



A7 Sustainable Transport Study

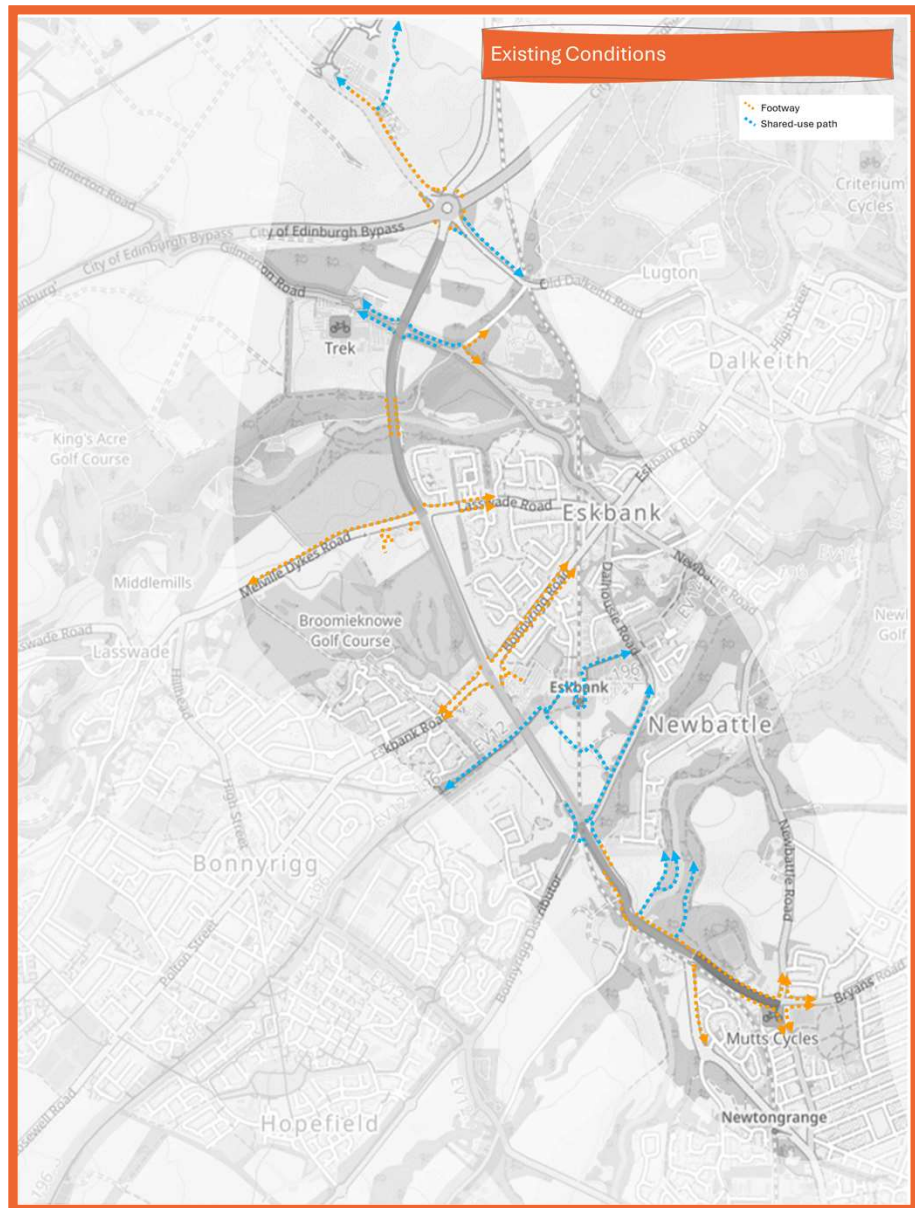
Project Information

Midlothian Council has commissioned Stantec to carry out a study into active travel and sustainable transport improvements on the A7 corridor between Main Street in Newtongrange and Sheriffhall Park and Ride site.

The aim of the project is to improve active travel connections within the study area making it easier for people to walk, wheel, and cycle for their everyday journeys and to connect to public transport services more easily.

The existing conditions for walking, wheeling and cycling are summarised on the right. The plan illustrates that the majority of the A7 corridor provides no, or limited provision for active travel.

This project is being funded by Transport Scotland through the Sustrans Places for Everyone (Pfe) programme.





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Project Objectives

Support future sustainable land use development adjacent to the study corridor by achieving the highest possible level of service for people walking, wheeling and cycling along and across the study corridor.

Increase the number of people walking, wheeling and cycling on the corridor to adjoining communities at all times of the day and at all times of the year.

Improve walking, wheeling and cycling access to public transport services.

Ensure that the strategic movement function of the A7 corridor is maintained for all road users and provide priority for public transport services, where possible.

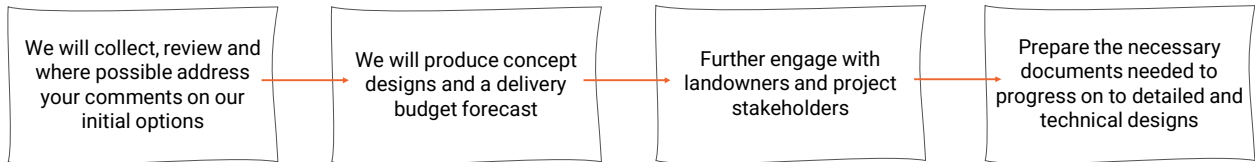
Project Progress

Stantec was commissioned by Midlothian Council to develop **concept design drawings** for the A7 corridor and engage with project stakeholders to discuss design specifications.

In the past few months, we have completed the following tasks.

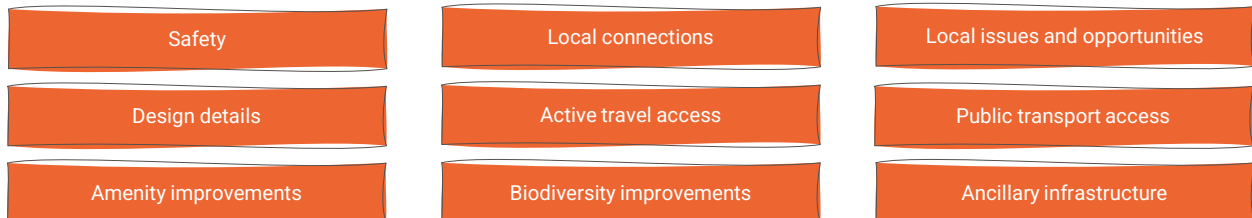


Next steps



How you can contribute today?

We would like to discuss the following items with you before we progress with designs for the corridor:



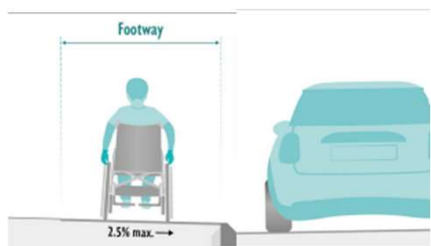
Please use the table-top maps and markers provided to leave your comments.

Speak to a member of the design team to ask questions about the proposals we have prepared thus far and let us know your thoughts.





Terminology



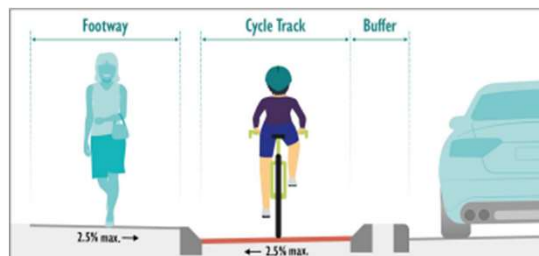
A **footway**, commonly known as a pavement, is a space designated for pedestrians, typically running alongside a carriageway. It provides a safe space for walking and wheeling, separated from motor traffic. Footways often include features like kerbs, tactile paving and buffer sections to separate them from carriageways.

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A **shared-use path** can be adjacent to carriageways or off-road, and are designed for people walking, wheeling, and cycling. Shared-use paths provide a safe, traffic-free environment, promoting active travel. They reduce road congestion and can enhance safety by separating vulnerable road users from motor traffic. Conflicts between different users can occur where usage levels are high and / or available space is limited.

A **segregated cycle track** is a dedicated lane for cycling, separated from motor traffic and footways by physical features such as kerbs, islands, or buffer verges. Cycle tracks enhance safety and comfort for people walking, wheeling and cycling by minimising the potential for conflicts. They can provide a more secure, continuous route, especially on busier roads.



A **controlled crossing** can be designed for people walking, wheeling, cycling, and horse-riding. It features either traffic lights and a push-button system, or yellow globe (belisha) beacon, allowing safe crossing for each user group simultaneously. Where cycles are crossing, a parallel crossing should be provided.



An **uncontrolled crossing** is a crossing without traffic signals or beacons. People walking, wheeling, cycling or horse-riding must wait for a safe gap in the motor traffic before crossing. These crossings often include features like dropped kerbs, tactile paving, and clear road markings to alert drivers and assist people waiting to cross a road.



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Section 1

Main Street in Newtongrange to A7 via B6482 Dalhousie Road

Existing Conditions



Proposed Changes – Option 1



Proposed Changes – Option 2



Legend

- New footway
- New segregated cycle track (two-way)
- New shared-use path
- New parallel crossing
- New layby
- Retained footway
- Retained layby
- Uncontrolled crossing with tactile paving
- Uncontrolled crossing, no tactile paving

Option A.1 – Upgraded uncontrolled crossings, shared-use on Dalhousie Road

Alignment with Objectives

- Off-carriageway cycling permitted on north side of Dalhousie Road.
- Parking restrictions on north side of west arm providing less intimidating environment and improving sightlines.
- Dropped kerbs with tactile paving provided on all uncontrolled crossings to improve conditions for blind people and people with visual impairments.

Disadvantages

- Shared use footway / cycleway can create conflicts between people walking and wheeling and people cycling if footfall is high or the available width is at or below the desirable minimum.
- Reduced parking capacity on Dalhousie Road.

Option A.2 – Parallel crossings, shared-use on Dalhousie Road

Alignment with Objectives

- Off-carriageway cycling permitted on north side of Dalhousie Road.
- Parking restrictions on Dalhousie Road will create more space for wider footway and shared use footway/cycleway.
- Parallel crossings on all arms of the junction gives greater priority to pedestrians and people cycling.

Disadvantages

- Shared use footway / cycleway can create conflicts between people walking and wheeling and people cycling if footfall is high or the available width is at or below the desirable minimum.
- No parking available on Dalhousie Road between Main Street and the football pitch access junction.
- Parallel crossings are not suitable for all pedestrian users including many blind people and people with visual impairments.

Option A.3 – Parallel crossings, segregated cycle track on Dalhousie Road

Alignment with Objectives

- Off-carriageway cycling permitted on north side of Dalhousie Road
- Segregated cycle track reduces potential conflicts between people walking or wheeling and people cycling.
- Parking restrictions on Dalhousie Road create more space for active travel infrastructure.
- Parallel crossings on all arms of the junction gives greater priority to pedestrians and people cycling.

Disadvantages

- Segregated cycle track would be at or below minimum standard width and therefore may create conflicts between people cycling in opposing directions.
- No parking available on Dalhousie Road between Main Street and the football pitch access junction.
- Parallel crossings are not suitable for all pedestrian users including many blind people and people with visual impairments.

Discounted Option:

- Signal-controlled junction – discounted as traffic volumes do not support signalisation.



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Section 2

A7 | B6482 Dalhousie Road to Hardengreen

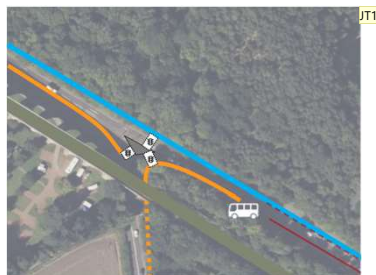
Existing Conditions



Legend

- | | |
|--------------------------------------|---|
| New footway | Retained footway |
| New segregated cycle track (two-way) | Retained shared-use path |
| New shared-use path | Existing quiet street |
| New signal controlled crossing | Retained layby |
| New layby | Uncontrolled crossing with tactile paving |

Option B.1 – Shared use on north side of A7 and Dalhousie Road. Relocated bus stop and new footways on south side of A7 and Dalhousie Road.



Alignment with Objectives

- Off-carriageway cycling provided along Dalhousie Road on A7 section to the north-west of the junction.
- No major change to existing traffic journey times on A7.
- New footway to relocated northbound bus stop on Dalhousie Road.
- New footway on westside of the A7 proposed towards caravan park.

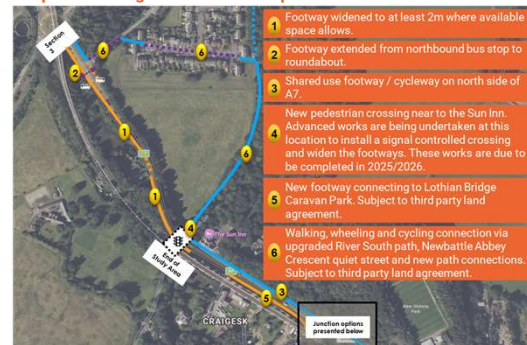
Disadvantages

- Shared use footway / cycleway can create conflicts between people walking and wheeling and people cycling if footfall is high or the available width is at or below the desirable minimum.
- Pedestrians crossing at the junction would still need to cross in two separate movements.
- Minimal deflection for southbound A7 motor traffic connecting onto Dalhousie Road encouraging higher traffic speeds.

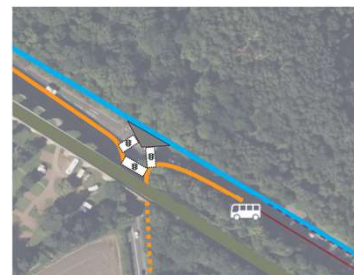
Proposed Changes – Section 2: Option 1



Proposed Changes – Section 2: Option 2



Option B.2– Shared use on north side of A7 and Dalhousie Road. Single-stage pedestrian crossings at junction. Relocated bus stop and new footways on south side of A7 and Dalhousie Road.



Alignment with Objectives

- Single-stage pedestrian crossings on all arms of the junction, reduces pedestrian delay and increases journey comfort.
- Off-carriageway cycling provided along Dalhousie Road on A7 section to the north-west of the junction.
- New footway to relocated northbound bus stop on Dalhousie Road.
- New footway on the west side of the A7 proposed towards caravan park.
- Slower speeds encouraged for southbound traffic turning from the A7 onto Dalhousie Road.

Disadvantages

- Shared use footway / cycleway can create conflicts between people walking and wheeling and people cycling if footfall is high or the available width is at or below the desirable minimum.
- New junction layout will result in increased delay for motor traffic on the A7 and Dalhousie Road.



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Section 3

Hardengreen Viaduct Roundabout to Eskbank Road Roundabout

Existing Conditions



Proposed Changes



Legend

- New footway
- New segregated cycle track (two-way)
- New shared-use path
- New signal controlled crossing
- New parallel crossing
- New layby
- Retained footway
- Retained shared-use path
- Uncontrolled crossing with tactile paving
- Uncontrolled crossing, no tactile paving

Option C.1 – Shared-use on south-east side of the roundabout. Segregated cycle track and footway on north-east side of the junction. Upgraded uncontrolled crossings.



Alignment with Objectives

- Shared-use off-carriageway cycling permitted along A7 on south side of the roundabout.
- Segregated cycle track on northern section of A7 reduces potential conflicts between people walking or wheeling and people cycling.
- Dropped kerbs with tactile paving provided on all uncontrolled crossings to improve conditions for blind people and people with visual impairments.
- No major change to existing traffic journey times on A7.

Disadvantages

- Uncontrolled crossings do not give priority to people walking, wheeling or cycling over other road users.
- Shared use footway / cycleway can create conflicts between people walking and wheeling and people cycling if footfall is high or the available width is at or below the desirable minimum.

Option C.2 – Segregated cycle track and footway on south-east and north-east side of the junction. Single-stage signal controlled crossings.



Alignment with Objectives

- Reduced size of roundabout to accommodate footway and segregated cycle track around the roundabout and along the west side of the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Single-stage signal controlled crossings on all arms of the roundabout benefits all people walking, wheeling and cycling.

Disadvantages

- Short sections of new shared use footway / cycleway may still be required around the roundabout which can create conflicts between people walking and wheeling and people cycling, if footfall is high or the available width is at or below the desirable minimum.
- Single-stage crossings would need to be located away from the crossing desire lines to achieve the required crossing distance. This will result in people having to walk, wheel or cycle extra distance to cross the roundabout.
- Reduced roundabout size and introduction of signal controlled crossings will introduce additional journey time delay for motor vehicles.

Option C.3 – Segregated cycle track and footway on south-east and north-east side of the junction. Two-stage signal controlled crossings on A7, single-stage crossing on B6392 (e) and parallel crossing on B6392 (w).



Alignment with Objectives

- Reduced size of roundabout to accommodate footway and segregated cycle track around the roundabout and along the west side of the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Two-stage signal controlled crossings on the A7 can be located closer to the crossing desire lines than the crossing locations presented in Option C.2. This will result in reduced walking, wheeling or cycling distances.

Disadvantages

- Short sections of shared use footway / cycleway may still be required around the roundabout which can create conflicts between people walking and cycling if footfall is high or the available width is below the desirable minimum.
- Two-stage crossings would require people walking, wheeling or cycling to wait for two separate green signals to cross one arm of the roundabout. This will result in additional delay.
- Reduced roundabout size and introduction of signal controlled crossings will introduce additional journey time delay for motor vehicles.
- Parallel crossing on B6392 (e) is less effective if traffic volumes increase significantly in the future.
- Two-stage crossings have additional maintenance costs compared to single-stage crossings.

Discounted Options:

- Signal-controlled junction – discounted as there is a support pier for the viaduct located in the centre of the junction.
- Protected cycle track roundabout – discounted as traffic volumes are above the maximum threshold for this design solution.



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Section 3 – A7 / NCN 196 Interchange

Existing Conditions



Proposed Changes



- New footway
- - - New shared-use path
- New bus layby
- New layby
- New segregated cycle track
- New signal controlled crossing
- - - Retained shared-use path

Opportunity for Change

The current infrastructure at the intersection of the NCN 196 cycle path (shown as blue dashed line) and the A7 road lacks walking, wheeling or cycling facilities. With no footways or cycle tracks along the A7, the area does not cater for safe and efficient movement along the A7 and between the A7 and NCN 196. This presents a significant opportunity to enhance connectivity, safety, and accessibility for all road users.

The Proposals

The following improvements to the A7 and NCN 196 intersection are proposed:

- 1 New Footways:** Constructing dedicated footways along the A7 creates much safer conditions for walking and wheeling.
- 2 New Cycle Tracks:** Constructing a dedicated cycle track along the A7 creates much safer conditions for cycling.
- 3 New Ramps between A7 and NCN 196:** Installing ramps on both sides of the A7 carriageway to connect the A7 to the NCN 196 cycle path. These will be designed to be accessible to people using wheelchairs, buggies and cycles.
- 4 New Bus Stops:** Adding new bus stops on the A7 to improve public transport access and support new and enhanced bus service connections.
- 5 Pedestrian and Cycle Crossing:** Introducing a pedestrian and cycle crossing on the A7 facilitates safer and convenient access to and from bus services.

Expected Benefits

These enhancements are expected to:

- **Improve Safety:** Provide safer routes for pedestrians and cyclists, reducing the risk of injury collisions.
- **Enhance Connectivity:** Create better links between the NCN 196 cycle path and the A7, promoting active travel.
- **Boost Accessibility:** Make the area more accessible for all users, including those using public transport.
- **Encourage Sustainable Travel:** Support sustainable travel options, contributing to environmental and health benefits.

Let us know your ideas below

Do you think that new ramps to connect the NCN 196 to the A7 will benefit people walking, wheeling and cycling and people accessing the new bus stops on the A7?

Do you think a signal-controlled crossing will be needed to cross the A7 at this location?

Do you have other suggestions for improving connections between the A7 and NCN 196?





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Section 4

Eskbank Road Roundabout to Melville Dykes Road Roundabout

Existing Conditions



Proposed Changes



Legend

- New footway
- New segregated cycle track (two-way)
- New signal controlled crossing
- New layby
- Retained footway
- Retained shared-use path
- Uncontrolled crossing with tactile paving
- Uncontrolled crossing, no tactile paving

Option D.1 – Segregated cycle tracks and footways. Upgraded uncontrolled crossings.



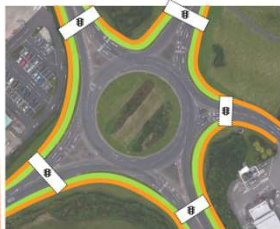
Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the west side of the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Dropped kerbs with tactile paving provided on all uncontrolled crossings to improve conditions for blind people and people with visual impairments.
- No major change to existing traffic journey times on A7.

Disadvantages

- Uncontrolled crossings do not give priority to people walking, wheeling or cycling over other road users. All arms of the junction are currently difficult to cross. This option will provide minimal crossing benefits.

Option D.2 – Segregated cycle tracks and footways. Single-stage crossings.



Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the west side of the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Single-stage signal controlled crossings on all arms of the roundabout benefits all people walking, wheeling and cycling.

Disadvantages

- Single-stage crossings would need to be located away from the crossing desire lines to achieve the required crossing distance. This will result in people having to walk, wheel or cycle extra distance to cross the roundabout.
- Increased delay to motor vehicles if crossing demand is high.

Option D.3 – Segregated cycle tracks and footways. Two-stage crossings on 4 arms.



Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the west side of the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Two-stage signal controlled crossings on wider arms of the roundabout can be located closer to the crossing desire lines than the crossing locations presented in Option D.2. This will result in reduced walking, wheeling or cycling distances.

Disadvantages

- Two-stage crossings would require people walking, wheeling or cycling to wait for two separate green signals to cross one arm of the roundabout. This will result in additional delay.
- Increased delay to motor vehicles if crossing demand is high and vehicle queuing within the roundabout circulating lanes.
- Two-stage crossings have additional maintenance costs compared to single-stage crossings.

Option D.4 – Segregated cycle tracks and footways. Signal controlled junction.



Alignment with Objectives

- Conversion to a signal controlled junction reduces potential conflicts between people walking or wheeling, cycling and motor vehicles by providing additional space for walking and cycling and reduced crossing distances.

Disadvantages

- Junction would be too wide to permit diagonal pedestrian or cycle crossing movements. Therefore, people walking, wheeling and cycling may have to cross multiple arms with resultant delays to their journey.
- Significantly increased delay to motor vehicles at peak times, including for buses exiting the retail park.

Discounted Options:

- Signal-controlled roundabout – discounted as there is limited space for vehicle storage within the circulating lanes of the roundabout.
 - Protected cycle track roundabout – discounted as traffic volumes are above the maximum threshold for this design solution.



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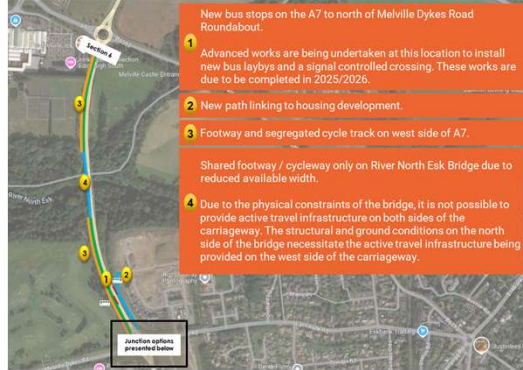
Section 5

Melville Dykes Road Roundabout to Gilmerton Road Roundabout

Existing Conditions



Proposed Changes



- Legend**
- New footway
 - New segregated cycle track (two-way)
 - New shared-use path
 - New signal controlled crossing
 - New parallel crossing
 - New layby
 - Retained footway
 - Retained shared-use path
 - Uncontrolled crossing with tactile paving
 - Uncontrolled crossing, no tactile paving

Option E.1 – Segregated cycle track and footways on A7. Upgraded uncontrolled crossings at roundabout.



Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Dropped kerbs with tactile paving provided on all uncontrolled crossings to improve conditions for blind people and people with visual impairments.
- Signal controlled crossings provided on the A7 to the north and south of the roundabout.
- No major change to existing traffic journey times on A7.

Disadvantages

- Uncontrolled crossings at the roundabout do not give priority to people walking, wheeling or cycling over other road users. All arms of the junction are currently difficult to cross.
- Signal controlled crossings are not aligned to walking, wheeling or cycling desire lines.

Option E.2 – Segregated cycle track and footways on A7. Signal controlled crossings at roundabout.



Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the A7. This reduces potential conflicts between people walking, wheeling, or cycling.
- Signal controlled crossings on all arms of the roundabout benefits all people walking, wheeling and cycling.
- A7 crossing points closer to the crossing desire lines than Option E.1.

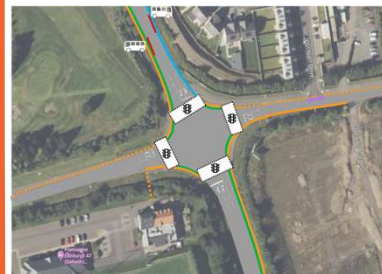
Disadvantages

- Increased delay to motor vehicles if crossing demand is high.

Sub-Option E.2b – Parallel crossings could be provided on the A768 to reduce the long-term cost and maintenance requirements.



Option E.3 - Segregated cycle tracks and footways on A7. Signalised junction.



Alignment with Objectives

- Conversion to a signal controlled junction reduces potential conflicts between people walking, wheeling, or cycling and motor vehicles and allows for crossings to be located closer to the junction.
- Footway and segregated cycle track on all arms of the junction. This reduces potential conflicts between people walking or wheeling and people cycling.

Disadvantages

- Junction would be too wide to permit diagonal pedestrian or cycle crossing movements. Therefore, people walking, wheeling and cycling may have to cross multiple arms with resultant delays to their journey.
- Significantly increased delay to motor vehicles at peak times.

Discounted Options:

- Signal-controlled roundabout – discounted as there is limited space for vehicle storage within the circulating lanes of the roundabout.
 - Protected cycle track roundabout – discounted as traffic volumes are above the maximum threshold for this design solution.

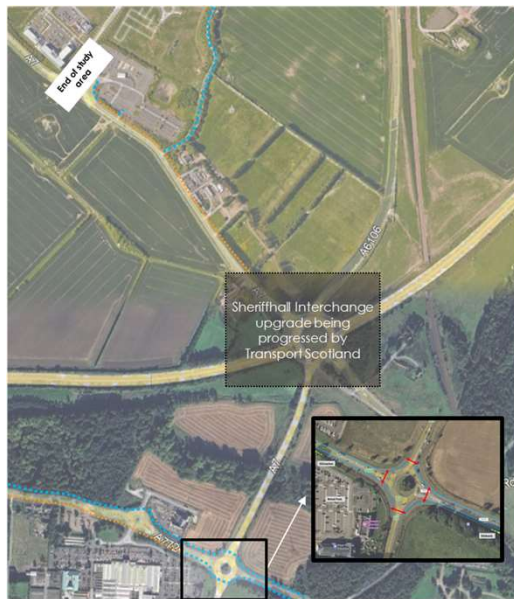


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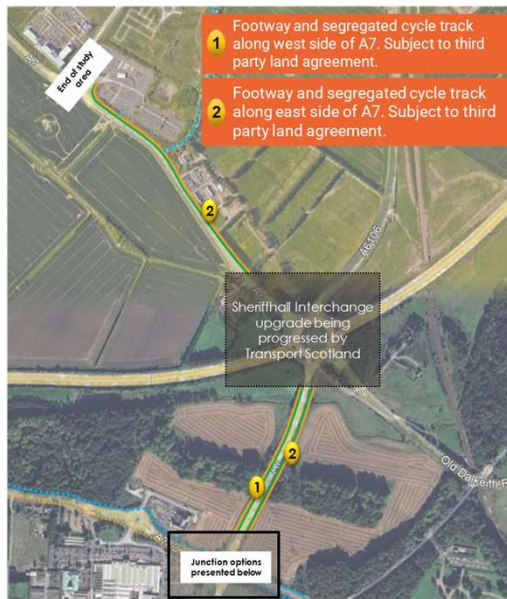
Section 6

Gilmerton Road Roundabout to Sheriffhall Park and Ride

Existing Conditions



Proposed Changes



Legend

- New footway
- New segregated cycle track (two-way)
- New shared-use path
- New signal controlled crossing
- New parallel crossing
- Retained footway
- Existing shared-use path
- Uncontrolled crossing with tactile paving
- Uncontrolled crossing, no tactile paving
- JTO

Option F.1 – Segregated cycle tracks and footway on A7. Upgraded uncontrolled crossings at roundabout



Alignment with Objectives

- Footway and segregated cycle track around the roundabout and along the A7. This reduces potential conflicts between people walking or wheeling and people cycling.
- Dropped kerbs with tactile paving provided on all uncontrolled crossings to improve conditions for blind people and people with visual impairments.
- No major change to existing traffic journey times on A7.

Disadvantages

- Uncontrolled crossings at the roundabout do not give priority to people walking, wheeling or cycling over other road users. All arms of the junction are currently difficult to cross.

Option F.2 – Segregated cycle tracks and footways on A7. Signal controlled crossings at roundabout.



Alignment with Objectives

- Footway and segregated cycle track reduces potential conflicts between people walking, wheeling, and cycling.
- Signal controlled crossings on all arms of the roundabout benefits all crossing movements.

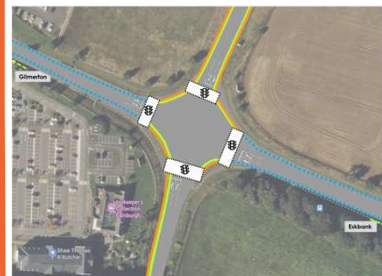
Disadvantages

- Increased delay to motor vehicles if crossing demand is high.

Sub-option F.2b - Parallel crossings could be provided on all arms to reduce the long-term cost and maintenance requirements.



Option F.3 – Segregated cycle tracks and footway on A7. Signalised junction.



Alignment with Objectives

- Conversion to a signal controlled junction reduces potential conflicts between people walking or wheeling, cycling and motor vehicles.
- Footway and segregated cycle track on all arms of the junction. This reduces potential conflicts between people walking or wheeling and people cycling.

Disadvantages

- Junction would be too wide to permit diagonal pedestrian or cycle crossing movements. Therefore, people walking, wheeling and cycling may have to cross multiple arms with resultant delays to their journey.
- Significantly increased delay to motor vehicles at peak times.

Discounted Options:

- Signal-controlled roundabout – discounted as there is limited space for vehicle storage within the circulating lanes of the roundabout.
 - Protected cycle track roundabout – discounted as traffic volumes are above the maximum threshold for this design solution.





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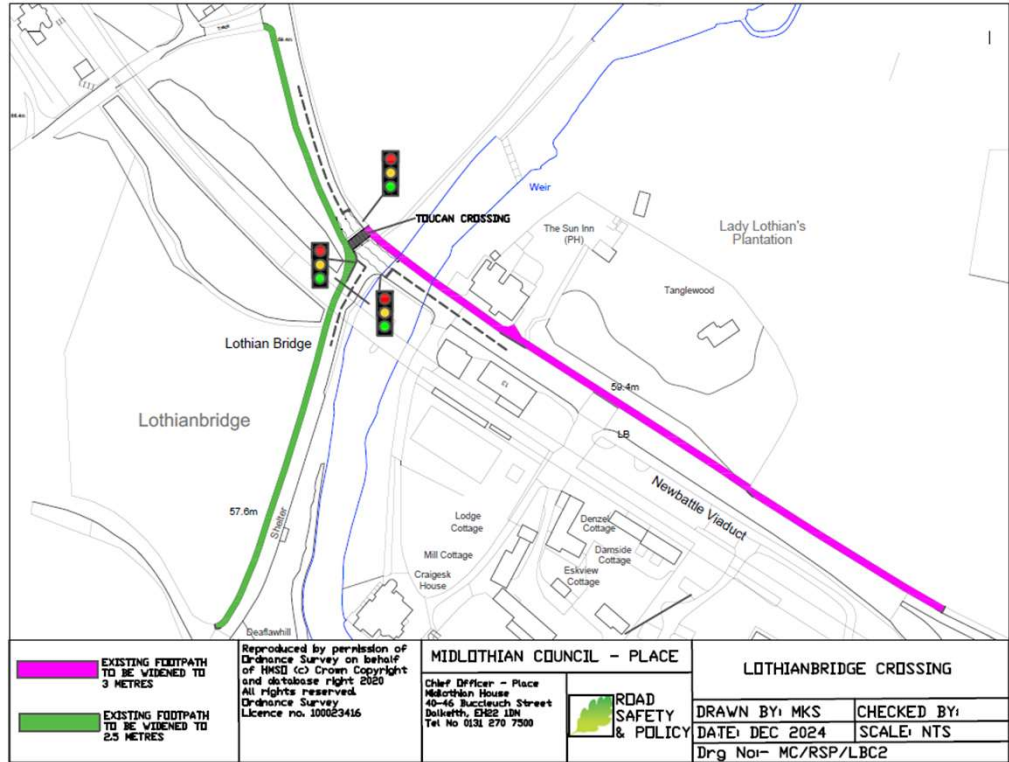
Advance Works

The following advance works are being developed ahead of the rest of the study. These are scheduled for completion in 2025/26.

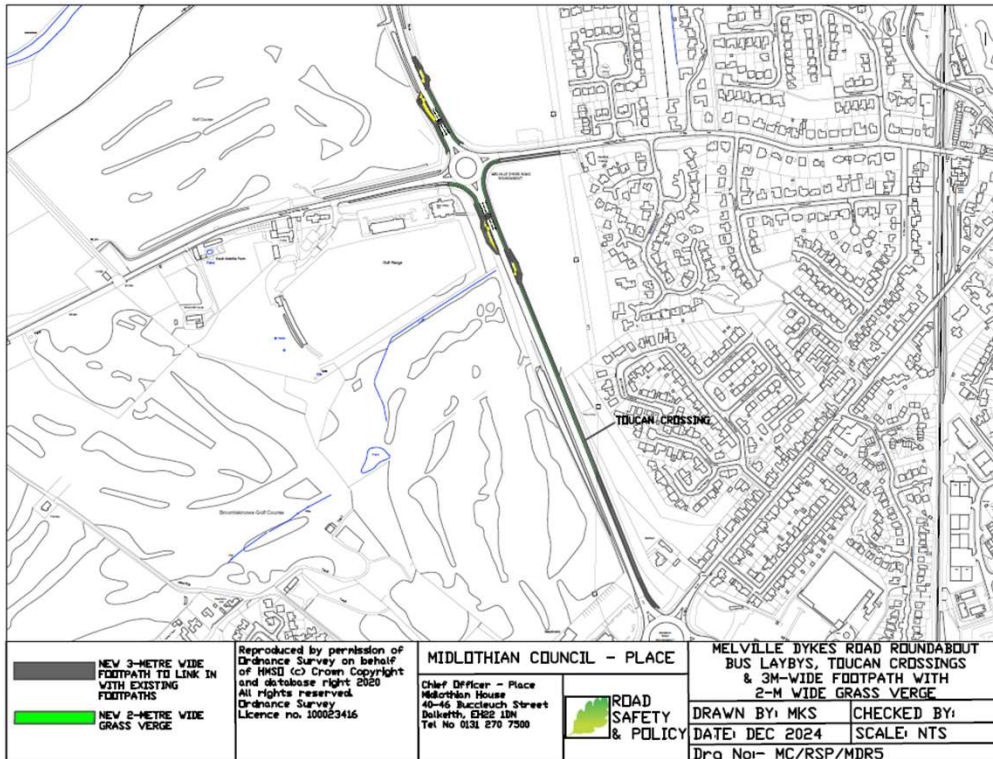
Footway improvements and new signal-controlled crossing near the A7 / Carrington Road junction and Sun Inn

The design proposals at this location include:

- Footway widening.
- New signal controlled crossing.



Footway improvements and new signal-controlled crossings and new bus lay-by on the A7 to the north and south sides of the Melville Dykes Road Roundabout



The design proposals at this location include:

- New footway between the Hardengreen Roundabout and the Melville Dykes Roundabout.
- New footway on south side of Lasswade Road to east of Melville Dykes Roundabout.
- New footways on north side of Melville Dykes Roundabout.
- Three new signal controlled crossings
- New bus layby to the north and south of the Melville Dykes Roundabout.

