TRANSPORT MASTERPLAN

Introduction

1.1 The North East Cardiff Proposals relate to Strategic Site G and Strategic H of the Deposit LDP, which together have the potential to accommodate up to 6,000 dwellings.

1.2 The Deposit LDP is based on the key objective of achieving a 50/50 sustainable travel mode split, and the Transport Masterplan sets out how this will be achieved for the North East Cardiff Proposals.

1.3 The Transport Masterplan for the North East Cardiff Proposals has been developed following regular meetings between the Council, landowners and the respective transport consultants. It is based upon the fundamental principle of creating a ‘sense of place’, providing infrastructure in a way that maximises accessibility and social inclusion, and also allows the city to function efficiently.

1.4 The Transport Masterplan includes a Walking Strategy, a Cycling Strategy, and a Public Transport Strategy, which together with Council initiatives to tackle city centre parking and the allocation of road space, will help achieve a step-change in travel behaviour in North East Cardiff.

Transport Masterplan

1.5 Transport Masterplan is based upon a hierarchy which places pedestrians, cyclists and other vulnerable road users at the top, with least priority given to the private car. Therefore, road widths will be minimised, traffic speeds will be low (20mph or less), and where appropriate there will be a mixture of designated pedestrian and cycle routes and shared surfaces. There will be direct frontage access to properties and on-street parking will be discouraged through design.

1.6 Figure 1 shows the cross discipline Masterplan for the North East Cardiff Proposals.
Walking Strategy

1.7 In Wales, around 8% of car journeys are less than 1 mile, 26% are less than 2 miles and 58% are less than 5 miles. Therefore, the potential to walk for a significant proportion of journeys is high.

1.8 The objective of the Walking Strategy is to provide for, promote and increase walking as an enjoyable, safe and healthy activity for people of all ages and abilities, and to reduce dependency on the car.

1.9 The North East Cardiff Proposals will minimise journey lengths and facilitate journeys on foot through the provision of:

- High quality, direct and continuous walking routes;
- A hierarchy of walking routes which includes traffic free routes;
- Safe crossing points along pedestrian desire lines, with good natural surveillance;
- Appropriate signing for pedestrians (and cyclists); and
- Integration with other transport modes, including connections to bus routes and rail stations.

1.10 Proposed pedestrian improvements to the A4232 are shown in Figure 2.

1.11 In addition, the North East Cardiff Proposals will be supported by Residential Travel Plans, which will promote and encourage walking as an attractive mode of transport.

Cycling Strategy

1.12 In the wards of Lisvane, Llanishen, Cyncoed, Pentwyn and Pontprennau / Old St Mellons, 2001 Census data indicates that, on average, 43% of travel to work journeys are 5km or less. The proportion of all journeys under 5km is likely to exceed this, and therefore cycling has significant potential to contribute towards a sustainable travel mode split.

1.14 The internal cycle network will comprise the following hierarchy or routes:

- **Shared Cycle Routes** – These routes will be shared between cyclists and pedestrians, and will provide direct and convenient routes to key destinations.
- **Shared Streets** – Streets where cyclists share the carriageway with vehicles. There is no specific provision for cyclists, who can use the full width of the carriageway, in line with the guidance contained within *Manual for Streets*.
- **Segregated Streets** – Streets which provide cyclists with a degree of separation from vehicles. Such provision may be in the form of facilities adjacent to the carriageway, or in some cases alternative routes near, but away from, the street.
- **Off-Road Facilities** – These facilities can exist either adjacent to the carriageway, or away from carriageway altogether. Off-road cycle facilities provide a pleasant, fast and convenient route for cyclists with are contiguous with adjacent cycle infrastructure and shared / segregated streets.

1.15 The internal cycle network will connect to the existing cycle network in a plethora of locations.

1.16 *Figure 3* provides an indicative illustration of the walking and cycling network for the North East Cardiff Proposals.

**Public Transport Strategy**

1.17 The Spine Roads will be designed to allow two-way bus movement, providing a new direct, convenient north-south connection between Cyncoed / Pentwyn and Lisvane, and an east-west connection between Lisvane and Old St Mellons via Pontprennau. The North East Cardiff Proposals will include bus priority at appropriate locations, including key access junctions, which in turn will connect to off-site bus priority measures. Modern bus stops will be provided in appropriate locations, ensuring the bus is accessible to existing and future residents.

1.18 Off-site bus priority measures will include:

- Westbound bus lane on Pentwyn Road between Ty-Draw Road and Pentwyn Drive;
1.19 The proposed bus priority measures would connect to the existing eastbound bus lane on the A48, and provide almost continuous bus priority to the City Centre. An illustrative layout of the off-site bus priority measures is included at Figure 4. The estimated cost of these works is £4 million.

1.20 In addition, the Council may consider it beneficial to provide a northbound bus lane on the A4232, and a southbound bus link through Cardiff Gate International Business Park, for the benefit of existing and future residents. The North East Cardiff Proposals will facilitate these improvements, and have been designed to complement the wider strategic objectives of the Council. The potential bus link into Cardiff Gate International Business Park is shown in Figure 5.

1.21 Based on predicted future demand and the principles of the Deposit LDP, the following new routes have been developed:

- Diversion / Extension to Service 52;
- City Centre Express Service (via Cardiff East Park & Ride);
- North East Cardiff – Llanishen – Heath Hospital Loop (via Llanishen rail station);
- Diversion / Extension to Service 59;
- Train Station Shuttle; and
- Newport Express.

1.22 Figure 6 shows the indicative future bus network for the North East Cardiff Proposals. Figure 7 shows indicative future bus routes.

1.23 The precise operational requirements (number of buses) to provide this level of service will need to be agreed with the bus operators. It will be influenced by:

- Route Compatibility;
• Frequency / timing;
• Journey time / reliability; and
• Layover availability / driver requirements.

1.24 The North East Cardiff Proposals and well located with respect to rail services. The Masterplan ensures there will be direct walking and cycling connections between the North East Cardiff Proposals and all four local rail stations. In addition, Heath - Llanishen Circular bus route will connect to Llanishen rail station, allowing residents to undertake multi-modal journeys.

**Vehicular Access**

1.25 The Transport Masterplan provides vehicular access to the existing highway network in six locations. The form and type of vehicular access to Cardiff Gate International Business Park is currently being considered, and is subject to the wider strategy of the Council. The location of each vehicular access point is shown in Figure 8. The indicative layout of a potential link to Cardiff Gate International Business Park is shown in Figure 9.

**Summary**

1.26 The Transport Masterplan aims to achieve a 50/50 sustainable travel mode split, in line with the objectives of the Draft LDP. The Walking Strategy, Cycling Strategy and Public Transport Strategy have been developed with this in mind, and these strategies are supported by the design and layout of the Masterplan itself, which seeks to make travelling by sustainable transport modes as attractive and convenient as possible.
Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Legend:
- Development Site Areas
North East Cardiff Proposals

Proposed Puffin Crossing on Pentwyn Link Road

1:1000 at A3

26.6.13

Figure 02

DRAFT: for illustrative purposes only
Notes:
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2. White lining is indicative only.

Legend:
- Red: Development Site Areas
- Green: Proposed Walking & Cycling Routes
- Black: Existing Walking & Cycling Routes

North East Cardiff Proposals

Indicative Pedestrian / Cycle Masterplan

Drawn: 
Checked: 
Date: 15.07.13
Scale: NTS at A3

Figure 03
Bus Lane Details

1. Pentwyn Road - Peppermint Drive to Glyn Coed Road Roundabout
   - Bus Lane: 3.25m
   - Eastbound Lane: 3.0m
   - Westbound Lane: 3.25m

2. Pentwyn Road - Glyn Coed Road Roundabout to Pentwyn Drive
   - Bus Lane: 3.5m
   - Eastbound Lane: 3.0m
   - Westbound Lane: 3.25m

3. Pentwyn Drive
   - Main Carriageway: 6.5m
   - Contra-flow Bus Lane (southbound): 3.5m

4. Bryn Celyn Road
   - Eastbound: 3.25m Lane and 3.5m Bus Lane
   - Westbound: 3.25m Lane and 3.5m Bus Lane

Illustrative

North East Cardiff Proposals

Inbound Bus Lane Feasibility Layout
from Ty Draw Road to A46 Easter Avenue via Pentwyn Road, Pentwyn Drive and Bryn Celyn Road - Option 2

1:2000 at A1
Future two way bus only link to NE Cardiff

7m wide two way bus only link with signage either end

Notes:
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2. Whitling only.
3. Based on Vectos model number: W1109090 dated 22nd May 2013.

North East Cardiff Proposals
Possible Controlled Two Way Bus
Link between CGIBP and NE Cardiff

Scale: 1:500 at A3

Figure 05
Notes:

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Legend:
- Development Site Areas
- Proposed Bus Routes

North East Cardiff Proposals

Indicative Public Transport Masterplan

Figure 06

NTS at A3

15.07.13
North East Cardiff Proposals

Proposed Bus Routes

Legend:
- Site
- Extension to Route X59
- Extension to Route 52
- Express Route to City Centre
- Heath / Llanishen Circular
- CGIBP - Train Shuttle
- Proposed Newport Express

Figure 07
Notes:
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Legend:
- Development Site Areas
- Vehicular Access Points

North East Cardiff Proposals
Indicative Vehicular Access Points for North East Cardiff Masterplan

Figure 08
North East Cardiff Proposals

Possible Merge Lane onto Pentwyn Link Road from St Mellons Road

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