



STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE
AND IMPROVING LIVES



Appendix I: Recommendation Appraisal Summary Tables

December 2022

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1. Detailed Appraisal Summary

An 'Appendix I: Recommendation Appraisal Summary Tables (ASTs) Explanatory Note' accompanies this AST.

1.1. Recommendation 2 - Active freeways and cycle parking hubs

Recommendation Description

In urban areas worldwide, the implementation of high-quality segregated routes for people walking, wheeling and cycling on major travel demand corridors has been a key component in promoting healthy, sustainable and inclusive travel choices; this active freeways and cycle parking hubs recommendation would bring these benefits to some or all of Scotland's cities and other urban areas.

Active freeways would connect city and town centres to outlying neighbourhoods, and to key trip attractors. They would focus on high-demand corridors in large urban areas and on improving connections to communities for which transport exclusion is currently prevalent through delivering high-quality, direct, and segregated routes for active travel. Active freeways seek to promote walking and wheeling just as much as cycling, and so provide transport solutions relevant to all urban residents: including for children's safer journeys to and from school, for commuter journeys, and to provide better connections to facilities for disabled people, in an environment which is accessible and in which they feel safe.

Improved local connections from the main active freeway routes (including those delivered by the recommendation for connected neighbourhoods (1)) would ensure that people are able to access them from their homes, schools, workplaces and other destinations. Active freeways would connect to interurban networks including those that would be improved through recommendations for village-town active travel connections (3), connecting towns by active travel (4) and long-distance active travel network (5).

Each active freeway network would be accompanied by new cycle parking hubs, to provide high-quality, high-capacity storage facilities for bikes and associated equipment near major trip attractors.

The largest (primary) cycle parking hubs would be located in city centres (which may be at public transport interchanges) but smaller (secondary) hubs would be provided close to other key destinations in cities and towns. Implementation would draw on international experience of the introduction of similar facilities, which for primary cycle parking hubs would typically include:

- Covered cycle storage with secure entry;
- Provision for parking a wide range of cycle types, including adaptive cycles and cargo bikes;
- Public cycle hire docking stations (if such schemes are operational locally);
- A service point for repairs, maintenance, parts and accessories;
- Lockers, showers and changing rooms;
- Monitored and staffed (larger sites only) facilities; and
- Retail and ancillary services.

This recommendation would support the delivery of segregated urban active travel routes

that are already under consideration and would integrate with existing active travel networks, building on the work that local and regional partners have been leading to plan and implement such networks in locations across Scotland, including through the existing ‘Places for Everyone’ and National Cycle Network programmes. By so doing, active freeways and their accompanying cycle parking hubs would enable walking, wheeling and cycling, providing attractive and convenient choices for everyday journeys for many urban residents. As a result, people would benefit from improved access to local goods and services, using healthy and non-polluting modes.

1.2. Relevance

Relevant to towns and neighbourhood centres in cities and larger urban areas

Active freeways would provide efficient, safe, sustainable travel choices for short and middle-distance urban journeys, a large proportion of which are currently undertaken by car. [E-bikes are proven to be successful in increasing the distance that people are willing to cycle](#) and as their market share grows, more middle-distance urban journeys may be undertaken by different user categoriesⁱ.

Active freeways are relevant in Scotland’s cities and larger urban areas, to link city/town centres with residential areas and other key trip attractors. They may be particularly beneficial for connecting outlying and more deprived communities with central and key locations (for example hospitals, higher and further education, major employment sites).

In many instances, active freeways may require reallocation of road space away from other modes. Where this is the case, design stages would require to balance the sometimes conflicting aspirations for improved active travel routes with those for bus priority, local access and servicing, and aspirations to reduce traffic pollution and congestion.

Meanwhile, [cycle parking hubs would address the lack of adequate, secure cycle storage](#),ⁱⁱ, at key destinations on active freeway networks.

1.3. Estimated Cost

£1,001 - £2,500 million

The capital costs associated with the provision of active freeways are estimated to be between £1.5 million and £3 million per kilometre depending on the location, type of provision and local constraints, based on outturn costs from implementation of similar schemes in the UK.

For the purposes of undertaking a robust appraisal of the costs and benefits of this recommendation, it is assumed that networks of active freeways would be provided either in Scotland’s four largest cities or in all localities with a population of over 35,000 (the latter being 21 settlements).

Active freeway networks are estimated to potentially extend to 600-700 kilometres in the four largest cities or 1,100-1,200 kilometres in all cities and large towns, giving rise to a net cost in the range of £900 million-£3.6 billion.

Capital costs of cycle parking hubs would vary widely depending on the scale and location of the facility to be provided. Estimated costs range from £500,000 for a modest secondary

hub to £5 million for a major primary hub in a new city centre location. If implemented only in Scotland’s four largest cities, estimates suggest that 4-8 primary and a further 4-8 secondary hubs would be created, giving capital costs in the range of £22-£44 million. If implemented in all cities and towns with a population of over 35,000, an estimated 6-12 primary and 24-40 secondary cycle parking hubs would be created, giving capital costs in the range of £42-£80 million.

Revenue funding would be required to maintain new routes to a high standard, and may also be required for cycle parking hubs, as operating costs may not be fully recoverable from user charges.

1.4. Position in Sustainable Investment Hierarchy

Reduces the need to travel unsustainably

This recommendation would contribute to 10 of the 12 NTS2 outcomes, as follows:

- Provide fair access to services we need;
- Be easy to use for all;
- Be affordable for all;
- Be reliable, efficient and high quality;
- Help deliver our net-zero target;
- Promote greener, cleaner choices;
- Be safe and secure for all;
- Get people and goods to where they need to get to;
- Enable us to make healthy travel choices; and
- Help make our communities great places to live.

1.5. Summary Rationale

Summary of Appraisal

	TPO					STAG					SIA				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Low Scenario	+++	++	+++	+	++	+	++	+++	+	+++	+	+++	0	++	++
High Scenario	+++	++	+++	+	++	+	++	+++	+	+++	+	+++	0	++	++

This recommendation makes a positive contribution to the STPR2 Transport Planning Objectives (TPOs), STAG criteria, and Statutory Impact Assessment (SIA) criteria (with the exception of Island Communities Impact Assessment).

It particularly contributes to objectives for social inclusion and health, and can also assist in meeting goals for environmental improvement and inclusive economic gain.

Active freeway networks and cycle parking hubs are anticipated to be implementable in Scotland’s urban areas, albeit much detailed local engagement and design work is required to identify the most appropriate routes and sites.

Details behind this summary are discussed in Section 3, below.

2. Context

2.1. Problems and Opportunities

This recommendation could help to tackle the following problems and opportunities:

Relevant Problem & Opportunity Themes Identified in National Case for Change

- **Social Isolation:** there is increasing recognition of social isolation and loneliness as major public health issues that can have significant impacts on physical and mental wellbeing. Disabled people in particular can feel trapped due to a lack of accessible transport, particularly on islands and in remote and rural areas.
- **Changing Travel Behaviour:** changing people’s travel behaviour to use more sustainable modes will have a positive impact on the environment, as well as health and wellbeing.
- **Global Climate Emergency:** the Scottish Parliament committed to an ambitious target of net zero emissions by 2045 and transport needs to play its part. Transport is currently Scotland’s largest sectoral emitter, responsible for 37% of Scotland’s total greenhouse gas emissions in 2018. Our transport system needs to minimise the future impacts of transport on our climate.
- **Physical Activity:** the importance of active travel is becoming more evident as the consequences of physical inactivity are studied. [It is recognised that one of the most effective ways to secure the required 30 minutes of moderate activity per day is to reduce reliance on motorised transport, changing the means of everyday travel to walking and cyclingⁱⁱⁱ.](#)

2.2. Interdependencies

This recommendation has potential overlap with other STPR2 recommendations and would also complement other areas of Scottish Government activity.

Other STPR2 Recommendations

- Connected neighbourhoods (1);
- Village-town active travel connections (3);
- Connecting towns by active travel (4);
- Long-distance active travel network (5); and
- Improving access to bikes (9).

Other areas of Scottish Government activity

- [Active Travel Framework](#) (2020)^{iv};
- [The National Walking Strategy](#) (2014)^v;
- [Cycling Action Plan for Scotland](#) (CAPS) (2017)^{vi};
- [Town Centre Action Plan](#) (2013)^{vii};
- [The Place Principle](#)^{viii}; and
- [Revised Draft Fourth National Planning Framework](#) (Revised Draft NPF4)^{ix} National Development 8. National Walking, Cycling and Wheeling Network.

3. Appraisal

This section provides an assessment of the recommendation against:

- STPR2 Transport Planning Objectives (TPOs);
- STAG criteria;
- Deliverability criteria; and
- Statutory Impact Assessment criteria.

The seven-point assessment scale has been used to indicate the impact of the recommendation when considered under the ‘Low’ and ‘High’ Transport Behaviour Scenarios (which are described in Appendix F of the Technical Report).

3.1. Transport Planning Objectives

1. A sustainable strategic transport system that contributes significantly to the Scottish Government’s net-zero emissions target

Low Scenario	High Scenario
+++	+++

[Modal shift from car to more sustainable modes of transport \(including walking, wheeling and cycling\) reduces levels of air pollution and greenhouse gases^x.](#)

[Evidence suggests that, in the short-term, around a quarter of active freeway users would typically switch from car, the remainder being new to the route, or switching from other active modes or public transport^{xi}. Studies have suggested that walking or cycling could realistically substitute for 41% of short car trips, saving nearly 5% of carbon emissions from car travel^{xii}.](#)

European experience suggests that a greater switch from car would occur over time. Care should be taken to ensure that the increase in active travel maximises the potential for mode switch from car, to minimise carbon emissions, and that no unintended reductions in public transport patronage result.

Cycle parking hubs can help overcome one of the key barriers to cycling: the lack of secure storage. When combined with active freeways, cycle parking hubs can enhance the convenience and attractiveness of cycling for both short, medium and (when combined with public transport) longer-distance journeys.

This recommendation is therefore expected to have a major positive impact on this objective in both Low and High scenarios.

2. An inclusive strategic transport system that improves the affordability and accessibility of public transport.

Low Scenario	High Scenario
++	++

[Not feeling safe on the roads is the biggest single barrier to active travel use^{xiii}](#), with children and older people particularly affected. [Inaccessible cycle infrastructure is the single biggest difficulty faced by disabled cyclists in the UK^{xiv}](#) as well as a significant barrier to users of adapted cycles. [Women are under-represented in cycling^{xv}](#).

[Active freeways would improve transport inclusivity for commonly disadvantaged groups](#) by providing safe, low-cost transport choices and enhancing access to employment and other opportunities^{xvi}. [Active freeways would support under-represented groups](#) by facilitating short and simple journeys^{xvii} typically undertaken [by women to access local services and opportunities^{xviii}](#), and provide safe and accessible environments for walking, wheeling, and cycling journeys for disabled people, young and older people.

Given the high cost of many types of non-standard cycles, the lack of appropriate, secure parking at destinations is an even greater barrier to cycling for many people that need to use adapted or specialised bikes than riders of regular bikes. [Three-quarters of disabled cyclists use their cycle as a mobility aid^{xix}](#), but without reliably available parking facilities at their destination, disabled cyclists would often be discouraged from travelling; [around one-third have been unable to park or store a non-standard cycle due to inadequate facilities^{xx}](#). [Women make more cycle journeys with children](#) and may be more likely to use a cargo bike^{xxi}, and would commonly face the same parking challenge. Cycle parking hubs would provide storage for specialist and adapted cycles helping broaden active travel opportunities for members of commonly-disadvantaged groups.

This recommendation is therefore expected to have a moderate positive impact against this objective in both the Low and High scenarios.

3. A cohesive strategic transport system that enhances communities as places, supporting health and wellbeing.

Low Scenario	High Scenario
+++	+++

Active travel is beneficial to both physical health and mental wellbeing. 29% of adult men and 39% of adult women in Scotland do not meet [minimum physical activity guidelines](#)^{xxii}. [Keeping physically active can reduce the risk of heart and circulatory disease](#) by as much as 35%, reduce risk of early death by as much as 30% and has also been shown to greatly reduce the chances of asthma, diabetes, high blood pressure and cancer^{xxiii}. [Adults who cycle regularly can have the fitness levels of someone up to 10 years younger](#)^{xxiv}.

[A study of the benefits of a new segregated active travel route in Merseyside](#) found that 70% of users agreed that by using the route they had increased their level of physical activity, with 33% stating the route had increased their physical activity by a large amount^{xxv}.

The provision of cycle storage is a more efficient use of limited urban space than car parking; eight to 10 bicycles can typically be parked in the same space as needed to store one car. This could free up constrained space in urban centres, supporting placemaking opportunities.

Interventions can also be effective in supporting and encouraging participation in active travel among under-represented and minority population groups, helping to support and enhance Scottish communities. The measures may also, by increasing the number of people out and about within their communities, make a positive contribution to places.

This recommendation is therefore expected to have a major positive impact against this objective in both the Low and High scenarios.

4. An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland.

Low Scenario	High Scenario
+	+

Active travel routes can significantly expand the people-movement capacity of congested urban road networks, so increasing the potential catchment of town/city centres. At some busy locations where [Cycle Superhighway routes have been implemented in London, cyclists now make up 70% of all traffic^{xxvi}](#), helped by the fact that [cycle tracks can move up to five times as many people in a carriageway lane as one dominated by private vehicles^{xxvii}](#).

[Well-designed active travel infrastructure can improve economic performance of local retail centres](#), with typically increases in footfall of 20-30%^{xxviii}. Active travel also offers the most inclusive means of connecting people to employment and services.

Active travel offers the most inclusive means of connecting people to employment and services. [The Linking Communities schemes](#) (an £18 million investment to better connect 35 English communities by active modes to economic opportunities), which comprise a network of traffic-free active travel routes, generated a 353% increase in commuter trips, with 30% of users reporting better access to employment^{xxix}. A socio-economic analysis of the [cycle superhighway network in Copenhagen](#) estimates that the project resulted in a socio-economic surplus of €765 million^{xxx}.

The provision of cycle storage is a more efficient use of limited urban space than car parking spaces; eight to 10 bicycles can typically be parked in the same space as needed to store one car. Provision of cycle parking hubs can therefore enhance the transport capacity of urban centres, promoting vitality using a transport mode that is inclusive for many people. [Cycling greatly increases the catchment area of public transport interchanges compared to walking](#), so providing high-quality cycle parking at public transport facilities enhances inclusive transport choice, as well as supporting measures to reduce car use^{xxxi}.

This recommendation is therefore expected to have a minor positive impact against this objective in both the Low and High scenarios.

5. A reliable and resilient strategic transport system that is safe and secure for users.

Low Scenario	High Scenario
++	++

By providing more active routes that are segregated from traffic, [active freeways would address perceived fears around road safety, which is the most significant barrier to the uptake of active travel](#)^{xxxii}. [Evidence suggests that perceived safety is more influential on active travel behaviour than journey time reliability or speed](#)^{xxxiii}. Improved perception of safety is considered to be one of the key successes of [London’s Superhighways](#), with over 80% of users stating that their safety was improved^{xxxiv}.

If an increase in cycling journeys is not accompanied by high-quality cycle storage, [cycles are often parked in inappropriate locations](#) (known as ‘fly parking’). This can create hazards for pedestrians, especially for older people, young children, disabled, blind and partially-sighted people^{xxxv}.

[Bicycle theft or the fear of theft and vandalism, particularly for higher-value cycles, is a barrier to cycling](#)^{xxxvi}. It [reduces bicycle possession, bicycle use and bicycle quality](#) (which is possibly less safe)^{xxxvii}. Secure cycle storage helps overcome these issues; security is the primary consideration for longer stay parking. Many cyclists are willing to trade some convenience (such as a modest walk to their final destination) for [additional security such as CCTV coverage, shelter from weather and secure access](#)^{xxxviii}, which urban cycle parks would provide.

This recommendation could also improve the resilience and reliability of the transport network through modal shift from car to active travel journeys, resulting in reductions in road congestion. Active travel infrastructure tends to be reliable for users, provided appropriate maintenance is undertaken: users are largely independent from the actions of others (so not subject to delays or diversions caused by operational problems on public transport or road networks).

This recommendation is therefore expected to have a moderate positive impact against this objective in both the Low and High scenarios.

3.2. STAG Criteria

1. Environment	
Low Scenario	High Scenario
+	+

See Strategic Environmental Assessment (SEA) below.

This recommendation is expected to have a minor positive effect on this criterion in both the Low and High scenarios.

2. Climate Change	
Low Scenario	High Scenario
++	++

This recommendation would help generate a modal shift from car to active modes for short and middle-distance journeys in urban areas (and longer-distance journeys when combined with public transport). It would also be expected to reduce traffic and congestion through reallocation of road space on key routes. This would reduce levels of transport-related air pollution and greenhouse gas emissions.

No impact on the Vulnerability to Effects of Climate Change or Potential to Adapt to Effects of Climate Change is anticipated.

This recommendation is expected to have a moderate positive impact against this criterion in both the Low and High scenarios.

3. Health, Safety and Wellbeing	
Low Scenario	High Scenario
+++	+++

The importance of safety for people travelling actively was highlighted in the STPR2 National Case for Change. [By providing more active routes that are segregated from traffic, active freeways would address fears around road safety, which are the most significant barrier to the uptake of active travel](#)^{xxxix}: [evidence suggests that perceived safety is more influential on active travel behaviour than journey time reliability or speed](#)^{xl}. [Improved perception of safety is considered to be one of the key successes of London’s Superhighways](#), with over 80% of users stating that their safety was improved^{xli}.

If an increase in cycling journeys is not accompanied by high-quality cycle storage, [cycles are often parked in inappropriate locations](#) (known as ‘fly parking’). This can create hazards for pedestrians, especially for older people, young children, disabled, blind and partially-sighted people^{xlii}.

[Bicycle theft or the fear of theft and vandalism, particularly for higher-value cycles, is a barrier to cycling](#)^{xliii}. It [reduces bicycle possession, bicycle use and bicycle quality](#) (which is

possibly less safe)^{xliv}. Secure cycle storage helps overcome these issues; security is the primary consideration for longer-stay parking. Many cyclists are willing to trade some convenience (such as a modest walk to their final destination) for [additional security such as CCTV coverage, shelter from weather and secure access](#)^{xlv}, which urban cycle parks would provide.

Active travel is beneficial to both physical health and mental wellbeing. 29% of adult men and 39% of adult women in Scotland [do not meet minimum physical activity guidelines](#)^{xlvi}. [Keeping physically active can reduce the risk of heart and circulatory disease](#) by as much as 35%, reduce risk of early death by as much as 30% and has also been shown to greatly reduce the chances of asthma, diabetes, high blood pressure and cancer^{xlvii}. [Adults who cycle regularly can have the fitness levels of someone up to 10 years younger](#)^{xlviii}.

[A study of the benefits of a new segregated active travel route in Merseyside](#) found that 70% of users agreed that by using the route they had increased their level of physical activity, with 33% stating the route had increased their physical activity by a large amount^{xlix}.

As well as the uptake in active travel improving public health and wellbeing, some benefits to access health and wellbeing infrastructure could be achieved by this recommendation, as well as improving personal security because of increased natural surveillance. Some adverse effects on visual amenity where new paths and cycle hubs are constructed could be anticipated during the construction period; however these interventions are unlikely to result in a significant adverse effects on visual amenity during operation.

This recommendation is expected to have a major positive impact against this criterion in both the Low and High scenarios.

4. Economy

Low Scenario	High Scenario
+	+

Active travel routes can significantly expand the people-movement capacity of congested urban road networks, so increasing the potential catchment of town/city centres. At some busy locations where [Cycle Superhighway routes have been implemented in London, cyclists now make up 70% of all traffic](#)ⁱ, helped by the fact that [cycle tracks can move up to five times as many people in a carriageway lane](#) as one dominated by private vehiclesⁱⁱ.

[Well-designed active travel infrastructure \(which should be accompanied by cycle storage\) can improve economic performance of local retail centres](#), with typical increases in footfall of 20-30%ⁱⁱⁱ.

Active travel also offers the most inclusive means of connecting people to employment and services. [The Linking Communities schemes](#) (an £18 million investment to better connect 35 English communities by active modes to economic opportunities), which comprise a network of traffic-free active travel routes, generated a 353% increase in commuter trips, with 30% of users reporting better access to employmentⁱⁱⁱⁱ. A socio-

economic analysis of the [cycle superhighway network in Copenhagen](#) estimates that the project resulted in a socio-economic surplus of €765 million^{liv}.

The provision of cycle storage is a more efficient use of limited urban space than car parking spaces; eight to 10 bicycles can typically be parked in the same space as needed to store one car. Provision of cycle parking hubs can therefore enhance the transport capacity of urban centres, promoting vitality using a transport mode that is inclusive for many people. [Cycling greatly increases the catchment area of public transport interchanges](#) compared to walking, so providing high-quality cycle parking at public transport facilities enhances inclusive transport choice, as well as supporting measures to reduce car use^{lv}.

Whilst this recommendation is expected to deliver the above benefits, no significant impact on Transport Economic Efficiency nor Wider Economic Impacts is anticipated.

This recommendation is expected to have a minor positive impact against this criterion in both the Low and High scenarios.

5. Equality and Accessibility

Low Scenario	High Scenario
+++	+++

This recommendation would have a positive impact on Active Travel network coverage through the development of active freeways on radial routes and other high-demand corridors in Scotland’s large urban areas, with priority given initially to the larger cities. Comprehensive networks of active freeways would connect outlying neighbourhoods, including those with poor existing links, to city centres and other important destinations.

Active freeways would also have a positive impact on Comparative Access. [Not feeling safe on the roads is the biggest single barrier to active travel use^{lvi}](#), with children and older people particularly affected. [Inaccessible cycle infrastructure is the single biggest difficulty faced by disabled cyclists in the UK^{lvii}](#) and [women are under-represented in cycling^{lviii}](#).

[Active freeways would improve transport inclusivity for commonly disadvantaged groups](#) by providing safe, low-cost transport choices and enhancing access to employment and other opportunities^{lix}. [Active freeways would support under-represented groups by facilitating short and simple journeys^{lx}](#) typically undertaken by [women to access local services and opportunities^{lxi}](#), and provide safe and accessible environments for walking, wheeling, and cycling journeys for disabled people, young and older people.

Despite [evidence demonstrating that women are one of the least likely groups to switch to active travel in the UK^{lxii}](#), in the Netherlands (where active freeway-type interventions are common) the overall proportion of trips cycled by [women is consistently higher than the proportion cycled by men](#) and cycle usage remains high into old age^{lxiii}.

Analysis based on an indicative network of active freeways in one Scottish city showed that more than a quarter of the city’s population could live within just 500 metres of a link on the network. When combined with the recommendation for Connected neighbourhoods

(1) and other local improvements, much of the urban population of Scotland could benefit if active freeways were widely implemented.

Given the high cost of many types of non-standard cycles, the lack of appropriate, secure parking for them at destinations is an even greater barrier to cycling for many people that need to use adapted or specialised bikes than riders of regular bikes. [Three-quarters of disabled cyclists use their cycle as a mobility aid](#)^{lxiv}, but without reliably available parking facilities at their destination, disabled cyclists would often be discouraged from travelling; [around one-third have been unable to park or store a non-standard cycle due to inadequate facilities](#)^{lxv}. [Women make more cycle journeys with children](#) and may be more likely to use a cargo bike^{lxvi}, and would commonly face the same parking challenge. Cycle parking hubs would provide storage for specialist and adapted cycles helping broaden active travel opportunities for members of commonly-disadvantaged groups.

No significant effect on Public Transport network coverage is anticipated.

Also refer to EqIA/ICIA/FSDA/CRWIA Assessment.

This recommendation is expected to have a major positive impact against this criterion in both Low and High scenarios.

3.3. Deliverability

1. Feasibility

The concept of high-quality segregated active travel networks of active freeway routes with accompanying cycle parking hubs is feasible in Scotland's towns and cities, as demonstrated by many successful schemes already in existence both in the UK and beyond. However, the feasibility on any specific corridor remains to be tested, where active freeways and hubs would often be competing with other modes and aspirations (such as for parking) for scarce road space and urban land.

Therefore, much detailed development work and local decision-making is required to identify the most appropriate routes and their preferred fit with the urban form.

The measures included within this recommendation would likely be delivered by/ in partnership with local authorities. The role of Transport Scotland would be to support and facilitate implementation, in part in a funding role and through the development of guidance and best practice.

2. Affordability

Overall, the implementation costs for active freeways and cycle parking hubs is likely to be substantial (estimated to be £900 million – £2.1 billion for the four largest cities, or £1.65 billion – £3.6 billion for all large urban areas). There would also be some revenue costs to ensure that schemes are well maintained and enforced. The roll out of the recommendation would be phased to match funding availability.

While the costs of implementing a network of active freeways and cycle parking hubs in Scotland's major towns and cities would be considerable, there is ample evidence from existing schemes elsewhere to suggest that the benefits would outweigh the costs.

3. Public Acceptability

[Over 25% of Scottish adults are ‘looking to change’ towards increased rates of active travel^{lxvii}](#) and [33% of Scottish adults would likely consider more active pursuits](#), such as walking and cycling, as the COVID-19 lockdowns are eased^{lxviii}. Based on the [STPR2 online survey](#), public support in Scotland around active freeways is high, with ‘availability of safe cycling infrastructure (for example cycleways)’ ranked as the highest priority intervention nationally^{lxix}.

International experience suggests that active freeway-type interventions are very popular post-implementation, but some pre- and post-implementation challenges are expected from a number of people that feel they would be adversely affected, typically because of anticipated worsening of traffic congestion or limitations on parking.

No significant public acceptability risks associated with cycle parking hubs are foreseen, though there may be potential local risks with choice of location, if competing for space with other land uses, including car parking.

3.4. Statutory Impact Assessment Criteria

1. Strategic Environmental Assessment (SEA)

Low Scenario	High Scenario
+	+

This recommendation would likely result in positive effects on the SEA objectives related to reducing greenhouse gas emissions (Objective 1) and improving air quality (Objective 3), as it seeks to encourage a modal shift to active travel methods and reduce traffic and congestion through reallocation of road space on key routes. This would reduce levels of transport-related air pollution and carbon emissions, reduce transport-related noise and improve the quality of urban spaces. The recommendation would also have a positive effect on the sustainable use of the transport network (Objective 8), quality of life (Objective 4) and safety (Objectives 4 and 7) as it promotes a more sustainable use of the existing transport network, encouraging sustainable access and increased travel choice with a focus on improved safety and creating accessible routes/spaces for all users.

Further environmental assessment would be required as individual interventions (freeways) are developed to determine local effects on landscape/townscape, visual amenity (Objective 13) and cultural heritage (Objective 14). This assessment should also include any necessary mitigation for expected construction stage effects, for example relating to air quality, embodied carbon and greenhouse gas emissions, noise and vibration, amenity, accessibility and nuisance. It is considered that the recommendation would have neutral effects on the remaining SEA objectives due to the limited land-take required.

Overall, this recommendation is expected to have a minor positive effect on this criterion under both the Low and High scenarios.

2. Equalities Impact Assessment (EqIA)

Low Scenario	High Scenario
+++	+++

Active freeways would provide safer and affordable access to services (including access to employment, education, health facilities and other transport services) for people in cities and large urban areas across Scotland. Beneficiaries are likely to include deprived communities as this recommendation partially targets outlying neighbourhoods within large urban centres that may currently lack a full range of transport options.

The infrastructure installed as part of the networks would be designed to accommodate adapted cycles and, as such, address mobility issues experienced by groups such as disabled people and older people, though care would be required to ensure that new infrastructure meets the needs of as many people as possible. Segregated infrastructure would also benefit people who are more likely to lack confidence or are underrepresented amongst cyclists, such as women.

Cycle parking hubs would be designed to house adapted cycles and other specialist bikes and, as such, would address mobility issues experienced by groups such as women, disabled people and older people. The safety features associated with the storage facilities would also reduce personal safety concerns for active travel users.

An uptake in active travel is likely to improve physical health and mental wellbeing outcomes and is also likely to lead to air quality improvements if increased active travel is matched by a decrease in private vehicle use and traffic congestion. Improved health outcomes as a result of better air quality are of particular benefit to those who are more vulnerable to air pollution, including children, older people and disabled people. However, the extent to which groups with protected characteristics would benefit from this recommendation would depend on the location and routeing of the active freeways, proximity to deprived areas and required services and the ability for certain to groups to access the improved routes.

This recommendation is expected to have a major positive impact against this criterion in both the Low and High scenarios.

3. Island Communities Impact Assessment (ICIA)

Low Scenario	High Scenario
0	0

This recommendation is not considered to be directly or indirectly relevant to island communities.

This recommendation is therefore expected to have a neutral impact against this criterion in both Low and High scenarios.

4. Children’s Rights and Wellbeing Impact Assessment (CRWIA)

Low Scenario	High Scenario
++	++

[The biggest concern of adults when it comes to children walking and cycling is danger caused by vehicular traffic^{xxx}](#), so lessening this danger by providing segregated infrastructure on busy routes would provide benefits. This recommendation is therefore likely to lead to significant improvements for child rights and wellbeing due to a reduction in the perceived danger of road collisions, crashes and casualties.

This recommendation is likely to benefit children and young people by creating improvements in air quality if the uptake in active travel is accompanied by a decrease in private vehicle use and traffic congestion; providing better and less costly access to education and other services; and the consequential effects of improved access to services for the whole community (such as parent and carer access to employment).

In terms of the cycle parking, the extent to which the hubs would improve outcomes for children would depend on their location in regard to services and active travel routes, their cost and the payment methods available, which may exclude children if they are via card or virtual payment only.

Overall, this recommendation is expected to have a moderate positive impact against this criterion in both the Low and High scenarios.

5. Fairer Scotland Duty Assessment (FSDA)

Low Scenario	High Scenario
++	++

Beneficiaries of this recommendation are likely to include deprived communities as the active freeways would be partially located to connect outlying neighbourhoods within cities and large urban areas that may lack a full range of transport options. As well as benefitting these ‘communities of place’, the recommendation would potentially improve access to services for ‘communities of interest’ including those with lower access to private vehicle use (such as women, young people and low income households) and others who may

benefit from less costly travel options. However, the extent to which this recommendation would reduce inequalities of outcome would depend on the location and routeing of the active freeways and cycle parking hubs, their proximity to deprived areas and required services, and the ability for people from deprived and disadvantaged communities to access the facilities.

In terms of cycle parking, the extent to which the hubs would reduce inequalities of outcome would depend on the location of the bike storage facilities in regard to services and active travel routes, their cost and the payment methods available, as certain groups would be excluded by card or virtual payment methods only.

This recommendation is expected to have a moderate positive impact against this criterion in both the Low and High scenarios.

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