



A90 Dualling Balmedie to Tippetty

Non-Technical Summary

August 2007

PROPOSED DUALLING OF THE A90: BALMEDIE TO TIPPERTY

ENVIRONMENTAL STATEMENT NON-TECHNICAL SUMMARY

INTRODUCTION

This document is the Non-Technical Summary of the Environmental Statement for the improvement of the single carriageway section of the A90 trunk road¹ north of Aberdeen between Balmedie and Tipperty, which is proposed by Transport Scotland. The proposal is for an off-line dual carriageway which would link into the current dual carriageway sections to the south at Balmedie and north at Tipperty (see Figure 1). The scheme is programmed to open in 2012/2013.

ENVIRONMENTAL IMPACT ASSESSMENT

Transport Scotland is publishing draft Road Orders² and draft Compulsory Purchase Order to seek powers to build the new scheme. An environmental impact assessment of the proposals is required under the Environmental Impact Assessment (Scotland) Regulations 1999 because of the scale of the proposals and the potential for significant effects.

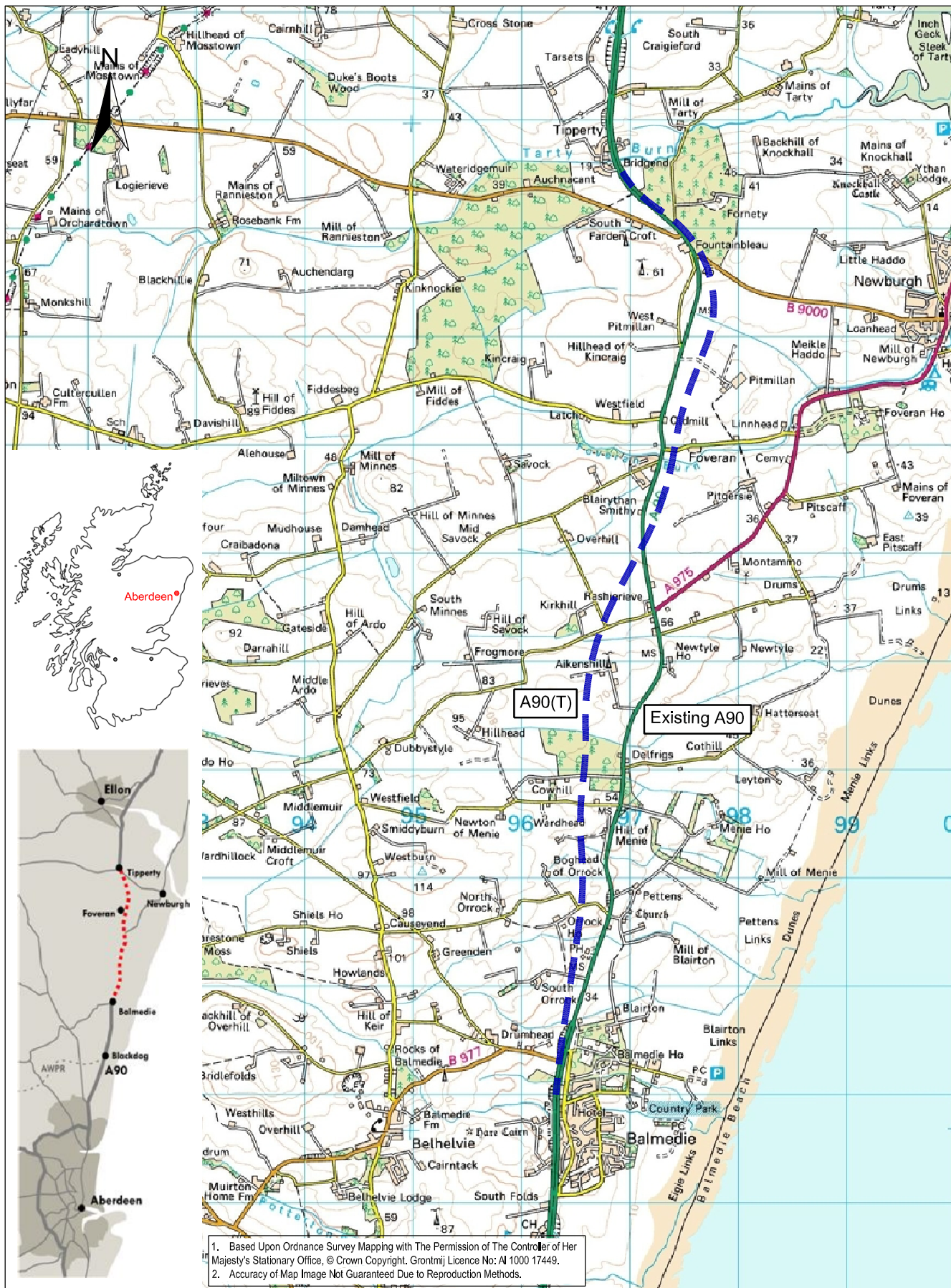
Scottish Natural Heritage (SNH) has requested that information is collated as part of the environmental impact assessment process to inform an appraisal of the potential effects of the proposals on the Ythan Estuary which is a site of European value for nature conservation designated under the Conservation (Natural Habitats, &c.) Regulations 1994 as a Special Area of Conservation (SAC) and a Special Protection Area (SPA).

The findings of the environmental impact assessment and details about the project including mitigation commitments (measures that would be implemented to avoid, reduce or remedy adverse environmental impacts) are presented in an Environmental Statement. This Non-Technical Summary summarises the findings of the environmental impact assessment and other key information contained in the Environmental Statement.

The environmental impact assessment has been informed by consultations with a wide range of organisations and landowners. This information and the findings of the assessments have been used to help develop the design for the scheme by

¹ A trunk road is a road which falls within the responsibility the Scottish Ministers

² Roads orders are published by the Scottish Ministers under the Road (Scotland) Act 1984 as the statutory development consent process for construction and operation of the trunk road. The orders show the line of the road. A compulsory purchase order (CPO) is the means whereby land can be acquired by Transport Scotland. Draft Orders are initially published and a period of consultation follows. Any objections or comments received by Transport Scotland on behalf of the Scottish Ministers are taken into account in making the decision about whether the proposals should be approved and the orders made. If any objections cannot be resolved there may be a Public Local Inquiry at which the objections are examined further by a Reporter who makes a recommendation about whether the proposals should proceed. All this information is taken into account when the Scottish Ministers make their final decision about whether the scheme should proceed



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 2. Accuracy of Map Image Not Guaranteed Due to Reproduction Methods.

Key:

- Existing A90
- - - Proposed Route (A90(T))

Drawn by: CG Checked by: AS Date: 08/07

A90 Dualling - Balmedie to Tipterty

Location Map

NTS Figure 1

Scale 1 : 50 000 at A4



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ensuring that wherever possible adverse effects to people and to the natural environment would be avoided and environmental benefits delivered.

NEED FOR THE SCHEME

The existing A90 trunk road is part of the main transport corridor connecting Aberdeen with Peterhead and Fraserburgh. The road is dual carriageway from Aberdeen to Balmedie and again north of Tippetty to the A948 junction leading to Ellon.



The annual average daily traffic flow on the road is 20,000 vehicles per day, and the existing single carriageway section is not capable of providing efficient access to and from the north of Aberdeen, particularly at peak periods. This problem is likely to get worse in future years. This would affect all users including cars, freight and bus services. With the route being at capacity there

will be increased journey time unreliability and incidents and accidents can further add to congestion. The road in its current layout has many side road junctions and accesses allowing local traffic to join the trunk road and this too has an impact on through-traffic.

SCHEME OBJECTIVES

The scheme objectives against which the proposals have been assessed are:

- to improve strategic and local accessibility on the A90 route corridor between Balmedie and Tippetty for all types of road users;
- to improve the movement of traffic on the A90 between Balmedie and Tippetty in order to aid economic prosperity and development in the north east of Scotland;
- to improve road safety on the A90 between Balmedie and Tippetty;
- to minimise intrusion of the new works on the natural environment, cultural heritage and people and to enhance the local environment where opportunities arise; and
- to facilitate integration along the A90 corridor by providing opportunities for more reliable public transport.

SCHEME BACKGROUND AND ROUTE OPTIONS

Studies into upgrading the existing road to dual carriageway have been ongoing since the 1980s. In 1996 draft Orders were published although these proposals were not taken forward at that time because it was decided by the Scottish Executive that major road schemes should be re-examined as part of the Scottish Strategic Roads Review. The findings of the review, published in 1999, were that the A90 Balmedie to Tippetty scheme should be held in abeyance and

considered alongside other emerging priorities for a future trunk road programme which would be appraised using a multi-modal approach.

A multi-modal appraisal following Scottish Transport Appraisal Guidance (STAG) was subsequently undertaken that assessed transport problems associated with the users of the A90 corridor between Balmedie and Tippetty. The appraisal was objective led and a key finding was that platoons of traffic regularly form along the section behind slow moving vehicles.

In June 2005, following consideration of the STAG report, the then Minister for Transport announced that the offline dual carriageway option with grade separated junctions should be progressed to design stage. Following this decision Transport Scotland³ and their consultants reviewed the proposals in the context of current design standards, environmental constraints and legislation, together with comments received following the publication of the previous draft Orders. As part of that process various sub-options were identified, appraised and consulted on at a public exhibition in June 2006. A preferred scheme, different from that originally published in the 1996 draft Orders was identified to be taken forward, and this is the scheme appraised in detail in the Environmental Statement.

THE PROPOSALS

The proposals (described from south to north) include:

- a nine kilometre (km) section of new dual carriageway, with two lanes in each direction, each 7.3 metres (m) in width and with hard 1m strips and 2m verges on each side of the road and a 2.5m minimum central reserve. The design speed of the new road would be 120 kilometres per hour (kph);
- three grade separated junctions to allow access on and off the new road at the following locations:
 - to the south of Balmedie replacing the existing at-grade junction. The new junction would provide all-ways access from Balmedie village and also connect to a realigned B977 Dyce Road;
 - at Rashierieve, which would allow access between the A975 Newburgh Road and the A90(T) to the south. The junction would also allow access on to the local road network; and
 - south of Tippetty which would allow access between the B9000 and the new A90(T) to the north as well as allowing for connections to the local road network.
- closure of the existing gaps in the existing dual carriageway from south of Balmedie to the south of Tippetty so that local traffic would use the new junctions to access or cross the dual carriageway;
- various structures to carry local roads over or under the A90(T);

³ Transport Scotland is the national transport agency for Scotland. Its purpose is to help deliver the Scottish Executive's vision for transport.

- some local road realignments including:
 - realignment of the B977, Dyce Road, from Drumhead to the new junction at Balmedie south. Access to the properties at The Holdings, south of Keir Farm would be via this B977 realignment;
 - a link road from Easter Hatton to the exit from Blackdog Rifle ranges to allow access on to the A90 because the existing gap in the central reserve would be closed;
 - a link road from the East Aberdeenshire Golf Course to the new junction at Balmedie to allow access to the A90 for properties at South Folds, Millden and the golf club because the gap in the central reserve would be closed;
 - the existing A90 would be de-trunked and realigned at Balmedie to join with the Old Road which runs north south through the village;
 - the local road from Orrock House and Boghead to the existing A90 would be realigned and linked to the existing A90 via the new Orrock Overbridge;
 - the track between Hill of Menie Croft and the Hill of Menie would be stopped up and a new access provided onto the new road which would lead to the proposed Dambrae Underpass;
 - the local access to Stoneyards would be upgraded to the west of the A90(T);
 - localised realignment of the minor roads at Kirkhill to link with the new A975 junction;
 - the A975 would be realigned to link into the new A975 grade separated junction. The existing A90 would continue past Rashierieve to tie-in to the realigned road allowing access to be maintained to Southlea and the steel fabrication yard;
 - an off-line realignment of the minor road from the existing A90 east of Foveran by means of an overbridge. The new works would tie in to the existing road immediately west of the Mill of Foveran;
 - realignment of the current access to Pitmillan Pig Farm from the existing A90 would be stopped up and access provided via the proposed Pitmillan Overbridge;
 - provision of a new link from the southern end of Tipperty village to the B9000 Pitmedden Road allowing access to the local network since the existing access to the A90 would be closed.

- culverts to carry existing watercourses under the new road including tributaries of the Blairton and Menie Burns, the Sandend Burn and the Foveran Burn and lade. A small tributary of the Foveran Burn would require some realignment. Ledges to allow animal passage would be included in these culverts;

- construction of a road drainage system including eight detention ponds for the treatment of road run-off and any accidental spills;

- where required safety fences, lighting, signs and laybys on the new road;

- use of low noise road surfacing and construction of noise barriers and bunds;

- landscape planting (trees, shrubs and grassland).

The existing A90 between Balmedie and Tippetry would be retained and de-trunked to become part of the local road network maintained by Aberdeenshire Council.

DELIVERING THE PROPOSALS

If at the conclusion of the statutory process it is found that the scheme should be taken forward there would be competitive tendering process (for a Design and Build or similar contract) to select a preferred contractor for the scheme. The winning contractor would develop the outline design shown in the Environmental Statement to detailed design stage and construct the works in accordance with requirements set out in the contract. These would include all the committed environmental mitigation described in the Environmental Statement.

As a result of this approach some details of the scheme are not yet defined and therefore construction assumptions and design details have been used for the purposes of environmental impact assessment based on best available information. Should the scheme and/or methods of construction differ from those assumed in the Environmental Statement, Transport Scotland, as scheme promoter, would consider whether the new proposals could result in any significant adverse effects different from those of the current design and construction assumptions. If the potential for significant effects was identified then an addendum to the ES would be required and this would be published for public comment and consideration by Scottish Ministers.

CONSTRUCTION

The scheme would take some 18-24 months to build. It has been assumed that construction activities would be undertaken during the daytime (08.00 to 19.00 Monday to Friday and 8.00 to 13.00 on Saturday). Occasional night and Sunday working would be required for some activities (e.g. carriageway tie-ins) to minimise traffic disruption on the local road network. Noise limits would be controlled by requirements in the contract documents.

Construction activities would include earthworks and land forming for embankments and cuttings, erecting structures such as bridges and culverts, installing drainage networks, road surfacing, signing and lighting etc. These activities would create additional traffic movements and some activities would require traffic management measures.

Land made available to the contractor in the contract could be used for a site compound and to store material and equipment. If the contractor wanted to use additional land outwith the scheme corridor necessary permissions and licences would have to be acquired by the contractor.

The scheme once operational would be maintained by a maintenance contractor (currently BEAR) on behalf of Transport Scotland.

EFFECTS OF THE PROPOSALS

The environmental effects of the proposals are summarised in the following sections and also on Figure 2.

Policy and Planning

The proposed scheme broadly complies with National Government guidance and the area Structure and Local Plan policies. Mitigation has been defined for any potentially significant impact on the environment to ensure that any residual effects are reduced to the minimum for safe implementation of the proposals. A sensitive approach to mitigating effects on the settings of designated properties, especially Orrock House, an A Listed Building, and Hare Cairn a Scheduled Ancient Monument, would ensure that any potential impact to the setting of important historic features within the scheme area has been reduced to that necessary for the works.

The scheme has been designed to take account of future development in Balmedie, Foveran and Tipperty, however, a small parcel of land designated in the local plan for employment use and strategic landscaping (0.93ha) would be lost to the south of Balmedie.

Traffic

It is anticipated that scheme construction could be undertaken with minimal disruption to existing traffic on the road network. Whilst some disruption is inevitable, traffic management strategies would be planned in advance and implemented to minimise disruption. There would be some local traffic effects where the new road crosses existing roads.

The proposed dualling from Balmedie to Tipperty would provide a continuous dual carriageway running from Aberdeen to Ellon and improve the strategic transport network in the area. Its construction would provide additional capacity to eradicate platooning effects experienced on the existing route. The traffic on the existing A90 would reduce from 23,700 Annual Average Daily Traffic (AADT) to approximately 600 AADT in the southern section and 20,200 AADT to 1,300 AADT in the northern section. The provision of the new infrastructure would improve the reliability of journeys for all users, including freight and public transport services.



Land Use and Property

The proposals are located in an area of rolling farmland that falls gently, from west to east, down towards the coastline and extensive dune system of the Foveran and Menie Links and the Ythan Estuary. The key land use in the area is intensively managed farmland, a mix of arable and pasture. There are three main villages (Balmedie, Foveran and Tipperty) in the scheme area as well as scattered hamlets, and settlements consisting predominantly of traditional single and one and a half storey cottages and farmsteads.

There are two formal Rights of Way in the scheme corridor, both within the Fornety plantation. These would not be directly affected by the scheme. The B977 is used as a walking route to and from Balmedie to access facilities in the village and Belhelvie Church. Walkers have to cross the busy existing A90 using the central reserve at the north end of Balmedie. There is also informal use of the area for recreation although the A90 is a barrier, particularly for horse riders.



There would be a loss of 0.12 hectares from the gardens of three houses at South Folds and 0.021 hectares of garden from No 6 The Holdings. Some 0.61 hectares would be lost from East Aberdeenshire Golf Club, which would include the driving range. Other effects on land uses are considered to be minor as no properties would be demolished and there would be no other land take from residential properties, community land or businesses other than farms. Access would be

maintained for all residences, community facilities and businesses during construction and operation of the scheme. Appropriate signage would be provided to warn drivers and other users of potential diversions and delays during construction.

A new footpath would be created between Balmedie and Drumhead via the Kier Farm underpass and general access on and across the A90 would be improved for recreation by the provision of bridges and underpasses on the new road and the reduction in traffic on the existing road.

Agriculture, Forestry and Sporting Interests

The range of agricultural activity in the corridor varies from intensive livestock and arable farming to more extensive cattle and sheep systems. The type of activity and the level of intensity are determined by a number of factors including the land capability. Although there is no known commercial shooting within the study corridor there is rough shooting.



Twenty eight agricultural, commercial forestry and sporting land interests would be affected by the proposed development which collectively farm some 1,994 hectares. The proposed development has adverse residual effects (moderate or above) on 20 land interests (71%). The viability of one unit, Seven Acres, would be compromised which would have one third of its land (4.23 hectares) lost to the proposed scheme and 2.05 hectares (16%) severed. Agricultural and equestrian activities would be compromised.

In total some 117.68 hectares of agricultural and commercial forestry land would be subject to compulsory purchase to construct the proposed scheme of which some 16.80 hectares would be available to be returned to agriculture reducing the net loss of agricultural land to 100.88 hectares. Of the net agricultural land

affected by the project, 20.72 hectares (21%) would be Class 3₁ land⁴ (prime land), 68.37 hectares would be Class 3₂ (non-prime land) and 11.87 hectares would be in woodland and commercial forestry. A small amount of this land would be returned to agriculture after construction has finished.

Geology and Soils

No sites designated for their geological interests would be affected by the proposals. No geological resources or soils of particular significance have been identified which would be affected by the works and no significant effects are predicted. No significant areas of contaminated land have been identified which could be affected by the works. Implementation of best management practices including good design of the detailed works would ensure that any impacts were reduced to the minimum necessary for the safe implementation of the works.

Drainage and the Water Environment

The general drainage in the area is from west to east to the coastline. There are no major watercourses or water bodies in the area which would be directly affected by the proposals. The majority of watercourses in the area of the scheme are small burns which drain eastwards towards the coast including tributaries of the Millden and Menie Burns, and the Sandend and Foveran Burns. Burns from Foveran to the north drain into the River Ythan Estuary which is designated for its European and national nature conservation interests.



Mitigation measures would be implemented to ensure that there would be no significant residual effects on, or changes to the hydrological and hydrogeological environments within the corridor. Best practice measures to prevent pollution would be implemented during construction, (including the storage and handling of hazardous materials, the management of site run-off and the management of site

compounds and domestic sewage), waste disposal and site restoration. The construction of the scheme is not therefore predicted to result in significant adverse effects. There is potential to affect a borehole at Pitmillan Pig Farm and if this was the case compensation and appropriate mitigation would be agreed with the landowner.

The outline drainage design for the scheme has been designed in accordance with best practice with detention ponds, filter drains and other sustainable urban drainage systems (SUDS) and it is not predicted that any significant adverse impacts on surface water and groundwater quality would occur as a result of the routine operation of the scheme. These mitigation measures would also help to mitigate the impacts from extreme pollution events. The detention ponds would have capacity to hold large volumes of run-off and contaminated water, allowing time for pollution response plans to be implemented and resultant cleanup to take place. These measures would ensure the risk of pollution to the Ythan Estuary would not be significant.

⁴ The capability of land to support different types of agricultural systems, from intensive arable cropping to more extensive pasture based systems, is determined by a range of physical factors such as relief and topography, climate (rainfall and growing season) and soil characteristics. Land is classed by the Macaulay Land Use Research Institute (MLURI) according to its land capability, reflecting the above conditions

Ecology and Nature Conservation

The route corridor is rural in character with farmland (arable and pasture), scattered settlements and a number of small watercourses and ditches draining west east to the sea. Woodland and hedges in the area are sparse with the exception of shelterbelts associated with farms and other properties, small groups of mainly deciduous trees and shrubs, and small areas of young mixed plantation forestry. There are extensive sand dunes at the coast and an important estuary (the Ythan) east of Newburgh (some 3km from the scheme) which is designated for its European and national nature conservation interests. The corridor provides habitat for a variety of birds and other animals.

No habitats or plant species of particular note have been identified in or in proximity to the route corridor. Generally the habitats along the route are common in the area and of limited nature conservation value. Their loss is not

considered to be significant. Habitat creation includes approximately 11.8 hectares of native woodland and scrub planting;



53.9 hectares of grassland including some wildflower grassland; and eight new detention ponds (3.1 hectares) with associated wetland habitat. A variety of birds have been identified as breeding in the scheme corridor or in proximity to it but no significant effects to any have been identified. The new landscape proposals have been designed to provide a range of habitats for birds and other animals and have potential to enhance local biodiversity in the longer term.

Badger and otter activity has been identified along the route corridor. Both are protected species. Otter is considered only to pass through the area and no badger setts have been located within 30m of the proposed scheme. Suitable mitigation would be implemented during construction and otter and badger passes and fencing would be incorporated into the detailed design of the scheme to reduce the potential for severance effects from the new road.

Implementation of best management practices during construction and design and implementation of effective drainage features including detention ponds and other SUDS measures would ensure that there were no indirect effects on the Ythan Estuary. The integrity of the European sites (Special Area of Conservation; Special Protection Area and Ramsar site) would not be affected by construction or operation of the scheme.

Landscape and Visual

The area between Balmedie and Tippetty is part of the North-East Lowlands, a gently undulating, low-lying plain, dominated by intensive farming and stretching from Aberdeen to the Moray Firth. There are no nationally designated areas of landscape value within the study area. The coast from Balmedie north to the estuary of the Ythan and beyond is locally designated as an 'Area of Landscape Significance' and as 'Undeveloped Coast'. Menie House and Balmedie House are both in the 'Extended Inventory of Gardens and Designed Landscapes for Gordon District'. Although close to the proposed road, neither is directly affected by it.

The proposed road runs through a rural landscape. It is generally small scale and rolling in the area south of the ridge at Aikenshill. North of this ridge, the landscape becomes much broader, more open and large scale. Development is concentrated at Balmedie, Foveran and Tippetty but there is a broad scatter of individual and groups of houses throughout the area.

In the southern half of the area, the new road would create a strong north-south feature in a landscape which has a generally east-west grain. In the northern half of the area, the new trunk road would run parallel to the existing road reinforcing the north-south axis which already exists.



Few strong landscape elements (such as woodlands) would be affected by the new road, although the pattern of small field boundaries in the southern half of the area would be disrupted.

The scattered nature of development leads to a similar scattering of visual effects. As far as possible, the new road has been designed to sit low in the landscape and, in particular, all junctions have been designed

so that the main road with its high load headroom requirements passes over the side roads. This has minimised the extent to which structures stand up in the open landscape and has reduced the potential visual effect of the junctions. In most situations the degree of visual impact is more related to the proximity of the new road and its intrusion into a rural or semi-rural landscape rather than to the actual obstruction or blocking of views by the road or structures.

The new road would have a moderate adverse effect on the landscape of the southern half of the study area during the construction period. At a more local scale, there would be a major adverse effect during the construction period on the landscape of the more enclosed and self-contained valleys such as that to the west of The Holdings and the valley of the Menie Burn around Dabrae. These effects would all reduce over time as the mitigation matures, such that the eventual overall landscape effects would be minor, although in local areas they would remain moderate.

The road when new would have a major adverse visual effect on No 6 The Holdings, on the Cock and Bull restaurant and the two adjacent cottages, on Seven Acres and Stoneyards Cottages, and on Blair Lodge at Kirkhill. In all cases, apart from at No 6 The Holdings, the visual effect would reduce to moderate adverse as the mitigation planting matures and partially screens the traffic.

There would be moderate adverse visual effects from the scheme, when new, at the clubhouse for the East Aberdeenshire Golf Club, South Folds and the Holdings; at Old Road in Balmedie; to most of the properties west of the old road and within about 300m of the new road from Balmedie to Hill of Menie, including Orrock House (see Figure 3); to Stoneyards and Cowhill; to the line of houses at Aikenshill and; to Mill of Foveran and Ardgill. Where mitigation planting is proposed, this effect would generally reduce over time to minor adverse. On the other hand in the open landscapes where screen planting would be inappropriate,

such as at Orrock House and at Aikenshill, this effect would remain unchanged except in so far as perceptions of change reduce as the viewer gets used to the new view.

There would be moderate beneficial effects on most of the properties immediately abutting the existing A90 when traffic transfers to the new road. At The Bungalow, just north of Balmedie, there would be a moderate beneficial effect when the mitigation planting on the site of the grubbed up old road has developed.

Archaeology and Cultural Heritage

There are some 90 sites of archaeological or historic interest in a study corridor 300m either side of the proposals (1km for protected sites). Ten of the sites have statutory protection. Temple Stones (1km west of the Easter Hatton link) and Hare Cairn (north of the B977 link road) are Scheduled Ancient Monuments. Eight are listed buildings (Orrock House (A listed) and Gatepiers (B listed); Belhelvie Old Parish Church; Orrock House Dovecot; Menie House and Lodge; and Mill of Foveran (all B listed) and Balmedie House Lodge and Balmedie House (C listed). Research into the historical background of the area shows that the area has undergone substantial pre-historic and historic development and this would indicate that there is the possibility for further unidentified archaeology in the area. Construction would have a direct physical impact on six sites of local importance (these do not have statutory protection).

There would be moderate adverse effects on the settings of Hare Cairn and Orrock House, minor adverse effects on Orrock House Dovecot and Mill of Foveran, no effect on four of the protected sites, a minor beneficial effect on Belhelvie Old Parish Church and a moderate beneficial effect on Menie House Lodge.



Where sites could not be avoided they would be excavated (if required) and recorded. Any impacts on unidentified archaeology (discovered before and during construction) would be mitigated by survey, excavation and recording.

Disruption due to Construction

Construction activities would potentially result in an increase in journey times and some disruption to local and commuting traffic. It has been assumed that all construction activities would be carried out using haul roads internal to the scheme in order to minimise the impact of construction traffic. Traffic management proposals for areas where the works cross exiting roads would be developed by the contractor to minimise impacts wherever possible.



Existing View



View with A90(T)

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| Drawn by: KM | Checked by: AJF | Date: 08/07 |
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A90 Dualling - Balmedie to Tippetry

Landscape Impact Photomontages
View towards Orrock House

NTS Figure 3



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Noise and Vibration

The key noise source in the area of the proposals is existing road traffic and this would continue once the new works were built. Noise mitigation has therefore been integral to the iterative design process for the scheme balancing the opportunity to reduce noise at nearby properties with potential landscape and visual impacts of bunding and barriers.



There would be temporary noise and vibration effects during construction mainly associated with temporary construction works and traffic diversions. Contract requirements would require noise levels to be kept to the minimum possible by implementing best practice.

There would be some increases in noise at properties without the scheme as a result of general traffic growth, although there would be reductions on the B977 because of lower traffic flows in that area if the Aberdeen Western Peripheral Route is constructed.



Noise effects as a result of the scheme are predicted to range from major beneficial to major adverse, with the majority of properties in the corridor subject to minor effects (non-significant). Overall, close to the scheme following its opening and including for general traffic growth, greater noise level decreases are predicted than noise level increases at local properties. Some properties have been identified that could qualify for noise insulation measures through the provisions of the Noise Insulation (Scotland) Regulations.

Noise level changes at important designated historic sites are predicted to range from moderate adverse to major beneficial, with greater beneficial effects being predicted overall.

Air Quality

Air quality within the route corridor is good. Concentrations of all pollutants typically associated with transport are well within statutory objectives.

Impacts during construction would be minimised by implementing best management practices on site and overall effects are predicted to be minor adverse (not significant).

The main impacts when the scheme was operational would be changes in the total emissions of pollutants and changes in local concentrations of pollutants. In general, the scheme would bring positive effects with regard to air quality at local properties. Seventy five properties within the study corridor would experience minor beneficial effects on air quality due to the scheme and 11 would experience minor adverse effects. Concentrations at all properties would remain well within the statutory objectives.

Pedestrians, Cyclists, Equestrians and Community Effects

Access for all properties would be maintained or alternative provisions made during construction and in the final scheme. During construction some temporary adverse effects would result from required diversions. There would be a permanent increase in journey time from some properties to community facilities because of the road realignments required to accommodate the scheme. However there would also be some benefits for pedestrians, cyclists and equestrians from provision of grade-separated crossing facilities over the new road and by the decrease in traffic on the old road. New footways would be created to link Balmedie with the community facilities in Drumhead and the East Aberdeenshire golf course. Footways would be constructed adjacent to the new access roads to the Holdings and the East Aberdeenshire Golf Club.

Vehicle Travellers

There would be moderate benefits for drivers in terms of travelling time and driver safety because the new road would eliminate platooning of traffic and fully allow for overtaking. This would reduce driver stress.

The scheme would provide attractive views from the road for drivers where other requirements (noise and landscape and visual mitigation) allow. New woodland and other landscape planting would provide additional interest for drivers.

CUMULATIVE EFFECTS

The proposed mitigation measures would ensure that cumulative impacts from any other likely development in proximity to the corridor would not be significant. The results of the flood risk assessment indicate that no cumulative impacts to flooding are likely to occur from the development of the scheme. The appraisal indicates there would be no significant risk of impacts to the Ythan Estuary.



Residents in proximity to the proposals could be affected by a combination of traffic, air quality, noise and reduction in amenity effects both during construction and also when the scheme is operational. There would be some short-term effects in the wider corridor during construction with changes in traffic movements on local roads because of diversions to facilitate construction where the new road crosses existing roads and visual effects at the same time from construction plant etc. In the longer term the scheme has been designed to ensure that it would fit well in the landscape and that environmental effects (intrusion, noise etc) would be adequately controlled to ensure effects were reduced to the minimum necessary for safe implementation of the works.

No other major proposals have been consented and therefore no significant effects from the combined effects of this project with other proposals are predicted.

REVIEW AND COMMENTS

The Environmental Statement and copies of the draft Orders can be viewed during normal working hours at:

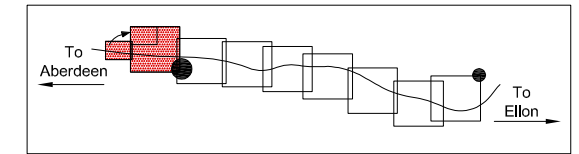
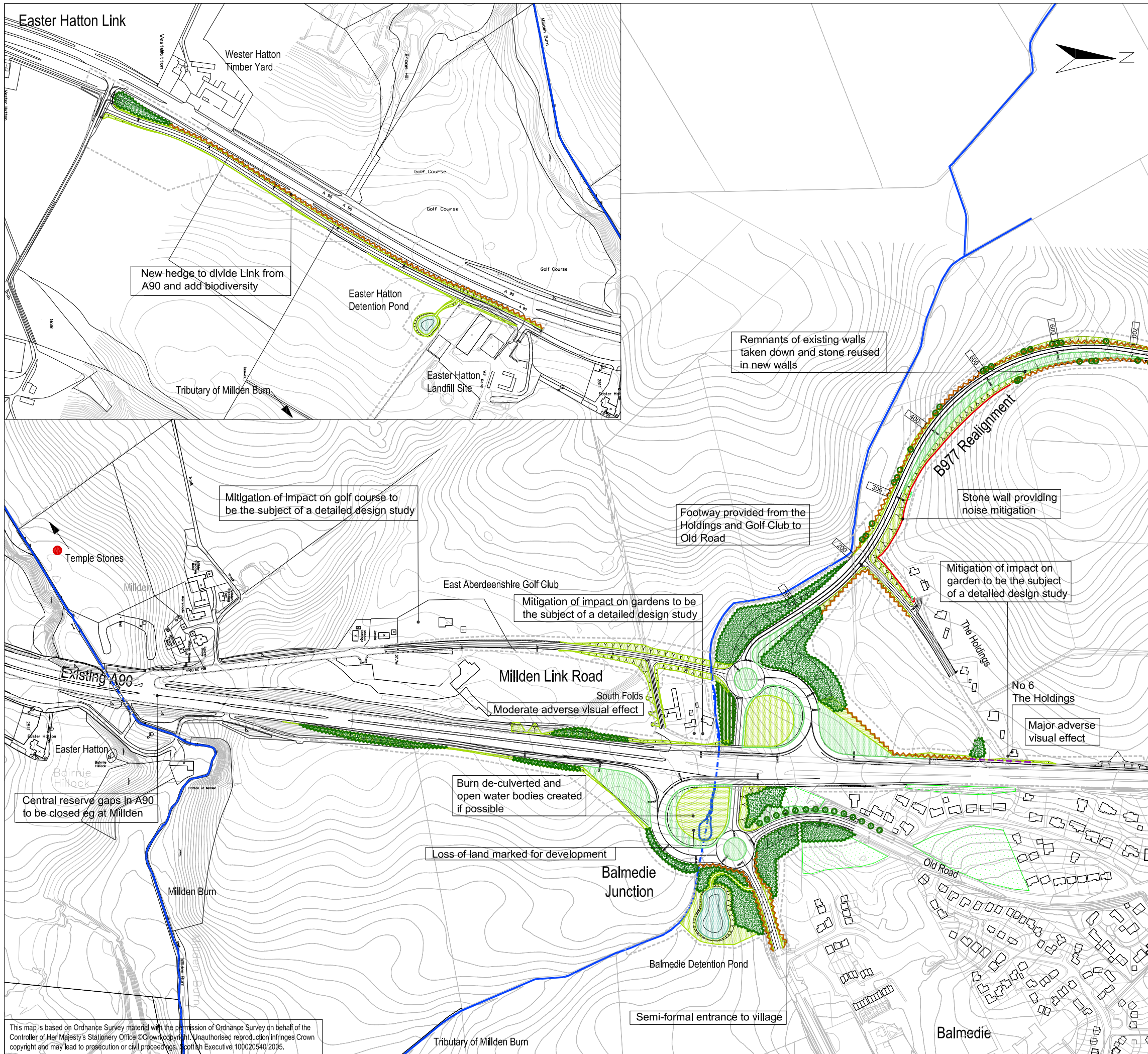
- Transport Scotland
Trunk Roads: Infrastructure and Professional Services
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Woodhill House
Westburn Road
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Balmedie
Aberdeenshire
AB23 8YF

The Environmental Statement can also be viewed on Transport Scotland's website: www.transportscotland.org.uk.



















The Environmental Statement comprises the main text and also this Non-Technical Summary (NTS) which is bound into the front of the main text and also available as a free-standing document.

Copies of the Environmental Statement are available in hard copy for £150 or on CD for £10 (both including postage and packing). VAT is chargeable on CDs. The NTS (which is available free of charge) and the main ES are available from the Director of Trunk Roads Infrastructure and Professional Services (address as above) at Transport Scotland.

Comments on the proposals or their environmental effects can be sent in writing to the Director of Trunk Roads Infrastructure and Professional Services at Transport Scotland within six weeks of the date of publication of the notice for the Environmental Statement.



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-  Low maintenance seeding
-  Marginal and aquatic planting
-  False cutting
-  Embankments graded out for return to agriculture
-  Scheduled Ancient Monument
-  Listed Building

Drawn by: KM Checked by: AJF Date: 08/07

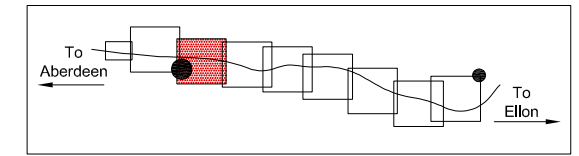
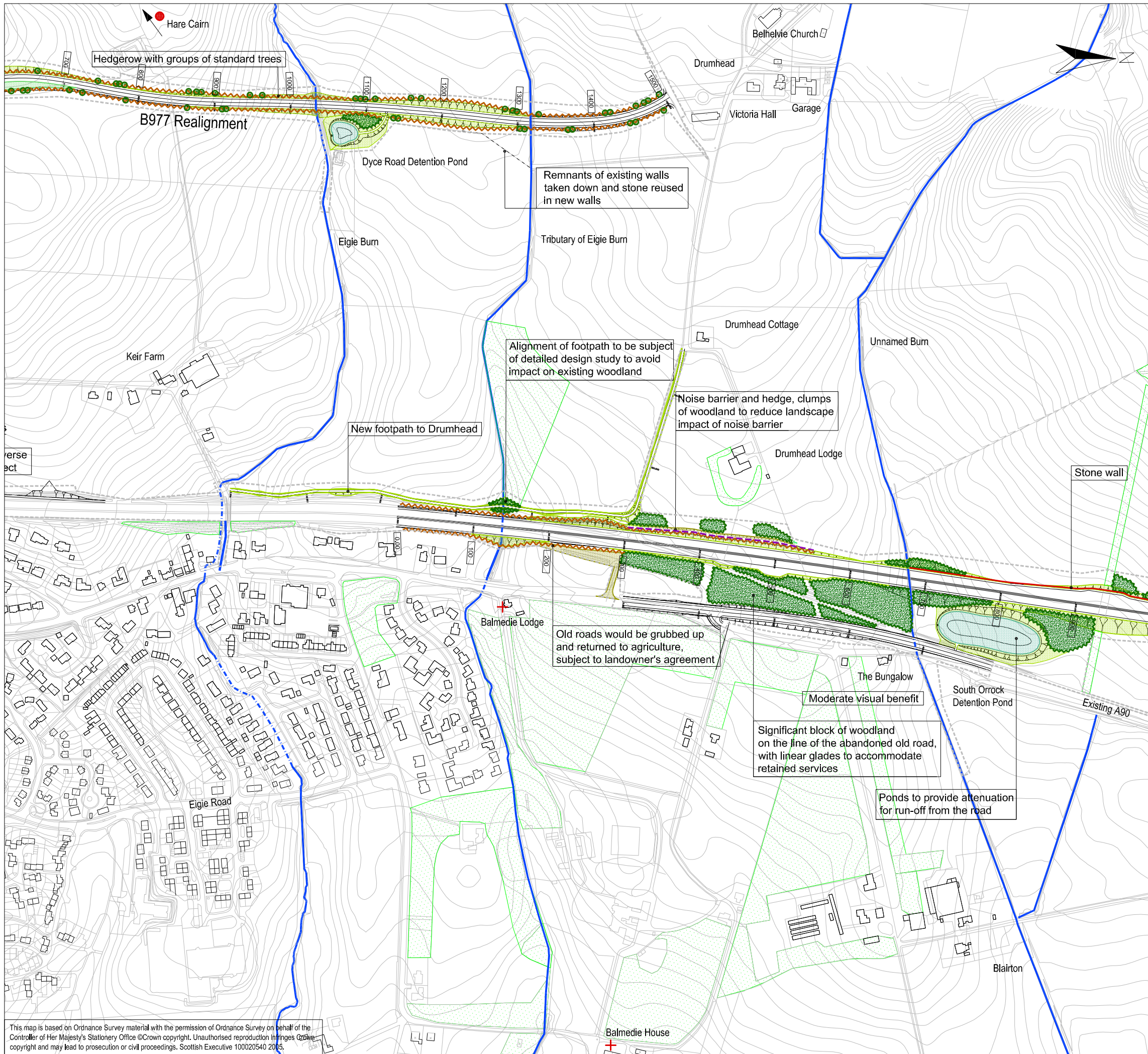
A90 Dualling - Balmedie to Tippetry

Environmental Effects and Mitigation Measures
Sheet 1 of 8

NTS Figure 2
Scale 1 : 5000 at A3



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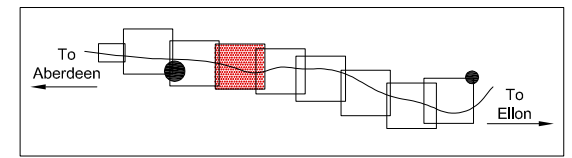
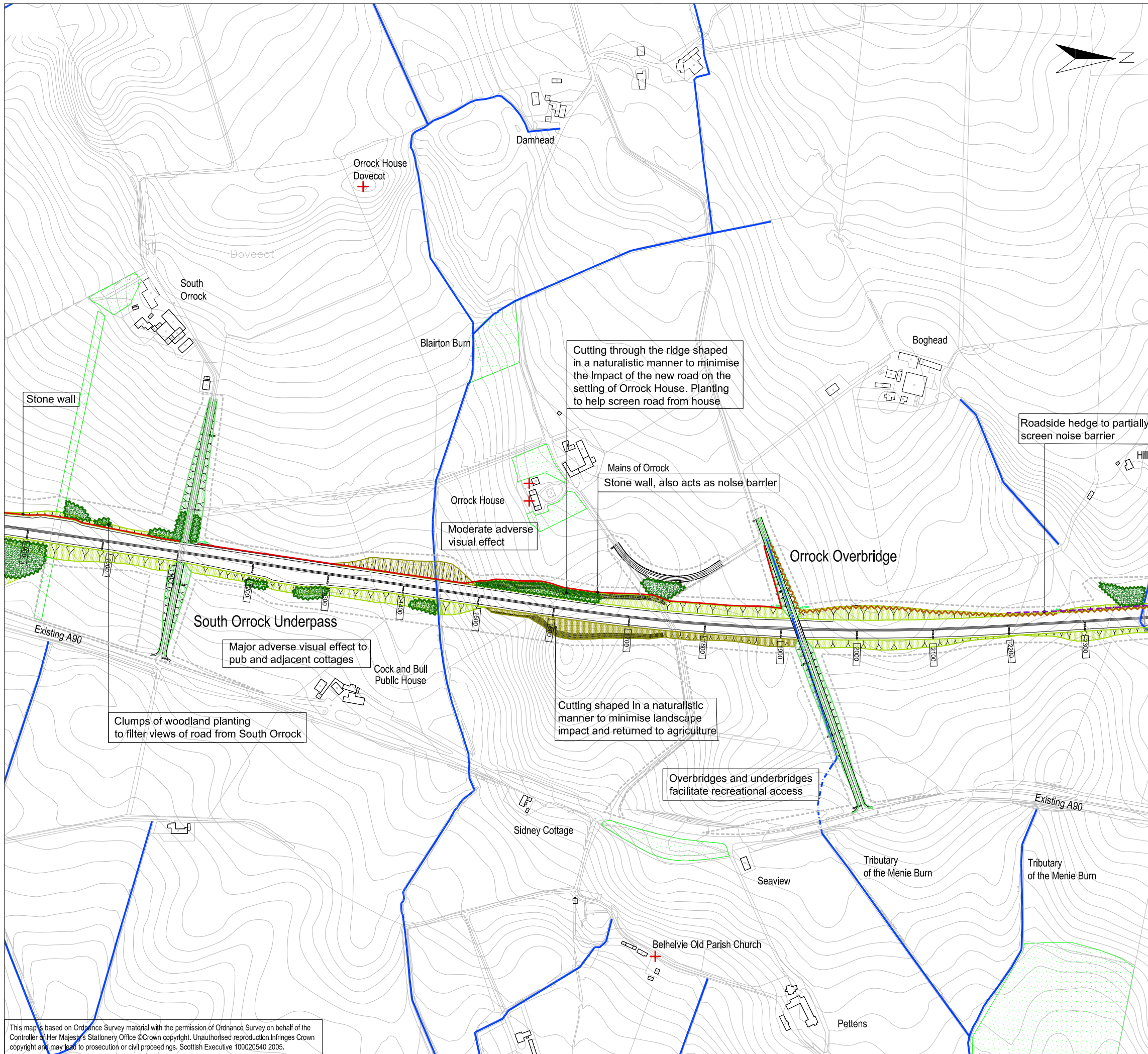
A90 Dualling - Balmedie to Tippetry

Environmental Effects and Mitigation Measures
Sheet 2 of 8



















NTS Figure 2
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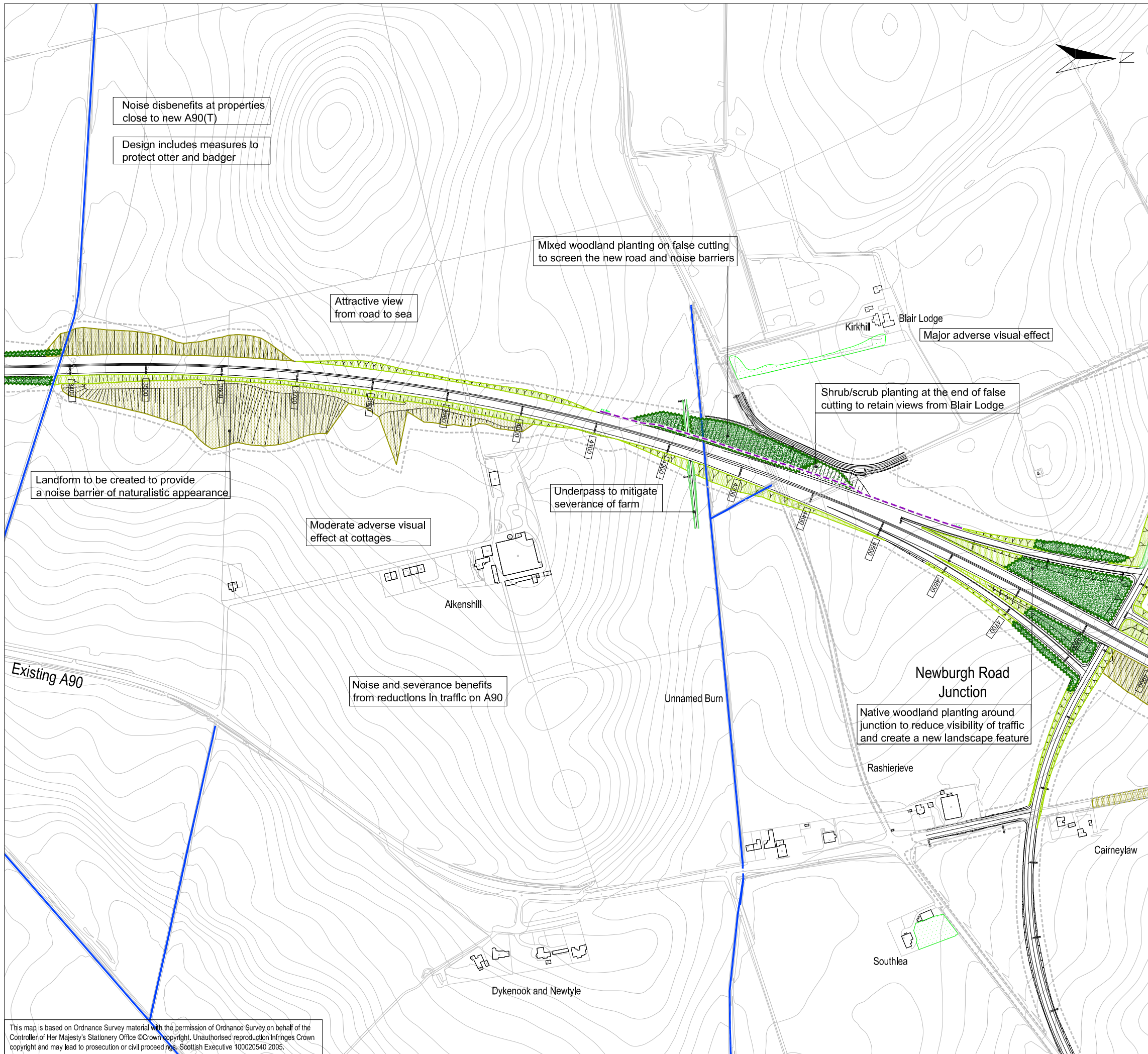
A90 Dualling - Balmedie to Tipperty

Environmental Effects and Mitigation Measures
Sheet 3 of 8

NTS Figure 2
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Noise disbenefits at properties close to new A90(T)
Design includes measures to protect otter and badger

Attractive view from road to sea

Mixed woodland planting on false cutting to screen the new road and noise barriers

Major adverse visual effect

Shrub/scrub planting at the end of false cutting to retain views from Blair Lodge

Landform to be created to provide a noise barrier of naturalistic appearance

Moderate adverse visual effect at cottages

Underpass to mitigate severance of farm

Noise and severance benefits from reductions in traffic on A90

Native woodland planting around junction to reduce visibility of traffic and create a new landscape feature

Existing A90

Aikenshill

Unnamed Burn

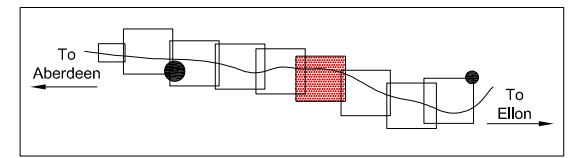
Newburgh Road Junction

Rashierieve

Cairneylaw

Southlea

Dykenook and Newtyle



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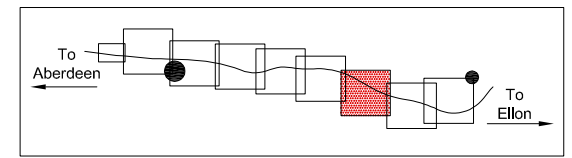
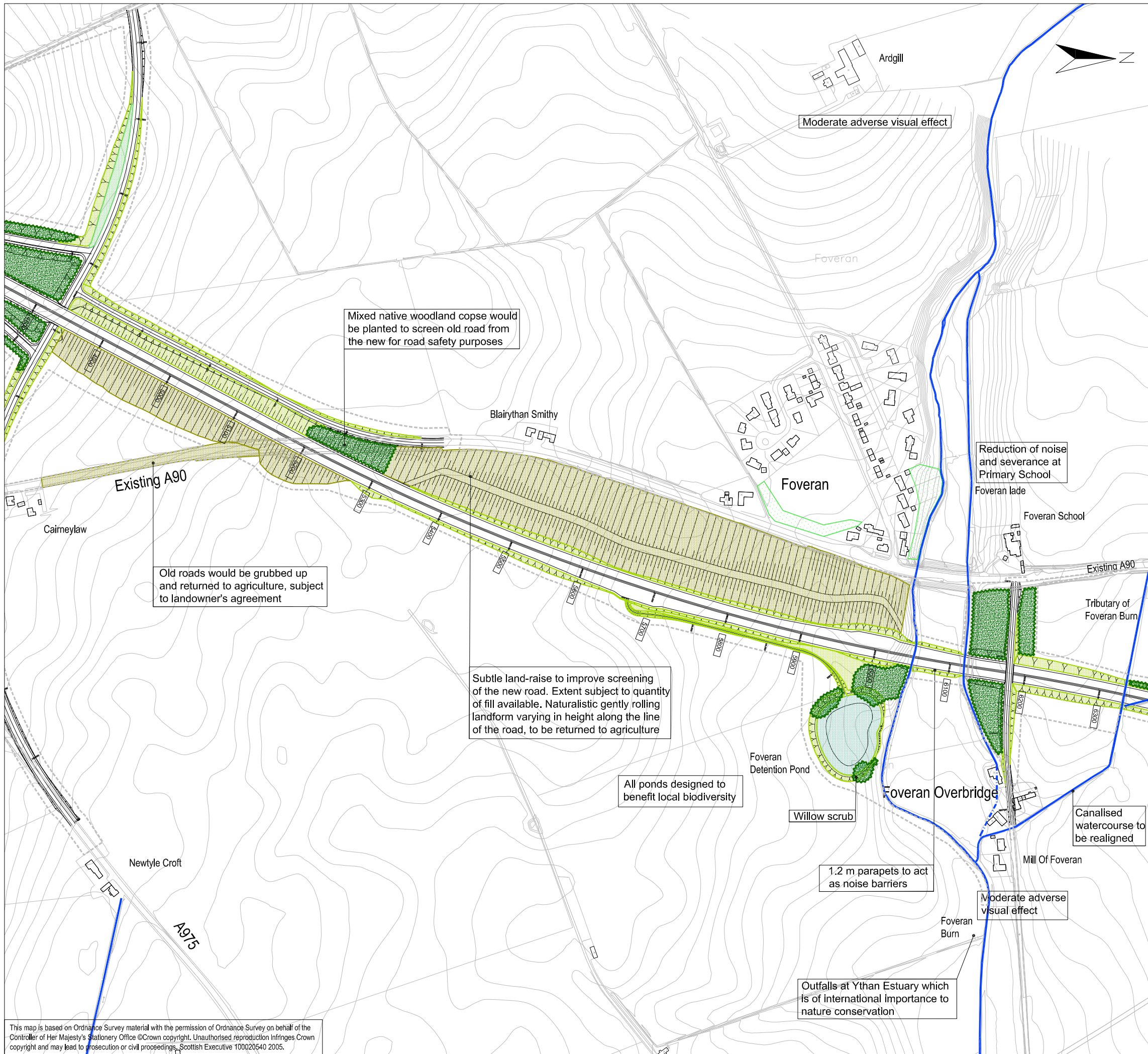
A90 Dualling - Balmedie to Tipperty

Environmental Effects and Mitigation Measures
Sheet 5 of 8

NTS Figure 2
Scale 1 : 5000 at A3



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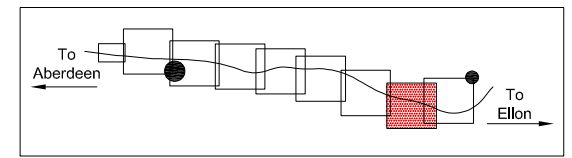
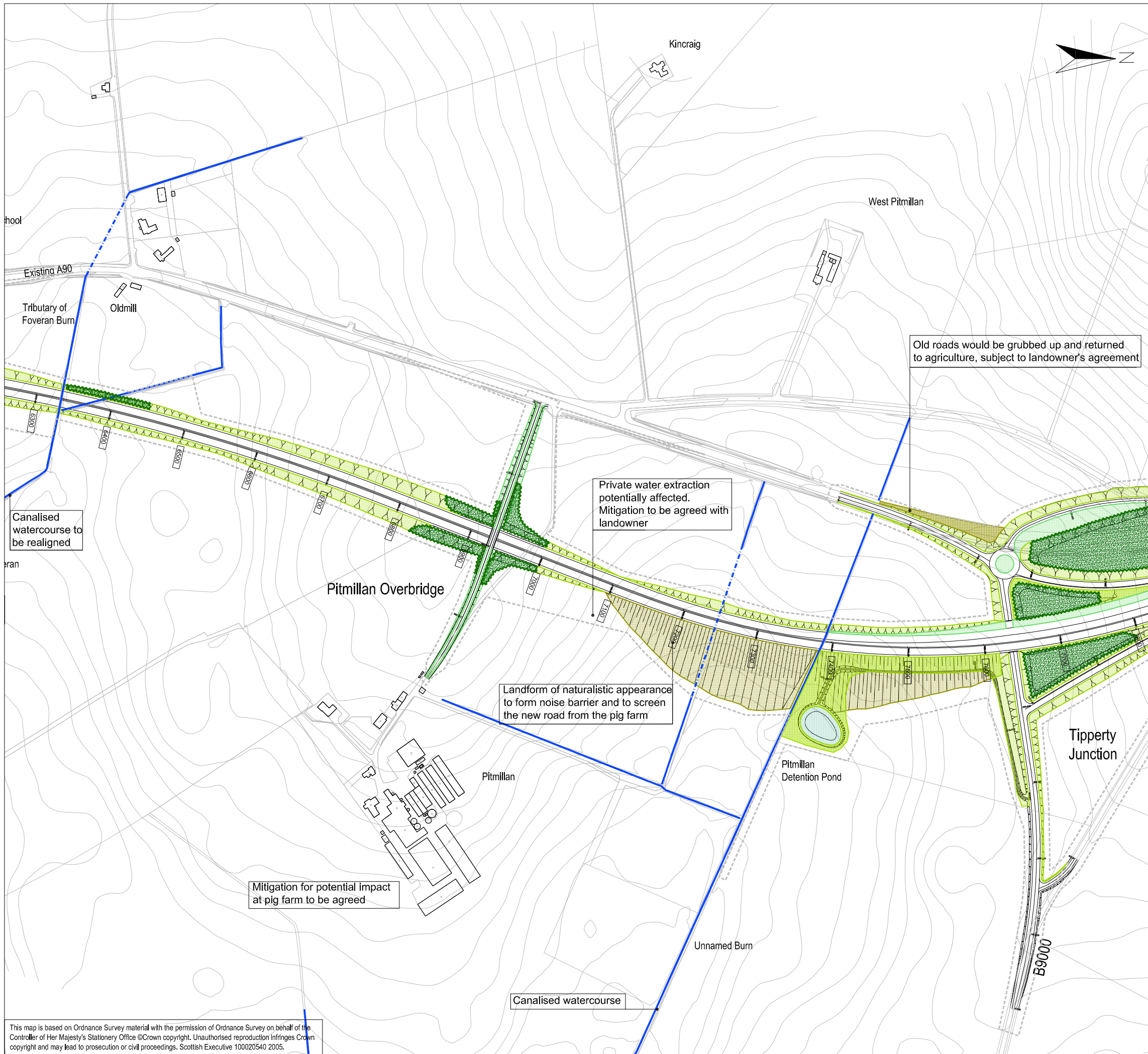
A90 Dualling - Balmedie to Tipperty

Environmental Effects and Mitigation Measures
Sheet 6 of 8

NTS Figure 2
Scale 1 : 5000 at A3



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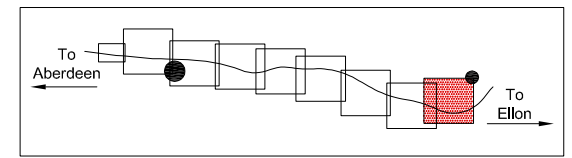
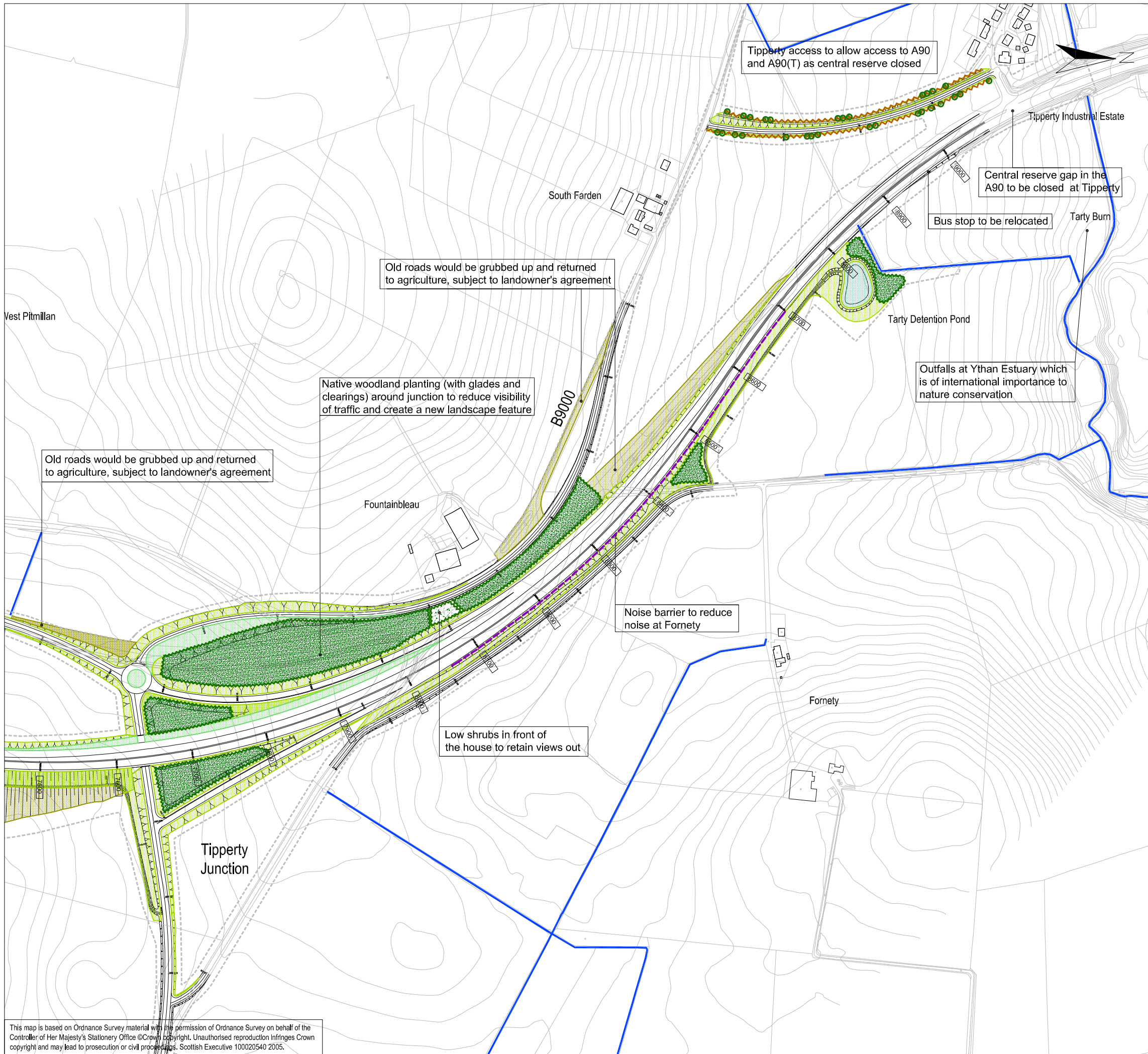
A90 Dualling - Balmedie to Tippetry

Environmental Effects and Mitigation Measures
Sheet 7 of 8



















NTS Figure 2
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A90 Dualling - Balmedie to Tippetry

Environmental Effects and Mitigation Measures
Sheet 8 of 8

NTS Figure 2
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