Integrated Impact Assessment (IIA) for Meadowbank Links active travel interventions

Active travel interventions as part of the Meadowbank Masterplan

March 2022

City of Edinburgh Council

Contents

1. Introduction

This Integrated Impact Assessment (IIA) has been undertaken to consider impacts of the proposed Meadowbank Links active travel interventions ('the proposed schemes') on population, equality and human rights, economic factors, and the environment.

1.1 Background to schemes

The proposed schemes comprise the introduction of segregated cycleways and active travel improvements in four locations linking into the new Meadowbank development and sport facilities. The Council Development and Regeneration Team are currently progressing a regeneration project on a section of the Meadowbank sports centre site for mixed use purposes (mainly housing). The development will have a strong focus on encouraging and enabling sustainable methods of transport. The site will be, for the most part, car free and as such it is vital that pedestrians, wheelers and cyclists are able to access the site from the surrounding neighbourhoods and vice versa.

The Meadowbank Masterplan (https://www.edinburgh.gov.uk/meadowbank) was approved on 7th October 2021 and accommodates pedestrian, wheeling and cycling permeability throughout the site. The design has been endorsed by the SUSTRANS Places for Everyone Scheme, which aims to bring better-connected walking and cycling routes to the area.

1.2 Legal context and IIA process

The Equalities Act 2010 (Specific Duties) (Scotland) 2012, requires public bodies to assess the impact of applying a proposed new or revised policy or practice where necessary to fulfil the requirements of the Public Sector Equality Duty (PSED) as set out in s149 of the Act. In addition, The Fairer Scotland Duty (FSD) places a legal responsibility on public bodies in Scotland to actively consider ('pay due regard' to) how they can reduce inequalities of outcome caused by socio-economic disadvantage, when making strategic decisions. As such, an IIA is an effective mechanism of meeting these legal requirements by considering the needs of different groups and to assess proposals for equality impact to prevent unlawful discrimination.

Due to the scale and nature of the proposed schemes, statutory Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA) are not required. However, environmental impacts have been considered as part of the IIA.

This IIA has been conducted in accordance with 'A guide to doing Integrated Impact Assessment for Councils, Health & Social Care Partnerships and Health Services in the Lothians' (NHS Lothian 2017). The NHS guidance sets out a 7-stage process to completing an IIA, as set out in Figure 1.

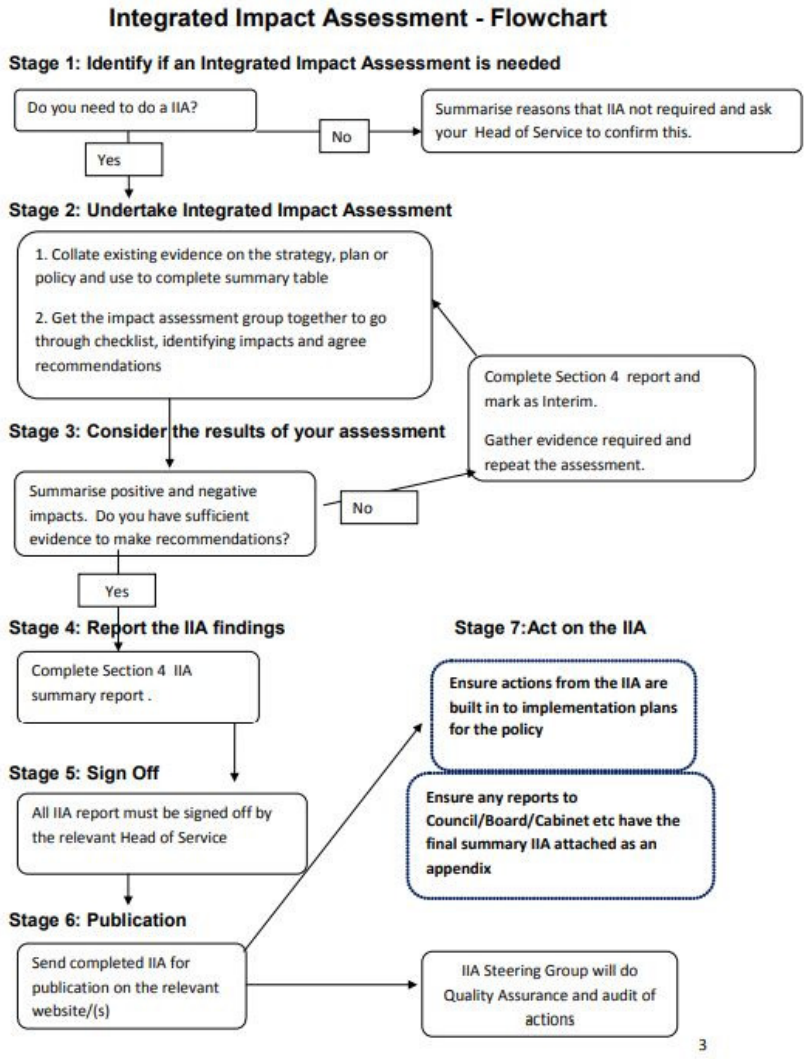


Figure 1: 7-step IIA Process (NHS Lothian, 2017)

With cognisance of the NHS Lothian guidance, the specific steps undertaken in preparation of this IIA were as follows:

1. Identify the requirement for an IIA (refer to Section 1.3);

2. Collate existing evidence on protected characteristic groups who may be impacted by the proposed schemes, as well as travel habits, economic factors and the environment (refer to Appendix A (IIA Evidence));

3. Arrange an impact assessment group workshop (23/02/2022), involving key persons involved in the development of the scheme, to go through the NHS Lothian IIA checklist, identifying impacts and agreeing mitigation and recommendations (refer to Section 2 (Integrated Impact Assessment); and

4. Summarise the positive and negative impacts of the proposed schemes on population, equality and human rights, economic factors, and the environment, and report the findings using the template contained in section 4 of the NHS Lothian IIA guidance (Section 2 (Integrated Impact Assessment).

The next stage in the process will be to publish the IIA on the relevant websites and ensure actions are built into the implementation of the proposed schemes through an appropriate monitoring programme.

1.3 Requirement for IIA

As set out in the NHS Lothian guidance (refer to Figure 1), the first stage is to consider whether a full assessment is required. The guidance sets out a screening checklist and that should the answer be 'yes' to any of the questions, an IIA is required. As illustrated in Table 1.1, it was determined that an IIA was required primarily because the proposals have consequences for or affect people. Economic and environmental impacts were deemed less likely in accordance with the scale and nature of the proposals, however were taken forward for consideration in the IIA due to the possibility for localised impacts to arise.

Table 1.1: Screening Exercise for IIA

High Relevance	**Yes/No**
The proposal has consequences for or affects people	**Yes**
The proposal has potential to make a significant impact on equality even when this only affects a relatively small number of people	Uncertain
The proposal has the potential to make a significant impact on the economy and delivery of economic outcomes	Uncertain
The proposal is likely to have a significant environmental impact	Uncertain
Low Relevance	**Yes/No**
The proposal has little relevance to equality	No
The proposal has a negligible impact on the economy	Uncertain
The proposal has no/minimal impact on the environment	Uncertain

1.4 Limitations of assessment

The assessment has been undertaken at a local level, drawing upon baseline demographic evidence obtained from the National Records of Scotland and local surveys where available. For some baseline parameters, the most recent available data available was from the 2011 Scottish Census, and therefore may not be representative of the current situation. Where available, more up to date data has been utilised, e.g. mid-year Office for National Statistics (ONS) population estimates. The planned 2021 census for Scotland was postponed to 2022 due to Covid-19 and future analysis will be able to utilise this dataset. Some local datasets have been utilised to inform the baseline (e.g. satisfaction with public transport) but these are limited in scope.

It should be noted that since early 2020, the Covid-19 pandemic has affected travel patterns and behaviours as a result of an increase in remote working, amongst other factors. However, it is uncertain whether such trend will remain in the long term. Local and national government policies aimed towards achieving climate targets and improving uptake of active travel will also have an effect on travel trends in the coming years.

1.5 Proposed schemes

The proposed schemes consist of various options to improve pedestrian, wheeler and cyclist accessibility to and from the new Meadowbank development and Sports Centre. Four sites have been identified to be in need of improvement in order to provide safe and secure pedestrian access between the Meadowbank development and the surrounding areas. These sites are described further in this section and are illustrated on Figure 2 as follows:

A. Meadowbank to Clockmill Lane

B. Meadowbank to Lochend Park

C. Meadowbank to Lower London Road

D. Smokey Brae Improvements

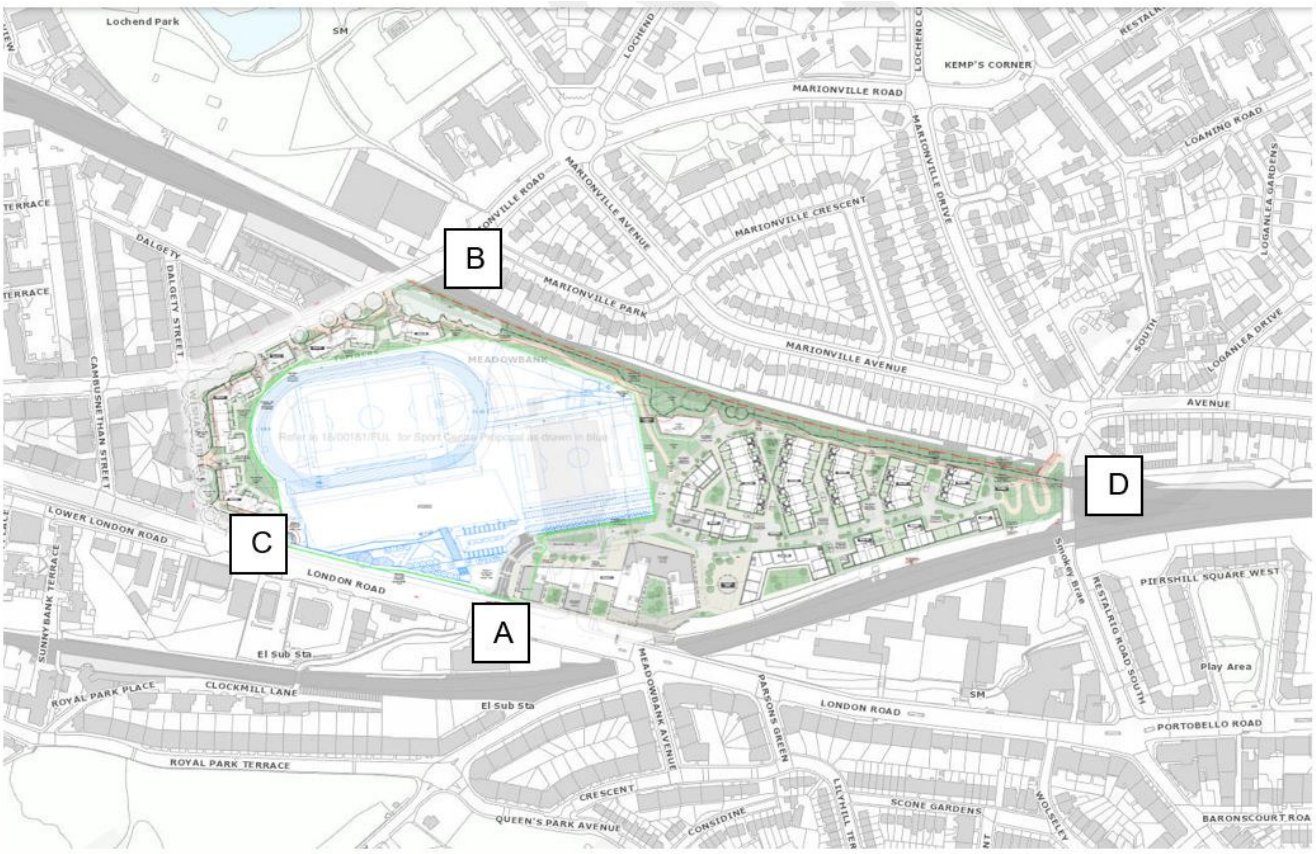


Figure 2: Location of Proposed Schemes and Meadowbank Development Site

A. Meadowbank to Clockmill Lane

The objective for site A is to improve the environment and safety of those choosing to walk, wheel or cycle across London Road between the Meadowbank site and Clockmill Lane. Various options were assessed for the preferred location and type of crossing to take forward and following discussions with the key project stakeholders, it was determined that the preferred solution would be to develop a crossing facility that could provide a level of segregation between pedestrians and cyclists and provide a desirable link to the proposed Quiet Route 5 (QR5) at Royal Park Place and Royal Park Terrace. The optimum way to achieve this would be to close Clockmill Lane to motorists and make it a dedicated route for NMUs. This would allow the crossing to be placed on the desire line for Clockmill Lane, provide good width for users within the crossing waiting areas and allow cycle connectivity to be achieved between both the QR5 and the cycling facilities located within the Meadowbank site.

Based on the width of the carriageway and observed traffic levels, it was determined that a signalised crossing would be the safest solution for NMUs. To provide the segregation between pedestrians and cyclists at the crossing point a side-by-side puffin and separate cycle crossing was considered. This would provide the maximum level of segregation; however, it is not currently an approved layout within the TSRGD and, therefore, may not receive authorisation for use on a national level. To reduce this risk, a Toucan crossing was taken forward with dedicated pedestrian and cyclists facilities provided on the off-carriageway lead ins to the crossing point. The width of the crossing and traffic signal pole placement has been set up to allow for a future side by side pedestrian and cycle crossing to be taken forward with minimal amendments to the physical infrastructure. To reduce the crossing length a build out has been proposed on the northern side of the carriageway. Two local accesses on the south side of the carriageway will also be amended to continuous footways to further enhance the pedestrian environment.

The current concept design layout is detailed on Figure 3 below.

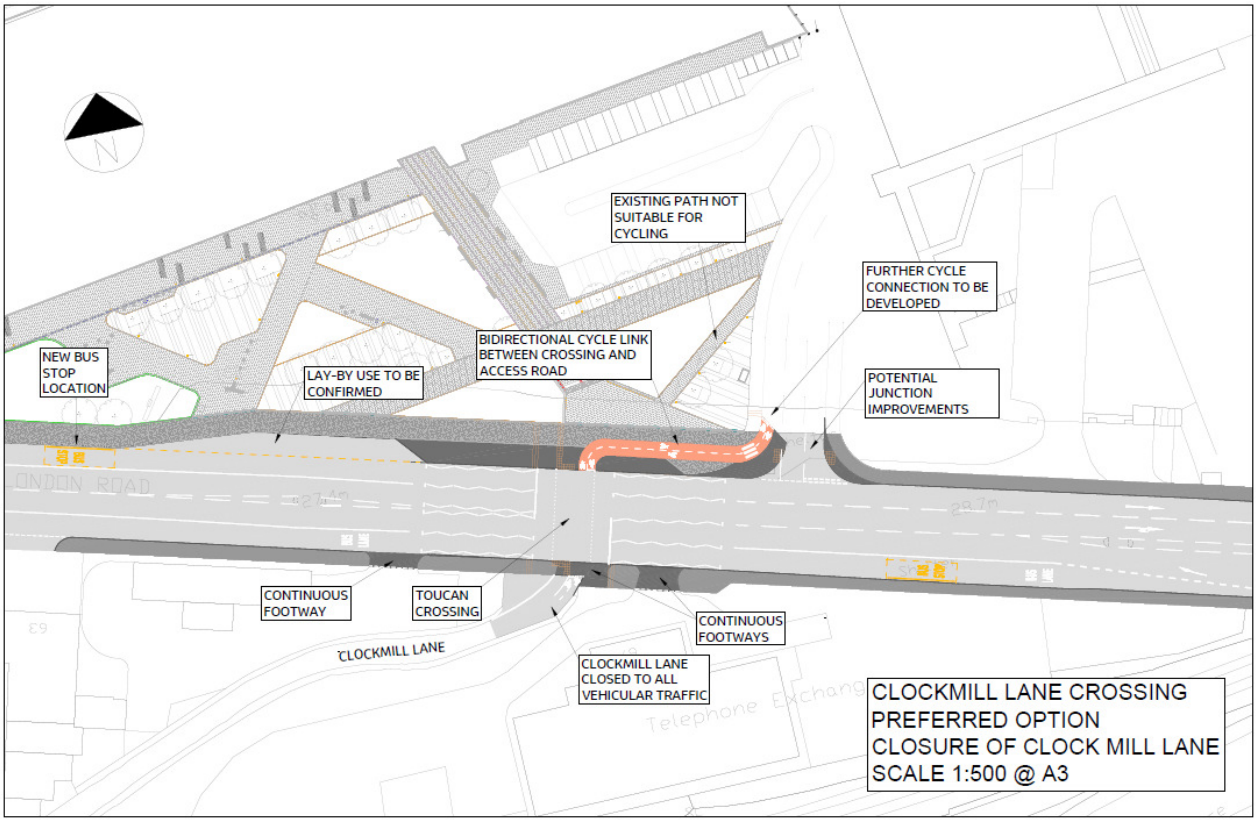


Figure 3: Meadowbank to Clockmill Lane Proposed Design

B. Meadowbank to Lochend Park

The objective for site B is to provide a safe and secure link between QR20 in Lochend Park and the Meadowbank site that incorporates formal crossing provision for pedestrians over Marionville Road. It was determined that a crossing point close to Marionville Park would provide maximum catchment opportunities for NMUs. A bi-directional cycle track on the south side of Marionville Road would then provide a safe offline route for cyclists between the Meadowbank site and Lochend Park.

To maximise space for the Marionville Road crossing, build outs are proposed on the north side of the carriageway and at the Marionville Park priority junction, with a raised table provided on Marionville Park to enhance the uncontrolled pedestrian crossing provision over the minor side road. The increased space afforded by the build outs will allow a 4m Toucan crossing to be provided. A Toucan facility was considered the appropriate form of crossing at this site as space limitations and lack of dedicated cycle infrastructure at the Lochend Park access point suggested a short shared space solution would be more conducive to users.

The current concept design layout is detailed on Figure 4 below.

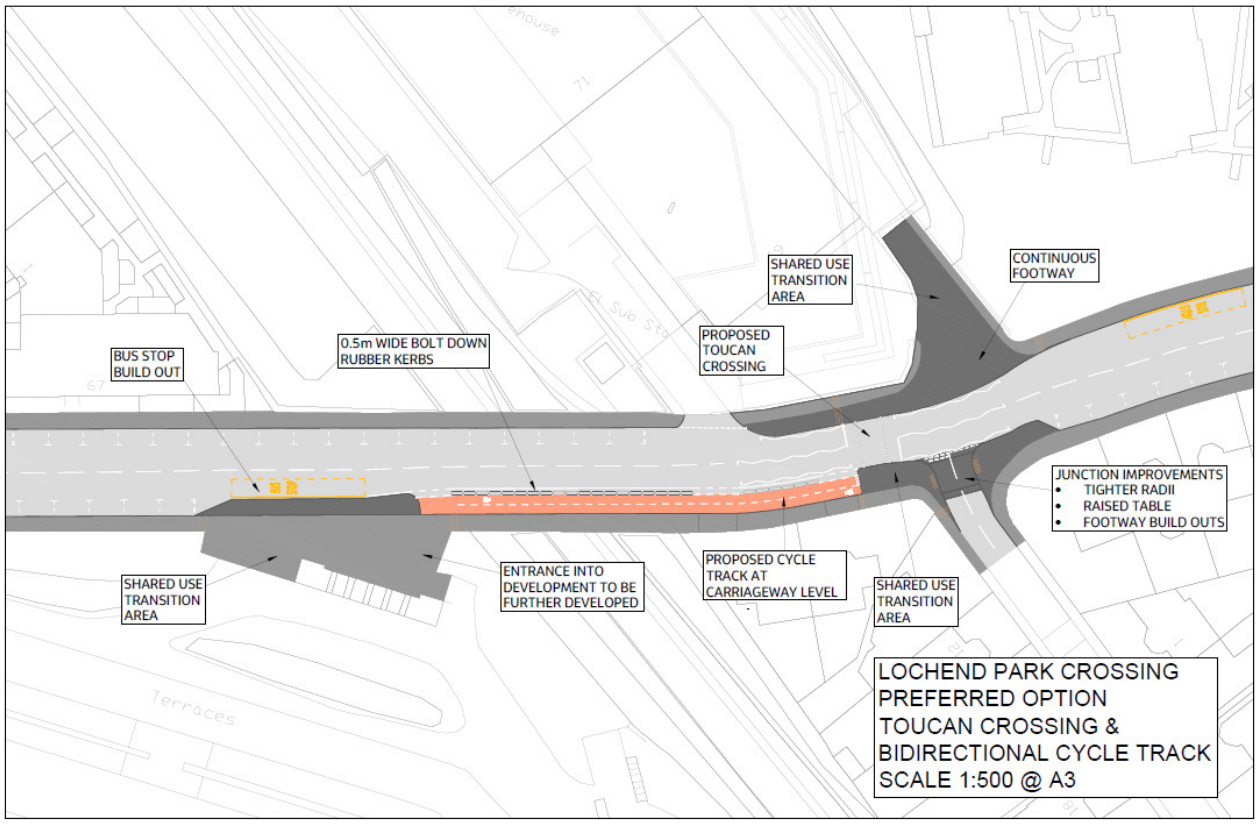


Figure 4: Meadowbank to Lochend Park Proposed Design

C. Meadowbank to Lower London Road

The objective for site C is to link the Meadowbank site with Lower London Road in a manner that ensures the safety and security of pedestrians, wheelers and cyclists at all times of the day. A review of the site found that the obvious location for a formal crossing point is just to the east of Lower London Road as this provides the best desire line between the Meadowbank site and the housing to the southwest of London Road. It would also allow better connectivity with both commercial developments and cycle provision that is being considered on Wishaw Terrace as part of other schemes. Based on the width of the carriageway and observed traffic levels on London Road, it was determined that a signalised crossing would be the safest solution for NMUs. However, there is an existing Variable Message Sign (VMS) on the south side of the carriageway at this location that would need to be relocated to provide a safe signalised solution. Relocating the VMS has been discussed with CEC and is agreeable in principle, subject to an appropriate alternative location being found.

To improve the overall NMU environment at the London Road crossing, raised tables and build outs will be provided on both Lower London Road and Wishaw Terrace, and the southern footway will be extended to the east. The crossing over London Road is to be a Toucan crossing to cater for pedestrians, wheelers and cyclists. Cyclists will be provided with transition points between London Road, Lower London Road and Wishaw Terrace into and out of the shared space in the vicinity of the crossing, making it easier and safer to navigate across London Road and improve connectivity with the Meadowbank site. The Toucan crossing will be future proofed to allow ease of conversion to a side by side pedestrian and cycle crossing if this becomes the preferred crossing provision for CEC in the future.

The current concept design layout is detailed on Figure 5 below.

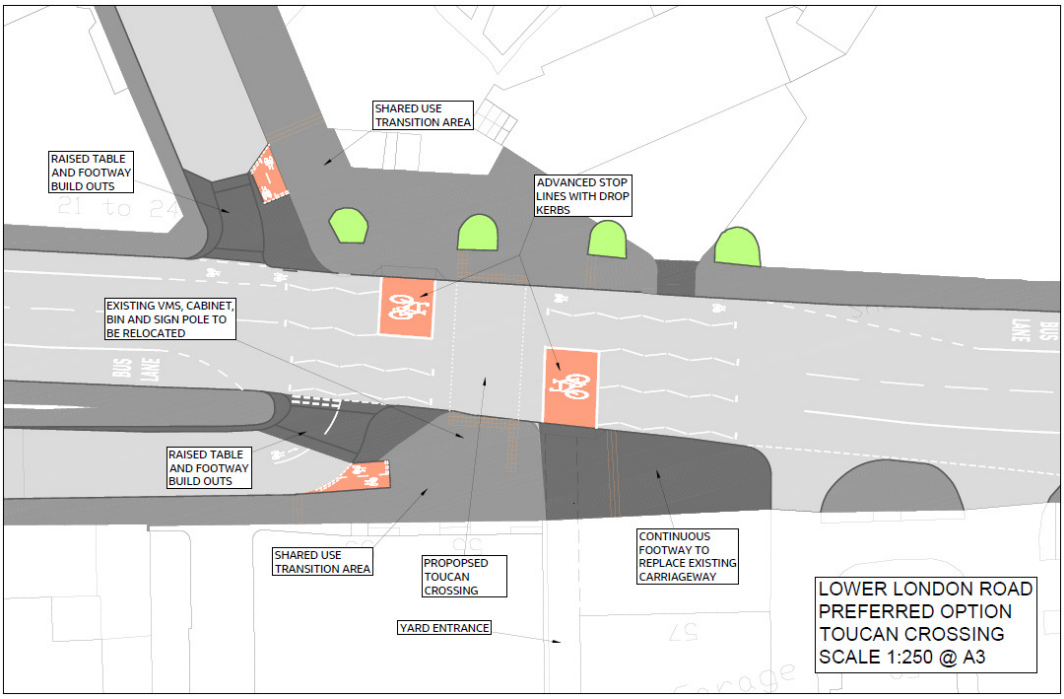


Figure 5: Meadowbank to Lower London Road Proposed Design

D. Smokey Brae Improvements

The objective for Site D is to vastly improve the walking and cycling provision in an area that is currently dominated by traffic movements that represent challenges for non-motorised users, particularly for those using push chairs and wheelchairs due to the narrow footways and presence of guard rail. Following engagement between City of Edinburgh Council, residents, and a project steering group, a general layout has been agreed upon.

Beneath the railway lines
Due to the width constraints caused by the railway line structures, to improve the footway width, it is necessary to remove traffic in one direction. The Scottish Fire & Rescue Service require southbound access therefor only layouts that prohibit north bound vehicular movements while maintaining permeability for cyclists and pedestrians in both directions were investigated. After several iterations, it was decided to switch the footway provision from the east to the west side of the road and install a protected northbound contraflow cycle lane beneath the railway lines. Southbound cyclists will ride with the main traffic for a short distance in the primary position.

South of east coast mainline to Meadowbank House
Just south of the East Coast Mainline the road space is more generous although still restrictive. Here, cyclists in both directions will benefit from protected cycle lanes and the footway on the west side widens. The footway on the east side continues to be omitted.

Between Meadowbank House and London Road
South of Meadowbank House, vehicular traffic is permitted in both directions to allow access to Meadowbank House from both directions. Downhill cycling in a relatively quiet traffic lane is deemed satisfactory as cyclists will be able to maintain good speed. Southbound, cyclists will be protected to allow overtaking and reduce any frustration to motorists caused from slow uphill cycle speeds. The eastern footway continues to be omitted.

London Road Junction
At the junction of Smokey Brae and London Road, south bound cyclists and traffic are required to merge. This is due to the requirement to provide pedestrian access to the tenements on the east side of Smokey Brae.

Roundabout
Following the removal of all northbound through traffic from Smokey Brae, it is now possible to replace the roundabout at the north end with a layout that prioritises pedestrian movements at the junction of Marionville Avenue, Restalrig Avenue and Smokey Brae. A simple T junction will replace the existing roundabout while the side roads of Marionville Drive and Restalrig Road South will be tightened to promote slower traffic speeds and shorter, improved crossings. It is intended to finesse these improvements with an aesthetically pleasing landscaped public realm that compliments the new improved walking provision

Turning movements into the haulage yard will be considered and the 'right turn in' movement to Restalrig South will be permitted. Any impact on pedestrians will be mitigated by material choices that promote very slow traffic speeds. It is not anticipated that either of these traffic movements will be regular enough to cause significant concern.

The proposed design for the Smokey Brae improvements are shown on Figure 6 below.

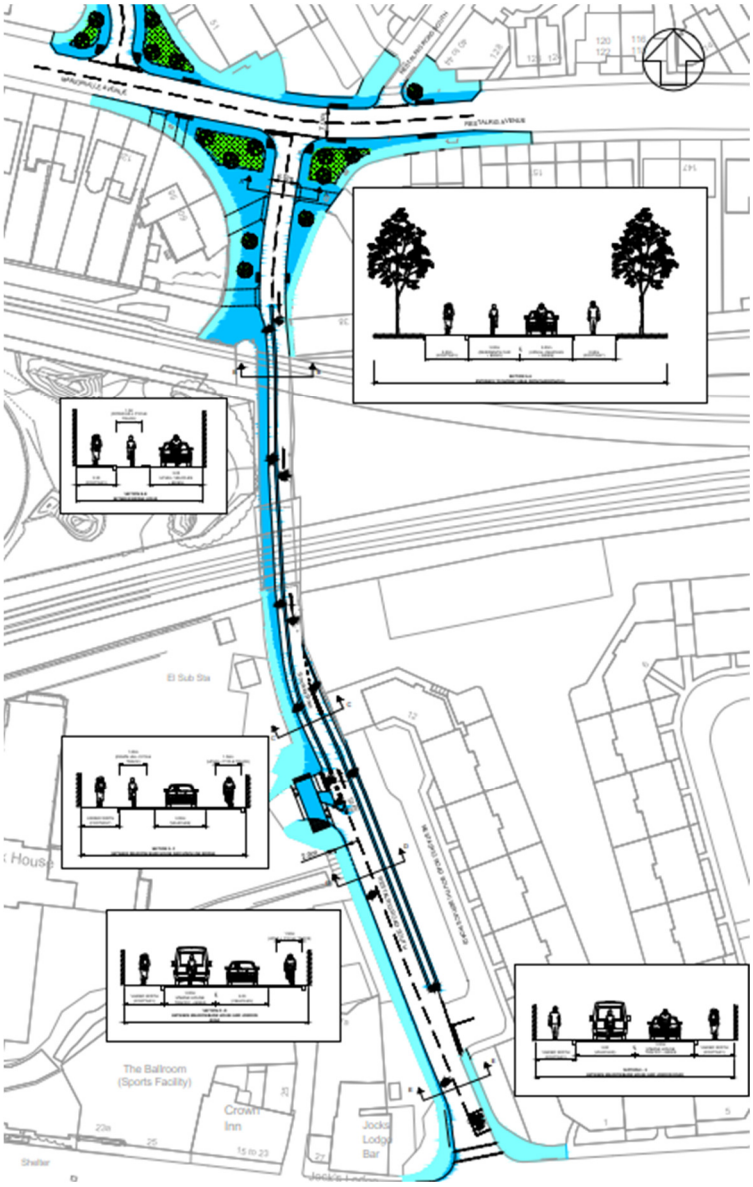


Figure 6: Smokey Brae Improvement Proposed Design

2. Integrated Impact Assessment (NHS Lothian IIA Guidance)

Each of the numbered sections below must be completed

Interim report		Final report	X	(Tick as appropriate)

2.1 Title of plan, policy or strategy being assessed

Meadowbank Links active travel interventions.

2.2 What will change as a result of this proposal?

The proposal includes the introduction of crossings, segregated cycleways and active travel improvements at four sites to improve pedestrian, wheeler and cyclist accessibility to and from the new Meadowbank development and Sports Centre. The Meadowbank development will have a strong focus on encouraging and enabling sustainable methods of transport. The site will be for the most part, car free, and as such it is vital that pedestrians, wheelers and cyclists are able to access the site from the surrounding neighbourhoods and vice versa.

2.3 Briefly describe public involvement in this proposal to date and planned

The public have been engaged with regarding active travel proposals as part of the Meadowbank Development Plan, as outlined in the Meadowbank Development Consultation Report (CEC, 2020). A workshop was held on Monday 19th November 2019 in relation to Active Travel Cycling and Streets, which was attended by residents, local representatives and council officers. One of the overwhelming points that came out of the consultation was the perceived issue regarding the safety and accessibility for walkers and wheelers using Smokey Brae. It was agreed by the Council, that as part of the active travel strategy for the Meadowbank redevelopment, improvements to Smokey Brae would be carried out.

Two members of the community sit on the Council's Smokey Brae Improvements project team as well as on the Meadowbank Sounding Board. Design updates and decisions are first taken to the project team for initial feedback prior to the sounding board. This takes place online via Teams.

Since 2021, the community engagement has been through the Meadowbank Sounding Board. The Board brings together developers, community groups and representatives, community councils, ward councillors and relevant Council officers. The Board is held online through Teams as a result of the Covid-19 pandemic.

Consultation with mobility/access groups will be covered by the next round of community engagement due to begin at the beginning of April 2022.

Statutory engagement will begin once the detailed designs for the proposed schemes are finalised.

2.4 Date of IIA

23/02/2022 – via Microsoft Teams

2.5 Who was present at the IIA? Identify facilitator, Lead Officer, report writer and any partnership representative present and main stakeholder (e.g. NHS, Council)

Name	Job Title	Email
Tom Fitzgerald	Graduate Apprentice – Development and Regeneration (CEC)	Tom.fitzgerald@edinburgh.gov.uk
Sherina Peek	Construction Project Manager (CEC)	Sherina.peek@edinburgh.gov.uk
Robin Wickes	Edinburgh Access Panel	edinburghaccesspanel@hotmail.com
John Ballantine	Edinburgh Access Panel	jb011a2549@blueyonder.co.uk
Gillian Montgomery (Facilitator and Report Author)	Consultant, Jacobs	Gillian.montgomery@jacobs.com
Benjamin Kay (Facilitator)	Principal Consultant, Jacobs	benjamin.kay@jacobs.com
Colm Smyth	Senior Associate Director, Transport Planning, Jacobs	colm.smyth@jacobs.com
Richard Hayes	Associate Director, Transport Planning, Jacobs	Richard.hayes@jacobs.com

2.6 Evidence available at the time of the IIA

Evidence	Available?	Comments: what does the evidence tell you?
Data on protected populations	National Records for Scotland 2020 Midyear estimates National Records of Scotland, 2011 Scottish Core Questions, 2019 Scottish Index of Multiple Deprivation, 2020 Google Maps	The schemes are located within the western extents of Craigentinny and Duddingston ward, within City of Edinburgh Council. As such, the ONS statistics for this ward has been used to determine the population demographics of the study area, as well as smaller area statistics for data zones where available. The 25-44 age category is the most populated age group in Craigentinny and Duddingston, higher than the proportion for this group in Edinburgh as a whole. There is also a high proportion of children aged 15 and under is the ward, though lower than the average for Edinburgh. There is a higher proportion of residents aged 75 and over in Craigentinny and Duddingston than in Edinburgh as a whole. There are several schools and education facilities several schools in close proximity to the proposed schemes that will be accessed by children and young people: ▪ St. Ninian's Primary School; ▪ Craigentinny Primary School; ▪ Abbeyhill Primary School;

Evidence	Available?	Comments: what does the evidence tell you?
		▪ Bright Horizons Elsie Inglis Early Learning and Childcare; ▪ Holyrood Music School; ▪ Edinburgh School of Music; ▪ Edinburgh Design School Cosy Cottage Nursery School; and ▪ Royal High Primary School. There is an even distribution of female (51.2%) and male (48.2%) populations in Edinburgh. This split is similar within Craigentinny and Duddingston. The Craigentinny and Duddingston ward has a lower percentage of people from a from a Black, Asian, and Minority Ethnic (BAME) background compared to Edinburgh as a whole, at 14% and 16% respectively. In relation to religious faith, the most common response across both Edinburgh and Craigentinny and Duddingston was 'No religion'. However, there is a higher proportion of people of Church of Scotland and Roman Catholic faith in Craigentinny and Duddingston than in Edinburgh overall. The proportion of Muslims living in Craigentinny and Duddingston is the same as in Edinburgh as a whole (3%). In relation to health problems and disabilities, residents of Craigentinny and Duddingston (19.7%) experience greater limits to day-to-day activities (a little or a lot) in comparison to the Edinburgh average (15.1%). The proposed schemes are located within the Meadowbank (S01008691) and Abbeyhill North and Abbeyhill (S01008688) data zones which rank 5/10 on the SIMD (SIMD, 2020), towards the more deprived end of the scale. The other data zones directly adjacent to the proposed schemes have better than average levels of deprivation. However, it is noted that while not directly adjacent to the proposed schemes, the Restalrig and Lochend data zones rank within the most deprived 10% and 20% and people from these areas are likely to pass through the study area to access amenities and the city centre to the west. Existing data on the birth and death counts for Edinburgh shows that from 2010 to 2020 there has been a 22% decrease in births in Edinburgh, whereas there has been a 13% increase in deaths. According to the Scottish Surveys Core Questions 2019 (Scottish Government, 2021) 96% of the sample responded saying they were Heterosexual, with 4% responding '*LGB & Other*' (Lesbian, Gay, Bisexual & Other). There is no data available at ward or data zone level for pregnancy and maternity and sexual orientation.

Evidence	Available?	Comments: what does the evidence tell you?
Data on service uptake/access	Census, 2011 Edinburgh People Survey, 2018 Edinburgh Bike Life Report, 2019 City of Edinburgh Council Active Travel Action Plan, 2016 Sustrans Hands Up Scotland Survey 2020	Travelling by car or van for commuting purposes is the favoured mode in Craigentinny and Duddingston (30%), more so than in Edinburgh as a whole (26%). Use of bus, minibus or coach is the next most common method to travel to work or study in Craigentinny and Duddingston, with 29% of residents favouring this mode, compared to 25% Edinburgh-wide. Use of bike to commute is low within the ward (4%), however this is consistent with Edinburgh wide. Satisfaction with public transport in Craigentinny and Duddingston is high. The group with the highest satisfaction were the over 65 age group with 90% saying they were satisfied compared to 86% of those aged between 45 and 64. Public transport satisfaction in Craigentinny and Duddingston is slightly higher compared to the Edinburgh average. In relation to methods of travel to school for children and young people, according to the Hands Up Scotland Survey 2020, 51.2% of school pupils who responded to the national survey said they travel to school in an active way 44.8% walking, 3.8% cycling and 2.6% using scooter or skate (Sustrans, 2021). Of the pupils surveyed, 14.1% responded that they travel to school by bus and 24.3% by private motorised travel. Almost half (47%) of those surveyed by Sustrans for the Bike Life Edinburgh Report (2016) expressed the view that Edinburgh is a good place to cycle. However, the report also identified many barriers that prevent people from cycling. During the first six months of the Covid-19 pandemic, Cycling Scotland reported a 43% increase in journeys made by bike when compared to the same period in 2019 (Cycling Scotland, 2020). These trends support the objectives from the Active Travel Framework which aim to improve the uptake of walking and cycling in Scotland for travel. However, it should be noted that limited data is available on these new trends, and it is uncertain whether such changes to travel behaviours will remain in the long term, post-pandemic.
Data on equality outcomes	Edinburgh Bike Life Report, 2019	According to Sustrans 2019, 30% of men in Edinburgh are likely to cycle at least once a week compared to only 17% of women. A slightly greater proportion of women (71%) held the opinion that cycling safety requires improvement, compared with men (66%) (Sustrans, 2020). There is a significant difference in the share of the population who cycle at least once a week, between those with a disability (14%) and those that do not have a disability (26%). There is also a substantial disparity in cycle uptake among ethnic groups, 14% of people from ethnic minority groups are likely to cycle compared to 24% of white people.

Evidence	Available?	Comments: what does the evidence tell you?
		51.6% of state school students use active travel methods to go to school compared to 21.5% of independent school students. On the contrary, 42.3% of independent school students reported travelling to school by car compared to 22.6% of state school children. There are concerns around the safety of cycling in Edinburgh, including better road quality, better lighting, improving routes and facilities for safe cycling and reducing levels of traffic on roads.
Research/literature evidence	Active Travel Framework, 2019 The Health Foundation, 2021 Health and Places Initiative, 2015 University of Leeds, 2015.	According to the Active Travel Framework (2019), active travel can lead to healthier, fairer, and more environmentally friendly communities. Environments where cycling, and walking are practical choices will be safer for everyone, promote healthy living choices, treat, and prevent disease and reduce health inequalities. A key focus of the framework will be to ensure that walking and cycling are viable choices for all. The Health Foundation (2021) states that active travel is linked to improvements in physical and mental health, and wellbeing. Certain socio-economic groups, particularly people on low incomes, are less likely to have access to a private vehicle and are more reliant on public transport or active travelling. Therefore, improving infrastructure for active travel can help addressing inequalities. People with mobility issues (such as wheelchair users, visually impaired people, older people, parents with prams) can be strongly affected by the built environment in terms of their mobility and safety. A mismatch between the built environment and functional ability can cause problems of safety and independence for those populations (HAPI, 2015). A paper by the University of Leeds (2015) notes that, '*The provision of level or ramped access, which in highway terms means dropped kerbs or a form of raised crossing together with tactile paving, is one of the key recommendations of the UK Department for Transport's (DfT) guidance on best practice Inclusive Mobility (2002).*' A study undertaken for the aforementioned paper noted that in addition to unsafe crossings, the key barriers for people with mobility issues in the pedestrian environment relate to poorly designed or maintained pavements, poor traffic management, street clutter, narrow footways, and the poor maintenance of footways in terms of surface, cracked tactile paving or eroded tarmac. Lack of maintenance of pavements in the winter can also be a factor preventing people with mobility issues from going out due to safety concerns. The investment required to support the UK's recovery from the Covid-19 pandemic presents a valuable opportunity to reshape transport infrastructure, providing equality of access across all protected groups through consideration of universal design principles.

Evidence	Available?	Comments: what does the evidence tell you?
Public/patient/client experience information	Scotland's Census, 2011 Sustrans, 2019 Sustrans, 2021	There are numerous sources that provide insight into both supply and demand aspects of active travel in Edinburgh. Scottish Census 2011 data provides an indication of mode share between active travel, public transport, and private vehicle use. Edinburgh has relatively high levels of active travel, while Craigentinny and Duddingston has a lower uptake, with more residents travelling by car and bus. Sustrans' Bike Life report shows that there is a disparity in the uptake of cycling between men and women cyclists, between those with a disability and those without, and between white people and people from ethnic minority groups. The report showed there is a significant appetite for cycling in Edinburgh whilst also highlighting that there are groups within society that would benefit from improved cycle infrastructure (e.g. women due to safety concerns). The Hands Up Scotland Survey (2020) showed that the uptake of active travel for getting to school has increased slowly over the years, and there is potential to enhance this uptake with infrastructure and safety improvements. Research/literature above linking health benefit to cyclists and pedestrians highlights an improved experience for these users. There could be particular health benefits for children travelling on foot and by bicycle to school, through improving safety and encouraging the adopting of physical activity and healthy behaviours. The impact section will outline concerns from certain users (older people and people with mobility issues) that they may have safety concerns if the measures create mixed use scenarios where pedestrians may be in conflict with cyclists. This was a key concern identified during the initial analysis and raised by stakeholders during the workshop. Designers of the infrastructure have been mindful of potential adverse situations and additional mitigation has been proposed to address this.
Evidence of inclusive engagement of service users and involvement findings	Yes	City of Edinburgh Council officials and representatives from the Edinburgh Access Panel were engaged in the design process to highlight potential issues that may have been missed in the initial analysis. This is the purpose of the workshop session and the impacts have been updated accordingly. The public have been engaged with regarding active travel proposals as part of the Meadowbank Development Plan, as outlined in the Meadowbank Development Consultation Report (CEC, 2020). A workshop was held in November 2019 in relation to Active Travel Cycling and Streets, which was attended by residents, local representatives, and council officers. One of the overwhelming points that came out of the consultation was the perceived issue regarding the safety and accessibility for walkers and wheelers using Smokey Brae. It was agreed by the Council, that as part of the active travel strategy for the Meadowbank

Evidence	Available?	Comments: what does the evidence tell you?
		redevelopment, improvements to Smokey Brae would be carried out. Two members of the community are members of the Council's Smokey Brae Improvements project team as well as on the Meadowbank Sounding Board. Design updates and decisions are first taken to the project team for initial feedback prior to the sounding board. This takes place online via Teams. Since 2021, the community engagement has been through the Meadowbank Sounding Board. The Board brings together developers, community groups and representatives, community councils, ward councillors and relevant Council officers. The Board is held online through Teams as a result of the Covid-19 pandemic. Consultation with mobility/access groups will be covered by the next round of community engagement due to begin at the in spring 2022. Statutory engagement will begin once the detailed designs for the proposed schemes are finalised.
Evidence of unmet need	Yes	The schemes are required to facilitate connectivity between the new Meadowbank housing and sports development and the wider city. There is significant appetite for cycling in Edinburgh. Bike Life Edinburgh states that 26% of respondents do not cycle but would like to, while 49% of residents feel that they should cycle more. Improved infrastructure would contribute significantly to meeting the demand for cycling in the city. Ongoing monitoring and feedback from the public after implementation of the scheme will identify the potential for additional unmet needs.
Good practice guidelines	Yes	• Edinburgh Street Design Guidance; • Sustrans Spaces for People (SfP) Guidance; and • Roads for All – a good practice guide. • Traffic Signs Manual • Traffic Signs Regulations • General Directions 2016 • London Cycling Design Standards • Roads for All – a good practice guide
Environmental data	2020 Air Quality Annual Progress Report City of Edinburgh Council 2016 Open Space Audit	Two of the four proposed schemes (Meadowbank to Clockmill Lane and Meadowbank to Lower London Road) are located within the Central Edinburgh Air Quality Management Area (AQMA) – designated for exceedance of NO2. Areas of open space were identified along or in close proximity to the proposed routes, at the following locations: Lochend Park, Holyrood Park, Lochend Playing Fields, St. Ninian's and St.

Evidence	Available?	Comments: what does the evidence tell you?
		Triduana Church, Restalrig Parish Church, The Ballroom and the Bowling Green.
Risk from cumulative impacts	Yes	Other active travel projects in Edinburgh – particularly those in proximity the proposed schemes, such as the Leith Connections scheme and Holyrood Park Quiet Route - and low traffic neighbourhoods will contribute to traffic displacement and modal shift to active travel. This will have predominately positive cumulative impacts on urban realm, amenity, and people's health and wellbeing. However, there is potential for negative cumulative impacts for older people and disabled people to arise, due to changes in accessibility and safety concerns. It is expected that these impacts will be considered in the necessary impact assessments for specific schemes and mitigation measures implemented accordingly. There may be temporary cumulative impacts on traffic, noise, air quality and visual amenity during the construction period from the combined effects of the proposed schemes and the Meadowbank development itself.
Other (please specify)	n/a	n/a
Additional evidence required	Yes	There are potential gaps in the information and data collected: • More recent demographic statistics on ethnicity, religion and disabilities of the population within the study area (last Census dates from 2011); • Travel modes of different protected characteristic groups; • Origin and destination of journeys by various modes (e.g. to community / religious facilities); • Further data relating to impact of Covid-19 on travel patterns and potential influence on future trends.

2.7 In summary, what impacts were identified, and which groups will they affect?

Equality, Health and Wellbeing and Human Rights Positive	Affected populations
The aim of the proposed schemes is to facilitate increased use of active travel rather than private vehicle. Reallocating road space from cars to sustainable modes would reduce traffic congestion and result in potential air quality improvements in an area that currently reports exceedances of the NO2 air quality objectives. Reducing air pollution has positive health and wellbeing effects for the population in relation to reducing respiratory illness and improving life expectancy.	All groups, in particular children, the elderly, ethnic minorities, and people with disabilities.
The proposed schemes would provide improvements to road safety and perceptions of safety for cyclists and pedestrians due to segregation from traffic, thereby encouraging a modal shift to cycling.	All groups, in particular children, women, older people.

Road safety improvements will benefit all groups and in the longer term this may have a positive impact for groups less likely to cycle, such as women and older people. Increased uptake of active travel brings health benefits for the population, both physical and mental.	
There may also be improved safety and perceptions of safety for pedestrians from street lighting and increased foot traffic, which may have a disproportionate benefit for women and LGBTQ+ people who are more likely to have personal security concerns. This may be particularly relevant at Smokey Brae which some residents flagged as being considered unsafe due to poor sight lines and lack of lighting. This may also be experienced by people with sensory impairments (such impaired level of sight or hearing) where clearer sight lines allows for greater awareness and in turn confidence of navigating the area successfully.	All groups but in particular women, LGBTQ+ people, shift workers using paths at night-time, people with sensory impairments.
Increasing pavement space and quality of provision would benefit people with mobility issues, such as people with certain disabilities and parents with prams and small children. In particular, improved facilities may enhance the confidence of older people and people with disabilities in undertaking travel independently, thereby reducing feelings of isolation.	People with disabilities, single parents, older people.
More generally, provision of active travel infrastructure would result in reallocation of road space to sustainable modes, thereby making these means more attractive and efficient. There may be redistribution of traffic away from the area, improving amenity and the public realm in the vicinity of the proposed schemes. This has the potential to encourage more people to spend time outdoors in the urban environment, thereby providing opportunities for community interaction and improving integration between different groups.	All population groups.
Improved active travel infrastructure would increase accessibility to community facilities, employment opportunities and essential services for all populations. Active travel modes – walking and cycling – are considered cost-efficient forms of travel. As such improving facilities and services for both may have a greater benefit for people on low-incomes. Conversely, there is a potential negative impact on social inclusion, people on low incomes may feel excluded from using the cycling facilities as a result of various barriers (e.g. due to health or financial reasons).	Deprived communities, low-income groups, people seeking employment.
There are a number of schools in the vicinity of the proposed schemes. Better cycling infrastructure can improve connectivity and safety for children travelling to school by active means. There may be a particular benefit for children from low income families or deprived communities, who may be more likely to use these modes due to the low cost.	All children, including those from low income families or deprived areas.
There are several churches within the vicinity of the proposed schemes, therefore there may be a particular benefit on for Christians accessing nearby churches by bike. People in congregations may be older and therefore less likely to cycle and potentially experience a change in perception of safety while walking along shared space. However, they would also experience the amenity benefits of improved pedestrian	People from different religious groups.

facilities. Potential negative during construction phase due to congestion but this is not likely to be extensive. There is likely to be a positive impact on accessibility to local amenities for students living in Prestige Student Living Straits student accommodation south of the proposed schemes.	 Students.
Negative People with mobility issues and older people may feel intimidated using the footway if there is a significant increase in the number of cyclists. The change in road layout may result in stress / anxiety for some users, particularly people with visual impairment who would need to relearn the layout. Shared spaces can result in stress / anxiety due to fear of collision/injury and increased possibility of collision/injuries occurring, particularly for visually impaired people and disabled people. The final design should be mindful of potential impacts arising from the impact of shared spaces and change in road layout, such as increased safety concerns of older people and visually impaired users. These will be mitigated through careful design allowing adequate space, clear signage and direct communication. Additionally, targeted communication should be undertaken with affected population groups to alleviate concerns regarding the new road layout; for example, with older people and people with disabilities including the visually impaired. There is potential for a negative impact on people with low literacy who may not be able to read information or signage regarding the scheme. Public communication should be undertaken through a variety of mediums to ensure accessibility for people with low levels of literacy, e.g. direct engagement at schools/ audio descriptions / visualisations of the proposals. In relation to the adoption of any new signage associated with the proposals, visual aids such as use of symbols could be considered in addition to the standard text. There will be some parking spaces lost due to the proposed schemes which may have an adverse impact on people with mobility issues. It is expected that the number of spaces lost will be minimal and can be considered as part of the overall Meadowbank development rather than directly related to the proposed schemes. Potential for some groups to feel excluded from using the cycling facilities due to ongoing safety concerns (women, older people, people with disabilities), financial barriers (people on low incomes) or cultural attitudes towards cycling (BAME people). Communication of the proposed schemes should be accessible to residents and potential users of all age and abilities. Additionally, the potential to offer city bike rental to unemployed people and people on low incomes for discounted rates, or potential grant provision to purchase bikes, should be explored. There are several Christian places of worship in the area and there is therefore a potential disproportionate benefit on accessibility for Christians accessing nearby churches. However, people in	 Older people, people with disabilities. Older people, people with disabilities. People with low literacy levels. Older people, people with disabilities. Older people, people with disabilities, women, people on low incomes, BAME people. People from different religious groups.

congregations may be older and therefore less likely to cycle and potentially experience a change in perception of safety while walking along shared spaces. Potential negative during construction phase due to congestion but this is not likely to be extensive. There is a potential benefit in that visitors are likely to walk to the parish and therefore will benefit from enhanced pedestrian provision. Cycle parking at churches is often lacking and it is recommended that additional infrastructure be considered at these locations to maximise benefits of the schemes.	
Potential for people sleeping rough in the area to be affected during construction of the proposed schemes. To mitigate this potential impact, is recommended that local homelessness charities could be consulted prior to construction to identify whether the proposals are likely to impact on people who may be rough sleeping in the area.	Homeless people.

Environment and Sustainability **Positive**	**Affected populations**
Reallocating road space from cars to sustainable modes would reduce traffic congestion and result in potential air quality improvements in an area that currently reports exceedances of the NO2 air quality objectives.	All population groups but especially children, older people, people with certain disabilities, pregnant women.
Potential reductions in use of private vehicle would also contribute towards the reduction of greenhouse gas emissions and realisation of climate change targets for Edinburgh and Scotland as a whole.	All population groups.
Positive impact as the proposed schemes will directly improve active travel infrastructure, therefore incentivising modal shift to sustainable forms of transport by making them more attractive and efficient. Depending on road re-allocation, non-sustainable transport may be less attractive (increased travel times) which could further promote active travel. The implementation of these measures aligns with City of Edinburgh Council policy, including the vision of the emerging City Plan 2030 of being *'a sustainable city which supports everyone's physical and mental wellbeing'* and *'a city where you don't need to own a car to move around'* (2020 p.3).	All population groups.
The proposed schemes will improve accessibility to areas of open space along the routes, including parks, allotments, and play areas, which in turn have the benefit of improving people's mental and physical health.	All population groups.
There may be a small positive impact on biodiversity resulting from improved air quality and planting to be included as part of proposed schemes at Smokey Brae.	All population groups.

Negative	
Construction works could result in temporary environmental impacts such as air pollution, noise and visual amenity effects from construction traffic and activities. The schemes would also require the use of new materials and disposal of waste materials.	Population groups in close proximity to construction works.
The proposed routes could result in displacement of traffic to the surrounding road network, which could result in increased congestion and air/noise pollution in those areas. This should be monitored and acted upon if considered to be significantly adverse.	All population groups, in particular children, the elderly, ethnic minorities, and people with disabilities.

Economic Factors **Positive**	**Affected populations**
Positive impact on employment as people will be able to access a wider variety of opportunities due to improved accessibility by low-cost, active means. There may be a particular benefit for low-income groups and people looking for employment.	People on low incomes, people seeking employment.
The proposed routes will help young people into positive destinations resulting from improved and safer travel to education facilities and employment opportunities within the city. This provides greater flexibility for young people who do not hold a driving licence.	Young people and students, particularly those from lower income households.
There will be an improvement in the safety and perceptions of safety for those who use a bike as their method of transport for travelling to work or as part of their job (e.g. delivery drivers), and for shift workers using the path network at night-time.	Shift workers
Increased active travel infrastructure may increase potential passing traffic for some businesses along London Road (hospitality, retail), resulting in a positive financial impact.	Local businesses
Negative	
For business owners operating in the vicinity of the schemes there is potential for a temporary negative impact through disruption to business operation due to construction activities and operation, e.g. restricted/ reduced delivery space. Potential negative amenity impacts during construction - noise, air quality, traffic – may also arise, affecting trade.	Local businesses

2.8 Potential issues

Is any part of this policy/ service to be carried out wholly or partly by contractors and how will equality, human rights including children's rights, environmental and sustainability issues be addressed?

When procuring the work, the City of Edinburgh Council will follow the requirements set by the sustainable procurement duty under the Procurement Reform (Scotland) Act 2014. The duty requires that before a contracting authority buys anything, it must think about how it can improve the social, environmental and economic wellbeing of the area in which it operates, with a particular focus on reducing inequality.

It is likely that the construction of the proposed schemes will be undertaken by contractors procured by the council, and it is not envisaged that the use of contractors will give rise to equality, human rights, and children rights issues. It is expected that contractors will have their own procedures for adhering to best practice guidance and legislation in relation to sustainability and the environment.

2.9 Communications

Consider how you will communicate information about this policy/ service change to children and young people and those affected by sensory impairment, speech impairment, low level literacy or numeracy, learning difficulties or English as a second language? Please provide a summary of the communications plan.

Communications of the proposed scheme will be conducted by City of Edinburgh Council. A notification process will be undertaken upon approval of the scheme which will provide stakeholders and other identified protected groups (children, people with visual impairments, people with mobility issues, older people) with information on the scheme. As highlighted in the sections above, targeted communication is required for some population groups in order to maximise benefits and minimise disbenefits. For example, presentations at schools and communicating with Edinburgh Access Panel for recommendations on how to engage people with mobility issues and visual/hearing impaired to ensure awareness of the changes.

2.10 SEA check

Does the policy concern agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use? If yes, an SEA should be completed, and the impacts identified in the IIA should be included in this.

The proposed schemes concern transport. However, an SEA is not considered to be required for this level of intervention as this is a detailed engineering intervention rather than a strategy or policy.

2.11 Additional Information and Evidence Required

If further evidence is required, please note how it will be gathered. If appropriate, mark this report as interim and submit updated final report once further evidence has been gathered.

No further evidence is required at this stage.

2.12 Recommendations

1. Final design should be mindful of potential impacts arising from the impact of shared spaces and change in road layout, such as increased safety concerns of older people and visually impaired users.

These will be mitigated through careful design allowing adequate space, clear signage and direct communication. In relation to the adoption of any new signage associated with the proposals, visual aids such as use of symbols could be considered in addition to the standard text.

2. Targeted communication should be undertaken with affected population groups to alleviate concerns regarding the new road layout; for example, with older people and people with disabilities including the visually impaired.
3. Communication of the proposed schemes should be accessible to residents and potential users of all age and abilities. This could take the form of engagement with schools (including cycling proficiency sessions), accessible information for visually impaired people and people with low levels of literacy, and social media presence in multiple languages.
4. Explore the potential to offer city bike rental for discounted rates or grants to purchase bikes to unemployed people and people on low incomes.
5. Traffic congestion/displacement to surrounding road network should be monitored and acted upon if significantly adverse.
6. Potential cumulative effects, positive and negative, with Leith Connections, Holyrood Park Quiet Route and Low Traffic Neighbourhood projects should be noted and monitored.
7. Feedback from residents and stakeholders as part of the monitoring should be considered where appropriate.
8. Encourage more cycle parking infrastructure along the route and at potential destinations nearby, such as the shops on London Road and the various churches in the area. This will further enhance the benefits of the proposed infrastructure.
9. Local homelessness charities could be consulted prior to construction to identify whether the proposals are likely to impact on people who may be rough sleeping in the area.
10. Explore potential for implementation of cycle/pedestrian counter on entrance to Meadowbank Development to keep track of potential increase in active travel trips.

2.13 Actions

Specific to this IIA only, what actions have been, or will be, undertaken and by when?

Specific actions (as a result of the IIA which may include financial implications, mitigating actions and risks of cumulative impacts)	Who will take them forward (name and contact details)	Deadline for progressing	Review date
Follow best practice guidance on accessibility and universal design and incorporate into detailed design of proposed schemes.	The designer (Richard Hayes, Jacobs)	During finalisation of detailed design	
Ensure sufficient communications with affected protected groups (children, older people, people with sensory impairments).	City of Edinburgh Council (TBC)	Pre- scheme implementation	

Specific actions (as a result of the IIA which may include financial implications, mitigating actions and risks of cumulative impacts)	Who will take them forward (name and contact details)	Deadline for progressing	Review date
Explore potential to offer discounts/grants on bikes for unemployed people and people on low incomes.	City of Edinburgh Council (TBC)	Pre- or post-scheme implementation	
Explore implementation of more cycle parking infrastructure along the route and at potential destinations nearby, such as the shops on London Road and the various churches in the area.	City of Edinburgh Council (TBC)	Pre- or post-scheme implementation	
Explore potential for implementation of cycle/pedestrian counter on entrance to Meadowbank Development to keep track of potential increase in active travel trips	City of Edinburgh Council (TBC)	Pre- or post-scheme implementation	
Contact local homeless charities during construction period to ensure homeless people will not be adversely affected during construction phase.	City of Edinburgh Council (TBC)	During construction phase	
Monitoring traffic displacement following scheme completion.	City of Edinburgh Council (TBC)	Post- scheme implementation	
Monitoring cumulative effects with other transport schemes.	City of Edinburgh Council (TBC)	Post- scheme implementation	
Review output of stakeholder consultation once undertaken and incorporate feedback into proposals as required.	City of Edinburgh Council (TBC)	Pre- and post-scheme implementation	

2.14 Monitoring

How will you monitor how this policy, plan or strategy affects different groups, including people with protected characteristics?

City of Edinburgh Council will produce a monitoring strategy for this project, which will include:

- Monitoring the implementation of the actions/recommendations outlined in Section 13; and
- A review of engagement with different population groups to ascertain uptake of active travel and to determine if the positive and negative impacts identified have occurred.

2.15 Sign off by Head of Service/ Project Lead

Name: Peter Watton

Date: 23/03/2022

Appendix A. IIA Evidence

A.1 Introduction

This IIA evidence appendix presents the baseline data that has been used to consider impacts of the four sites around the Meadowbank development identified for cycling improvements for the assessment of potential impacts on population, equalities and human rights, economic factors, and the environment. These data have been selected to address the evidence requirements as set out in the IIA guidance:

- Data on populations in need;
- Data on service uptake/access;
- Data on equality outcomes;
- Research literature/evidence;
- Stakeholder engagement;
- Public experience information;
- Evidence of inclusive engagement of service users and findings;
- Evidence of unmet need; and
- Environmental data.

A.2 Study Area

The four sites are adjacent to the proposed Meadowbank development, in the City of Edinburgh ward of Craigentinny & Duddingston. Scottish Census data zones[1] presented in Table 2.1 have been considered for the purposes of collecting data on the population in the surrounding area. Data for the whole of Scotland and the City of Edinburgh, where available, have been used for comparison.

Table 2.1: Study areas used for baseline data collection

Study Area	Type	Relevant to EQIA
Scotland	Country	Country in which the proposed schemes is located, used for statistical comparison.
City of Edinburgh	Council area	Council area in which the proposed schemes is located, used for statistical comparison.
Craigentinny & Duddingston	Ward	Ward within the City of Edinburgh in which the proposed schemes are located, used for baseline data collection for communities in the proximity of the proposed schemes.
S01008688 - Abbeyhill - 03 S01008690 - Meadowbank and Abbeyhill North - 02 S01008691 - Meadowbank and Abbeyhill North - 03 S01008692- Meadowbank and Abbeyhill North - 04 S01008693 - Meadowbank and Abbeyhill North - 05 S01008694 - Willowbrae and Duddingston Village - 01 S01008695 - Willowbrae and Duddingston Village - 02	Scottish Census Data Zone 2011	Census data zones provide detailed population statistics at a smaller scale, allowing for the identification of specific local issues for communities in the proximity of the proposed schemes.

[1] SNS data zones divide Scotland up into 6976 zones with a population of between 500 and 1000. While every data zone has about the same population, they can vary greatly in size of area. SNS data zones are made up of 2011 output areas. They were developed to help monitor and develop policy at a small area level (Scotland's Census, 2021). https://www.scotlandscensus.gov.uk/about/2011-census/2011-census-geographies/

Study Area	Type	Relevant to EQIA
S01008746 - Northfield and Piershill - 04		

A.3 Population in Need

For the purposes of the proposed routes, the population in need is defined as those people with protected characteristics (as defined in the Equality Act 2010). The following protected characteristics are of relevance and scoped into this study:

- Age;
- Disability;
- Gender reassignment;
- Pregnancy and maternity;
- Race;
- Religion and belief;
- Sex; and
- Sexual orientation.

While not included as a specific protected characteristic group under the Equality Act 2010, the population in need also considers people experiencing socio-economic deprivation. The Scottish Index of Multiple Deprivation (SIMD) has been used to identify communities experiencing socio-economic disadvantage that may be affected by the proposed schemes.

A.3.1 Population and Age Distribution

According to the National Records of Scotland 2020 mid-year estimates, the population of the City of Edinburgh was 527,620 (National Records of Scotland, 2021). Specifically, along the routes, Table 2.2 shows the population of Craigentinny and Duddingston, the electoral ward in which the schemes are situated.

Table 2.2: Age and gender baseline estimates by electoral ward (National Records of Scotland, 2021)

Electoral Ward	Gender	Age Category												Total
		0-15		16-24		25-44		45-64		65-74		75+		
Craigentinny & Duddingston	Female	1,942	13%	1,108	7%	5,615	37%	3,642	24%	1,364	9%	1,553	10%	29,822
	Male	2,070	14%	1,075	7%	5,626	39%	3,618	25%	1,203	8%	1,006	7%	
Edinburgh Wide	Female	38,593	14%	33,597	12%	92,045	34%	61,082	23%	22,813	8%	21,846	8%	527,620
	Male	40,557	16%	30,876	12%	90,296	35%	60,595	24%	20,697	8%	14,623	6%	

A.3.2 Gender

National Records of Scotland mid-year estimates for the year 2020 indicate there was a relatively even distribution of male (48.2%) and female (51.2%) populations in Edinburgh (National Records of Scotland, 2021). This split is similar within Craigentinny and Duddingston.

A.3.3 Race and Religion

Based on 2011 Census data, 16% of those living in Edinburgh are from a Black, Asian, and Minority Ethnic (BAME) group as shown in Table 2.3. Craigentinny and Duddingston has a lower percentage of non-white ethnic groups than that of Edinburgh as a whole.

Table 2.3: Ethnic minorities by ward within the study area (National Records of Scotland,2011)

Edinburgh Electoral Wards	Total Population	Percentage of White: Scottish, British & Irish	Percentage of All Other Ethnic Groups*
Craigentinny & Duddingston	25,746	86%	14%
Edinburgh wide	476,626	84%	16%

*All other ethnic groups – including White: Gypsy/Traveller, White: Polish, White: Other White, Mixer or Multiple Ethnic Group, Asian, African, Caribbean and Other Ethnic Groups.

Table 2.4 provides a breakdown of the different religions of ward residents in Craigentinny & Duddingston and Edinburgh. The most common response across both study areas was 'No religion', however there is a higher proportion of people of Church of Scotland and Roman Catholic faith in Craigentinny and Duddingston than in Edinburgh overall.

Table 2.4: Percentage of religions within the study area (National Records of Scotland, 2011)

Ward	Total Population	Church of Scotland	Roman Catholic	Other Christian	Buddhist	Hindu	Jewish	Muslim	Sikh	Other	No religion	Religion not stated
Craigentinny & Duddingston	25,746	28%	15%	5%	0%	0%	0%	3%	0%	0%	42%	7%
Edinburgh wide	476,626	24%	12%	7%	0%	1%	0%	3%	0%	0%	45%	7%

A.3.4 Disability

Under the Equality Act 2010, a person has a disability if:

- they have a physical or mental impairment; and or
- the impairment has a substantial and long-term adverse effect on their ability to perform normal day-to-day activities.

Table 2.5 presents data from the 2011 Census of which respondents were asked whether their daily activities were limited a lot or a little by a health problem or disability. As shown in Table 2.5, residents of Craigentinny & Duddingston (19.7%) experience higher limits to day-to-day activities in comparison to the Edinburgh average (15.1%).

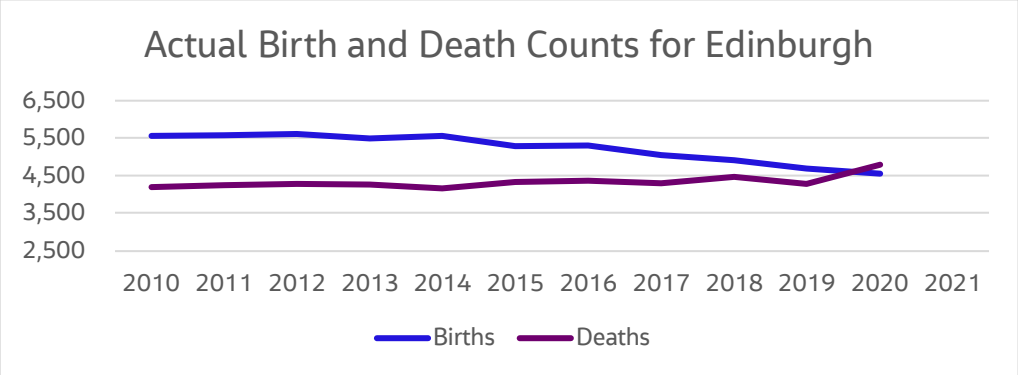
Table 2.5: Percentage disability by Electoral Wards (National Records of Scotland, 2011)

Edinburgh Electoral Wards	Total Population	Day-to-day activities limited a lot (%)	Day-to-day activities limited a little (%)
Craigentinny & Duddingston	25,746	9%	10.7%
Edinburgh	476,626	7.2%	8.9%

A.3.5 Pregnancy/Maternity and Mortality

Existing data on the birth and death counts for Edinburgh from 2010 to 2020 is presented in Figure 7. From 2010 to 2020 there has been a 22% decrease in births in Edinburgh, whereas there has been a 13% increase in deaths. It should be noted that death counts for 2020 increased significantly as a result of Covid-19. The death rate in Edinburgh in 2019 before the pandemic was 2% higher than in 2010.

Figure 7: Actual birth and death counts for Edinburgh (National Records of Scotland, 2021)



Pregnant women and people with young children may require more frequent access to medical facilities. No hospitals have been identified within the vicinity of the proposed schemes, however there are several GP practices, as illustrated on Figure 7.

A.3.6 Sexual Orientation

There is no data on sexual orientation at electoral ward level for Edinburgh. However, according to the Scottish Surveys Core Questions 2019 (Scottish Government, 2021) 96% of the sample responded saying they were Heterosexual, with 4% responding '*LGB & Other*' (Lesbian, Gay, Bisexual & Other).

A.3.7 Areas of Deprivation

The SIMD has been used to identify areas of concentration of relative deprivation within Edinburgh. The SIMD is comprised of seven different domains of deprivation: income, employment, education, health, access to services, crime, and housing, which are combined into a single index (Scottish Government, 2020). **Error! Reference source not found.** presents the SIMD levels for each data zone adjacent to the proposed schemes. Quintile 1 represents the 20% most deprived data zones whilst quintile 5 the 20% least deprived.

The proposed schemes are located within the Meadowbank (S01008691) and Abbeyhill North and Abbeyhill (S01008688) data zones which rank 5/10 on the SIMD (SIMD, 2020), towards the more deprived end of the scale. The other data zones directly adjacent to the proposed schemes have better than average levels of deprivation. However, it is noted that while not directly adjacent to the proposed schemes, the Restalrig and Lochend data zones rank within the most deprived 10% and 20% and people from these areas are likely to pass through the study area to access amenities and the city centre to the west.

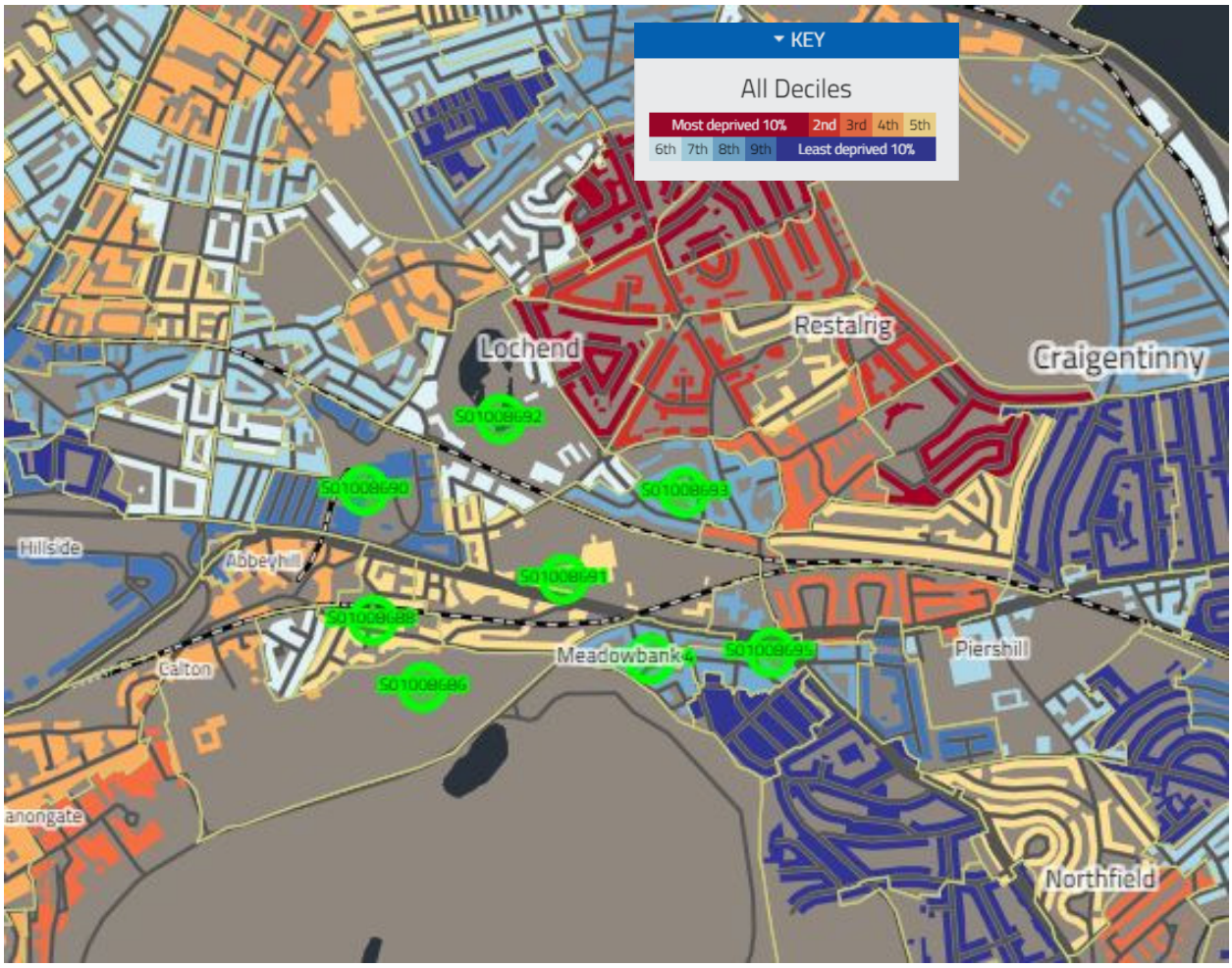


Figure 8: SIMD levels along the study area (Scottish Government, 2020)

A.3.8 Community, Education, Religious, and Healthcare Facilities

This section sets out the key trip attractors in the study area that are likely to be used by the different population groups described above.

In relation to community facilities, St Margaret's House is a community art space on London Road which houses community arts spaces, a theatre, rehearsal spaces, a cinema room, printmaking studio, ceramics studio & kilns, recording studio, martial arts dojo, library, swap shop, meeting rooms and more than 11000ft^2 of gallery space.

As illustrated on Figure 9, there are several schools and education facilities in close proximity to the proposed schemes that will be accessed by children and young people:

- St. Ninian's Primary School;
- Craigentinny Primary School;
- Abbeyhill Primary School;
- Bright Horizons Elsie Inglis Early Learning and Childcare;
- Holyrood Music School;
- Edinburgh School of Music;
- Edinburgh Design School Cosy Cottage Nursery School; and
- Royal High Primary School.

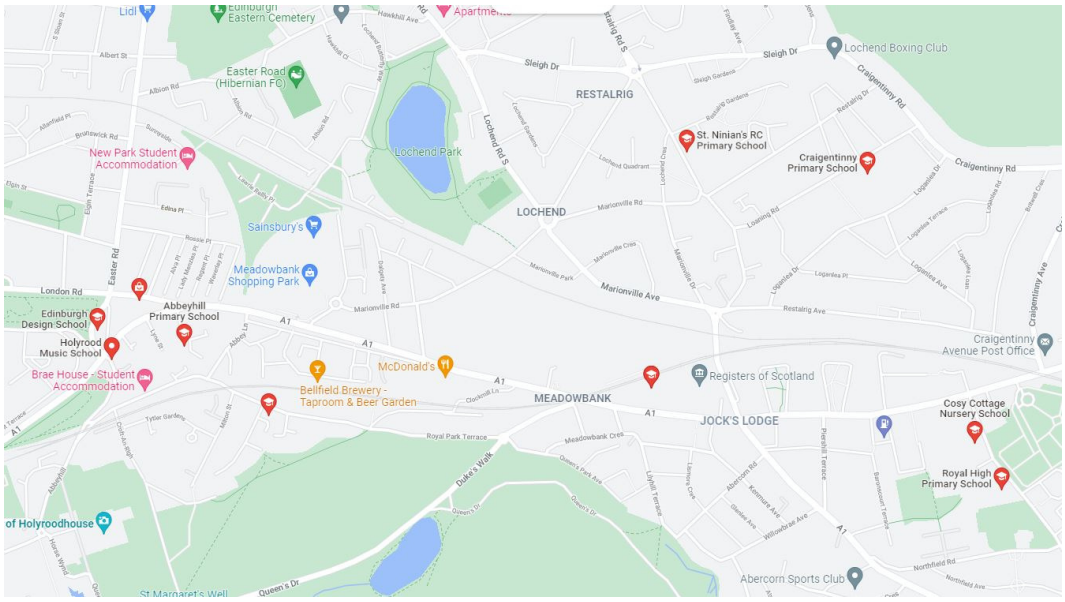


Figure 9: Educational facilities in proximity of the proposed schemes (©GoogleMaps 2022)

No hospitals have been identified within the vicinity of the proposed schemes, however there are several GP practices, as illustrated on Figure 10.

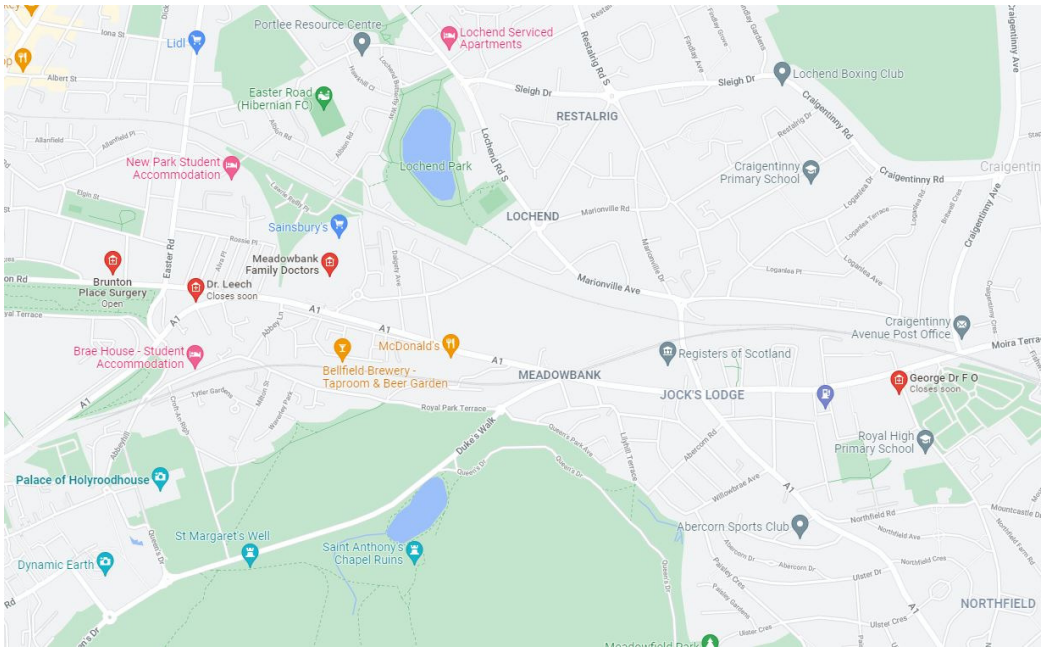


Figure 10: Doctor's surgeries in proximity of the proposed schemes (©GoogleMaps 2022)

There are several Christian churches located in the vicinity of the proposed schemes, as shown on Figure 11. No other places of worship have been identified within the area.

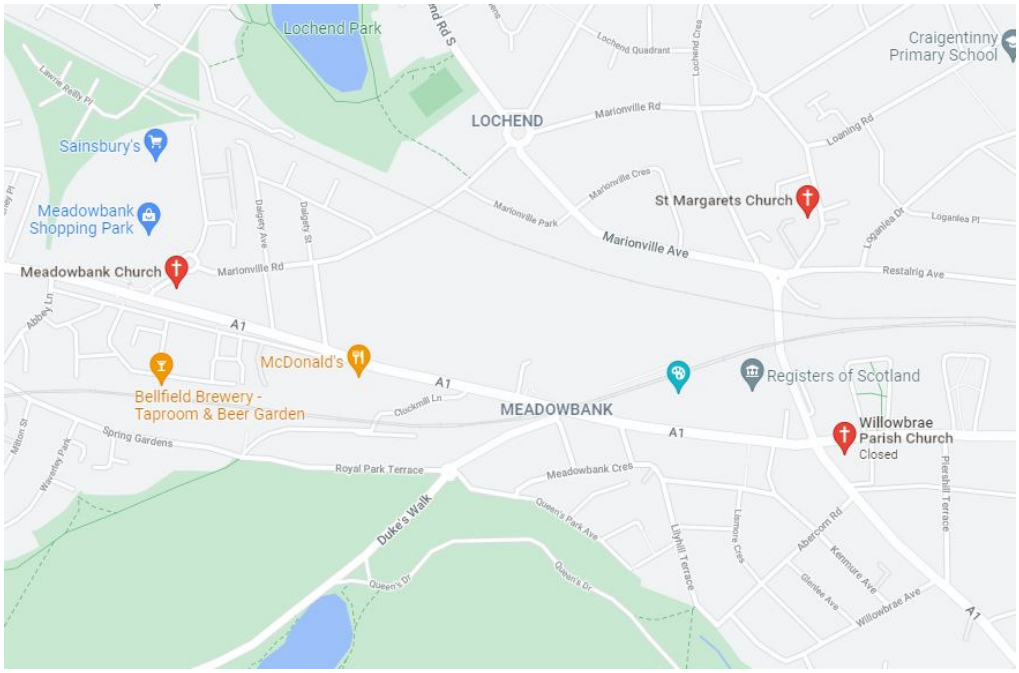


Figure 11: Places of worship in proximity of the proposed schemes (©GoogleMaps 2022)

A.4 Environmental Baseline

A.4.1 Air Pollution

Two of the four proposed schemes (Meadowbank to Clockmill Lane and Meadowbank to Lower London Road) are located within the Central Edinburgh Air Quality Management Area (AQMA). The Central Edinburgh AQMA is designated for exceedances of nitrogen dioxide (NO_2), and a new Air Quality Action plan is currently being developed and is due for public consultation in 2022. Figure 12 illustrates the air quality monitoring network for NO_2 along London Road, in proximity of the proposed schemes.

According to the 2020 Air Quality Annual Progress Report, concentrations of the main pollutants of concern are decreasing at most locations across Edinburgh. The introduction of the Low Emission Zone in Edinburgh is expected to reduce concentrations of nitrogen dioxide (NO_2).

Figure 12: Edinburgh City Centre AQMA (DEFRA Interactive Map, https://uk-air.defra.gov.uk/aqma/maps)

A.4.2 Environmental Designations/Open Space

Planning Advice Note 65 (Planning and Open Space) defines Open Space as:

> '*greenspace consisting of any vegetated land or structure, water, path or geological feature within and on the edges of settlements, and civic space consisting of squares, marketplaces and other paved or hard landscaped areas with a civic function'* (Scottish Government 2008, p.4).

As outlined in the Edinburgh Open Space Strategy 2021 (City of Edinburgh Council, 2021) and on the Great Britain Greenspace Map (OS Greenspace, 2022) the following open space designations have been identified in close proximity to the proposed schemes and are set out in Table 2.6.

The Edinburgh Open Space Strategy 2021 identifies areas in the city where greenspace can be enhanced or improved and sets out the following principle for the local greenspace standard, that *'All homes should be within 400 metres walking distance of a 'good' quality, accessible greenspace of at least 500 sq.m.'* (City of Edinburgh Council, 2021, p.36).

Table 2.6: Areas of Open space in proximity to proposed schemes

Type of Open Space	Name	Location
Public Park	Lochend Park	North of proposed schemes
	Holyrood Park	South of proposed schemes
Playing Fields	Lochend Playing Fields	North of proposed schemes
Religious grounds and cemeteries	St. Ninian's and St. Triduana Church	North of proposed schemes
	Restalrig Parish Church	North of proposed schemes
Play space	The Ballroom	East of proposed schemes
Sports	Bowling Green	South of proposed schemes

According to the map of Edinburgh's core paths system, the nearest designated core path is CEC 7. Claremont and Easter Road, west of the proposed schemes. There are a number of local paths around Holyrood Park and Arthur's Seat, south of the proposed schemes.

A.5 Economic Baseline

The economic activity in the ward in which the proposed schemes are located presents a mixed picture. As illustrated in Table 2.7, within the Craigentinny and Duddingston area there is a higher proportion of economically active people than in Edinburgh as a whole. However, there are also higher rates of unemployment in Craigentinny and Duddingston than in Edinburgh.

Table 2.7: Rates of employment within the study area (City of Edinburgh Council, 2018)

Study area	Rates of employment				
	Economically active	Employed – Part-time	Employed – Full-time	Self employed	Unemployed
Craigentinny and Duddingston	70.4%	12.7%	41.9%	7.1%	4.6%
Edinburgh wide	69.0%	11.4%	4-.3%	7.9%	3.9%

There are several key locations within the vicinity of the proposed schemes that serve the function of providing employment or facilitating economic activity, as follows:

- Libraries/Education Facilities: Piershill Library, Craigentinny Library, Lochend Football Academy.
- Local Businesses: Meadowbank Shopping Park (including various retail outlets such as Poundstretcher, TK Maxx, B&M), Sainsburys, McDonald's, KFC, Boots Pharmacy, St. Margaret's House, Marionville Court Care Home, Morrisons, hospitality and retail outlets on London Road.
- Public buildings: Registers of Scotland.

A.6 Service Uptake/Access

A.6.1 Mode of Travel

This section presents data on the different travel patterns of residents within the electoral wards affected by the proposed routes. Table 2.8 shows the methods of travel used to travel to work or study area. Use of bus, minibus or coach is a common method to travel to work or study across the different wards. Use of bike to commute is low at 4%, however this is consistent Edinburgh wide. Notably, residents in Craigentinny and Duddingston are more likely to travel by car/van (30%) or bus (29%) to work than the wider population in Edinburgh (25% and 26%, respectively).

Table 2.8: Method of travel to work or study by electoral wards (National Records of Scotland, 2011)

Ward	All people	Method of Travel to Work or Study										
		Work or study mainly at home	Underground	Train	Bus, minibus or coach	Taxi or minicab	Car or Van	Passenger in a car or van	Motorcycle	Bike	On foot	Other
Craigentinny and Duddingston	16,239	10%	0%	1%	29%	0%	30%	6%	0%	**4%**	20%	0%
Edinburgh wide	325,698	11%	0%	2%	25%	0%	26%	5%	0%	**4%**	25%	1%
Scotland	2,400,925	11%	0%	4%	10%	1%	56%	6%	0%	1%	10%	1%

A.6.2 Bus Travel

As shown in Table 2.8, bus travel and travelling by car or bus is the most popular means of commuting in Craigentinny and Duddingston. Edinburgh-wide, people favour travelling on foot or by bus as their preferred mode. According to the Edinburgh People Survey (2018), residents within the study area were satisfied with the public transport in Edinburgh. The group with the highest satisfaction were the over 65 age group with 90% saying they were satisfied compared to 86% of those aged between 45 and 64. Table 2.9 presents the satisfaction results from 2013 to 2018 for each ward, which demonstrates that satisfaction of public transport is generally higher than the average for Edinburgh.

Table 2.9: % satisfaction with public transport within the study area (City of Edinburgh Council, 2018)

Study area	Year			
	13/15	14/16	15/17	16/18
Craigentinny and Duddingston	86%	92%	93%	93%
Edinburgh wide	81%	87%	89%	89%

A.6.3 Cycle Uptake

As shown in Table 2.8, use of cycle to travel to work or study in Craigentinny and Duddingston is consistent with Edinburgh wide at 4%. However, cycling participation in Edinburgh is unequal among different demographic groups.

The Bike Life Edinburgh report (Sustrans, 2019) provides up to date statistics on cycling in Edinburgh. The report identified an uneven split between men and women cyclists, with 30% and 17% cycling at least once a week respectively. The report also found a substantial difference in the share of the population who cycle at least once a week, between those with a disability (14%) and those that do not have a disability (26%). The majority (72%) of those surveyed with a disability think cycle safety needs improving.

Significant differences are also evident in relation to different ethnic groups in Edinburgh, with 24% of white people cycling at least once a week, in comparison to 14% of people from ethnic minority groups. As shown in Figure 13, 36% of people aged between 36 to 45 are likely to cycle at least once a week, this is followed by the 46 to 55 age group with 26%.

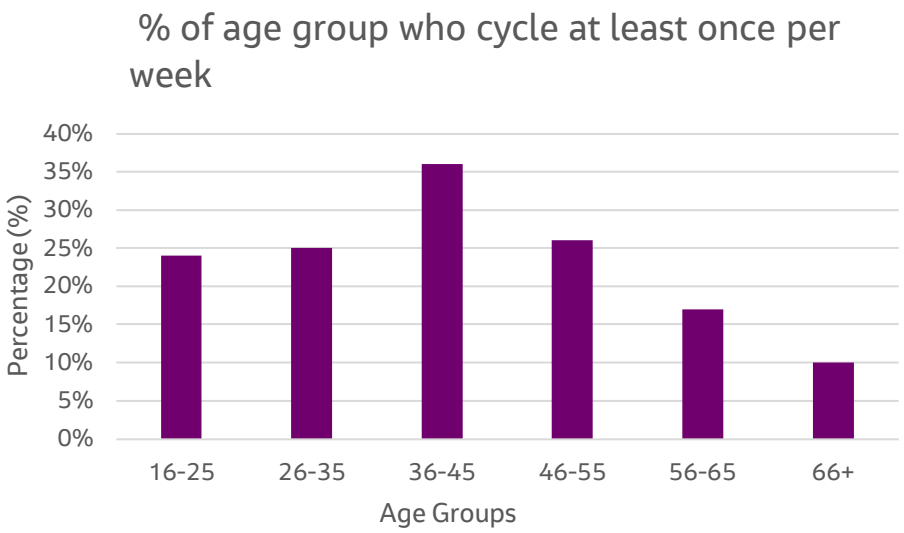


Figure 13: Percentage of those that cycle at least once per week by age group (Sustrans, 2020)

Almost half (47%) of those surveyed by Sustrans expressed the view that Edinburgh is a good place to cycle. However, the report also identified many barriers that prevent people from cycling. Of those surveyed, 51% are concerned about the safety of cycling in Edinburgh, which requires improvements including better road quality, better lighting on cycling routes, improving routes and facilities for safe cycling, and reducing levels of traffic on the roads. A slightly greater proportion of women (71%) held the opinion that cycling safety requires improvement, compared with men (66%) (Sustrans, 2020).

Improving active travel infrastructure in Edinburgh is identified as a core objective of The City of Edinburgh Council's Active Travel Action Plan (2016), with consideration given to the needs of all sections of community, particularly those with restricted mobility and/or other disabilities. In 2016, when the action plan was published, cycling only made up 3-4% of all trips made in Edinburgh. However, it is believed that there is greater potential for this to increase, with 29% and 14% of all existing journeys of 2km to 5km and 5km to 10km in length respectively. Additionally, there is potential for cycling to act as a link in the door to door public transport 'trip chain', for instance as a means of travelling from home to station or tram/bus stop (City of Edinburgh Council, 2016).

In relation to methods of travel to school for children and young people, according to the Hands Up Scotland Survey 2020, 51.2% of school pupils who responded to the national survey said they travel to school in an active way 44.8% walking, 3.8% cycling and 2.6% using scooter or skate (Sustrans, 2021). Of the pupils surveyed, 14.1% responded that they travel to school by bus and 24.3% by private motorised travel. Comparing use of active travel methods from 2011 to 2020, uptake has decreased by 1.2% (from 49.3% to 47.8%). The percentage has fluctuated over the years, reaching 50.4% in 2014, falling to 47.8% in 2019 and rising to 51.2% in 2020, the highest level of the last ten years.

According to *Hands Up Scotland Survey 2020*, pupils in state schools reported greater active travel levels (51.6%) compared to independent school pupils (21.5%). On the contrary, a large proportion of independent school pupils (42.3%) reported travelling to school by car compared to 22.6% of state school children.

Schools either located along or in close proximity to the proposed schemes are shown on Figure #.

A.7 Covid-19 Trends

The pandemic has altered the travel behaviours of people living in Scotland, both for work and for recreation and social purposes. Most people have been working from home which has led to urban areas being redesigned to give

priority to pedestrians and cyclists. This has led to an increased number of people choosing active travel methods for personal and commercial use (Active Nation Commissioner Report, 2021).

During the first six months of the Covid-19 pandemic, Cycling Scotland reported a 43% increase in journeys made by bike when compared to the same period in 2019 (Cycling Scotland, 2020). These trends support the objectives from the Active Travel Framework which aim to improve the uptake of walking and cycling in Scotland and move away from reliance on private vehicle. However, it should be noted that limited data is available on these new trends, and it is uncertain whether such changes to travel behaviours will remain in the long term, post-pandemic.

Non-essential travel was not permitted during the lockdowns throughout the pandemic. Similarly, use of public transport for non-essential purposes was discouraged even when restrictions were eased, so that physical distancing could be maintained. Hence it appears reasonable to conclude that cycling increased as a result of behavioural changes due to the pandemic. According to Transport Scotland (2021), increased cycling during the pandemic can be explained by a number of factors including people having more leisure time and feeling safer due to reduced road traffic, and better weather conditions.

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