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Record of Determination

M74 Strathaven Road to Draffan Road

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Project Details

Description

The works are required to maintain the safety and integrity of the M74 carriageway. These works have been advised due to surface course fretting, failing patch repairs and temporary pothole repairs throughout.

Works will involve carriageway surface reconstruction utilising TS2010. Exact treatment depths have yet to be confirmed.

- Milling of existing bituminous material by road planer;
- Additional bituminous material removed by jack hammer where not accessible by planer;
- Road sweeper to collect any loose material;
- HGV for removal and replacement of material;
- Tack/bond coat laid;
- New bituminous material laid by a paver;
- Material compacted using a heavy roller; and,
- Road markings and studs will be applied where necessary.

These works are programmed to take place in August 2021.

The local environmental health team were notified of these works via email (09/06/2021) due to the potential night works.

Location

The scheme is situated on a semi-rural section of the M74 carriageway on the western edge of Blackwood, South Lanarkshire. The National Grid Reference:

- Scheme start NS 79010 42924
- Scheme end NS 78551 44686

Environmental Impact Assessment Record of Determination
Transport Scotland



Image 1 – Site location

Description of Local Environment

Population and Human Health

The M74 is a key route connecting Glasgow and Gretna. The average annual daily flow (AADF) one way in 2020 was 26,032 with 32% of these being Heavy Goods Vehicles (HGV).

The scheme is located on a semi-rural section of the carriageway on the western edge of Blackwood, South Lanarkshire. The ambient noise levels will primarily come from residential activities and agricultural practices.

There are a number of residential properties within close proximity to the scheme works. The closest being approx. 35m east on Carnegie Gardens.

There are no footpaths, Core Paths, Cycle ways or bridleways within the scheme extents.

There is a hard shoulder running along the carriageway.

Biodiversity

The scheme location is flanked to the west by low lying agricultural land with thin areas of trees between the fields and carriageway. To the east is the residential town of Blackwood.

A desktop study using <u>SiteLink</u> has identified Cander Moss Site of Special Scientific Interest (SSSI), designated as a raised bog sits approximately 1km north of the

scheme. The Upper Nethan Valley Woods SSSI and Clyde Valley Woods Special Area of Conservation (SAC) designated for mixed woodland on base-rich soils associated with rocky slopes and wet woodland sit approximately 1.1km east of the scheme.

Amey's Invasive Non-native Species (INNS) Database does not identify any growth of INNS within proximity of the scheme.

A site survey is deemed not necessary due to the fact that works will be restricted to the existing carriageway. The areas of woodland adjacent to the carriageway are also surrounded by roads, isolating them from potential feeding areas. A previous survey conducted by the E&S team in this area found no evidence of protected species shelter.

A small burn is located channelled directly below the carriageway, and then runs parallel to the road as it runs south. The burn is thin and small and appears to have been man-made in some locations. The banks are largely flat or immediately bordered by agricultural land, with no areas of large root overhang that would typically be suitable for holts. No large stones for sprainting were identified. No active field signs of otter or water vole were identified.

Land

The trunk road footprint consists of two northbound and two southbound lanes (works only occurring on Northbound). Road verges are vegetated with low lying grass and thin intermittent strips of scrub/trees. A mixture of agricultural fields and residential properties are present beyond the M74.

Soil

The British Geological <u>society</u> has identified the local bedrock geology of Clackmannan Group and Superficial deposits of Till – Diamicton and glacial sand and gravel.

Scotland's Soil Map shows the soil type in this area as brown earth and non-calcareous gleys.

Water

The Scottish Environment Protection Agency (SEPA) Water Classification Map has identified the Cander Water/White Course Burn (ID -10078) as flowing under the carriageway within the scheme extents. SEPA have given this an overall ecology value of 'Moderate'.

SEPA Flood <u>Maps</u> has identified small areas of the carriageway here that are at risk of surface water flooding within the scheme extents.

Air

The M74 is a key route connecting Glasgow and Gretna. The average annual daily flow (AADF) one way in 2020 was 26,032 with 32% of these being Heavy Goods Vehicles (HGV).

Local air quality is likely to be impacted by road traffic and rural land use activities.

The scheme does not fall within an Air Quality Management Area (AQMA) declared by South Lanarkshire Council.

Climate Change

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).

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.

Material Assets

Table 1 – Materials used

Activity	Material Required	Origin/ Content
Site Construction	Road paint TS2010 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 <u>sources</u> .

Waste

Table 2 - Waste materials

Key Waste Arising from Activities			
Activity	Waste Arising	Disposal/ Regulation	
Site Construction	Road planings Road paint/studs	Uncontaminated road planings generated as a result of the required works, will be fully recycled in accordance with the criteria stipulated	

	within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road <u>Planings</u> . Further on-site investigations of the carriageway condition are required, including Coring and Testing. Due to this, condition of surfacing could not be fully determined, including presence of coal tar. As such, presence of tar is not currently known for this scheme.
	Presence of tar should be confirmed prior to the commencement of the works.
	If testing does not identify any coal tar within the scheme extents, road planings generated as a result of the works may be recovered in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.
	If evidence of tar is identified during further site investigations, any tar-contaminated planings will require removal off site for treatment/disposal at a licenced waste facility. A SEPA consignment note is required.

	SEPA are to be informed at least three days prior to the movement of special waste.
	All materials that can be should be reused throughout the network.

Cultural Heritage

PastMap has not identified any areas of cultural significance in proximity to the scheme.

Description of Main Environmental Impacts and Proposed Mitigation

Population and Human Health

Impacts

- Night works may impact on the residential properties.
- The hard shoulder will likely be closed for the entirety of the works.

Mitigation

- Residential properties that are highlighted on the map will receive a letter drop which details the works timings and activities.
- South Lanarkshire Council's Environmental Health Team have been contacted in advance of the night-time works. This will be carried out by the E&S Team.
- Operatives must be briefed with the Noise and Vibration toolbox talk before starting works.
- Effects from noise should be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers should be checked at regular intervals to ensure efficiency.
- The nosiest works should be scheduled for before 11:00pm if feasible.

Provided that mitigation and best practice are followed the residual impact is deemed to be negligible.

Biodiversity

Impacts

- The works are restricted to the existing footprint of the carriageway, are sufficiently distanced, and there is no direct connectivity between the works area and the designated sites, no impact is predicted.
- There is potential for protected species to be active in the wider area.
- In the case of night-time works, additional lighting required during the construction may adversely impact foraging habits of nocturnal species identified within proximity of the works.

Mitigation

- Operatives must be vigilant for potential presence of protected species. If a
 protected species is sighted within proximity to the works location, work will be
 temporarily suspended, until it has moved on. Any sightings will be reported to
 the E&S Team.
- Oil, fuels and other potential pollutants or poisonous materials will be stored safely on site.
- Artificial lighting will be pointed directly at the works.

Provided that mitigation and best practice are followed the residual impact on biodiversity is deemed neutral.

Land

There will be no excavation or impact on the land as all works will be restricted to the existing carriageway.

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

Soil

No soil will be disturbed during the works as all works will take place on the existing carriageway.

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

Water

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 fuel/chemical spillages through the use of various plant and vehicles, which may adversely impact the water environmental.

Mitigation

- Appropriate measures, as detailed in the Guidance for Pollution Prevention (GPP) 1 and 5 issued by <u>NetRegs</u>, should be implemented to prevent pollution to the natural water environment (e.g. debris, dust sand and hazardous substances) via entering nearby drains.
- Visual pollution inspections of the working area must be conducted in frequency, especially during heavy rainfall and wind.
- Debris and dust generated as a result of the works must be prevented from entering the drainage system. This can be via the use of drain covers or similar.
- Weather reports should be monitored prior to and during the works with all construction activities temporarily halting in the event of adverse weather/flooding event. The works should only continue when it is deemed safe to do so and runoff/drainage can be adequately controlled to prevent pollution.

Provided mitigation is followed the residual impact of works on the water environment is deemed neutral.

Air

Impacts

- The use of vehicles and plants emitting carbon emissions may temporarily affect air quality.
- On site construction activities carry a potential to produce airborne particulate matter that may have a slight impact on local air quality levels.

Mitigation

- Best practice measures will be adopted for the duration of the scheme. Best practice measures will include but not limited to:
 - Vehicle and plant servicing/checks as per manufacturing and legal requirements;
 - Adoption of drive green techniques;
 - Route preparation and planning.
- When not in use plant and vehicle will be switched off.
- 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.

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

Climate Change

Impacts

• Greenhouse gas emissions will be emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials).

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 section 8 Material Assets.

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

Material Assets

Impacts

- Contribution to resource depletion through use of virgin materials;
- Greenhouse gas emissions generated by material production and transporting to and from site;
- Transportation and recovery of planings will require energy deriving from fossil fuel.

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.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical stone mastic asphalt (SMA). As a result, the use of TS2010 should reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources.

Circular Economy

The design life for the TS2010 surfacing proposed is estimated to be 20 years. This will reduce the requirement for maintenance to this section of road over the period.

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

Waste

Impact

• Limited quantity of waste from sweeping will arise requiring disposal.

Mitigation

- Road planings generated will be recovered by a licenced contractor for reuse and/or recycling in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.
- Road sweeping waste will be treated at a licenced facility to separate useful materials such as stone/aggregate as far as reasonably practicable, recovering this waste and diverting it from landfill.

Cultural Heritage

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

Vulnerability of the Project to Risks

As the works will be limited to the like-for-like replacement of the carriageway pavement there is no change to the vulnerability of the road to the risk or severity of major accidents / disasters that would impacts on the environment.

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.

Cumulative Effects

There are no schemes in close proximity to this location which will create a cumulative impact to the local environment.

Assessments of the Environmental Effects

Provided that mitigation measures and best practice are followed the residual impact is deemed neutral.

The local environmental health team were notified of these works via email (09/06/2021) due to the potential night works.

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) exceed 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 19,288m² area of existing carriageway.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- 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 (replacing the defective surfacing) conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location over approximately 20 years.

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 situated in whole or in part in a "sensitive areas" as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Characteristics of potential impacts of the scheme:

- As the works will be limited to the like-for-like replacement of the carriageway pavement, there is no change to the vulnerability of the road to the risk or severity of major accidents / disasters that would impact on the environment.
- 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 road users.

• 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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