



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

M8 Jct 13 to Jct 12 EB plus Slips

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Project Details

Description

This project consists of a package of structural maintenance works that will replace the existing surface course which has reached the end of its serviceable life. It will also remove structural defects within the pavement layers by utilising deeper inlay treatment in isolated areas. The proposed works are required to improve the ride quality and skid resistance of this section of the M8 carriageway

Construction activities will involve the milling and excavation of the existing pavement surface, and the associated disposal of this material. This will be followed by the laying and compaction of the new road surface materials. The main construction plant / vehicles that will be utilised as part of this scheme will include planer, haulage vehicles, paver and roller.

These works are programmed to take place in July 2022, however the exact working dates are yet to be confirmed. It is currently assumed that works will be carried out exclusively during night time hours.

The TM is anticipated to involve overnight lane / road closures, however the extent of potential closures are yet to be confirmed. Depending on the extent of closures, appropriate diversions will be implemented.

Location

The scheme is located on an urbanised section of the M8 dual carriageway at Riddrie, Glasgow City Council.

The National Grid Reference for the scheme is:

- Scheme start - NS 62552 66464
- Scheme end - NS 63442 66722

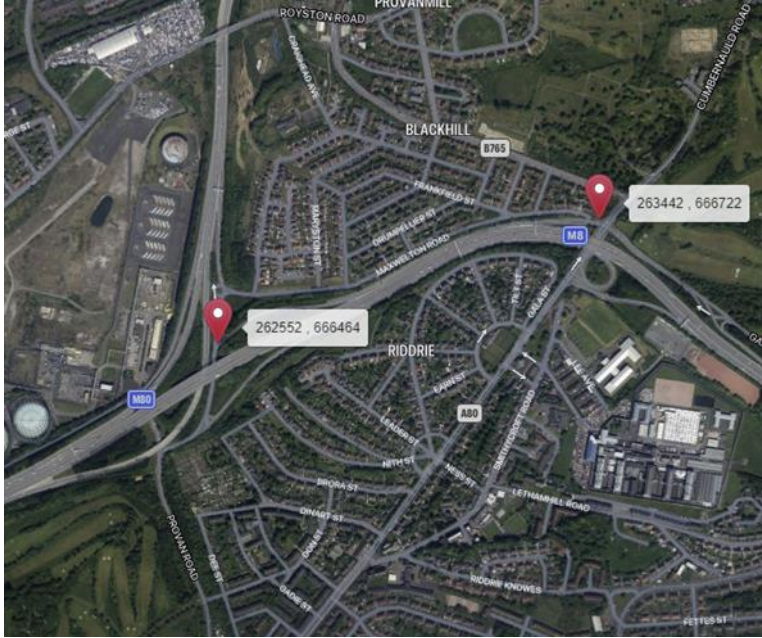


Figure 1 – Scheme Extents



Figure 2 – Scheme Location

Description of local environment

Air quality

The scheme is located on an urban section of the M8 carriageway within the east of Glasgow. The M8 is a key route through the Glasgow City Council area and in 2020 annual average daily flow (AADF) [road traffic data](#) shows that approx. 70676 vehicles use this section of the carriageway with 9.7% being Heavy Goods Vehicles (HGVs).

This section of the M8 is flanked by the largescale, and predominantly residential, areas of Blackhill and Riddrie, located to the north and south respectively of the M8 within the scheme extents.

Linear strips of woodland are found along the boundaries of the M8 within the scheme extents. Larger areas of parkland / woodland are located to the north east, consisting of Lethamill Golf Course and Hogganfield Loch, and to the south west, consisting of Alexandra Park / Golf Course.

The scheme does not fall within any [Air Quality Management Areas](#) (AQMA) declared by Glasgow City Council.

Cultural heritage

[PastMap](#) has identified the following feature of cultural heritage within 200m of the scheme extents:

- Offices and Workshops, Provan Gasworks, Blochairn Road, Category C Listed Building (LB52457), located approx.145m from the proposed works.

As works are restricted to the existing M8 carriageway and are like-for-like in nature, no impact is predicted to the above noted features of cultural heritage, nor to any potentially undiscovered features.

Landscape and visual effects

[NatureScot Sitelink](#) and [PastMap](#) have not identified any designated Garden & Designed Landscapes (GDL).

Transport infrastructure, notably the M8 and M80, are dominant linear landscape features within the local area. Out with the M8 within the scheme extents, residential development is the dominant landscape feature.

As the proposed works will be temporary, transient and like-for-like in nature, it has been assessed that there will be no impacts to the local landscape and no residual visual impacts.

Biodiversity

This section of the M8 is flanked by the largescale residential areas of Blackhill and Riddrie. Grass verges and linear strips of woodland are found along the boundaries of the M8 within the scheme extents. Larger areas of parkland / woodland are located to the north east, consisting of Lethamill Golf Course and Hogganfield Loch, and to the south west, consisting of Alexandra Park / Golf Course.

[NatureScot Sitelink Interactive Map](#) has identified that the scheme does not interact with any Special Areas of Conservation (SAC), Special Protection Areas (SPA), RAMSAR or Sites of Specific Scientific Interest (SSSI) within the scheme extents. Hogganfield Loch is however designated as a Local Nature Reserve, and is located approx. 600m north east of the scheme.

The Amey Animal Roadkill Database (2002 – 2022) has identified no recent records of animal roadkill (within the last 3 years).

Taking into account the urban nature of the surrounding area and the highly engineered motorway corridor of the M8 within the scheme extents, the surrounding habitat is considered to provide sub-optimal habitat for the majority of protected species.

Amey's Invasive Non-native Species (INNS) Database identifies no INNS within proximity to the scheme extent.

[The NBN Atlas Scotland](#) (2002 – 2022) has identified no recent records of animal roadkill (within the last 3 years).

Field Survey, Licencing & Consultation

Taking account of the nature of the proposed works, which will all be restricted to the existing M8 carriageway, as well as the planned mitigation measures that will be implemented during construction, it has been assessed that the project will not pose a risk to water voles or their burrows. As such, no field survey, consultation, or species licencing is required.

Geology and soils

The [National Soil Map of Scotland](#) has identified no record of the surrounding local soils, likely due to the highly urbanised area of the proposed scheme location.

A desktop study using the [British Geological Survey Map](#) has identified major local geology type as the following:

Bedrock

Passage Formation - Sedimentary Rock Cycles, Clackmannan Group Type. Sedimentary Bedrock formed approximately 318 to 328 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas.

Superficial

Till, Devensian - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U).

Material assets and waste

Key Materials Required for Activities

The following materials will be required for the scheme:

- Road paint
- Road surfacing
- Binder

TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical SMA. As a result, the use of TS2010 will reduce the usage of imported aggregates, and increase the use of a wider range of sustainable aggregate sources

Key Waste Arising from Activities

The following waste materials will be produced from the works:

- Road planings
- Road paint and studs
- Road kerbs

There is no evidence of tar bound materials at this location and therefore the road planings can be fully recycled in line with current guidance and legislation.

Noise and vibration

The works are located in an urbanised area surrounded by the largescale residential areas of Blackhill and Riddrie. There are a large number of residential properties within close proximity to the scheme location, the closest of which lies on Maxwellton Road, at approx. 15m from the scheme.

Baseline noise levels are likely primarily influenced by vehicle traffic along the M8, M80 and local road network. Secondary sources are likely deriving from urban activity associated with the city setting of this project.

The scheme does not fall within any [Candidate Noise Management Area \(CNMA\)](#) as defined by the Transportation Noise Action Plan, Road Maps.

The Annual Average Daily Traffic Flows (AADT, 2020) at this location is approx. 70,676 vehicles, approximately 9.7% of which consists of Heavy Goods Vehicles (HGVs).

Population and human health

Due to the M8 being a motorway, no pedestrian or cyclist facilities are present within the carriageway boundary. The Corepaths C65D and C67 cross the scheme extents as overpass footbridges, crossing above the Eastbound lanes. The scheme does not come into contact with any bridleways or cycleways.

There are a large number of residential properties within close proximity to the scheme location, closest of which lies on Maxwellton Road, at approx. 15m from the scheme. The M8 and it's associated on / off slips are likely utilised to provide access to and from residential areas.

Road drainage and the water environment

The Scottish Environmental Protection Agency's (SEPA) [Water Classification Hub](#) has identified that the Molendinar Burn (ID:10047) flows approx. 200m from the scheme at the closest point. This has been given an overall status of 'Moderate Ecological Potential'.

The [Indicative River & Coastal Flood Map](#) by SEPA has highlighted a potential risk of surface water flooding within the scheme extents.

Climate

The Climate Change (Scotland) Act sets out the target and vision set by the Scottish Government for tackling and responding to climate change. The Act includes a target of reducing CO2 emissions by 80% before 2050 (from the baseline year 1990).

The Scottish Government has since published its indicative Nationally Determined Contribution (NDC) to set out how it will instead reach Net Zero by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030. By 2040, the Scottish Government is committed to reduce emissions by 90%, with the aim of reaching net zero by 2045 at the latest.

Amey, working on behalf of Transport Scotland, undertake carbon monitoring. Emissions from our activities are recorded using Transport Scotland's Carbon Management System.

To support the journey towards carbon neutral and zero waste, Amey include potential opportunities for enhancement utilising circular economy principals within assessment of material assets.

Description of main environmental impacts and proposed mitigation

Air quality

Impacts

- Traffic Management (TM) for the works will involve overnight closures, with potential for diversion routes.
 - In the event of a diversion, TM will result in increased traffic levels and associated vehicle emissions on the surrounding local road network, due to requirement for a diversion route.
- The use of vehicles, plant and generators emitting carbon emissions may temporarily affect air quality and will require the use of finite resources.
- On site construction activities carry a potential to produce airborne particulate matter that may have a slight impact on local air quality levels.

Mitigation

- If required, the diversion route will be effectively planned to reduce traffic levels in the surrounding road network to that which is as minimal as possible.
- All works shall operate in accordance with current best practice as outlined in the Guidance on the assessment of dust from demolition and construction (2014) published by the IAQM, which includes the following mitigation relevant to this scheme:
 - When not in use plant and vehicles will be switched off; there will be no idling vehicles.
 - All plant and fuel-requiring equipment utilised during construction shall be well maintained in order to minimise emissions, as per manufacturing and legal requirements.
 - Green driving techniques will be adopted, and effective route preparation and planning shall be undertaken prior to works.
 - Planing operations will be wetted to reduce dust arising.
 - Drop heights to haulage vehicles and onto conveyors will be minimised.
 - Lorries will be sheeted when carrying dry materials.
 - Surfaces will be swept where loose material remains following planing.

Providing all works operate in accordance with current best practice, the residual impact for air quality is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to local air quality.

Noise and vibration

Impacts

- As the works are anticipated to be constructed during night time hours, noise has the potential to impact local residents, with potential for disturbance to sleep.
- TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby receptors will benefit from improved road surfacing as a result of the scheme.

Mitigation

- The Amey E&S team will contact Glasgow City Council's Environmental Health Team prior to works starting to notify them of the night works.
- Properties in proximity shall receive a letter drop detailing the work times and activities.
- The noisiest works will be completed before 23:00 where possible.
- Plant/machinery shall be fitted with silencers/mufflers.
- No plant, vehicles or machinery will be left idling when not in use.
- Amey's Noise & Vibration briefing shall be delivered to all site operatives before works start.

Providing all works operate in accordance with current best practice, the residual impact for noise and vibration on nearby receptors is considered neutral, with slight adverse impact predicted during construction.

It has been determined that the proposed project will not have direct or indirect significant effects to local air quality.

Population and human health

Impacts

- The works are not predicted to impact on the nearby Core Paths, as they are elevated footbridges.
- Access to residential properties may be temporarily impacted, however alternative access routes are available.
- TM for the scheme is anticipated to consist of overnight lane / road closures.
 - TM may cause slight delays to road users.

- TM may cause an increase of traffic in the surrounding local road network, in the event of a diversion route being required.
- TS2010 road surfacing will be utilised. TS2010 can improve the skid resistance of the road.
- The use of TS2010 is shown to have superior durability to standard road mixes as such this will extend the life span of the carriageway preventing the need for reoccurring routine maintenance and associated levels of disruption.

Mitigation

- Appropriate signage should be put in place detailing TM prior to the works starting.
- If a diversion is required, it should be appropriately signposted to minimise disruption to road users.

Providing all works operate in accordance with current best practice, the residual impact for population and human health is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to population and human health.

Biodiversity

Impacts

- There is potential for protected species to be active within the local surrounding area, including within the grass verges of the M8. Uncontrolled direct access to the verge could result in the disturbance of water voles, and potentially lead to the destruction of water vole burrows.
 - Taking account of the nature of the proposed works, which will all be restricted to the existing M8 carriageway, as well as the below mitigation that will be followed, it has been assessed that the project will not pose a risk to water voles or their burrows.
- In the event of night-time programming, misdirected site lighting could cause disturbance to any surrounding nocturnal species.
- In the event of night-time programming, additional noise from construction activities could cause disturbance to any surrounding nocturnal species.

Mitigation

- The planned resurfacing will be designed taking account of the following mitigation:
 - The proposed works should be designed in such a way that they can safely and efficiently be undertaken from the existing carriageway.

- Access out with existing made ground should be avoided, with the design taking this into account.
- If the design identifies a requirement to be active within the existing grass verges of the M8, then the E&S Team should be contacted.
- All works must be confined to the existing M8 carriageway / areas of made ground.
- Access to the grass verge is to be strictly monitored, with access negated as much as is possible.
- No plant, machinery, vehicles, materials or wastes are to be situated within the M8 verge at any point, with the carriageway being utilised instead.
- If during the construction of the project a requirement to undertake works within or from the verge is identified, then that portion of works should be put on hold and the E&S Team should be notified.
- In the event of observing a protected species on the live working site, all works will temporarily stop until the animal has moved on. The control room will be contacted to log an environmental record.
- All temporary lighting will be directional and pointed away from sensitive ecological receptors.
- Pollution prevention measures as outlined in the *Road Drainage and the Water Environment* section below will be adhered to during the works.
- Noise mitigation measures as outlined in the *Noise and Vibration* section below will be adhered to during the works.

Providing all works operate in accordance with current best practice and the above noted mitigation measures, the residual impact for biodiversity is considered neutral.

Material assets and waste

Impacts

- Contribution to resource depletion through use of virgin materials.
- Greenhouse gas (GHG) emissions generated by material production and transporting to and from site.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.

Mitigation

- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion.
- Waste will be treated at a licenced facility to separate useful materials such as metal as far as reasonably practicable, recovering this waste and diverting it from landfill.

- Road planings arising from the scheme will be recycled and reused as a material throughout the network.
- The use of TS2010 would reduce the use of imported aggregates and increase the use of a wider range of sustainable aggregate sources.
- Where possible, materials will be obtained locally, and operatives deployed from the local depot where possible to reduce haulage and scheme associated journeys, reducing impact of associated GHG emissions on climate change.

It has been determined that the proposed scheme will not have direct or indirect significant effects to the consumption of material assets or waste.

Road drainage and the water environment

Impacts

- If not adequately controlled, debris and run off from the works could be suspended in the surface water, in the event of a flooding incident, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses, if not controlled; and,
- There is potential for flooding to occur within the works area.
 - In the event of a flooding incident, the works will carry an increased risk of allowing fine sediments/debris to become mobilised in surface water.

Mitigation

- Appropriate measures will be implemented on site to prevent any potential pollution to the natural water environment (e.g. debris, dust and hazardous substances). This shall include spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel.
- Debris and dust generated as a result of the works will be prevented from entering nearby watercourses or drains, via the use of drain covers, containment boards or similar.
- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.
- Weather reports shall be monitored prior and during all construction activities. In the event of adverse weather / flooding events, all activities should temporarily stop, and only reconvene when deemed safe to do so, and run-off / drainage can be adequately controlled to prevent pollution.

Best practice, as detailed by SEPA's Guidance for Pollution Prevention (GPPs), will always be adhered to onsite. The residual impact for the water environment is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to the water environment.

Climate

Impacts

- Greenhouse gas emissions will be emitted through the use of machinery, material production, materials used (containing recycled and virgin materials), and transporting to and from site.

Mitigation

- Where possible local suppliers will be used as far as practicable to reduce travel time and greenhouse gas emitted as part of the works.
- Vehicles/plant shall not be left on when not in use to minimise and prevent unnecessary emissions being emitted.
- Further actions and considerations for this scheme are detailed in the above Material Assets and Waste.

It has been determined that the proposed project will not have direct or indirect significant effects to climate.

Vulnerability of the project to risks

Given the nature of the works there is no potential for this project to adversely affect the vulnerability of the road, or surrounding area, to potential risks.

It has been determined that the proposed project is not expected to alter the vulnerability of the existing trunk road infrastructure to risk of major accidents or disasters.

Assessment cumulative effects

Amey's current programme of works does not feature any nearby schemes during the period of July 2022, negating the risk of combined effects on nearby receptors, such as vehicular travellers and residential/sensitive properties.

A review of Glasgow City Councils traffic notices has not highlighted any works that may have a potential cumulative effect on the local population or users of the carriageway.

Any future Amey schemes will be programmed to take into account already programmed works, and as such any effect (such as from TM arrangements and potential construction noise) will be limited.

Assessments of the environmental effects

Following assessment and provided that mitigation measures are in place and best practice is followed, the residual impact is deemed neutral and there will be no significant effects on the environment.

The following environmental surveys / reviews have been undertaken:

- A Design Initial Environmental Review of the scheme, undertaken by the Environmental and Sustainability Team at Amey in May 2022.

Statement of case in support of a Determination that a statutory EIA is not required

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) which exceeds 1 hectare in area.

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

The project will not have significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- Construction activities are restricted to the approximate area of 11,000m² of the existing M8 eastbound carriageway, from NS 62552 66464 to NS 63442 66722.
- At end of life, components can be recycled, reducing waste to landfill.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical SMA.
- Road planings will be fully recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- The design option conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location.

Location of the scheme:

- The scheme will be confined within the existing carriageway boundaries and as a result will not require any land take and will not alter any local land uses.
- The scheme is not located within proximity to a “sensitive area” as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Characteristics of potential impacts of the scheme:

- No significant residual impacts are predicted. Disruption due to construction activities are not expected to be significant and will be mitigated as far as is reasonably practicable.

- The successful completion of the scheme will afford benefits to residential properties in proximity, due to improved condition and ride quality of the carriageway surface, and improved carriageway drainage.
- The use of TS2010 road surfacing affords the benefits of a reduction in mid to high frequencies of traffic noise and a reduction in ground vibrations. As a result, ambient noise levels should decrease post construction.

Annex A

“sensitive area” means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004
- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.



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