



# **Aberdeen Cross City Transport Connections**

Engagement Information Pack





#### **Overview**

This document provides an overview of the **Aberdeen Cross City Transport Connections Study.** The study is being undertaken on behalf of Aberdeen City Council, Aberdeenshire Council and Nestrans, by Peter Brett Associates (now part of Stantec).

The overall purpose of the study is to:

Examine transport connections between new areas of development on the periphery of Aberdeen, and in areas of Aberdeenshire close to the Aberdeen City boundary with the aim of providing viable, attractive and direct linkages, as an alternative to the private car.

An image showing the development sites is provided within this pack.

While the study is focussing on developing transport connections between new areas of development, many of the connections developed provide improved accessibility to existing communities within Aberdeen and Aberdeenshire and we are therefore seeking input from existing communities who may benefit.

## **Your Feedback**

We sought your views on the initial phase of the study in November 2016. At this stage a range of public transport and active travel options had been developed and a high level initial appraisal of the options undertaken.

The study has progressed further and we are now seeking your views on the final set of options which are in the process of being appraised in detail.

To ensure the transport connections have been developed appropriately, we would like to hear your views and feedback on the work undertaken for the study and whether or not you agree or disagree with the options.

To capture your feedback we invite you to:

- Review the material within this pack
- Record your views through a short on-line questionnaire available here: <a href="https://consultation.aberdeencity.gov.uk/planning/aberdeencross-city-transport-connections">https://consultation.aberdeencity.gov.uk/planning/aberdeencross-city-transport-connections</a>

We recommend you have this engagement pack close at hand for reference when completing the survey.

#### The survey will be open until Friday 30th November 2018.

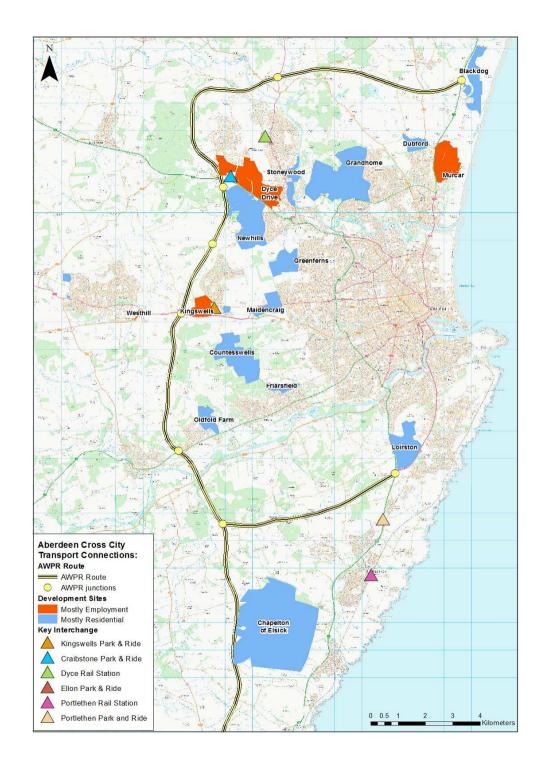
If you have any further questions or comments, a dedicated email address is available: crosscitytransport@peterbrett.com

## **Study Background**

The study considers the provision of appropriate **public transport** and **active travel (walking and cycling)** connections:

- Between planned residential and employment developments
- Between planned residential areas and key employment centres
- Between the different modes of sustainable transport at key interchange points

The study considers a **future position**, when the development sites are built out. The sites are **predominantly greenfield sites** which are yet to be developed, or are only starting to be developed. This study is about **opportunity**, and the chance **to mitigate against the potential transport impacts associated with the developments.** 



## **Scottish Transport Appraisal Guidance**

The study is being undertaken in line with the **Scottish Transport Appraisal Guidance** (STAG) and has covered the Pre-Appraisal, Part 1 Appraisal and Part 2 Appraisal stages.

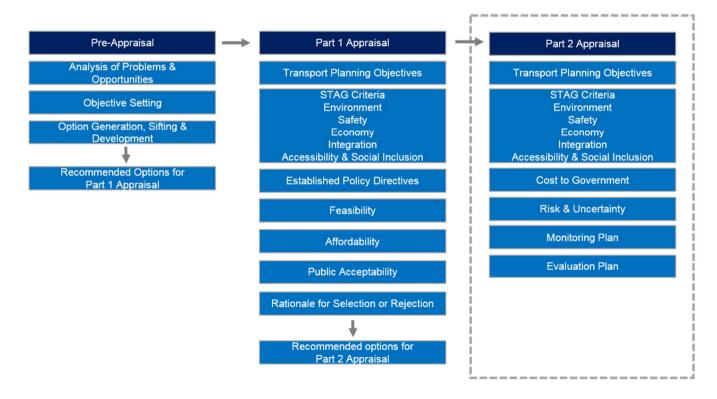
STAG provides a mechanism by which potential options to address evidence-based transport problems or opportunities are identified and appraised in a consistent manner and is evidence-led, not solution-led, proportional and robust.

The **Pre-Appraisal** stage covers the identification of transport problems and opportunities, objective setting, option generation and sifting and subsequent recommendation of options for appraisal at Part 1.

Part 1 Appraisal covers a high level appraisal of the options progressing from Pre-Appraisal against a range of criteria with final recommendations for options worthy of further detailed appraisal at STAG Part 2.

Part 2 Appraisal covers a detailed appraisal of the options progressing from the Part 1 Appraisal stage against a range of criteria with final recommendations for options worthy of being considered further.

Further details on STAG can be found at: <a href="http://www.transport.gov.scot/stag">http://www.transport.gov.scot/stag</a>



## **Transport Problems & Opportunities**

The identification of Problems and Opportunities within the transport and land-use system forms the starting point for any STAG study.

The study is considering a future position in 2030 when all the development sites are potentially built out. It is therefore important to consider the future transport network and identify future problems and opportunities.

A key part of the **Pre-Appraisal** work was a series of baselining activities which included review of:

- Overarching policy
- The existing transport network
- The current accessibility of the development sites
- Existing travel patterns
- Committed and planned future transport schemes
- Current and historical economic trends
- Key environmental designations and constraints.

## **Problems**

If no provision is made for sustainable transport access then future problems may include:

- A heavy reliance on the private car with associated additional road congestion, environmental impacts (increased emissions, noise and vibration) and an increased safety risk for all road users
- Community severance
- Reduced access to employment, services, and retail and leisure facilities

## **Opportunities**

The key opportunity for the study is to *mitigate against the* above identified future problems by providing appropriate sustainable transport connections. The study also provides an opportunity to:

- Capitalise on the Aberdeen City Centre Masterplan which envisages a high level of public transport priority in the city centre
- Recognise key infrastructure and land which needs to be safeguarded
- Recognise key infrastructure which developers could integrate into their proposals.

## **Transport Planning Objectives**

Based on the identified key problems and opportunities, and overarching policy context, eight Transport Planning Objectives (TPOs) have been set for the study.

#### **Transport Planning Objectives**

**TPO1:** Increase the modal share for sustainable travel modes, by:

Providing sustainable travel connections between the development sites and key employment hubs which:

#### **For Public Transport:**

**TP02:** Increase the accessibility of employment opportunities

**TP03:** Provide direct connections

**TP04:** Reduce the public transport to car journey time differential

#### **For Active Travel:**

**TP05:** Increase the accessibility of employment opportunities

TP06: Are safe and secure

**TP07:** Are sufficiently direct and of an acceptable distance to serve a commuter function

TPO8: Provide good integration between travel modes

## **Option Development Process**

Option development followed a number of key steps:

- Step 1: Review of existing public transport and active travel network in the study area
- Step 2: Review of the potential future public transport and active travel network in the study area
- Step 3: Establishment of key interchange points and key existing and future employment areas to ensure:
  - Connectivity between existing radial routes and new orbital routes
  - Good integration between public transport and active travel routes
  - Good access to employment opportunities
- Step 4: Establishment of the key constraints
- Step 5: The generation of options, undertaken separately for public transport and active travel due to the different nature of travel

**Engagement** with key stakeholders was undertaken during Step 5 and included engagement with the council(s), bus operators, local economic and business groups and local active travel organisations. A number of options were 'sifted out' through stakeholder discussions.

## **Key Constraints**

Key constraints identified that were critical in the option development process included:

- ◆ The route of the River Don acting as an east-west barrier with limited existing river crossings.
- ◆ The route of the River Dee acting as a north-south barrier with limited existing river crossings.
- The geography of the development sites making a single strategic route linking all sites difficult without being highly circuitous.
- ◆ The rural nature of many of the sites south of Dyce requiring new infrastructure to provide connections.
- ◆ The implementation of the Aberdeen Western Peripheral Route (AWPR), making it challenging to provide public transport journey times that can compete with the private car.
- ♦ The lack of footway and/or cycleway along the AWPR;
- ♦ Competition between bus and rail travel modes, particularly between Chapelton of Elsick and Dyce.
- Difficulty in providing active travel links suitable for commuter functions in the rural areas differing uses, surfacing requirements and lighting.

## **Public Transport Options**

Public transport options were developed considering:

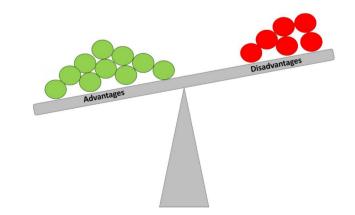
- Adapting existing bus services i.e. increasing current service frequency and/or extending existing bus routes
- New bus routes utilising existing infrastructure
- New routes (bus / tram / light rail) utilising new infrastructure

In total 22 public transport routes were taken forward for appraisal at STAG Part 1. Of these, 8 were subsequently recommended for detailed appraisal at STAG Part 2. A further 'circular loop' option was also included at this stage.

All options taken forward relate to new bus services. It is assumed that all services operate with a 30 minute bus frequency.

Each option is considered in the following slides where the key advantages and disadvantages of each option are presented. Note that the route of each option through the development sites is

purely inductive and would be subject to discussion with each relevant developer.



## Option A1

New orbital service linking Blackdog, Dyce Rail Station, Kirkhill Industrial Estate, Craibstone Park & Ride, Kingswells Park & Ride and Westhill with:

New bridge over the River Don.

The route follows A90 (Ellon Road), The Parkway, Scotstown Road, Jesmond Drive, new route through development at Grandhome and over the River Don, Stoneywood Road and Dyce Drive, Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.

## 

#### **Advantages**

- Connects the large planned residential areas at Grandhome and Newhills directly with the employment opportunities at Bridge of Don, Murcar, Kirkhill Industrial Estate, Dyce, Kingswells and Westhill
- Connects directly with Dyce Railway Station
- Serves existing communities in Bridge of Don, Middleton Park,
  Bucksburn and Kingswells
- Improves access to existing local schools and health centres
- Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a private car

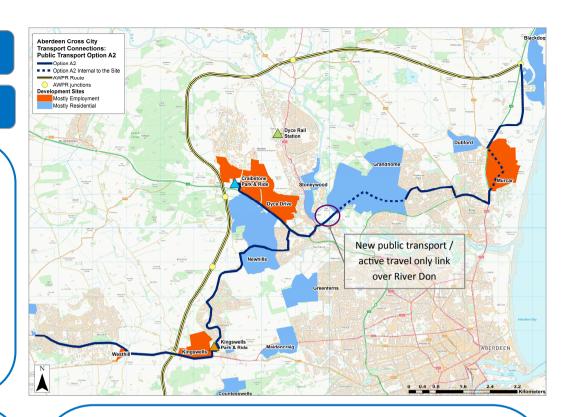
- Unlikely to be attractive for longer trips between Blackdog and Dyce,
  Kingswells and Westhill due to the distance and routeing via Dyce
  Railway Station
- ♦ Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Blackdog Dyce, Kingswells and Westhill)
- Requires considerable subsidy to operate
- Cost of a new bridge over the River Don is high (over £2 million) and has environmental impacts (with compensatory storage required on flood plain to provide flooding resilience)

## Option A2

## **As Option A1 but without routeing via Dyce Railway Station** with:

New bridge over the River Don.

The route follows A90 (Ellon Road), The Parkway, Scotstown Road, Jesmond Drive, new route through development at Grandhome and over the River Don, Stoneywood Road, A96 (Inverurie Road), Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.



#### **Advantages**

- Connects the large planned residential areas at Grandhome and Newhills directly with the employment opportunities at Bridge of Don, Murcar, Kirkhill Industrial Estate, Dyce, Kingswells and Westhill
- Provides quicker connections between Grandhome and Kingswells and Westhill than Option A1 (due to more direct routeing via A96)
- Serves existing communities in Middleton Park, Bucksburn and Kingswells
- ♦ Improves access to existing local schools and health centres
- Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a car

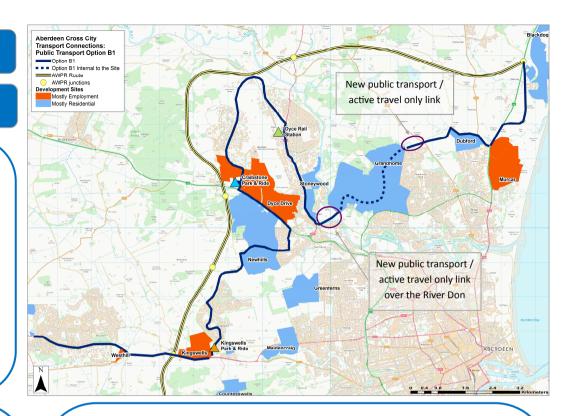
- More likely to be attractive for longer trips between Blackdog and Dyce, Kingswells and Westhill than Option A1
- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Blackdog, Dyce, Kingswells and Westhill)
- 'Dog-leg' to serve Craibstone Park & Ride unlikely to appeal to passengers not using the Park & Ride site
- Requires considerable subsidy to operate
- Cost of a new bridge over the River Don is high (over £2 million) and has environmental impacts (with compensatory storage required on flood plain to provide flooding resilience)

## Option B1

## As Option A1 but with direct route between Dubford and Grandhome sites with:

- New bridge over the River Don.
- New public transport only link connecting Grandhome and Dubford

The route follows A90, B999, new link between Dubford and Grandhome, new bridge over River Don, Stoneywood Road, Dyce Drive, Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.



#### **Advantages**

- Public transport only link connecting Dubford and Grandhome sites reduces journey times between Blackdog and Dyce compared to Options A1 and A2
- Connects directly with Dyce Railway Station
- Serves existing communities in Bucksburn and Kingswells
- Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a private car

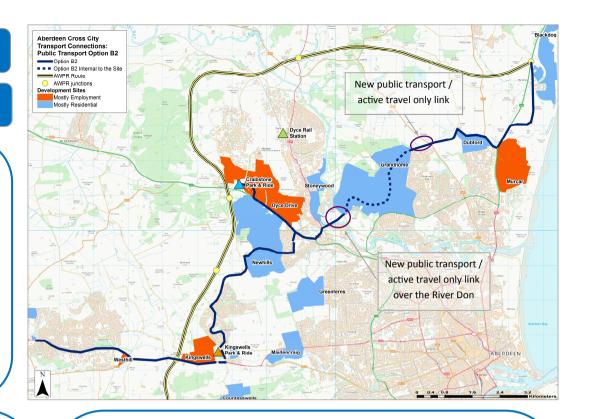
- Unlikely to be attractive for longer trips between Blackdog and Dyce,
  Kingswells and Westhill due to the distance and routeing via Dyce
  Railway Station
- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Blackdog Dyce, Kingswells and Westhill)
- Requires considerable subsidy to operate
- Does not serve existing communities in Bridge of Don or Middelton
  Park, reducing potential patronage
- Cost of new infrastructure (bridge and public transport only link) is high (over £3 million)

## Option B2

## As Option A2 but without routeing via Dyce Railway Station with:

- New bridge over the River Don.
- New public transport only link connecting Grandhome and Dubford

The route follows A90, B999, new link between Dubford and Grandhome, new bridge over River Don, Stoneywood Road, A96 (Inverurie Road), Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.



#### **Advantages**

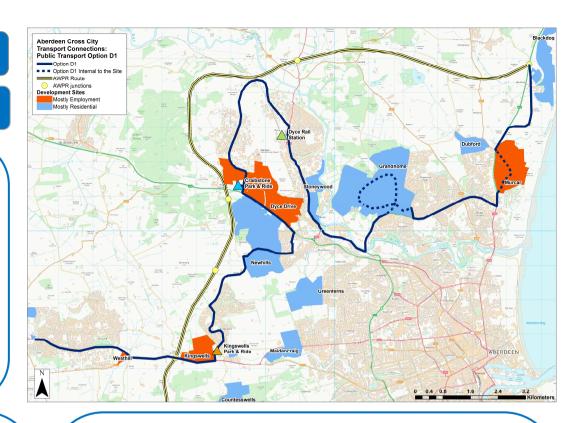
- Public transport only link connecting Dubford and Grandhome sites reduces journey times between Blackdog and Dyce compared to Options A1 and A2
- Provides quicker connections between Grandhome and Kingswells and Westhill than Option B1
- Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a private car

- More likely to be attractive for longer trips between Blackdog and Dyce, Kingswells and Westhill than Option B1— although 'dog-leg' to serve Craibstone Park & Ride unlikely to appeal to passengers not using the Park & Ride site
- Journey time by private car on AWPR still quicker for longer journeys (e.g. between Blackdog, Dyce, Kingswells and Westhill)
- Requires considerable subsidy to operate
- Does not serve existing communities in Bridge of Don or Middelton
  Park or provide access to local facilities in this area
- Cost of new infrastructure (bridge and public transport only link) is high (over £3 million)

## Option D1

Similar to Option A1 but utilising existing roads without any new infrastructure.

The route follows A90 (Ellon Road), The Parkway, Persley Bridge, Muggiemoss Road, Stoneywood Road, Dyce Drive, Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.



#### **Advantages**

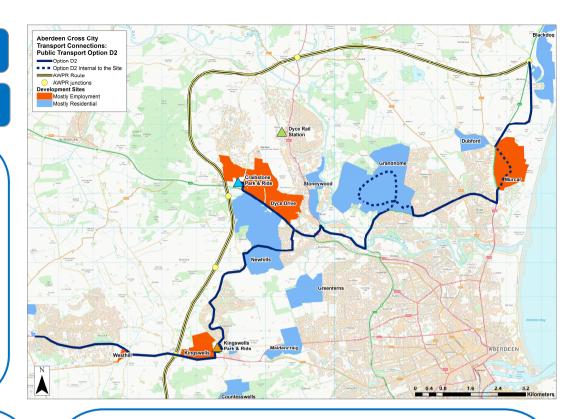
- Connects the large planned residential areas at Grandhome and Newhills directly with the employment opportunities at Bridge of Don, Murcar, Kirkhill Industrial Estate, Dyce, Kingswells and Westhill
- Connects directly with Dyce Railway Station
- Serves existing communities in Bridge of Don, Middleton Park,
  Bucksburn and Kingswells
- Provides interchange opportunities at Park & Ride sites
- ♦ Limited construction cost and environmental impact of implementation as option utilises existing public transport infrastructure lower cost than Options A1, A2, B1 and B2.

- Very unlikely to be attractive for longer trips between Blackdog and Dyce, Kingswells and Westhill due to the distance and circular routeing in Grandhome site and routeing via Dyce Railway Station
- ♦ Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Blackdog Dyce, Kingswells and Westhill)
- Requires considerable subsidy to operate

## Option D2

## As Option D1 but without routeing via Dyce Railway Station with:

The route follows A90 (Ellon Road), The Parkway, Persley Bridge, Muggiemoss Road, Stoneywood Road, A96 (Inverurie Road), Sclattie Park, Kepplehills Road, Fairley Road and the A944 to Westhill.

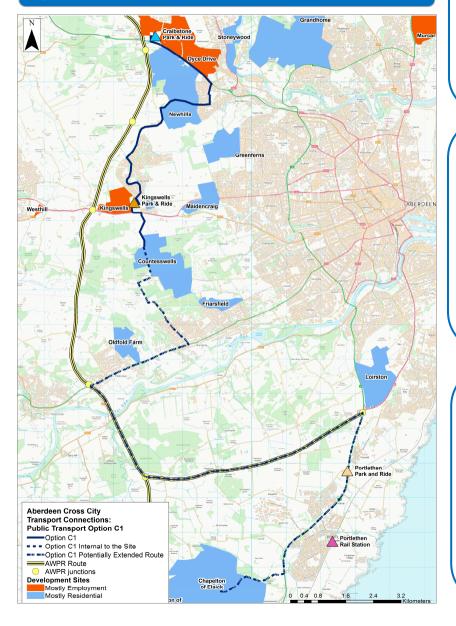


#### **Advantages**

- Connects the large planned residential areas at Grandhome and Newhills directly with the employment opportunities at Bridge of Don, Murcar, Kirkhill Industrial Estate, Dyce, Kingswells and Westhill
- Serves existing communities in Bridge of Don, Middleton Park,
  Bucksburn and Kingswells
- Provides interchange opportunities at Park & Ride sites
- ♦ Limited construction cost and environmental impact of implementation as option utilises existing public transport infrastructure lower cost than Options A1, A2, B1 and B2.

- More likely to be attractive for longer trips between Blackdog and Dyce, Kingswells and Westhill than option D1
- 'Dog-leg' to serve Craibstone Park & Ride unlikely to appeal to passengers not using the Park & Ride site
- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Blackdog Dyce, Kingswells and Westhill)
- Requires considerable subsidy to operate

## Option C1



New orbital service linking Craibstone Park & Ride, Kingswells Park & Ride and Countesswells with *potential extension to Portlethen Park & Ride and Chapelton of Elsick* 

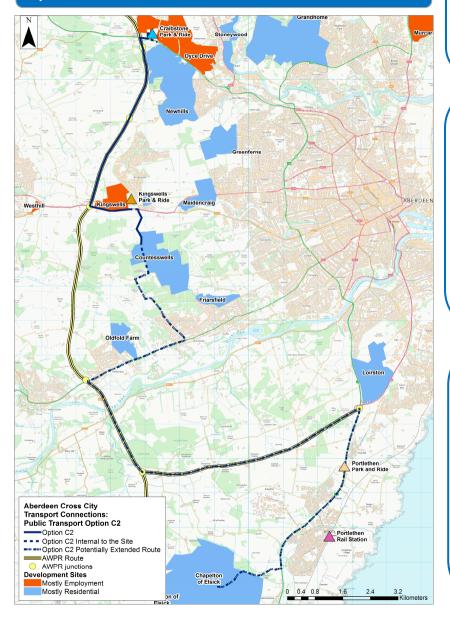
The route follows A96 (Inverurie Road), Sclattie Park, Kepplehills Road, Fairley Road, Kingswood Drive, Fairley Road and connecting to the Countesswells development, with potential to extend route south via the AWPR to Chapelton of Elsick.

#### **Advantages**

- Connects the large planned residential development at Countesswells with employment opportunities at Kingswells and Dyce
- Serves existing communities in Bucksburn, Kingswells, Bieldside and Milltimber
- Provides interchange opportunities at Park & Ride sites
- ♦ Increases employment opportunities for those without access to a private car

- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Dyce / Kingswells and Chapelton of Elsick
- Routeing on the AWPR between Countesswells and Chapelton of Elsick does not serve existing communities and reduces potential patronage
- Competition with rail travel between Chapelton of Elsick and Dyce (given station at Portlethen)

## Option C2



## As Option C1 but with direct route between Craibstone Park & Ride and Kingswells Park & Ride via AWPR.

The route follows the AWPR and A944, connecting to the Countesswells development, with potential to extend route south via AWPR to Chapelton of Elsick.

#### **Advantages**

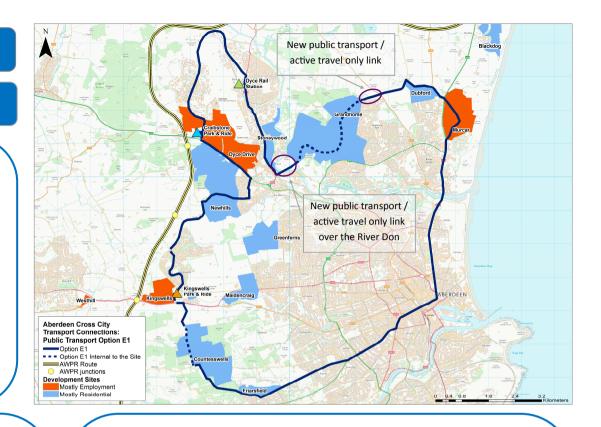
- Connects the large planned residential development at Countesswells directly with employment opportunities at Kingswells and Dyce
- Serves existing communities in Bieldside and Milltimber
- Quicker journey time than Option C1 between CountesswellIs and Dyce (given routeing on AWPR)
- ♦ Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a private car

- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Dyce and Chapelton of Elsick
- Does not serve existing communities in Kingswells or Bucksburn or the planned residential development at Newhills, reducing potential patronage
- ♦ Routeing on the AWPR between Countesswells and Chapelton of Elsick does not serve existing communities and reduces potential patronage
- Competition with rail travel between Chapelton of Elsick and Dyce (given station at Portlethen)

## Option E1

New circular service (operating both clockwise and anticlockwise) linking development sites north of the A93 with Dyce railway station, Craibstone Park & Ride, Kingswells Park & Ride and city centre with:

- New infrastructure over the River Don.
- New public transport only link connecting Grandhome and Dubford



#### **Advantages**

- Connects the large planned residential areas at Grandhome, Newhills and Countesswells directly with the employment opportunities at Bridge of Don, Murcar, Kirkhill Industrial Estate, Dyce, Kingswells and the city centre
- Serves existing communities in Bridge of Don, Dyce, Bucksburn, Kingswells, Cults and Bridge of Dee.
- Improves access to existing local schools and health centres
- Provides interchange opportunities at Park & Ride sites
- Increases employment opportunities for those without access to a car

- Unlikely to be attractive for longer trips between Murcar and Kingswells where roueting via city centre will still be quicker
- Journey time by private car on AWPR still significantly quicker for longer journeys (e.g. between Dyce, Kingswells and Westhill)
- Does not serve existing communities in Bridge of Don or Middelton
  Park or provide access to local facilities in this area
- Cost of new infrastructure (bridge and public transport only link) is high (over £3 million)

## **Public Transport Option Appraisal: Key Points**

- There is a clear 'trade-off' between route directness and accessibility:
  - The less direct public transport routes (those serving a greater number of existing communities) increase the potential patronage and the accessibility benefits of a service, but increase overall service journey time
- All options would require some level of subsidy to operate
- It is difficult for any orbital public transport route to compete with journey times by private car on the AWPR
  - Many of the options reduce the difference between car and public transport journey times but for longer trips the journey time by public transport is still significantly longer



• A new bridge over the River Don (as in Options A1, A2, B1, B2 and E1) is key to enabling a significant reduction in journey time by public transport between new development areas to the north of Aberdeen.

## **Active Travel Options**

Active travel option development focussed on creating a network for commuting use and, given the distances involved, primarily focused on cycling connections.

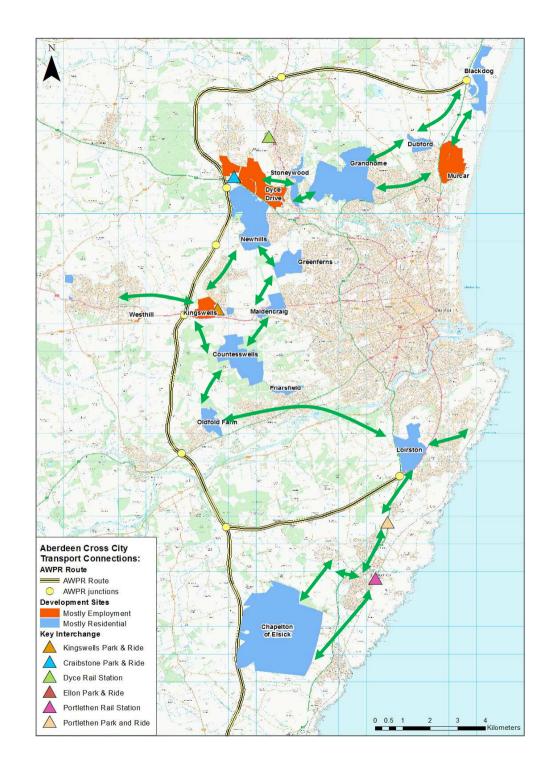
Consideration was given to providing links:

- Between each pair of adjacent development sites
- To the established interchange points
- To nearby key employment areas (particularly in the south)

In developing the connections, consideration was given to the provision of: on road cycle routes; shared use footways / footpaths; signage; crossing facilities; lighting; and surfacing, with the majority of connections made up of a combination of the above.

In many instances, where road width allows, off-road segregated cycle/walk routes and appropriate crossing facilities were considered. Other route users, such as horse-riders, were also considered throughout the option development process.

The key active travel transport planning objectives are based around modal shift, safety, directness and access to employment and the routes have been developed with this in mind.



## **Active Travel Options**

Individual options within the developed active travel network are shown in green (and numbered) in the maps in the following pages with brief descriptions of each connection provided in the adjoining table. Note that the option numbering does not always follow-on sequentially due to prior 'sifting-out' of some options at the study's Pre-Appraisal and Part 1 Appraisal stages.

Existing, planned and committed active travel links between the sites are shown in the maps in purple and represent routes which are either currently in place or anticipated to be developed over the study period (and therefore do not form part of the options list).

Each option was considered individually in the appraisal considering the STAG criteria and Transport Planning Objectives.

However, as the options all together form a network of paths connecting the sites, the overall network benefits were considered by dividing the network into two sections:

Orbital section: all options connecting Blackdog to the Deeside Way

Radial Section: connecting Chapelton of Elsick to the city centre

A range of benefits of the active travel options were considered including:

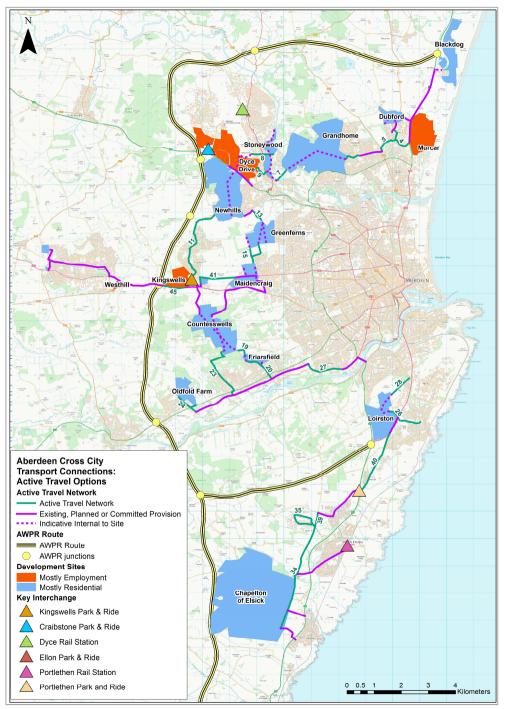
- Safety
- Directness
- Health benefits
- Journey quality
- Accident reduction
- Reduced Environmental costs

If you would like further information on any specific active travel option please email: <a href="mailto:crosscitytransport@peterbrett.com">crosscitytransport@peterbrett.com</a>



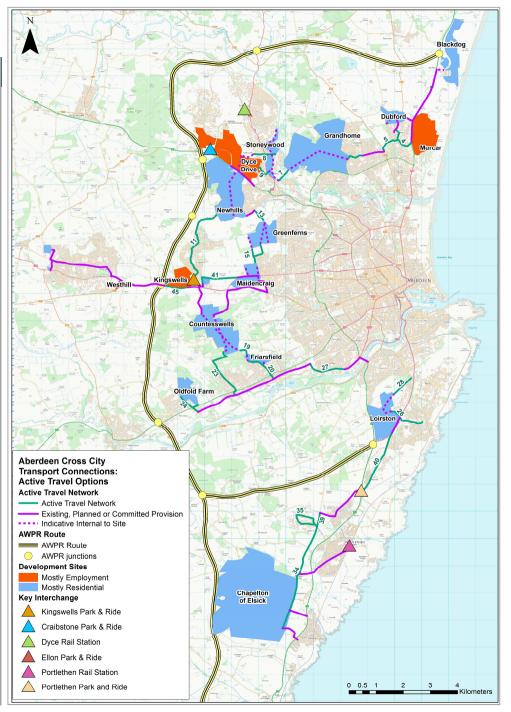
## **Active Travel Network**

No	Description
3	Upgrade existing paths between Grandhome and Dubford
4	Connection between Dubford and Murcar utilising a number of existing off- road paths and Greenbrae Drive
5	Connection between Murcar and Grandhome using Dubford Road, the existing shared use facility on Jesmond Road and Whitestripes Avenue
7	New pedestrian / cycle bridge over the River Don to connect the Grandhome and Stoneywood sites
8	Connection between new pedestrian / cycle bridge over River Don, Stoneywood site and Wellheads Drive
9	Upgrade existing path between Stoneywood and Dyce Drive
11	On-road route and upgrade of sections of existing paths and a number of off-road paths to provide a connection between Newhills Expansion Area and Kingswells Park & Ride.
13	Upgrade existing path to provide a connection between Newhills Expansion Area / Bucksburn and Greenferns
15	Connection alongside Sheddocksley Playing Fields and upgrade of existing paths to connect Greenferns and Maidencraig. Please note only one of the two parallel routes alongside the playing fields would be provided.
19	New path and upgrade of existing path to connect Countesswells and Friarsfield sites.
20	Upgrade sections of existing paths to provide a connection between Friarsfield and the Deeside Way



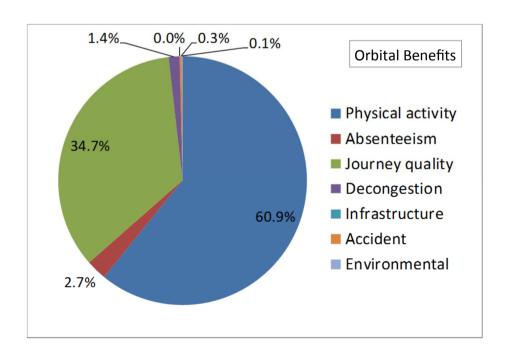
## **Active Travel Network**

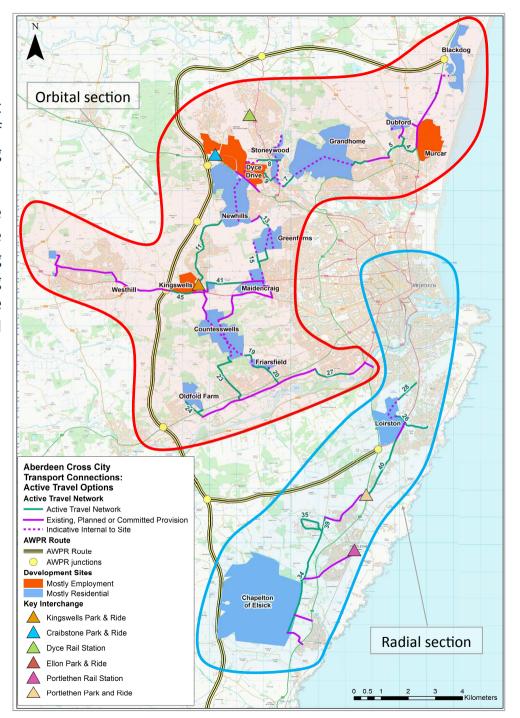
No	Description
23	Mainly on-road cycling connection between Countesswells and Deeside Way
24	On-road cycling connection on Binghill Road and upgrade section of existing route on the A93 to link Oldfold Farm and the Deeside Way
26	New path between Loirston and Cove Bay with appropriate crossing facilities
27	Connection from the Deeside Way to proposed Bridge of Dee Improvements. This will include provision of a new link to Garthdee Road, upgrade of existing paths.
28	On-road cycle connection on Redmoss Road
34	Upgrade Causey Mounth route between Chapelton site and Badentory Road
35	Signage on Badentoy Road, Badentoy Avenue and Badentoy Crescent
39	Upgrade northern section of Causey Mounth route between Badentoy and existing shared use footway on Cookston Road
40	Connection along Old Stonehaven Road and Wellington Road. Both onroad and off-road route being considered.
41	On-road cycling connection between Maidencraig and Kingswells
45	Upgrade of existing dual use facility on the A944 between Prime 4 development site and B9119, including provision of appropriate crossing facilities where the AWPR crosses the A944.



## **Active Travel Network: Key Points**

- The Orbital Network provides a range of benefits that outweigh the implementation costs even under a range of sensitivity tests considering lower walking and cycling scenarios
- The Radial Network benefits do not outweigh the implementation costs under the basic scenario or any of the sensitivity tests considering lower walking and cycling scenarios. This is due to the distance of the routes meaning implementation costs are high and the more disparate nature of the communities between Aberdeen city centre and Chapelton of Elsick.





## **Next Steps**

The feedback received during this public consultation will be used to inform the selection or rejection of options at the STAG Part 2 Appraisal stage.

A report detailing the outcomes of this process and the recommendations on which option would be worthy of progressing further will be available in early 2019.

## Tell us what you think

Your feedback will be used to help identify which options should be considered further.

Please record your views on the study through the short on-line questionnaire available here:

https://consultation.aberdeencity.gov.uk/planning/aberdeencross-city-transport-connections

The survey will be open until Friday 30th November 2018.

If you have any further questions or comments, a dedicated email address is available: crosscitytransport@peterbrett.com

Thank you in advance for your input.



