of 'interchange' not suited to the urban environment - which is the context for these bus interchanges. P&R is effective generally only on the edge of an urban area and along the line of a major high volume radial corridor such as a motorway, where car journeys can be readily intercepted. Typically, features of P&R include substantial managed free parking areas, low cost high frequency express services direct to the destination, supported by dedicated bus priority facilities. Parking controls in the urban centre, such as time limits, limited availability and price increases are also used to encourage transfer from the car at the P&R station. Park 'n' ride is a separately identified project in the Public Passenger Transport Strategy.

13. The first objective is to develop a suitable facility at the right location to encourage people to travel to a defined point in the network (via their chosen mode) where they can then transfer to another mode or service to get to their destination (or to another interchange). This infrastructure can impact upon a person's choice of travel mode by addressing common perceptions of security, image, journey time and accessibility. Feelings of security will be improved through the provision of a comfortable interchange environment, whilst its design and branding will determine its image. The way in which the facility allows the metro services to interact with the passengers (for example all services coming together at one point) also impacts upon journey time, safety and accessibility.
14. Probably as important as providing good infrastructure, is the need to provide the correct services to support the interchange concept. Attention in the areas of time, cost, coverage, image and accessibility will deliver this. Particularly essential are regular local services to get passengers to their interchange, fast and frequent links between interchanges to allow efficient movement within the network, quality buses that are clean with plenty of seats and attractive and accessible bus stops.
15. Recognising that passengers may make their way to and from the interchange using another mode, an objective should include encouragement of these types of journeys by reviewing access arrangements (for example pedestrian crossing facilities and cycle facilities on approach routes) and facilities at the interchange itself like secure cycle parking and secure storage facilities.
16. A final and often under-utilised objective for the project should be to actively inform, educate and promote interchanges before, during and after their development to ensure the maximum number of people are attracted to the facility and services. Only if people within the catchment of the interchange are aware of their options will they make use of them. Research in travel behaviour shows that changes in mode choice occur gradually and over a period of time. It is therefore important to undertake information and promotion work as part of an ongoing marketing campaign so that as people's needs and motivations change, they are regularly reminded of the alternatives available.

OPTIONS

17. A number of criteria were considered as a way to develop a priority list of sites for development. These were as follows:
 - (a) geographical spread.
 - (b) existing passenger demand.
 - (c) existing level of passenger services.
 - (d) surrounding population catchment.
 - (e) importance of the suburban centre in comparison to other centres.
 - (f) status of the centre within the metro network.
 - (g) land availability and complexity of procurement.
 - (h) traffic management implications and impacts on other road users.
 - (i) extent of changes required to the existing metro services and for existing passengers.
 - (j) impacts on neighbouring land owners and uses.
 - (k) project cost.
 - (l) time to complete and time implications with other projects.

PREFERRED OPTION

18. Having considered each criteria and the aims and objectives of the project, it is recommended that criteria (d) to (l) form the criteria to prioritise a list of interchange locations. Criteria (d) to (f) cover matters of site significance, (g) to (j) cover matters of project feasibility and criteria (k) and (l) cover issues of project deliverability. This option reflects the significance of a location in the context of achieving high level Council aims and project objectives whilst it also recognises practical matters such as the availability of appropriate land and programming with other works². Using these criteria will also likely achieve the equity offered by the remaining options, which could be employed if necessary to split options rated equally using the proposed criteria.
19. The following table outlines the proposed criteria recommended for use and how these criteria will be measured. Each criteria will receive equal weighting.

CRITERIA	Measured by
Significance of the location as a potential interchange	<ul style="list-style-type: none"> - Potential user catchment (surrounding population within 10 minute walk/bike/bus ride buffer zone). - Status of centre (certain major and minor suburban centres as identified in the City Plan, plus others of significance in the metro network) as a destination in the city-wide context (no. of employees, retail floor area). - Status of centre within the metro network (proximity, number and significance of neighbouring suburban centres and facilities, existing levels of service).
Feasibility of developing an appropriate interchange facility	<ul style="list-style-type: none"> - Land availability and complexity of procurement. - Traffic management implications and impacts on other road users. - Extent of required metro changes and impacts on existing passengers and service integrity. - Likely impacts on neighbouring land owners and uses.
Deliverability of the project	<ul style="list-style-type: none"> - Budget implications and time to complete. - Implications of/on other planned works.

² The development of interchanges within LTCCP 2006/16 budgets is an underlying assumption.

ASSESSMENT OF OPTIONS

The Preferred Option (Criteria (d) to (l))

Criteria that identifies the potential of a site to most effectively deliver the Council's aims and objectives, whilst also taking into account certain practical issues around project feasibility and deliverability.

	Benefits (current & future)	Costs (current & future)
Social	Criteria will identify areas that improve city-wide access for the most number of people first. New public spaces will provide opportunity for improved community identity.	None identified.
Cultural	Criteria will identify areas that most allow the opportunity for expressions of local cultural identity through building design and integrated artwork.	Potential for change in local identity and function of space.
Environmental	Criteria will identify areas that most achieve local and citywide improvements in air quality, rain water run-off quality and noise levels. Improved amenity of road network through reduced vehicle numbers.	Potential for change in the local environment, such as increased bus movements with noise and local air quality consequences.
Economic	Criteria will identify areas that most raised profile of suburban centres and improved accessibility increases visits from out of area, increasing local turnover. Reduced traffic volumes improve network speeds and reliability, with benefits for movement of goods and services around the city.	Sites prioritised through these criteria will require the greatest investment as they stand to deliver the greatest benefits. Budgets already identified are believed to cover the foreseeable costs at this time.
<p>Extent to which community outcomes are achieved:</p> <p>The most effective option to contribute towards “An attractive and well designed city”, “A safe city”, “A city of people who value and protect the natural environment” and “A prosperous city”.</p> <p>Impact on the Council’s capacity and responsibilities:</p> <p>This option is the most effective way for the Council to develop interchanges as a sustainable response to meeting its transport capacity demands and responsibilities.</p> <p>Effects on Maori:</p> <p>Maori will benefit equally in the outcomes of this option.</p> <p>Consistency with existing Council policies:</p> <p>Consistent with the Christchurch Public Passenger Transport Strategy update particularly in respect to the adoption of a plan identifying locations for interchanges and implementation of three interchanges by June 2006. This option focuses on the key strategic aim of growing patronage and reducing traffic growth.</p> <p>Views and preferences of persons affected or likely to have an interest:</p> <p>Views of Community Boards to be reported at meeting.</p> <p>Other relevant matters:</p>		

Geographical spread Option (criteria (a))

Prioritise locations so that the implementation of interchanges is on a geographical basis and each board in turn gets an interchange.

	Benefits (current & future)	Costs (current & future)
Social	Criteria will lead to people in all Boards receive an improvement in local public transport provisions.	Criteria will lead to the areas with the greatest potential response to local improvements not necessarily being the first to receive them.
Cultural	Criteria will lead to opportunity for expressions of local cultural identity through building design and integrated artwork.	Will potentially lead to change in local identity and function of space.
Environmental	Local improvements in air quality, rain water run-off quality and noise levels lower than through preferred option criteria. Lower improved amenity of road network outcome through reduced vehicle numbers.	Potential for change in the local environment, such as increased bus movements with noise and local air quality consequences. Reduced short term citywide benefits compared to Option (d).
Economic	Criteria will lead to (but less than preferred option) raised profile of suburban centres and improved accessibility increases visits from out of area, increasing local turn-over. Reduced traffic volumes improve network speeds and reliability, with benefits for movement of goods and services around the city.	Possibly lower up front cost than preferred option. However, long term costs to provide interchanges at the key locations will increase.
<p>Extent to which community outcomes are achieved: Same outcomes as preferred option but to a lesser extent.</p> <p>Impact on the Council's capacity and responsibilities: Is a sustainable response to meeting network capacity demands but less so that preferred option as the priority sites will not necessarily be improved at first.</p> <p>Effects on Maori: Maori will benefit equally in the outcomes of this option.</p> <p>Consistency with existing Council policies: Consistent with the Christchurch Public Passenger Transport Strategy update particularly in respect to the adoption of a plan identifying locations for interchanges and implementation of three interchanges by June 2006. This option, however, does not focus on growing patronage which is the underlying aim of the Strategy.</p> <p>Views and preferences of persons affected or likely to have an interest: Views of Community Boards to be reported at meeting.</p> <p>Other relevant matters:</p>		

Existing passenger demand option (criteria (b))

Prioritise locations according to the existing level of passenger demand at the bus stops currently servicing the area.

	Benefits (current & future)	Costs (current & future)
Social	Criteria will lead to large number of existing passengers benefiting.	Possible that areas with a latent demand unfulfilled will not benefit.
Cultural	Will lead to opportunity for expressions of local cultural identity through building design and integrated artwork.	Potential for change in local identity and function of space.
Environmental	Local improvements in air quality, rain water run-off quality and noise levels, but probably less than the preferred option. Improved amenity of road network through reduced vehicle numbers.	Potential for change in the local environment, such as increased bus movements with noise and local air quality consequences. Reduced short term city-wide benefits compared to preferred option.
Economic	Will deliver some increased local commercial activity. Minimal impact on network efficiency.	Possibly lower up front cost than preferred option. However, long term costs to provide interchanges at the key locations will increase.

Extent to which community outcomes are achieved:

Less than the preferred option, with the risk that delays in scheme development and a lack of local support will delay and possibly reduce the achievement of community outcomes.

Impact on the Council's capacity and responsibilities:

Impacts on traffic growth will be largely coincidental.

Effects on Maori:

Maori will benefit equally in the outcomes of this option.

Consistency with existing Council policies:

Consistent with the Christchurch Public Passenger Transport Strategy update particularly in respect to the adoption of a plan identifying locations for interchanges and implementation of three interchanges by June 2006. This option, however, does not focus on growing patronage which is the underlying aim of the Strategy.

Views and preferences of persons affected or likely to have an interest:

Views of Community Boards to be reported at meeting.

Other relevant matters:

Existing levels of passenger services Option (criteria (c))

Prioritise locations so that the implementation of interchanges is co-incident with the highest existing levels of service such as the number and frequency of intersecting bus routes.

	Benefits (current & future)	Costs (current & future)
Social	Criteria will lead to possibly large number of existing passengers will benefit.	Possible that areas with a latent demand unfulfilled will not benefit.
Cultural	Opportunity for expressions of local cultural identity through building design and integrated artwork.	Potential for change in local identity and function of space.
Environmental	Local improvements in air quality, rain water run-off quality and noise levels. Improved amenity of road network through reduced vehicle numbers.	Potential for change in the local environment, such as increased bus movements with noise and local air quality consequences. Reduced short term city-wide benefits compared to preferred option.
Economic	Will deliver some increased local commercial activity. Minimal impact on network efficiency.	Possibly lower up front cost than preferred option. However, long term costs to provide interchanges at the key locations will increase.

Extent to which community outcomes are achieved:

Same outcomes as preferred option but to a lesser extent.

Impact on the Council's capacity and responsibilities:

Impacts on traffic growth will be largely coincidental.

Effects on Maori:

Maori will benefit equally in the outcomes of this option.

Consistency with existing Council policies:

Consistent with the Christchurch Public Passenger Transport Strategy update particularly in respect to the adoption of a plan identifying locations for interchanges and implementation of three interchanges by June 2006. This option, however, does not focus on growing patronage which is the underlying aim of the Strategy.

Views and preferences of persons affected or likely to have an interest:

Views of Community Boards to be reported at meeting.

Other relevant matters: