

Appendix E

Berryden Corridor Active Travel Connections - Skene Square to City Centre Route Option Assessment Report

	Title:	Berryden Corridor Active Travel Connections - Skene Square to City Centre Route Option Assessment Report
	Project:	Berryden Corridor Improvement +
	Version:	1
	Date:	9 September 2022
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1. **Background**

- 1.1. As part of the Berryden Corridor Improvement Project (BCI) segregated uni-directional cycle infrastructure will be provided along the length of the Corridor. The BCI Project ties into the existing dual carriageway section at Skene Square. There is currently no dedicated cycle infrastructure from the junction of Skene Square with Rosemount Place/ Maberly Street to the Woolmanhill roundabout and onward to the city centre. Cyclists travelling to/ from the city centre utilising the Berryden Corridor would therefore need to cycle on a dual carriageway with a 30mph speed limit. It has been identified through stakeholder consultation on the BCI that improving infrastructure for cycle traffic over this section is key to encouraging cycle use along the Berryden Corridor when complete. Once within the city centre, streets are reduced to a 20mph speed limit, with lower traffic volumes which tend to be more attractive to active travel users.
- 1.2. In order to tie-in to the uni-directional cycle infrastructure on the BCI Project, north and southbound routes coalescing at the Skene Square/ Rosemount Place junction have been identified and an option appraisal carried out.

2. **Option Appraisal**

The obvious and direct route to extend the BCI infrastructure to/ from the city centre is along Skene Square and Gilcomston Steps to Woolmanhill roundabout (Appendix 3). There are however a number of constraints which would make implementing segregated cycle tracks alongside the existing footways difficult.

The carriageways along Gilcomston Steps and Skene Street are (at different levels) separated by a retaining wall over a length of 140m. This restricts the width available to implement a fully segregated cycle track as redistribution of road space within the roads cross section would involve significant engineering challenges and cost. In addition, along the southern portion of the west side of the corridor, there are residential and retail premises creating pinch points on the existing footway at the Gilcomston Bar and Woolmanhill Hospital. The pinch point at Woolmanhill Hospital is particularly narrow and can only accommodate one pedestrian at a time. Furthermore, the current adjacent northbound carriageway is narrower than standard. It is therefore not feasible to consider

significant carriageway realignment or road space reallocation to install a cycle track nor would it be safe to implement a shared footway within this area.

Other routes were therefore also considered on roads adjacent to the Skene Square and Gilcomston Steps Corridor. An option appraisal has been undertaken on five options with consideration given to the most coherent routes in both northbound and southbound directions. The options were determined as:

1. Do nothing
2. Spa Street/ Skene Square (Northbound)
3. Skene Square/ Woolmanhill roundabout (Southbound)
4. Charlotte Street/ Maberly Street (Northbound)
5. Maberly Street/ Charlotte Street (Southbound)

The option appraisal was carried out using two methods of analysis which consisted of:

- A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, (Appendix 1 of this report).
- A Red-Amber-Green (RAG) scoring system which assessed each of the options against 6 Core Design Principles, set out in Cycling by Design (2021) (Appendix 2 of this report).

The RAG rating definitions used were:

- Red – Does not achieve Design Principle
- Amber – Partially achieves Design Principle
- Green – Achieves Design Principle

A red rating against any single objective resulted in an option being discarded.

These SWOT and RAG analysis tools allowed the options to be narrowed down and a preferred option to be selected.

Each of the individual routes that make up the options have been considered separately, with their combinations considered within the SWOT and RAG assessments.

2.1. Do-nothing

On the west side of Gilcomston Steps and Skene Square there are residential and retail premises and on the east side the Aberdeen to Inverness railway line which is bound by a retaining wall. The carriageways are at different levels, separated by a retaining wall over a length of 140m. Along the corridor there are currently footways on either side of the carriageway. Signal-controlled pedestrian facilities are provided at the junction with Gilcomston Steps and Woolmanhill roundabout and at the junction of Skene Square with Rosemount Place/ Maberly Street. There is currently no dedicated cycle infrastructure from

Woolmanhill roundabout to the junction of Skene Square with Rosemount Place/ Maberly Street. Cyclists travelling to/ from the city centre utilising the Berryden Corridor are therefore required to cycle on a dual carriageway with a 30mph speed limit.

In the RAG analysis the Do-nothing option scored the lowest of all 5 options with 4 out of the 6 Core Design Principles shown in red. For directness it achieved the highest score, as it continues the line of the Berryden Corridor offering the most direct route to the city centre for cyclists. The design principle for safety was not met as cyclists would generally feel less safe cycling on-carriageway than on a segregated facility. Skene Square and Gilcomston Steps would not continue infrastructure consistent with from the BCI project. Cyclists may also choose to cycle on footways which are currently too narrow to be a shared footway and could make pedestrians vulnerable to a potential collision with cycle traffic.

In terms of relative value for money, there would be no change to the existing infrastructure, therefore no capital costs would be incurred.

If no cycle track is to be provided, the active travel infrastructure on the Berryden Corridor could be under-utilised. This reduces the likelihood of modal shift from car to cycling along the Berryden Corridor and could weaken the Councils ability to meet active travel targets, set out in the Active Travel Action Plan and net zero ambitions set out in the Council Climate Change Plan 2021-2025.

2.2. Northbound – Spa Street & Skene Square

Spa Street has a low level of through traffic which predominantly consists of residential, local business and Denburn carpark patrons. The section of Spa Street from Gilcomston Park to Raeburn Place has only sufficient width for a single lane of one-way traffic with on-street parking bays on both sides.

If a segregated cycle track were to be implemented on Spa Street, around ten parking spaces would have to be removed. Removing these parking bays could result in an increase in traffic speed with the traffic lane width increasing and losing the visual deterrent of parked cars. It could also leave the cyclists with an awkward manoeuvre at the end of the cycle track to join the shared footway at Gilcomston Steps.

As Spa Street is predominantly residential, through traffic could be discouraged further through using street design measures to create a quiet street. Traffic management measures could be introduced to encourage slower traffic speeds. The number of parking spaces lost could be minimised significantly to around a loss of one or two spaces.

The Spa Street route would connect to Gilcomston Steps at the northern end of the Woolmanhill Hospital site. To accommodate this, the area around the existing bus shelter would require to be altered by removing the bus layby,

maximising the available area and could potentially reduce the conflict between pedestrians/ cyclists and those boarding/ alighting buses.

The existing bus layby is not large enough to adequately serve current bus frequency and does not meet current accessibility requirements. Providing an on-carriageway bus stop and consolidating this area by moving the bus shelter to the edge of carriageway would also assist in alleviating conflict between pedestrian and cycle movements.

From the current bus stop area at Gilcomston Steps, a shared footway would be implemented up to the junction with Baker Street. On the northside of the junction with Baker Street, a short section of shared footway would be required to connect in the cycle infrastructure followed by segregated cycle infrastructure to tie-in to the northbound provision on the BCI.

The segregated cycle track provision on Skene Square would be at the detriment of approximately twelve parking spaces. It is possible that four spaces could be retained which could accommodate residents and customers of the retail premises. The positioning of the communal bins would be required to be consolidated to give a more consistent cycle facility, although cyclists could be inconvenienced when bins are being emptied.

Although this route would take cyclists away from Gilcomston Steps, it provides good access from the central city centre area and could be a continuation of a proposed route within the A944 multi-modal corridor study.

In the RAG analysis the route, for directness it achieved the second highest score, as it only diverts from the line of the Berryden Corridor around the Woolmanhill Hospital. The design principle for safety was not met as cyclists would generally feel less safe cycling on-carriageway than on a segregated facility, however with the street that will be utilised, and additional traffic calming, would provide a safer route. For coherence and comfort, it partially meets the design principles but, the route involves three different levels of provision and involves cycling on carriageway and a shared footway.

In terms of relative value for money, there would be a medium initial cost as there would be traffic calming within Spa Street, alterations to the existing bus layby area and alterations to the existing footway on Skene Square to make it suitable for a segregated cycle track and footway.

These changes could encourage modal shift from car to cycling for those traveling from the west to the north of the city.

This option is shown in Appendix 4 of this report.

2.3. Southbound – Skene Square to Woolmanhill Roundabout

There are a number of constraints which could make implementing a segregated cycle track alongside the existing footway difficult. On the east side, the road is bound by the Aberdeen to Inverness railway line, which also results in there being no accesses along this section. With the carriageway on the west side, there could be expansion to the width of the footway. However, there would not be sufficient width available for a segregated cycle track, whilst maintaining an appropriate carriageway width.

The footway could be widened to the minimum width for a shared footway. However, with low visibility along a section of the path and as it would be for downhill travel, any conflict between pedestrians and cyclists would be at a higher speed. Therefore, to provide active travel facility using the current footway, pedestrians would be required to use an alternative route as this route option would see the footway on the east side Skene Square/ Gilcomston Steps carriageway be changed to a dedicated cycle track.

At the south of the path into John Street, the existing footpath would be too narrow for a shared facility and there would not be sufficient area to expand without the removal of mature trees. To enable cyclists to continue, the roundabout at Woolmanhill halls of residence and the surrounding area, would be required to be converted into a turning head.

In the RAG analysis the Skene Square/ Woolmanhill roundabout route achieves the highest score for directness and coherence, as it continues the line of the Berryden Corridor offering the most direct route to the city centre for cyclists and continues the provision offered on the BCI. The scoring for safety and comfort are high, but the route would still require cycling downhill, which could increase speed and using the carriageway at the south of the route to continue their journey, although even on a relatively quiet street. The route also scores highly for attractiveness but would still involve cycling next to a dual carriageway.

In terms of relative value for money, there would be a medium short-term cost as there would be a resurfacing required to the existing footpath, relocating of the existing traffic signals and alterations to the roundabout at Woolmanhill halls of residence roundabout. There would be opportunity, with further intervention adjacent to the Woolmanhill roundabout, to link the provision to Blackfriars Street and further to National Cycle Route 1 on Rosemount Viaduct/ Schoolhill.

These changes could encourage modal shift from car to cycling for those traveling from the north to the east of the city.

This option is shown in Appendix 5 of this report.

2.4. Northbound & Southbound – Maberly Street & Charlotte Street

Maberly Street is a majority residential street, with the former Broadford Works being the majority of the land to the north of the street. Ann Street is a one-way

northbound street serving commercial properties, accessed from a junction on the north side of Maberly Street. Charlotte Street is a majority residential street, with a small number of commercial properties. The area is on the edge of the George Street Intervention Area.

The Maberly Street/ Charlotte Street route was initially considered as a southbound option only. With a segregated cycle lane, heading east, on Maberly Street. With the development of this route, it was believed that it would be best to offer a cycling facility in both directions within the area.

As Maberly Street and Charlotte Street are mostly residential streets, there would be an opportunity using street design measures, shown within Cycling by Design, for mixed traffic streets to create quiet streets. Using traffic calming features that should encourage slower traffic speeds and discourage through traffic.

For the southbound route, cyclists will be required to turn right from Maberly Street onto Charlotte Street. To assist with this, features such as cycle bypass islands, could be introduced. To accommodate these changes, approximately nine parking spaces on Maberly Street would be required to be removed.

Charlotte Street could be changed from a two-way to one-way street for traffic travelling north. A contra-flow cycle lane would be provided for cyclists travelling south. The carriageway surface on Charlotte Street is granite sett, which can be uncomfortable for cycle users and pedestrians. A bituminous surface would be required to provide the southbound cycletrack. For northbound travel, the entire width would require replacing the sett paving with bituminous construction. The loss of the sett pavement and increased construction costs should therefore be noted.

To accommodate the segregated cycle lane, approximately twenty parking spaces on Charlotte Street could be required to be removed and relocation of the communal waste bins, currently adjacent to the parking spaces. Some mitigation could be carried out, by converting some of the 'Pay & Display' parking on Charlotte Street, and its immediately surroundings, into Permit Holders parking.

The segregated cycle track would end at the junction John Street, however there is an existing Bus / Cycle Lane that continues along Charlotte Street, ending at St Andrew Street.

In the RAG analysis the northbound and southbound options both partially achieve the design principle for directness, as they both divert away from the line of the Berryden Corridor but can be connected to the same end destination through existing provision. The design principle for safety was not fully met as cyclists would generally feel less safe cycling on-carriageway than on a segregated facility, however for both directions there have been traffic calming identified for these areas. They would also not be fully met for the principles for coherence and comfort, as the change in provision, for both directions, at the

Skene Square junction would involve more complex manoeuvres to stay on the active travel provision.

In terms of relative value for money, there would be a high short-term cost as there would be a new road construction to the carriageway on Charlotte Street, from John Street to Maberly Street, as well as the construction of the cycle track, alterations to the existing footways and other associated costs.

These changes could encourage modal shift from car to cycling for those traveling from/ to the north to/ from the east of the city.

This option is shown in Appendix 6 of this report.

3. Preferred Option

Following the option appraisal, it is recommended that the Spa Street/ Skene Square option (Appendix 4) is the preferred choice for the northbound route, and Skene Square/ Woolmanhill roundabout is the preferred choice for the southbound route (Appendix 5).

These options would be giving the most direct routes to/ from the proposed segregated cycle facilities on BCI, and both having further infrastructure/ routes that with further work could be linked to. They would also be building on existing infrastructure for their duration.

They provide the best connectivity to/ from the segregated cycle facilities on BCI, as any route to/ from Maberly Street would involve moving from/ to on-carriageway provision. Spa Street/ Skene Square route has its transition to off-carriageway at Gilcomston Steps, in a much lower trafficked area.

Skene Square/ Woolmanhill roundabout could also have a transition onto the carriageway at the Woolmanhill halls of residence roundabout which, again, is in a much lower trafficked area than the junction at Skene Square/ Rosemount Place. These routes would also bring a less abrupt ending to the active travel provision from the Berryden Corridor.

Both the northbound route options, as well as southbound via Maberly Street/ Charlotte Street would require cyclists to be on-carriageway for a duration of their journey. But with Spa Street already being a low trafficked street, and much less susceptible to through traffic, it is felt that it would be more comfortable to use for more users.

With the Aberdeen City Centre Masterplan (CCMP) identifying this area around the Woolmanhill Hospital and Denburn car park for potential development, there could be further opportunities to expand the active travel provision within the area in the future.

Although it is recommended that the active travel provisions are proceeded with elsewhere, the proposals for Charlotte Street are on the edge of the area

identified for the George Street Intervention. Therefore, there could be opportunity to improve the proposals for this area in the future.

Consultation for the proposed extension of the active travel provision will be undertaken as part of BCI project statutory processes.

4. Policy Review

The following policies and plans have been considered when developing and assessing the options within the study.

The **Local Outcome Improvement Plan** 2016 – 2026 (Community Planning Aberdeen) updated 7 July 2021 (the “LOIP”) sets out a 10 year plan for realising the vision of Aberdeen as 'a place where all people can prosper'. Within the LOIP a number of Stretch Outcomes are identified which are underpinned by Key Drivers.

For ‘Prosperous Economy Stretch Outcomes’, these proposals support the delivery of Stretch Outcomes 1 to 3 as a good transport network and infrastructure provision means anyone regardless of their social status/ economic means can choose a sustainable mode of travel for commuting. A reliable transport network supports economic growth and movement.

For ‘Prosperous People Stretch Outcomes’, these proposals support Stretch Outcomes 5 and 11, in that they seek to improve and increase opportunities for people to walk or cycle for everyday journeys, bringing personal health benefits through increased physical activity and reducing harmful emissions from road transport.

For ‘Prosperous Place Stretch Outcomes’, these proposals support the delivery of Stretch Outcomes 13 and 14 through step change improvements to active travel infrastructure along the route. Further expansion and connection of such facilities on the surrounding network can also be enabled.

- Stretch Outcome 13 - Addressing climate change by reducing Aberdeen's carbon emissions by at least 61% by 2026 and adapting to the impacts of our changing climate)
- Stretch Outcome 14 - Increase sustainable travel: 38% of people walking and 5% of people cycling as main mode of travel by 2026.

The **Aberdeen City Council Local Transport Strategy** (the “LTS”) for the period 2016 to 2021 sets out the policies and interventions adopted by the Council to guide planning and improvement of the local transport network. The LTS vision is to develop “a sustainable transport system that is fit for the 21st Century, accessible to all, supports a vibrant economy, facilitates healthy living and minimises the impact on our environment”.

The LTS sets an objective to support improvements to the road network and states that the Council will support the principle that “priority investment should be determined in order to reflect all day demand relative to capacity”.

The Berryden Corridor is specifically identified as being “a strategic route used both by traffic accessing or travelling through the city centre and as a direct access route to a number of large retail developments along the corridor itself”, thus highlighting the need for the proposals.

The **Nestrans Regional Transport Strategy** (2020 – 2040), has a proposed vision for 2040 is to provide a “safer, cleaner, more inclusive and accessible transport system in the north east, which contributes to healthier, more prosperous and fairer communities”. The BCI Project will support these objectives, which are also supported by the LTS.

The Aberdeen Local Development Plan (the “LDP”) adopted in 2017, allocates land and promotes planning policies to enable the growth of Aberdeen over the plan period and to “ensure that all communities have access to a comprehensive and effective transport network”. Good transport connections are seen as “essential to the economic prosperity of Aberdeen and the quality of life of people living and working in the city”.

The proposed land lies within areas zoned for various land uses identified in the LDP, including: Residential Areas (Policy H1), Mixed Use Area (Policy H2) and Opportunity Sites; OP81 (Mixed Use Area (Policy H2) and Urban Green Space (Policy NE3)).

Aberdeen City Centre Masterplan and Delivery Programme which was published in June 2015 outlines a 20-year development strategy for Aberdeen City Centre. A range of projects are identified to facilitate and support future economic growth with the intention that such growth will secure more benefits and opportunities for the communities of Aberdeen City and Shire. The Berryden Corridor Improvement is a committed project that supports the delivery of the CCMP by accommodating traffic routeing changes, resulting from reduced city centre permeability. The CCMP also encourages modal shift.

Aberdeen City – Central Locality Plan (2021-26) links to the re-refresh of the City’s Local Outcome Improvement Plan (LOIP). Within the ‘Place’ section of the plan, the central priority is to “Maximise use of spaces in communities to create opportunities for people to connect and increase physical activity”. With two of the aims being to “Increase % of people who cycle as one mode of travel by 2% by 2023” and “Increase % of people who walk as one mode of travel by 10% by 2023”, which will be supported by the proposals.

It is clear the preferred option will supported the wider objectives and outcomes at local and regional level.

Appendix 1

Option	Strength	Weakness	Opportunity	Threat	Relative Value for Money
1: Do Nothing	<p>Low Cost / Low Risk</p> <p>No capital costs.</p> <p>No change to existing access arrangements to local properties, businesses, services.</p>	<p>No improvement in connectivity for cycle traffic accessing the city centre from the north of the city.</p> <p>No safety improvements to any road users, particularly cyclists.</p>	<p>No interference with existing infrastructure and/ stakeholder operations.</p> <p>The area and route would remain adaptable to future improvements and changes.</p>	<p>Active Travel Action Plan aims, and objectives not met.</p> <p>Cyclists may not feel safe and therefore not use this mode of transport or cycle on footways leaving pedestrians vulnerable as footways not to appropriate standard for shared use.</p>	<p>Low initial cost.</p> <p>Reduces likelihood of modal shift from car to cycling.</p>
2: Spa Street & Skene Square (Northbound)	<p>Medium cost / Medium risk</p> <p>No major changes required for the majority of the length of Spa Street.</p> <p>Creation of wider area at Gilcomston Steps bus stop, and removal of ineffective bus layby.</p> <p>Segregated cycle facility on Skene Square, linking up with Berryden Corridor facility.</p>	<p>Off-carriageway cycle provision not provided on Spa Street.</p> <p>Loss of parking spaces on Skene Square.</p>	<p>Traffic calming likely to reduce traffic speed.</p> <p>Bus stop layby being removed will enable better access and egress for passengers.</p> <p>Could be continuation from Carden Place / Skene Street.</p>	<p>Right turn ban from Rosemount Viaduct may require changes to junction.</p> <p>Location of communal bins could cause conflict whilst being emptied. Whilst dropped kerbs for bins may encourage parking within the cycle lane.</p> <p>Conflict between pedestrians and cyclists likely.</p> <p>Shared use path facilities do not represent an improvement in facilities for more confident cyclists who currently feel comfortable to use the road.</p> <p>Route would not be suitable for users that would be uncomfortable cycling on the carriageway.</p>	<p>Medium initial cost.</p> <p>Could encourage modal shift from car to cycling for those traveling from the west of the city.</p>
3: Skene Square & Woolmanhill (Southbound)	<p>Medium cost / Medium risk</p> <p>Segregated cycle facility on Skene Square, linking up with Berryden Corridor facility.</p>	<p>On the east side the existing footway is only wide enough to accommodate either pedestrians or cyclists.</p> <p>Shared footway is not feasible as cyclists likely to be travelling downhill at speed.</p> <p>The site is constrained by the railway line on the east side.</p>	<p>Improvement to area at entrance to Woolmanhill halls of residence.</p> <p>Could connect to National Cycle Route Network 1 with minimal further work.</p>	<p>If cycle track is implemented pedestrians would have to find an alternative route.</p>	<p>Medium initial cost.</p> <p>Could encourage modal shift from car to cycle for those wanting to travel from the north to the east of the city.</p>

Option	Strength	Weakness	Opportunity	Threat	Relative Value for Money
4: Charlotte Street & Maberly Street (Northbound)	Widened footways on Maberly St and Charlotte St.	<p>High cost / Medium risk</p> <p>Off-carriageway cycle provision not provided on Maberly Street or northbound on Charlotte Street.</p> <p>Charlotte Street would require to be resurfaced to remove setts.</p> <p>Loss of parking spaces on Maberly Street and Charlotte Street.</p>	<p>Would require cyclists to perform a right turn from Maberly Street onto Skene Square.</p> <p>Would discourage through traffic from using Maberly Street and Charlotte Street.</p> <p>Traffic calming likely to reduce traffic speed.</p> <p>Could connect to National Cycle Route Network 1 with minimal further work and connect with Union Street via low trafficked streets.</p>	Route would not be suitable for users that would be uncomfortable cycling on the carriageway.	<p>High initial cost.</p> <p>Could encourage modal shift from car to cycling for those traveling to the east of the city.</p>
5: Maberly Street & Charlotte Street (Southbound)	<p>Off-carriageway cycle provision for cyclist travelling southbound on Charlotte Street.</p> <p>Widened footways on Maberly St and Charlotte St.</p>	<p>High cost / Medium risk</p> <p>Off-carriageway cycle provision not provided on Maberly Street.</p> <p>Charlotte Street would require to be resurfaced to remove setts.</p> <p>Loss of parking spaces on Maberly Street and Charlotte Street.</p>	<p>Would require cyclists to perform a right turn from Maberly Street onto Charlotte Street.</p> <p>Would discourage through traffic from using Maberly Street and Charlotte Street.</p> <p>Traffic calming likely to reduce traffic speed.</p> <p>Could connect to National Cycle Route Network 1 with minimal further work and connect with Union Street via low trafficked streets.</p>	<p>Route not a continuation of the Berryden Corridor taking cyclists to the east of the city centre.</p> <p>Route would not be suitable for users that would be uncomfortable cycling on the carriageway.</p>	<p>High initial cost.</p> <p>Could encourage modal shift from car to cycling for those traveling to the east of the city.</p>

Appendix 2

The RAG rating system was used to score each of the 5 options against the Core Design Principles. The scale is defined as:

Does not achieve Design Principle		Partially achieves Design Principle		Achieves Design Principle
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	Core Design Principles					
Option	Safety	Coherence	Directness	Comfort	Attractiveness	Adaptability
1: Do Nothing (On-carriageway cycling)						
2: Spa Street & Skene Square (Northbound)						
3: Skene Square & Woolmanhill (Southbound)						
4: Charlotte Street & Maberly Street (Northbound)						
5: Maberly Street & Charlotte Street (Southbound)						

In accordance with the Core Design Principles set out in Cycling by Design (2021), The options were rated to determine how they performed against each other.

The Core Design Principles used are:

Safety: Designs should minimise the potential for actual and perceived accident risk. Perceived risk is a key barrier to cycle use. Users should feel safe as well as be safe at all stages of their journey, including parking at their origin and destination. It is important to provide consistency of design and avoid ambiguity.

Coherence: Cycling infrastructure should form a coherent network which links origins and destinations. This allows the cycle network to link communities, facilities and integrate with other modes of travel. Routes should be continuous from an origin to a destination, easy to navigate, well signed, intuitive and of a consistently high quality.

Directness: Cycle users should be offered the most direct route based on existing and latent trip desire lines, minimising detours and delays. Directness has both geographical and time elements, with delays at junctions and crossings, as well as physical detours, affecting it.

Comfort: Cycle user comfort is critical to journey experience and making cycling an everyday choice for users. Routes should minimise mental and physical stress and effort, be convenient and avoid complex manoeuvres. Smooth, uninterrupted surfaces with gentle gradients and secure, sheltered cycle parking will enhance comfort. Cycling infrastructure should be well-maintained to ensure its continued comfort and appeal.

Attractiveness: Infrastructure should be designed in harmony with its surroundings in such a way that the whole experience makes cycling an attractive option. A route should complement and enhance the area through which it passes. Lighting, personal security, aesthetics, environmental quality and noise are important considerations.

Adaptability: Cycling infrastructure should be able to evolve and improve as cycle demands change. Meeting the preceding design principles in a way that allows infrastructure to adapt to changing user needs will form a critical component of cycle networks. Trialling of potential measures using more flexible infrastructure will assist in meeting this aim.

Appendix 3



Footway & unidirectional northbound cycletrack

Junction narrowed and raised priority junction created

Bus layby removed and bus stop shelter repositioned to create wider shared area and enable improved bus access / egress for bus passengers

NOTE:

-  Footway
-  Cycletrack
-  Shared Cycletrack
-  Continuous Footway
-  On-Street Parking
-  Bin Storage

Rev.	Description
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Checked (init./date)	Drawn (init./date)
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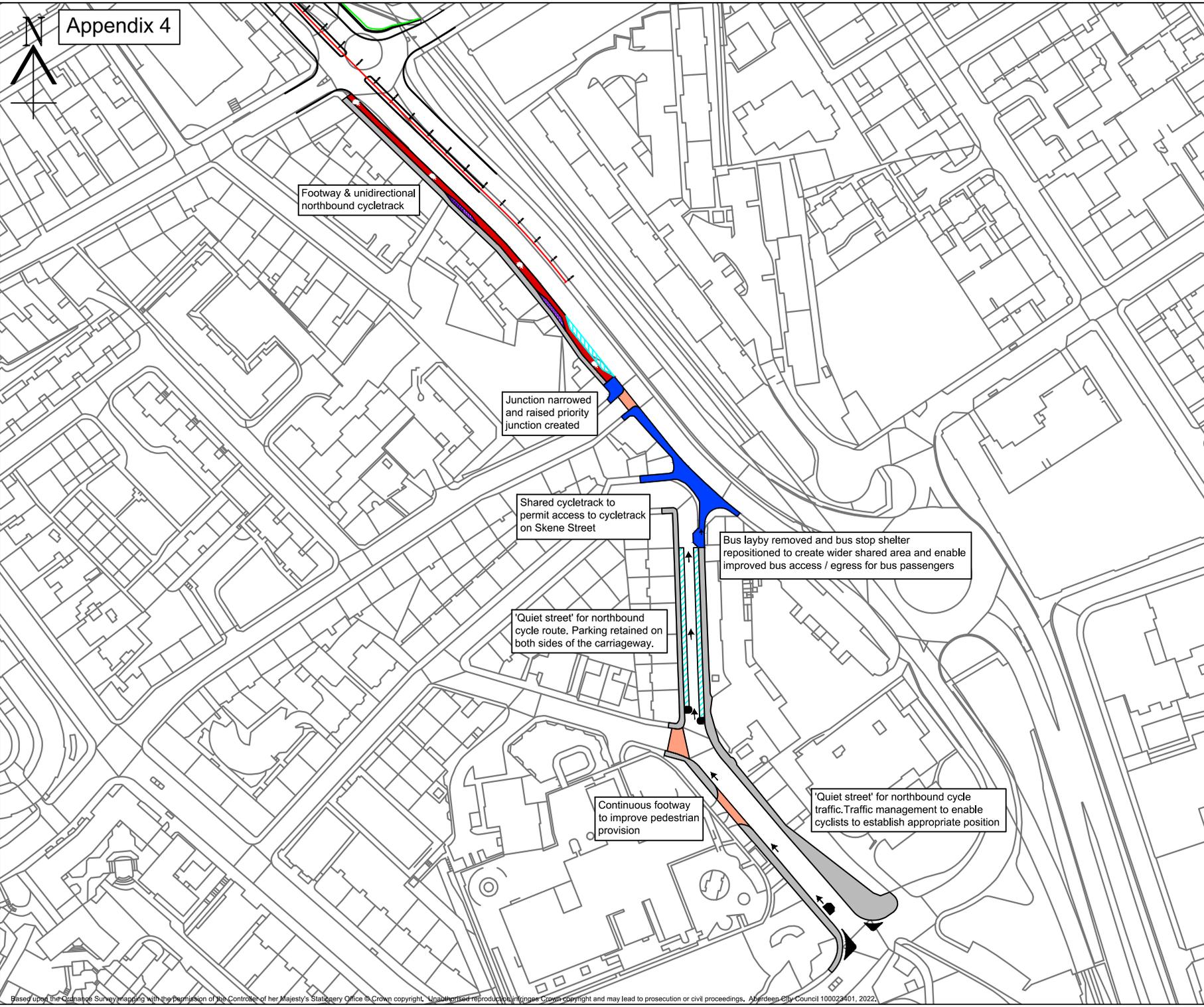
Capital | Resources
 Business Hub 4, Ground Floor North,
 Marischal College, Broad Street, Aberdeen
 AB10 1AB

Project:
 Berryden Corridor Improvement Project

Title:
 Initial Route

Drawn	Date	Checked	Date
RE	09/09/2022	KD	09/09/2022

Scale @ A4
 1:500
 Drawing No.



NOTE:

- Footway
- Cycletrack
- Shared Cycletrack
- Continuous Footway
- On-Street Parking
- Bin Storage

Rev.	Description



**ABERDEEN
CITY COUNCIL**

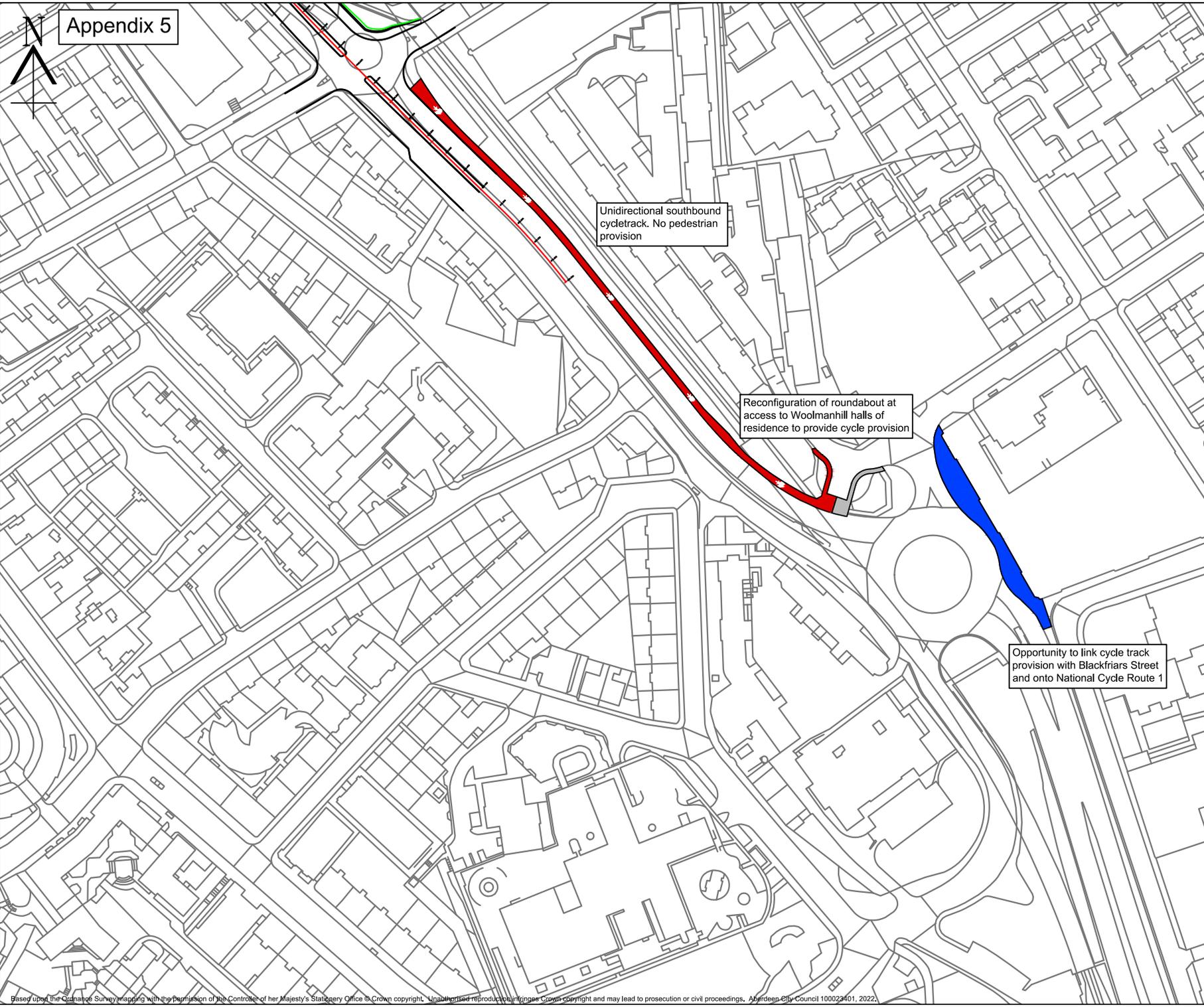
Capital | Resources
Business Hub 4, Ground Floor North,
Marischal College, Broad Street, Aberdeen
AB10 1AB

Project: Berryden Corridor Improvement Project

Title: Option 2: Spa Street/ Skene Square (Northbound)

Drawn	Date	Checked	Date
RE	09/09/2022	KD	09/09/2022

Scale @ A4
1:500
Drawing No.



Unidirectional southbound cycletrack. No pedestrian provision

Reconfiguration of roundabout at access to Woolmanhill halls of residence to provide cycle provision

Opportunity to link cycle track provision with Blackfriars Street and onto National Cycle Route 1

NOTE:

- Footway
- Cycletrack
- Shared Cycletrack

Rev.	Description



ABERDEEN CITY COUNCIL

Capital | Resources
 Business Hub 4, Ground Floor North,
 Marischal College, Broad Street, Aberdeen
 AB10 1AB

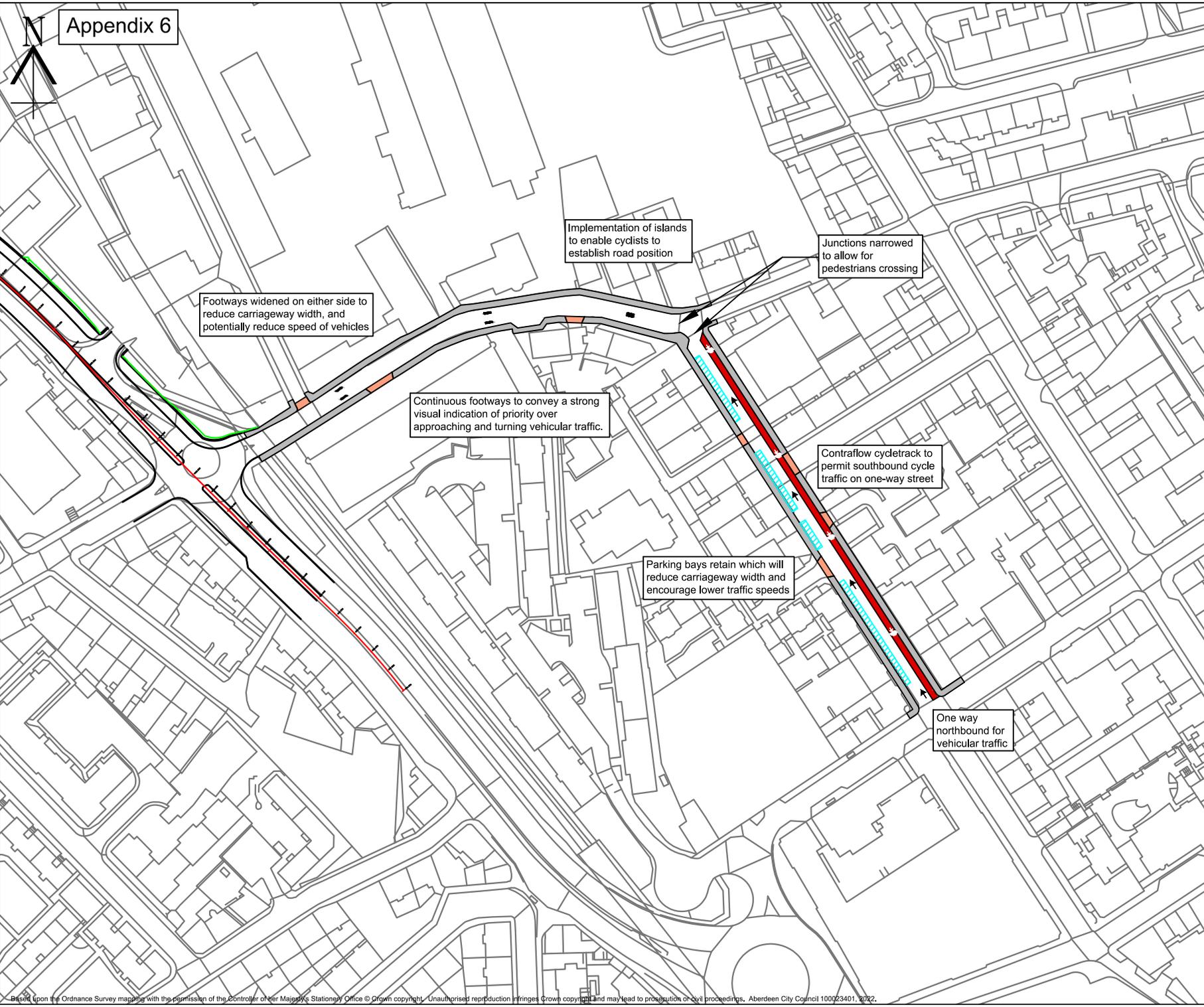
Project:
 Berryden Corridor Improvement Project

Title:
 Option 3: Skene Square/ Woolmanhill (Southbound)

Drawn	Date	Checked	Date
RE	09/09/2022	KD	09/09/2022

Scale @ A4
 1:500
 Drawing No.

Appendix 6



NOTE:

-  Footway
-  Cycletrack
-  Continuous Footway
-  On-Street Parking

Rev.	Description
Checked (init./date)	Drawn (init./date)



Capital | Resources
 Business Hub 4, Ground Floor North,
 Marischal College, Broad Street, Aberdeen
 AB10 1AB

Project:
 Berryden Corridor Improvement Project

Title:
 Option 4: Charlotte Street/ Maberly Street (Northbound)
 &
 Option 5: Maberly Street/ Charlotte Street (Southbound)

Drawn	Date	Checked	Date
RE	09/09/2022	KD	09/09/2022
Scale @ A4 1:500			
Drawing No.			