

Tayside and Central Scotland
Transport Partnership

Active Travel Audit

Executive Summary: Perth City
North

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Introduction

Perth City North consists of the northern area of the city centre and extends to the northern extent of the city boundary at Inveralmond, and is largely made up of the Muirton neighbourhood. Perth City North has a population of approximately 10,000 residents. The area includes the North Inch Park, providing recreation opportunities. Major employers in the area include schools, retail outlets, and commercial/industrial units. Part of the area is experiencing regeneration activity, largely along Gowans Terrace with the large mixed-use development at Bertha Park currently under construction, located just to the north. The study area has a retail core concentrated along Dunkeld Road extending to the retail development to the west of the Inveralmond roundabout. The defined City Centre Boundary interfaces with Perth City North study area at Atholl Street. The area is approximately 1km from Perth railway station and is permeated by a number of bus routes. Green spaces in the area include North Inch Park, Tulloch Junior Football Club, and the neighbourhood parks of Muirton.

Active Travel is one of the key sub-strategies within the TACTRAN Regional Transport Strategy Refresh (2015 – 2036). Specifically, Action AT6, Audit, identifies that “*Where opportunities arise, locally focused active travel audits will identify priorities for future investment in developing the regional walking and cycling network*”, and this Active Travel Audit for Perth City North seeks to support this action and will assist in delivering Perth & Kinross Council’s Active Travel Strategy.

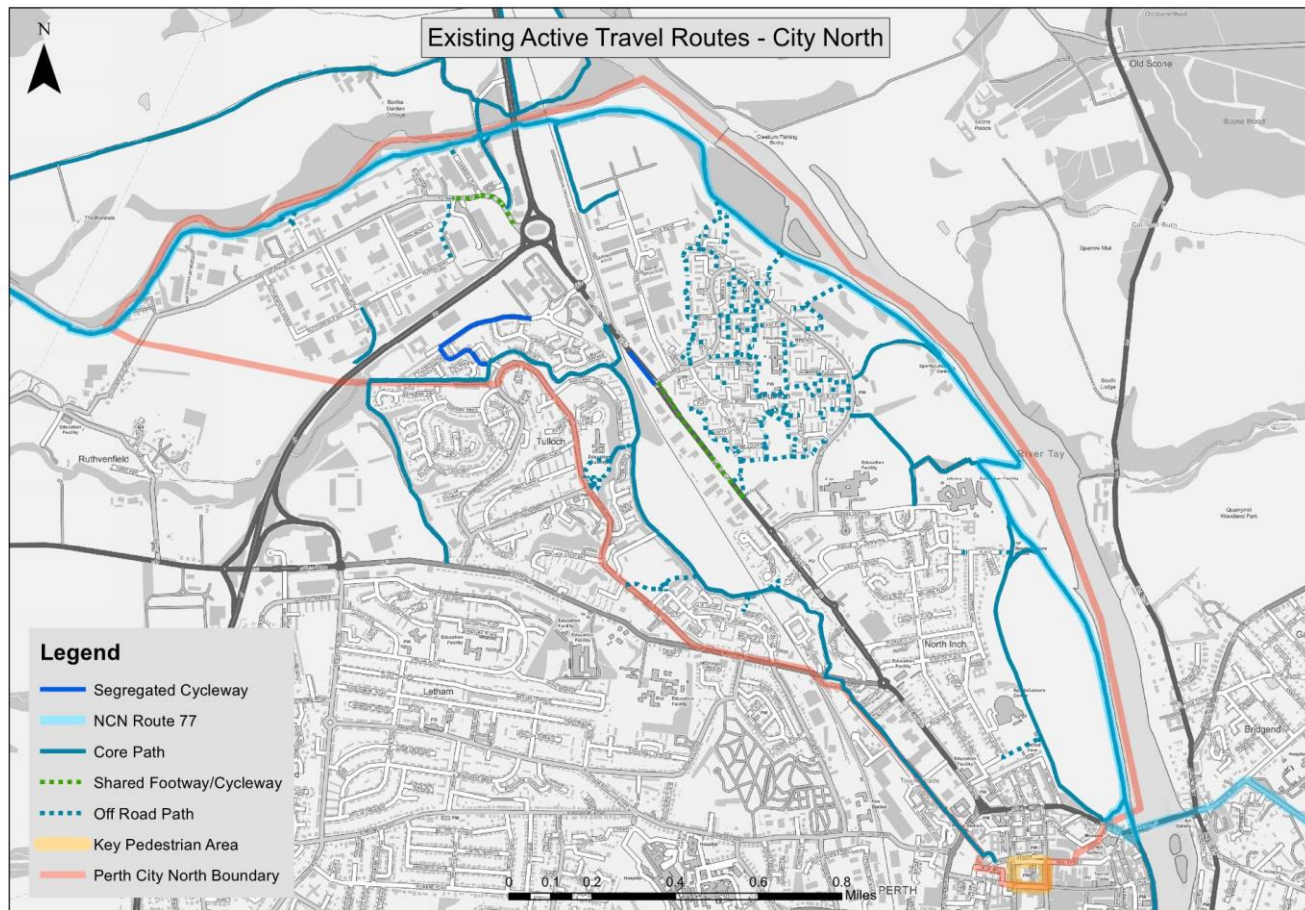
The aims of the Active Travel Audit are to provide:

- Up-to-date information of existing active travel networks to include an account of infrastructure and facilities for walking and cycling;
- Information and mapping of potential active travel networks of Perth City North to include an account of recommended infrastructure and facilities needed within Perth City North; and,
- A proposal for investment in active travel infrastructure in Perth City North, with an indicative action plan, to help guide and secure potential future active travel investment.

2 Information on existing active travel networks

A multi-stage approach to data gathering has been followed. The approach combines the use of available secondary data with site visits, audits and observations and local insight and knowledge through stakeholder interviews to give a comprehensive understanding and record of the existing active travel network. The information collated resulted in a baseline report. Figure 1 shows the existing active travel network identified through this process. Throughout the data gathering exercise four aspects of active travel quality have been analysed (comfort, accessibility, safety and information).

Figure 1 – Existing Active Travel Networks



As Figure 1 displays, there are currently gaps in the active travel network in Perth City North. Existing infrastructure does not always join up and as a consequence an active travel user is presented with a series of intermittent routes rather than a complete network. It is these gaps in which the focus lies moving forward as areas for potential interventions and upgrading. Further details are available in a Baseline Report on the Tactran website.

3 Information and mapping of potential active travel network

A series of high-level aims and objectives have been identified in response to the identified issues and barriers to achieving a comprehensive and high quality active travel network in Perth City North. The aims and objectives were generated from a review of the existing active travel network. This process involved identifying key active travel routes between everyday activity destinations, and the level of service provided by the current active travel network. The spatial coverage of the current network was reviewed against key existing and future land uses.

Strategic desire lines to provide for key east-west and north-south movements within the study area were identified. This forms the principle active travel network around which actions are based. In these locations upgraded or new user protected cycling infrastructure would serve or potentially generate a demand for active travel. Example movements include routes to and from schools such as Perth Grammar School and Tulloch Primary School, access points to and from the city centre to the south and interfaces with the off-road path network (e.g. North Inch Park and NCN). Particular attention has been given to connecting the north of the study area, Inveralmond, with the city centre, and on heavily-trafficked routes where vehicles could be seen as a barrier to active travel comfort (e.g. Dunkeld Road and Crieff Road).

The proposed measures highlighted in Figure 2 were subject to two forms of analysis/modelling:

1. Multi-criteria assessment (MCA) considering all aspects of the active travel network, such as accessibility, safety, attractiveness, delivery; and,
2. Spatial Dynamic Network Analysis (sDNA) used to assess network connectivity and completeness and to predict potential usage.

This analysis allowed for the performance of individual active travel actions to be reviewed and ranked. Figure 3 illustrates the resulting potential strategic active travel network.

Figure 2 - Location of potential active travel infrastructure measures

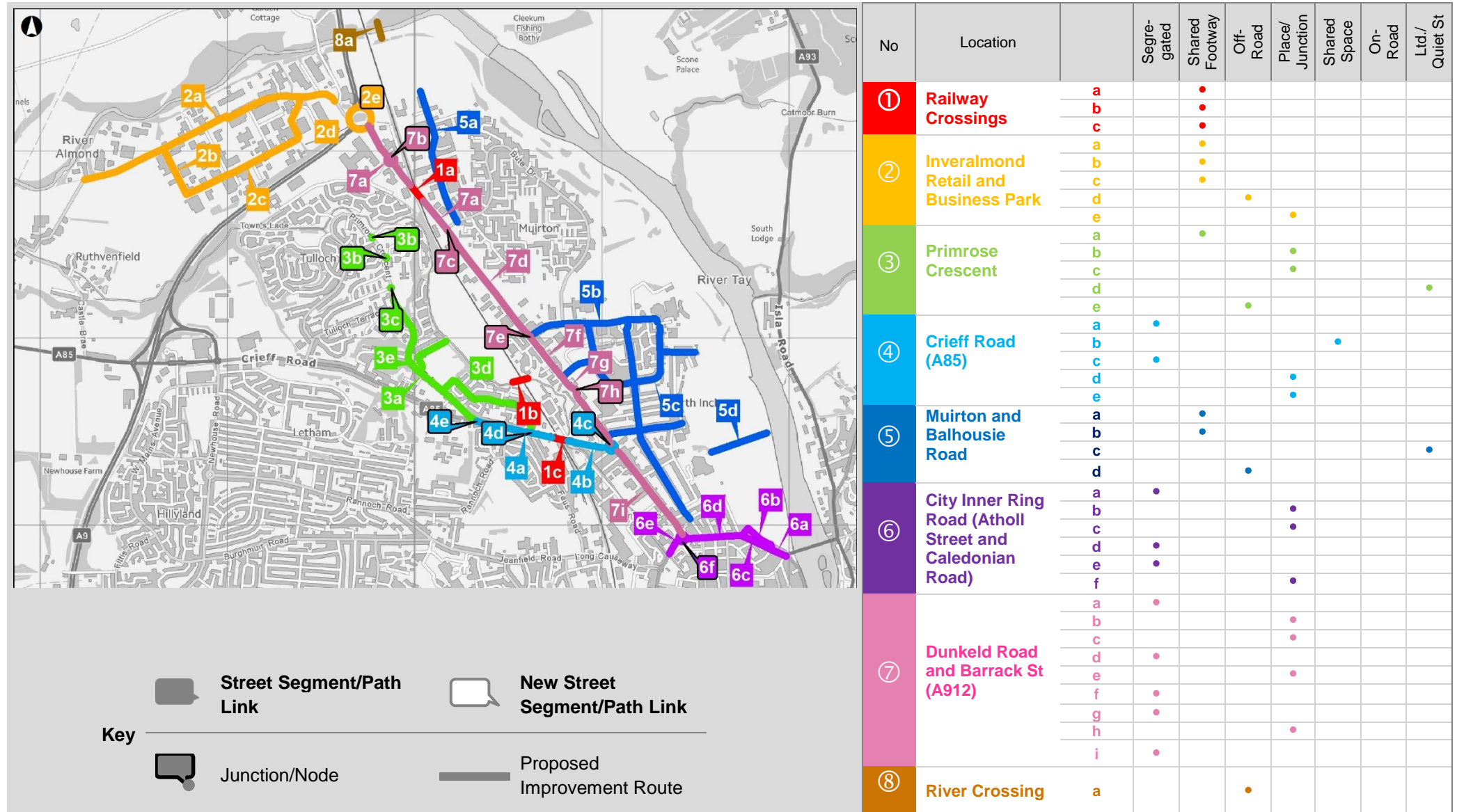
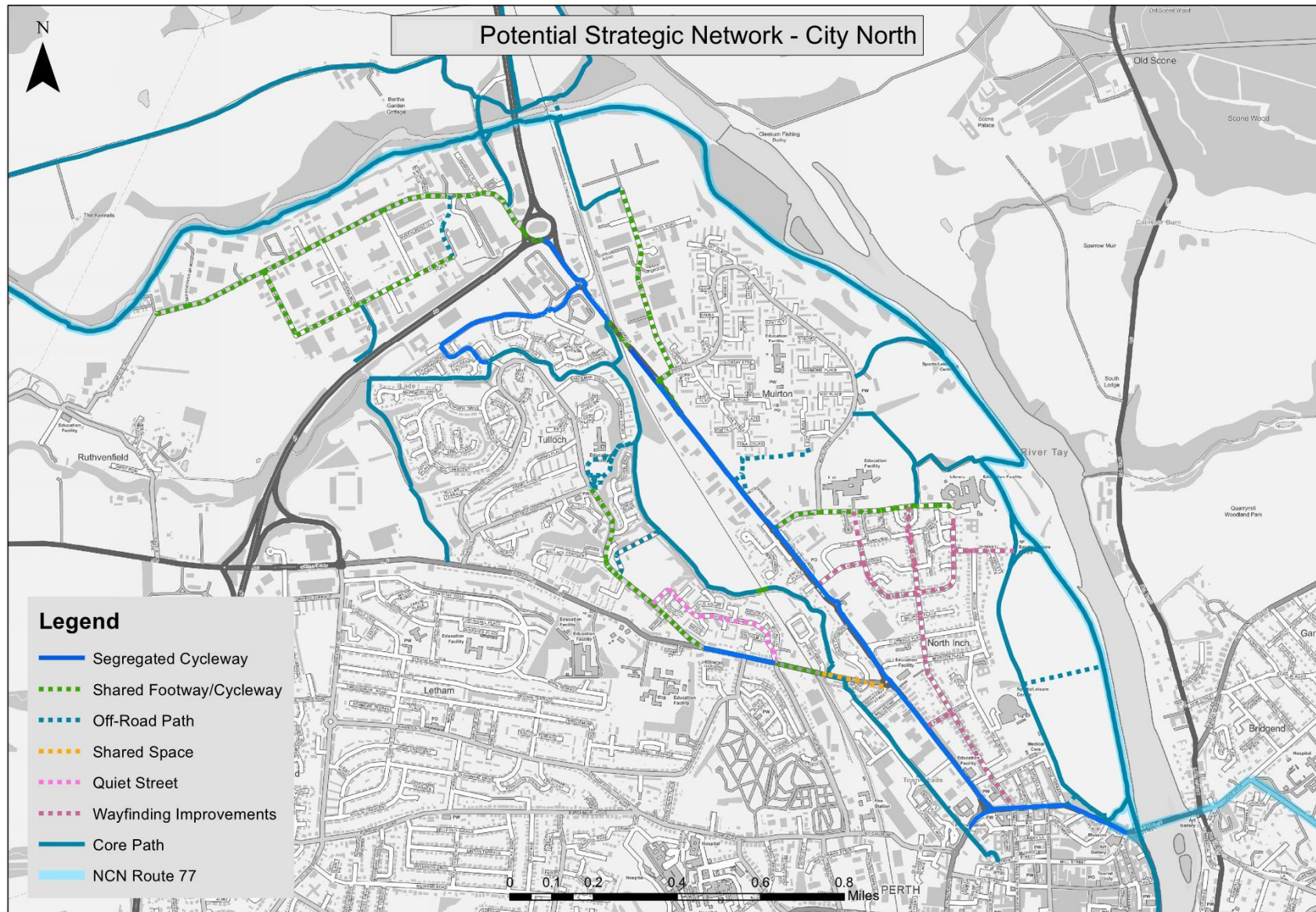


Figure 3 – Potential strategic active travel network



4 Opportunities for investment

The infrastructure action plan (Table 1) provides a description of proposed active travel infrastructure for Perth City North, required to deliver the Potential Strategic Active Travel Network, covering:

- The type of infrastructure/intervention proposed, accompanied by a brief explanatory description;
- Approximate lengths of infrastructure (based on GIS measurements);
- Approximate duration of work (from feasibility to opening, assuming political and funding support);
- Indicative order of magnitude of cost.

Table 1 - Proposed action plan of potential measures in Perth City North

Proposal						Delivery	
Action Ref.	Location	Type of action* Junction On-road cycle lanes Shared footway/cycleway Shared space Quiet street	Supporting information	Extent (number/ length of path (m))	Duration of work required (Short <1yr/ Medium <2yrs/ Long >2yrs)	Approx. scale of cost (£) Q - <£50k L - £50k- £150k M - £150k- £500k H - £500k-£1M S - £1M-£2.5M U - £2.5M-£5M	
C7	Action 7: Dunkeld Road and Barrack St (A912) (Ranking 1, indicative cost £1M-2.5M)						
a	Section 1 – Inveralmond Roundabout to Bute Drive	Segregated cycleway/footway improvements	Reduce carriageway lanes to one in each direction, and implement bidirectional cycleway on west side of Dunkeld Road (linking to Action 1a at rail bridge). Introduce additional green space in removed carriageway and central reservation space between rail bridge and Bute Drive.	587	L	£150k-£500k	
b	Dunkeld Road/Auld Bond Road	Junction	Remove roundabout/signalise junction and introduce placemaking around junction	1	M	£150k-£500k	
c	Dunkeld Road/Bute Drive	Junction	Remove roundabout/signalise junction and introduce placemaking around junction	1	M	£50k-£150k	
d	Section 2 – Bute Drive to Gowans Terrace	Segregated cycleway/footway improvements	Reduce carriageway lanes to one in each direction, and implement bidirectional cycleway on west side of Dunkeld Road. Note relative pinch point at Perth Audi. Introduce additional green space in removed carriageway and central reservation space (noting requirement for vehicle transporter turns) between rail bridge and Bute Drive. Provide continuous footways on both sides of road across Motor Mile dealer entrances.	727	L	£150k-£500k	
e	Dunkeld Road/Gowans Terrace	Junction	Remove roundabout/signalise junction and introduce placemaking around junction	1	M	£50k-£150k	
f	Section 3 – Gowans Terrace to Ainslie Gardens	Segregated cycleway/footway improvements	Reduce dual carriageway to one lane in each direction. Reassign central two vehicle lanes and central reservation to property development. Build out a quality public plaza around local shopping parade adjacent to Dunkeld Road, replacing existing running lanes on east of carriageway and moving running lanes for vehicles to west side of existing dual carriageway. Emphasise links via Rae Place to the Lade Path to the west Implement bidirectional cycleway on west side of Dunkeld Road. Increase footway width on east side of Dunkeld Road.	275	L	£50k-£150k	
g	Section 4 – Ainslie Gardens to Crieff Road	Segregated cycleway/footway improvements	Reduce dual carriageway to one lane in each direction. Reassign central two vehicle lanes and central reservation to property development between Ainslie Gardens and Florence Place. Implement bidirectional cycleway on west side of Dunkeld Road. Increase footway width on east side of Dunkeld Road.	445	L	£150k-£500k	

				Reconnect Florence Place with Stanley Crescent/Lade Path east-west through high quality crossing facilities/shared space across Dunkeld Road.			
	h	Dunkeld Road/McDonalds-Asda Access	Junction	Remove roundabout/signalise junction and introduce placemaking around junction	1	M	£50k-£150k
	i	Section 5 – Crieff Road to Atholl St	Segregated cycleway/footway improvements	Reduce three lanes to one lane in each direction (retaining right turn lane for retail park access). Implement bidirectional cycleway on west side of Dunkeld Road/Barrack St. Increase footway width on east side of Dunkeld Road/Barrack St. Emphasise east-west movements promoting links between Inch Park and the Lade as a leisure circuit.	564	L	£150k-£500k
C6		Action 6: City Inner Ring Road (Atholl Street and Caledonian Road) (Ranking 2, indicative cost £1M-2.5M)					
	a	Charlotte Street	Segregated cycleway	Provide high quality bi-directional segregated cycling facilities along Charlotte St on north-side linking from West Bridge to North Inch Park, removing traffic lane from three to two lanes.	89	L	<£50k
	b	North Inch Park	Off-Road Path	Improve quality and width of path along south side of North Inch Park between Charlotte Place and Rose Terrace, linking to proposed segregated cycle facilities to the east along Charlotte Street (Action 6a) and the west along Atholl St (Action 6d)	235	M	<£50k
	c	Charlotte Street	Crossings	Implement several extended-width crossing points of Charlotte Street, pinching carriageway space to remove central reservation and building out footways at these locations, reducing the severance of the town centre and North Inch Park caused by Charlotte Street	173	M	£500k-£1M
	d	Atholl St	Segregated cycleway	Provide high quality bidirectional segregated cycling facilities along Atholl St on north-side linking from North Inch Park to Dunkeld Road, removing traffic lane from four to two lanes, providing additional footway space and a more appropriate setting for Perth Cathedral on the south side.	290	L	£50k-£150k
	e	Caledonian Road	Segregated cycleway	Provide high quality bidirectional segregated cycling facilities along on west-side of Caledonian Road south of Dunkeld Road.	94	L	<£50k
	f	Caledonian Road/Barrack St	Junction	Radically reduce amount of carriageway space in junction, increasingly usable public realm from around the junction for example extending the path adjacent to Perth Cathedral northwards and building out pavement space and landscaping on the corner of Atholl St/Barrack St to create a more defined entrance point to the route along Atholl Street to the east	1	L	£150k-£500k
C4		Action 4: Crieff Road (A85) (Ranking 3, indicative cost £500k-£1M)					
	a	Crieff Road	Segregated cycleway	Introduce bidirectional segregated cycleway on north side of Crieff Road, from junction with Tulloch Road to junction with Dunkeld Road, and linking into shared footway across bridge over railway/Lade under Action 1c.	408	L	£150k-£500k
	b	Crieff Road	Shared space	Introduce high quality materials from frontage to frontage across carriageway at shopping parade west of Viewfield Place. Emphasise walking movements between shops on either side of street, and north-south crossing of Lade Path diversion at this location. Reduce carriageway from three lanes to two, considering appropriate	187	M	£150k-£500k

				locations for bus stops given kerbspace space premium alongside shops.			
	c	Crieff Road/Dunkeld Road	Segregated cycleway	Implement Dutch-style cycling facilities around perimeter of roundabout to take cyclists off road at this location, and improve streetscape by considering reduction of guardrailling and increase in footway widths on all sides. Consider additional soft or hard landscaping around roundabout in any remaining unused streetspace.	1	M	<£50k
	d	Crieff Road/Fairfield Avenue	Junction	Provide segregated cycling facilities around outside of roundabout using Dutch principles where transferable, whilst increasing footway space by removing left filter lanes and improving accessibility and inclusivity of crossing opportunities. Consider filtered permeability at access to Fairfield Avenue for walkers/cyclists only.	1	M	£150k-£500k
	e	Crieff Road/Tulloch Road	Junction	Improve attractiveness and design of crossing facilities to more clearly serve a purpose for cyclists continuing westwards along Crieff Road as well as those travelling between Crieff Road and Tulloch Road, supplemented by clear signage.	1	M	£150k-£500k
C5		Action 5: Muirton and Balhousie Road (Ranking 4, indicative cost £<500k)					
	a	Arran Road	Shared footway/cycleway	Implement shared footway on west side of road, improving junction crossovers including Inchcape Place, Kilda Road, Kilda Place, Arran Place, and individual industrial units.	740	M	£50k-£150k
	b	Gowans Terrace	Shared footway/cycleway	Implement shared path along north side of Gowans Terrace helping to facilitate access to schools, and protect with bollards to avoid car parking encroachment.	712	M	£50k-£150k
	c	Balhousie Street, Carnegie Place, Lark Avenue, Malvina Place	Signage	Sign walking route into town as a local alternative to Inch Park and Dunkeld Road	2793	S	<£50k
	c	Muirton Estate around North Muirton Primary School	Signage	Sign strategic walking paths and add wayfinding map boards at entrance points to the network, using sDNA outputs to select most attractive routeways		S	<£50k
	d	North Inch Park	Off-Road Path	Create additional surfaced path across North Inch Park to create a shorter and more accessible walking circuit for local residents and visitors to the town centre	313	M	<£50k
C3		Action 3: Primrose Crescent (Ranking 5, indicative cost £<500k)					
	a	Tulloch Road	Shared footway/cycleway	Introduce shared path on east side of carriageway between Tulloch Square and junction with Crieff Road, acknowledging gradient from town can be an issue for on-road cycling, and that Tulloch Road does not currently present a welcoming environment for active travel despite an abundance of greenery. Introduce public art along the corridor and additional features such as signage and wayfinding, including the prominent highlighting of links to Lade Path and other off-road paths through signage and carriageway treatments. Reconfigure junctions along Tulloch Road to prioritise active travel, e.g. through removing mini-roundabouts and converting them to standard junctions, including: Tulloch Road/Bracken Brace and Tulloch Road/Wallace Crescent.	852	L	£50k-£150k
	b	Primrose Crescent	Junctions	Reconfigure junctions along Primrose Crescent to prioritise active travel, e.g. through removing mini-roundabouts and converting them to standard junctions, including: Primrose Crescent/Sandeman Court; Primrose Crescent/Gillespie Place,	2	M	£50k-£150k

	c	Primrose Crescent/Tulloch Square	Junction	Introduce placemaking around junction to highlight neighbourhood facilities (shops and paths) on either side of street.	1	S	£50k-£150k
	d	Fairfield Avenue	Quiet Street	Sign as a section of alternative quiet street for those wishing to avoid Crieff Road/Tulloch Road	645	S	<£50k
	e	Tulloch Works	Off-Road Path	Improve visibility and attractiveness of off-road path between Tulloch Road and the Lade Path, for example by providing a clear route around informal car parking, considering the potential for a dedicated footway alongside the access road to emphasise the link to the off-road path network.	261	S	<£50k
C1		Action 1: Railway Crossings (Ranking 6=, indicative cost £<500k)					
	a	Dunkeld Road (railway bridge at Pentland Land Rover)	Shared footway/cycleway	Resurface footway to provide maximum levels of accessibility within width constraint below bridge. Widen footway either side reducing landscaping to provide an enhanced entrance gateway around bridge, and relocate street signs to maximise path width. Improve lighting and introduce placemaking initiatives such as wall art and paint to brighten passage beneath bridge. Consider white line on carriageway at kerb edge to encourage traffic to keep as far away from footway's edge as possible, and introduce surface treatment to carriageway beneath and either side of bridge to calm traffic. Consider path usage on each side of carriageway and whether an extended footway on one side and removal on other side, supported by responsive toucan crossings, could present a potential solution	110	M	<£50k
	b	Lade Path (at railway footbridge)	Shared footway/cycleway	Replacement of bridge with ramp or bridge solution to improve accessibility for wheeled users	83	M	<£50k
	c	Crieff Road (at railway road bridge)	Shared footway/cycleway	Consider removal of path on south side of road given lack of frontage access points and opportunity to provide a wider high quality shared/segregated path on north side of street, supported by responsive toucan crossings. Recognise that buffer zones to protect bridge parapets may limit additional footway width available in the event of footway removal. Resurface carriageway and footway and measures to calm speed of traffic, with additional footway width and soft landscaping at the junction of Crieff Road with Collinson View	83	M	<£50k
C2		Action 2: Inveralmond Retail and Business Park (Ranking 6=, indicative cost £500k-£1M)					
	a	Ruthvenfield Road	Shared footway/cycleway	Provide improved crossing point at junction to M&S Foodhall car park to help walking movements along Ruthvenfield Road. Widen existing shared footway between M&S Foodhall entrance and unnamed street leading to rear of M&S. Provide improve crossing point (e.g reduce radii, improve continuity of footway) at junctions along Ruthvenfield Road, e.g to Apparelmaster. Screwfix, Stagecoach, Inveralmond Road (east and west), Macnaughton Group, Reekie, ABP, Ruthvenfield Place and other industrial unit accesses. Implement new shared footway/cycleway on south side of carriageway on grass verge (where ownership allows) between off-road link (that runs between Ruthvenfield Road and Inveralmond Place at Apparelmaster entrance) to midway between Inveralmond Road east and west junctions. From west of this point, convert existing footway on north side of Ruthvenfield Road to shared use and provide an appropriate crossing point, where less evidence of desire for movement on south side of carriageway and existing path with fewer obstructions (e.g. signs, lamp poles) on north side.	1468	M	£150k-£500k

				Introducing bollards to assist with car parking control.			
	b	Ruthvenfield Avenue	Shared footway/cycleway	Widen footway on east side of carriageway to provide shared use, introducing bollards to assist with car parking control.	275	M	<£50k
	c	Ruthvenfield Way/Inveralmond Place	Shared footway/cycleway	Convert existing footway on north side of carriageway to shared use, introducing bollards to assist with car parking control (including at entrance to off-road path link at eastern end). Provide improve crossing point (e.g reduce radii, improve continuity of footway) at junctions along Ruthvenfield Way, e.g Inveralmond Road east and west junctions, Menzies, Breedon, and on southern footway e.g. Ruthvenfield Grove	662	M	£50k-£150k
	d	Link between Inveralmond Place and Ruthvenfield Road	Off-Road Path	Improve visibility/signage of off-road link between Ruthvenfield Road and Inveralmond Place	250	S	<£50k
	e	Ruthvenfield Road/Inveralmond Roundabout	Junction	Explore innovative cost-effective options to repurpose roundabout to prioritise active travel movements. Solutions could include right-sizing (e.g. lane removal, overall diameter reduction) of roundabout to meet future reduced demands for capacity with Cross Tay Link Road, improved timing of crossings on existing but widened path through roundabout, or a grade separation of a new walking and cycling link over roundabout, and widening of active travel facilities around its perimeter. Create quality spaces with purpose and consider whether land around and on roundabout could be opened up to development to create a defined urban entrance point to the city.	1	L	£150k-£500k
C8		Action 8: River Crossing (Ranking 6=, indicative cost £1M-2.5M)	Off-Road Path	Active travel link over River Almond.	92	L	£1M-£2.5M

*The type of action identified in the table above is the high-level optimum solution. Future detailed design work may result in the action type changing to a solution lower in the design hierarchy diagram shown in section 3. Future design work should also consider Inclusive Design issues to ensure that the actions deliver access for all.