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**BURNHEAD MOSS WIND FARM EXPORT CABLE
FALKIRK AND WEST LOTHIAN**

CULTURAL HERITAGE APPRAISAL

prepared for

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1.0 INTRODUCTION

- 1.1 Peter Cardwell was commissioned by EDF Energy Renewables (EDF-ER) to undertake a cultural heritage appraisal of the proposed route of the export cable from the Burnhead Moss Wind Farm to the south-west of Avonbridge in Falkirk to the Bathgate electricity substation to the east of Armadale in West Lothian, with all but a short length being located within West Lothian. The aim of the appraisal is to identify any significant heritage constraints within the study area, establish any predicted effects upon heritage assets of the laying of the cable and to propose appropriate mitigation measures.
- 1.2 The report describes the location of the proposed cable route and the methodology and information sources utilised while undertaking the study. It describes any heritage assets within the study area and assesses the potential for previously unknown or unrecorded archaeological sites to survive within the area. The potential effects of the proposed development and appropriate mitigation strategies are discussed. Consultation was maintained with the West of Scotland Archaeology Services and the Falkirk Community Trust (as providers of archaeological services to West Lothian Council and Falkirk Council respectively) during the preparation of the appraisal study, and a draft of this report was submitted to both organisations for comment prior to finalisation and agreement of the proposed outline mitigation strategy.
- 1.3 The appraisal study was undertaken between July and October 2013 in accordance with professional standards and guidance (IFA 2011) and to a scope of works agreed with the West of Scotland Archaeology Service.

2.0 LOCATION AND PROJECT DESCRIPTION

- 2.1 The proposed grid connection route will connect an electric export cable from the on-site substation at the thirteen turbine Burnhead Moss Wind Farm (NS 8961 7027), located some 2.5km to the south-west of Avonbridge, with the Bathgate electricity substation some 0.7km to the east of Armadale (NS 9543 6870). The route has a total length of some 8.6km (**Figure 1**).

- 2.2 The initial 220m at the western end of the cable route is located within the planning permission boundary for the wind farm and does not accordingly fall within the scope of the appraisal study. Immediately to the east, between the planning permission boundary and the Drumtassie Burn, a 270m length of the cable route is located within a pasture field that is located within the area of Falkirk Council (and the parish of Slamannan and historic county of Stirlingshire). The burn forms the administrative boundary between Falkirk and West Lothian, and the remaining 8.1km length of the cable route is accordingly located within the area of West Lothian Council (and the parishes of Torpichen to the north-west and Bathgate to the south-east within the historic county of Linlithgowshire).
- 2.3 To the east of the Drumtassie Burn, a further 95m length of the cable route is located within a pasture field (**Plate 1**). All of the remaining length of the cable route (some 8.0km or in excess of 93 per cent of the total route) is located along adopted highways. Initially the route is to be aligned along the minor road east-north-eastwards past Easter Rigghead to the road junction near Gowanbank. It would then run on an east-south-east alignment past the entrance to the National Grid compressor station and New House, before turning east at the road junction past Nether Hillhouse and Woodbank Cemetery (**Plate 2**). From the next road junction it would be aligned east-south-eastwards past Braefoot and across the bridge over the Barbauchlaw Burn and into the northern outskirts of Armadale (Bridgecastle Road). At the next road junction it would run eastwards along the minor road past Colinshiel as far as the A801, and then southwards along the modern A801. At the junction with the A89 the route would run for a short distance eastwards along the A89 and into the Bathgate substation compound on the south side of the road.
- 2.4 The solid geology along the proposed route primarily consists of The Scottish lower Coal Measures Formation, with an area of Midland Valley Sill towards the north-western part of the route. Both are primarily overlain by superficial deposits of Devensian Till (www.environment.scotland.gov.uk/map.aspx). Soils along and adjacent to the proposed route primarily consist of surface-water gleys, with some areas of brown earths near to Nether Hillhouse and in the area of the A89 to the east of Armadale (*ibid*). The topography along the cable route is relatively undulating but with an overall decrease in altitude from north-west to south-east between the wind farm site (at some 185m OD) and the electricity substation (at some 150m OD). The maximum altitude attained is some 200m OD in the vicinity of Gowanbank and to the south, and the minimum some 125m OD where the route crosses the Barbauchlaw Burn to the north of Armadale. The landscape transacted by the cable route is categorised in the Historic Land-Use Assessment as fields and farming, woodland and forestry, moorland and rough grazing, mineral industries, recreational (golf course) and built-up areas. Farmland primarily consists of enclosed pasture with some areas of arable towards the south-eastern end, with areas of woodland plantation (principally at the north-western end) interspersed with intermittent farmsteads or small settlements. Industrial, residential and recreational development is more prevalent in the

vicinity of the south-eastern end of the route, including reclaimed former colliery sites.

- 2.5 Being aligned mostly along adopted highways the cable route would either be in the verge (between 1m and 2m from the edge of the carriageway), stone verge (within 1m of the carriageway) or within the tarmac footprint of the carriageway itself. The trench would contain four cable ducts and would be no greater than 1.2m deep and 0.8m wide, and would be excavated mechanically. Where the route crosses private farmland between the wind farm site and east of the Drumtassie Burn a 15m width would be stripped of topsoil within a fenced 20m wide working corridor. The trench will contain the export cable in three standard 150mm diameter polyethylene ducts in a trefoil formation together with a smaller 50mm diameter duct for a fibre optic communications link. It is anticipated that works required to lay the export cable will last for a period of some seven months in total.
- 2.6 The undergrounding of the export cable for the entire length of the route, primarily along public highways, is to meet the requirements of Scottish Power, the distribution network operator that will be adopting the grid connection once installed and energised.

3.0 METHODOLOGY AND INFORMATION SOURCES

- 3.1 The principal aims of the cultural heritage appraisal are:
- to identify known heritage assets within the study area
 - to identify any areas with the potential to contain previously unrecorded heritage assets of archaeological or historic interest
 - to assess the effects of the proposed development upon heritage assets of archaeological or historic interest
 - to assess the effects of the proposed development upon the settings of designated heritage assets
 - to propose appropriate mitigation measures that could be built into the development proposals in order to avoid, reduce or remedy any potential adverse effects identified
- 3.2 The study addresses all aspects of the historic environment, and principally, as defined in both the Scottish Planning Policy (2010, 23) and the Scottish Historic Environment Policy (2011, 5), ancient monuments, archaeological sites and landscapes, historic buildings, townscapes, parks, gardens and designed landscapes, and other features where applicable. The collective term 'heritage asset' has been used for these sites (including prehistoric sites and features), buildings and landscapes, as used in the Scottish Planning Policy, rather than the term 'historic asset' as used in the Scottish Historic Environment Policy.

- 3.3 The report is based upon a review of existing available information and desk studies, supplemented by a site walkover survey. Given that almost all of the proposed cable route would be aligned along existing roads and would be undergrounded, the scope of the proposed study is restricted in relation to both the data sources consulted and aspects of assessment (such as in relation to setting) in consultation with the West of Scotland Archaeology Service. The level of study and the information presented in the report are considered to be proportionate to the nature of the proposed development, which has accordingly been categorised as an appraisal rather than a detailed assessment.
- 3.4 There are no World Heritage Sites, scheduled monuments, conservation areas, battlefields on the Inventory of Historic Battlefields or gardens on the Inventory of Gardens and Designed Landscapes in Scotland located within the study area, and these categories of heritage asset are not therefore further considered as part of the study other than with respect to potential effects upon the setting of those within the wider vicinity.
- 3.5 The following organisations or individuals were consulted either remotely (via email or the internet) or directly for the appraisal study:
- West of Scotland Archaeology Service (WoSAS)
 - Falkirk Community Trust
 - Historic Scotland
 - Royal Commission on the Ancient and Historic Monuments of Scotland (RCAHMS)
 - National Library of Scotland (NLS)
 - West Lothian Local History Library, Linlithgow
 - West Lothian Archaeology
- 3.6 The following data sources were utilised for the appraisal:
- WoSAS Historic Environment Record (HER)
 - Falkirk Sites and Monuments Record (SMR)
 - RCAHMS Canmore database
 - Pastmap database
 - RCAHMS Historic Land Use Assessment database
 - Scotland's Environment web portal
 - published and unpublished historical and archaeological studies
 - cartographic sources (historic national, county and Ordnance Survey maps)
 - vertical aerial photographs (NLS and RCAHMS National Collection of Aerial Photography) and satellite imagery (Google Earth)
- 3.7 A site walkover inspection of the full length of the proposed cable route (but

excluding those sections along Bridgecastle Road on the northern edge of Armadale and along the A801 dual carriageway) was undertaken in July 2013. This survey was undertaken in order to determine the extent and survival of any buildings, structures and field walls; to note the location, extent, nature and condition of any additional recorded and unrecorded archaeological sites, including any earthworks; and to identify any artefacts which might indicate the presence of archaeological activity or subsurface features. The visibility of the proposed development from all designated heritage assets (and specifically listed buildings) in the vicinity was also established and assessed.

4.0 PLANNING POLICY AND GUIDANCE

- 4.1 While the proposed export cable is to be laid as “contestable works” utilising statutory undertaker rights, the appraisal study, and specifically the predicted effects of the development and proposed mitigation, has been undertaken to accord with relevant national and local plan policy and other guidance relevant to the historic environment, which primarily consists of the following:
- *Scottish Planning Policy* (2010)
 - *Scottish Historic Environment Policy* (2011)
 - *Planning and Archaeology PAN 2/2011*
 - Historic Scotland guidance note series on Managing Change in the Historic Environment, such as that on *Setting* (2010)
- 4.2 The regional and local plan policies applicable to the heritage aspects of the development proposal primarily consist of the following:
- Policies ENV1C and ENV1D of the *Edinburgh and the Lothians Structure Plan 2015*
 - Policies EG14 (listed buildings), EQ16 (sites of archaeological interest) and EQ18 (historic gardens and designed landscapes) of the *Falkirk Council Local Plan* (2010)
 - Policies D08 (sites of archaeological interest), D09 (listed buildings), and D12 (historic gardens and designed landscapes) of the *Falkirk Local Development Framework Proposed Plan* (2013)
 - Policies HER2 (listed buildings), HER12 (scheduled monuments), HER15 and HER 16 (archaeology) and HER 22 and HER23 (historic gardens and designed landscapes) of the *West Lothian Local Plan* (2009)
- 4.3 There is no supplementary planning guidance relating to the historic environment within either the Falkirk or West Lothian council areas relevant to the proposed development.

5.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 5.1 Heritage assets of archaeological, architectural or historic interest recorded within a 500m corridor along the export cable route are listed in **Appendix 1** and indicated on **Figure 1**. Sites are listed under their record numbers for the WoSAS Historic Environment Record (HER). For those sites that are also recorded by the RCAHMS or are listed buildings the corresponding number is also listed in **Appendix 1**. Events or activities are also included in this table.
- 5.2 Those heritage assets that fall within 50m of the proposed export cable are emboldened in **Appendix 1** and are also listed in **Table 1** below. Additional sites identified during the appraisal study within the immediate vicinity of the cable route are listed in **Table 1** and identified by a letter code. The 28 heritage assets within the immediate vicinity of the cable route are listed from north-west to south-east along the cable route by their relevant site reference, together with a central Ordnance Survey grid reference, classification and date. Many of the additional sites are recorded from historic map sources and where this is the case the date provided is that of the earliest map researched on which they are indicated (or document in which they are referred to) and sites may accordingly be earlier in date. The location of the sites is shown in detail on **Figures 3–12**. Former field boundaries are not individually listed in **Table 1**, but those located in the fields transacted at the north-western end of the proposed cable route are indicated on **Figure 3**. A number of bench marks are indicated along the cable route on historic Ordnance Survey mapping, but none were identified during the site walkover inspection and are not accordingly included within the appraisal study.

Table 1: Heritage assets within immediate vicinity of export cable

Site	Grid reference	Classification	Date
A	NS 89680 70340	Coal mine (opencast)	Modern
B	NS 89700 70410	Lint pool	1865
C	NS 89840 70480	Farmstead (Gairneylees)	1730
D	NS 90080 70580	Well	1856
18560	NS 90220 70720	Farmstead (Drumtassie)	1686
E	NS 90740 70820	Ridge and furrow	Post-medieval
18633	NS 90800 70960	Building (Wester Righead)	1856
18581	NS 90880 71050	Building (Easter Righead)	1856
F	NS 91470 71220	Building (lodge)	1856
G	NS 91600 71070	Road	1773
H	NS 91580 70970	Quarry	Pre-1856
J	NS 91840 70820	Quarry (whinstone)	1856
K	NS 92130 70300	Well	1856

Site	Grid reference	Classification	Date
L	NS 92110 70270	Building (New House)	1856
M	NS 92170 70290	Quarry	1922
N	NS 92210 70250	Well	1856
66069	NS 92240 70200	Farmstead (Hillhouse)	1680
P	NS 92280 70050	Well	1856
66079	NS 92670 69960	Farm (Nether Hillhouse)	1540
Q	NS 92670 70010	Well	1856
R	NS 93810 69740	Mill lead	18th century
S	NS 93910 69570	Farm (Whitockbrae)	1680
T	NS 94100 69100	Road	1773
50054	NS 94280 69190	Coal mine (Colinshiel Pit No. 4)	1856
U	NS 94580 69330	Coal mine (spoil heap)	1897
66059	NS 94820 69300	Farmstead (Colinshiel)	1755
V	NS 95000 69400	Tram road	1856
W	NS 95000 69420	Coal mine (spoil heap)	1897

- 5.3 Sites within the appraisal study area are summarised below in chronological order, concentrating upon those within the immediate vicinity (up to 50m) of the proposed development and are referenced by their relevant WoSAS HER or Canmore ID number, or site letter code. The principal description of each of the sites is emboldened.

Prehistoric

- 5.4 No sites or finds of prehistoric date are recorded within the study area for the proposed cable route. A standing stone (**HER 18540**) of uncertain date is recorded on the 1856 Ordnance Survey map on a slightly elevated location to the south-west of Nether Hillhouse and some 180m to the south of the cable route. It is not indicated on subsequent Ordnance Survey mapping.
- 5.5 Recorded settlement sites of prehistoric date are located some distance from the proposed cable route, such as the probable hillfort (HER 17880) some 3.6km to the north-east at Castlethorn near Torphichen. Flint artefacts, including an arrowhead and scrapers (ID 47931 and 47936), are also recorded from the Torphichen area but are not accurately provenanced. Ritual sites include the Cairnpapple henge and cairn (HER 17839), including cremation and cist burials, located 3.9km to the north-east of the cable route. Further cist burials (HER 17926) are recorded at Logie Water near Westfield while an individual long cist (HER 17930) is recorded on Tantallen Hill, located some 1.9km and 1.8km to the north of the cable route respectively. A souterrain (ID 47755) is recorded from a mound near Bathgate but is not accurately provenanced.

Roman

- 5.6 The proposed cable route is located some 8.3km or more to the south of the Antonine Wall and its associated forts (the closest being that at Mumrills to the east of Falkirk). No other Roman sites are recorded within either the study area or wider vicinity. A Roman coin of 3rd century date (ID 47762) is recorded as being found in Bathgate, but is not accurately provenanced.

Medieval

- 5.7 During the medieval period the southern-eastern length of the proposed cable route was located within the barony of Barbauchlaw. Documentary evidence suggests that the area was heavily wooded and largely used for hunting – especially for boar, the name being derived from the earlier *Boarbaughlaw* (Hynd-Brown 1906, 1). To the north-west was the barony of Ogilface, and the site of Ogilface Castle (HER 17791; West Lothian Archaeology website), is located some 1.1km to the south of the proposed cable route near Woodend.
- 5.8 The principal sites of medieval date in the wider vicinity of the proposed cable route are recorded historic settlements including Bathgate (HER 17741), located some 1.8km to the east of the south-eastern end of the proposed cable route. The town appears in royal charters from the 12th century (1160) and the site of the castle (HER 17787) to the south of the town is recorded from 1315. The south-eastern half of the cable route is located within Bathgate parish. That length to the north-west is located within Torphichen parish, and the village of Torphichen (HER 17889), located some 3.2km to the north-east, probably developed as a ‘kirktoon’ in the medieval period centred on the preceptory of the Knights Hospitallers (HER 17898) that was founded in the 12th century. The surviving transepts and tower crossing of the preceptory church are dated to the 13th to 15th centuries.
- 5.9 Isolated finds of medieval date within the wider vicinity of the proposed cable route are relatively few, but include that of a coin hoard (HER 17793) deposited around 1500 some 4.1km to the south.
- 5.10 The only site of recorded medieval origin within the appraisal study area is the farm at Nether Hillhouse (**HER 66079**), located some 35m to the south of the central section of the cable route (**Figure 7**). *Nethir hillhouss* is first documented in the 1539–1540 Torphichen Rental, and is therefore probably earlier in date, and a farm or farmstead is indicated on most map sources from the late 17th century onwards (being indicated as *Nedder hillhouse* on Adair’s map of West Lothian surveyed in the 1680s). The farm is later indicated as East Hillhouse on the 1st edition Ordnance Survey maps of 1856, but has reverted back to the name of Nether Hillhouse by 1898. The prefix of East or Nether (together with that for Over Hillhouse (HER 66067) to the north and Wester Hillhouse (HER 66069) to the west) suggests, as at Burnhead to the north-west, that these farms may have originated as a single township (fermtoun) but were split during

the pre-improvement period as a result of changing patterns of land ownership (Wind Prospect 2010, 280). No evidence for the well (**Site Q**) indicated on the 1856 map to the north of the farm immediately adjacent to the road survives. The farmstead remains extant and the existing buildings appear to be mostly post-medieval in date (**Plate 3**).

Post-medieval and modern

- 5.11 Most of the recorded heritage assets within the study area are of post-medieval and modern date. The majority of these sites, and particularly along the north-western half of the proposed cable route, are either farms or farmsteads and associated features with an increasing number of sites of an industrial nature, such as former coal mines and quarries, along the south-eastern half.
- 5.12 The land immediately adjacent to most of the length of the proposed cable route is categorised in the Historic Land-Use Assessment as rectilinear fields of 18th and 19th century date, together with some amalgamated fields of 19th century and later date or woodland plantation of late 20th century date, the latter at the north-western end of the route, and these dates largely accord with the date of adjacent or associated farmsteads (and the demolition of some of the recorded buildings). Amalgamated fields of later date are recorded in the area of former coal mines towards the south-eastern end of the route, together with urban or industrial and commercial areas of 19th century date and later.

Farmsteads and other buildings

- 5.13 A number of the farmsteads within the immediate vicinity of the cable route are first documented in the 17th century, although some at least may have earlier origins. This includes the site of Drumtassie (**HER 18560**) located immediately to the north (some 10m) of the road at the north-western end of the cable route (**Figure 3**). The site is documented in 1686 as *Drumtasie*, indicated on Roy's map of 1755 as *Drumtassy*, on Armstrongs' map of 1773 as *Drumtassie* and on Thomson's map of 1820 as *W. Drumtassie*. The meaning of the name is 'ridge of wetness'. The first detailed mapping of the farmstead on the 1st edition Ordnance Survey map of 1856 shows a range of buildings slightly north of the road with a pond to the south-west and another to the south of the road. The associated Name Book describes the site as "a small farmhouse one storey high with suitable offices all in good repair; there is an arable farm attached". The buildings were slightly extended by 1897 and subsequently, and were depicted as extant up until the 1980s (but had been demolished by 1988 and are not evident on aerial photographs of that date). The site of the farmstead is currently within an area of rough grassland between the road and a woodland plantation to the north (**Plate 4**). No remains are visible with the exception of the remnants of a low stone wall along the road frontage and a pair of gateposts (at NS 90259 70706) some 3.5m apart and 1m high to the east. The site of a former well (**Site D**) some 180m to the west (and approximately 25m north of the cable route) shown on the 1856 1st edition Ordnance Survey map to the east of

Drumtassie Burn may have been associated with the farmstead. No visible evidence for the well survives.

- 5.14 The farmstead at Hillhouse (**HER 66069**) is located some 45m to the east of the central section of the cable route (**Figure 7**). This site is depicted on Adair's map of West Lothian surveyed in the 1680s and on subsequent county maps. The first detailed mapping of the farmstead on the 1st edition Ordnance Survey map of 1856 shows a single rectangular building. The farmstead has however been abandoned by the time of the 2nd edition Ordnance Survey map of 1897 when only the outline of the building is depicted. Earthwork remains of the building and associated field boundaries remain visible on both aerial photographs and satellite imagery. The site of a former well (**Site N**) some 50m to the north (and 45m east of the proposed cable route) shown on the 1st edition Ordnance Survey map of 1856 appears to have been associated with the farmstead.
- 5.15 The farm at Whitockbrae (**Site S**) is located some 40m to the east of the cable route to the north of Armadale (**Figure 9**) and is also depicted on Adair's map of West Lothian and Roy's map of 1755. The first detailed mapping of the farm on the 1st edition Ordnance Survey map of 1856 shows a range of buildings aligned mostly north to south and the alignment of the former road (**Site T**) to the west. This road alignment had been altered further to the west by the time of the 2nd edition Ordnance Survey map of 1897 by when a bridge had been built to take the road over the Barbauchlaw Burn to the north-west (and subsequently further modified to create the existing Bridgecastle Road). A modern house has been constructed on the site of the former farm since 1967.
- 5.16 Farmsteads recorded by the 18th century include Gairneyles (**Site C**), located approximately 55m to the north of the north-western end of the proposed cable route (**Figure 3**). The farmstead is recorded as *Garneyles* as early as 1730 in the Register of Sasines (G Bailey, written communication) and appears to be shown on Roy's map of 1755. It is indicated on both Armstrongs' map of the Three Lothians of 1773 and Thomson's map of Linlithgowshire of 1820 (as *Gairneyless*). No farmstead or other buildings are however depicted on the 1st edition Ordnance Survey map of 1865 and the farm appears to have been abandoned and demolished by this date. A small rectangular field enclosure is however shown on the rise to the north of the Drumtassie Burn within the approximate area of the farmstead as depicted on the earlier mapping, and based upon this field pattern is therefore presumed to be the likely location of Gairneyles. This enclosure and the adjacent field boundaries had all been removed and replaced by a single field boundary by the time of the 2nd edition Ordnance Survey map of 1897, though this has subsequently been removed to create a single field of improved pasture. The course of the Drumtassie Burn has also altered (it appears to have been deliberately straightened) to both the east and south of the site.
- 5.17 Also recorded by the 18th century is the farmstead at Colinshiel (**HER 66059**) located immediately to the south (some 15m) of the road towards the south-

eastern end of the cable route (**Figure 11**). The site is indicated as *Collinshield* on both Roy's map of 1755 and on Armstrongs' map of 1773, and on Thomson's map of 1820 as *Colinshield*. The meaning of the name is 'Colin's cottage'. The first detailed mapping of the farmstead on the 1st edition Ordnance Survey map of 1856 shows two ranges of buildings adjoining at right angles to each other. By the time of the 2nd edition Ordnance Survey map of 1897 the farm had been modified and extended into a near quadrangular arrangement of buildings. Some of these buildings remain extant, but are currently ruinous (**Plates 5 and 6**). Evidence of former ridge and furrow cultivation, possibly associated with the farmstead, is recorded to the east in two fields on the south side of the road on aerial photographs taken in 1949 (as well as to the east of Colinshiel Pit No. 4) but has subsequently been destroyed.

- 5.18 Either a farmstead or settlement at *Rigg* towards the north-western end of the cable route is depicted on Roy's map of 1755, while *Rigghead* is indicated on Armstrongs' 1773 map of The Three Lothians. The latter shows two buildings on opposite sides of the road at a road junction, and does not therefore appear to equate with subsequent Ordnance Survey mapping of the area. Thomson's 1820 map of Linlithgow indicates *E. Drumtassie* rather than *Rigghead* at a similar location. On the 1st edition Ordnance Survey map of 1856 buildings are shown at *Wester Rigghead* and *Easter Rigghead* some 100m apart, and it is not clear whether these are the same buildings indicated on the mapping of 18th century date or are later in date. The site of *Wester Rigghead* (**HER 18633**) is located some 25m to the south of the road (**Figure 4**) and is described in the 1856 Name Book as a thatched building one storey high which used to be a farm, but is now inhabited by labourers. It is depicted as a rectangular building but by 1897 the western part of the building appears to be unroofed. The eastern part appears to have remained extant until the 1980s (but had been demolished by 1988 and is not evident on aerial photographs of that date) and the site is now located within a pasture field that has recently been re-seeded (**Plate 7**). Visible earthwork remains of former ridge and furrow cultivation (**Site E**) located to the south-west may have been associated with the farmstead at *Wester Rigghead*. The remains are in a fair state of preservation but have also recently been re-seeded, and are aligned approximately north-north-west to south-south-east but slightly curved, with the furrows some 7m to 9m apart.
- 5.19 The site of the building at *Easter Rigghead* (**HER 18581**) is located some 10m to the north of the road and is described in the 1856 Name Book as a house one storey high divided into two tenements. The building appears to have remained extant until the 1980s (but had been demolished by 1988 and is not evident on aerial photographs of that date) and has been replaced by a modern house immediately to the north.
- 5.20 New House (**Site L**) is located some 20m to the west of the central section of the proposed cable route (**Figure 7**). This house is not depicted on any of the cartographic sources researched earlier than the 1st edition Ordnance Survey

map of 1856, and the building remains extant. The well (**Site K**) of similar date immediately to the west of the road is also still extant.

- 5.21 Other buildings of 19th century date located in the vicinity of the proposed cable route are the complex at Gowanbank (**Figure 5**). These buildings (**HER 18634**) were built on the site of Bentyfaulds and consist of the farmhouse originally constructed in about 1820 and extended around 1862, together with the associated steading and cottage to the south dated to 1842 and 1862. Both parts of the complex are category A listed buildings (**14557**) and are located a minimum distance of 85m to the east of the proposed cable route. The only associated building located immediately adjacent (some 10m) to the cable route was a former lodge (**Site F**) located to the south of a road junction on the west side of the road. This is depicted on the 1st edition Ordnance Survey map of 1856 and appears to have been demolished during the 1980s (it is not evident on aerial photographs taken in 1988). The site of the building is currently located within an area of woodland.
- 5.22 The building complex at Gowanbank is located within a designed landscape, the creation of which entailed the realignment of the road (**Site G**) at some point between the 1st and 2nd edition Ordnance Survey map of 1856 and 1897 respectively, and possibly associated with the building works around 1862. The surviving stone walls alongside the existing road (and proposed cable route) to the west of Gowanbank are presumed to be contemporary with this realignment.
- 5.23 Located on the southern edge of the study area, the town of Armadale (ID 214618) dates from the very end of the 18th century but is essentially of 19th century and later date. The land at Barbauchlaw had been acquired by Sir William Honeyman in 1790, who took the title Lord Armadale in 1797 from his estate of that name in Sutherland. The initial village developed subsequent to the opening of the turnpike road between Edinburgh and Glasgow in 1786 (to the south of the former road past Colinshiel and Woodend), and was located where the new road intersected with the existing north to south road. The need both for accommodation for travellers, and the development of mining and other industries within the vicinity (see below) provided the stimulus for settlement with the first feu to erect a house secured in 1795 and for an inn two years later, with a school built in 1839. However, the village remained relatively limited in size even in the mid 19th century, and it is only by the end of the 19th century that a more extensive settlement had been established. All of the buildings on the northern edge of Armadale in proximity to the proposed cable route (along Bridgecastle Road) are of post-war date.

Industrial and associated sites

- 5.24 The lint mill at Birkenshaw (**HER 50043**) dates to at least the 18th century, being indicated on Roy's map of 1755 as *Wakmill*, while Birkenshaw itself is recorded in the Torpichen rental of 1539–1540 (**Figure 1**). The mill lead (**Site R**) to the south is accordingly presumed also to be of at least 18th century date, but is not

recorded on cartographic sources until the 1st edition Ordnance Survey map of 1856 (**Figure 9**). The associated Name Book records the mill as being used for preparing flax for spinning. The course of the mill lead or leat to the north of the road has now been infilled (**Plate 8**), although a ditch is visible to the south to the east of Braefoot Cottage. A road bridge had been built to the east across the adjacent Barbauchlaw Burn by 1897, which has subsequently been replaced, and the course of the road along which the cable route will be laid is raised on an embankment in excess of 1m above the former course of the infilled lead (**Plate 9**).

- 5.25 At the very north-western end of the proposed cable route a lint pool (**Site B**) or flax retting pool was formerly located to the north of the proposed cable route and is indicated on the 1st edition Ordnance Survey map of 1865 (**Figure 3**). The site of the lint pool has subsequently been removed by modern opencast mining (Wind Prospect 2010, 282).
- 5.26 A number of quarries, primarily for whinstone, are recorded within the immediate vicinity of the central section of the proposed cable route. Most are relatively small in extent, probably being used for nearby buildings, field boundaries and road surfaces, and are recorded as in use in the mid 19th century from the 1st edition Ordnance Survey maps. The only earlier quarry appears to be that (**Site H**) to the south of Gowanbank (**Figure 5**) which is recorded as an 'Old Quarry' in 1856, the site of which is now marked by a vegetated pond.
- 5.27 Further to the south another quarry (**Site J**) is recorded along the west side of the road (**Figure 6**) and immediately adjacent to the proposed cable route. This remains visible as an exposed rock face for part of its length (**Plate 10**). The quarry subsequently extended to the field to the west, the northern half of which was being quarried by 1922, later being extended to the south.
- 5.28 A later quarry (**Site M**) is recorded on the 1922 Ordnance Survey map to the east of New House some 15m east of the road (**Figure 7**).
- 5.29 Mining for both ironstone and coal is recorded in the Armadale area from the latter half of the 18th century. This included mining by the Carron Iron Company in the area of Colinshiel, although the lease was not renewed and the field vacated by the end of the century (Hynd-Brown 1906, 17). Small scale coal mining was also taking place, although the lease for mining on the Barbauchlaw estate by Barbauchlaw Coal was not established until 1819 and was principally centred on the area of the pit at Woodend (**HER 18506**).
- 5.30 From the 1830s the abandoned pits at Colinshiel were re-opened once pumping had solved the problems of flooding (*ibid*, 24). By the time of the 1st edition Ordnance Survey map of 1856 the Colinshiel coal works (**HER 50051**) consisted of four pits from which both coal and ironstone were extracted (**Figure 10**). Pit No. 4 (**HER 50054**) is depicted as two adjoining roofed buildings labelled as 'Engine House' together with an adjacent shaft and shed located some 15m to

the north of the road and on the south-west edge of a spoil heap (itself to the south of Colinshiel Store). This pit had been abandoned and the buildings demolished by the time of the 2nd edition Ordnance Survey map of 1897 – the pumping engine at Colinshiel was broken up in 1877 (Hynd-Brown 1906, 24) – by when only No.1 Pit to the north seems to be operating. By this date a further spoil heap (**Site U**) is depicted on the north side of the road some 290m to the east. The site of the pit and associated spoil heap has been removed and is now visible as a slightly raised area within a pasture field immediately to the north of the road (**Plate 11**), while most of the northern part of the further spoil heap to the east survives.

- 5.31 In addition to the Colinshiel pits themselves, a tram road or tramway (**Site V**) is depicted on the 1st edition Ordnance Survey map of 1856 linking Pit No. 1 (**HER 50052**) with the road to the north-east of Colinshiel farmstead (**Figure 11**). The tramway had however been abandoned and lifted by the time of the 2nd edition Ordnance Survey map of 1897, and its eastern end adjacent to the road overlain by a later spoil heap (**Site W**), which itself has subsequently been removed.
- 5.32 The most recent extraction (**Site A**) is an opencast coal mine within the eastern part of the wind farm site (**Figure 3**). From photographic evidence it had been established by 1988 and continued in operation up until 1997 and has only been partially backfilled and re-instated. The site has destroyed those heritage assets previously recorded within the area. A further opencast mine of similar date was also formerly located to the east, to the south-west of Wester Rigghead and has subsequently been reinstated and the area planted with woodland (North Rhodes Plantation).

6.0 EFFECTS OF THE DEVELOPMENT

Direct effects

- 6.1 The principal predicted and potential direct physical effects of the construction of the proposed export cable between the Burnhead Moss Wind Farm and the electricity substation at Bathgate are summarised below. The effects primarily relate to the excavation of the trench for the cable, but also include those of the stripped corridor easement where the route crosses pasture fields at the west end adjacent to the wind farm.
- 6.2 No further archaeological evaluation of the proposed cable route by means of survey (such as geophysical survey or measured earthwork survey) or by trial trenching is considered necessary in order to further establish the predicted or potential effects of the development.

- 6.3 Predicted direct effects at the western end of the cable route would include those where the stripped easement corridor transects the course of two former field boundaries that pre-date 1865, together with the course of a further former boundary that replaced these and was laid out prior to 1895. Any surviving deposits related to these boundaries or associated in-filled ditches could be affected by either the stripping of the easement or the excavation of the cable trench respectively. However, in each case only a small part of a more extensive feature would be affected, and as the boundaries are considered to be of low or local sensitivity, the predicted effect would be of negligible adverse significance.
- 6.4 As the proposed cable route would primarily be located along the existing carriageway or adjacent verges there is the potential for the excavation of the cable trench to affect any surviving former road surfaces. With the exception of that length of the cable route along the A801 and A89 at the south-eastern end, all of the lengths of the cable route are along roads that pre-date their depiction on the 1773 Armstrong map of The Three Lothians (with the exceptions of those lengths near to Gownbank and Whitockbrae (Sites G and T respectively)) where the alignment was subsequently altered. Of specific note is that length of road past Colinshiel which was part of the principal east to west route prior to the construction of the turnpike road between Edinburgh and Glasgow in 1786 and the alignment of which is depicted on Adair's map of Linlithgowshire surveyed in the 1680s. Any surviving road surfaces could accordingly be affected by the excavation of the cable trench where this was located within the existing or former carriageway, but it is predicted that only a small part of a more extensive feature would be impacted upon, and as the road surfaces are considered to be of low or local sensitivity, the predicted effect would be of negligible adverse significance.
- 6.5 The proposed route of the export cable passes in relatively close proximity (between some 10m–35m) to a number of sites of existing or former farmsteads (primarily of 16th to 18th century date) or other buildings. These are:
- Drumtassie (HER 18560)
 - Wester Righead (HER 18633)
 - Easter Righead (HER 18581)
 - Nether Hillhouse (HER 66079)
 - Colinshiel (HER 66059)

The cable route also passes within some 50m to the south of the farmstead of Gairneylees (Site C) at its north-western end (where the trench would be within a stripped easement), but as the site is not accurately located its exact proximity remains uncertain. While no direct effects upon the physical remains of any of the farmsteads or buildings are predicted, there remains the possibility for associated features, and more probably artefacts of contemporaneous date, to be located within the cable trench in the adjacent highway.

- 6.6 Features or artefacts associated with the former coal pit (No. 4) and associated workings at Colinshiel (HER 50054) could likewise be located within the adjacent length of highway to the south, though the site of the engine house, shaft and associated spoil heap would not be directly affected. There would also be no direct effects upon the other spoil heaps located to the east (Sites U and W) or the length of former tram road (Site V) adjacent to the latter.
- 6.7 There are no direct effects predicted upon the sites of the former quarries (Sites H and J) recorded adjacent to the road to the south of Gowanbank, or to that (Site M) located to the east of Hillhouse.
- 6.8 No direct effects are predicted on the site of the infilled mill leat (Site R) to the south of Birkenshaw Mill as at this location the course of the road is raised on a later embankment in excess of 1m above the alignment of the former leat.
- 6.9 The potential for other previously unrecorded archaeological features or finds to be encountered during the construction of the proposed cable trench is considered to be limited, and primarily restricted to the short length (some 380m) at the north-western end that would be laid within a stripped easement. On the basis of previous watching briefs carried out during topsoil stripping along pipeline easements within the vicinity (such as HER 3380) only evidence for former ridge and furrow cultivation of medieval or post-medieval date or occasional drains of post-medieval date have been identified (Wind Prospect 2010, 283–284). In the case of either such possibility only a small part of a more extensive feature would be affected, which are considered to be of low or local sensitivity, and the predicted effect would be of negligible adverse significance.

Effects upon setting

- 6.10 The only designated heritage assets within the study area are the category A listed buildings at Gowanbank (HER 18634; ID 14557) which are located at a minimum distance of some 85m to the east of the proposed cable route. These buildings are screened by woodland from the road to the west, although there may be some partial intervisibility during the winter months. The latter form part of an associated designed landscape.
- 6.11 Given that the cable trench will be laid underground within a trench any potential effects upon the setting of heritage assets would be limited to the period of construction (visibility of machinery and potential noise). Given the distance to the buildings and the intervening screening any affects upon the setting of the listed buildings at Gowanbank (and the associated landscape) would be negligible and would also be temporary (a period of a few days) and would not therefore be significant.
- 6.12 All other designated heritage assets are located some distance from the proposed cable route. The closest scheduled monument is the farmstead 720m WNW of Craigmarry (11223) which is located some 1.1km from the route. The

conservation area at Torpichean is located some 2.7km to the north-east, while the closest battlefield on the Inventory of Historic Battlefields is that of Linlithgow Bridge some 6.6km to the north-east and the nearest garden on the Inventory of Gardens and Designed Landscapes is that at Callender Park in Falkirk some 7.4km to the north. The Antonine Wall (Frontiers of the Roman Empire) World Heritage Site is located some 8.3km to the north of the proposed cable route at its closest point to the east of Falkirk. Given the distance to all of these heritage assets, the affects of intervening screening as a result of topography and vegetation, and the temporary nature of the proposed construction works no effects upon their settings are predicted.

7.0 MITIGATION

7.1 The proposed outline strategy to mitigate any affects of the construction of the export cable route upon recorded and potential heritage assets would primarily be based upon a targeted scheme of observation, investigation and recording (or archaeological 'watching brief') during topsoil stripping within the easement corridor at the north-western end of the proposed route and, as a precautionary measure, during the trench excavations within the carriageway or verge at five further selected locations along the remainder of the route. These locations are listed below (from north-west to south-east) and indicated on **Figures 3–12**, and are where heritage assets of archaeological interest are recorded either on or in close proximity to the proposed route:

1. A 370m length of the cable route along that length where it would cross pasture fields within a fenced easement to be stripped of topsoil, and transect former field boundaries to the south of the site of the former farmstead of Gairneylees (Site C).
2. A 100m length of the cable trench excavations to the south of the site of the former farmstead of Drumtassie (HER 18560).
3. A 230m length of the cable trench excavations to the north and south of the sites of the former buildings at Wester Righead (HER 18633) and Easter Righead (HER 18581) respectively.
4. A 100m length of the cable trench excavations to the north of the farmstead of Nether Hillhouse (HER 66079).
5. A 130m length of the cable trench excavations to the south of the site of the former Pit No. 4 at Colinshiel (HER 50054).
6. A 100m length of the cable trench excavations to the north of the former farmstead of Colinshiel (HER 66079).

- 7.2 The total length of the proposed watching brief would amount to just over 1km or approximately 12 per cent of the cable route.
- 7.3 In addition to identifying potential features or recovering artefacts associated with these former farmsteads or other sites, those lengths of the cable trench excavations to be monitored within the carriageway would also allow for the recording of a representative sample of any surviving former road surfaces at these locations.
- 7.4 The details of the proposed mitigation methodology would be agreed in advance of the commencement of any construction works with the West of Scotland Archaeology Service (on behalf of West Lothian Council) and the Falkirk Community Trust (on behalf of Falkirk Council).
- 7.5 In outline it is proposed that within the area of the stripped easement at the north-western end of the route all topsoil (and subsoil if necessary) would be removed with a toothless ditching bucket using a tracked excavator with a backactor. Within those specified lengths of the cable trench (below any tarmac surfaces) excavation would be undertaken using a toothless bucket unless specific obstacles (such as large stones) required the use of a toothed bucket.
- 7.6 Archaeological observation of the trench excavations would be undertaken in these specified areas, with the monitoring archaeologist(s) being provided with the necessary opportunity to investigate and record any archaeological features, deposits or finds within the trench in either plan and/or section. Features would then be recorded, sampled and photographed as necessary to the requirements of the methodology previously agreed with the respective planning authorities. This agreed methodology would also allow for an appropriate level of further analysis of the site records, finds and samples as necessary, report preparation and publication at an appropriate level, and the deposition of the site archive.
- 7.7 In addition to the archaeological watching brief, potential damage to any historic features of local historic interest as a result of construction works should be avoided. Such areas would specifically include the wall and gateposts adjacent to the former farmstead at Drumtassie, and the wall either side of the road to the west of Gowanbank. These features should be noted during construction works and demarcated if necessary in order to avoid any inadvertent damage.

8.0 CONCLUSION

- 8.1 The proposed electricity export cable between Burnhead Moss Wind Farm and the Bathgate substation is located within an area that contains a number of heritage assets of both archaeological and historic interest within the immediate vicinity of the route. These are primarily of post-medieval date and principally consist of the sites of former or extant farmsteads which are mostly located

along the north-western half of the route and originally recorded between the 16th and 19th centuries. Sites associated with former coal and ironstone mining of 19th century date are mostly located within the south-eastern part of the route to the north-east of Armadale, with other occasional industrial features such as former quarries and a mill leat along the central section.

- 8.2 A short length of the cable route at the north-western end near to the wind farm is located in pasture fields, and this length (which will be laid in a trench within a fenced corridor to be stripped of topsoil) will transect the alignment of three former field boundaries, although in each case only a small proportion would be affected, and is in relatively close proximity to the site of the former farmstead of Gairneylees. These boundaries are considered to be of low or local sensitivity, and the predicted effect to be of negligible adverse significance.
- 8.3 The majority of the proposed cable route is to be laid within a trench located along adopted highways (or in the adjoining verge) and recorded sites are accordingly adjacent to the development rather than being directly affected by it. These include the sites of former farmsteads or buildings at Drumtassie, Wester Righead and Easter Righead, and the surviving or ruinous farmsteads at Nether Hillhouse and Colinshiel respectively. The route is also located adjacent to the site of a former coal works (Colinshiel Pit No. 4) and associated spoil heaps and a tram road. There is the potential that either features or artefacts associated with these sites may survive within the area of the trench to be excavated along the highway together with any surviving former road surfaces within the carriageway itself. Any such sites or finds would be likely to be of low or local sensitivity, and the predicted effect upon them to be of negligible adverse significance. The potential for previously unrecorded archaeological remains of importance to be encountered during the construction works along the highway is considered to be low.
- 8.4 While the proposed route crosses the course of a former mill leat south of Birkenshaw Mill, the current road is raised on an embankment at this location and no affects upon the infilled deposits are predicted.
- 8.5 The only designated heritage assets within the study area are the category A listed buildings at Gowanbank, located some 85m or more to the west of the proposed cable route. These are largely screened by trees from the road to the west, and any effects upon their setting (from the visibility of machinery and potential noise during construction) would be both limited, given the distance to the buildings and the intervening screening, and temporary, and would therefore be of negligible significance.
- 8.6 All other designated heritage assets – scheduled monuments, conservation areas, battlefields, gardens and designed landscapes, and the Antonine Wall World Heritage Site – are located at distances of between 1.1km and 8.3km from the proposed cable route. Given these distances and the affects of intervening screening as a result of topography and vegetation, together with

the temporary nature of the proposed construction works, no effects upon the setting of any of these heritage assets are predicted.

- 8.7 Mitigation of the predicted and potential direct effects upon heritage assets of archaeological interest would be based on a proposed scheme of observation, investigation and recording (or 'watching brief') during topsoil stripping within the easement corridor at the north-western end of the proposed route across former field boundaries and close to the former farmstead at Gairneytees. As a precautionary measure, a watching brief would also be undertaken during the trench excavations within the carriageway or verge at five further targeted locations along the remainder of the route adjacent to the existing or former farmsteads or buildings at Drumtassie, Wester Righead and Easter Righead, Nether Hillhouse and at Colinshiel, and the former coal works at Colinshiel Pit No. 4.
- 8.8 The scale and scope of this proposed mitigation, including subsequent report preparation and archive deposition, would be agreed with the West of Scotland Archaeology Service and Falkirk Community Trust on behalf of West Lothian Council and Falkirk Council respectively. The preparation of the appraisal study, and the proposed mitigation of the predicted and potential adverse effects of the construction of the cable route, therefore accord with Scottish Planning Policy, PAN 2/2011 on Planning and Archaeology, and relevant historic environment policies in both the West Lothian Local Plan and Falkirk Council Local Plan.
- 8.9 Subject to the implementation of the proposed mitigation strategy no substantial harm to heritage assets is predicted as a result of the proposed Burnhead Moss Wind Farm export cable.

Report: 48/1
Date: November 2013
Text: Peter Cardwell BA FSA MIFA
Illustrations: Archaeological Services Durham University
Edited by: M C Bishop BA PhD FSA (Scot)

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1967 Ordnance Survey 1:10,560 sheet NS 96 NW

Aerial photographs (vertical)

26.04.49 RAF 541 A 0467 Frames 3217–3218 and 4270

07.06.88 ASS 519 88 Frames 202–204

APPENDIX

HERITAGE ASSETS WITHIN 500M CORRIDOR ALONG EXPORT CABLE ROUTE

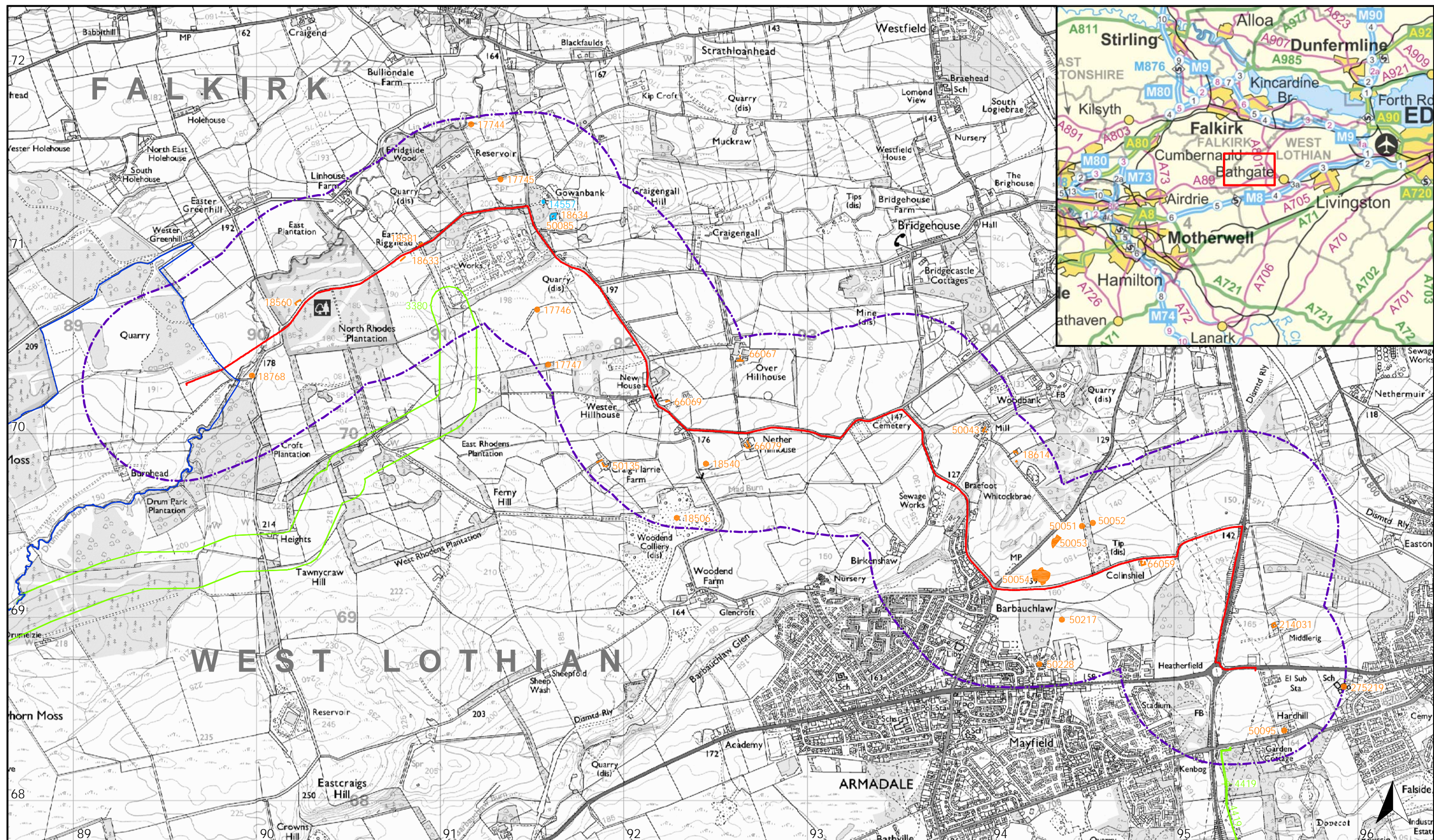
WoSAS HISTORIC ENVIRONMENT RECORDS

Emboldened listings are within close proximity (50m) to the export cable route and all sites are indicated on Figure 1

WoSAS	RCAHMS	LB	Grid reference	Classification	Period
17744	73000	–	NS 91170 71690	Linn Mill Burn field bank	Unknown
17745	73003	–	NS 91330 71390	Gowanbank field bank	Unknown
17746	73009	–	NS 91530 70680	Gowanbank field bank	Unknown
17747	73010	–	NS 91590 70380	New House dyke	Unknown
18506	92516	–	NS 92200 6950	Woodend colliery	Post-medieval
18540	100105	–	NS 92450 69840	Standing stone	Unknown
18560	100177	–	NS 90210 70710	Drumtassie farmstead	Post-medieval
18581	100180	–	NS 90890 71030	Easter Righead building	Post-medieval
18614	99736	–	NS 94140 69890	Muirfield farmstead	Post-medieval
18633	100179	–	NS 90810 70950	Wester Righead building	Post-medieval
18634	–	14557	NS 91620 71190	Gowanbank Farm	19th century
18768	–	–	NS 89910 70300	Loanend farmstead	Post-medieval
50043	165802	–	NS 93980 70000	Birkenshaw Mill	Post-medieval
50051	165295	–	NS 94500 69500	Colinshiel Coal Works, Armadale	Post-medieval
50052	165296	–	NS 94550 69520	Coal Works, Pit No. 1, Armadale; Colinshiel Brickworks	Post-medieval
50053	165297	–	NS 94330 69400	Colinshiel Coal Works, Pit Nos. 2 and 3, Armadale	Post-medieval
50054	165299	–	NS 94280 69190	Colinshiel Coal Works, Pit No. 4, Armadale	Post-medieval
50085	247436	14557	NS 91631 71192	Gowanbank steading and cottage; Gowanbank farmsteading	Post-medieval
50095	214465	–	NS 95602 68386	Hardhill offices; Hardhill steading	Post-medieval
50135	180283	–	NS 91900 69830	Craigmarry farmstead	Post-medieval
50217	132610	–	NS 94390 68990	Barbauchlaw Colliery; Armadale Pit No. 3	Post-medieval
50228	213836	–	NS 94267 68748	Barbauchlaw Brickworks	Post-medieval
66059	–	–	NS 94824 69300	Colinshiel farmstead	Post-medieval
66067	–	–	NS 92647 70440	Over Hillhouse	Post-medieval
66069	–	–	NS 92238 70179	Hillhouse	Post-medieval
66079	–	–	NS 92674 69938	Nether Hillhouse farm	Post-medieval
–	214031	–	NS 95547 68942	Middlerigg farm	Post-medieval
–	214575	–	NS 9 7	Linlithgow wall	Unknown
–	275219	–	NS 95927 68625	Windyknowe Primary School	Post-medieval

*Burnhead Moss Wind Farm Export Cable, Falkirk and West Lothian
Cultural Heritage Appraisal*

WoSAS	RCAHMS	LB	Grid reference	Classification	Period
3190	–	–	NS 86261 67324	Desk based assessment and field survey of the Bathgate to Newarthill Pipeline	
3380	–	–	NS 86265 67326	Bathgate to Newarthill Pipeline Data Structure Report	
4419	–	–	NS 95290 68095	Archaeological Watching Brief: Whiteside Pipeline Diversion, Bathgate, West Lothian	



- study area
 - export cable
 - wind farm planning permission boundary
 - listed buildings
 - other heritage assets
 - event
- Note:
Information provided by West of Scotland Archaeology Service (WoSAS) and the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS)
- | | |
|------------|---------|
| date | version |
| 23/10/2013 | 3 |

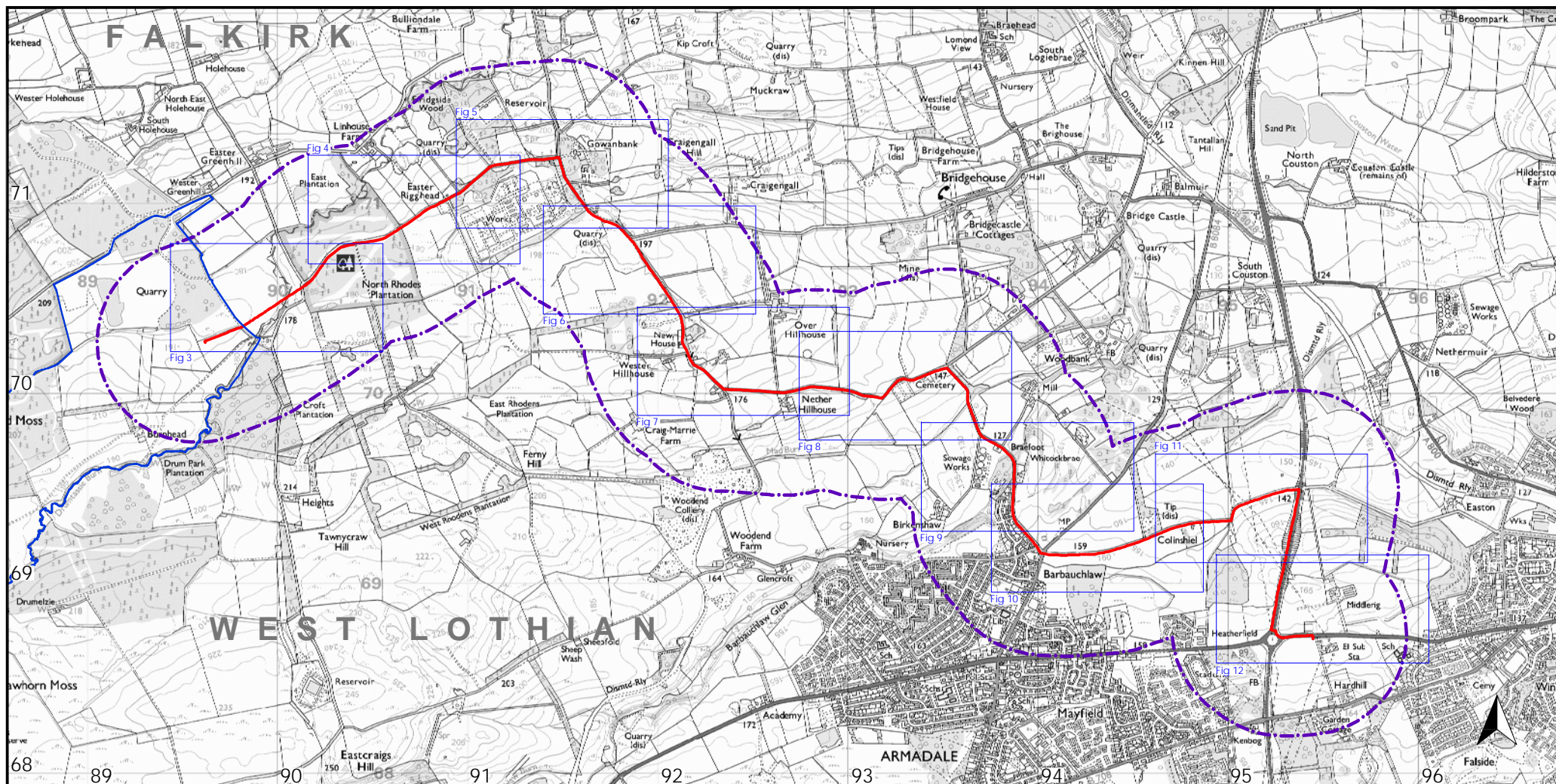
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




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Figure 1

Location of export cable and recorded heritage assets in the study area

Burnhead Moss Wind Farm Export Cable



-  study area
-  export cable
-  map layouts
-  administrative boundary
-  wind farm planning permission boundary

date
23/10/2013

version

3

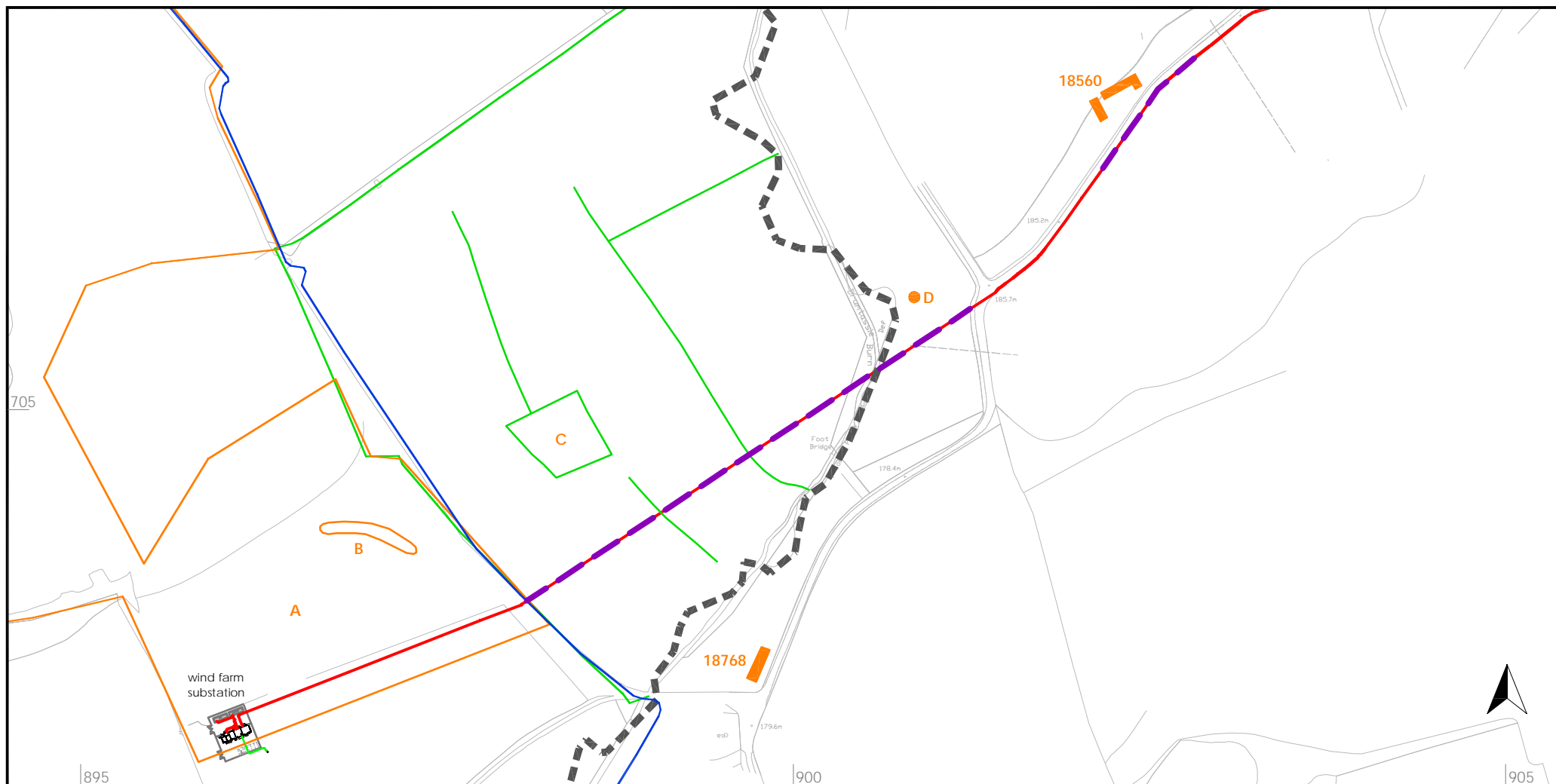
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

Burnhead Moss Wind Farm Export Cable

Figure 2

Location of export cable and detailed map layouts



-  export cable
-  heritage assets
-  administrative boundary
-  wind farm planning permission boundary

-  field boundaries (1865)
-  watching brief

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date	version
23/10/2013	3

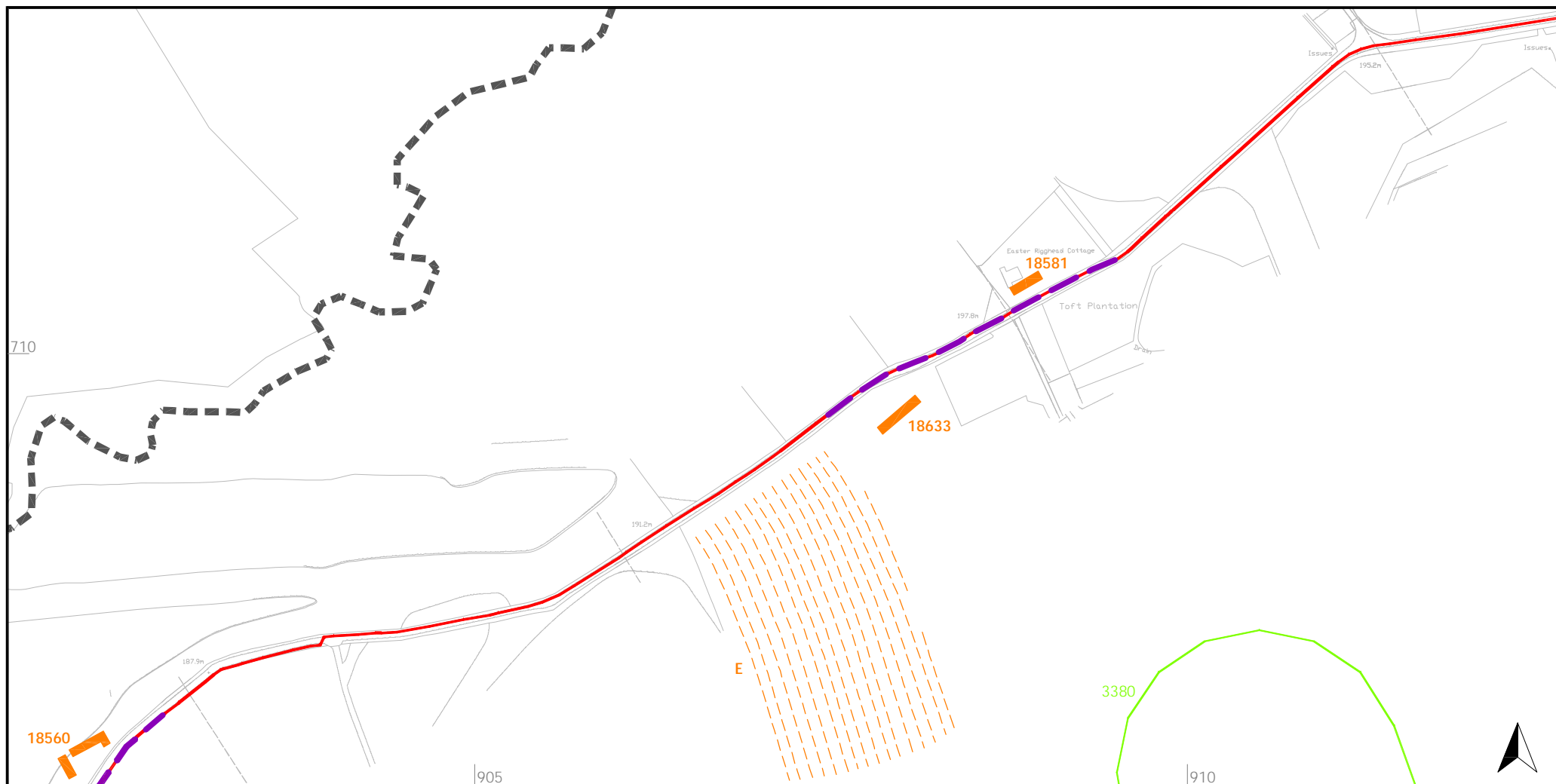
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



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Burnhead Moss Wind Farm Export Cable

Figure 3

Location of export cable and heritage assets
in the vicinity



-  export cable
-  heritage assets
-  event
-  administrative boundary
-  watching brief

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

version

3

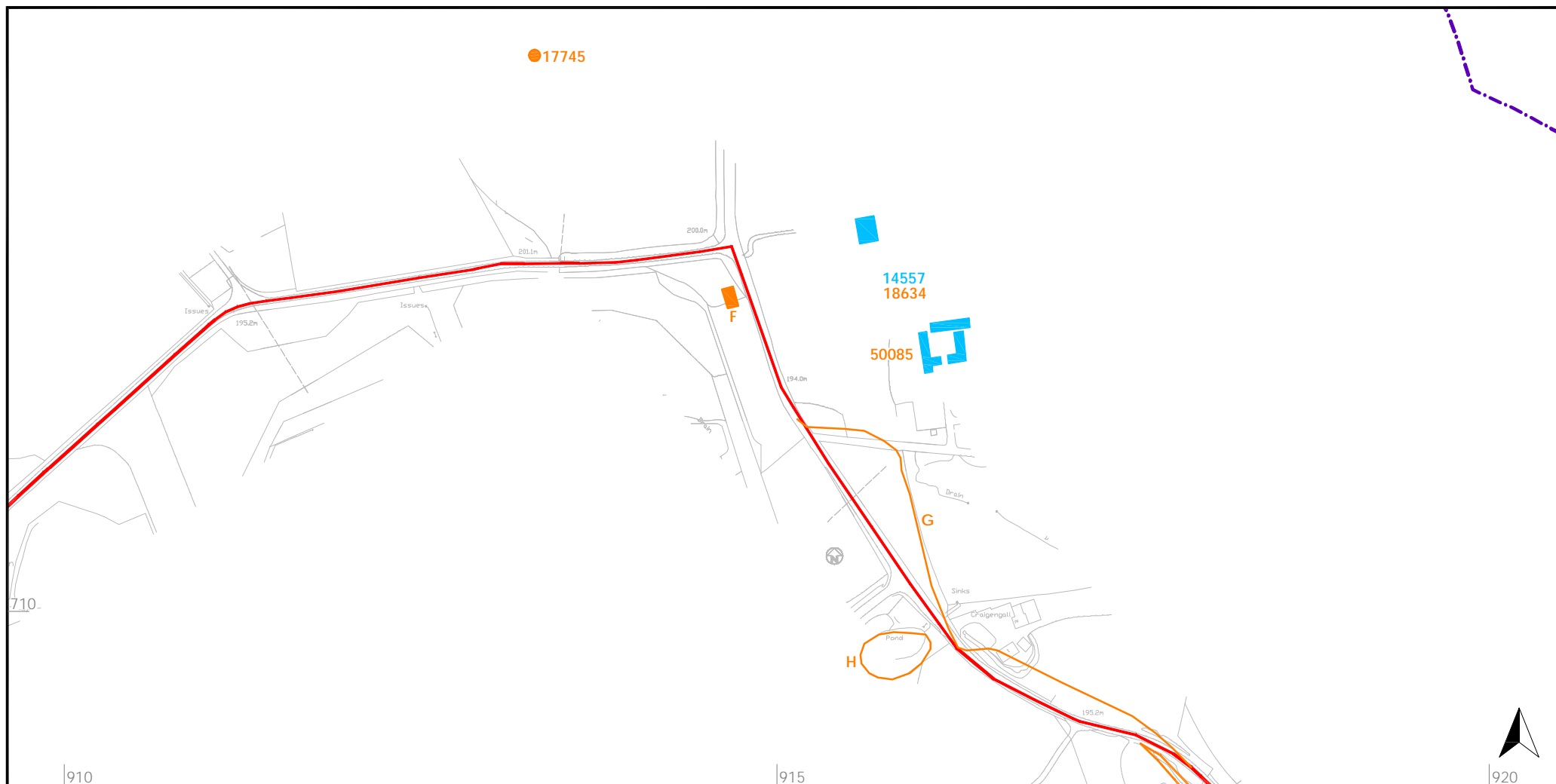
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
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Burnhead Moss Wind Farm Export Cable

Figure 4

Location of export cable and heritage assets
in the vicinity



-  study area
-  export cable
-  listed building
-  other heritage assets

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date	version
23/10/2013	3

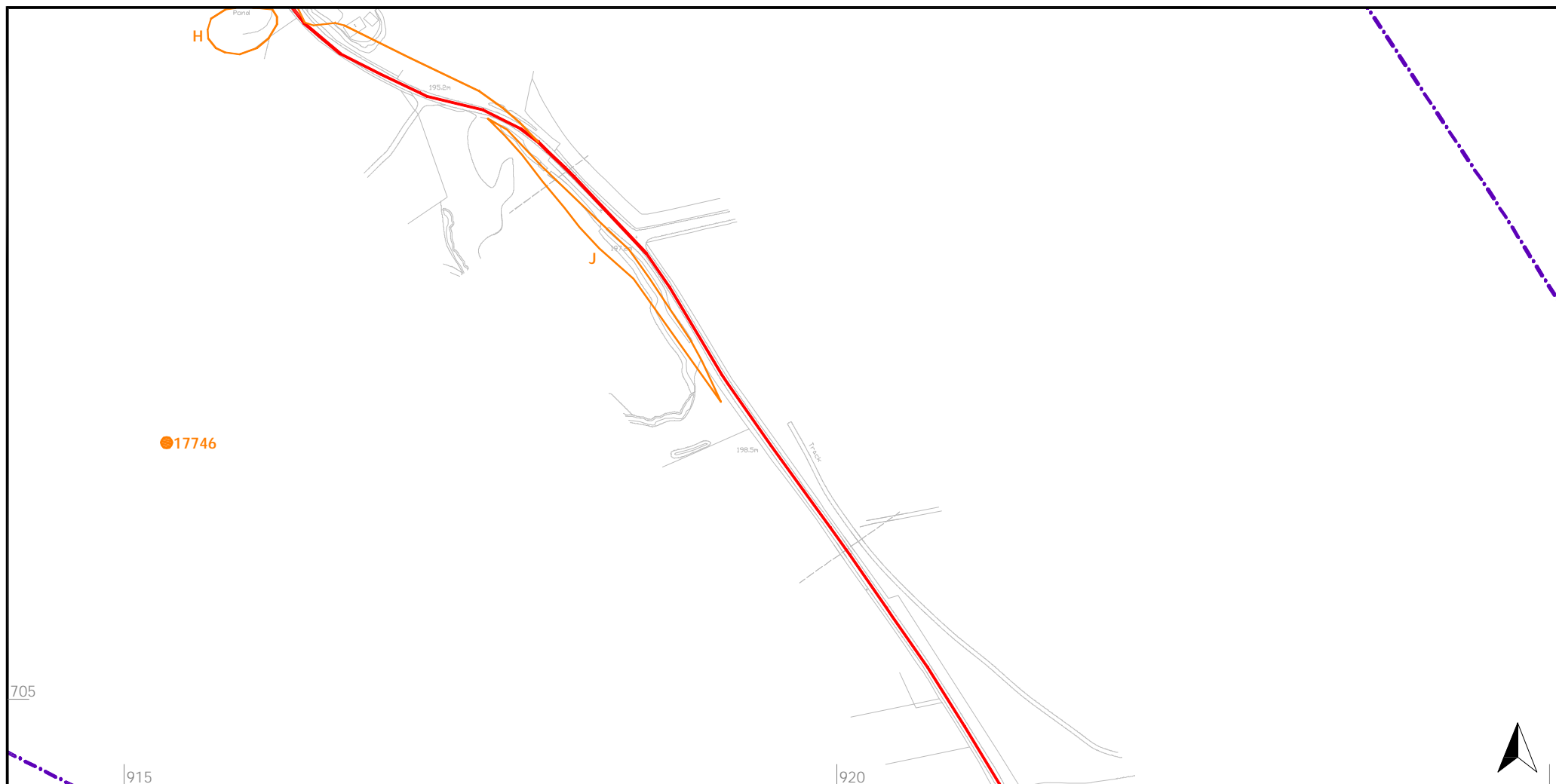
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Burnhead Moss Wind Farm Export Cable

Figure 5

Location of export cable and heritage assets
in the vicinity



-  study area
-  export cable
-  heritage assets

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

version
3

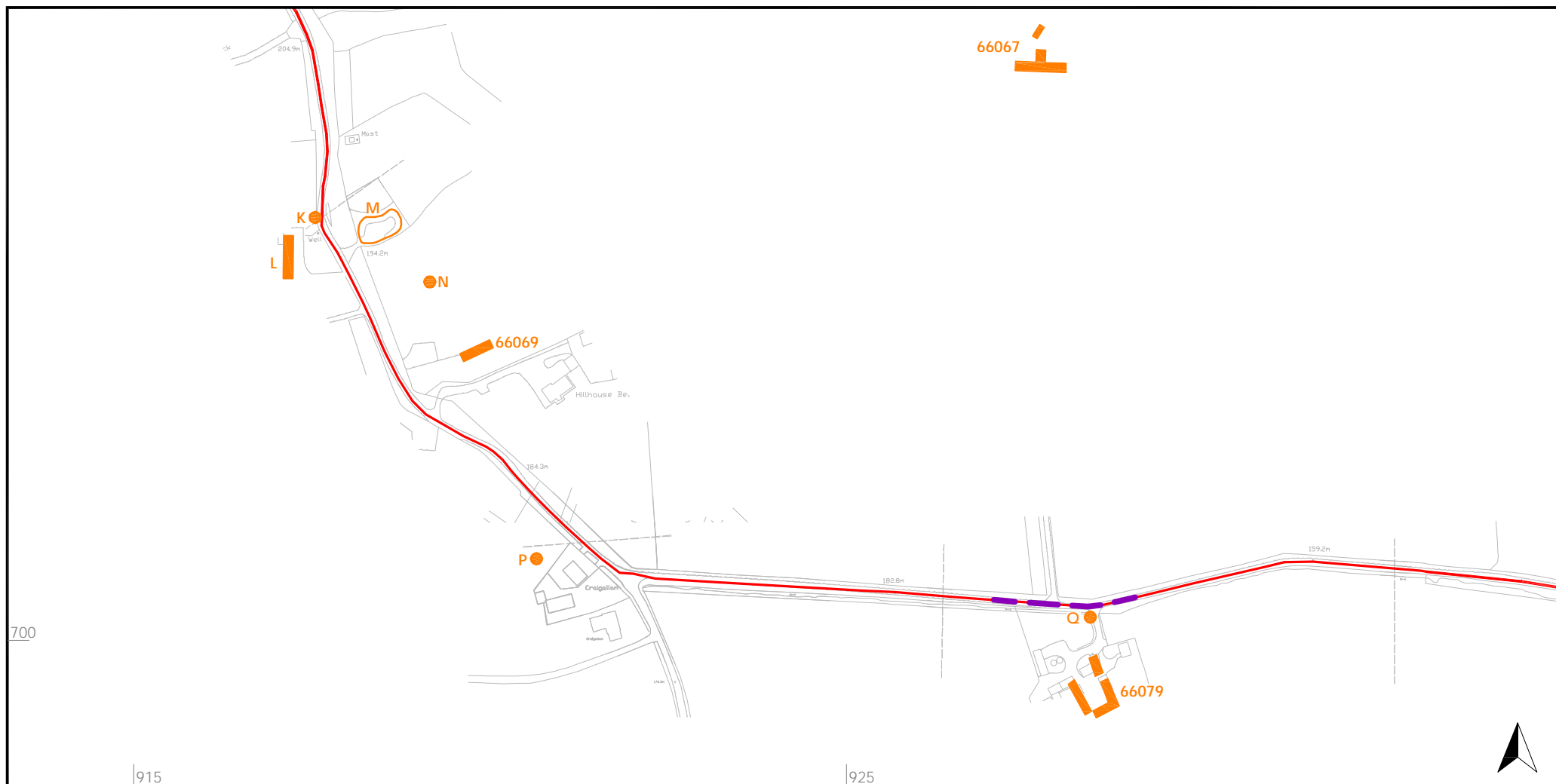
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Burnhead Moss Wind Farm Export Cable

Figure 6

Location of export cable and heritage assets
in the vicinity



-  export cable
-  heritage assets
-  watching brief

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

version

3

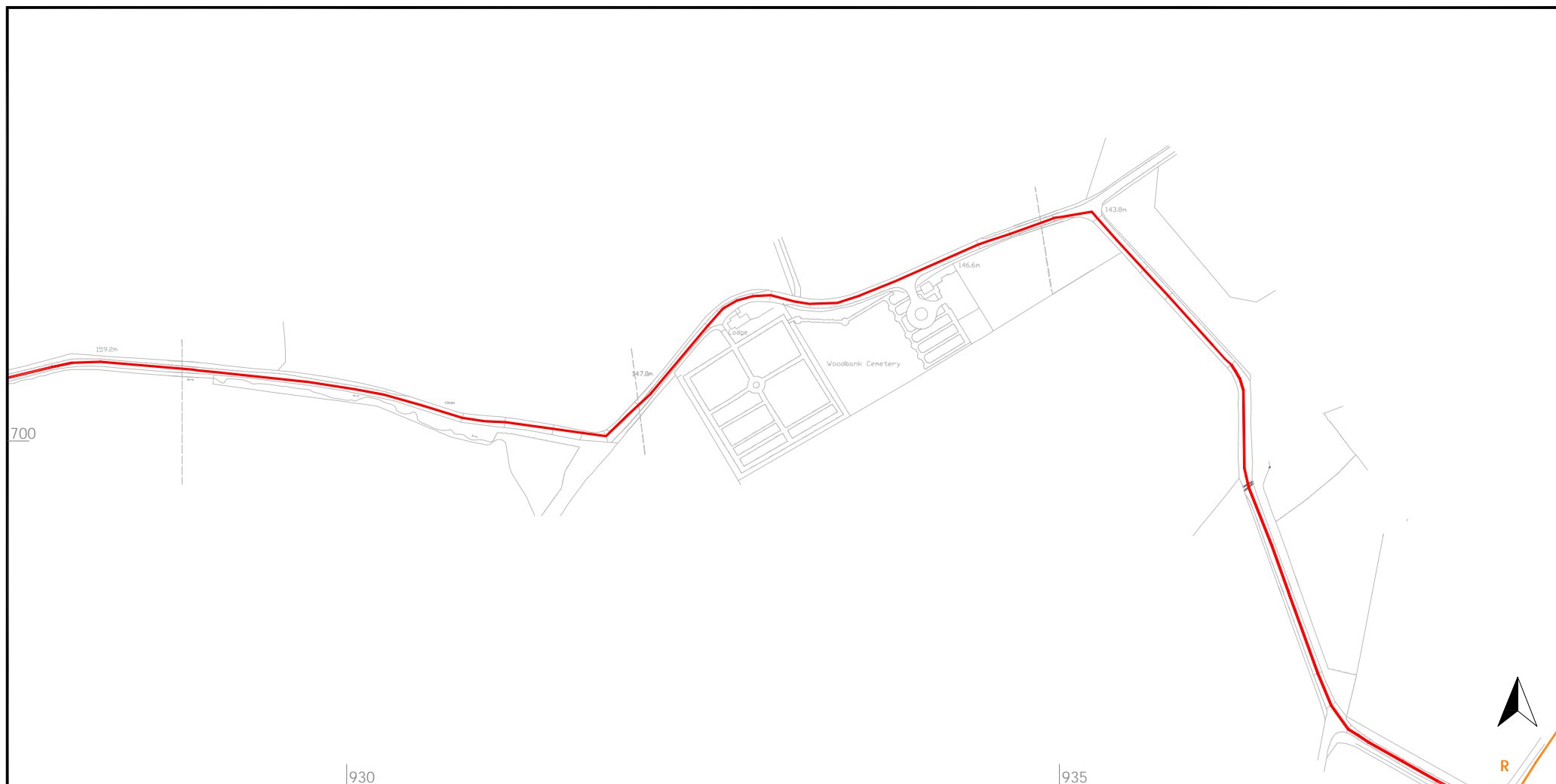
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Burnhead Moss Wind Farm Export Cable

Figure 7

Location of export cable and heritage assets
in the vicinity



-  export cable
-  heritage assets

0 200m

scale 1:4000 @ A4

Burnhead Moss Wind Farm Export Cable

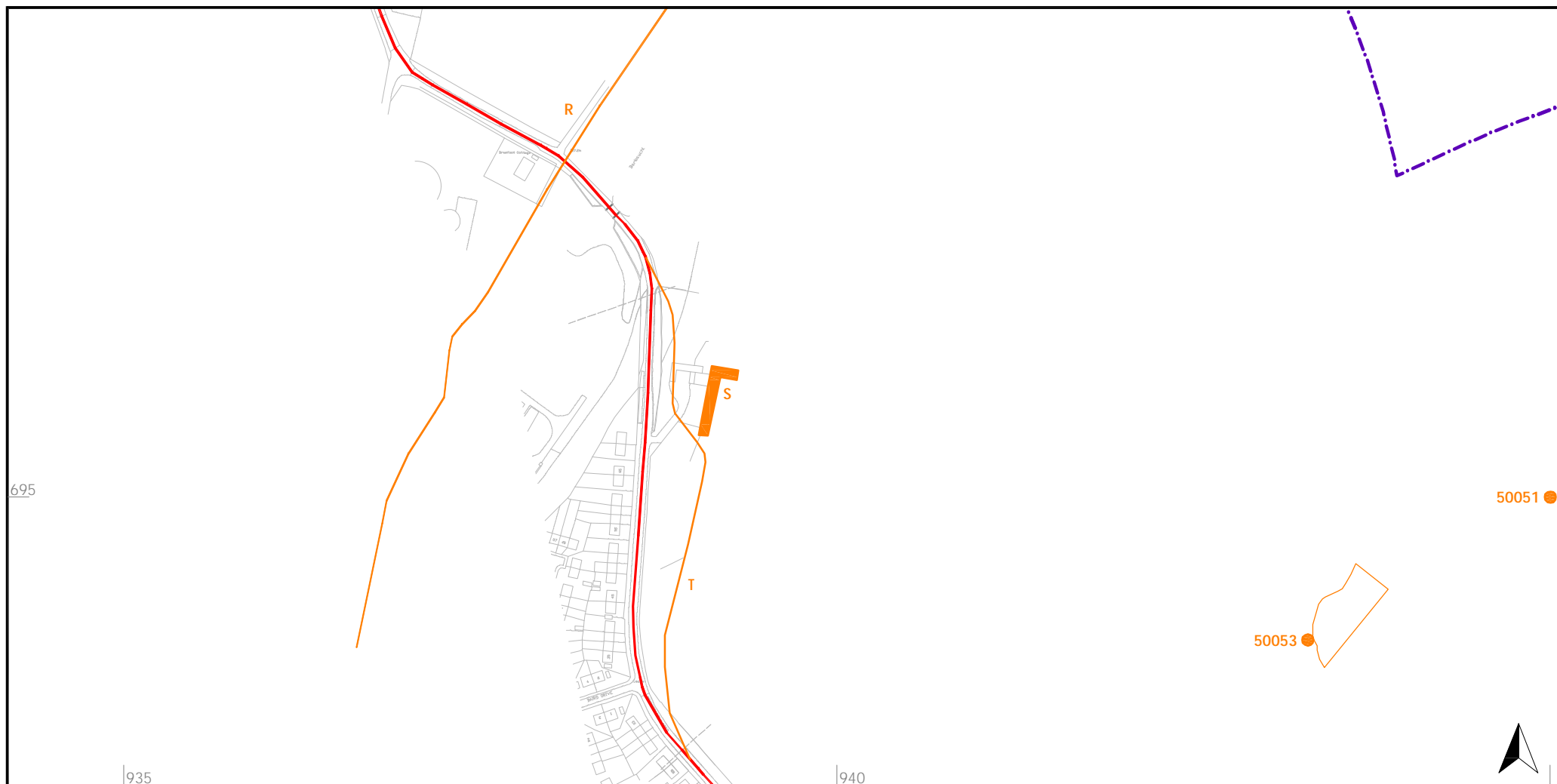
Note:
Information on HER sites provided by West
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date 23/10/2013	version 3
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Figure 8

Location of export cable and heritage assets
in the vicinity



study area



export cable



heritage assets

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

version
3

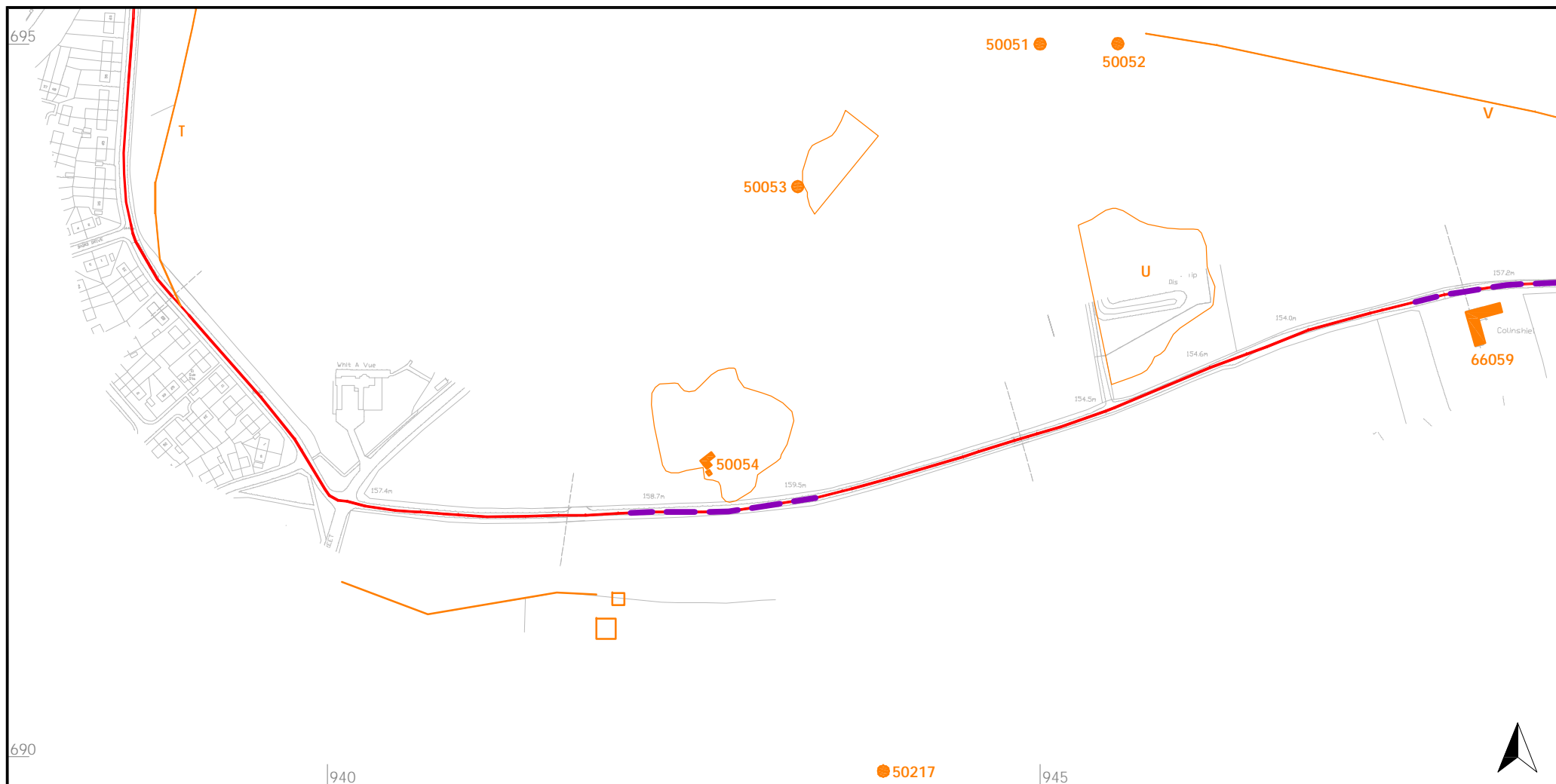
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Burnhead Moss Wind Farm Export Cable

Figure 9

Location of export cable and heritage assets
in the vicinity



-  export cable
-  heritage assets
-  watching brief

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

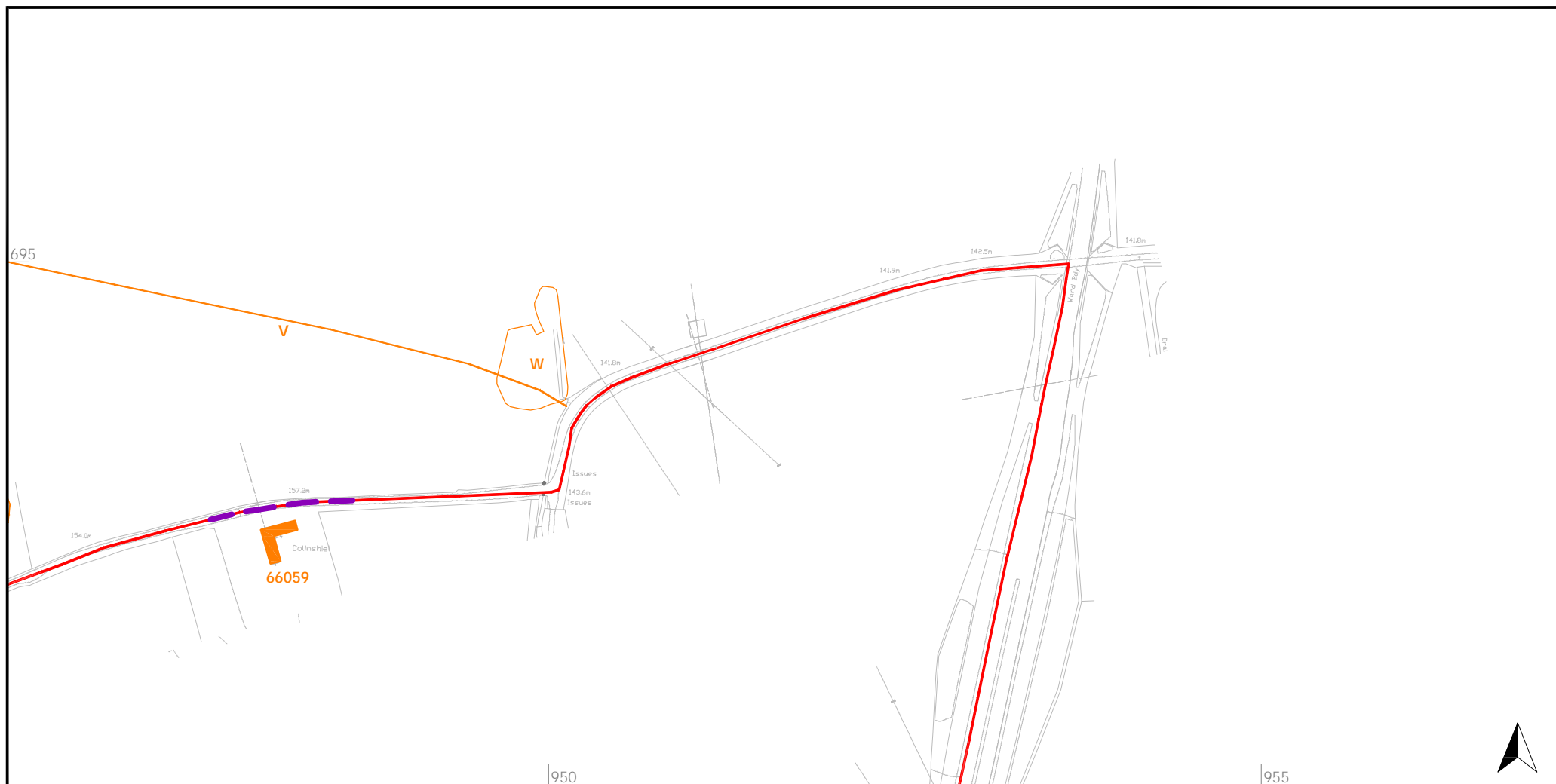
version
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Burnhead Moss Wind Farm Export Cable

Figure 10

Location of export cable and heritage assets
in the vicinity



-  export cable
-  heritage assets
-  watching brief

Note:
Information on HER sites provided by West
of Scotland Archaeology Service (WoSAS)

date
23/10/2013

version
3

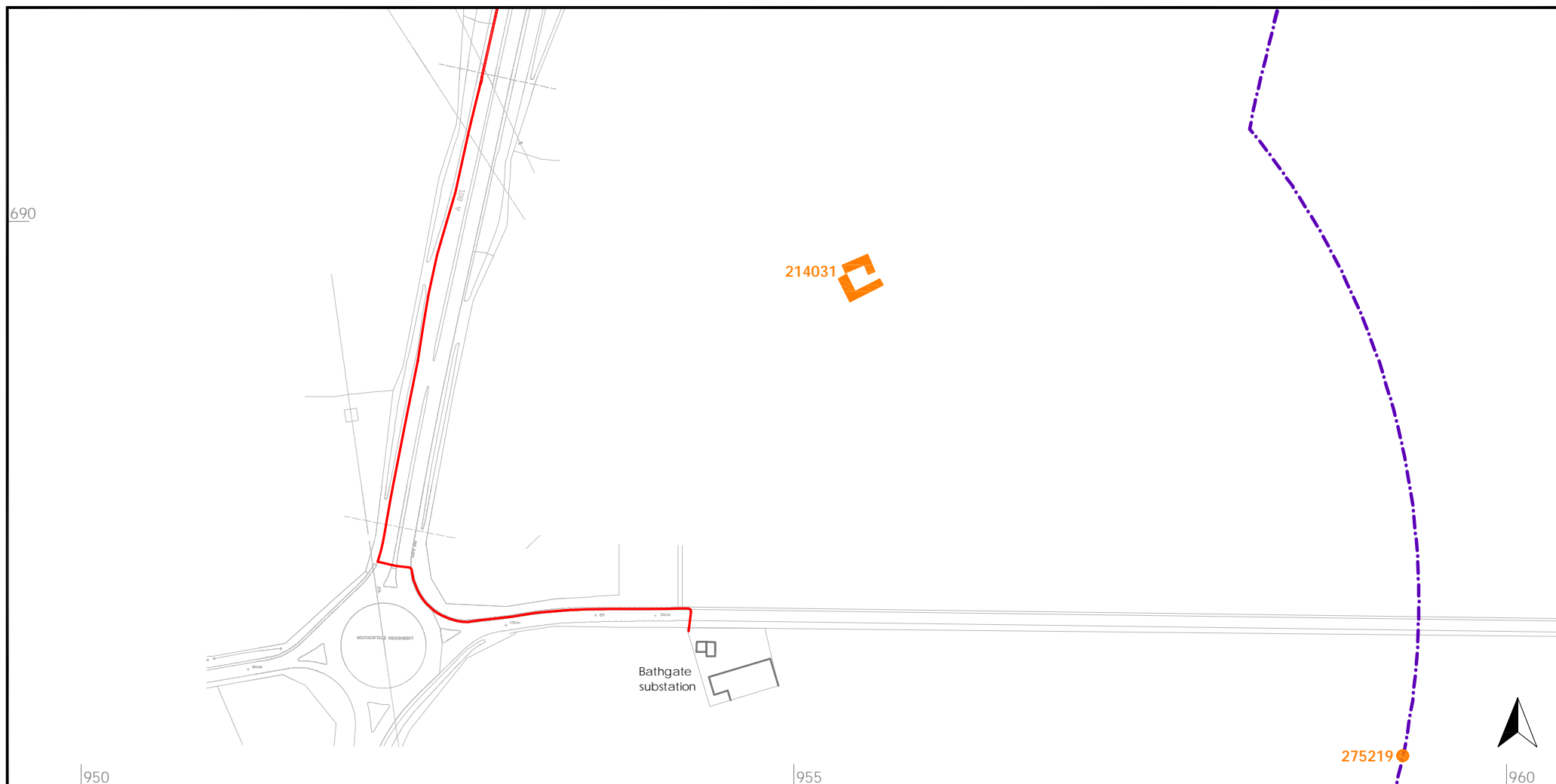
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Burnhead Moss Wind Farm Export Cable

Figure 11

Location of export cable and heritage assets
in the vicinity



study area



export cable



heritage assets

Note:
Information provided by (RCAHMS)

date
23/10/2013

version

3

0 200m
scale 1:4000 @ A4

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Burnhead Moss Wind Farm Export Cable

Figure 12

Location of export cable and heritage assets
in the vicinity



Plate 1: Burnhead Moss Wind Farm export cable - view south-westwards across the Drumtassie Burn towards the wind farm site (31 July 2013)



Plate 2: Burnhead Moss Wind Farm export cable - view westwards along central section of route towards Nether Hillhouse (31 July 2013)



Plate 3: Burnhead Moss Wind Farm export cable - view of Nether Hillhouse (HER 66079) from the north (31 July 2013)



Plate 4: Burnhead Moss Wind Farm export cable - view of site of Drumtassie farmstead (HER 18560) from the east (31 July 2013)



Plate 5: Burnhead Moss Wind Farm export cable - view of Colinshiel farmstead (HER 66059) from the north-east (31 July 2013)



Plate 6: Burnhead Moss Wind Farm export cable - view of Colinshiel farmstead (HER 66059) from the north-west (31 July 2013)



Plate 7: Burnhead Moss Wind Farm export cable - site of Wester Rigghead (HER 18633)
from the north-east (31 July 2013)



Plate 8: Burnhead Moss Wind Farm export cable - view along course of former mill lead
(Site R) looking north-eastwards towards Birkenshaw Mill (31 July 2013)



Plate 9: Burnhead Moss Wind Farm export cable - view of road embankment across course of former mill lead (Site R) from the north-west (31 July 2013)



Plate 10: Burnhead Moss Wind Farm export cable - view of site of quarry (Site J) from the south-east (31 July 2013)



Plate 11: Burnhead Moss Wind Farm export cable - view of site of Colinshiel Pit No. 4 (HER 50054) from the south-west (31 July 2013)