The way ahead

The timetable below sets out the estimated timescales for the next stages of the project.

2007	Publication of Draft Compulsory Purchase Orders and Side Road Orders
	Re-publication of Draft Special Road Orders and Draft De-trunking Orders
2008	Probable Public Local Inquiry (PLI) and decision
	Publication of Made (Final) Orders
2009	Procurement of construction works
2010	Construction begins
2012	Aberdeen Western Peripheral Route opens to traffic

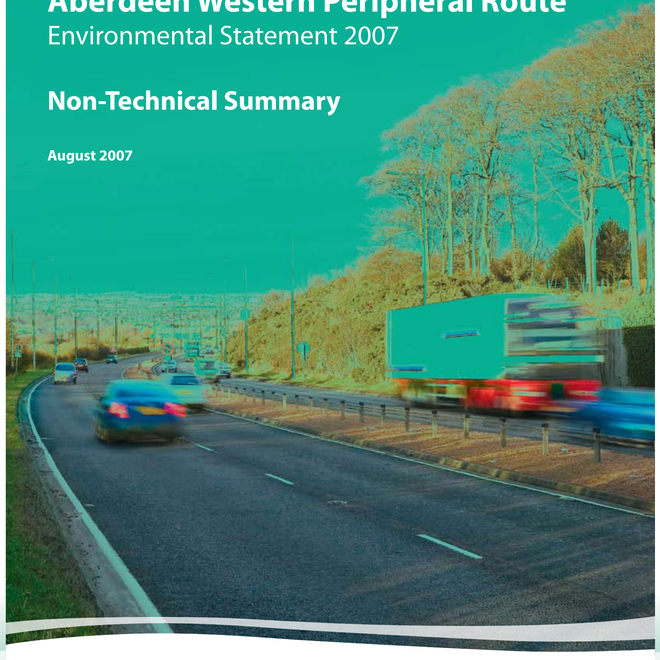
JACOBS

Aberdeen Western Peripheral Route

Environmental Statement 2007

Non-Technical Summary

August 2007



Aberdeen Western Peripheral Route

Working in partnership

ABERDEEN CITY COUNCIL

Aberdeenshire COUNCIL

TRANSPORT SCOTLAND

This document is a non-technical summary of the Environmental Statement for the Aberdeen Western Peripheral Route. Copies of the full Environmental Statement and the Draft Road Orders are available to view at the following locations:

Aberdeen Western Peripheral Route Managing Agent
Aberdeen Business Centre
Willowbank House
Willowbank Road
Aberdeen
AB11 6YG

Transport Scotland
Trunk Roads: Infrastructure and Professional Services
Buchanan House
58 Port Dundas Road
Glasgow
G4 0HF

Aberdeen City Council
St Nicholas House
Broad Street
Aberdeen
AB10 1BX

Aberdeenshire Council
Woodhill House
Westburn Road
Aberdeen
AB16 5GB

Copies are also available for the public to view at selected Aberdeen City and Aberdeenshire Council offices and public libraries or on the AWPR website www.awpr.co.uk

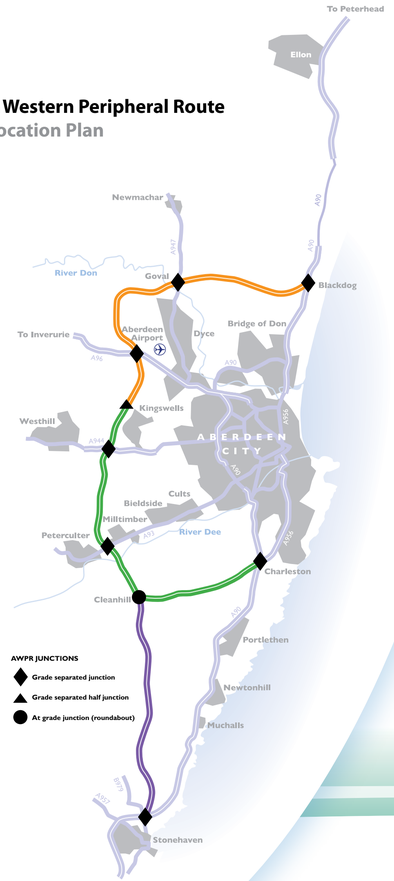
A bound paper copy of the Environmental Statement may be purchased at a cost of £500 or in DVD format at a cost of £10 by writing to Transport Scotland. Further copies of the Non-Technical Summary are available free of charge from the Aberdeen Western Peripheral Route Managing Agent.

Any person wishing to comment on the Environmental Statement should write to:

Transport Scotland
Trunk Roads: Infrastructure and Professional Services
Buchanan House
58 Port Dundas Road
Glasgow
G4 0HF

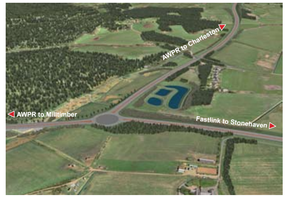
Comments are invited within six weeks of the advertised date of publication of the Environmental Statement.

Aberdeen Western Peripheral Route
Scheme Location Plan



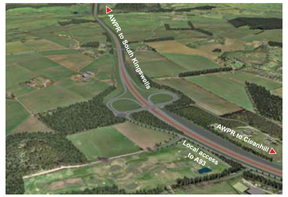
South Kingswells (A944)

Cleanhill Junction



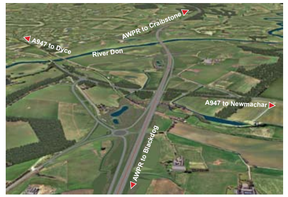
Stonehaven Junction (A90)

Milltimber Junction (A93)



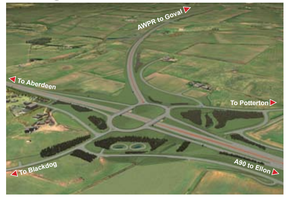
Charleston Junction (A956)

Goval Junction (A947/B977)



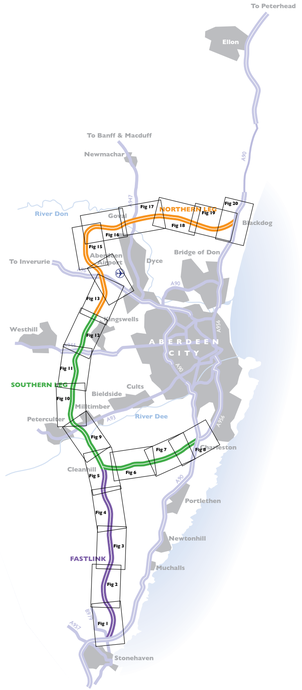
North Kingswells Junction

Blackdog Junction (A90)



Craibstone Junction (A96)

Aberdeen Western Peripheral Route
Key Plan



Legend
for large scale maps

PROPOSED SCHEME
- Green Wash
- Detention Basin/ Treatment Ponds
- Proposed Road
- Embankment
- Cutting

OTHERS
- Viewpoint
- Watercourse
- Waterbodies
- National Cycle Route

CULTURAL HERITAGE
- Scheduled Ancient Monument (SAM)

LANDSCAPE
- Area of Landscape Significance

ECOLOGY
- Site of Importance to Natural Science (SINS)
- Sensitive Areas (SEA)
- Designated Wildlife Sites (DWS)
- Woodland
- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)

Introduction

The Aberdeen Western Peripheral Route (AWPR) is a new 46km long dual carriageway proposed jointly by the Scottish Executive, Aberdeen City Council and Aberdeenshire Council. The proposed scheme comprises three sections:

- **NORTHERN LEG** (North Kingswells to Blackdog)
- **SOUTHERN LEG** (Charleston to North Kingswells)
- **FASTLINK** (Stonehaven to Cleanhill)

These sections are shown on the plan at the front of this booklet, with more detailed maps of the route at the back.

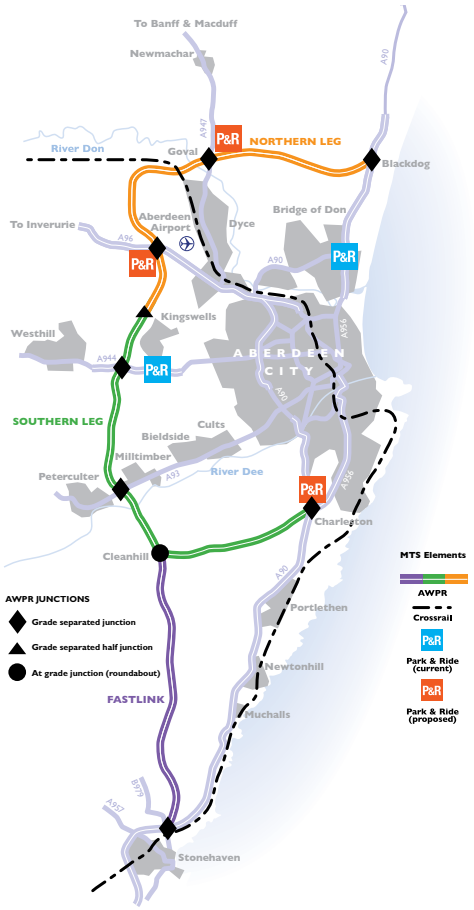
It is anticipated that construction will start in 2010 and that the road will open for use in 2012.

This booklet is a Non-Technical Summary of the Environmental Statement (ES) prepared in 2007 for the AWPR. The 2007 ES replaces the December 2006 ES, which is now withdrawn.

The ES is a report of the findings of the Environmental Impact Assessment (EIA) work carried out on the scheme proposals. This summary seeks to present the key issues identified from this work, including the beneficial and adverse impacts considered to be of particular importance, in an easily understandable form. Full details of all impacts identified may be found within the ES.

Need for the Scheme

The AWPR was identified as a key element of an integrated transport system for the North East of Scotland, following studies by the regional transport partnership NESTRANS. The overall proposals are called the Modern Transport System (MTS) and include a range of public transport measures as well as the AWPR.



The MTS was developed in recognition of the level of congestion experienced on existing roads in and around Aberdeen, together with the use of unsuitable local roads by traffic wishing to bypass the city. The AWPR functions within the MTS by removing traffic from both the city areas

and unsuitable local roads, thus enabling public transport improvements to be implemented.

To achieve this, the AWPR acts as both a bypass for long-distance traffic and a distributor road for local journeys. In doing so, it provides links between existing and proposed Park and Ride sites and connects industrial sites around the city with each other and with the proposed rail freight transfer sites.

Alternatives considered

Proposals for a peripheral route around Aberdeen have been considered for many years. In the 1990s proposals were developed for the Western Peripheral Route (WPR) connecting Charleston, on the A90 south of Aberdeen, with Craibstone, on the A96 west of Aberdeen. In 2002 proposals were developed to connect Craibstone with Blackdog on the A90 north of Aberdeen.

The combined corridor was named the AWPR and adopted by the Scottish Executive for promotion as a Trunk Road in 2003. Between October 2003 and December 2004 the proposals were refined within the corridor, at which time the Scottish Executive requested that consideration be given to alternative corridors for the southern section of the route.

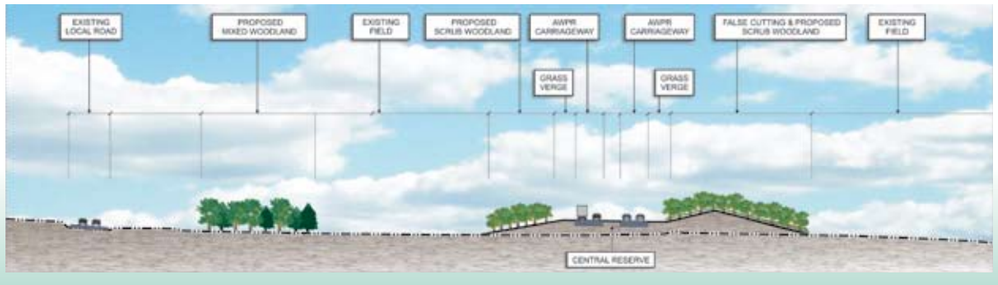
In December 2005, following consideration of the alternative corridors and informal public consultation, the Minister for Transport selected the Milltimber Brae option for the route corridor between Charleston and Kingswells, with the addition of a link to the A90 at Stonehaven. The corridor between North Kingswells and Blackdog remained unchanged.

Various options have been considered in the work outlined above. This process has involved the production of a number of reports and papers that set out the environmental, engineering and economic advantages and disadvantages of the options in question.

The Proposed Scheme

The main road has been designed in accordance with the Design Manual for Roads and Bridges, which sets out requirements for Trunk Roads. The side roads and accesses have been designed to standards agreed with the local authorities.

The main road will be dual carriageway with two lanes in each direction, except for the section between North Kingswells Junction and Craibstone Junction, which will be three lanes in each direction. Access to the route will be possible at the following junctions, which, in order from south to north, are located at:



TYPICAL CROSS-SECTION SHOWING TWO-LANE DUAL CARRIAGEWAY.

- Stonehaven (A90)
- Charleston (A956)
- Milltimber (A93)
- South Kingswells (A944)
- North Kingswells
- Craibstone (A96)
- Goval (A947/B977)
- Blackdog (A90)

No other public access will be provided to the route, although a gated access for the emergency services will be provided on the Fastlink, south of Cookney at Elrick.

The Fastlink and the Southern Leg connect to each other at Cleanhill Junction.

The AWPR will be classified as a Special Road, and access will be restricted to certain classes of vehicles. For example, farm vehicles and cyclists will not be permitted.

Side roads and existing paths and tracks crossed by the route will be maintained or realigned wherever practicable. Footpaths and tracks will be provided to accommodate users including pedestrians, cyclists and equestrians.

The level of the road varies along its length, with sections on embankment, in cutting or close to existing ground level. The route includes major structures to cross the River Dee, the River Don and the Aberdeen to Inverness Railway, as well as at the junctions on the route. Street lighting will only be required in junction areas, where it will be restricted to the side roads and the ends of the slip roads.

General Approach to Environmental Impact Assessment

The EIA has been undertaken as an integral part of the design process, informing decisions on the proposals as they were developed. Environmental constraints and issues were identified and incorporated into the decision-making process throughout. This process used information gathered in the extensive surveys carried out since early 2004. The aim of the EIA is to:

- Gather information about the environment of the study area and identify environmental constraints and opportunities that may influence or be affected by the proposed scheme
- Identify and assess potential environmental impacts
- Identify and incorporate design features and measures to either avoid or reduce adverse impacts, or enhance beneficial impacts

The EIA considers the biological, physical and historic environment, as well as human welfare and current or planned future use of the environment.

Scoping and Consultations

As part of the EIA, a comprehensive consultation exercise was carried out with over 50 organisations, including statutory bodies, non-statutory bodies and community councils. In addition, over 200 landowners and tenants were consulted. The purpose was to:

- Afford organisations with a particular interest in the environment and landowners affected by the scheme the opportunity to comment on the developing proposals
- Obtain information regarding existing environmental conditions
- Establish environmental issues and potential impacts for consideration
- Identify those issues likely to require more detailed study
- Identify the most appropriate means of assessment

The AWPR alignment has been progressed through close working between all key stakeholders and the project team to develop a scheme that aims to minimise environmental impacts through avoidance of sensitive features and careful design.

Land Use

The AWPR is largely set within a rural environment, mostly in agricultural use. The total agricultural land requirement is approximately 600 hectares.

Impacts on land use include direct loss of land, severance and demolition of property. In addition, changes in access or other related effects are possible.

Measures included in the scheme proposals to reduce the impacts on agriculture will include the provision of bridges or underpasses to maintain access to fields, together with reconnection of field drainage systems, watering points for livestock and reinstatement of boundary features. Where land-take or demolition is required, land or property owners will be compensated appropriately according to the District Valuer's assessment. The route will also affect some community land, predominantly in the form of woodland. While mitigation planting will compensate for the loss of some areas, overall there will be a slight decrease in community woodland area.

NORTHERN LEG

The main commercial and residential areas include Dyce and Blackdog. In addition, there are scattered properties situated in the surrounding countryside. The viability of six farms will be adversely affected. There are several commercial properties in the area. Changes to access could have adverse effects on six businesses. In addition, seven businesses would be affected by land-take. The scheme will require the demolition of three residential properties and an outbuilding. The scheme will pass through the planned development site between the A96 and Dyce Drive. In this locality, the scheme will affect part of an area for a proposed Park and Ride site, although transport connections will be improved by the AWPR.

SOUTHERN LEG

The main residential areas include Charleston, Milltimber, Peterculter and Kingswells. In addition there are scattered properties situated in the surrounding countryside. No farms will have their viability affected. There are several commercial properties in this area. Changes to access could have adverse effects on one business, with nine businesses being directly affected by land-take and one business adversely affected by noise. The scheme will require the demolition of the International School of Aberdeen, ten residential properties and two outbuildings.

FASTLINK

The main commercial and residential areas include Stonehaven and Cookney. In addition, there are scattered properties situated in the surrounding countryside. No farms will have their viability affected. There are several commercial properties in this area. Changes to access could have adverse effects on one business, which will also be directly affected by land-take. The scheme will not require the demolition of property.

Geology, Contaminated Land and Groundwater

There are no designated sites of geological interest within the route corridor. The predominant geology of the area consists of shallow soils overlying varying types of underlying rock, including granite, with deeper soil deposits present in river valleys. Groundwater is generally considered to be of good quality and there are a number of private wells throughout the corridor. Small areas of contaminated land have been identified.

Impacts on geology, contaminated land and groundwater will typically include potential changes to groundwater flow and quality as well as risks associated with disturbance of areas of contaminated land.

Measures included in the scheme proposals to reduce the impacts include avoiding contamination of groundwater, monitoring of groundwater and replacement of affected supplies, if necessary.

Areas of contaminated land will be addressed by specific site management practices to reduce risks to site workers, the general public and the environment.

NORTHERN LEG

A number of private wells have been identified in this area. No significant issues or impacts have been identified.

SOUTHERN LEG

A site of ecological interest supported by groundwater has been identified at Hare Moss. Numerous private wells are present in this area. No significant impacts have been identified, although groundwater monitoring will be undertaken in the vicinity of Hare Moss.

FASTLINK

Fishermyre wetland is a site of ecological interest supported by groundwater. There are a number of springs emerging from the northern valley of Limpet Burn. Several private wells have been identified in this area. No significant impacts have been identified.

Water Environment

The predominantly rural environment through which the scheme passes contains a number of watercourses and open drainage features. The scheme includes around sixty watercourse crossings, including Aberdeen's two major rivers, the Dee and the Don.

Impacts on the water environment from the AWPR are mainly related to changes to the form of watercourses that will arise through culverting or realignments. There is also the risk that a pollution incident during construction or operation of the road could adversely impact the water environment.

Measures in the scheme proposals to reduce the impacts on the water environment include bridging sensitive watercourses, maintaining existing watercourse edges, where practicable, and providing treatment facilities for road drainage prior to outfall to watercourses. Strict pollution prevention measures will be implemented during construction.

NORTHERN LEG

In addition to the River Don, there are around 16 watercourses and field ditches, six ponds or loch features, one surface water spring and one man made waterbody, Mill Lade. Key issues include adverse effects predicted for Gough, Craibstone and Bogenjoss Burns.

SOUTHERN LEG

In addition to the River Dee, there are 19 watercourses and field ditches, several ponds, one loch, and two moss features. The River Dee and some of its tributaries, including part of Crynoch Burn, are designated as a Special Area of Conservation (SAC) associated in part with their high level of existing water quality.

SOUTHERN LEG (CONTINUED)

Construction and operation impacts on the River Dee SAC are not anticipated to be significant. The potential for adverse impacts on Kingcausie Burn (a tributary of Crynoch Burn) during construction has been identified.

FASTLINK

There are around 21 watercourses and field ditches as well as Fishermyre wetland located within this section of the scheme. Key issues include the potential for adverse impacts at Limpet Burn.

Ecology and Nature Conservation

In general, the route passes through agricultural areas of low ecological value, although there are a number of sites within the route corridor designated for their ecological importance including the River Dee SAC, Sites of Special Scientific Interest, District Wildlife Sites and Sites of Interest to Natural Science. Some areas are valuable habitats supporting a range of species, including protected species such as badgers, bats, otters, water voles and red squirrels.

EXAMPLE OF DRAINAGE PONDS

ECOLOGY SURVEY WORKS

Impacts on ecology arising from the AWPR include the potential for wildlife fatalities and the loss, fragmentation and severance of habitat. The scheme will also result in some disturbance to species and the potential for pollution of freshwater habitats.

Mitigation measures included in the scheme proposals to avoid or reduce impacts on ecology include:

- Adjustment of the alignment during scheme design
- Incorporation of measures to reduce habitat fragmentation such as bridges for use by wildlife at Cleanhill Wood and Kirkhill Forest
- Habitat replacement and creation using carefully selected plant species throughout the scheme, including areas at Kingcausie, Kirkhill Forest and Goval Burn
- Use of fencing to prevent wildlife fatalities
- Culverts designed to allow fish and mammal passage
- Mammal underpasses, in particular for badger and otter movements
- Measures during construction to protect water quality
- Incorporation of Sustainable Drainage Systems (SUDS) to treat road drainage
- A combination of measures to protect the River Dee SAC

In locations where impacts on protected species could arise, licences may be required to allow the appropriate measures to be put in place to avoid or reduce impacts.

NORTHERN LEG

Important locations include the Scottish Agricultural College Campus at Craibstone, the Kirkhill Forest area, the River Don valley, the Goval Burn area, Red Moss (Parkhill) and Corby and Lily Lochs. These key areas provide valuable woodland and riparian habitats for otters, badgers, bats, birds and red squirrels. The provision of mitigation measures will avoid or reduce adverse impacts on habitats and protected species.

Key issues include adverse impacts at:

GOVAL BURN

NORTHERN LEG (CONTINUED)

- Craibstone due to risk of wildlife fatalities and the fragmentation of badger, otter and red squirrel habitat
- Kirkhill Forest / surrounding woodlands and Bogenjoss Burn due to risk of wildlife fatalities, habitat loss, fragmentation and disturbance of otter, red squirrel and freshwater habitats
- Goval Burn and Corsehill due to fragmentation and disturbance of badger and otter habitats
- Corsehill and Little-John's Wood due to risk of wildlife fatalities and fragmentation of red squirrel habitat

SOUTHERN LEG

Important locations include the River Dee valley which is designated as a SAC for Atlantic salmon, otters and freshwater pearl mussels. Hare Moss, Cleanhill Wood, Kingcausie, Milltimber and Gairnhill are also important habitats for protected species, such as otters, badgers, bats and red squirrels.

The provision of mitigation measures will avoid or reduce adverse impacts on habitats and protected species.

Key issues include adverse impacts at:

- Kingcausie owing to habitat fragmentation, severance and loss of terrestrial habitats
- Cleanhill Junction owing to the disturbance of bat species

SOUTHERN LEG (CONTINUED)

- Milltimber Wood owing to the fragmentation of badger and red squirrel habitats and the potential for risk of wildlife fatalities
- Gairnhill Wood owing to the potential for red squirrel fatalities

The design of the proposed bridge and scheme in the vicinity of the River Dee SAC takes account of the need to avoid impacts on freshwater pearl mussels, salmon and otters. Stringent measures will be put in place during construction to protect designated species and their habitats.

FASTLINK

In general, the ecology of the Fastlink is less sensitive than the other sections of the AWPR. Important locations include Limpet Burn, Megray Wood, Burn of Muchalls and Fishermyre. Fishermyre is an important area supporting wetland habitats, otters, bats, birds and water voles.

The provision of mitigation measures will avoid or reduce adverse impacts on habitats and species.

Key issues include adverse impacts at Fishermyre due to the severance of otter habitats at Green Burn from Fishermyre Moss and other wetland habitats to the west of the scheme.

RIVER DON

Landscape

The road crosses a predominantly rural landscape, which has a range of landscape characters relating to topography, vegetation and land use.

Impacts will typically be associated with the introduction of the road, embankments, cuttings, bridges, junctions, lighting and vehicle movements into the open and wooded farmland, hill and valley landscapes.

Measures included in the scheme proposals to reduce impacts on the landscape include careful alignment of the road and easing of embankment and cutting slopes to blend with existing landforms and allow a potential return to agriculture. Appropriate boundaries, such as drystone walls or planting, will be put in place to reflect existing boundaries and maintain the character of the landscape. The effectiveness of this planting will typically increase over time as vegetation matures.

NORTHERN LEG

The area to the north of the River Don is designated as an Area of Landscape Significance. Key issues include adverse impacts where the AWPR:

- Passes through the mature woodlands at Craibstone and bridges the A96
- Cuts through the open undulating farmlands around Goval where the realigned A947 will bridge the AWPR
- Crosses the lower slopes of Tyrebagger Hill
- Passes through open farmlands between Kirkhill and Dyce and between Goval and Blackdog

SOUTHERN LEG

The River Dee valley and its immediate surroundings to the south lie within an area designated as an Area of Landscape Significance. Key issues include adverse impacts where the AWPR:

- Cuts through the wooded hillside at Craigingles
- Crosses the open and scenic Dee Valley
- Passes through the residential area of Milltimber in a large cutting
- Crosses the slopes of Fifeshill and Beans Hill

FASTLINK

There are no landscape designations in this area. Key issues include adverse impacts where the AWPR:

- Crosses the open farmland of Muchalls and the rural valley at the Burn of Muchalls
- Passes through open farmland on embankment at Blaikiewell
- Cuts through hillsides at Megray, Cookney, Rothnick and Stranog

Visual

The assessment of visual impact considers views from buildings and outdoor public areas which are called 'receptors'. Although there are locations throughout the route where receptors are clustered together, predominantly they are scattered and dispersed throughout the route corridor.

Impacts will typically occur where a receptor is close to the route or where open views are possible towards the route. The impacts will generally be associated with physical aspects of the scheme itself, or with traffic and moving headlights being present within a rural setting.

Measures included in the scheme proposals to reduce these impacts include the use of false cuttings and planting to screen the road. In addition, eased earthworks, slopes and boundary treatments that match existing boundaries will help to reduce the visual impact.

NORTHERN LEG

Built receptors in this area are generally scattered, with larger settlements present at Kingswells, Dyce, Potterton and Blackdog. Outdoor receptors such as roads and pedestrian, equestrian and cycle routes are spread throughout the area.

Once the mitigation planting has established, key issues include adverse impacts at 360 built receptors, with clusters in the following areas:

- Chapel of Stoneywood and A96 junction
- Northern bank of the River Don around Goval and Corsehill

Key issues also include adverse impacts at 45 outdoor receptors in mainly rural locations, including the roads and paths around Craibstone and Goval.

SOUTHERN LEG

Built receptors in this area are generally scattered, with larger settlements present at Charleston, Milltimber, Kingswells and Westhill. Outdoor receptors such as roads and pedestrian, equestrian and cycle routes are spread throughout the area.

Once the mitigation planting has established, key issues include adverse impacts at 436 built receptors, with clusters in the following areas:

- Crossroads (Banchory-Devenick)
- Haremoss
- Burnhead/Cleanhill
- Milltimber
- Silverburn/Gairnhill area
- Kingswells
- Westhill

Key issues also include adverse impacts at 137 outdoor receptors in mainly rural locations for example footpaths and minor roads in the areas around Hare Moss, Cleanhill, the River Dee, Gairnhill and Kingswells.

FASTLINK

Built receptors in this area are generally scattered, with the only larger settlement being Stonehaven. Outdoor receptors such as roads and pedestrian, equestrian and cycle routes are spread throughout the area, with outdoor recreation spaces concentrated in Stonehaven.

FASTLINK (CONTINUED)

Once the mitigation planting has established, key issues include adverse impacts at 77 built receptors, with clusters in the following areas:

- Megray
- The Burn of Muchalls valley
- Cookney
- Stranog
- Burnhead/Cleanhill

Key issues also include adverse impacts at 83 outdoor receptors in mainly rural locations, such as footpaths and minor roads around Megray, the Burn of Muchalls valley, Cookney, Stranog and Cleanhill.

Cultural Heritage

There are a number of sites of cultural heritage importance located within the route corridor. The effects on these include direct physical impacts and indirect impacts on their setting.

Where possible, the route of the road has been designed to avoid or reduce direct impacts or impacts on the setting. Where this has not been possible, archaeological recording is proposed for known sites where direct impacts are predicted. Works will also be undertaken to identify and record previously unknown sites. In addition landscape design proposals have been developed to reduce impacts on setting.

NORTHERN LEG

Important sites include the Aberdeenshire Canal Scheduled Ancient Monument (SAM) which, in the vicinity of the AWPR, survives as two parallel banks of earth and stone. Another SAM in the Northern Leg study area is Tyrebagger Hill Recumbent Stone Circle, comprising a circle of 11 stones.

KINGSWELLS CONSUMPTION DYKE

NORTHERN LEG (CONTINUED)

Key issues include:

- Adverse direct impacts predicted at Ashtown Boundary Stone 39 (Category B Listed Building), Parkhill Pumping Station (Category B Listed Building) and Wester Hatton Cottages Cropmark
- Adverse impacts on setting predicted at Tyrebagger Hill SAM and Aberdeenshire Canal SAM

SOUTHERN LEG

Important sites include the Kingswells Consumption Dyke SAM, which is a thick stone wall formed during agricultural improvement. Located to the west of Kingswells is Cloghill Longcairn SAM, a Neolithic burial monument. Also close to Kingswells is a Friends' (Quakers) Burial Ground. This feature and an archaeological landscape complex on Beans Hill have been proposed as SAMs.

Key issues include adverse impacts on setting at the Kingswell Consumption Dyke SAM, Longcairn SAM, Beans Hill, Friends' Burial Ground and as well as Kingcausie House.

FASTLINK

Important sites include the East Crossley hut circle and field system, White Hill hut circles and Cantlayhills cairn, which are all SAMs.

Key issues include adverse impacts on the setting of these SAMs and a number of other sites of cultural heritage importance including Stranog Hill Cairns and sites on Kempstone Hill.

Air Quality

Existing air quality throughout the route corridor is generally very good, with poorer levels only being experienced close to existing busy roads.

The impacts resulting from the scheme include both increases and decreases in air pollutant levels at various locations. Within 500m of the scheme, more locations will experience adverse impacts than beneficial impacts. However, the overall impact across the wider area will be to reduce exposure to air pollutants, especially in the centre of Aberdeen, where levels currently exceed the health protection standards. These standards are not predicted to be exceeded in the vicinity of the AWPR, even where pollution levels increase.

Emissions of air pollutants and greenhouse gases are expected to increase as a result of the scheme, but in a national context these increases will be extremely small.

As no significant impacts have been identified, no specific measures to reduce impacts are proposed in respect of air quality.

Traffic Noise and Vibration

Existing noise and vibration levels throughout the route corridor are generally low, with the background noise level being typical of a rural environment. Higher noise levels are experienced close to existing busy roads.

The impacts resulting from the scheme include both increases and decreases in noise levels associated primarily with proximity to the road network. There are also changes in the number of people likely to be bothered by airborne vibration, as the response to this is related to the noise levels.

EXAMPLE OF TIMBER NOISE BARRIER

Measures to reduce adverse impacts include the use of lower road noise surfacing materials, and screening by earthworks and noise barriers where required. The use of screening to reduce noise, where practicable, has been considered based on a combination of:

- The existing noise level experienced
- The predicted increase in noise as a result of the AWPR
- The threshold above which it is desirable to reduce noise exposure in this area

NORTHERN LEG

There are 476 residential properties within 500m of the centreline of the AWPR. Noise assessment was carried out for all of these receptors.

Key issues include adverse noise impacts within 300m at ground floor level predicted for 171 properties at the year of opening, with beneficial effects at 119 properties. Specific noise mitigation is incorporated in the scheme proposals, including over 2,400m of noise-reducing fences, barriers and walls. There are four properties where it has not been feasible to reduce ground floor noise impacts at year of opening to within threshold levels. One property may qualify for noise insulation in terms of the Noise Insulation (Scotland) Regulations 1975 (NISR) due to noise level exceedence at ground floor level.

No significant vibration impacts have been identified.

SOUTHERN LEG

There are 1,176 residential properties within 500m of the centreline of the AWPR. Noise assessment was carried out for all of these receptors.

Key issues include adverse noise impacts within 300m at ground floor level predicted for 226 properties at the year of opening, with beneficial effects at 215 properties. Specific noise mitigation is incorporated in the scheme proposals, including over 7,500m of noise-reducing fences, barriers and walls. There are 25 properties where it has not been feasible to reduce ground floor noise impacts at year of opening to within threshold levels. Three properties may qualify for noise insulation in terms of the NISR due to noise level exceedence at ground floor level.

No significant vibration impacts have been identified.

FASTLINK

There are 411 residential properties within 500m of the centreline of the AWPR. Noise assessment was carried out for all of these receptors.

Key issues include adverse noise impacts within 300m at ground floor level predicted for 86 properties at the year of opening, with beneficial effects at 76 properties. Specific noise mitigation is incorporated in the scheme proposals, including over 600m of noise-reducing fences, barriers and walls. Ground floor noise impacts will be within threshold levels for all properties at year of opening. There are no properties which may qualify for noise insulation in terms of the NISR at ground floor level.

No significant vibration impacts have been identified.

Pedestrians, Cyclists, Equestrians and Community Effects

There are a number of roads, paths and tracks throughout the route corridor used by pedestrians, cyclists and equestrians.

The impacts resulting from the scheme include the severance of communities and key routes. Diversions could increase journey length, and amenity value may decrease along sections of existing routes, owing to traffic noise and visual intrusion, for example.

Measures included in the scheme proposals to reduce these impacts include connecting routes via new paths and overbridges or underpasses to cross the AWPR. Other measures include landscape planting and safety provision.

Adverse impacts on journey length and amenity will remain in some locations including Blackdog, Craibstone, Gairnhill/Kingshill Wood, Milltimber and Hatton. No significant community impacts are identified in the Northern Leg and Fastlink areas as they are characterised by scattered communities and have fewer facilities. In the Southern Leg, access to community facilities in the Peterculter and Milltimber areas is more adversely affected than elsewhere.

Vehicle Travellers

Drivers experience significant stress on the existing road network where traffic volumes are high. The AWPR will generally reduce driver stress on these existing roads due to transfer of traffic to the AWPR. Driver stress is predicted on the AWPR at areas where it is highly trafficked.

Measures to reduce driver stress such as high quality road signage will be developed as part of the detailed design.

Vehicle travellers are also affected by the views from the road, where exposure to different types of scenery and longer range views can be beneficial.

NORTHERN LEG

Low driver stress is predicted for vehicle travellers on the Northern Leg except between North Kingswells and Craibstone, where moderate to high driver stress will be experienced.

New planting, as it matures, will enclose many of the views from the AWPR, but travellers will still gain attractive, open rural views in contrast with the enclosed urban views currently experienced along the A90 through Aberdeen.

SOUTHERN LEG

Low driver stress is predicted for vehicle travellers on the Southern Leg. Most views from the AWPR will be enclosed by planting and sections of cuttings through Cleanhill and Milltimber, but elsewhere a range of attractive, rural views across rolling farmland will provide a pleasant journey for drivers in contrast to the enclosed urban views currently experienced along the A90 through Aberdeen.

FASTLINK

Low driver stress is predicted for vehicle travellers on the Fastlink.

Views from the AWPR will offer a significant change to those currently available from the A90. Views will be more open, across rolling farmland and hills. The nature of views from the new road will generally be similar to that of views from the B979.

Disruption due to Construction

The scheme lies within a predominantly rural setting. The impacts that could arise from the scheme include noise, vibration, dust and loss of amenity due to the operation of equipment and movements of construction traffic. In some instances, this will result in temporary closure of roads or paths and tracks. Construction work may also affect the natural environment through the disturbance of species, pollution of watercourses or damage to sensitive habitats.

Measures included in the scheme proposals to reduce these impacts include:

- Compliance with restrictions on acceptable noise levels in relation to sensitive locations
- Provision of screening to reduce the visual intrusion of construction operations at sensitive locations
- Minimisation of earthworks movements, including transport of materials on and off site
- Management of earthmoving operations, including spraying water to reduce dust and storing materials in suitable locations
- Implementation of a traffic management plan to maintain an acceptable level of service on roads that remain open and permit temporary closures only where suitable alternative routes exist
- Scheduling the work to avoid disturbance of protected species and using measures such as protective fencing to prevent species entering construction areas
- Careful planning of all works that have the potential to affect watercourses, including using settlement ponds to control discharge of surface water from the site and avoid sediment entering watercourses
- Use of secure fencing in order to maintain safety and security within the area of the works

The appointed contractor will document their specific proposals in a construction Environmental Management Plan (EMP), which must be approved prior to works commencing.

Adverse construction impacts not described elsewhere in this document include:

- Noise – adverse impacts at properties close to the works
- Dust – dust soiling at properties close to the works
- Disturbance to ecology – noise and increased human activity
- Visual impacts – likely near construction compounds, major structures and earthworks

Policies and Plans

The AWPR scheme has been assessed in terms of its compliance with relevant plans, policies and guidance operating at national, regional and local levels.

The AWPR, which will be a major infrastructure development lying partially within greenbelt, is supported within the Aberdeen and Aberdeenshire Structure Plan and the Aberdeen City Local Plan. Although the Aberdeenshire Local Plan does not include policies supportive of development within greenbelt, it does include supportive transport and infrastructure policy.

ROAD CONSTRUCTION WORKS

Appropriate measures to reduce the identified adverse impacts have been carefully formulated in accordance with relevant policy and guidance. However, there are some impacts that conflict with planning policy in terms of cultural heritage, landscape and visual impact, the water environment, ecology and nature conservation and public access.

Cumulative Impact Assessment

Due to the scale of the scheme and the method adopted to carry out the Environmental Impact Assessment (EIA), the Environmental Statement (ES) considers separately the impacts of the Northern Leg, Southern Leg and Fastlink. In order to assess the combined impacts of the scheme as a whole, cumulative assessment has been undertaken.

Cumulative impacts are described from the perspective of whole scheme impacts for each environmental topic area as well as considering the cumulative effects of the AWPR and other major developments proposed in the area. The combined effect of different types of impact at specific locations is also addressed, and whole scheme impacts are discussed in terms of sustainable development objectives.

The assessment found that:

- The AWPR will result in beneficial changes to air quality and noise levels within the wider study area, in particular in the urban areas of Aberdeen
- Potential adverse cumulative effects include impacts on land use, the water environment, landscape and access
- Cumulative visual impacts are likely to be adverse for outdoor receptors, but beneficial for users of the proposed scheme
- The scheme will act as an ecological barrier around Aberdeen. Successful implementation of mitigation will be required to reduce the risk of adverse cumulative impacts on ecology due to habitat loss, fragmentation and severance
- The AWPR requires some 600 hectares of agricultural land. This will have a significant overall effect on farming interests
- Within the water environment there will be realignments and culverting of many watercourses throughout the route, leading to adverse changes to the form and composition of watercourses over a wide scale
- Separate major future developments proposed for this area will be controlled through the local planning process. These, taken together with the AWPR, have the potential to create significant cumulative impacts on agricultural land use, ecology, landscape, noise and access
- Key areas which may experience a cumulation of different types of impacts include Kingcausie Wood, the River Dee crossing, Milltimber, Craibstone, Kirkhill Forest and the River Don crossing
- During construction of the AWPR, the implementation of appropriate environmental strategies including an environmental management system, and the re-use of materials where practicable, will assist in meeting sustainability targets of UK and local government policy and guidance

The cumulative impact assessment identified a requirement for wider-area mitigation measures such as habitat creation and woodland planting, along with support for existing species and habitat management schemes. The scope and detail of this wider-area mitigation is currently being developed through liaison between the project team and key stakeholders.

VIEW OF PROPOSED RIVER DEE VIADUCT

Figures

Legend

KEY ENVIRONMENTAL FEATURES

ECOLOGY

Special Area of Conservation (SAC)

Site of Special Scientific Interest (SSSI)

District Wildlife Sites (DWS)

Site of Interest to Natural Science (SINS)
Study of Environmentally Sensitive Areas (SESA)

Woodland

LANDSCAPE

Area of Landscape Significance

CULTURAL HERITAGE

Scheduled Ancient Monument (SAM)

OTHER

Watercourses

Waterbodies

National Cycle Route

PROPOSED SCHEME

Proposed Route

Embankment

Cutting

Grass Verge

Detention Basins/ Treatment Ponds

Figure 1

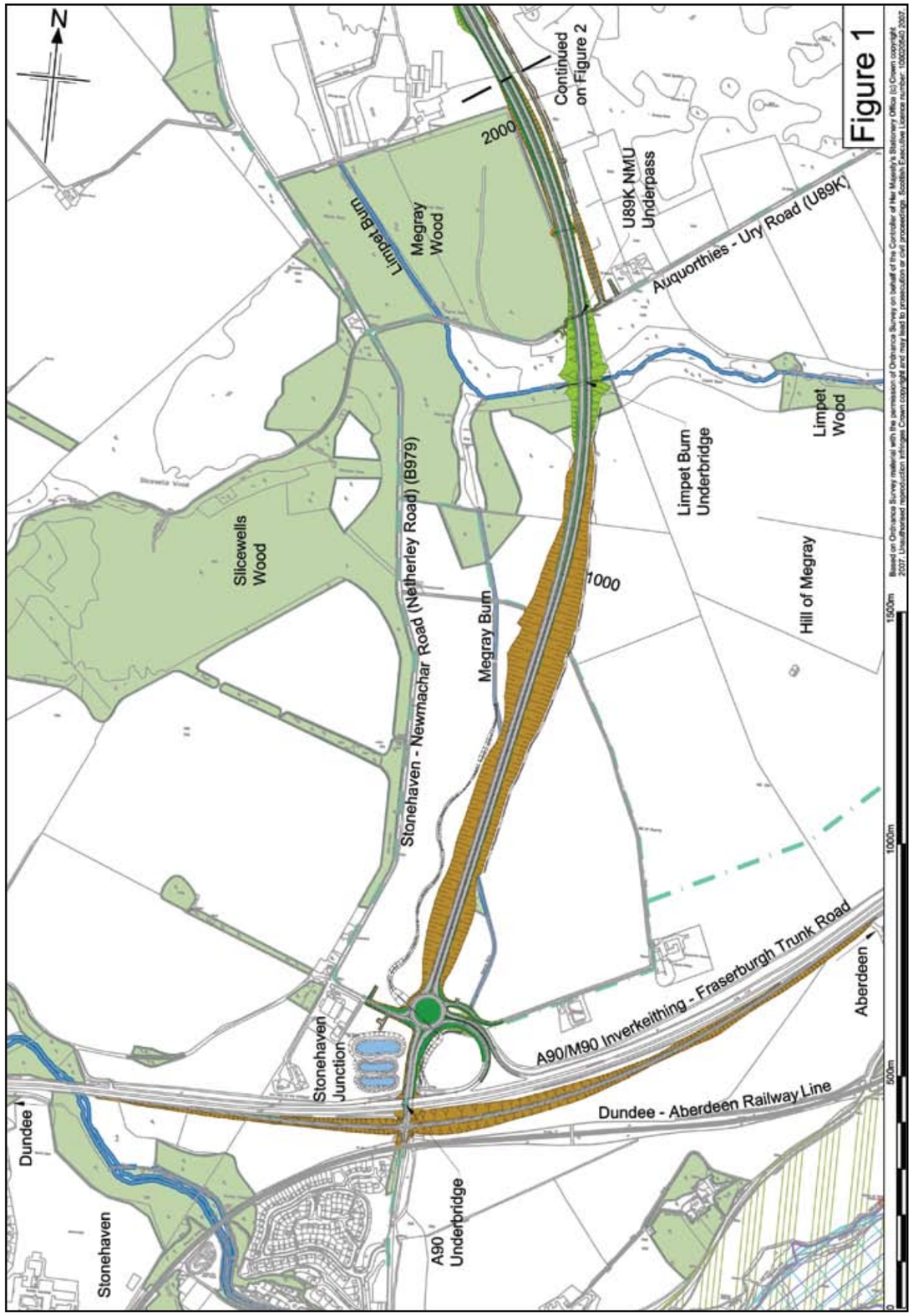
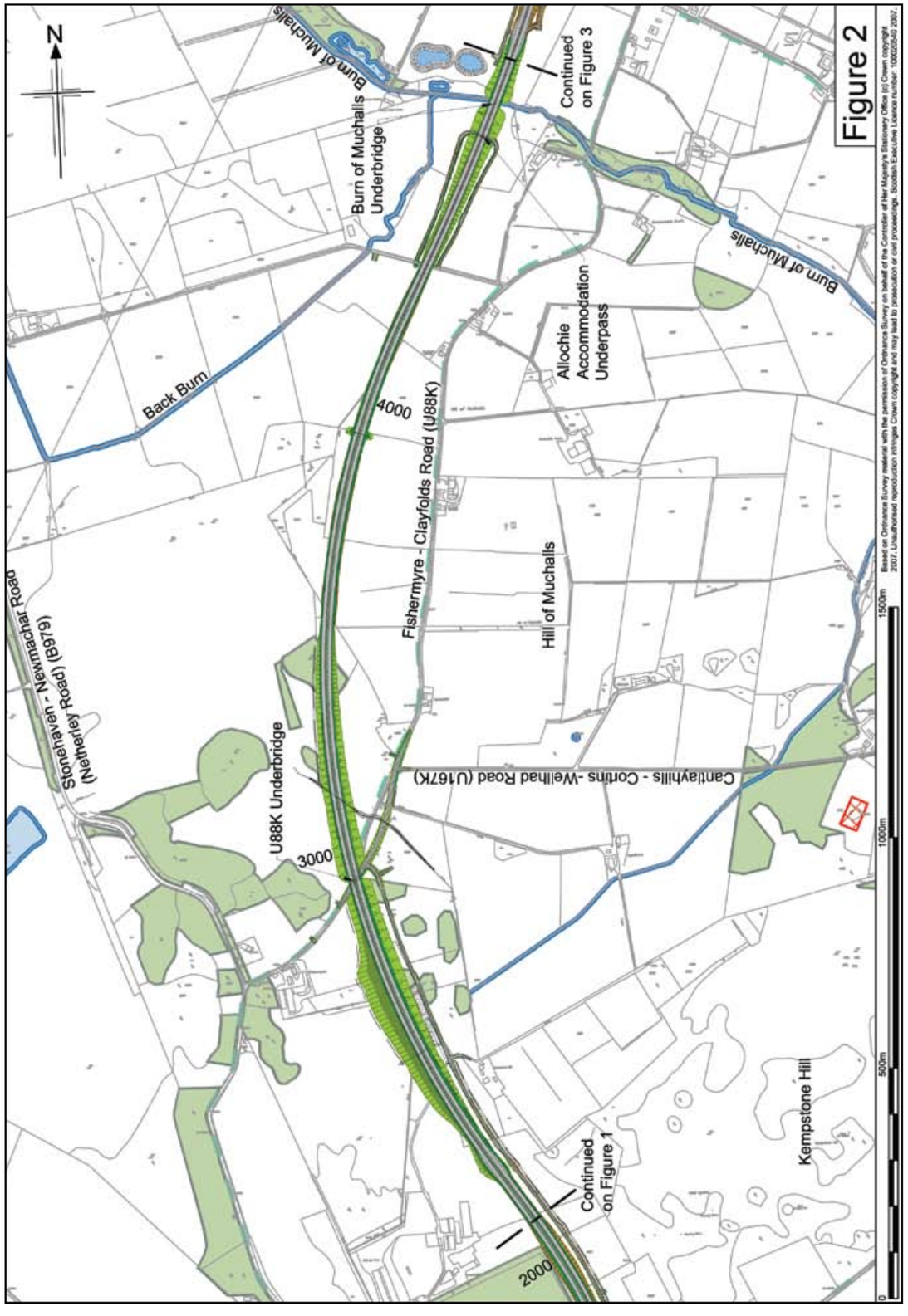


Figure 2



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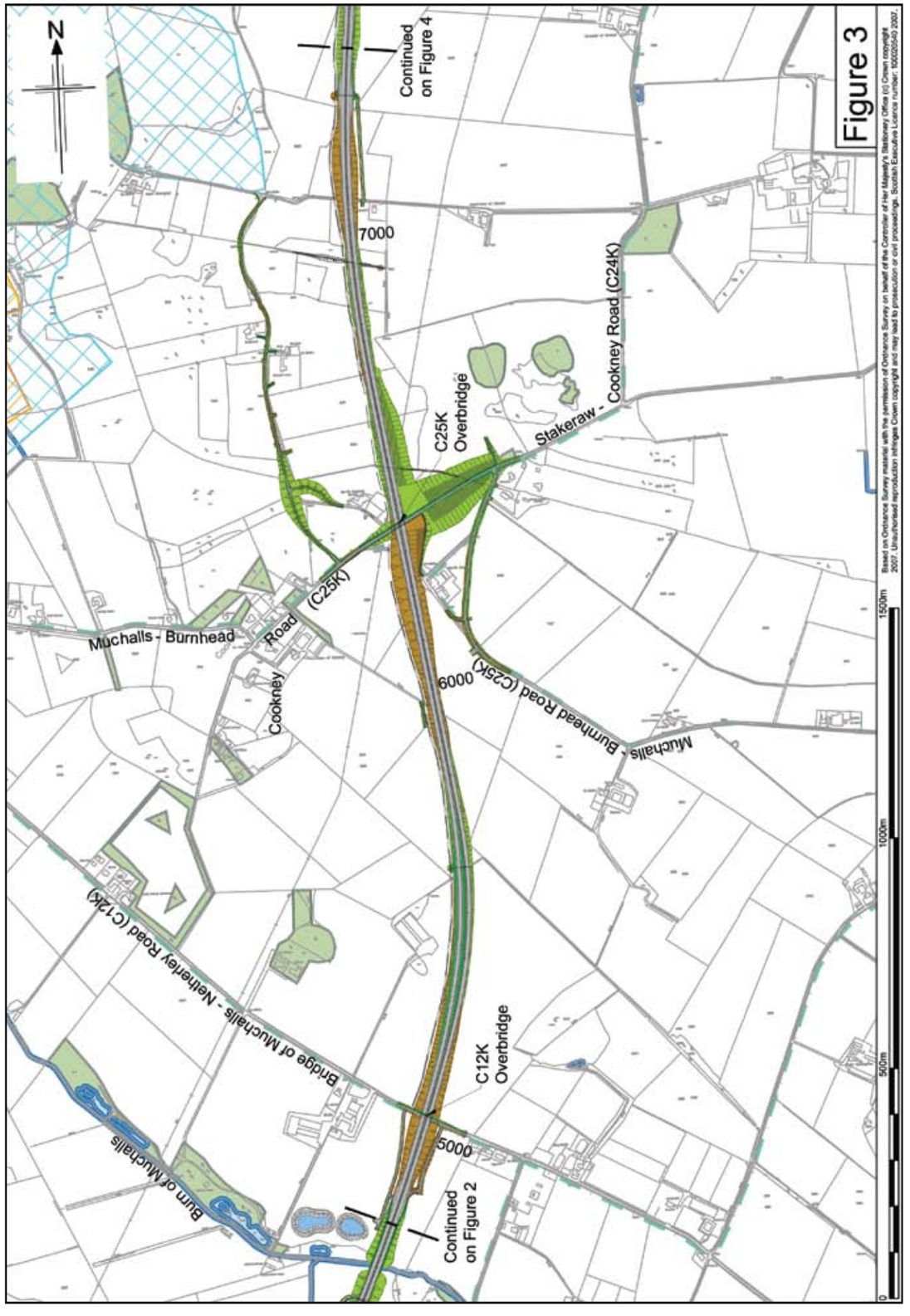

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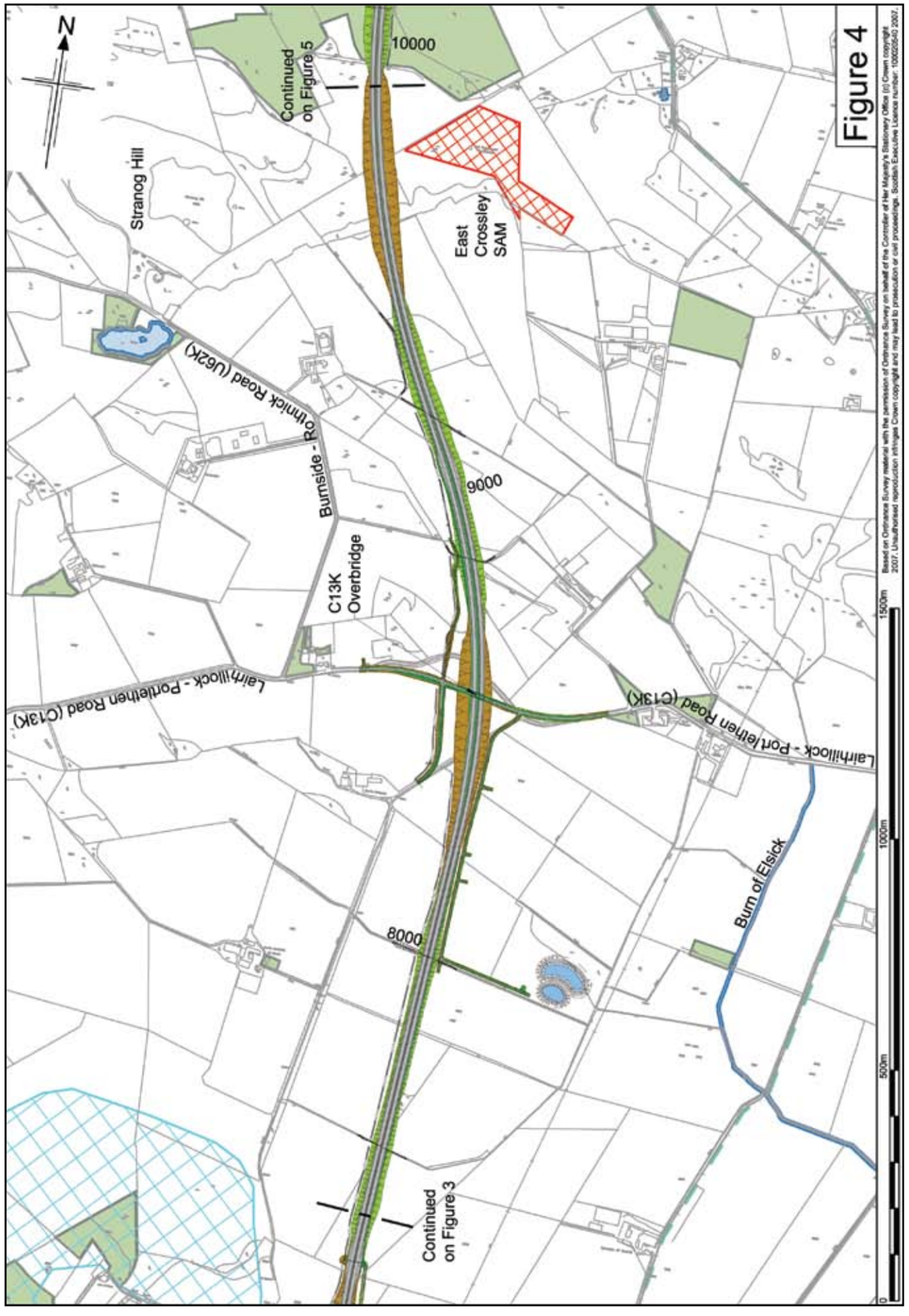

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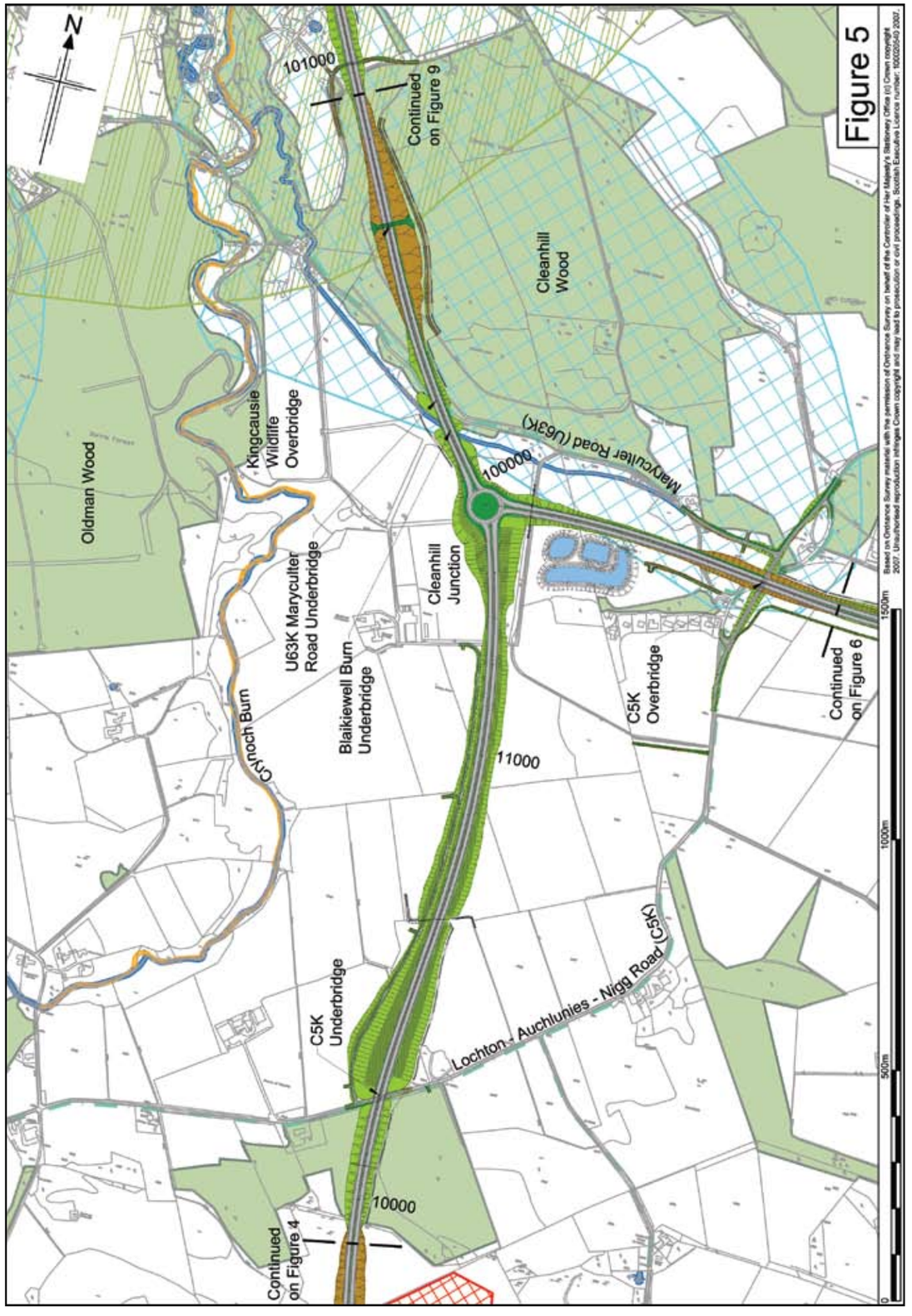

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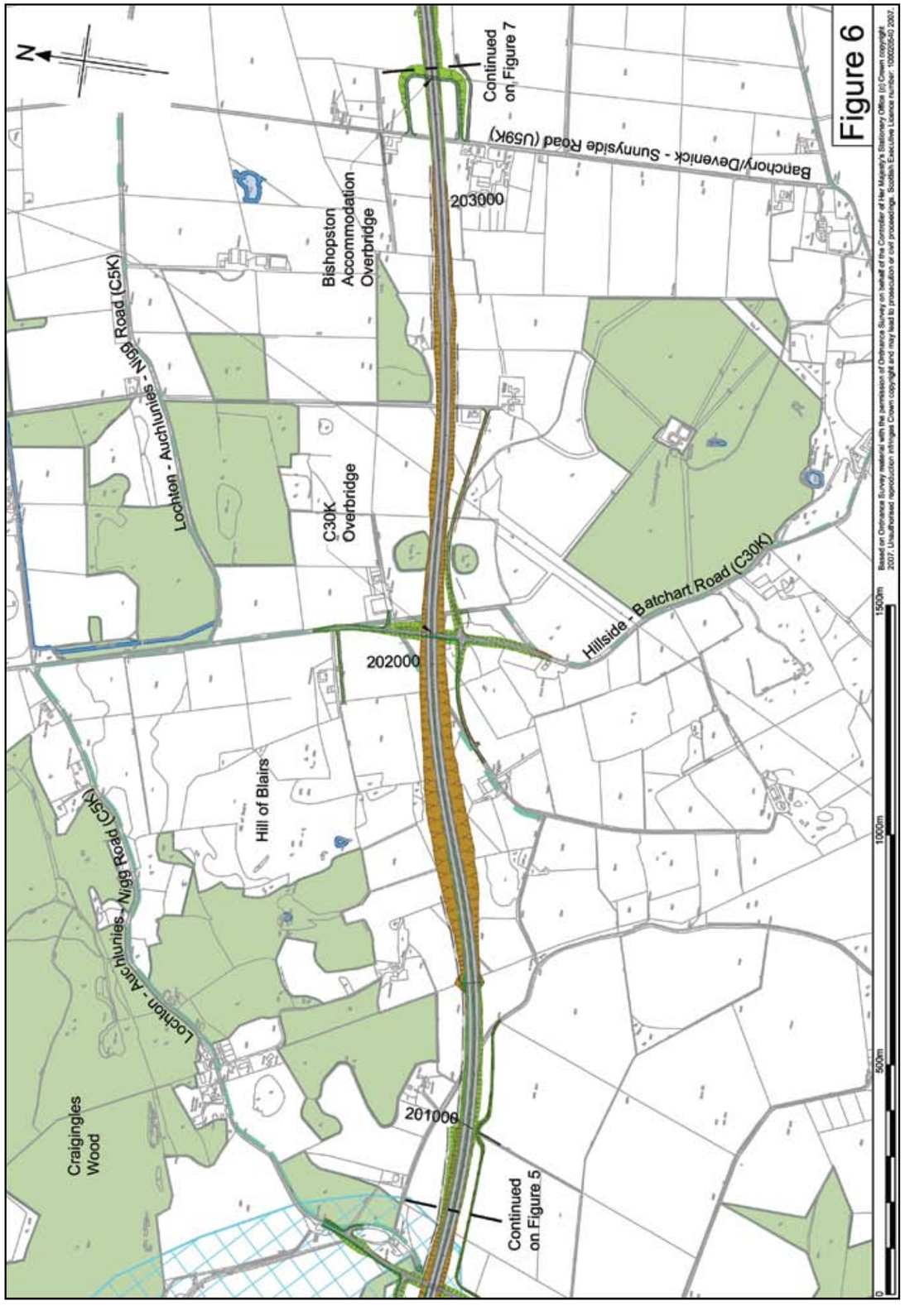

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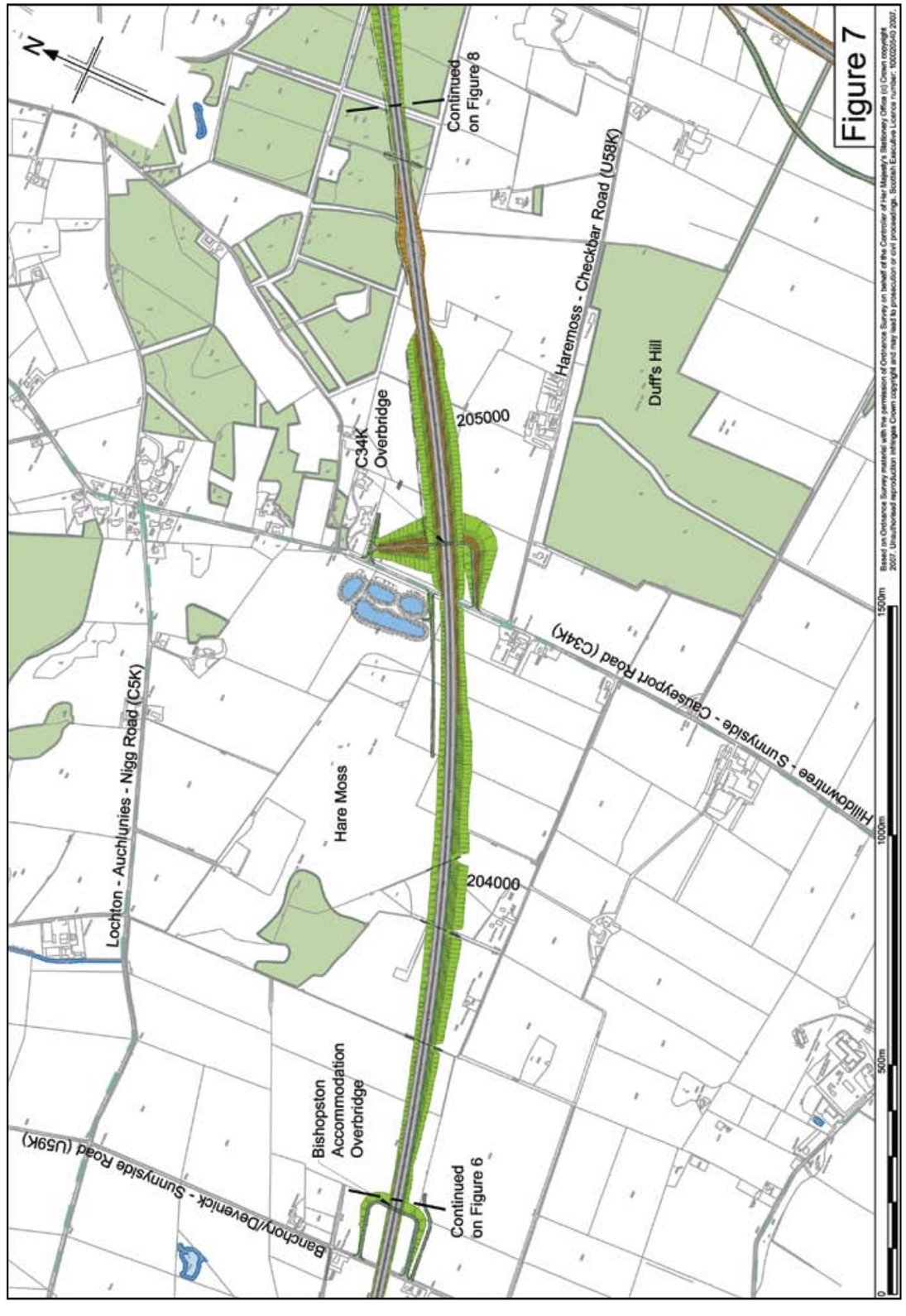

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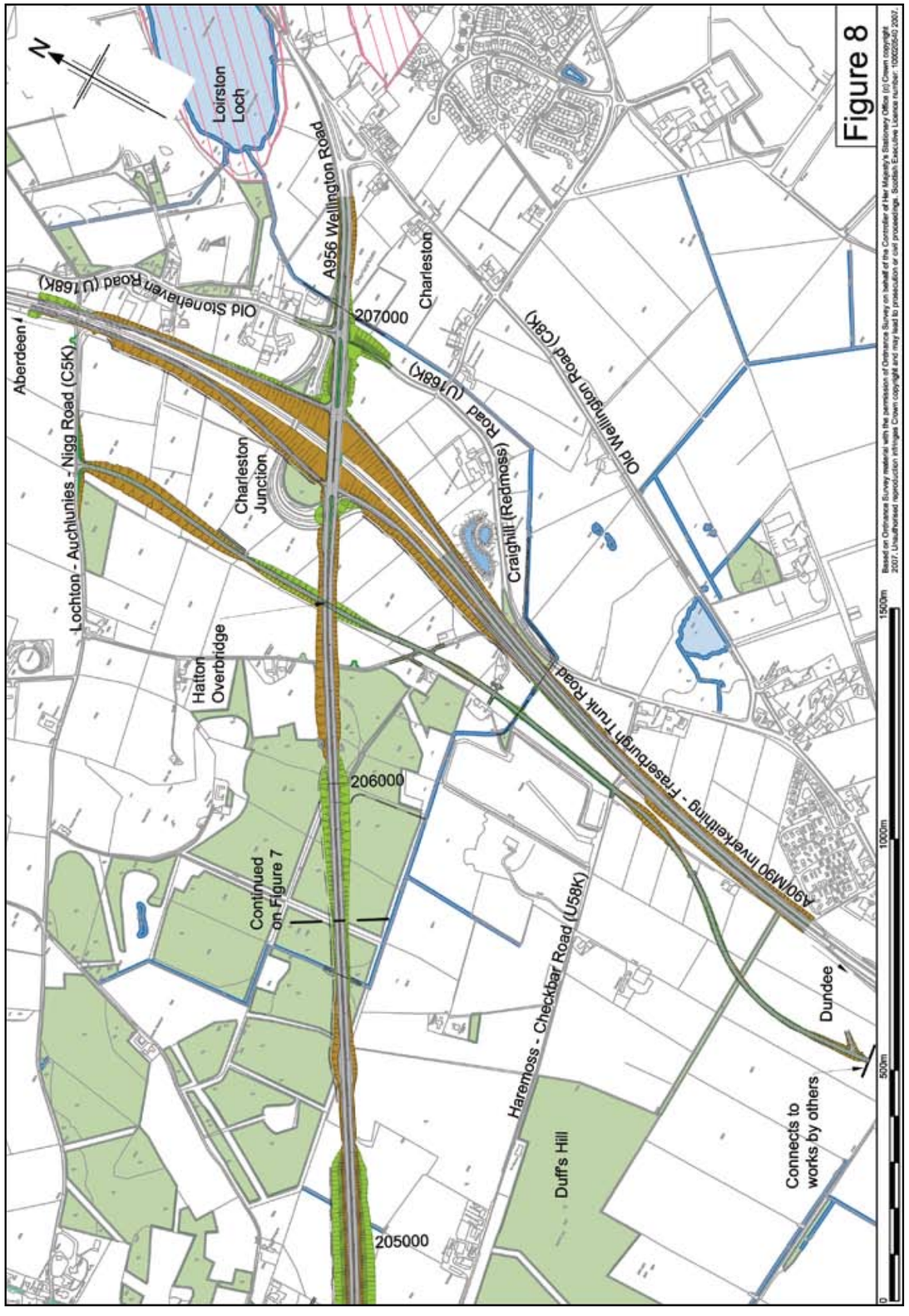

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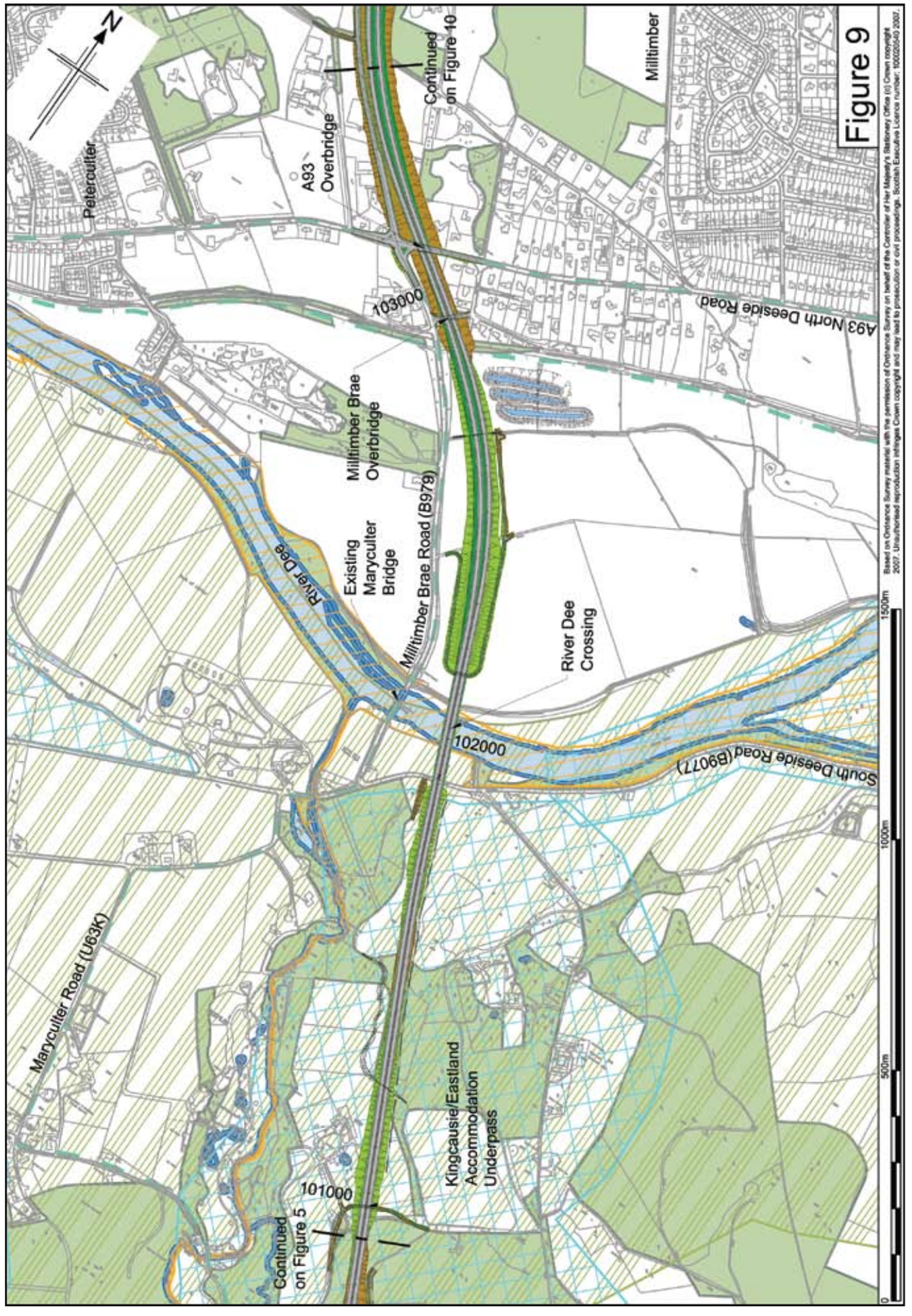

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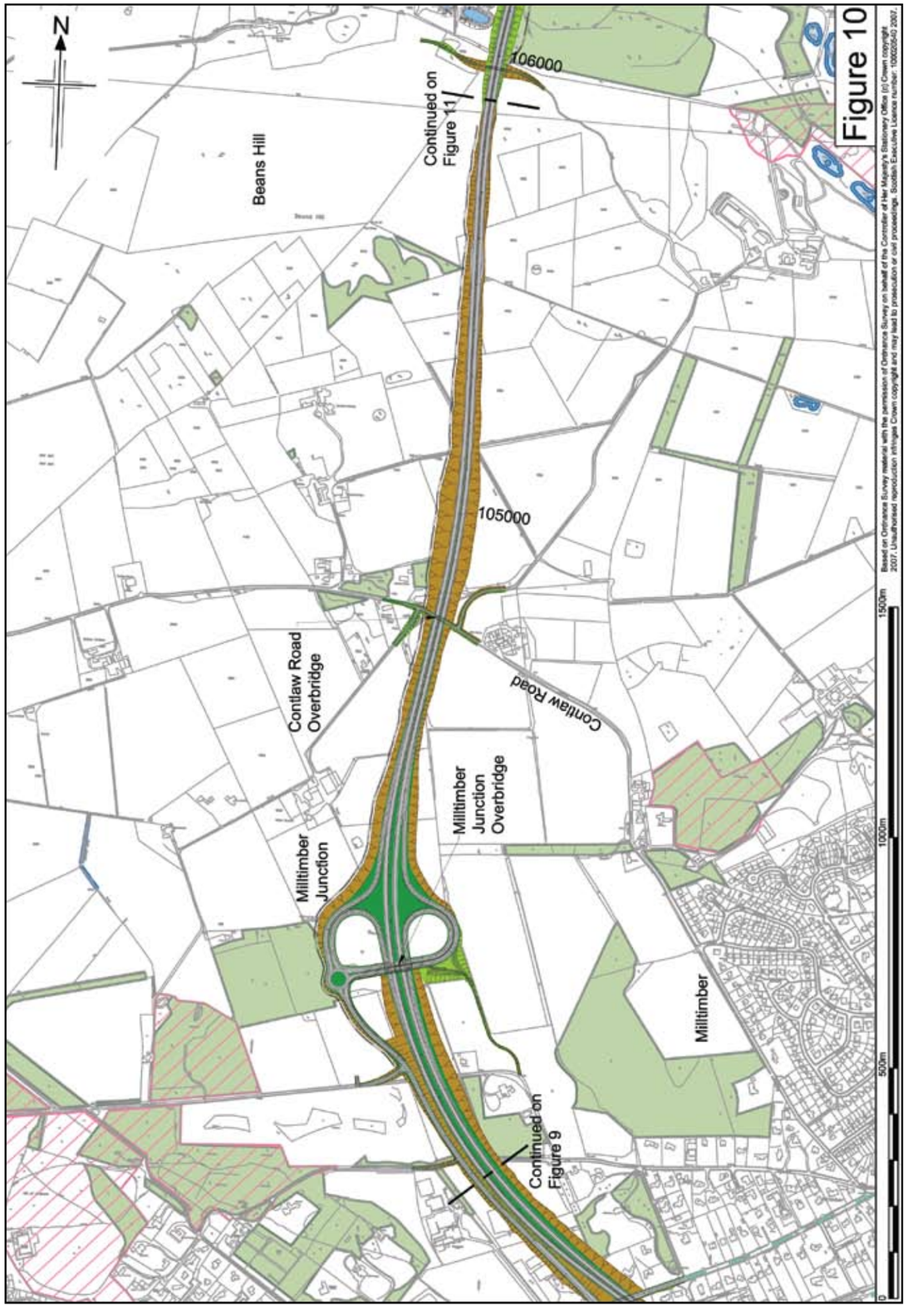

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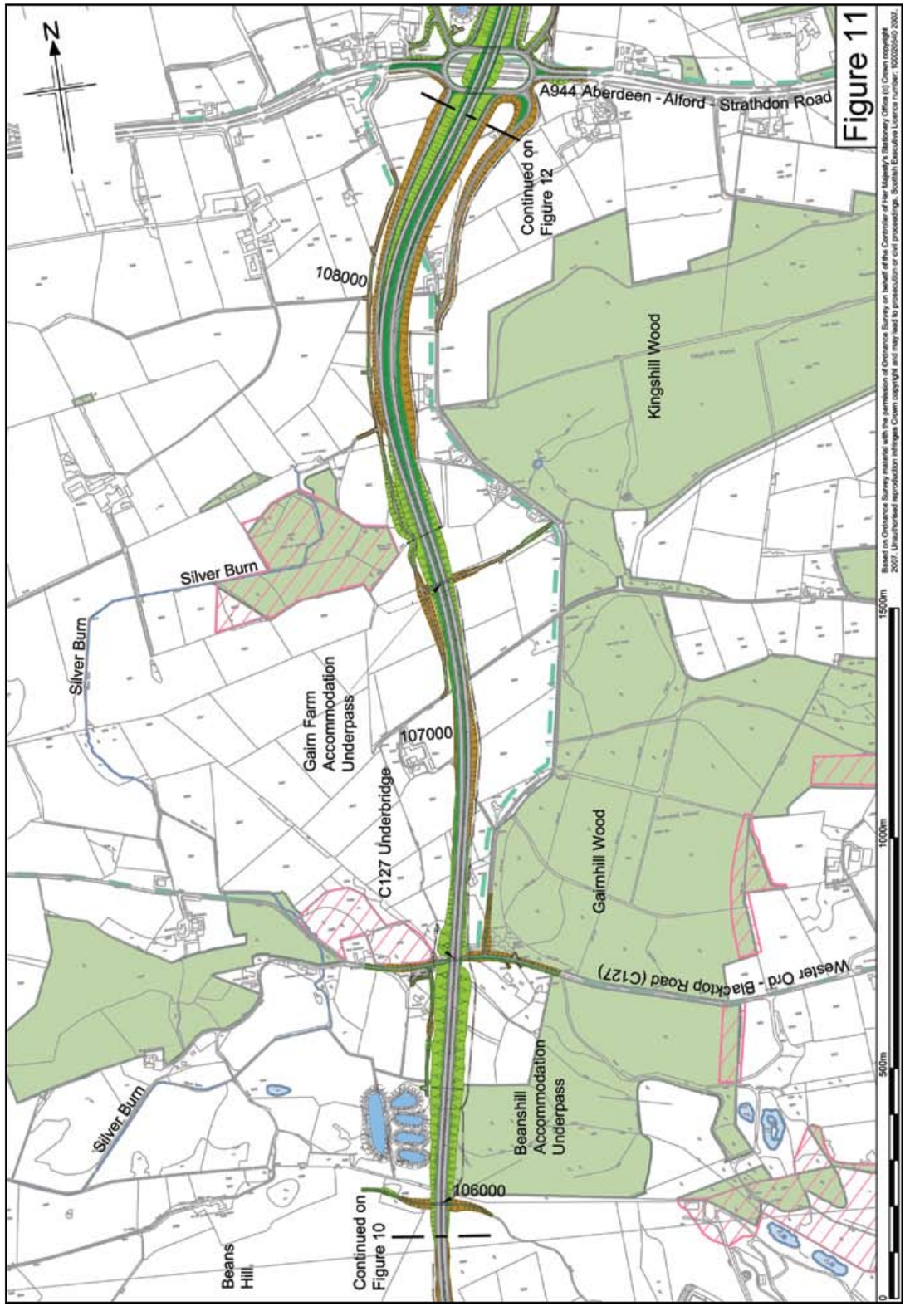

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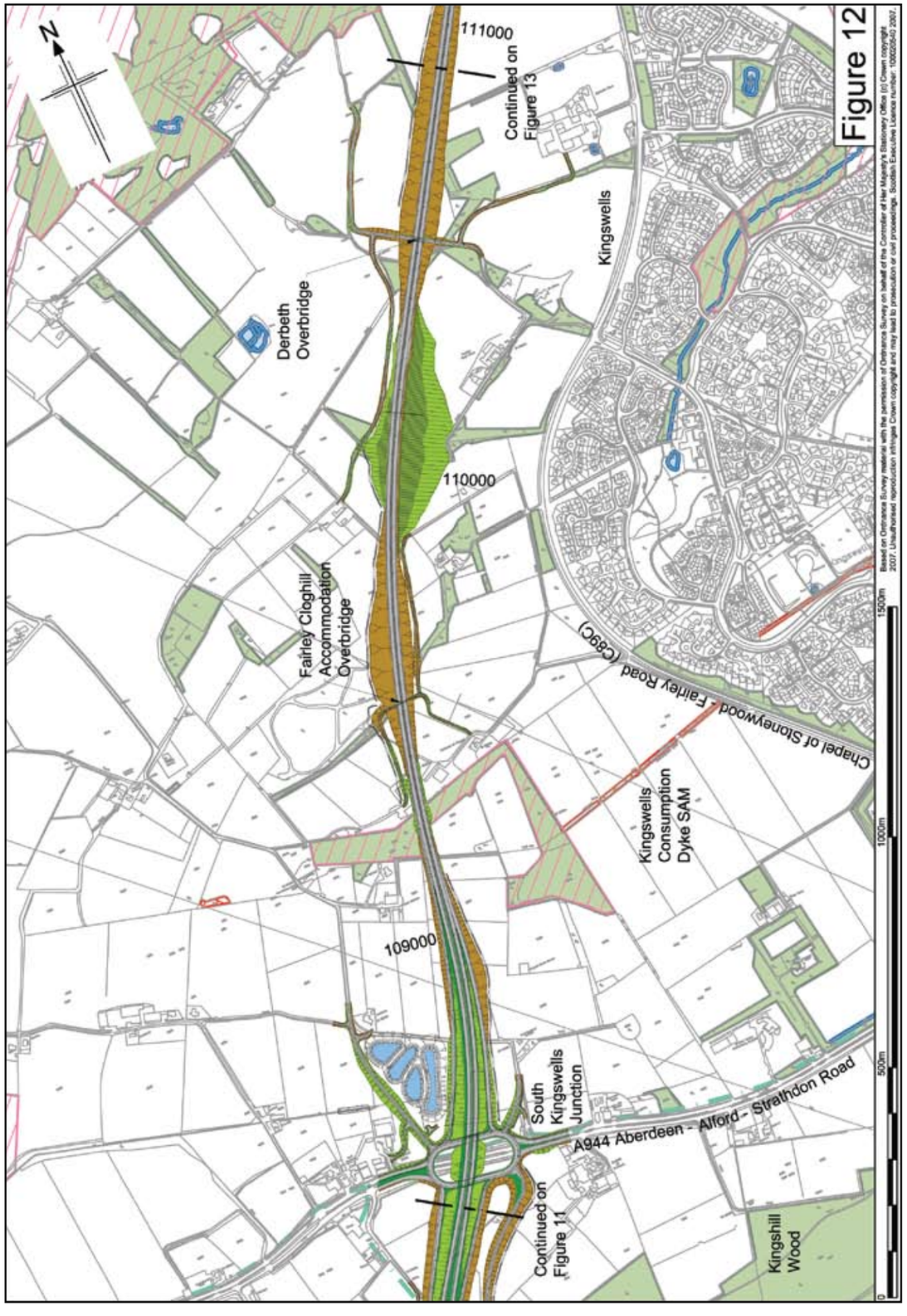

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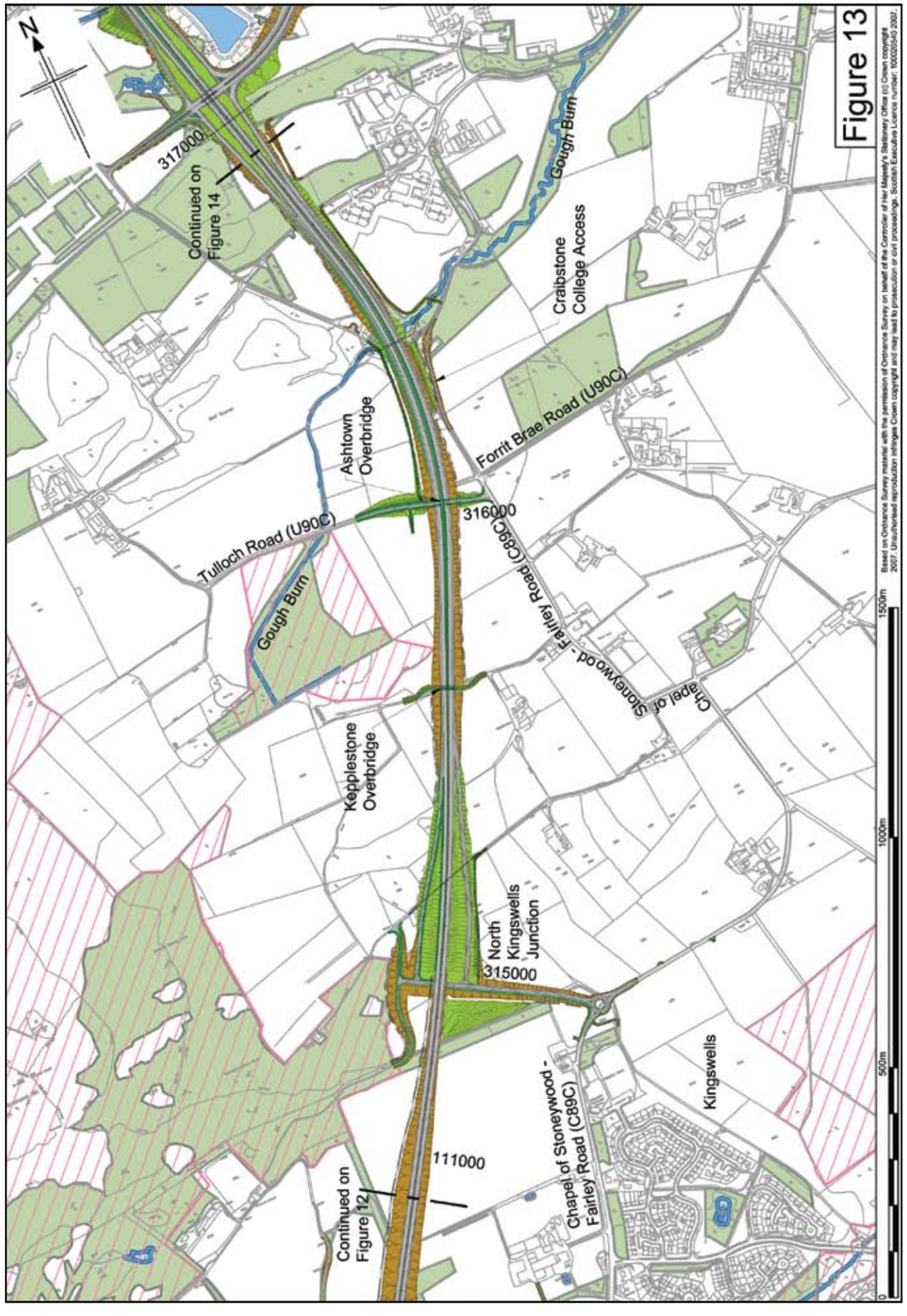

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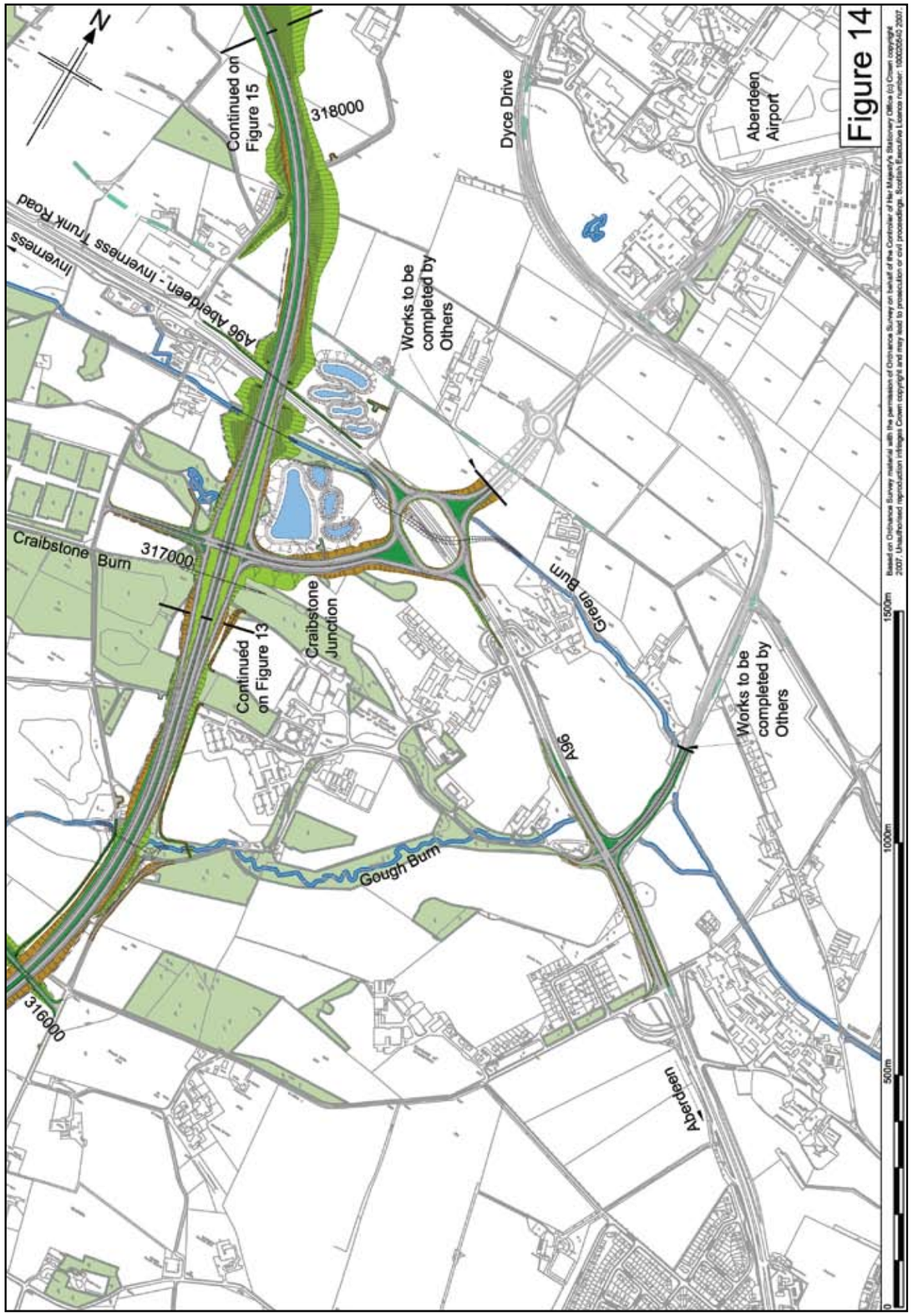

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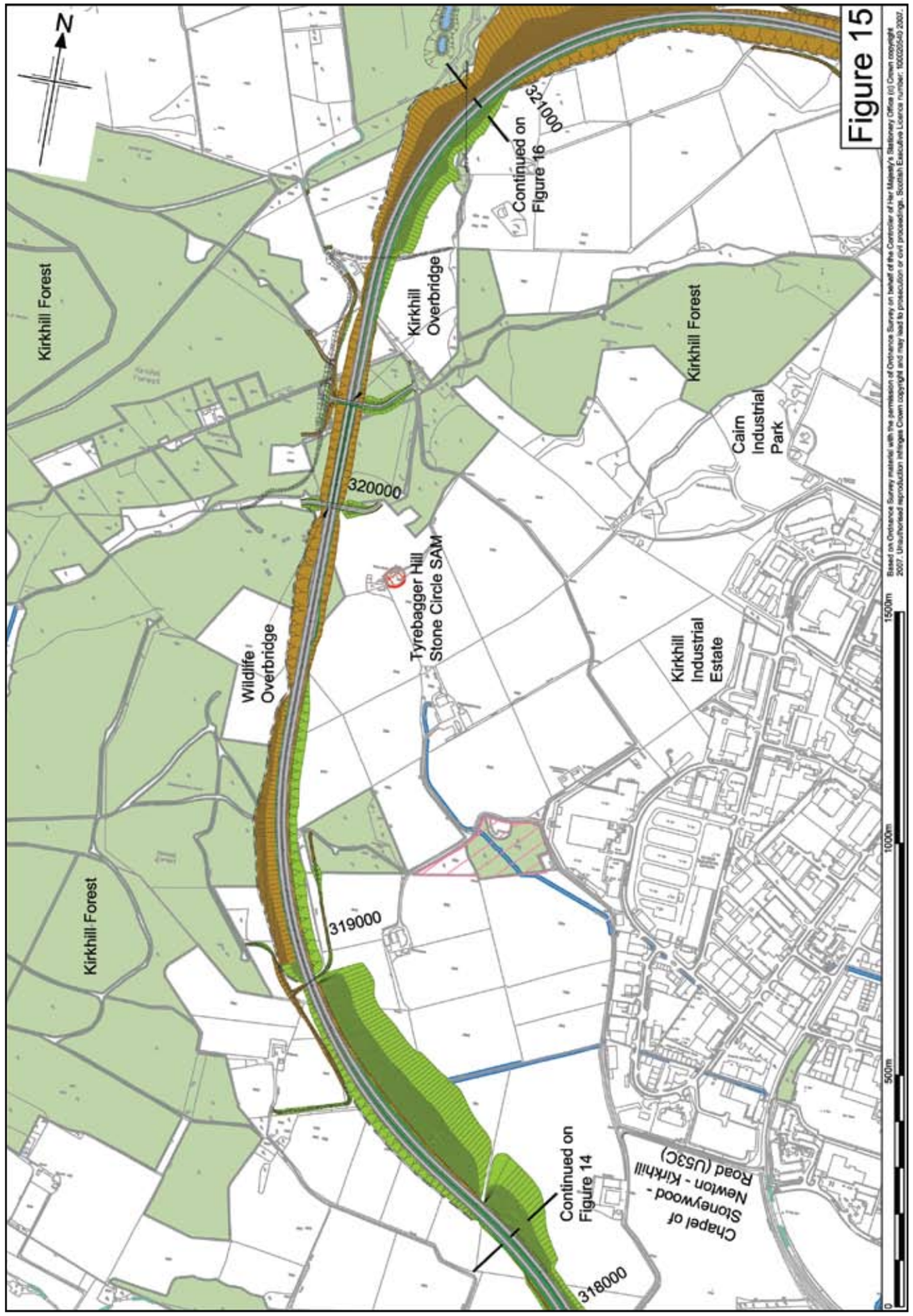

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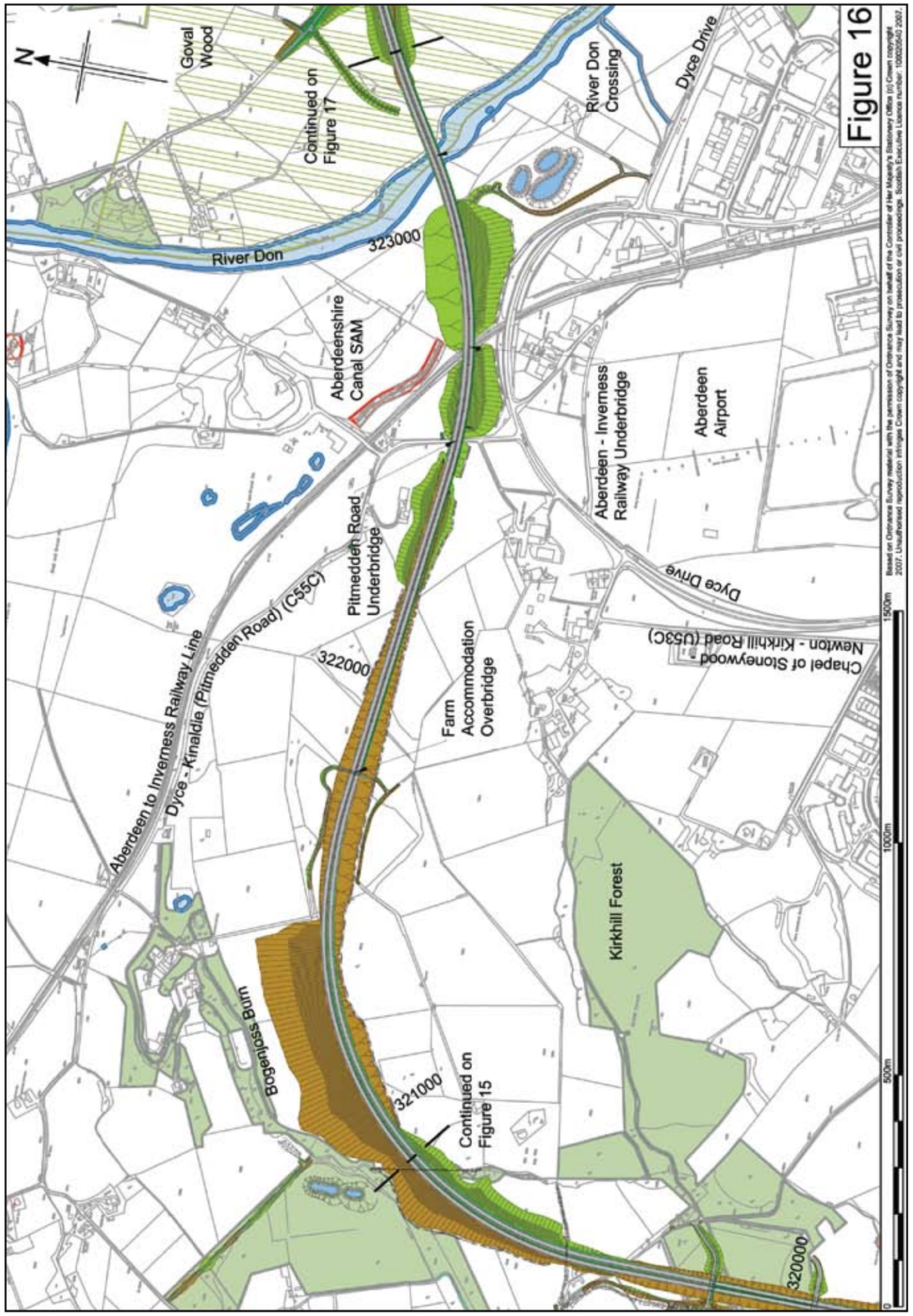

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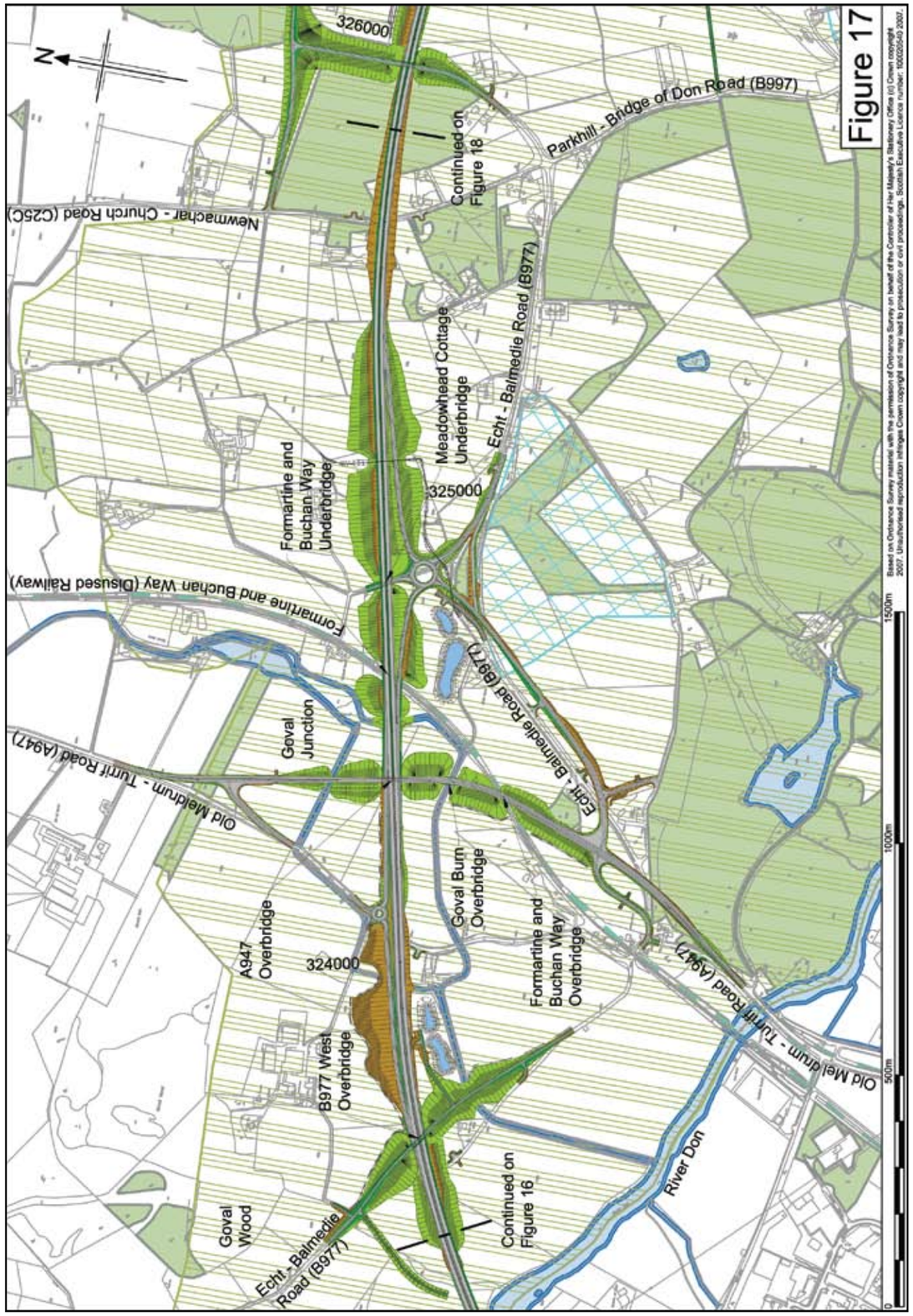

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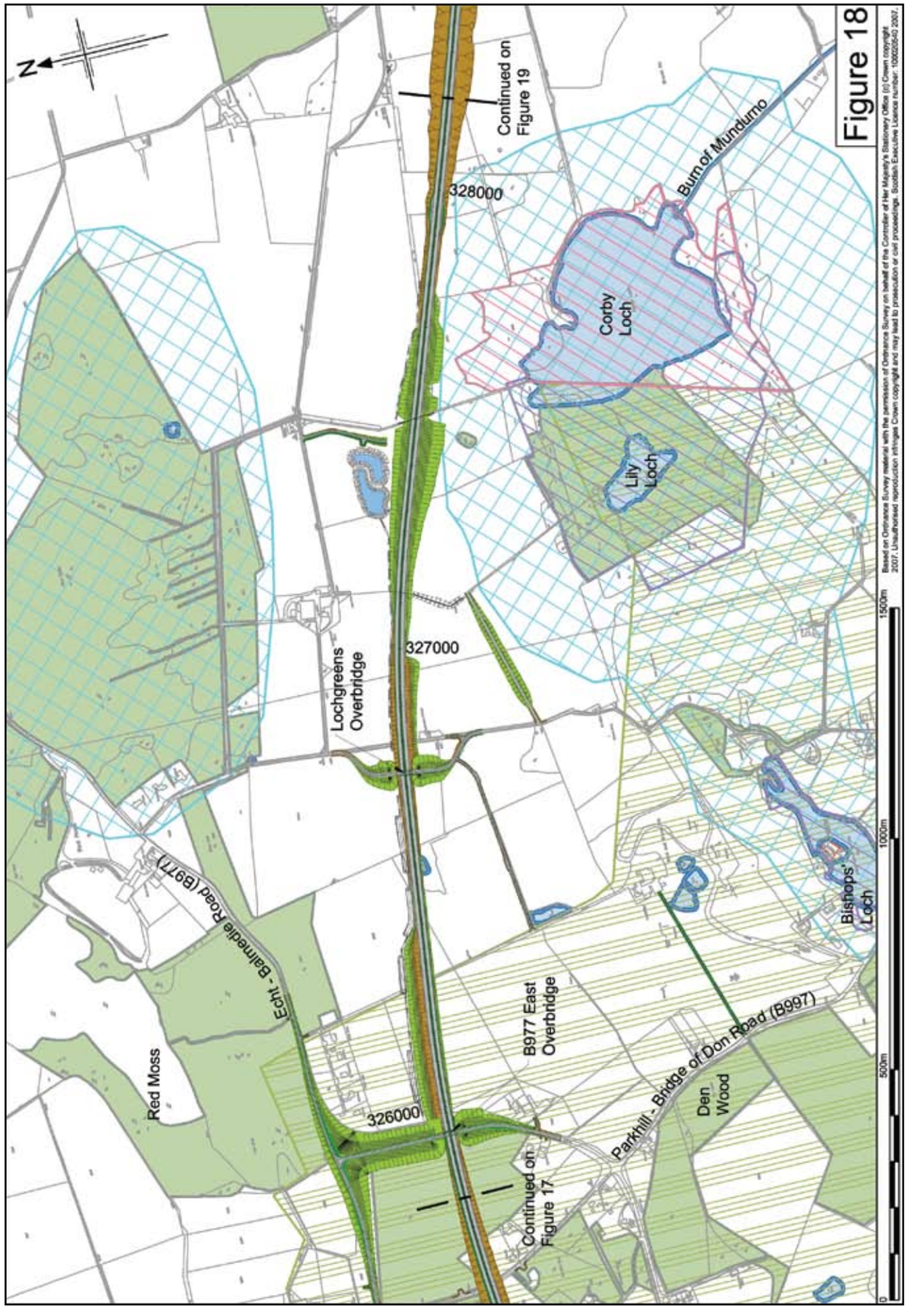

Figure 19

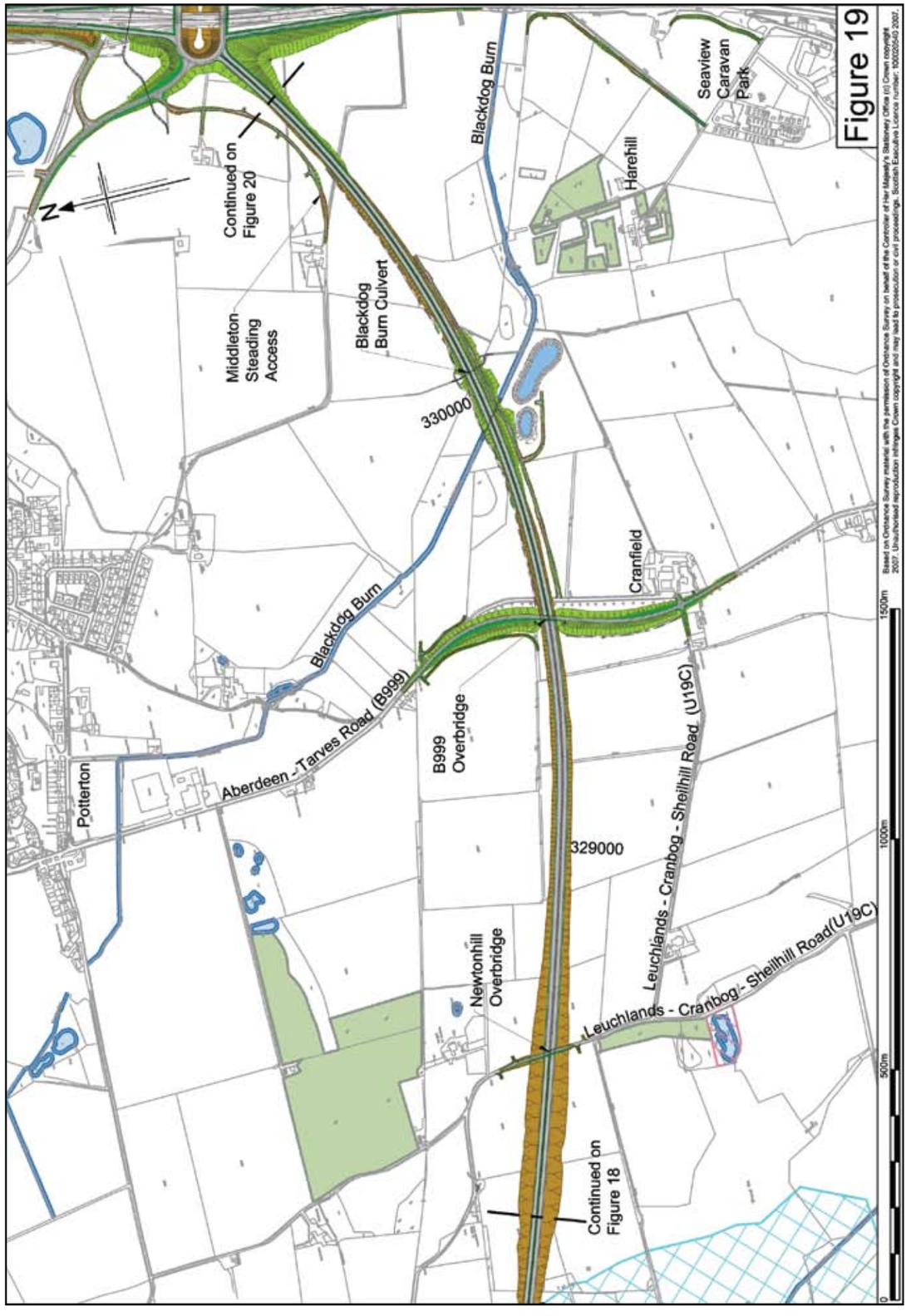

Figure 20

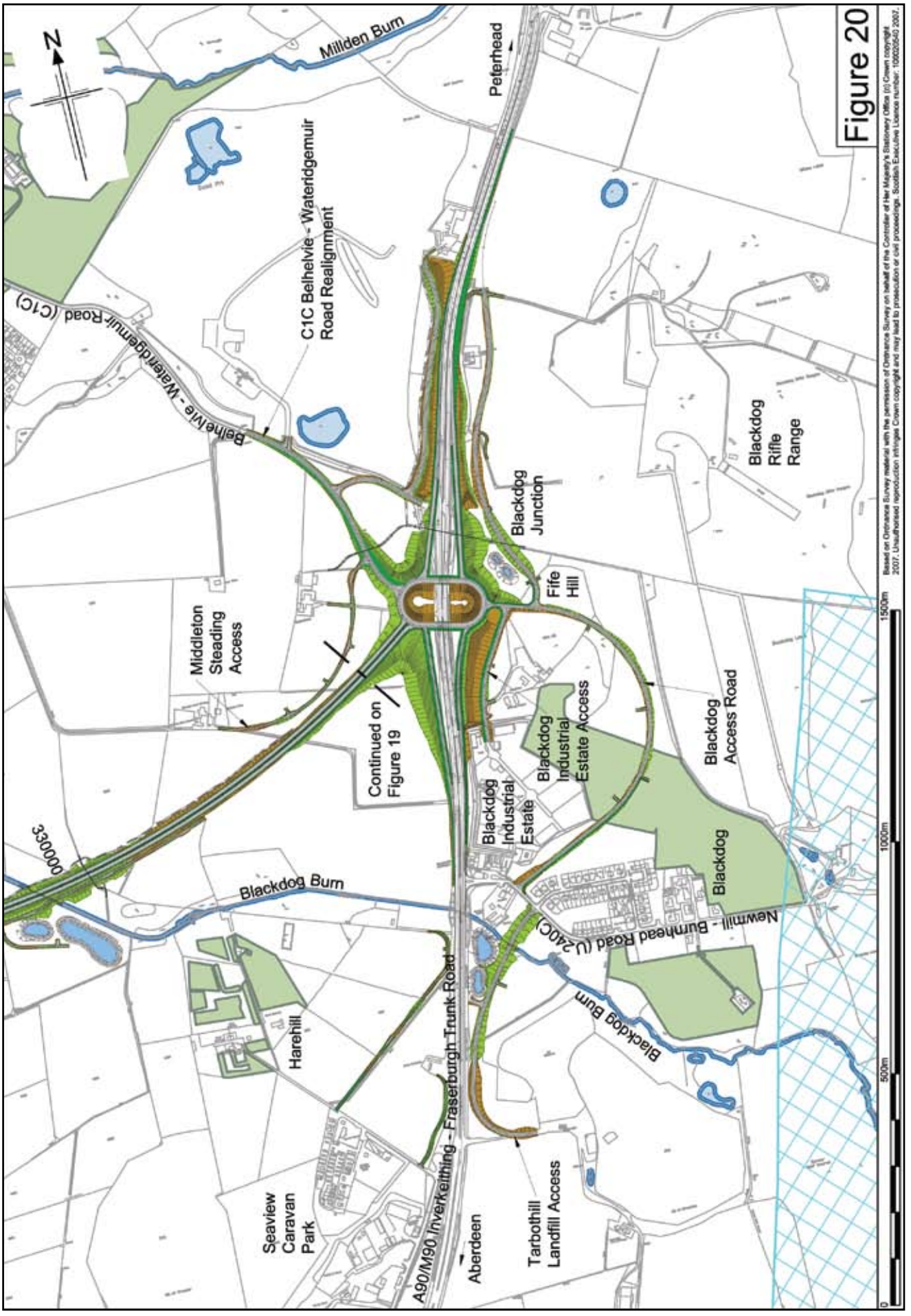
Figure 20
N
Milliden Burn
Peterhead
C1C Belhelvie - Waterdgemuir Road Realignment
Belhelvie - Waterdgemuir Road (C1C)
Blackdog Junction
Blackdog Rifle Range
Fife Hill
Middleton Steading Access
Continued on Figure 19
Blackdog Industrial Estate Access
Blackdog Access Road
Blackdog Industrial Estate
Blackdog
330000
Blackdog Burn
Newmill - Burnhead Road (U240C)
Blackdog Burn
Harehill
A90/M90 Inverkeithing - Fraserburgh Trunk Road
Seaview Caravan Park
Aberdeen
Tarbothill Landfill Access
0
500m
1000m
1500m