Energy and Climate Change Directorate
Energy Consents Unit

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Chris Calvert
Pegasus Group
By email only

By email only to: chris.calvert@pegasusgroup.co.uk

Our ref: ECU00004949

31st January 2024

Dear Chris Calvert,

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

SCREENING OPINION OF THE SCOTTISH MINISTERS

IN RESPECT OF THE PROPOSED APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 TO CONSTRUCT AND OPERATE THE PROPOSED BRAXBESS BATTERY ENERGY STORAGE SYSTEM LOCATED ON LAND AT BARNS NESS TERRACE, INNERWICK, EAST LOTHIAN, EH42 1SE.

Thank you for your request dated 16th October 2023 requesting a screening opinion in respect of a proposed application under section 36 of the Electricity Act 1989 ("the Electricity Act") to construct and operate a battery energy storage system, generating up to 650 megawatts, comprising multiple containerised battery storage units. The proposed development will also comprise ancillary infrastructure including a substation, transformers, fencing and landscaping. The proposed development and its effects are further described in the application and supporting documents submitted on 19th January 2024.

Background

The proposed development as described briefly above is entirely within the planning authority area of East Lothian Council ("the Planning Authority").

The proposal requires to be screened by the Scottish Ministers in accordance with regulation 7 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the Regulations"). Following a request for a screening opinion made under regulation 8(1), Scottish Ministers are required to adopt an opinion as to whether the proposed development is or is not EIA development.

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

The Regulations set out at 8(2) the information that must accompany a request to the Scottish Ministers to adopt a screening opinion. Scottish Ministers consider that the information included

in the screening request and documents supporting the request is sufficient to meet the requirements set out in regulation 8(2), and that the submitted information has been compiled taking into account the selection criteria in schedule 3 of the Regulations.

Statutory Consultation

Under regulation 8(5) of the Regulations, Scottish Ministers are required to consult the Planning Authority within whose land the proposed development is situated. The Planning Authority was consulted on 20th October 2023, and responded on 4th December 2023, indicating their view that the proposed development **is** EIA development. The planning authority's response, including their figures, are all attached to this letter.

Scottish Ministers' Considerations

EIA development is defined in the Regulations, in respect of an application, as a proposed development, which is either Schedule 1 development, or Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location. The proposed development constitutes Schedule 2 development in terms of the Regulations.

In adopting a screening opinion as to whether Schedule 2 development is EIA development, the Scottish Ministers must in all cases take into account such of the selection criteria in Schedule 3 of the Regulations as are relevant to the proposed development, and the available results of any relevant assessment.

Scottish Ministers have taken the selection criteria in Schedule 3 and all the information submitted in respect of the screening request in account. Scottish Ministers adopt the opinion that **the proposal does not constitute EIA development and that the application submitted for this development does not require to be accompanied by an EIA report.**

In accordance with regulation 7(2), this opinion is accompanied by the following written statement with reference to the relevant selection criteria within Schedule 3 of the Regulations. In accordance with the Regulations, a copy of the screening opinion has been sent to the Planning Authority.

Written Statement

Characteristics of Development

The site covers an area of approximately 19.9 hectares, and the layout will comprise of electrical component equipment approximately 11 metres in height, along with landscape features around the site, security features including fencing, access gates, CCTV and lighting, all of which will have a maximum height of approximately 5 metres. Impacts on natural resources will be minimal – it is proposed that some natural resources will be used during construction but would not be any more than is typical for these types of development. Waste produced by the development would also be minimal as no operational waste is predicted, and most of the infrastructure will be suitable for recycling when the development is decommissioned. There is some potential for pollution and nuisance from the development, including noise, run-off into the water environment and air pollution from vehicles, equipment, plant and machinery, as well as potential traffic congestion from vehicles coming to and from the site. The risk of accidents is low, given that this is well established technology which can operate safely.

Location of Development

The land on which the proposed development will be built on is agricultural land and not

considered to be prime. There are no ecologically designated sites near the development, the closest being the Firth of Forth SPA and SSSI, located approximately 7km away from the proposed development. There is a scheduled monument located within close proximity to the proposed development, however it has been explored in the applicant's subsequent application that views from the scheduled monument will be limited by topography in some places, and other views already contain modern features including electricity pylons. Some cropmarks are present on the site, but these are thought to be mostly of geological origin. Therefore, no significant impacts are expected.

Characteristics of the Potential Impact

The impacts of the development, given its size, nature and location, are likely to be low in relation to population and human health and no significant effects are expected. Any potential impacts are expected during the construction phase of the project, with minimal impacts during the operational phase. There is a large potential for reversibility when the site is decommissioned. Impacts on biodiversity are likely to be low, given the contained geographical extent of the development, its minimal impact and the low sensitivity of the land likely to be affected, and no significant effects are anticipated. Given the characteristics of development and the qualities of the location, there are no likely significant effects in relation to land, soil, water, air, or climate. There are no significant effects considered likely in relation to material assets, cultural heritage or the landscape, given the nature and size of the development and its distance in relation to sensitive receptors. Impacts from noise, air pollution and water run-off will be controlled and mitigated through appropriate planning conditions during the construction and operation of the proposed development.

Features of the proposed development and measures proposed to avoid or prevent significant effects

While no assessments were proposed in the screening request, an application has been made under section 36 of the Electricity Act 1989 which includes an Interim Ecological Impact Assessment, a Drainage Statement, a Habitats Regulation Appraisal, a Construction Traffic Management Plan and an Archaeology and Built Heritage Assessment.

This screening opinion does not constitute pre-application or application advice and is provided without prejudice to the forthcoming assessment of the application under 36 of the Electricity Act 1989.

Yours sincerely

Nicola Kennedy

A member of the staff of the Scottish Government

(Cc: East Lothian Council)

Our Ref: CONS GOV/ECDU/BRAXBESS
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Econsents_Admin@gov.scot
Cc Carolanne.Brown@gov.scot

Dear Carolanne

Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Braxbess Energy Storage facility

I refer to your request received 20 October 2023 for this Council's views on a Screening Request for the above works, and your extension of time for our response to 4 December 2023. This letter forms our Council's response. This is based upon the information in your original email, including any proposed mitigation described there. The planning authority's opinion on the likelihood of significant environmental effects and other comments are given only for the purpose of your adoption of a screening opinion and without prejudice to any subsequent consideration by the planning authority through any other formal process of the impacts of the proposed development, including assessment of the acceptability or otherwise of the proposed development relative to development plan policy and other material considerations.
In addition, the Council consulted East Lammermuir Community Council, which covers this area, for their comments. I have appended their response.

Screening Request
The proposal is for a grid services facility to provide battery storage, expected to have a capacity of in excess of 50MW. According to the Chief Planners letter of 27 August 2020, such works are to be considered electricity generating stations and therefore fall to be determined under the Electricity Act 1989. The works would therefore I assume also be considered as a generating station under the above EIA regulations and require Screening under Schedule 2(1), rather than the Schedule 2 (3A) of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.

The request includes a location plan which shows a site boundary, access route and proposed substation location. It does not however include the cable route. The cable route is an essential part of this project, without which it cannot function. Therefore, the council considers that without this information it is not possible to issue a negative screening opinion for this project as a whole, as the cable route could have significant effects which are unknown.

Characteristics of the Development

A: Size and design of the development

The overall size of the site is 19.9 hectares. There will be electrical component equipment of around 11m in height, with security features such as site fencing and gates which will be around 2.4m and CCTV and light poles which will be around 5m. A substation is also shown on the plans. There will be

internal 5.5m wide access tracks, as well as use of an existing track for access. This is a substantial development in terms of size.

B: Cumulation with other existing and/or approved development

There is existing, consented and in planning electricity infrastructure in this area. This includes another proposed battery energy storage system at Branxton, the Eastern Link electricity transmission proposals, the substation to connect Berwick Bank Offshore windfarm, the existing Torness Power Station and the high voltage power line cables built to allow export of its electricity, and the underground cable related to the Neart na Gaoithe offshore windfarm. The degree of change that is occurring in the area south of Dunbar between the Lammermuir foothills and the coast from electricity infrastructure is considerable. This adds to existing large scale infrastructure including the A1 road and East Coast mainline, Dunbar Energy from Waste plant, the landfill at Oxwellmains, Dunbar Cement Works and the limestone quarry to its north.

The characteristics of the development which are likely to give rise to cumulative impacts are its large scale and design as a structure of functional appearance. There is likely to be significant cumulative landscape and visual impact with this development. There also could be socio-economic effects on tourism and the attractiveness of the area for investment as a result. There is likely to be disruption and disturbance during the construction and decommissioning periods, including road traffic impact which will have cumulative impacts with other electricity projects including windfarm development in the Lammermuirs. There may also be cumulative effects both positive and negative in relation to greenhouse gas emissions and disposal of waste, as well as loss of agricultural land.

C: Use of natural resources in particular soil, water and biodiversity

The main use of natural resources includes the materials for construction, land to accommodate the proposal. There will also be some use of fuel during construction.

D: Production of waste

The Screening Report states that there would be very little waste associated with the operation of the development, with much of the apparatus suitable for recycling at the end of its life. However, no mention of what will happen to the materials at decommissioning, such that they do not become waste, has been included. It is not clear if any of the material will require specialist disposal at the end of life.

The batteries will produce waste heat and there do not appear to be inclusion of any proposals to capture this heat. There are nearby properties in Innerwick that could potentially benefit from this heat.

E: Pollution and nuisances

The Screening Report notes there are several sources of potential pollution and/or nuisance. These include noise, run-off into the water environment from impermeable surfaces and any odour or emissions from vehicles, equipment, plant and machinery, and impacts to road safety and traffic congestion from vehicle movements. The Scoping Report considers this is not unusual and can be controlled through planning conditions.

One of the purposes of battery storage is to allow electricity generated by renewable energy to be used at times it is not being generated. This will reduce the amount of peak generation required, which may otherwise be met from fossil fuels that produce pollution and nuisance (so the effect would be positive overall on this).

SEPA will advise on potential for contamination of watercourses, ground water and coastal waters. The Council is not aware of any private drinking water supplies within the site.

There will be some noise associated with construction and decommissioning.
The report does not mention EMF emissions and further information could be requested on this.

F: Risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change

The Scoping Report considers the risk of accidents is low given this is a well established technology with a track record of operating safely elsewhere in the country.
Some types of battery systems can explode or catch fire.

Natural disasters and climate change
The proposal is not in an area where there has been a history of natural disasters. It is not shown as an area of significant flood risk on mapping supplied by SEPA.

Predicted climate changes in Scotland include warmer summers, and greater winter rainfall. The UK Climate Change Risk Assessment 2017: Evidence Report notes that "Infrastructure in Scotland is exposed to range of climate hazards. Impacts on some assets have the potential to cascade on to others as part of interdependent networks. Flooding poses the greatest long-term risk to infrastructure performance from climate change, but the growing risks from heat, water scarcity and slope instability caused by severe weather could be significant."

The UKCC Report considers the risk of cascading failures from interdependent infrastructure networks noting infrastructure networks do not operated in isolation, with services in particular reliant on power, fuel and ICT. The report considers that at that time the risk remained largely unknown. The Report notes that standards of resilience planning would help, giving ETR138, the 'resilience to flooding' standard adopted within the electricity transmission and distribution sector as a good example. It further notes that the percentage of electricity network assets exposed to flooding is predicted to increase. Climate predictions are for an increase in the number of faults to the electricity transmission and distribution network due to lightening, no change for wind, and a decrease for faults due to snow, sleet or blizzard. Most of the damage was from falling trees, and action is being taken to address this. The UKCC report notes that higher temperatures also reduce the efficiency of both overhead and underground cables.

The report does not consider slope stability or the potential impact of changes to climate such as temperature. The Council does not have the expertise to comment on whether or not this could be significant.

Impacts from accidents elsewhere

An accident at Torness could affect the proposal, including workers. However following construction there are likely to be few if any extra people in the area as a result of the proposal. It is not clear if this could affect the proposal, leading to knock on effects on other receptors e.g. a battery fire.

G. Human health

The main transport impacts will be associated with the movement of HGVs and other vehicles to the site during the construction phase. These are expected to be below a level which would warrant the development's categorisation as an EIA development in relation to traffic and transport impacts.

The requirement for an EIA on traffic and transport grounds should be based on consideration of the following:

- The impact of the proposed development on the traffic capacity of the local road network and driver delays;
- Any likely road safety issues;
- Impacts on the existing public road infrastructure i.e. dilapidation impacts;
- Impacts on local pedestrian and cycle links.

From an operational perspective, such battery energy storage sites would not typically result in significant volumes of traffic as it would only require maintenance visits from time to time. Notwithstanding this, it would still be necessary for a suitable permanent vehicular access junction onto Barns Ness Terrance to be designed in accordance with our design standards – this would require significant alterations to be made to the buildings and walls adjacent to the proposed site access point to achieve the required visibility splays and vehicle swept path movements. The Council would also need to be comfortable that the proposed access road and any passing places etc would be appropriate for the operational life of the facility.

The most significant impacts would be during the construction phase of the development, which may result in a significant detrimental effect on road safety and operation unless it is adequately managed. We would require a Construction Traffic Management and Routeing Plan to be secured through a relevant planning condition when an application is made.

Overall, before we can confirm with certainty that an EIA would not be required on transport grounds, we request that a draft Transport Assessment document is submitted that should also include a draft Construction Traffic Management and Routeing Plan for our review.

Location of Development

a. **Existing and approved land use**

Land use within the area is agricultural. The land is shown as grade 3.2 agricultural land on John Hutton Institute mapping, which while not prime does have agricultural value. The village of Innerwick lies to the north.

There are no core paths or identified rights of way within the site however route 324 passes the corner of the site to the west and a right of way from Innerwick to Thurston Mains to the south of the site. There may be some informal recreational use under Land Reform Act rights.

b. the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground;

Although not the most versatile agricultural land, agricultural land of class 3.2 and above is not as abundant as lesser quality land in Scotland. There are no watercourses on the site, and it is not in a Drinking Water Protected Area. The Council does not have any records of protected or notable species on the site. There are some sites designated for their biodiversity value in the area, including the Firth of Forth SPA. It is possible that some birds from this and other European sites may use this site.

The Dunglass Burn Local Biodiversity Sites lies immediately to the north of this site. This site includes areas of ancient woodland. The majority of the site appears as if it would naturally drain into this area.

c. The absorption capacity of the natural environment

(i) Wetlands and riparian areas: The proposal appears to drain into the Thurston Mains Burn, which is within a Local Biodiversity Site.

(ii) The coastal zone or marine environment; Thorntonloch beach is a designated Bathing Water, currently with Excellent quality. It is therefore important to maintain the quality of this water. The Thurston Mains Burn drains into the sea here.

(iii) Mountain and forest areas: the area is on rising ground at the eastern end of the Lammermuir Hills, part of the Southern Uplands. These hills help define the character of the area and of southern Scotland more generally. The location is therefore visually sensitive.

(iv) Nature reserves and parks are not affected.
(v) European Sites: There may be the potential for some birds which are qualifying interest of nearby Special Protection areas to use the site.

(vi) Environmental quality standards. There could be accidental discharge of pollutants into the watercourses mentioned above.

(vii) Densely populate areas. No Zone of Theoretical Visibility Information has been submitted. The project may be visible from the A1 road and the East Coast Mainline railway, which carry a considerable number of people. The expanding town of Dunbar, with a population of over 10,000 is nearby, and this general hinterland area is valued for recreation for people from there and other smaller settlements in the area.

(viii) Landscape and cultural heritage

(a) Landscape. The land is currently agricultural. used as arable with a small area used for grazing. The Monynut to Blackcastle Special Landscape Area lies immediately to the south of the site.
(b) Cultural heritage. In terms of the Historic Environment the proposed area has multiple known crop marks within in it and is adjacent to a scheduled Monument. The marked intensity of the proposals (unit bases, cable runs, substation etc) suggests that there is no potential for micro siting or preservation in-situ this means that there will be a high impact upon the known cropmarks (for info usually we only see a % of remains through cropmarks so there could be significantly more than shows). There is also a scheduled monument in the field immediately to the east of the proposals which may be indirectly impacted upon by either the units themselves or the planting proposals (it is fairly open ground at the moment being agricultural fields). Innerwick Conservation Area lies to the around 250m to the north. Dunbar II Battlefield lies around 1.5 km to the northwest. Thurston Local Designed Landscape is 750m to the northwest of the proposal.

Characteristics of the potential impact

Magnitude and spatial extent of the impact

Most of the impacts would be restricted to the site and the area in the immediate environs. However visibility of the proposal could extend over a wider area, and pollution incidents could affect an area beyond the site, both through effects on water and air.

The impact on greenhouse gas emissions does have a global reach though its contribution is obviously negligible overall in terms of the global position. However, it cumulatively with other battery energy storage systems this could have a significant (positive) effect on the Scottish and UK government meeting their climate emission targets.

Nature of the Impact

Population and human health: The cumulative effect of the various projects in the area are likely to have a significant impact on the landscape and therefore the tourism industry (and other businesses) in the area. These are likely to be most significant during construction and commissioning, but would also include operational phases as well. Given the location of this proposal and its proximity to a major tourist sector business and Innerwick it would warrant an assessment on its own merits as well.

There will be some emissions to air from transport however this is not expected to result in standards for air quality for health being exceeded.

For noise, adverse effects during construction would be limited to a temporary period of time, the duration and extent of which would be typically secured by limited working hours set out in appropriately worded planning conditions, and within a Construction Environment Management Plan (CEMP).

During the operational phase of the Development, low levels of noise can be generated by the electrical systems such as the coolers for the battery storage modules. It is not clear if the separation distances to sensitive receptors (<500m) will be sufficiently high to mitigate against any noise arising from the operation of the development.

As such a Noise Assessment will require to be submitted with the application to inform on potential effects. This should involve a background noise survey at up to three Noise Sensitive Receptor locations for 24 hours to determine background noise levels and modelling of noise due to the Development, in order to provide an analysis and assessment to BS 4142:2014 standards. Should significant noise impacts be identified, design input and further mitigation should be provided to ensure the Rating Level, LArTr, of noise associated with the operation of the proposed facility when measured at least 3.5m from the façade of any neighbouring residential property in freefield conditions, shall be no more than 5dB (A) above the background noise level, LA90,T. All measurements to be made in accordance with BS 4142: 2014+A1:2019 “Methods for Rating and Assessing Industrial and Commercial Sound”.

However, any noise assessment could be required as part of any subsequent planning application. With mitigation, it is not considered that there will be significant effects on health from noise, air pollution or vibration, with the possible exception of air pollution from a fire, where the effects are not stated.

The Council has not sought the views of the operators of the operators of Torness Power station nor the Office for Nuclear Regulation with regard to vibration effects, or the potential consequences of works near that station on its safe operation. The works to connect Neart Na Gaoithe offshore windfarm are likely to be similar in effect and are closer, so significant effects are not considered likely. However, if there were effects they could potentially be serious and therefore significant. The Council recommends that you contact the operators if you have not done so already, to seek their views, as well as the Office for Nuclear Regulation.

This location is close to Innerwick. Although the Scoping Report states the risk of accident is low if there is a risk, what the effects of that would be should be considered in deciding if EIA is required. The Council does not have the expertise to know what the level of risk is or what the effects are. However the location is close to both the village of Innerwick and ancient woodland. Climate change may lead to this woodland becoming more flammable. If there is a risk that an accident could cause significant effects on the environment or human health through releases to air or water, or by setting fire to the surrounding area, this should be considered.

Biodiversity – there could be impacts on the nearby Local Biodiversity Site including ancient woodland through accidental damage. Bats may be present within this wooded LBS site which use the field for forage, and lighting and disturbance could affect these species. Assessment for potential impacts on bats should be carried out.

Land and Soil There will be direct effects on land and soil including loss of agricultural land, some of which is expected to be temporary. The Screening Report does not note mitigation in the form of soil handling, but this could be included as a condition at application stage.

Water. The Council expects SEPA have commented on potential for impact on water.

Air Impacts on air are likely to mainly arise from the effect of the proposal in reducing emissions from elsewhere. Although there will be some emissions in construction and decommissioning from use of plant and vehicles this is not considered significant. Other than accidental release of pollutants to air either directly or by starting a fire, this is not considered significant.

Climate Some adverse impact on climate will arise from transport and other emissions associated with construction including soil disturbance, as well as from the manufacture of components.

The purpose of the project overall is to allow storage of energy which will help balance the grid. This will reduce the amount of peak capacity that is needed, so could reduce overall emissions and any impacts that would have otherwise arisen from building new capacity. This could lead to significant positive effects, including cumulatively, as projects such as these could affect whether or not Scotland meets its climate emission reduction targets.
The overall lifecycle analysis of the greenhouse gas balance of the project is complex in that it is impossible to assess this without expert study.

Material assets
The project as a whole will support making the best use of electricity generation assets across the UK.

Cultural heritage There is the potential for significant impacts arising from this proposal for both direct impacts and indirect impacts on cultural heritage assets. In terms of the Historic Environment EIA is warranted to assess these impacts.

Landscape

As a result of missing information, we have had to make some assumptions on the proposed cable route to connect with Branxton substation to the south east. We require that the applicant submits information on the proposed electric cables route to Branxton substation to the east.

It appears that the proposed 19.9 hectare development site will result in changes to the topography. The highest point of the site is approximately 150m falling to 130m. It is not clear how the existing levels will be modified to facilitate the development as no level's information has been submitted in the proposed site layout.

In the event that the existing levels will be altered to create platforms this will likely result in regrading of the sloping site, resulting in the excavation and disposal of soil from arable land. Unless the underground cables are going to be routed under the existing access track and roads, we are working on the assumption that the underground electric cables from the proposed BESS development to Branxton substation (with planning ref 23/00616/PM) will cross the steeply incised river valley to the south east of the site. Due to the steepness of the river valley, it has been confirmed that horizontal directional drilling (HDD) is not an option on this site. HDD would result in far less direct impacts on the special landscape character of the area. To build a suspended electric cable bridge tracked machinery will access the steeply incised river valley. Please see jpeg titled; Fig 8_3, Fig 5_6 and TPP 22000852PPM.

This type of major civil engineering works will have both direct and indirect cumulative adverse impact on the river valley. There will also be in combination cumulative adverse impact of habitat loss, as a direct result of civil engineering works on Braidwood Burn from the five large scale energy infrastructure development that are being proposed within a small geographic area. It is also worth noting that those buried electric cable routes (of which there will be 1000 of meters) going forward will not allow tree planting over the cables. This is a direct impact that needs to be properly assessed.

The construction of a suspended electric cable bridge will result in loss of ancient woodland, riparian habitat disturbance, degradation and fragmentation, erosion of steeply sided river valley, sediment from soil disturbance escaping into the river system and spread of large scale electric infrastructure either side of river valley that is within Special landscape area (SLA) 4 Monynut to Blackcastle hill.

Special landscape area 4, includes the steeply incised river valley that is adjacent to the southern boundary of the application site. See attached pdf titled; 4 Monynut to Blackcastle Statement of Importance for SPG. The trees growing in the Braidwood burn river valley are covered by Ancient Woodland designation. One would need to abseil down the valley to access the river. There is a path along the southern edge that runs parallel to the river valley. Looking down onto the top of ancient tree canopies growing either side of the valley, you quickly become aware that this ecosystem is teaming with life. The river corridor is not just visually stunning it also has a unique sense of place because of its feeling of seclusion, remoteness and silence. Please refer to the guidelines and potential for development in the attached SLA.

This project will result in an in combination cumulative adverse landscape visual impacts from the spread of urbanising development either side of the river valley, which is within SLA4.

The following major electric infrastructure projects are within a 3km radius from the application site and should be consider when assessing the in combination cumulative landscape and visual impacts;

Scottish Power Energy Networks, East Link with planning reference 22/00852/PPM for Planning permission in principle for a converter station and associated development including a landfall at

Thorntonloch and connecting buried cabling, all in association with the Scottish Power Eastern Link 1 project, for a new subsea High Voltage Direct Current (HVDC) link. To the east of the proposed development site there is AC/DC electric cables crossing Braidwood burn. See attached jpegs, titled; Braidwood burn and TPP 2200852PPM.

Scottish & Southern Energy Renewables, Berwick Bank onshore 23/00162/PPM Land Between Skateraw And Branxton for Planning permission in principle for electricity transmission infrastructure (substation or converter station) and associated development including buried cabling. This development will result in a cable bridge crossing over Braidwood burn. See attached jpeg : Fig 5_6.

Gresham House Energy Storage, Electricity Act 1989 Section 36, Branxton Battery Energy Storage System Energy Consents Unit reference ECU00004659, 11.6 Hectare site of arable land.

Scottish Power Energy Networks 23/00616/PM Erection of 400KV Branxton Substation, (currently pending consideration) and associated development, including associated temporary infrastructure including construction compounds and access road has submitted proposals for the associated SuDs outfall from the site into Braidwood Burn, which will result in changes to the steeply sided Braidwood burn embankment that are covered in visually significant trees. See attached jpegs; Fig 6-9, Drainage plan (a 2m rip rap channel is proposed cutting into river valley), comments on drainage , tree protection plan and drainage v hydrology.

Neart na Gaoithe Offshore Wind Ltd, 12/00922/PM Formation of onshore electrical transmission infrastructure between Thorntonloch and Crystal Rig II, comprising 12.3km of buried cable and new substation at Crystal Rig II .

Neart na Gaoithe Offshore Wind Ltd, 15/00634/PM Variations of Conditions 4, 7, 8, 9, 10, 11, 12, and 15 of planning permission 12/00922/PM to allow phased development works, in respect of the formation of onshore electrical transmission infrastructure between Thorntonloch and Crystal Rig II 12.

There is an urgent need for a masterplan and project coordination of the in combination cumulative impact of the five large scale energy infrastructure projects coming forward in this area: Braxbess, Eastlinks, Branxton BESS, Berwick Bank and Branxton substation. It would seem appropriate that the developers are required to liaise with each other applicants in order to master plan and coordinate the project management of multiple crossing and incursions into Braidwood Burn in an effort to minimise adverse biodiversity and landscape and visual impacts. If there was open communication and cooperation between adjacent developers then perhaps they (the engineers) might be able to agree on one cable bridge to cross the river as opposed to each development having their own cable bridge.

We concur with the landscape comments of East Lothian Community Council statement, a copy of which is attached.

Transboundary impacts

There are no significant transboundary impacts.

Intensity and complexity of the impact

The impacts on health, and land, air, are not complex or intense. Impacts on biodiversity are not expected to be complex. Though there is some potential for impacts on bats and birds from

European Sites which should be examined this is not expected to be significant in terms of requiring EIA.
Landscape impacts are complex in that it is hard to understand the extent of the visual (and consequently indirect landscape) effects without ZTV information. The climate impacts from the operation of the project and its function in balancing the grid are not easily understandable. Although it is unlikely that there would be an impact on the safe operation of Torness power station any adverse effect is potentially intense.

The probability of the impact

The landscape, visual and any direct cultural heritage effects from construction and presence of the above ground works and cable are relatively certain to occur as are changes to land use there. There is a possibility of accidental pollution of water courses which would affect water, soil and biodiversity; this is unlikely but not impossible, even with mitigation. It is very unlikely there would be an effect on the safe operation of Torness.

The expected onset, duration, frequency and reversibility of the impact;

Effects on population from traffic and noise are expected to be of short duration, mainly related to construction and decommissioning, however changes to the recreational environment are constant and of long duration though ultimately, reversible. There will be localised changes to habitat which will commence with construction. Habitat in the area of the above ground works will be removed, and the effects will be constant and long term, though reversible ultimately if the scheme is decommissioned. Impacts on soil under project are likely to be long term. There are likely to be long lasting effects on landscape and visual effects which will start on construction and end with restoration; they are of long duration, but reversible. Any effects on archaeology may not be reversible. Pollution of water is not expected to occur, would be infrequent and is likely to be reversible. How long that would take would depend on the pollutant. Effects on climate are likely to be positive though construction will cumulatively add to peak emissions, the overall effects of which may not be reversible.

The cumulation of the impact with the impact of other existing and/or approved development

There will be cumulative impacts on several receptors with other existing and consented energy development. This includes impacts on landscape arising from the built structures and removal of landscape features for the cable route. There is likely to be cumulative impact on recreation from disruption from construction and the appearance of the structures. This two factors combined has the potential for a significant impact on population in terms of socioeconomic impact through effects on tourism and the attractiveness of the area for investment.
There will be cumulative impact on climate with many other projects and existing sources of emission/sequestration.

The possibility of effectively reducing the impact

Mitigation is likely to include pollution prevention measures through a CEMP and noise assessment and mitigation for landscape impacts including screening, choice of colour and potentially boundary screening. Although it may be possible to carry out some mitigation of effects on cultural heritage receptors through recording the impact is likely to be significant and if important features are lost this cannot be fully mitigated. Mitigation for climate impact of construction is not included. Although battery storage of renewable energy may be a less bad form of delivery of electricity, that does not make it carbon neutral in and of itself.

Conclusion

Having considered the potential significance of the likely environmental effects and taking into account the proposed mitigation measures, I consider that the proposed works by virtue of their characteristics, location and characteristics of the potential impacts, are likely to have a significant environmental effect to the extent that an expert and detailed study through EIA is needed to properly assess any effect. This is mainly due to its effects on:

- Cultural heritage (negative impact)
- Impact on landscape including socioeconomic effects arising from this (negative impact)
- Material assets – safe operation of the road network (it may be that this is not significant however we would need to see a draft Transport Assessment document including a draft Construction Traffic Management and Routeing Plan to ascertain this)(negative impact
- Climate (positive impact subject to lifecycle analysis)

Potentially, we consider there may also be effects on health/biodiversity/air/water from accident, however the Council does not have the expertise to assess the risk of this.

In addition, as noted previously, in our view the project must be considered as a whole. As the cable route has not been included it is not possible to conclude that the project as a whole, which would include the cable, is not EIA development.

Should you wish to discuss any of the above in more detail please contact the Policy and Strategy Team within the Planning Service via email to policy&projects@eastlothian.gov.uk . Alternatively, the team are available on Skype for Business via our email addresses.

Yours sincerely,

REDACTED

Keith Dingwall
Planning Service Manager

APPENDIX: EAST LAMMERMUIR COMMUNITY COUNCIL RESPONSE

The site of the proposed Braxbess (described as being south of Barns Ness Terrace) forms part of an ecosystem that includes an environmentally sensitive area, the glen of the Thurston Mains Burn. This deeply incised valley abuts the site all along its southern boundary. The valley carries water that rises at over 300m in the Lammermuirs to the west in the Elmscleugh Water and travels east to become the Thurston Mains Burn, then the Braidwood Burn, then Thornton Burn (Thornton Glen) reaching the coast at Thorntonloch beach. As these rivers cross geological boundaries and reach softer rocks, they are within deep gorges, originally carved by glacial outwash channels about 10,000 years ago at the end of the Ice Age and little changed since that time. Because water flow is now a trickle by comparison, the current burns are within wider valley floors which are key areas for wildlife in the area because they have never been cultivated and provide water, habitat and secluded corridors between unspoiled sites. They contain the oldest woodland in the area with ancient oak and beech forest. Their importance is recognised and many nearby are wildlife reserves run by the Scottish WildlifeTrust (SWT), e.g. Woodhall Dean, Brock Wood, East Lammermuir Deans, Pease Dean and Thornton Glen which is immediately downstream in the glen next to the Branxbess (https://scottishwildlifetrust.org.uk/reserve/thornton-glen/). The glens are uninhabited, uncultivated wildwoods.

The flat land above these valleys is cultivated for crops and used for pasture. The three agricultural fields proposed for siting the Braxbess abut directly onto the edge of the glen. The southern field edges are where wildlife emerge out of the glen to graze at field edges, sun themselves and have dirt baths. This is all viewable from the neighbouring property which is only 500m away to the west of the site. Deer and hare are common. The fields are the ideal environment for brown hare which box there in the spring and raise their young. The field edges are also important butterfly habitat and comma and wall brown are seen as well as painted ladies and many other species. The wetland area in the glen is important for amphibians and the region is seen as an important conservation habitat for adders.

The wild glen is an important bird habitat with a mix of woodland, upland and other birds. The tally in neighbouring gardens for the Big Garden Bird Watch routinely counts as many as fifteen different species (including yellowhammers, brambling and (Red List) tree sparrows). These birds are seen in the fields of the proposed Braxbess, feeding on seeds and invertebrates. Being relatively near the coast, shoreland birds such as oyster catchers, peewits and curlews (which are on the Red List as an urgent conservation priority) also appear feeding in the fields. The location is also important for migratory birds with flocks of fieldfare, redwing and waxwing regularly feeding in the hedgerows at the field boundaries. This part of East Lothian is an important pit stop for birds arriving from the east, making landfall here. Flocks of geese pass overhead to reach stubble fields deeper in the Lammermuirs and often stop en-route. The cumulative impact on wildlife given the many proposed developments in the area is deeply worrying.

Another species that lives here are human beings that exercise their right to roam by walking the field edges for walks free from concerns of traffic and to enjoy the rural environment. A popular walk is along the southern edge of the proposed site.

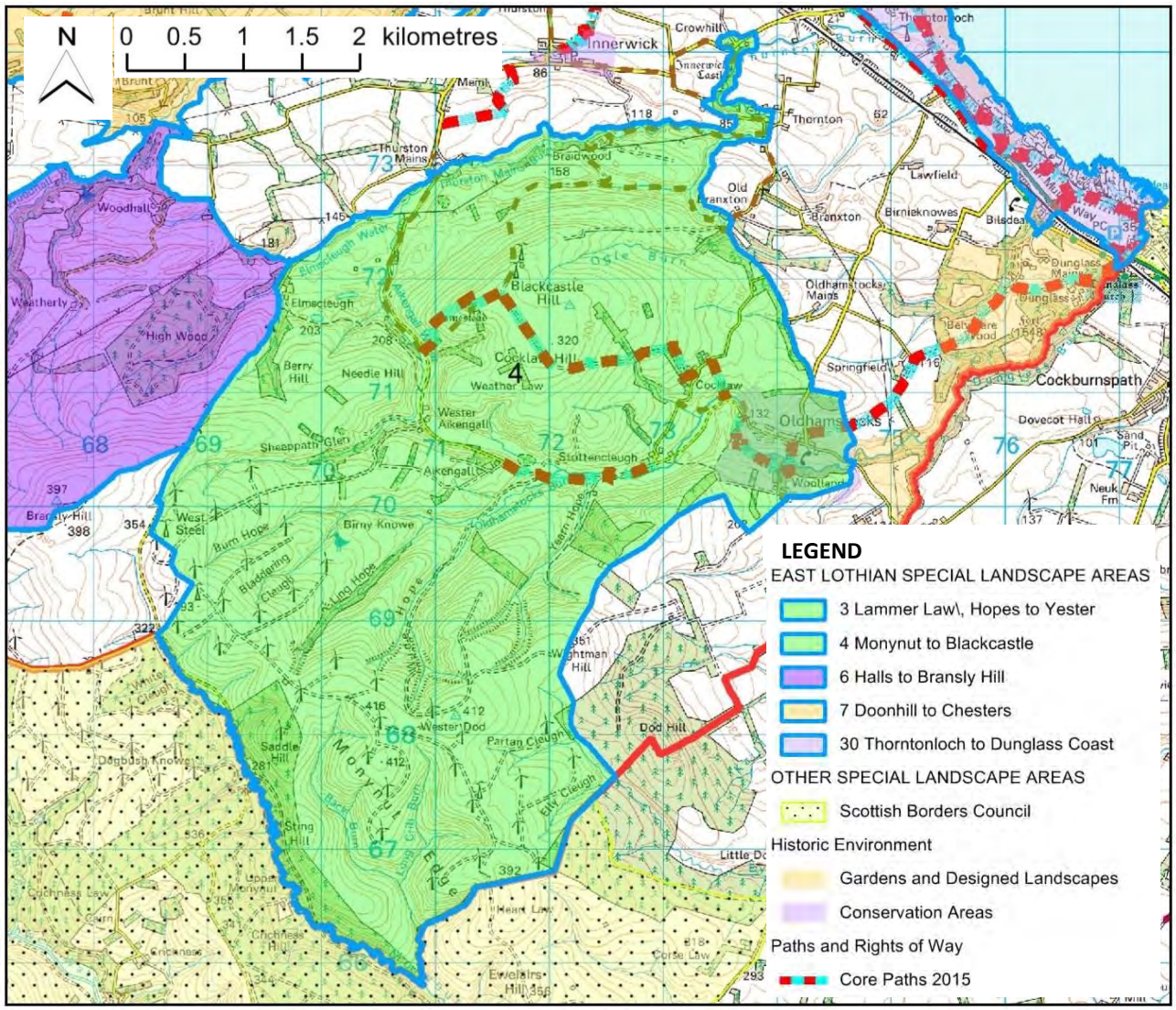
The developer may assess the fields in isolation as available development land, but I see them as part of the wider environment in which I live. The Site Layout and Site Location maps both omit the wildlife sensitive glen and show the site in terms of its relationship only to Innerwick. I feel this is misleading, as it does not recognise the ecosystem of which the fields are an integral part. The densely wooded glen to the south can be seen in the Proposal Plan for Consultation annotated Google Earth image, which provides a more holistic view of the setting of the proposed development site. The development means a loss of habitat (19.9ha) and the installation of a huge alien structure that makes noise and has sentry lighting at night. Currently there is no light or noise pollution in the area, whatsoever. How any net biodiversity gain can result from this proposed development is not explained and seems highly unlikely. The site will be fenced and the substrate will be made of

concrete and crushed rock. Presumably vegetation will be controlled with weed killer within the compound. The site is at the top of a hill which slopes down to the glen to the south and steeply towards Innerwick to its north which also has a river system running through it. Fire at battery storage facilities is a major concern. Fire at the site could easily spread to the glen especially in summer when the grassland of its upper reaches is most dry. Fire-fighting could lead to catastrophic run-off into the burn transporting polluted water along its length through the Thornton Glen SWT Reserve and into the coastal marine environment.
The environmental impact of the proposed Braxbess would be:

1) To take a large area (19.9ha) of natural habitat away from the wildlife that use it in a time of biodiversity crisis.
2) To place an industrial complex at the edge of a wildlife sensitive area, introducing hazards, noise and light pollution.
3) To cause a massive disturbance to and impact on wildlife during construction.
4) To threaten the site with fire and pollution from fire control.

The Community Council assesses this as significant environmental damage, which warrants an EIA.

Monynut to Blackcastle
Special Landscape Area 4 Statement of Importance



Character: The area consists of highly scenic dissected Lammermuir plateau dropping off to rolling hill tops cut by steep sided wooded cleughs and wider glaciated valley landform, one of which cups the historic village of Oldhamstocks.

Area: 2,624 ha

Overview:
An area located at the north-eastern extremity of the Southern Uplands and eastern end of the Lammermuir Hills from the border with the Scottish Borders to the southwest, through the Lammermuir Plateau and across the Eastern Lammermuir Fringe. It is a highly scenic area of contrasting landscape forming two raised areas of land with the moorland plateau of the striking Monynut Edge with its incised cleughs to the south separated from the imposing rolling agricultural Blackcastle Hill to the north by the picturesque valley of the Oldhamstocks Burn containing the scenic village of Oldhamstocks and the steep-sided, enclosing, wooded hill slopes of the glaciated Aikengall valley.

There are scenic and wide ranging views generally into, out of and within the area, with views from higher ground being exceptionally good. Several respondents to the public consultation noted that the view from West Steel is particularly good over East Lothian, towards St Abbs and to Bell Rock and Fife and also that

the area around Elmscleugh and the road to West Steel and Fairy Castle / Glen are special. With one respondent stating that "the change from the farmed landscape to the open moor cut by gullies is spectacular, in many ways made more so by the wind turbines".

The northern boundary of the area is defined by the Elmscleugh Water, Thurston Mains Burn, Braidwood Burn and Thornton Burn along the northern edge of Blackcastle Hill defining the change from rough pastureland to arable farmland. The north-western boundary adjoins the Halls to Bransley SLA are along the road through Elmscleugh and up Sheeppath Hill, where the direction of views out of the area changes from east to north. The southern and western boundaries are defined by the border with Scottish Borders Council. The adjoining part of the moorland within Scottish Borders Council is designated as a special landscape area SLA6: The Lammermuir Hills, the underlying landscape being broadly similar on either side of the boundary.

View from Wester Dod across area to Blackcastle Hill and coast beyond

Special Qualities and Features:

1. The landscape of the higher ground, plateau hills with incised valleys and heather moorland combined with the hillfoots features of sparse built development hidden within the landscape, red sandstone buildings, improved pasture, arable farmland and native woodlands give this SLA a strong sense of place.
2. The area forms a complex, contrasting landscape of a mix of landuses and features, visually rich. Open on higher ground with more mystery in the lower and wooded areas. High naturalness with areas of ancient woodland within the rugged cleughs and deans. The large scale, open landscape affords extensive views towards the coast from the smooth domed hill tops. The landform has a strongly rhythmic pattern of predominantly open topped hills split by steep wooded valleys. The flowing form of the higher ground,

Turbines of Aikengall providing scale and contrast of colour set against heather slopes with the incised valley of Sheeppath Glen below

emphasised by curving roads, walls, hedgerows and woodland, contrasts strongly with the heavily textured angular outlines of the stream valleys.

3. The expanses of heather covered open plateau show seasonal change with purple flowers in the autumn. The shadows and woods of the deep steep-sided cleughs contrast with the surrounding open moorland and create scenic diversity and a sense of mystery. At Aikengall the colours of the turbines contrast with the surrounding landscape.

Monynut Edge looking down Long Crib Burn to the Scottish Borders

4. The majority of the area has natural groundcover with the moorland being important upland, heath, bog and grassland habitats with areas of ancient native upland oak woodland within the rugged cleughs and deans and native lowland mixed deciduous woods in the lower areas. The incised nature of the cleughs around the Monynut Edge and the darkness of the area at night make this a wilder feeling area. SNH's wildness mapping shows this area as scoring highly in wildness qualities. The naturalness of the area is reduced in places by the presence of wind turbines and access tracks and associated infrastructure.

View from the plateau top looking out of the area

5. The distinctive cleughs of Ling Hope, Bladdering Cleugh and Burn Hope, and the separated valley of Sheepath Glen are important for both geological and biological reasons and form the East Lammermuir Deans Nature Reserve and Lammermuir Deans SSSI. They comprise several steep-sided eroded gullies (deans) which are the most extensive and least modified cleughs (gorges) incised through calciferous rocks in East Lothian. They provide a haven for lime-loving plants and support important areas of woodland and species-rich grassland. The Common Rock-Rose, which attracts the Northern Brown Argus butterfly, grows on the reserve. Ling

Hope is an exceptional example of large scale erosion. All the cleughs contain native deciduous woodland which is uncommon in the context of the surrounding heath and grassland. The woodlands are mixed, but described in the Forestry Commission survey as being native upland birch woods with ash, oak, birch, hazel, rowan and other species.

6. Calcareous (mineral-rich) grasslands are found at Lammermuir Deans, principally found in Burn Hope Cleugh, which includes Sheep's-Fescue and Common Bent grasses. These are common species in the UK but this particular habitat type is rare and declining in the context of East Lothian. Valley fen marsh habitats are also rare and declining in East Lothian, and the Lammermuir Deans contain a mix of fen habitats dominated by Soft Rush and Sharp-Flowered Rush and contain the rare plants Hairy Stonecrop and Grass-of-Parnassus. These cleughs also support a number of rare mosses, liverworts and lichens.
7. Fairy Glen at Burn Hope within the Lammermuir Deans Nature Reserve is an important geological site. Identified as a geodiversity site featuring sedimentary rocks and glacial-fluvial landforms. Being an excellent example of geomorphology with national significance and a good example of Devonian sedimentary rocks with regional stratigraphic significance. It has pinnacles of conglomerate rock left isolated after erosion on the floor of the glen, these earn the local name of fairy castle, after which the glen is named.

Fairy Glen and Burn Hope from above

8. The minor single-track roads follow winding courses through the area crossing the numerous water courses with small stone bridges and fording points, allowing access into the area and retaining a traditional nature, adding to the areas scenic value.
9. There is easy open access across the moorland section of the area. The moorland is used for grouse shooting and the area is also popular with hill walkers, birdwatchers and ramblers, as well as for family picnics. There are also several rights of way and core paths around and through Oldhamstocks and up Blackcastle hill. Core path route 13 runs along the opposite side of the valley to Oldhamstocks allowing good views of the village in its valley setting. The right of way and core path route 15 continue to Cocklaw Farm to the west. Core path route 16 follows the existing track up to the summit of Blackcastle Hill, affording superb wide ranging views south over the hills and north over the sea and links to the extensive right of way from Innerwick to Thurston Mains.

View from Wester Dod across area to Blackcastle Hill and coast beyond

10. There are fantastic views from the area towards the coast, in particular towards the cliffs at St Abbs. This is one of the best views in East Lothian. There are also good views across East Lothian to the coast, Fife and beyond to the north and views to Scottish Borders to the south.
11. The landscape consists partly of the Lammermuir Hills which form the backdrop to views south from lowland East Lothian. The Eastern part is more visible, with the Monynut Edge being prominent in views. Blackcastle Hill is a prominent landmark marking the entrance to the plains of East Lothian from the south and the perceived eastern end of the foothills from much of the East Lothian Plain. The hill is easily recognisable due in part to its location though the (detracting) presence of a large transmitter mast probably adds to this.

12. The picturesque village of Oldhamstocks with its attractive A-listed white-rendered parish church set at the west end of the street with the village green and market cross and single street of cottages of traditional vernacular, many listed and still bearing names of their original uses such as Smithy Cottage, The Wright House and The Old Schoolhouse, extending to the east, sits snugly at the head of the Oldhamstocks Burn valley

surrounded by improved pastureland and enclosed by woodlands. Very little of the form of Oldhamstocks has changed since it was a bustling market town during the 18th century, this is clearly seen in the 1796 painting by Alexander Carse titled 'Oldhamstocks Fair' currently in the National Gallery of Scotland.

Oldhamstocks hidden in the green valley in contrast to the upper heather clad moorland plateau

13. There is easy open access across the moorland section of the area. The moorland is used for grouse shooting and the area is also popular with hill walkers, birdwatchers and ramblers, as well as for family picnics. There are also several rights of way and core paths around and through Oldhamstocks and up Blackcastle hill. Core path route 13 runs along the opposite side of the valley to Oldhamstocks allowing good views of the village in its valley setting. The right of way and core path route 15 continue to Cocklaw Farm to the west. Core path route 16 follows the existing track up to the summit of Blackcastle Hill, affording superb wide ranging views south over the hills and north over the sea and links to the extensive right of way from Innerwick to Thurston Mains.
14. The area has a well-preserved landscape of post-medieval and possibly earlier agricultural settlement visible as earthworks showing remains of small fields, buildings and track ways.

Heather clad plateau of the Monynut Edge providing long range views over the Lammermuir Plateau with the top of Spartleton beyond

Heather clad Wester Dodd with incised landform of Wide Hope cleugh cut into the sides

Guidelines for Development:

A. Any proposed development must not harm the characteristic features reflecting transition from open upland to enclosed lowland landscape.

B. Any proposed development must not harm the open 'Wild Land' character of the moorland by controlling development or management that would affect the sense of openness or wildness of the moorland, including for example planting of tree belts or plantation forestry hedges or fences along roads and tracks, or signage, or features which break up the open moorland.

C. Any proposed development must not harm the overall open visual character focusing north and eastwards towards the plain and the Forth and avoid development that interrupts key views from the hill tops, including from the minor road from Elmscleugh at Sheeppath Hill, from core path route 16 and the Innerwick to Thurston Mains right of way on Blackcastle Hill and from the Monynut Edge.

D. Any proposed development must not harm views of Oldhamstocks from Cocklaw and core path route 16, and core path route 13 to Woollands

E. Any proposed development must not harm the agricultural character of the area

F. Any proposed development must not harm the small-scale topographic diversity provided by glacial features such as kame terraces, and melt-water channels in considering future sand and gravel extraction.

G. Preservation against wind farm and wind turbine development spreading off the hill tops and plateau thereby diminishing the individual identity of the landscape character areas and disrupting the sense of contrast between the plateau tops and the fringe landscape.

H. Wind turbines should be sited to prevent intrusion on the setting of the visually important cleughs.

I. Preservation against further hill tracks on visually-sensitive slopes. When tracks are new or recently re-surfaced they can look very noticeable over a wide distance, and these can also look wrong by virtue of their straight lines heading straight up the moorland. This may have a negative impact on the 'natural' appearance and character of the area and tracks can be widely visible including from the plain below. Tracks also open up the area to recreational access, which has obvious benefits but may also affect the remote character of the area. Tracks should follow SNH guidance "Constructed Tracks in the Scottish Uplands"[1], including consideration of whether the

[1] Available on SNH's website at http://www.snh.org.uk/pdfs/publications/heritagemanagement/constructedtracks.pdf
[1]

track is necessary at all. Borrow pits, treatment of cut and fill, material, alignment of the track with topography and visibility of the track should all be carefully considered.

J. A restoration strategy is important at development stage where large infrastructure projects are being considered to ensure re-establishment of the natural landscape.

K. Any proposed development must not harm the existing settlement pattern of development kept to the lower slopes of the hillfoots set generally along the narrow lanes. Support use of traditional building materials or traditional components and styles of design in new buildings. Suburban style housing is unlikely to fit with the character of the area.

L. Any proposed development must not harm the existing character of the village of Oldhamstocks and the surrounding countryside. Large, modern development, out of scale with the existing. buildings and landscape character would adversely impact the landscape character of the area

M. Safeguard distinctive architectural integrity and close link with local red sandstone geology

N. Any proposed development must not harm the small-scale rural character of the roads, including characteristic features such as hedges and stone walls, passing places, cattle grids, fords and stone bridges

Potential for Landscape Enhancement:

i. Reinstatement of roads, bridges and edges widened and straightened by wind farm development access.

ii. Conserve and enhance well-developed and maintained beech and thorn hedgerow network on the arable land

iii. Promote replacement of traditional oak and ash field boundary tree lines

iv. Take opportunities to enhance / ameliorate impact of existing coniferous plantations at restructuring stage and avoid large areas of forestry plantation

v. Reduction in large coniferous plantations and replacement with more natural shaped woodlands with a mix of broadleaves and conifers.

vi. Protection of wildlife sites.

vii. Avoid over grazing within Fairy Glen

viii. Formalise viewpoints at West Steel and Wester Dod / Monynut Edge through the formation of parking / picnic areas

ix. Enhance existing pattern of shelterbelt and field boundary woodland though sensitively designed woodland expansion

x. Encourage expansion of woodland cover through shelterbelts and small woodland particularly in cleughs and deans and around farmsteads and other building groups, including fencing to promote natural regeneration

xi. Promote improved integration of visually sensitive farm building expansion through farm woodland planting

xii. Reinforce visual and ecological contrasts between open hill slopes and steep valley sides

xiii. Encourage appropriate retention and management of ancient oak and deciduous woodland

xiv. Management of woodland to avoid over-reliance on singular species to avoid loss of large areas of woodland due to disease e.g. ash dieback, Dutch elm disease, red needle blight

Approx 560m of Braidwood burn riparian habitat

Approx 560m of Braidwood burn riparian habitat will be lost (see the arboricultural report) to the impact of electric infrastructure developments. There is a need for one plan that shows all three projects and their impacts, in terms of loss of trees, earth works for cable crossing, an assessment of both direct and indirect and cumulative assessment for Eastlinks cable crossing, Berwick bank cable crossing and Branxton substation

The mature trees have significant biodiversity landscape and visual amenity that will be difficult to reinstate due to the steepness of the embankment. Habitat loss , fragmentation, erosion, silt degradation of high quality landscape feature with no appropriate mitigation proposals

52. All engineering works adjacent to watercourses, including access tracks and watercourse crossing structures, would have appropriate sediment control measures established prior to any groundworks.

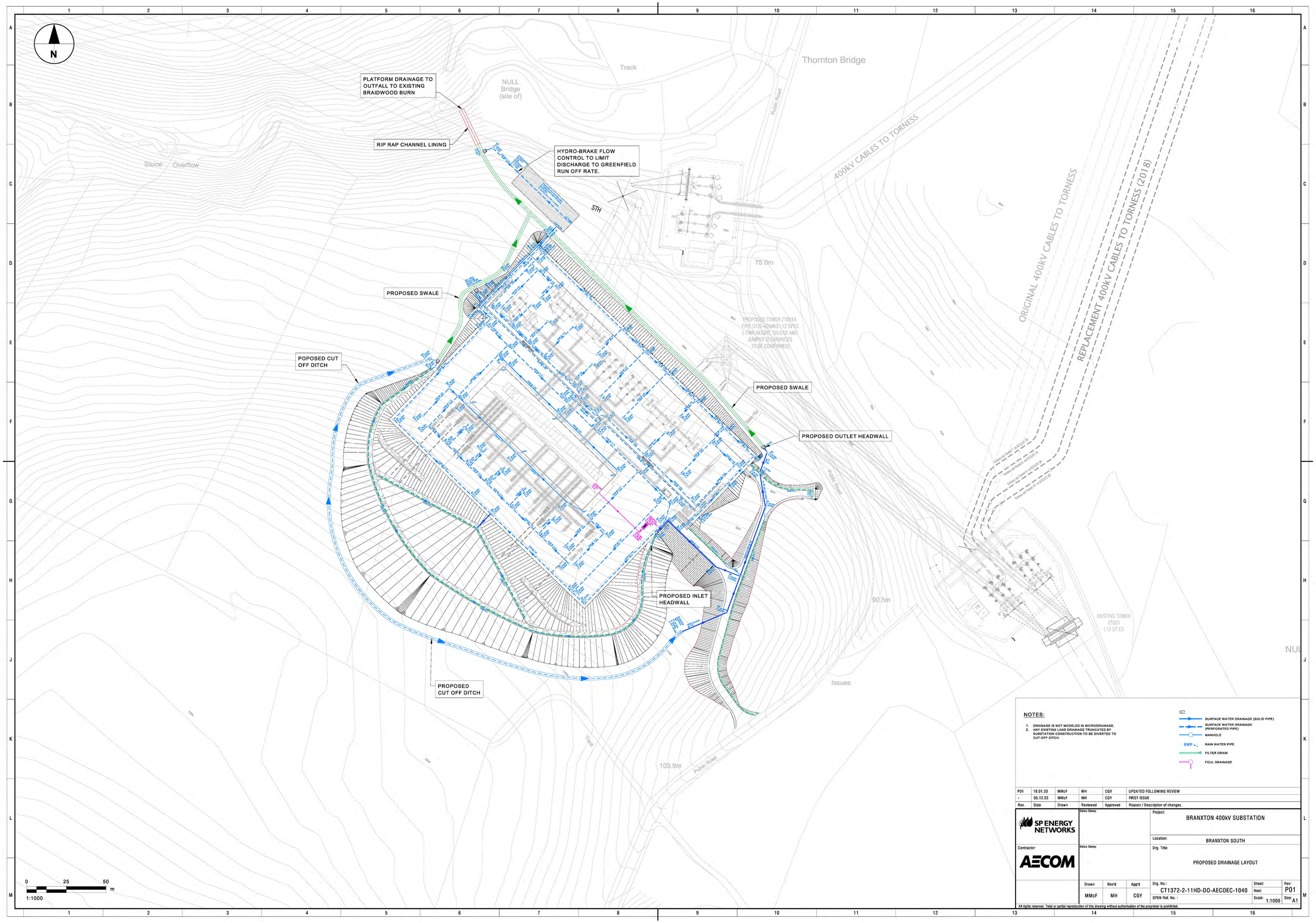
53. Vegetation would be retained along watercourse banks to act as additional protection to watercourses.

54. Temporary water control measures would be implemented as necessary adjacent to areas of larger excavation. These would include the substation area and may also include hardstanding areas. These measures would take the form of filter drains, temporary settlement ponds, or proprietary treatment measures such as SiltBusters. Detail would be provided within the CEMP and suitability would be determined following appropriate on-site soil tests.

55. All earthmoving activity would be restricted during periods of wet weather, particularly for work occurring within 20 m of a watercourse, to minimise mobilisation of sediment in heavy rainfall. The 'stop' conditions provided in **Table 8.10** are recommended to guide all earthmoving activity at all stages of the project.

The drainage plan shows 2m vegetation cleared from steep Braidwood burn embankment for drainage outflow. We do not support this nor does the Hydrology report see underlined

23/00616/PM Branxton



NOTES:

1. DRAINAGE IS NOT MODELED IN MICRODRAINAGE.
2. ANY EXISTING LAND DRAINAGE TRUNCATED BY SUBSTATION CONSTRUCTION TO BE DIVERTED TO CUT-OFF DITCH.

KEY:

- SURFACE WATER DRAINAGE (SOLID PIPE)
- SURFACE WATER DRAINAGE (PERFORATED PIPE)
- MANHOLE
- RWP — RAIN WATER PIPE
- FILTER DRAIN
- FOUL DRAINAGE

Rev.	Date	Drawn	Reviewed	Approved	Reason / Description of changes.
P01	18.01.23	MMcF	MH	CGY	UPDATED FOLLOWING REVIEW
-	05.12.22	MMcF	MH	CGY	FIRST ISSUE

SP ENERGY NETWORKS

Contractor: AECOM

Status Stamp:

Project: BRANXTON 400kV SUBSTATION

Location: BRANXTON SOUTH

Drg. Title: PROPOSED DRAINAGE LAYOUT

Drawn	Rev'd	App'd
MMcF	MH	CGY

Drg. No.: CT1372-2-11HD-DO-AECOEC-1040

SPEN Ref. No. :

Sheet: Next:

Rev: P01

Scale: 1:1000

Size: A1

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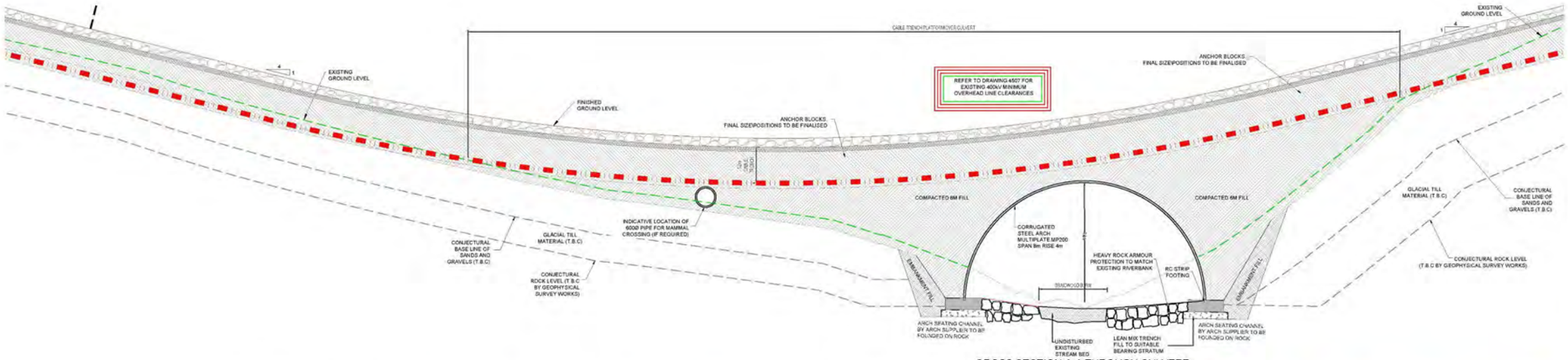
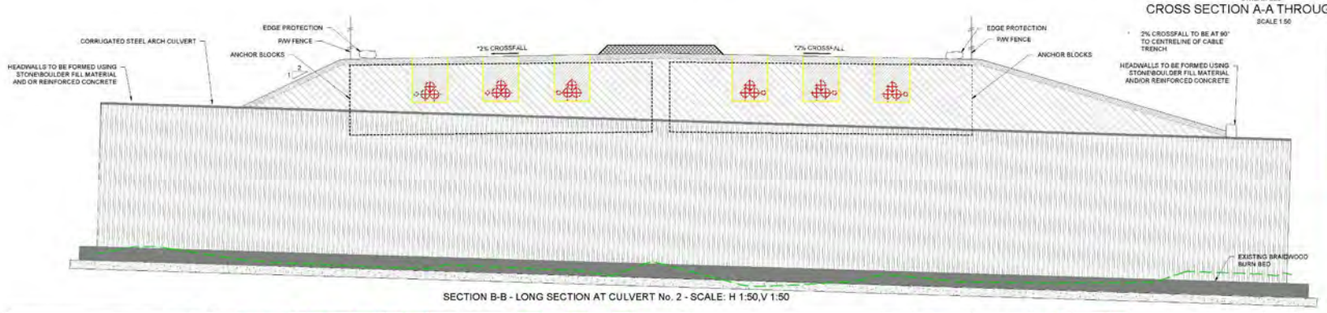
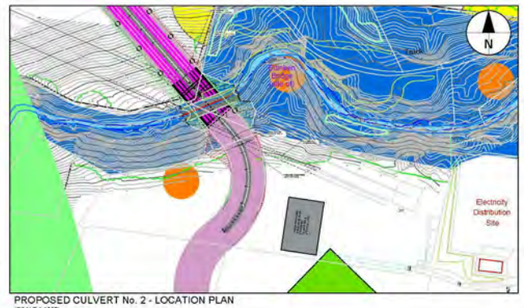


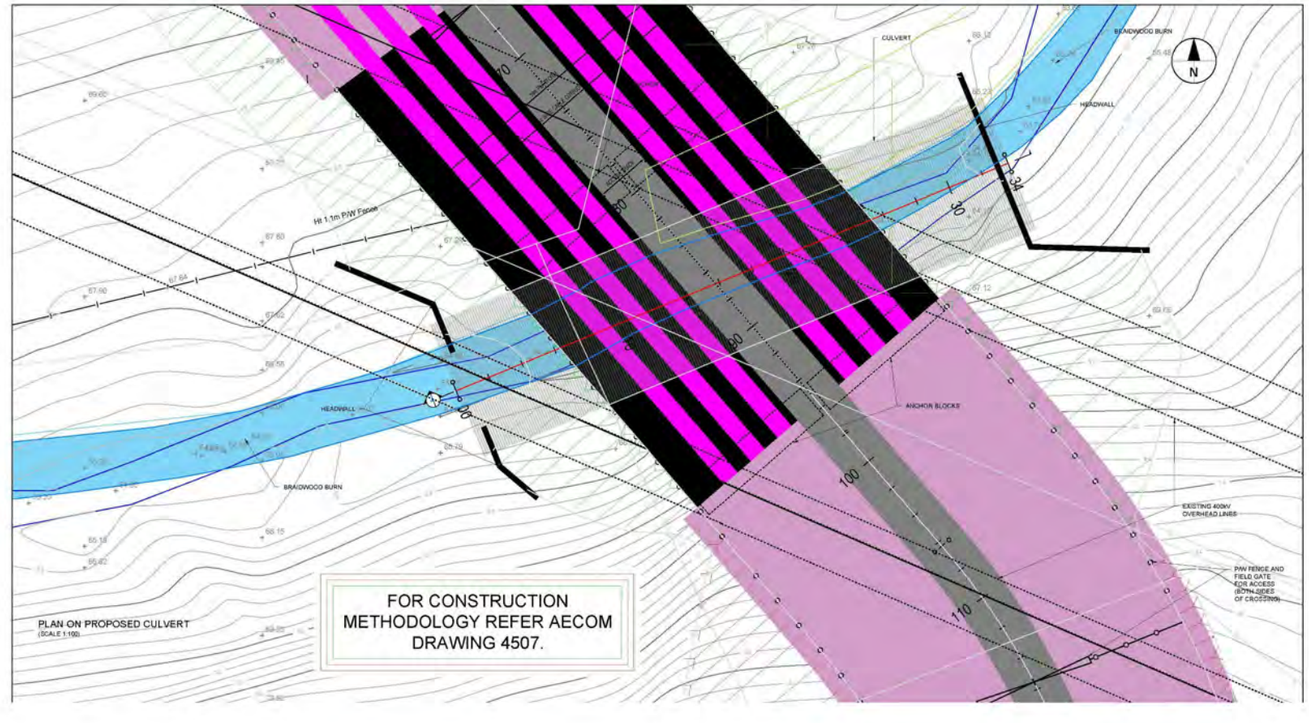
CROSS SECTION A-A THROUGH CULVERT
SCALE 1:50



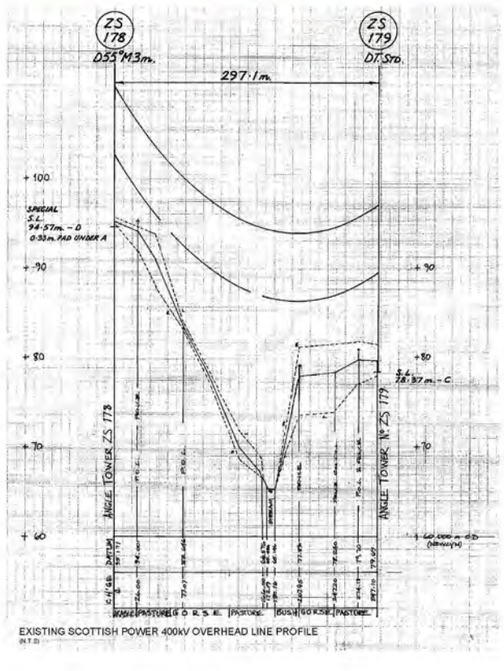
SECTION B-B - LONG SECTION AT CULVERT No. 2 - SCALE: H 1:50,V 1:50



PROPOSED CULVERT No. 2 - LOCATION PLAN
(SCALE 1:1000)



PLAN ON PROPOSED CULVERT
(SCALE 1:100)



EXISTING SCOTTISH POWER 400kV OVERHEAD LINE PROFILE
(N.T.S)

File ref: F:\BerwickBank\Forma\Drawings\Terrestrial\T_SocioEconomic\BER-T-SOC-0054_EIAChapterFigures\BER-T-SOC-0054.aprx

Project Name
BERWICK BANK WIND FARM

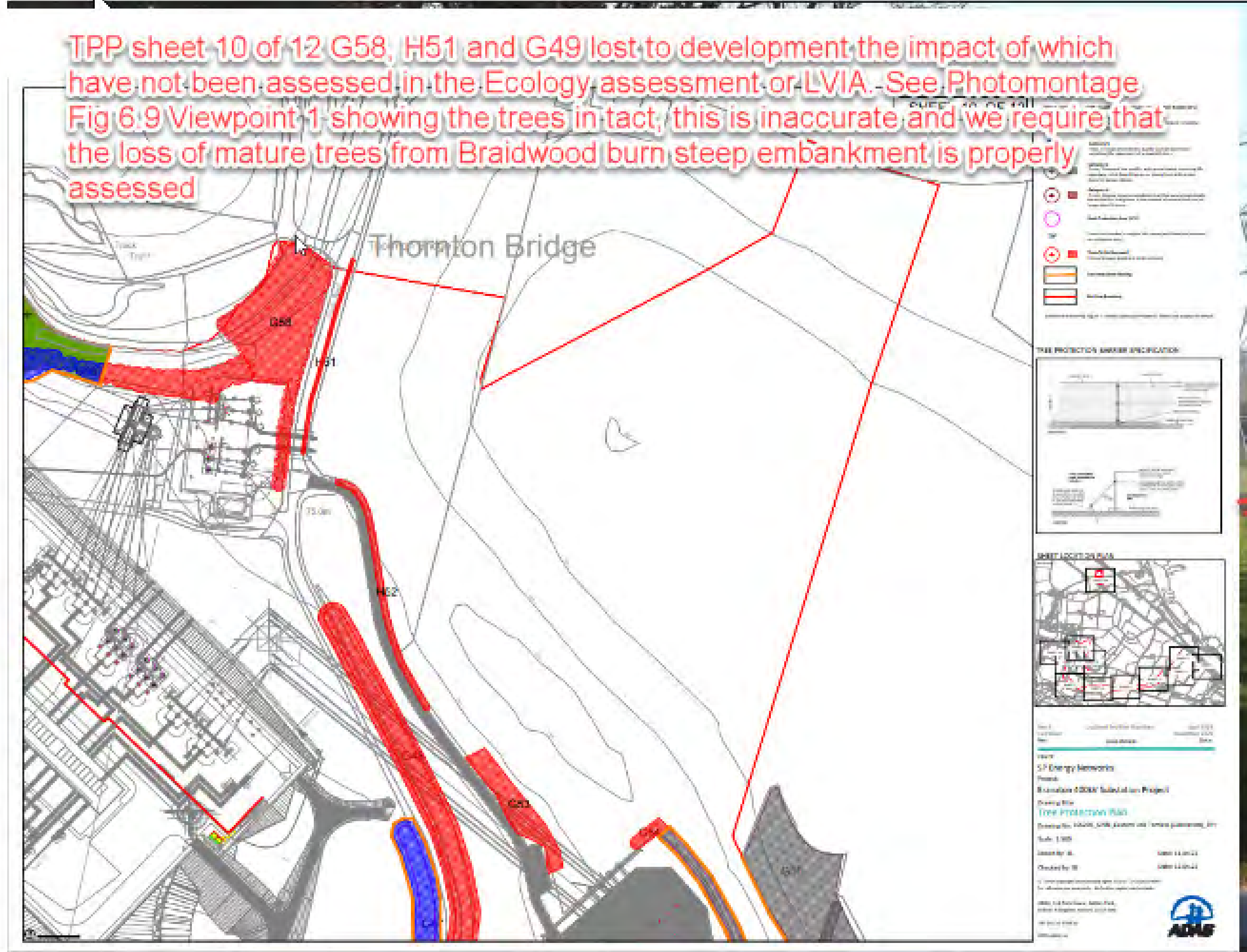
Drawing Title
FIGURE 5.6
INDICATIVE CABLE BRIDGE CROSSING

Rev	Date	Details	Status	Drwn	Rqst	Chkd	Appd
R1	07/12/22	First Issue	FOR ISSUE	RB	CD	CD	LW
R2	-	-	-	-	-	-	-
R3	-	-	-	-	-	-	-
R4	-	-	-	-	-	-	-

Drawing Number
LF000010&11-DEV-MAP-216

Scale	Plot Size	Datum	Projection
-	A3	-	-

Berwick Bank Wind Farm
sse Renewables



Date	By
April 2023	AW
Image Size 820 x 250mm	CA DT
Paper Size 840 x 297mm	Rev 2
0233-Visuals-A1-banner Update 14-04-2023.indd	

Viewpoint Information:

Grid Reference:	374032E 673358N
Ground Height:	75.27m AOD
Direction of Centre of View:	218.9°
Horizontal Field of View:	90°
Vertical Field of View:	27°
Principal Distance:	522mm

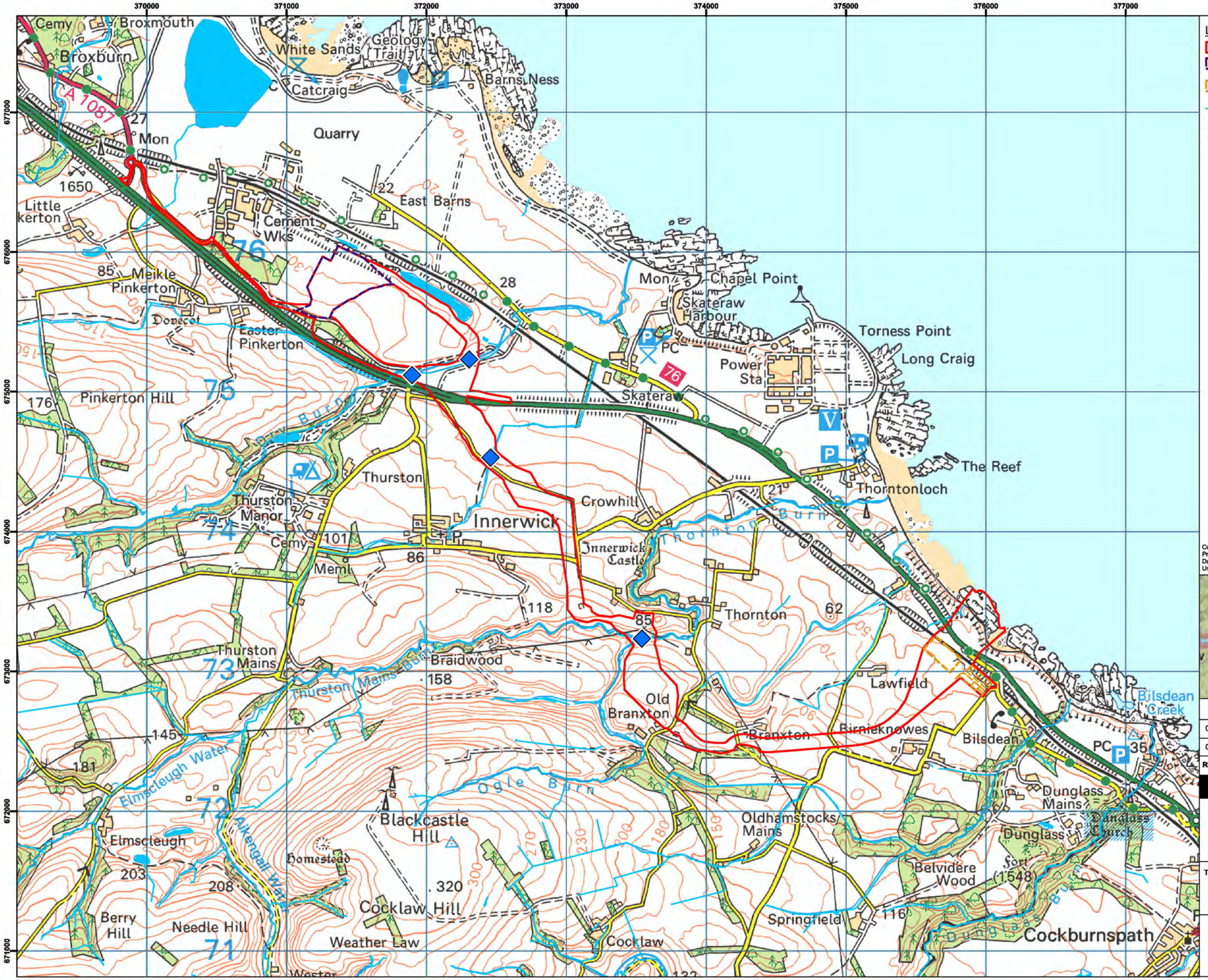
Photography Information:

Camera:	Canon EOS 5D
Lens:	50mm Fixed Focal Length
Camera Height:	1.5m
Photography Date:	14/02/2023
Photography Time:	11:20

STEPHENSON HALLIDAY

Eastern Link 1 Branxton Substation

Figure 6.9: Viewpoint 1: Thornton Loch Holdings
PHOTOMONTAGE VISUALISATION



Legend:

- Planning Boundary
- Converter Station
- Site Establishment and Landfall HDD Compound
- Watercourses
- Watercourse Crossings

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

Rev	Date	Description	Drn	Chk	App
01	26/07/2022	Revised RLB	DL	CI	CI
00	21/02/2022	Figure created	CM	CI	CI

Eastern Link Northern Point of Connection Converter Station and Cable Corridor

RSK

TITLE:

Figure 8.3:
Watercourse Crossing

0 0.5 1
Kilometres
SCALE: 1:25,000 @ A3

N W E S

REV 01

Document Path: P:\660000 - EPD Projects\661787 Eastern Link - Torness\05 GIS\02 - Incoming\WRC RSK 2022-07-12\GIS Files\Torness Map\Torness Converter and Cables Map.aprx

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23/00616/PM Branxton Substation,
Arborist statement May23

SHEET 11 OF 12

Thornton Quarry
(disused)

NULL
Bridge
(site of)

Existing vegetation
removed 2m either side
of drainage outfall

G34

G33

G50

G6

G49

G7

Sluice

Overflow

It is both deceptive and inaccurate to show the trees (green) retained, as sheet 9 of 10 shows the worst case scenario of G74 in this plan shown as G33 removed.

ETL

East Link Cable crossing blue area

G72

T73

G75

G74

G6

G7

G9

G10

G8

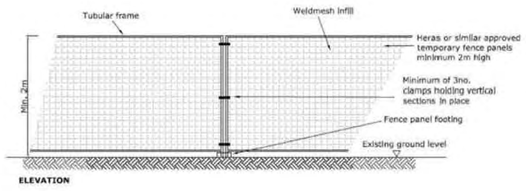
Thornton Quarry
(disused)

TPP 22/00852/PPM sheet 9 and 10

Get rid of the green background colour on Tree protection plan (TPP) sheet 11 of 12 as you cannot see which group is being removed and or retained. There appears to be lack of consistency with approved TPP insert below for PA 22/00852PPM. PLot and show where Berwick Bank 23/00162/PPM 40m electric cable bridge will be located

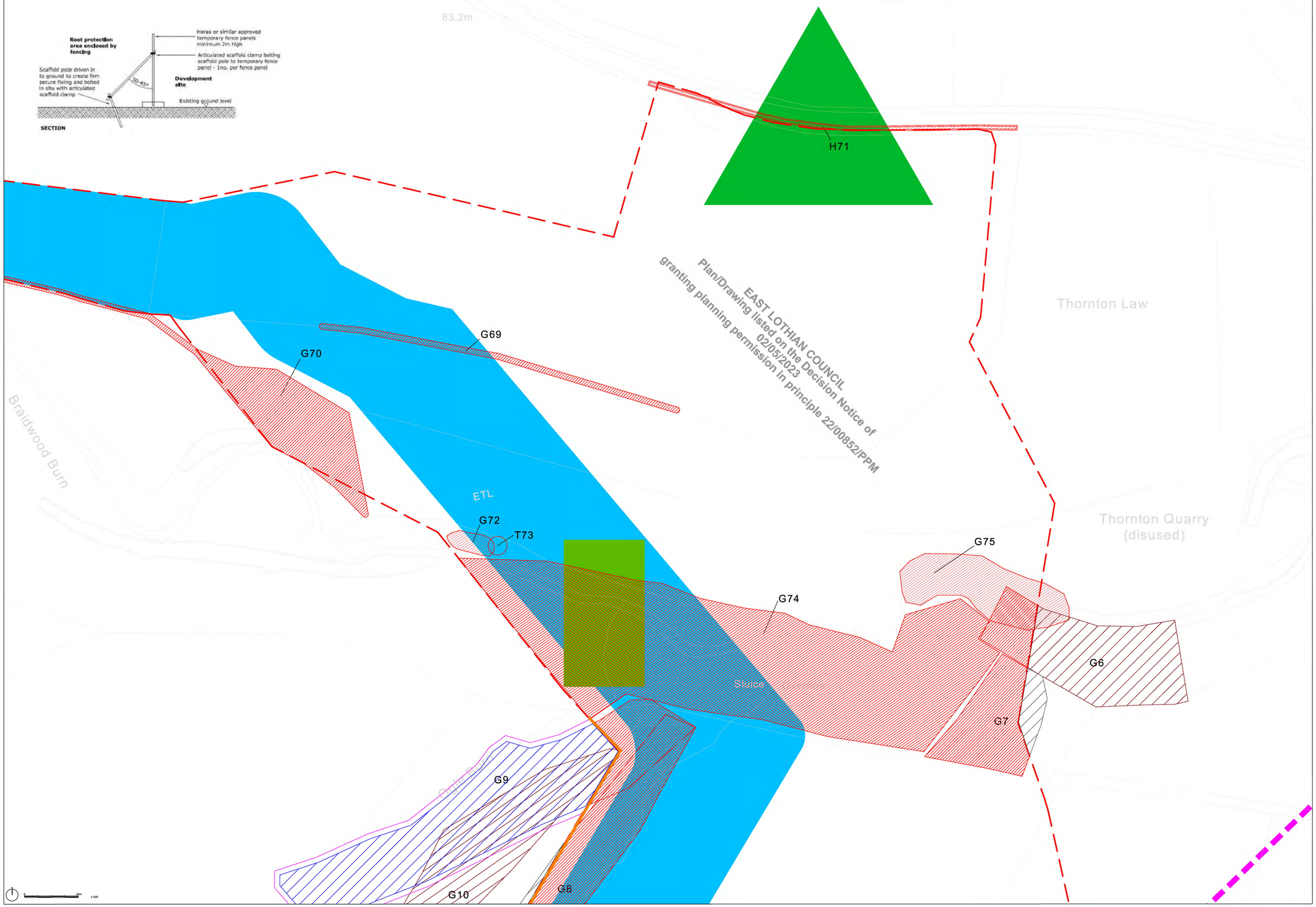
TREE PROTECTION BARRIER SPECIFICATION

SHEET 10 OF 30



ELEVATION

SECTION



LEGEND

TREE CATEGORIES - NOTE: Quality class description derived from BS5837:2012

Category A
Trees / Groups of high quality: with an estimated remaining life expectancy of at least 40 years.

Category B
Trees / Groups of moderate quality: with an estimated remaining life expectancy of at least 20 years.

Category C
Trees / Groups of low quality: with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Category U
Trees / Groups: in such a condition that they cannot realistically be retained as living trees in the context of current land use for longer than 10 years.

Root Protection Area (RPA)

T#* Trees not included in original site survey and therefore positions are indicative only.

Trees To Be Removed
Trees / Groups: which are to be removed

Tree Protection Fencing

Red Line Boundary (Convertor Station Application)

Convertor Station

AC Cable Corridor

DC Cable Corridor

AC and DC Cable Corridor

HDD Compound

DC Cable Compound

Substation

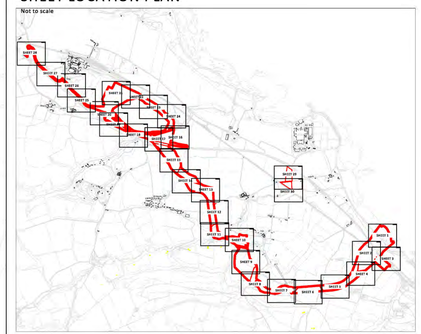
Site Establishment and Landfall HDD Compound

Construction Access

Watercourse Crossing

Based on RSK drawing 'Figure 4.2 Detailed Site Plan Rev 05'. Please see original for details.

SHEET LOCATION PLAN



Rev.	Issue Details.	Date.
Rev C	Updated Scale	March 2023
Rev B	Updated Key	January 2023
Rev A	Revised Planning Boundary	September 2022
First Issue	-	November 2021

Client:

SP Energy Networks

Project:

Converter Station and Cable Corridor

Drawing Title:

Tree Protection Plan

Drawing No: 1051206_SCO9008_Eastern Link Torness Poject_TPP

Scale: 1:500

Drawn by: EL Date: 03.03.23

Checked by: IB Date: 06.03.23

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