SCOTTISH EXECUTIVE

M80 Stepps to Haggs

Environmental Statement
Non-Technical Summary
2004

JACOBS BABTIE

Introduction

The Scottish Executive Enterprise, Transport and Lifelong Learning Department has developed outline specimen design proposals to upgrade the A80 Glasgow to Stirling Trunk Road between Stepps and Haggs to motorway standard. The scheme will tie-in with the Auchenkilns Junction Improvement Scheme, which lies approximately mid-way between Stepps and Haggs. The scheme is programmed to open in 2010.

An environmental impact assessment of the proposals has been completed as required by the *Environmental Impact Assessment (Scotland) Regulations 1999*. The findings of the environmental impact assessment have been published by the Scottish Executive as an Environmental Statement, along with draft Statutory Orders, which are documents necessary to obtain the required approvals to construct the new scheme.

This booklet comprises a Non-Technical Summary of the Environmental Statement and is a requirement of the Regulations. It summarises the key issues arising from the environmental impact assessment and seeks to present the main findings in an easily understandable form.

The location and alignment of the proposed scheme is shown on the fold-out plans contained in this Non-Technical Summary.

Need for the Scheme

The A80 forms part of the strategic road network between Glasgow , Stirling and the North East. It is one of the most heavily used roads in Scotland, carrying both strategic and commuter traffic. The section of road between Stepps and Haggs is an all purpose dual carriageway and is the only non-motorway section between Glasgow and the end of the M80 at Dunblane.

During peak hours, the high volume of traffic results in congestion, delays and a poor level of service. It also results in exceptional wear and tear of the road, such that major maintenance works are now required. The existing carriageway alignment, cross section and junction layouts are substandard, and this results in further deterioration in operational conditions and raises concerns over safety. Furthermore, when there is either an incident or a need for maintenance, further congestion and delays are caused due to the lack of carriageway capacity or suitable diversion routes.

Scheme Objectives

In order to improve the operation of the route, considerable environmental, engineering and economic assessment work has been undertaken since the 1970s.
The following key objectives against which the proposed scheme has been assessed are:

- **Environment:** To reduce the impact on the built and natural environment, and lessen the adverse impacts of traffic on people through improved design and effective management of the network.
- **Safety:** To improve safety in the A80 corridor and reduce the risk of accidents, with particular emphasis on reducing conflicts between vehicles, and on reducing conflicts between vehicles and other road users.
- **Economy:** To support sustainable economic activity and get good value for money by reducing delays and improving travel time reliability through the provision of good, quick and reliable strategic road links.
- **Integration:** To complete the Central Scotland motorway network by improving the operational characteristics of the road corridor in line with the Scottish Executive's integrated transport policy and the Scottish Ministers' response to the Central Scotland Transport Corridor Study.
- **Accessibility:** To provide adequate access to facilities, in particular to jobs, and to provide adequate accessibility to freight deliveries, consistent with the strategic role of the scheme corridor (linking North and North East Scotland with the M6 main route to the European markets).

Environmental Considerations

The proposed scheme is located in the Midland Valley of Scotland. This area has long been attractive to settlement due to its relatively high quality agricultural land. Between Stepps and Haggs, the scheme passes the settlements of Stepps, Chryston, Moodiesburn, Mollinsburn, Westfield, Dalshannon, Condorrat, Cumbernauld, Castlecary, Banknock and Haggs.

There are no landscape designations in the vicinity of the scheme, although a non-inventory designed landscape has been identified at Banknock House. There are no nationally designated ecological sites, but twenty Sites of Interest to Nature Conservation lie in proximity to the scheme, in addition to a range of other non-statutory sites of ecological interest.

A nationally important geological site, Mollinsburn Road Cuttings Site of Special Scientific Interest, is located where the existing A80 crosses an exposed basaltic dyke. No other geologically sensitive sites have been identified, but there is evidence of past mining activity that will affect construction activities.

Historic sites in the locality include a Roman fort at Mollins, the Antonine Wall and two associated sites (Garnhall 1 and Castlecary temporary camp), and the Forth and Clyde Canal, all of which are scheduled monuments of national importance. The dismantled Monklands and Kirkintilloch Railway is also of national importance, although it is not formally scheduled, and further sites of national importance are located at Castle Cary tower house and Castlecary House souterrain. There are a number of sites of regional, local or less than local importance.

The proximity of residential settlements to passing traffic on the A80 results in relatively high traffic noise levels and raises concerns about air quality for residents.

The high volume of traffic and high percentage of heavy goods vehicles also causes delays, congestion and road safety fears for vehicle travellers on the A80 and results in traffic diverting onto the local road network when incidents or queues occur, raising environmental concerns along these local routes.

The Proposed Scheme

An outline road design and alignment have been developed for the scheme as part of the procurement process. This is termed the 'specimen design' and is illustrated on the fold-out pages contained in this Non-Technical Summary. The specimen design will be used by the selected Contractor to prepare a detailed design for construction of the scheme.

For assessment purposes, the proposed scheme can be considered as three discrete sections as follows:

Stepps to Mollinsburn - approximately 8.0km of off-line route diverging from the existing M80 at Stepps, passing through agricultural land to the north of Muirhead, Moodiesburn and Chryston and rejoining the route of the existing A80 at Mollinsburn.

Components include:

- A dual two-lane carriageway (each, 7.3m wide), with hard shoulders (3.3m wide), a central reserve (4.0m wide) and roadside verges (a minimum of 1.5m wide).
- A new Interchange at Mollinsburn, with realigned side roads and three new overbridges.
- New structures at Hornshill Junction, Drumsack Road, Lindsaybeg Road, Strathkelvin Railway Path and Auchengeich Road.

Mollinsburn to Auchenkilns - approximately 2.7km of on-line upgrade along the route of the existing A80, extending from Mollinsburn to tie-in to the western side of Auchenkilns Junction currently under construction.

Components include:

- A dual three-lane carriageway (each, 11m wide) between Mollinsburn Interchange and Low Wood and a dual two-lane carriageway (each, 7.3m wide) between Low Wood and Auchenkilns Junction, with hard shoulders (3.3 m wide, except at the retained Low Wood structures), a central reserve (4m wide) and roadside verges (a minimum of 1.5m wide).
- Improvements to Low Wood Junction and closure of Dalshannon Junction.
- Reconstruction of North Road Overbridge across the M80 along its existing alignment and reconstruction of two culverts, including the Luggie Water culvert.
- Retention of Kirk Place Footbridge and the Low Wood North and South structures.

Auchenkilns to Haggs - approximately 7.3km of on-line upgrade extending from the east side of Auchenkilns Junction to the existing M80 at Haggs.

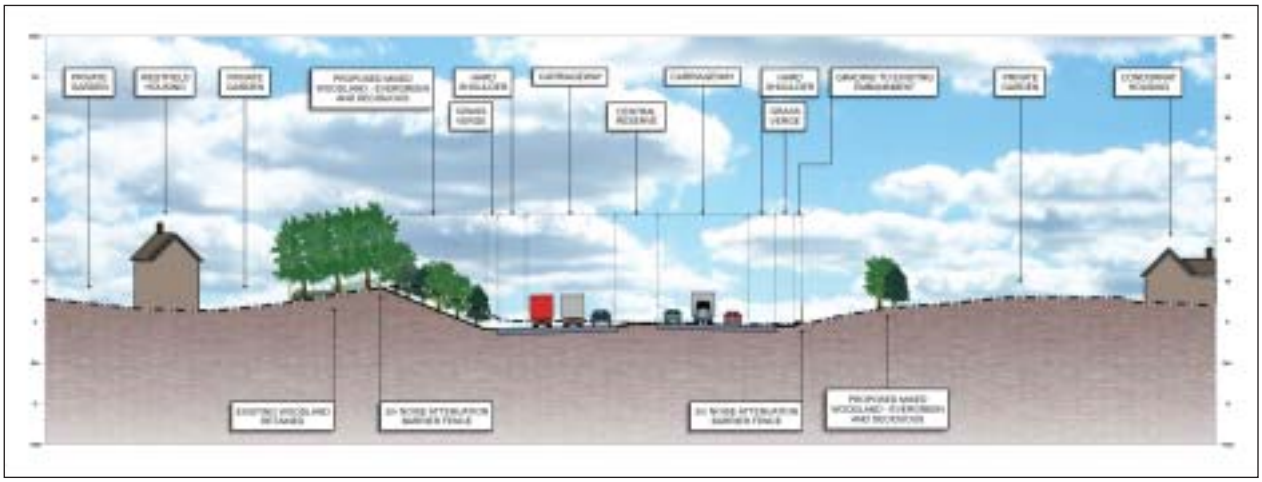
Components include:

- A dual two-lane carriageway (each, 7.3m wide) with a climbing lane on the eastbound carriageway between Castlecary and the tie-in at Haggs (resulting in an 11m-wide carriageway) and a climbing lane on the westbound carriageway between Castlecary and Old Inns (resulting in an 11m-wide carriageway), with hard shoulders (3.3m wide where feasible), a central reserve (4m wide) and roadside verges (a minimum of 1.5m wide). At Castlecary Viaduct, emergency access lanes (3m wide) will diverge from the main carriageway, passing around the back of the viaduct piers.
- Reconstruction of Glenview Avenue Overbridge.
- Retention of Ravenswood Footbridge, Castlecary Overbridge, the Forth and Clyde Canal crossing and Kilsyth Road Overbridge.
- Retention and widening of all other structures, including three overbridges and three pedestrian underpasses.

In addition to the above works, the following components will be included throughout the scheme:

- Construction of a road drainage system with retention ponds for the treatment and attenuation of road run-off and accidental spills.
- Construction of noise attenuation screening (substantial fences and/or earthworks) and the use of low noise road surfacing.
- Extensive landscape planting.

The total length of the scheme is approximately 18 km



The proposed scheme will provide very significant benefits to road users when it opens in terms of journey times and reliability. However, in line with Scottish Ministers' objectives of striving to stabilise traffic volumes, the scheme is not intended to meet unconstrained levels of traffic growth beyond the year of opening.

The recent white paper 'Scotland's Transport Future' highlights potential measures that may constrain traffic across the wider network. Should high growth predictions occur, Integrated Demand Management measures will be introduced to lock in the benefits provided by the scheme.

Background

Studies to investigate the feasibility of upgrading the A80 to motorway standard have been ongoing since the 1970's. The Stepps by-pass, linking the M8 in Glasgow to the A80 at Stepps, was opened to traffic in 1992. Various route options have been considered to complete the remaining section between Stepps and Haggs. By the mid 1990s, these had been reduced to two options which fulfilled the scheme objectives of the time. These options (one on-line and the other off-line) were subjected to a full comparative assessment and considerable public consultation in 1996, culminating in a consultation forum. Whilst both options were broadly comparable in terms of engineering and cost, the inability to mitigate environmental impacts on the off-line option led to the adoption of the on-line option as the preferred route. This decision was confirmed following the Strategic Roads Review published by the Scottish Executive in 1999.

A separate study, the Central Scotland Transport Corridor Study, was undertaken in 2001 to assess the future transport needs of Central Scotland and provide an integrated transport strategy in accordance with the Government's policies on sustainable development. The resultant Decisions announced to the Scottish Parliament in January 2003 confirmed the need to upgrade the A80 between Stepps and Haggs along the preferred on-line route.

Alternative Route Options

The Stepps to Mollinsburn section of the scheme offered some scope for the development of alternative options. The most significant options considered were at Hornshill Junction and Mollinsburn Interchange. The on-line section offered less scope, and the most significant consideration was the alignment at Castlecary. The Do-minimum option, which comprises major maintenance and reconstruction works, was also assessed for comparative purposes. The proposed scheme was found to best satisfy the scheme objectives.

Environmental Impact Assessment

The environmental impact assessment has been carried out as an integral part of scheme design and appraisal in order to minimise environmental impacts. The purpose of the assessment is to investigate the likely impact of the preferred route on the biological, physical and historic environment as well as on human beings and current or future use of the environment, and to assist in the decision making process. The environmental impact assessment has been undertaken for the proposed scheme and is reported in full in the Environmental Statement.

The Environmental Statement presents the existing (baseline) environmental situation, assesses the impact that the proposed scheme is likely to have on the baseline situation and recommends a variety of measures to prevent or reduce the predicted impacts (mitigation measures).

Consultations

As part of the environmental impact assessment process, a comprehensive consultation exercise was carried out with a range of government agencies, non-government organisations and landowners. Each was contacted to inform them of the proposals and to request comments and relevant information concerning the scheme. This exercise assisted in the development of the specimen design, identification of possible environmental impacts and the selection of appropriate study methods and mitigation measures. The consultation responses have also enabled the assessment to focus on the most important environmental issues.

Land Use

Between Stepps and Mollinsburn, the proposed scheme will pass through predominantly agricultural land, interspersed with areas of woodland and open space. From Mollinsburn to Haggs, the scheme will be an on-line upgrade generally within the boundary of the existing road corridor and its associated roadside planting, although a section of the scheme will be constructed partially off-line to the east of Castlecary.

The total land-take required for construction of the scheme and the proposed mitigation measures will be approximately 241 hectares, the majority of which will be required along the off-line section of the scheme, between Stepps and Mollinsburn.

Between Stepps and Mollinsburn, approximately 134 hectares will be required, the majority of which comprises agricultural land (approximately 79 hectares) and woodland/scrub (approximately 13 hectares). It will also result in the loss of some open space used by the community for informal recreation to the north of Moodiesburn, at Mollinsburn, from Burnbrae Woodland and from the community woodland at Burnbrae Farm causing a moderate adverse impact.

Between Mollinsburn and Haggs land-take has been minimised through scheme design, such that most changes in land use are a result of measures to mitigate landscape and visual impacts, ecological, noise and water quality impacts. The total land-take required in this section is estimated to be approximately 107 hectares, of which approximately 52 hectares is existing carriageway. A further 32 hectares is plantation, woodland and scrub established along the existing A80.

Four private residential properties and a commercial garage will need to be demolished, resulting in a substantial adverse impact. Compensation will be made available to the owners.

Overall, the loss of mainly agricultural land on the off-line section is considered to be a moderate adverse impact, with little impact on land use elsewhere.

Geology, Soils and Contaminated Land

The proposed scheme lies partially within the Mollinsburn Road Cuttings Site of Special Scientific Interest, which is designated for its geological interest. Liaison with Scottish Natural Heritage and the presence of a geological clerk of works during construction will help to minimise any impacts. No significant adverse impact is envisaged, and no other site of geological interest will be affected.

Detailed site investigations indicate that mine workings have taken place in limestones, fireclays and coals southwest of Cumbernauld Village, and at Castlecary, Castlecary Overbridge and Haggs Junction. These will need to be stabilised by grouting or other means prior to construction of the scheme.

Minor occurrences of contaminated land have been identified. Remedial management measures will ensure that any risk to site workers and the environment are minimised.

Peat deposits crossed by the scheme that require removal are relatively shallow and not extensive. Potential impacts on associated groundwater, ecological and cultural heritage interests have been taken into account.

Water Resources

The proposed scheme will pass within the vicinity of a number of watercourses, including Bothlin Burn, Luggie Water, Red Burn, Bonny Water, and the Forth and Clyde Canal. Some are open watercourses in rural areas while others, particularly along the on-line section of the proposed scheme, are more heavily modified and partially culverted.

Untreated road surface water run-off from the existing A80 containing pollutants such as suspended solids, hydrocarbons (e.g., oils), heavy metals and de-icing agents currently drains to the majority of these watercourses. The drainage system for the proposed scheme will be designed in accordance with the best practice principles contained in 'Sustainable Urban Drainage Systems: Design Manual for Scotland and Northern Ireland' (CIRIA C521), and will include filter drains, catch pits, oil interceptors and retention ponds to remove pollutants and suspended solids.

Between Stepps and Mollinsburn, there will be a net reduction in pollutants reaching watercourses that presently receive drainage from the existing A80, resulting in a net benefit to those watercourses (notably, Bothlin Burn). Along the off-line section of the scheme, some watercourses will receive pollutants where there is no current input. This will result in localised increases in pollutants discharging into some small watercourses in this area. The proposed level of treatment will ensure that the risk of pollution from a serious accidental spillage is at an acceptable level.

Between Mollinsburn and Haggs, all road drainage from the proposed scheme will eventually enter Luggie Water and Bonny Water after treatment by the drainage system. This will result in lower concentrations of pollutants and suspended solids entering the watercourses than at present. Additionally, the risk of pollution from a serious accidental spillage will be reduced from existing levels to an acceptable level.

The road drainage system will be designed to ensure that the risk of flooding and effects on downstream water flow will be negligible and no worse than at present. All drainage design and the resultant pollutant discharges are acceptable to the Scottish Environment Protection Agency.

No reduction in overall groundwater quality is considered likely and any adverse impacts will be localised. Similarly, any localised impacts on groundwater flows and levels, particularly in relation to peat deposits, will be negligible or slight.

Ecology and Nature Conservation

There are no nationally designated ecological sites within the vicinity of the scheme. Mollinsburn Road Cuttings Site of Special Scientific Interest is of national importance to geology, but is of only local ecological value. There are, however, twenty Sites of Interest for Nature Conservation within or adjacent to the survey corridor. Of these, two will be slightly adversely affected: a small area of Garnkirk Woods and the Luggie Water at the existing A80 crossing.

Much of the existing A80 corridor contains areas of roadside planting, which provides a wildlife corridor facilitating the movement of animals through habitats. The removal of this vegetation may have a temporary effect, but as it will be replaced by new planting, no long-term impact is envisaged.

Otters, which are protected under European legislation, use many of the watercourses in the vicinity and may be temporarily affected by construction works. No other protected species will be substantially affected.

Larger watercourses support salmonids (e.g. salmon and trout). Reconstruction and lengthening of culverts below the existing A80 and the construction of new crossings may affect these species in the short to medium term, but will be conducted outside sensitive spawning times and will provide an opportunity to enhance aquatic habitat in the longer-term, such that no long term adverse impact is envisaged.

Species of bats, amphibians and birds, as well as badgers, are all present in areas adjacent to the proposed route. Impacts are very small and the design and operation of the road has taken the continued presence of these species into consideration.

Landscape and Visual Issues

The landscape in the vicinity of the proposed scheme is not designated for its landscape value at a local, regional or national level.

The rural landscape between Stepps and Mollinsburn is generally of medium to high sensitivity and significant adverse landscape impacts will occur due to the introduction of the road into the rural landscape. These impacts will include disruption of the rolling landform, severance of field patterns, loss of woodland and an overall dilution of the rural character of the landscape. Views of the road will be obtained from scattered farmsteads and the surrounding settlements of Stepps, Auchinloch, Chryston, and Moodiesburn.

Generally, between Mollinsburn and Haggs the landscape is of lower sensitivity, although areas at Castlecary and Dunns Wood, and along the Forth and Clyde Canal corridor, are of medium to high sensitivity. The main landscape impacts within this section will occur due to the loss of established roadside planting and the introduction of new cuttings, noise bunds and barriers. The road will become more suburban in character and the loss of woodland screening will result in an opening of views of the road from some properties. At Castle Glen, the realignment of the road will result in the loss of significant areas of woodland on the steep sided Castle Glen.

Embankments and cuttings will be graded out within the landtake and where practicable land alongside the road corridor will be returned to agricultural use. Wherever possible, existing woodlands will be retained and managed to improve long term screening and biodiversity. New hedgerows, hedgerow trees and woodlands will be planted to provide additional screening, a link to existing field patterns and to assist in the integration of the road corridor and associated structures.

In the year of opening, approximately 340 buildings and 14 areas of open space may experience significant adverse visual effects. It is anticipated that in time, once the planting has matured and is fully effective, an estimated 34 buildings and 6 outdoor sites will be affected by significant adverse visual effects, and there will be a beneficial impact on many other receptors.

Air Quality

Air quality monitoring indicates that existing air quality in the vicinity of the A80 between Stepps and Haggs is affected by local road traffic as well as other sources, including a substantial contribution from outside the area.

Concentrations of the two key pollutants associated with vehicle emissions (nitrogen dioxide and fine particles (PM_{10})) are predicted to fall over the next few years, both with and without the scheme in place, due to a range of measures applied at national level, such as improvements in vehicle technology and emission standards.

Between Stepps and Mollinsburn, a large number of properties adjacent to the existing A80 will also benefit from improved air quality as traffic is re-routed away from the A80. A relatively small number of properties along the proposed route between Stepps and Mollinsburn will experience a deterioration in air quality due to the road re-alignment.

Between Mollinsburn and Haggs, the proposed scheme will result in an insignificant impact at the majority of properties. Of the remaining properties, some located close to the A80 are predicted to show an improvement in air quality, whilst others show a worsening of air quality. The extent of change at each property is dependent on the proximity of the property to the new road.

In terms of total emissions, the proposed scheme will result in a net increase in the emission of pollutants associated with the increase in road traffic. However, the impact on regional and total UK emissions will be negligible.

Traffic Noise and Vibration

Traffic noise is a potential problem for residents of properties that are situated near to the A80, and some living close to the A80 may also be bothered by nuisance vibration.

Noise barriers and/or earth bunds will be constructed at a number of locations along the route to provide screening from traffic noise for properties, notably in Mollinsburn, Westfield, Dalshannon, Condorrat, Balloch, Westerwood, Cumbernauld, Cumbernauld Village, Castlecary, Banknock and Haggs. Low noise surfacing will also result in a reduction of traffic noise.

Approximately 700 properties are predicted to benefit from reduced noise levels along the existing A80 between Stepps and Mollinsburn, where traffic flows will fall significantly once the scheme is operational. Approximately 300 properties are predicted to be adversely affected by a substantial increase in noise levels as a result of the new section of the scheme.

Almost all residential properties along the proposed scheme between Mollinsburn and Haggs (approximately 2500) will experience a decrease in noise levels compared to current levels, mainly due to the mitigation measures put in place. Some properties (approximately 100) along the local road network within the study area will experience an increase in noise as a consequence of general traffic growth which would occur regardless of whether the scheme is built.

Overall, the proposed scheme will result in a mostly beneficial impact on the area, when compared to the existing situation. Approximately 3200 properties will experience a reduction in noise levels whilst approximately 400 properties will experience an increase in noise levels.

Cultural Heritage

The most important ancient monument in the study area is the Antonine Wall, the Roman frontier system dating to the mid 2nd Century A.D, which is a scheduled monument and of international significance. Its universal value has been given recognition by Scottish Ministers' support for its nomination for World Heritage status. An unscheduled part of the Wall traverses the proposed scheme at Castlecary. There are also two associated Roman sites, Garnhall 1 and Castlecary temporary camp, and an unconnected Roman fort has been identified adjacent to the A80 at Mollins. These sites are all scheduled monuments of national importance.

More recent sites from the industrial era comprise the dismantled Monklands and Kirkintilloch Railway, which is not scheduled but is of national importance, and the Forth and Clyde Canal, which is a scheduled monument. Two further sites of national importance are located at Castlecary, comprising Castle Cary tower house, which is an A-listed building and Castlecary House souterrain (a late prehistoric underground chamber), which is a scheduled monument.

In total, one hundred sites of archaeological interest were identified within the study corridor. Of these, twenty-two may be affected by direct or indirect effects. Impacts significant to cultural heritage comprise the severe impacts on the regionally important South Broomknowes peat basin (of interest for the possible preservation of organic remains), part of which will be lost to the proposed scheme, the nationally important Monklands and Kirkintilloch Railway, from which an approximate length of 200m will be lost and which will be severed, and the slight impact on the nationally important Mollins Roman Fort, from which a small part will be lost.

A further eight sites will be affected by impacts of minor significance, including direct effects on one regionally important and six locally important sites. Eleven sites, including four regionally important sites will be affected by impacts which will not be significant to cultural heritage.

A programme of action will be taken forward by Historic Scotland to ensure that where features of cultural heritage interest are unavoidably lost, they are excavated, recorded and analysed before the start of construction.

Landscaping and other measures to reduce the visual impacts of the scheme will mitigate any potential impacts on the setting of cultural heritage sites.

Pedestrians, Cyclists, Equestrians and Community Effects

There are a number of paths and rights of way between Stepps and Mollinsburn linking the rural area to the north of Moodiesburn with the community facilities in Chryston, Muirhead and Moodiesburn. The paths are well used by pedestrians, cyclists and equestrians, particularly at weekends. Between Mollinsburn and Haggs, there are several existing overbridges, footbridges and underpasses across the A80. These routes link settlement areas containing community facilities and schools, and are also well used. The towpath along the Forth and Clyde Canal beneath the A80 is well used for recreational purposes.

Between Stepps and Haggs, many of the paths will be severed by the proposed scheme, but these will be diverted to cross the road at new overbridges or underpasses. The resultant overall impact on journey lengths and times will be minimal. Only two footpaths will be diverted to a degree that will adversely affect pedestrians classified as vulnerable (children and the elderly). Other user-groups will not be affected. Pedestrians and others travelling between Mollinsburn, Westfield, Gartferry Road and Moodiesburn will benefit from improved safety by the provision of new footpaths.

The proposed scheme will cause no new community severance, either along the off-line section between Stepps and Mollinsburn, or along the on-line section between Mollinsburn and Haggs, as all existing crossing points on the A80 will be retained. The existing severance of communities on either side of the existing A80 between Stepps and Mollinsburn (at Chryston, Moodiesburn and Muirhead) will be substantially reduced as a result of significantly lower traffic flows on the A80.

Following construction of noise barriers and bunds, and once planting has become established, there will be a slight adverse to negligible impact on the amenity experienced by pedestrians and others along the majority of the scheme with substantial adverse impacts experienced by those using a number of routes between Stepps and Mollinsburn, primarily as a result of increased noise levels from traffic.

The overall impact on pedestrians and others will be significant to moderate adverse between Stepps and Mollinsburn, and slight adverse to negligible impact between Mollinsburn and Haggs.

Vehicle Travellers

Based on information on traffic flows and journey speeds, current levels of driver stress experienced by drivers on the A80 and on some of the side roads are assessed to be high, both during peak hours and for the majority of the day. This situation is likely to get worse as traffic levels increase.

With the scheme in place, driver stress levels will remain high, but are predicted to be lower than at present, due to the improved alignment, freer flow conditions and better signing.

Views from the proposed off-line section of the scheme between Stepps and Mollinsburn will be more varied, open and rural in character than those from the existing A80. Between Mollinsburn and Haggs, measures to attenuate noise and new planting will restrict views considerably more than at present and give a more urban character to the majority of the route.

Overall, the view from the road will be slightly less varied and interesting between Mollinsburn and Haggs and more varied and interesting between Stepps and Mollinsburn than existing views.

Disruption due to Construction

Disruption due to construction refers to the temporary impacts on people and the environment that may arise during construction of the scheme, such as an increase in noise and vibration, dust, impact on views, loss of amenity, temporary severance, and effects on water resources, ecology or cultural heritage.

Noise and vibration are most likely to affect properties located in close proximity to the proposed scheme. The extent of the impact will vary throughout the construction period and will depend on the Contractor's methods of construction. A comprehensive mitigation strategy to reduce potential impacts will be established, with which the Contractor must comply. The strategy will be based on adherence to best practice and will include a requirement to adhere to noise levels set by the appropriate local authorities and the monitoring of compliance throughout construction.

Dust may be generated during construction, particularly during earth-moving activities. Properties most likely to be affected are those within 100 metres of the works. Careful management will be required to avoid significant impacts. Measures will include the use of water spraying, and the appropriate location and rapid stabilisation of stockpiles.

A traffic management plan will ensure that two lanes of traffic are maintained in each direction on the A80 from 6am until 8pm, and penalties will be imposed on the Contractor for any reduction in the level of service. The plan will minimise the risk of congestion and should ensure no significant impact on travellers.

Where practicable, access points across the proposed scheme will remain open to vehicles, pedestrians, cyclists and equestrians throughout construction. Where this is not possible, diversion routes will be provided.

Adverse impacts on ecology will be mitigated by the use of protective fencing and careful programming to avoid impacts on protected species. The details of these measures will be agreed with Scottish Natural Heritage.

Potential impacts on water resources during general construction and the diversion or realignment of watercourses and culverts will be minimised by the early construction of retention ponds, and by adherence to best practice and Scottish Environment Protection Agency requirements. This will include the need to monitor water quality prior to and during construction.

The most significant landscape and visual impacts are likely to be between Stepps and Mollinsburn and where there is a removal of existing roadside planting and mounding in proximity to residential areas.

Safety and security issues associated with traffic disruption and the proximity to residential areas may arise. Any risks will be minimised by adherence to current safety practices and legislation as well as measures such as the provision of secure fencing and communication with local residents.

Policy and Plans

The proposed scheme has been assessed for compliance or potential conflict with the relevant provisions of the Development Plan framework, established by the twelve plans applicable to the proposed scheme. The scheme is in accordance with the key aims and objectives of relevant national and regional planning policy. The proposed scheme is identified in the National Planning Framework as key to the completion of the Central Scotland motorway network, and as an important component of the Strategic Transport Network Development Proposals in the Glasgow and Clyde Joint Structure Plan 2000. It is also safeguarded in the Approved and Proposed Alteration to the Falkirk Structure Plan.

The principle of upgrading the A80 between Stepps and Haggs is supported by several emerging Local Plans, notably the Finalised Northern Corridors Local Plan 2000 and the Falkirk Council Consultation Draft Council Wide Local Plan 2003, although none of the adopted Local Plans make specific reference to the scheme.

Support for the proposed scheme noted in the National, Strategic and Local Plans must be balanced against other issues and policy objectives, where the scheme is not entirely in accordance with policy objectives, and measures are required to mitigate potential impacts. These relate to potential impacts on the local landscape, some ecological and cultural heritage receptors and some residents living in close proximity to the scheme. On balance, it is considered that the long-term national and regional benefits outweigh the mainly localised adverse impacts of the scheme

Scheme Procurement

It is anticipated that the proposed scheme will be procured by means of a Design and Build contract. The Contractor will complete the detailed design and construct the road.

The Environmental Statement is based on a specimen design. The final design will result in no material change to impacts described in the Environmental Statement. Otherwise, an addendum to the Environmental Statement will be required.

Comments

Comments on the proposals and the environmental impact of the proposed scheme can be made in writing within eight weeks of the publication of the Environmental Statement to:

Chief Road Engineer
Scottish Executive Enterprise,
Transport and Lifelong Learning Department
Trunk Road Design and Construction Division
Victoria Quay
EDINBURGH
EH6 6QQ

The Environmental Statement, together with the draft Road Orders, has been made available by the Scottish Executive. Copies are available for public viewing at the above address, and at the following addresses:

North Lanarkshire Council
Fleming House
2 Tryst Road
Cumbernauld
G67 1JW

Falkirk Council
Municipal Buildings
West Bridge Street
Falkirk
FK1 5RS

East Dunbartonshire Council
Tom Johnston House
Civic Way
Kirkintilloch
G66 4TJ

Abronhill Library
17 Pine Road
Cumbernauld
G67 3BE

Chryston Library
Cloverhill Place
Chryston
G69 9DQ

Cumbernauld Central Library
8 Allander Walk
Cumbernauld
G67 1EE

Moodiesburn Library
Glenmanor Avenue
Moodiesburn
G69 0DL

Stepps Library
School Road
Stepps
G33 6HF

Copies may also be purchased for £150 or on CD for £10 from the Scottish Executive (address as above). Further copies of the Non-Technical Summary are available free of charge.

Proposed Scheme Plan

LEGEND

ENVIRONMENTAL CONSTRAINTS

ECOLOGY

- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- ANCIENT, LONG ESTABLISHED AND SEMI-NATURAL WOODLAND SITES
- SITE OF IMPORTANCE FOR NATURE CONSERVATION (SINC)

CULTURAL HERITAGE

- SCHEDULED MONUMENTS
- LISTED BUILDINGS
- ARCHAEOLOGICAL SITES OF REGIONAL & NATIONAL IMPORTANCE

OTHER

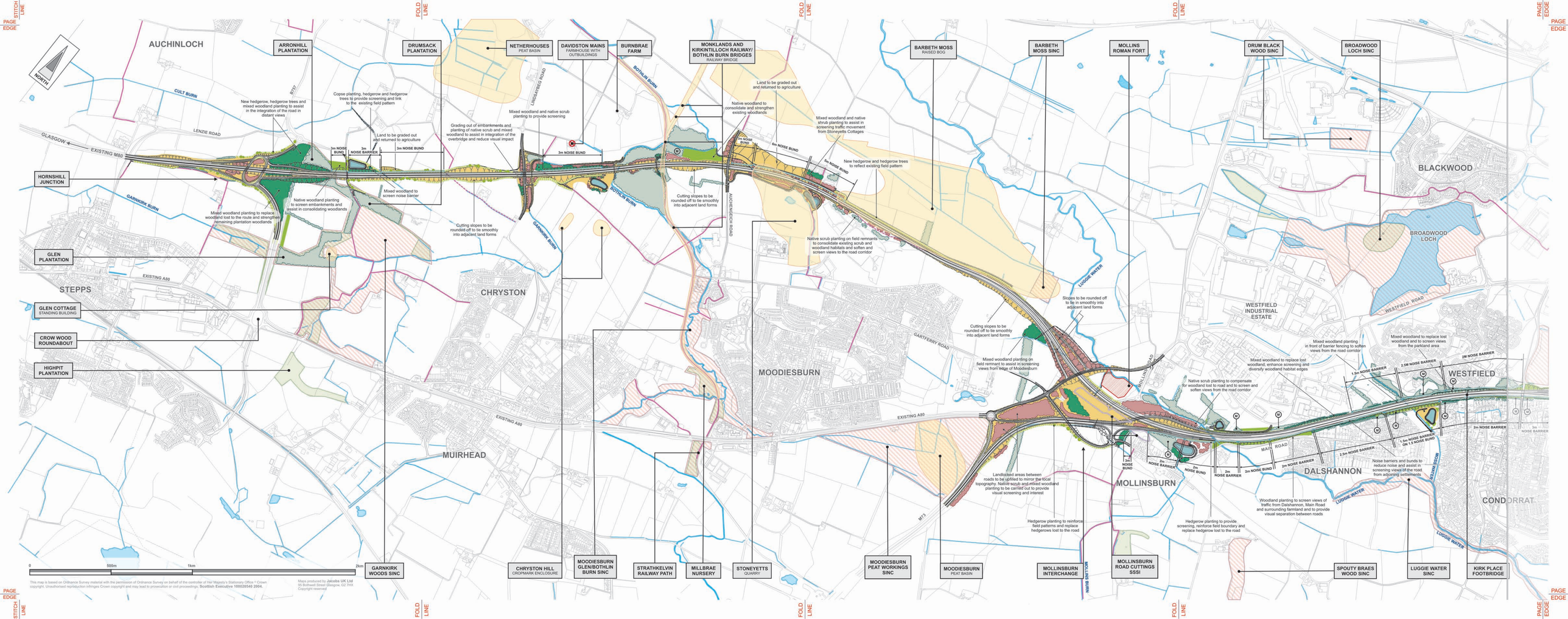
- WATERCOURSES
- WATERBODIES
- RIGHTS OF WAY

PROPOSED SCHEME

- PROPOSED ROUTE

MITIGATION

- EXISTING WOODLAND RETAINED
- EXISTING AMENITY TREE AND SHRUB PLANTING
- MIXED WOODLAND - EVERGREEN AND DECIDUOUS
- NATIVE WOODLAND MAINLY BROADLEAF
- NATIVE SCRUB
- HEDGE/HEDGE WITH TREES
- GRASS VERGE
- WILDFLOWER/GRASSLAND
- NOISE BARRIER/BUND
- MANAGEMENT OF EXISTING WOODLAND
- RETENTION PONDS



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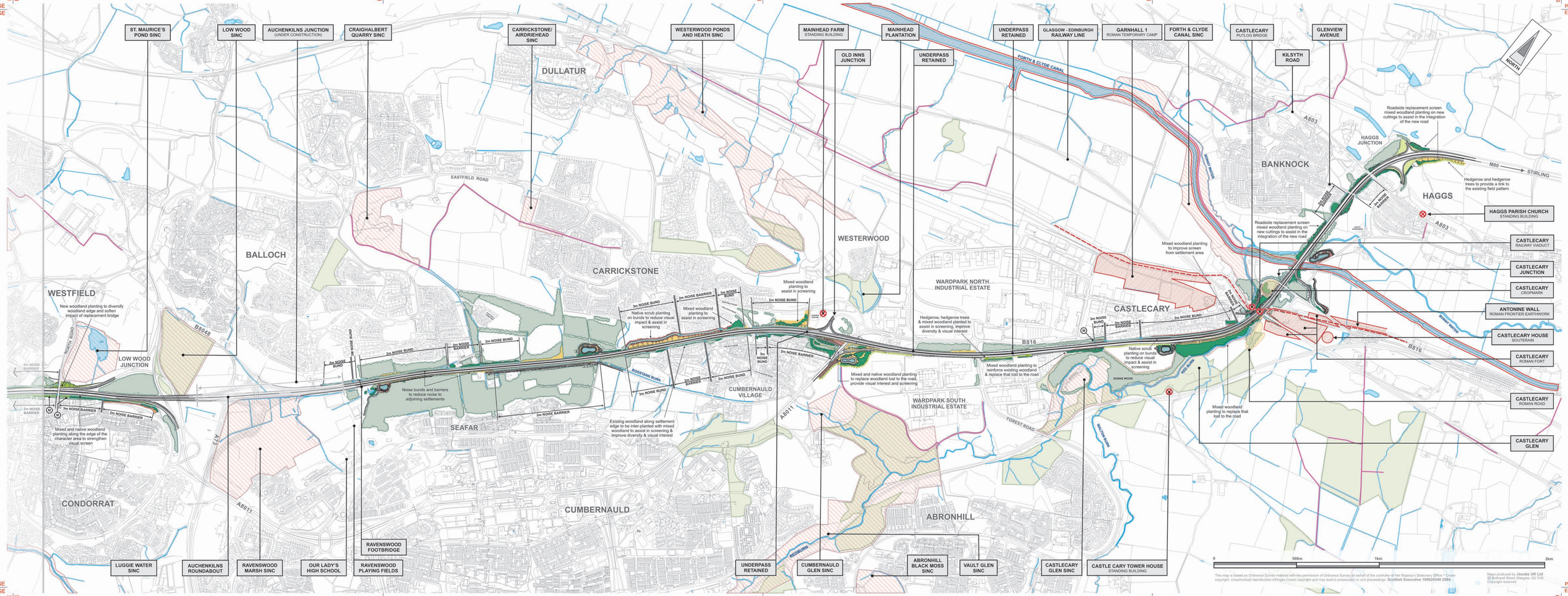
PAGE EDGE
FOLD LINE
STITCH LINE
ST. MAURICE'S POND SINC
LOW WOOD SINC
AUCHENKILNS JUNCTION (UNDER CONSTRUCTION)
CRAIGHALBERT QUARRY SINC
CARRICKSTONE/ AIRDRIEHEAD SINC
WESTERWOOD PONDS AND HEATH SINC
MAINHEAD FARM STANDING BUILDING
MAINHEAD PLANTATION
OLD INNS JUNCTION
UNDERPASS RETAINED
UNDERPASS RETAINED
GLASGOW - EDINBURGH RAILWAY LINE
GARNHALL 1 ROMAN TEMPORARY CAMP
FORTH & CLYDE CANAL SINC
CASTLECARY PUTLOG BRIDGE
KILSYTH ROAD
GLENVIEW AVENUE
DULLATUR
EASTFIELD ROAD
BALLOCH
WESTFIELD
New woodland planting to diversify woodland edge and soften impact of replacement bridge
NORTH ROAD
LOW WOOD JUNCTION
B8049
CARRICKSTONE
WESTERWOOD
FORTH & CLYDE CANAL
WARDPARK NORTH INDUSTRIAL ESTATE
BANKNOCK
A803
HAGGS JUNCTION
M80
STIRLING
HAGGS
HAGGS PARISH CHURCH STANDING BUILDING
CASTLECARY RAILWAY VIADUCT
CASTLECARY JUNCTION
CASTLECARY CROPMARK
ANTONINE WALL ROMAN FRONTIER EARTHWORK
CASTLECARY HOUSE SOUTERAIN
CASTLECARY ROMAN FORT
CASTLECARY ROMAN ROAD
CASTLECARY GLEN
CASTLECARY
B816
SCHOOL WATER
Roadside replacement screen mixed woodland planting on new cuttings to assist in the integration of the new road
Hedgerow and hedgerow trees to provide a link to the existing field pattern
Mixed woodland planting to improve screen from settlement area
Native scrub planting on bunds to reduce visual impact & assist in screening
Hedgerow, hedgerow trees & mixed woodland planted to assist in screening, improve diversity & visual interest
Mixed woodland planting to reinforce existing woodland & replace that lost to the road
Mixed woodland planting to replace that lost to the road
Mixed woodland planting to assist in screening
Native scrub planting on bunds to reduce visual impact & assist in screening
Mixed woodland planting to replace woodland lost to the road, provide visual interest and screening
Noise bunds and barriers to reduce noise to adjoining settlements
Existing woodland along settlement edge to be inter-planted with mixed woodland to assist in screening & improve diversity & visual interest
Mixed and native woodland planting along the edge of the character area to strengthen visual screen
3m NOISE BUND
2m NOISE BARRIER
2m NOISE BUND
ROSSTARK BURN
CUMBERNAULD VILLAGE
SEAFAR
A8011
A73
CONDORRAT
CUMBERNAULD
WARDPARK SOUTH INDUSTRIAL ESTATE
FOREST ROAD
WALTON BURN
DUNNS WOOD
RED BURN
ABRONHILL
ROBBURN
LUGGIE WATER SINC
AUCHENKILNS ROUNDABOUT
RAVENSWOOD MARSH SINC
OUR LADY'S HIGH SCHOOL
RAVENSWOOD FOOTBRIDGE
RAVENSWOOD PLAYING FIELDS
UNDERPASS RETAINED
CUMBERNAULD GLEN SINC
ABRONHILL BLACK MOSS SINC
VAULT GLEN SINC
CASTLECARY GLEN SINC
CASTLE CARY TOWER HOUSE STANDING BUILDING
NORTH
0
500m
1km
2km
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