

ABERGELLI POWER LIMITED ("the Applicant")

WRITTEN SUMMARY OF THE APPLICANT'S ORAL CASE PUT AT THE COMPULSORY ACQUISITION HEARING

WEDNESDAY 12 DECEMBER 2018 at 10:00

1. BACKGROUND

- 1.1 The Compulsory Acquisition Hearing ("**CAH**") was held on 12 December 2018 at 10:00 at The Village Hotel, Langdon Road, Swansea, SA1 8QY.
- 1.2 The CAH followed the agenda published by the Examining Authority ("**ExA**") on 6 December 2018 ("**the Agenda**"). The format of this note follows that of the Agenda. The Applicant's substantive oral submissions commenced at item 2 of the Agenda and therefore this note does not cover items that are procedural or administrative in nature.

2. AGENDA ITEM 2 – INTRODUCTION OF THE PARTICIPATING PARTIES

- 2.1 The ExA: - Planning Inspector, Martin Broderick.
- 2.2 The Applicant:
 - 2.2.1 Speaking on behalf of the Applicant: - Kate Jones (Senior Associate at Pinsent Masons LLP), David Ball and Duncan Thew (Abergelli Power Limited)
 - 2.2.2 Present from the Applicant: - Chris McKerrow, Kirstin Gardner and Susannah Crawford (Stag Energy).
 - 2.2.3 The Applicant's consultants and legal advisors: Catherine Anderson (AECOM, consultant for the Applicant) and Nick McDonald (Legal Director at Pinsent Masons LLP).
- 2.3 The following parties participated in the CAH:
 - 2.3.1 Richard Price from Loxley Solicitors and Andrew Thomas (the land agent) on behalf of Wynne Watkins, Redisplay Limited and Michael Edwards (the "**3 Respondents**").

3. AGENDA ITEM 4 – REPORT FROM THE APPLICANT ON THE CURRENT POSITION:-

Current status of negotiations with affected persons

- 3.1 The Applicant submitted at Deadline 2 updated information regarding the status of negotiations with affected parties in the form of an updated table 2 from the Statement of Reasons ("**SoR**"). There have been a few updates since Deadline 2, but the Applicant can report that discussions are continuing with Redisplay Limited and since Deadline 2 revised Heads of Terms have been sent to Redisplay Limited, where discussions are currently ongoing.
- 3.2 Mr Thomas commented that there are no negotiations regarding Michael Edwards' land. Mr Thomas made it clear that they are happy to discuss, but the Applicant has not responded to the respondent's latest communication.
- 3.3 Mrs Jones explained that information to inform the valuation of Mr Edwards' was provided by Mr Thomas and is currently being reviewed by Applicant.
- 3.4 Mr Thomas stated that the information was provided a considerable time ago and the respondent expects it to be acted on, but that the Applicant has not come back with any meaningful response.
- 3.5 Mrs Jones explained that the Applicant will be in a position to return comments before 21 December 2018.
- 3.6 Mr Thomas noted that he would have wanted to attend the hearings on Thursday 13 December 2018 and the Accompanied Site Inspection on Friday 14 December 2018, but has other engagements and feels his client is being prejudiced by that.

Category 3 persons

- 3.7 The Applicant has taken a conservative and precautionary approach in identifying potential category 3 claimants in the Book of Reference. They have been notified at each stage of the consultation and application, but the Applicant is not in direct negotiations with those parties as it is too early to know if they will have a claim or to quantify compensation that may be payable. The Applicant anticipates detailed design will give a clearer position, and it will discuss these matters with any potential category 3 party who has queries.

Protective Provisions

- 3.8 The Applicant submitted an update on negotiations with the Statutory Undertakers ("**SUs**") identified with affected apparatus in Annex 2 of the Applicant's response to the First Written Questions in the table updated from the SoR. This was further updated and submitted at Deadline 2. Discussions are currently progressing positively with all SUs identified. The following are updates since Deadline 2:
 - 3.8.1 The Protective Provisions and side agreement with Welsh Water have been agreed. These have been transferred into the draft Development Consent Order ("**DCO**") and will be submitted at Deadline 3.
 - 3.8.2 The updated Statement of Common Ground ("**SoCG**") with Welsh Water is expected to be submitted at Deadline 4.

- 3.9 The Applicant is close to agreement on the Protective Provisions with other affected undertakers, but these are not yet in final form. The Applicant is still in discussions with National Grid Electricity Transmission plc, National Grid Gas plc, Wales & West Utilities Limited, Western Power Distribution and Abergelli Solar Limited.
- 3.10 The Applicant anticipates agreement on all Protective Provisions before the end of the examination. The Applicant hopes that some will be agreed by Deadline 4.
- 3.11 Mr Price raised that the SoCG between the Applicant and the 3 Respondents remains outstanding. The parties are continuing to negotiate on the terms of the SoCG and to agree on matters where possible, and hope to submit an updated version at Deadline 3.

4. **AGENDA ITEM 5 - ORAL REPRESENTATIONS FROM AFFECTED PERSONS PRESENT AND/OR FORMALLY REPRESENTED**

Oral representations from affected persons

- 4.1 The oral representation from Loxley Solicitors covered all 3 Respondents jointly. The submissions relate to the Applicant's response to the Written Representations on behalf of the 3 Respondents. The 3 Respondents maintain objections to the compulsory acquisition, in particular the land proposed to be acquired for the new access road to the project.

Pre-application consultation

- 4.2 Mr Price expressed that the compulsory acquisition is not justified. The original consultation was carried out in 2014, where two access options were put forward and Option 2 was selected. Mr Price stated that the main justification in the SoR put forward was that the majority of the public supported Option 2. Over the next four years, the Applicant continued designing its proposals and re-consulted in 2018, but only provided Option 2 as a route option, with a number of sub-route options. The 3 Respondents consider that the Applicant should have consulted in 2018 on all access arrangement options available to them, including Option 1, particularly as there were four years between the first and second rounds of consultation. Mr Price stated that the process was flawed as the 2018 consultation exercise did not have sufficient regard to all alternative options.
- 4.3 Mr Price stated that the Applicant submits that Option 1 would have required acquisition of rights from third parties, which is not different from Option 2, but that Option 2 requires the acquisition of multiple parties and the 3 Respondents consider that Option 1 would require rights from only one third party.
- 4.4 Mr Price stated that in response to the Applicant's comments regarding consultation, Wynne Watkins and Michael Edwards did attend the public consultations and made their feelings well known. Mr Price agreed that they did not provide a formal written response but stated that given the emphasis on the pre-application consultation (as referred to in paragraph 5.10 of the Applicant's Response to the Written Representations and in the *Planning Act 2008: Guidance related to procedures for the Compulsory Acquisition of land* (Published by Department for Communities and Local Government September 2013) (the "**DCLG Guidance**") the 3 Respondents feel that little effort was made to engage directly with them.

- 4.5 Mr Price stated that given that this is a Nationally Significant Infrastructure Project ("**NSIP**") and that the Applicant has significant resources, it is expected they engage directly with the landowners concerned, particularly as there are so few of them.
- 4.6 Mr Price stated that in the Applicant's response to the Written Representation, the Applicant confirmed that the status of the ancient woodland was a key factor in the selection of the sub-option route corridor. The route options vary substantially in terms of the interference with the land owners' interests.

Ancient woodland

- 4.7 The plan provided by the Applicant at Deadline 2 *[and shown on the screen at the hearing]* indicates a large area classified as ancient woodland site of unknown category (brown colouring). The Applicant stated the importance of this site, but Mr Price stated that as this is occupied by an existing National Grid substation and is developed land with few trees, the plan is disingenuous as it suggests a large woodland area when the majority of the site is developed land. Mr Price emphasised that this is important as Option A shows that it travels through the woodland site when this is not the case.
- 4.8 Mr Price stated that the Applicant places significant emphasis on a certain section from Alison Wheeler's report (quoted by the Applicant from Appendix D to the Respondents' Written Representation) and ignores that Option B does not travel through ancient woodland as it is not registered as such. It is clear from paragraph 5.25 and 5.26 of the Applicant's Response to Written Representations that the Applicant has not carried out a meaningful assessment of the habitat and it appears to be guess work that the site has any value with an emphasis on the importance of woodland.
- 4.9 Mr Price expressed that the Applicant should have gone on site and carried out further survey of the woodland. The work is flawed and there are clear alternatives to avoid any woodland and reduce the impact on the 3 Respondents' land. Mr Price expressed that the Applicant has not demonstrated compliance with the DCLG Guidance as not all alternatives have been explored and the Applicant cannot justify all the land being compulsorily acquired or that it is incidental and therefore does not meet the requirements of section 122 of the Planning Act 2008.

Pre-application consultation

- 4.10 In response, Mrs Jones explained that the Applicant carried out multiple phases of consultation before submitting the application. Following the statutory consultation in 2014, an update was circulated to all parties in 2015 to notify the Applicant's selection of the option route, being Option 2.
- 4.11 Following the update in 2015, at the end of the statutory consultation there was a pause in the project. When the project resumed, the Applicant refreshed a large volume of the documents and refreshed the Book of Reference to validate the conclusions reached in 2015 before continuing with the application.
- 4.12 Further consultation was carried out in 2018, which included a report on the previous consultation and consultation on the Applicant's refined proposals. This progressed with access Option 2 and provided sub-options for it. Following the consultation, the Applicant had regard to all responses received on the access options.

- 4.13 *[Post hearing note: Appendix 5 sets out the options which were included at each stage of consultation and provides the Applicant's summary of the rationale for selection of the access options.]*
- 4.14 The 3 Respondents did not provide written responses. The 3 Respondents were sent a copy of the section 42 material by Royal Mail recorded delivery, and the Applicant has signature receipts for those.
- 4.15 Mr Price stated that Wynne Watkins and Michael Edwards are farmers and do not understand the technical information sent to them. Mr Price expressed that given that there are only two landowners, the Applicant should have made personal contact with them to explain the information. Mrs Jones explained that there was contact with the landowners through summer 2017 to discuss land access for surveys with Redisplay Limited and Michael Edwards. The Applicant expected to receive a response to the consultation and for discussions to follow, but no response was received despite contact being made.
- 4.16 Consultation feedback was received from Natural Resources Wales in relation the ancient woodland, as well as the City and County of Swansea's ("**CCS**") ecologist. Both were strongly of the view that areas shown coloured brown on the plan should be treated as ancient woodland in relation to the remaining vegetation.
- 4.17 The Applicant carried out further technical studies to establish feasibility of avoiding the ancient woodland areas, and consequently an amended version of Option B (shown in green on the figure on the screen (ES Figure 5.1) was put forward as the access route in the DCO application.

Ancient woodland

- 4.18 Mr Price stated that the Applicant made submissions regarding the soil being important; however the majority of the soil on the site has no reflection of ancient woodland as the land has been developed for a sub-station. The status of ancient woodland is given weight yet the site itself is a developed site with foundations and other materials put in the soil.
- 4.19 The Examining Authority questioned why the land where National Grid's substation is located was shown as ancient woodland.
- 4.20 Mrs Jones explained that based on the examination of records, this area is regarded ancient woodland. The Applicant is not disputing that there is a substation present and there is no suggestion that the substation itself remains wooded, however, ancient woodland is an irreplaceable habitat because of what is present in the soil and the history surrounding it, therefore such areas as remain are considered to be ancient woodland despite development of part of the area, as they have the requisite continuous wooded coverage. Ancient woodland has different categories as shown on the plan in Appendix 1 of the Applicant's response to the First Written Questions, but each of these is regarded as being of value.
- 4.21 Mrs Jones explained that in relation to the information in the 3 Respondents' ecological report (which was not available at the time of writing the Environmental Statement, as it was only shared in the 3 Respondents' Written Representation), the Applicant has reviewed this and the Applicant's ecologist remains of the view that it is ancient woodland and should be treated as such in terms of the policy seeking to prevent its loss. The Deadline

2 comments submitted by CCS confirmed (see Appendix E) that CCS agrees with the Applicant and considers the areas are ancient woodland.

- 4.22 Mr Price stated that the area is not registered on the ancient woodland register and therefore should not be treated as ancient woodland unless and until that register is changed. Mr Price stated that the 3 Respondents cannot see why the status of this small woodland area is sufficient to mean that sub-option B was rejected. Mr Price stated that given the Applicant's resources, the Applicant could have made some investigation on where the mine shaft is located and carried out a proper survey of the area.
- 4.23 Ms Anderson (for the Applicant) confirmed that the geo-technical engineer went on to the site after the submission of the Environmental Statement and was able to identify and locate the mine shaft and that the ecologist surveyed that area. *[Post hearing note: Appendix 2 contains an overlay plan showing land ownership boundaries overlaid onto an aerial view of the site – this was shown during the hearing. A note of the investigation visit conducted to locate the mine shaft can be found in Appendix 3].*
- 4.24 The Examining Authority questioned whether the phase 1 habitat survey was carried out and whether a field based or desk based agricultural survey was carried out.
- 4.25 Mrs Jones explained that during the phase 1 habitat survey not all areas were accessed as they are densely vegetated. However, a visual survey was carried out and is set out in the Environmental Statement as Appendix 8.1, as well as a visual survey in the areas where access was possible. The Arboricultural Survey can be found in Appendix 8.12 of the Environmental Statement and it was a field based survey undertaken in 2014. Ms Anderson confirmed that a reference number will be provided for where in the Environmental Statement the phase 1 habitat survey can be found. *[Post-hearing note: this can be found at Appendix 8.1 of the ES]*

Land classification

- 4.26 The Examining Authority asked what farming the Respondents carry out and what the agricultural land classification is.
- 4.27 Mr Thomas explained that it is sheep and cattle farming, and that he believes that the agricultural land classification is Class 3, but was not certain if it is 3a or 3b classification. Mr Thomas stated that the issue is that it is the best land for farming and that if the route was further to the north it would go through land that is less productive.
- 4.28 The Examining Authority asked what proportion of their land is to be acquired from each land owner.
- 4.29 Mr Price confirmed this will be checked, but in relation to Wynne Watkins the estimate is 20-25%. The ExA asked that this is confirmed in writing at Deadline 3. *[Post Hearing Note: the Applicant has reviewed the land areas affected for Michael Edwards and Wynne Watkins and a summary table is provided in Appendix 4.]*

- 4.30 The Examining Authority asked the Applicant what they regard the agricultural land classification to be. Ms Anderson confirmed that this will be confirmed at Deadline 3.
- 4.31 *[Post-hearing note: at the time of writing the ES, the agricultural land classification (ALC) was Grade 4. The Applicant has checked with the Welsh Government cartography team, and the land classification is now shown as being part within Grade 3b and part within Grade 5. This is shown on the figure attached as Appendix 1.*
- 4.32 *The Applicant's environmental advisers have reviewed the updated ALC and note that 600m of the new section of access road is now re-classified as Grade 3b ("moderate quality agricultural land") "capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year".*
- 4.33 *In relation to the assessment in Chapter 10 of the ES, there will still be direct, permanent (for the duration of the Project) local loss of the Grade 3b land leading to a change in sensitivity of the receptor from negligible (minimal economic use) to low (limited economic use). However the magnitude is still assessed as negligible (sterilisation over a relatively small area) and, therefore the significance of the effect remains Negligible which is not significant. The conclusion of the ES do not change as a result of the reclassification.]*

Alternative routes

- 4.34 Mr Thomas explained that there is an alternative route along the southern edge of the National Grid land which is more costly but feasible. Mr Thomas suggested it would be sensible to look at it during the Accompanied Site Inspection to see how the 3 Respondents see it as a better alternative than the two options put forward by the Applicant.
- 4.35 Responding to earlier comments relating to Access Option 1, Mrs Jones explained that Option 2 now proposed is a much shorter route and uses the existing National Grid route to the substation. The public consultation responses in 2014 were not in favour of Option 1, and raised concerns regarding the interactions between construction traffic and AILS with Murrison Hospital traffic and is a twisty route. The Applicant will provide a breakdown of the responses to Option 1 at Deadline 3.
- 4.36 *[Post Hearing Note – The notes below summarise the responses received in relation to Option 1 and Option 2 in the 2014 consultation, the responses received in 2015 to the project update communications*
- 4.37 *Figure 7-9 in paragraph 7.4.11 of the Consultation Report (APP-059) presents the number of 2014 Phase 1 s47 consultation responses received in respect of each topic theme including Transport, for which a total of 11 comments were received. Five out of these 11 comments relate to route options in particular and two of these comments specifically refer to interruption of the access route to Murrison Hospital. One of these comments states that the main road to Murrison Hospital is extremely busy as the only A&E unit in use in Swansea is located there, and that Route Option 1 (via Pant-lasau and Rhyd-y-pandy Road) is "surely a recipe for disaster". The remaining three comments state that they disagree with the route option but do not*

specify which route option they are referring to. A complete list of the consultation responses received during Phase 1 statutory s47 consultation, together with APL's response, is provided in Consultation Report Appendix 6.B (APP-065).

- 4.38 *Regarding the 2014 statutory s42 consultation, paragraph 7.2.10 of the Consultation Report (APP-059) reports a meeting held between APL and Welsh Water on 08 October 2014 to discuss potable/service water pipeline protection. Meeting minutes, contained in Consultation Report Appendix 2.D.VIII (APP-068) note that in Welsh Water's view of the two routes being proposed, Route Option 1 (via Pant-lasau and Rhyd-y-pandy Road) would cause more disruption to its activities and operations. Natural Resources Wales (NRW) had concerns with both route options, stating that Route Option 1 would result in some habitat loss to Sites of Importance for Nature Conservation (SINC) and Route Option 2 would result in the permanent loss of ancient woodland. A complete list of the consultation responses received during Phase 1 statutory s42 consultation, together with APL's response, is provided in Consultation Report Appendix 6.D (APP-065).*
- 4.39 *Paragraph 7.5.5 of the Consultation Report (APP-059) states that in January 2015, the APL project team posted an information update letter (Appendix 5.C.II, APP-065) to all statutory s42 consultees confirming that the Route Option 2 access route was being taken forward for inclusion in the Development Consent Order (DCO) application and inviting consultees to provide comments. No significant concerns were raised in response to this information update. A summary of the responses is set out in Appendix 6.E (APP-065). A list of the statutory consultees who received this information update is in Appendix 5.C I (APP-065) which includes Michael Edwards, Wynne Watkins and Rediplay Limited.]*
- 4.40 Mrs Jones noted that the maintenance of the Project or a major repair would require abnormal loads to access the site during the operational phase, so AILs are not just relevant to the construction stage. It will also be necessary to remove apparatus from the site during decommissioning using HGVs.
- 4.41 Mr Thew (for the Applicant), referencing the picture of the AIL on screen (a copy of which is appended to this note at Appendix 6), explained that the trailer used to transport the gas turbine for the project is about 400 tonnes, is over 70 feet long and 15 feet wide, with 96 wheels. It would have two motor units for relatively flat ground, and for inclines such as those on the Option 1 route it would have required additional motor units and would therefore have been even longer. Mr Thew explained that the bend radii on the Option 1 route would make it difficult, the width would require the removal of trees, hedges, walls and there would be an impact on third party land at various points. Option 2 is an established heavy load route.
- 4.42 Mr Price stated that Option 1 could be possible through Traffic Regulation Orders and the 3 Respondents do not feel the technical difficulties mean that Option 2 should be chosen. Mr Price stated that the technical difficulties are appreciated, but that this is a cost issue rather than an inability to do it.
- 4.43 The Examining Authority asked how Welsh Water accesses the reservoir, and Mr Thew explained that they use smaller vehicles and do not require AIL access.
- 4.44 Mrs Jones stated that the Applicant does not consider it accurate to suggest that access to the site could be achieved without requiring compulsory acquisition or that Option 1 would not require compulsory acquisition. An alternative route to that selected would not impact the 3 Respondents' land but would be a longer route and would require multiple interventions along it. It would require compulsory acquisition in respect of various third parties

and would have a significant impact on the road network whilst work takes place. In both the view of the consultees and as stated in the 2014 Preliminary Environmental Information Report this would cause a moderate (significant) adverse effect of temporary duration during construction.

- 4.45 Mrs Jones explained that the suggestion of following a route directly along the substation was considered by the Applicant – it would involve the loss of ancient woodland along that boundary. The route from D-C (part of Option 1) is not a public road in its entire length. This alternative route would require compulsory acquisition powers along the non-public road parts and elsewhere for access and widening along the route.
- 4.46 Mr Thew explained that the route along the side of the National Grid compressor station is not wide enough for significant loads and the Applicant would have to carry out reinforcement of slopes and infilling of gaps. Mr Thew confirmed that the Applicant looked to maximise use of the existing AIL route established by National Grid and did a swept path analysis and cut and fill assessment.
- 4.47 Mr Thomas pointed out that there are also old industrial routes that the Applicant has not considered, further to the north. The Examining Authority confirmed that the Applicant is not required to assess all possible alternatives.
- 4.48 Mr Price stated that no detailed traffic modelling was carried out for Option 1. This should have been done to properly assess the use of Option 1.
- 4.49 The Examining Authority asked whether any traffic modelling for Option 1 was carried out. Mrs Jones confirmed that the 2014 Preliminary Environmental Information Report contained work on Option 1 and Option 2 to enable them to be assessed. The Applicant would confirm what modelling work informed the PEIR at Deadline 3.
- 4.50 *[Post-hearing note: Chapter 12 (Traffic, Transport and Access) of the 2014 PEIR sets out the Applicant's assessment of Option 1 and Option 2 and was published alongside statutory consultation in 2014. A copy of Chapter 12 of the PEIR is appended to this document as Appendix 7 providing information on the assessment undertaken by the Applicant in 2014. A full copy of the 2014 PEIR (including appendices and Non Technical Summary) is available on the Applicant's project website: <http://www.abergellipower.co.uk/en/#key-documents>].*

Utilities constraints

- 4.51 Mrs Jones explained that the utilities constraints in the area also had a bearing on the option routes. *[The utilities plan, which can be found in ES Figure 3.5 was displayed.]* Welsh Water's water main runs across the middle of the site. There is also the National Grid gas transmission network with three high pressure pipelines, as well as various apparatus belonging to Western Power Distribution and National Grid Electricity Transmission plc. Whilst some have to be crossed, these constraints are relevant to the access route options, with heavy load crossings requiring heavy engineering works protecting them. The Applicant has considered the utility interfaces for all options. Mrs Jones explained that the other options, via the AGI access, involve bringing heavy plant and equipment across National Grid's pipelines (which is avoided by the selected access option) or heavy plant negotiating a route alongside the route of the Welsh Water main route.
- 4.52 Mrs Jones explained that its understanding is that heavy loads (of c.300 tonnes) crossing gas pipelines would raise concerns for National Grid and the

route alongside the water main would also raise concerns. The Applicant will outline at Deadline 3 what the utility interfaces are for option 1. [*Post hearing note – the Applicant's note on access options attached at Appendix 5 contains information on utility interfaces.*]

5. **AGENDA ITEM 6 – TO ESTABLISH THAT THE LAND IS REQUIRED FOR THE DEVELOPMENT TO WHICH THE DEVELOPMENT CONSENT RELATES OR THAT IT IS REQUIRED TO FACILITATE, OR IS INTEGRAL TO, THAT DEVELOPMENT AND IS FOR A LEGITIMATE PURPOSE**

Integral – the Applicant to summarise why it believes that the access road is integral to the development

5.1 The Applicant has set out in its response to the Written Representations of Michael Edwards, Wynne Watkins and Redisplay Limited at Deadline 2 why the Applicant considers that the access road is integral to the development.

5.2 There is no direct access to the site from the public highway and access would not be possible without first constructing a suitable route to the site. The route is permanent as it is a critical part of the operation of the generation station that access is maintained at all times for safety reasons. The generating station plant will require scheduled maintenance during its lifetime, which will require access for plant and machinery and may require removal of large items for servicing or repair. In the event of unscheduled maintenance, it is possible that the Applicant may need to remove apparatus from the site for maintenance or repair and a suitable access road is integral to this occurring. The access road will then also be needed for the decommissioning of the power generation plant.

5.3 Without a suitable access in place at all times, the generating equipment cannot operate to generate electricity, which is the function of the generating station and the reason it is an NSIP. The Applicant has considered how access roads have been treated as being integral to the power generation plant in a range of decisions in Wales. The Applicant's submissions at Deadline 2 identified other orders as including Hirwaun Power Station, Wrexham Energy Centre and a number of wind generation stations where access has been treated as integral.

5.4 Mr Price stated that even though it is shown that the land for Option 2 is required, it is the 3 Respondents' view that, in particular for construction works, works should be for temporary use of land rather than permanent acquisition as maintenance of the project would only require smaller access and less impact would be appropriate for maintenance.

Whether the statutory conditions in relation to the right to exercise compulsory acquisition as set out in s122 and s123 of PA2008 are met in principle and in relation to individual plots

5.5 Mrs Jones explained that the Applicant has addressed these statutory tests in the SoR. Section 5 breaks down which elements of land are required for the power generation plant for which the DCO is required. It then identifies land required for gas and electrical connection which, in the Applicant's view, are required to facilitate the NSIP development.

Whether the purposes for which the Compulsory Acquisition powers are sought comply with section 122(2) of the PA 2008

5.6 There is a breakdown in the SoR of what each plot is required for, whether it is temporary, permanent or an imposition of covenants and restrictions to demonstrate what purpose the land serves as required by section 122 of the PA 2008.

6. **AGENDA ITEM 7 – TO ESTABLISH A COMPELLING CASE IN THE PUBLIC INTEREST FOR THE LAND TO BE ACQUIRED COMPULSORILY**

Compelling case in the public interest for the land to be acquired compulsorily

6.1 Mrs Jones explained that all land is either for the generating station or to facilitate it. The Applicant has set out in section 7 of the SoR its case as to why there is a compelling case in the public interest.

The need in the public interest for the project to be carried out:

6.2 The Applicant draws on the support for the project to be found in NPS EN-1, establishing the urgent need for generating stations. Paragraph 3.1.3 of NPS EN-1 establishes the need for this NSIP and an urgent need for flexible gas-fired generating stations. There is significant support for gas fired generating stations, supporting the transition to low carbon generation and maintaining security of supply.

The private loss to those affected by Compulsory Acquisition

6.3 Mrs Jones explained that the Applicant acknowledges that its proposals have the potential to cause private loss in relation to land acquired using compulsory acquisition powers and that the Applicant has considered the private loss to third parties. The Applicant has sought to minimise the loss and disruption to affected landowners by minimising the extent of freehold land sought, using temporary possession powers (where the land is only required for construction and can be reinstated and returned at the completion of construction) or seeking rights over land wherever practicable.

6.4 The Applicant has entered into a number of voluntary land agreements to reduce the reliance on compulsory acquisition and will only use compulsory acquisition as a last resort. Mrs Jones explained that it is considered appropriate for compulsory acquisition to be over the entirety of the Order Land in the event that the private agreements should fail, such as where the land owner is unable to complete the transaction due to incapacity or other reasons. The benefits of the project will only be realised if the project is delivered in a timely manner, and compulsory acquisition would enable that to take place.

6.5 The ExA asked whether the private loss is justified.

6.6 Mrs Jones explained that the land sought to be acquired is no greater than that required to deliver the project. The Applicant has sought to minimise the land being compulsorily acquired and is continuing discussions regarding access and any severed parcels of land that would remain. The Applicant considers that financial compensation would represent a suitable remedy for those losses. No private dwellings are proposed to be acquired and therefore article 8 is not engaged; the European Convention on Human Rights ("**ECHR**") has been taken into account and the Applicant considers the requirements in the ECHR have been met.

6.7 Mrs Jones stated that the SoR sets out that the Applicant's view is that all relevant pre-application has been followed during all stages of the project's development. Mrs Jones explained that all affected parties have been consulted during the examination and have had an opportunity to object. Mrs Jones stated that the Applicant considers that all legal requirements have been met.

Where does the balance of the public interest lie?

6.8 Section 11 of the SoR sets out the balance of public interest and the Applicant relies on that as a summary of its case. The Applicant considers the public interest in the delivery of the project and the need demonstrated in the NPS outweighs the private loss.

7. **AGENDA ITEM 8 – TO ESTABLISH THAT ALL REASONABLE ALTERNATIVES TO COMPULSORY ACQUISITION HAVE BEEN EXPLORED**

What consideration has been given to all reasonable alternatives to Compulsory Acquisition?

7.1 The Applicant has set out in the SoR and in the Environmental Statement the alternatives considered by the Applicant in the development of the project. This included a reasonable range of alternatives, and has resulted in the layout of the generating equipment evolving by feedback and design development and shrinking as a result.

Whether there are any lesser steps that could meet the identified need?

7.2 The Applicant has also sought to avoid compulsory acquisition by negotiation of agreements. The Applicant has made offers to all affected land owners. There are Option Agreements in place for a large proportion of the site.

Acquisition by agreement

7.3 Mrs Jones explained that the Applicant hopes that compulsory acquisition will not need to be relied on, but that experience suggests that it is not always possible for a land agreement to be fulfilled.

7.4 The ExA asked whether the threat of compulsory purchase was a factor in negotiations. Mrs Jones explained that the availability of powers of compulsory acquisition under the DCO is a background factor in negotiations but the Applicant has, in the majority of sites, reached commercial terms that the landowner is satisfied with.

7.5 Mrs Jones reiterated that compulsory acquisition is seen by the Applicant as a measure of last resort, but is essential in order to ensure the delivery of the project

7.6 Annex 2, submitted by the Applicant at Deadline 2, sets out the land where compulsory acquisition is sought and where there are ongoing negotiations.

8. **AGENDA ITEM 9 – TO ESTABLISH THAT THE PROPOSED INTERFERENCE WITH THE RIGHTS OF THOSE WITH AN INTEREST IN THE LAND IS NECESSARY AND PROPORTIONATE, INCLUDING WITH REFERENCE TO PROTOCOL 1, ARTICLE 1 AND ARTICLE 8 OF THE EUROPEAN CONVENTION ON HUMAN RIGHTS, INCLUDING:-**

8.1 The ExA queried whether the powers sought are proportionate and necessary.

8.2 Mrs Jones explained that the Applicant considers it to be proportionate and necessary to allow the project to be delivered. The rights sought in the draft DCO are specifically drafted to provide only what is necessary. The Book of Reference sets out a number of categories of rights. Each plot is considered for the purpose required and the extent of rights is no more than is required.

8.3 The ExA asked what the width of the areas are for the gas and electrical connections.

8.4 Mrs Jones explained that the blue route shows the area in which the final easement corridor for the gas connection will be. This pipeline requires a 30 metre construction corridor and 10 metre final protective easement. There are points in the route where temporary possession is required to assist with construction (50 to 320 metre working width), where the Applicant will cross the National Grid pipelines (3 pipelines have to be crossed by horizontal directional drilling). The final easement will be defined once micro-siting of the pipeline has been done, this is in line with standard industry practice projects.

8.5 Mrs Jones explained that regarding Michael Edwards, it is understood that the gas connection does not cross his land. There is a proposal for easements for the electrical connection and cables. The electrical connection has a 30 metre working width and the final easement for that varies from 6 to 15 metres, depending on whether it is coincident with the access road or not. There are also temporary powers for the installation to take place, so the final easement will be over the smallest corridor possible once it is in situ.

8.6 The ExA asked if there are any Equality Act 2010 duties relevant for the application.

8.7 Mrs Jones stated that the Equality Act 2010 duties do not apply to the Applicant as it is not a public body exercising public functions, but the Applicant has considered it and has not identified any way in which the project would cause any contravention of the principles in the Equality Act 2010.

What regard has been had to Article 8 of the European Convention on Human Rights and Article 1 of the First Protocol

8.8 The Applicant has had regard to the ECHR and has considered Article 6 and Article 1 of the first protocol. There is no proposal to acquire or interfere with any private dwellings, so the Applicant does not consider that Article 8 is directly engaged.

8.9 As set out in the SoR the Applicant considers that the considerable public benefit arising from the grant of the DCO would only arise and be deliverable if the DCO is accompanied by powers of compulsory acquisition. The Applicant considers that the significant public benefits outweigh the effects on persons owning property within the Order Land and that the interference is therefore justified.

9. **AGENDA ITEM 10 – TO ESTABLISH THAT THERE IS A REASONABLE PROSPECT OF THE REQUISITE FUNDS FOR ACQUISITION BECOMING AVAILABLE, INCLUDING**

Costs of acquisition

10. The Applicant has prepared a Funding Statement as part of the application and supplied additional information at Deadline 1 in response to the Examining Authority's First Written Questions 1.3.5 and 1.3.6 on the costs of land acquisition. The Funding Statement explains how funds will be made available to the Applicant from the ultimate parent company to meet the costs of land acquisition and to finance the construction of the project.
- 10.1 The current project estimate is £120 million, including construction, financing, land acquisition and allows for inflation and contingencies. The estimated costs for acquiring land and rights including temporary possession is £1.033 million reached with professional advice taken from compulsory acquisition advisers (Carter Jonas) and based on application of Compensation Code principles.

Security proposed to ensure that the costs of acquisition of land and rights can be met in the event that the DCO application is approved e.g. parent company guarantee

- 10.2 The ExA asked if there is any security in place, for example a parent guarantee.
- 10.3 Mrs Jones explained that Article 34 of the draft DCO restricts the Applicant from exercising any powers under Articles 19, 23, 24, 26, 28, 29, 30 and 31 unless a guarantee or alternative form of security in a sum agreed by the SoS has been put in place for the payment of compensation. The security must be in place for 15 years.

11. **AGENDA ITEM 11 – DRAFT DCO PROVISIONS**

Which articles of the DCO engage in compulsory acquisition?

- 11.1 The compulsory acquisition powers in the draft DCO are set out in Part 5, beginning at Article 19. The Explanatory Memorandum provides a short summary of the purpose of each power, and explains where the drafting follows the model provisions and where there have been departures. Mrs Jones stated that this closely follows the model provisions.
- 11.2 The DCO does include drafting which modifies the application of compensation provisions – these amendments are set out in Schedule 8 of the draft DCO. The Applicant considers that the modifications in Schedule 8 are necessary to give effect to the order and to ensure that applicable compensation legislation is clearly applied to the project and the rights acquired. Paragraphs 1-5 of Schedule 8 ensure that compulsory purchase compensation enactments apply properly to the creation of new rights as well as the acquisition of land and existing rights.
- 11.3 Paragraph 7 modifies the provisions relating to powers of entry.

- 11.4 There are amendments to provisions relating to counter notices for the purchase of land to disapply those provisions where the undertaker has only acquired subsoil interests.
- 11.5 The amendments in relation to the Neighbourhood Planning Act 2017 are to exclude operation of legislative provisions that are not yet in force. The Applicant considers that in the interest of certainty, it is clear to record that the provisions do not apply to ensure that there is no change part way through implementation, so that there is no scenario where land owners are treated differently depending upon the timing of notices relative to the implementation of the Neighbourhood Planning Act 2017.

APPENDICES

Appendix	Title
Appendix 1	Agricultural land classification plan
Appendix 2	Land parcels/aerial view overlay plan
Appendix 3	The Applicant's note on the mine shaft investigation
Appendix 4	Table showing extent of land affected by proposed CA powers owned by Wynne Watkins, Redisplay and Michael Edwards
Appendix 5	The Applicant's access note, commenting on each of the access options considered and setting out the utility interfaces
Appendix 6	Illustrative drawing showing likely dimensions of AIL for delivery of turbine to site.
Appendix 7	Chapter 12 (Traffic, Transport and Access) of the 2014 PEIR The full document is available here: http://www.abergellipower.co.uk/wp-content/uploads/2017/12/AbergelliPowerProjectPreliminaryEnvironmentalInformationReport-1.pdf

Appendix 1

Agricultural Land Classification Plan

Project Title:

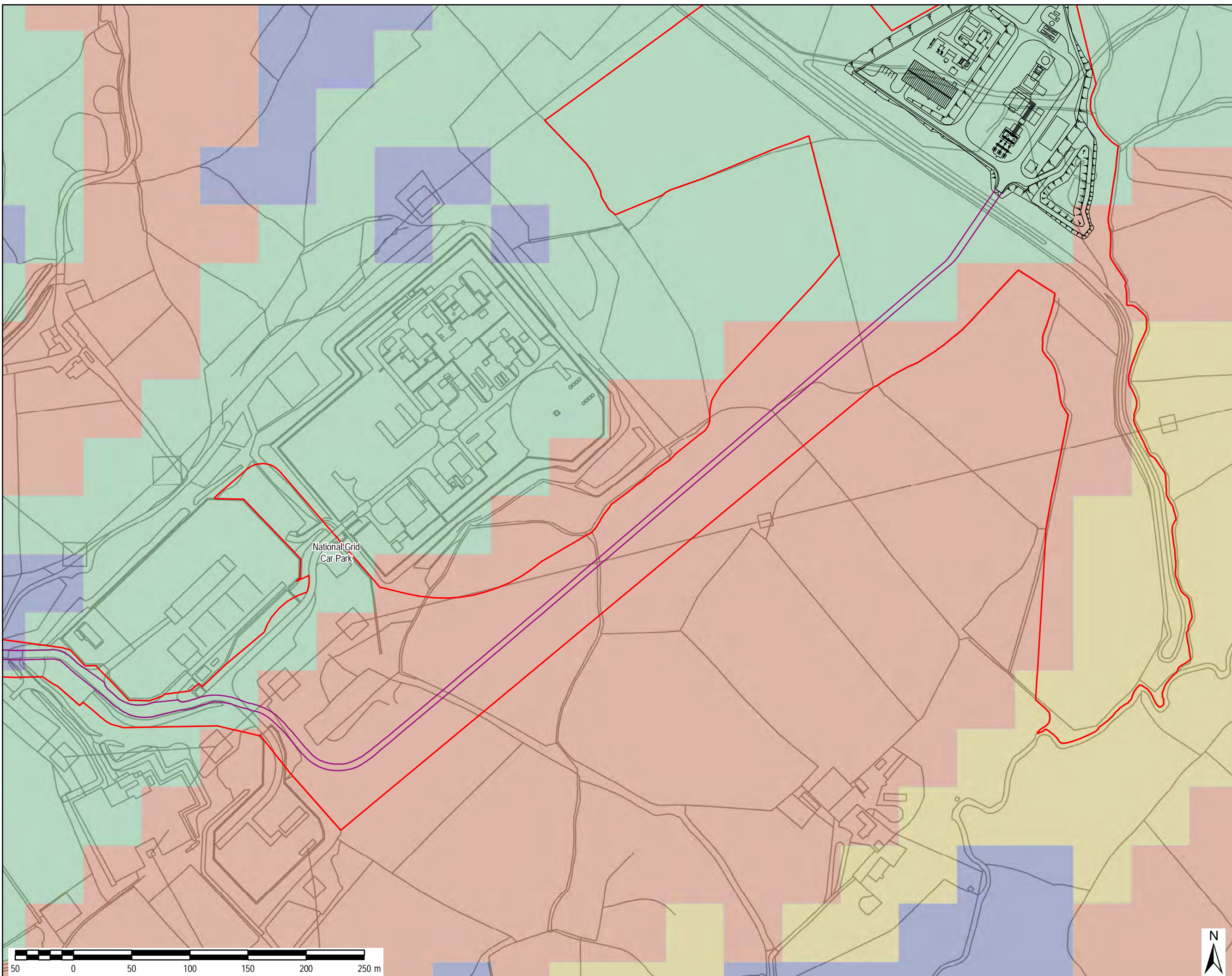
ABERGELLI POWER PROJECT

Client:



LEGEND

- Generating Equipment Site
- Access Road
- ▭ Project Site Boundary
- ▭ 3b, Moderate quality agricultural land
- ▭ 4, Poor quality agricultural land
- ▭ 5, Very poor quality agricultural land
- ▭ NA, Non-agricultural



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AECOM Internal Project No:

60542910

Drawing Title:

AGRICULTURAL LAND CLASSIFICATION ACCESS TRACK

Scale at A3: 1:3,000

Drawing No: FIGURE X **Rev:** 005

Drawn: GM **Chk'd:** CC **App'd:** CA **Date:** 12/12/18

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Appendix 2

Land Parcels/Aerial View Overlay Plan



Legend
[Red outline] Land Parcel

Carter Jonas Mayfield House, 256 Banbury Rd
Oxford OX2 7DE T: 01865 511444
carterjonas.co.uk

Client: **Abergelli Power Limited**
Project: **Abergelli Power Limited**

Title: **Land Parcels Plan**

Scale: 1:5000 @A2 Date: 15 December 2017
Drawn by: RBC Dwg no: **J0008302-17-14**

Appendix 3

The Applicant's Note on the Mine Shaft Investigation

Project:	Abergelli Power Project	Job No:	60580051
Subject:	Mine Shaft Investigation and Updated Habitat Assessment		
Prepared by:	Richard Knott/ Ursula Jones	Date:	19th December 2018
Checked by:	Natalie Williams	Date:	19th December 2018
Approved by:	Catherine Anderson	Date:	19th December 2018

1 Introduction

This technical note was prepared to report findings of a site walkover to investigate a potential mine shaft within an area of Ancient Woodland south east of the Substation and north of the Access Road. The site walkover was attended by a Mining Geologist and an Ecologist on the 12th March 2018.

The aim of the walkover was to:

- Locate the shaft in a manner which was compliant with the health and safety protocols implemented by the staff undertaking the walkover, and, if possible, determine its status/condition;
- Assess the potential for bat habitat within the shaft; and
- Undertake an ecological survey within the woodland to support the Preliminary Ecological Appraisal (PEA) (Environmental Statements (ES) Appendix 8.1, [APP-036]) as access was not possible at that time.

2 Background Information

Background reference information¹ was reviewed to establish the recorded location of the shaft in respect of likely remaining visual reference points on the ground. The Mine Abandonment Plan (Figure 1, also presented as ES Figure 10.2 [APP-042] for the Project Site) shows the shaft marked as a “Trial Pit depth 57/6” (interpreted as 57’ 6”, 17.5m deep). The plan indicates that the trial shaft is isolated from other underground workings to the north and north east. The depth of coal seam data for the nearby workings is not fully legible, but suggests that the worked coal seam was at circa 10060’ AMD (feet above mine datum), which is approximately 18-20mAOD (above ordnance datum), or circa 70m below the ≈90mAOD ground surface. Based on this information, the 17.5m deep trial shaft would not have intersected the locally worked coal seam. The Mine Abandonment Plan also shows the outline of surface map features, including track and field boundaries.

The plan reference and grid reference data were used to plot the recorded shaft position onto topographic maps and aerial imagery (See Figure 2).

3 Site Walkover

3.1 Geological Evaluation

Specific visual reference points used for the walkover included the fallen tree (visible on aerial imagery) and the historic field boundaries (visible on the ground as stone hedge lines). The recorded position was noted to be within a triangular shaped hedge line intersection to the east of a fallen tree, that was visible on aerial imagery and on the ground (51° 41’ 22.36”N, 3° 57’ 17.57”W). This area was safely

¹ Background information reviewed included Non Residential Coal Authority Mining Report Ref.: 51000592880001, 2014; Coal Authority Bryn Whillach Mine Abandonment Plan No. 2171 (Environmental Statement Figure 10.2), historic Ordnance Survey mapping (from Envirocheck data report) and date stamped Google Earth Pro aerial photography imagery.

accessed using the top of the stone hedges (which would pre-date the shaft) and the area of the recorded shaft position was visually inspected.

No visual evidence was noted to suggest that an open shaft remains at this location (although the shaft may have been decked / capped / plugged at surface and then obscured with leaf debris, so may still represent a physical hazard). There was no evidence of extensive spoil mounds associated with shaft excavation, although some hummocky ground and blocky cobble sized material was evident on the surrounding woodland floor. This might indicate that the shaft was excavated in this location and then backfilled with the arisings, although the Coal Authority mining records reviewed do not substantiate this².

No open mine entry was observed, and so it is concluded that any entry has been backfilled, blocked or otherwise covered at surface. A physical hazard should be assumed to remain in this area unless proven otherwise, and it is proposed to investigate and delineate this further as part of the site investigation to be undertaken under Requirement 14. The general surrounding area was also visually inspected, within the constraints of safe access and visibility through the ground cover vegetation. No evidence of any other open shaft was observed, but again, the potential presence of a shaft at another location within the woodland cannot be ruled out.

3.2 Ecological Appraisal

Table 1 below sets out the survey timeline for the Ancient woodland and described when access was not available and outlines consultation that modified the Access Route to avoid the Ancient Woodland.

Table 1. Survey Timeline for Ancient Woodland

Milestone	Date	Description
PEA undertaken (ES Appendix 8.1, [APP-036])	May 2017	Full Phase 1 Habitat Survey of the Project Site with Habitat Map (ES Appendix 8.1, [APP-036]). The PEA provided a baseline for the Environmental Impact Assessment, and recommended further protected species surveys. Access to the area of woodland was not available to due Health and Safety concerns related to the unknown location of the mine shaft.
Access Road Revised Option B	February 2018	During consultation with NRW and CCS on the Preliminary Environmental Impact Report (PEIR) (submitted in January 2018), a revised Option B was chosen as the preferred access route to avoid the Ancient Woodland.
Mine shaft Investigation	March 2018	Site walkover of the woodland area to the south east of the Substation to investigate mine shaft location provides an ecological appraisal.

The woodland was not accessed during the PEA undertaken in May 2017 (ES Appendix 8.1, [APP-036]), although it was possible to identify some woody species from the edge. Due to the following points, the area of unclassified woodland was given a precautionary assessment as high value within the ES:

- The proximity of the Ancient Woodland;
- The connectivity between the unclassified area and the area of Ancient Woodland;
- The similarities between the canopy species oak; and
- The presence of shrub species such as holly and rowan.

² Coal Authority viewer (<http://mapapps2.bgs.ac.uk/coalauthority/home.html>) Mine Entry Ref. 264200-001 indicates that this mine entry is a shaft, but records "Treatment Indicator: FALSE".

During the shaft investigation walkover, the woodland species and habitats identified were consistent with what was observed during the PEA (ES Appendix 8.1, [APP-036]) from the edge of the woodland. The canopy is largely comprised of large oak and ash coppice stores, with some younger species that have more recently established. There was presence of Ancient Woodland indicators including hard fern, bluebell and enchanter's nightshade, and the woodland is likely to retain a seed bank for other Ancient Woodland species. Therefore the conclusion provided in the PEA remained valid.

No open mine entry was observed that could provide shelter or hibernation space for bats, and any entry has been backfilled, blocked or otherwise covered at surface. Trees within the woodland would however have the potential to be suitable for supporting roosting bats (no assessment was made due to the avoidance of removal of trees from the woodland and lack of potential for disturbance) and provide important commuting routes across the Project Site.









The ecologist present confirmed that the precautionary assessment made within the PEA (ES Appendix 8.1, [APP-036]) was consistent with the findings on the site walkover as outlined above. The assessment of 'high value' within the ES therefore remains valid.

4 Summary

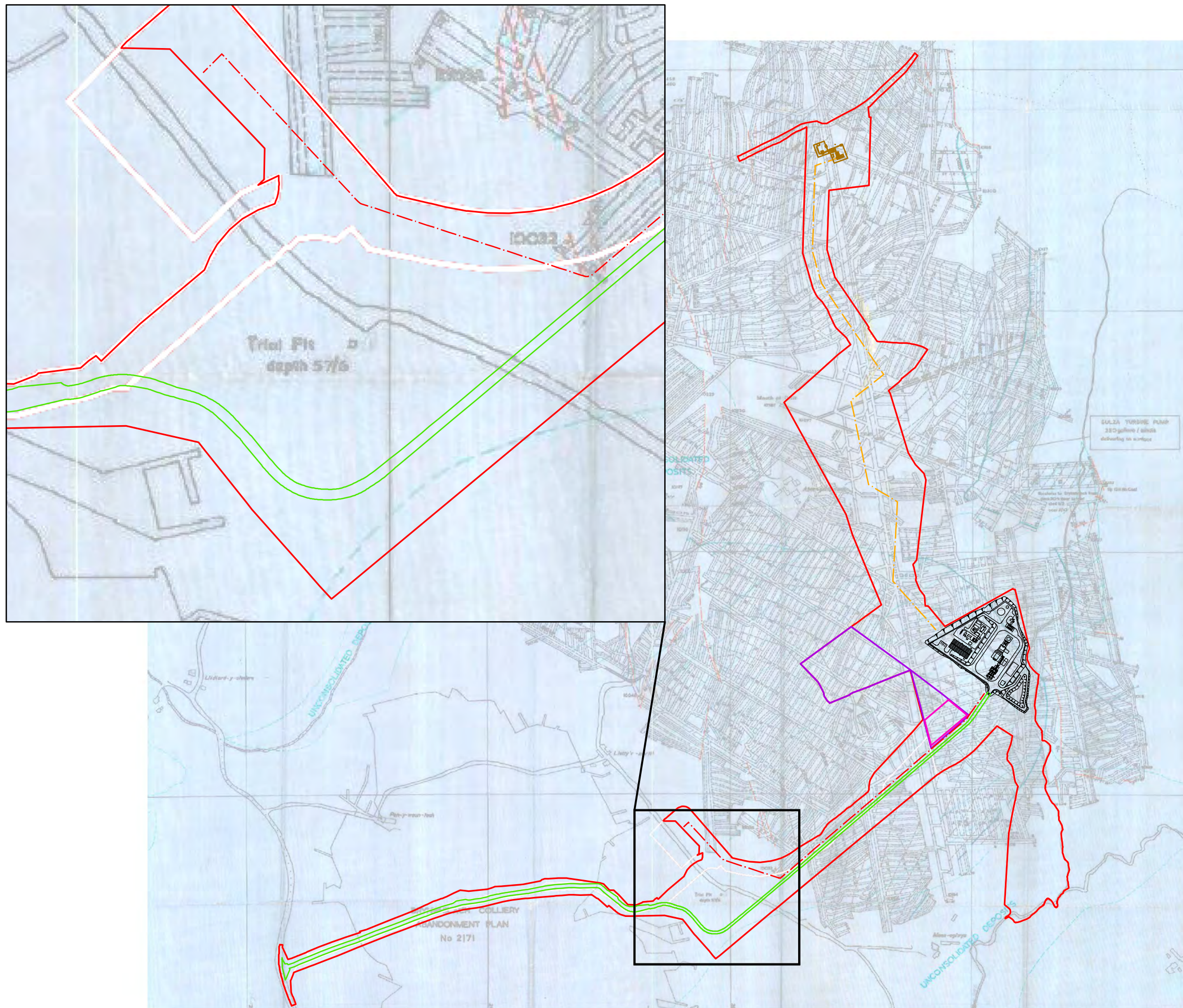
The location of the shaft was safety identified within the area of Ancient Woodland. No visual evidence was noted to suggest that an open shaft remains at this location, and any entry would have been backfilled, blocked or otherwise covered at surface. The shaft would therefore not provide shelter or hibernation space for bats.

The survey of the woodland to support that undertaken within the PEA (ES Appendix 8.1, [APP-036]) (when access was not possible) confirmed that the area should be given the same status as Ancient Woodland and has a 'high value' which is consistent with the ES.

Further Site Investigation will be undertaken in line with Requirement 14 to provide more detail on geotechnical and geological conditions along the New Section of Access Road, as well as the Project Site.

- LEGEND**
-  Generating Equipment Site
 -  Above Ground Installation (AGI)
 -  Access Road
 -  Electrical Connection (400kV Cable)
 -  Gas Connection
 -  Laydown
 -  Maintenance Compound
 -  Project Site Boundary

Note: Indicative Project Layout



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AECOM Internal Project No:
60542910





Drawing Title:
EXTRACT FROM MINE ABANDONMENT PLAN

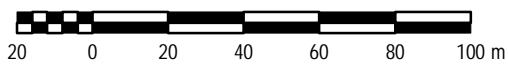
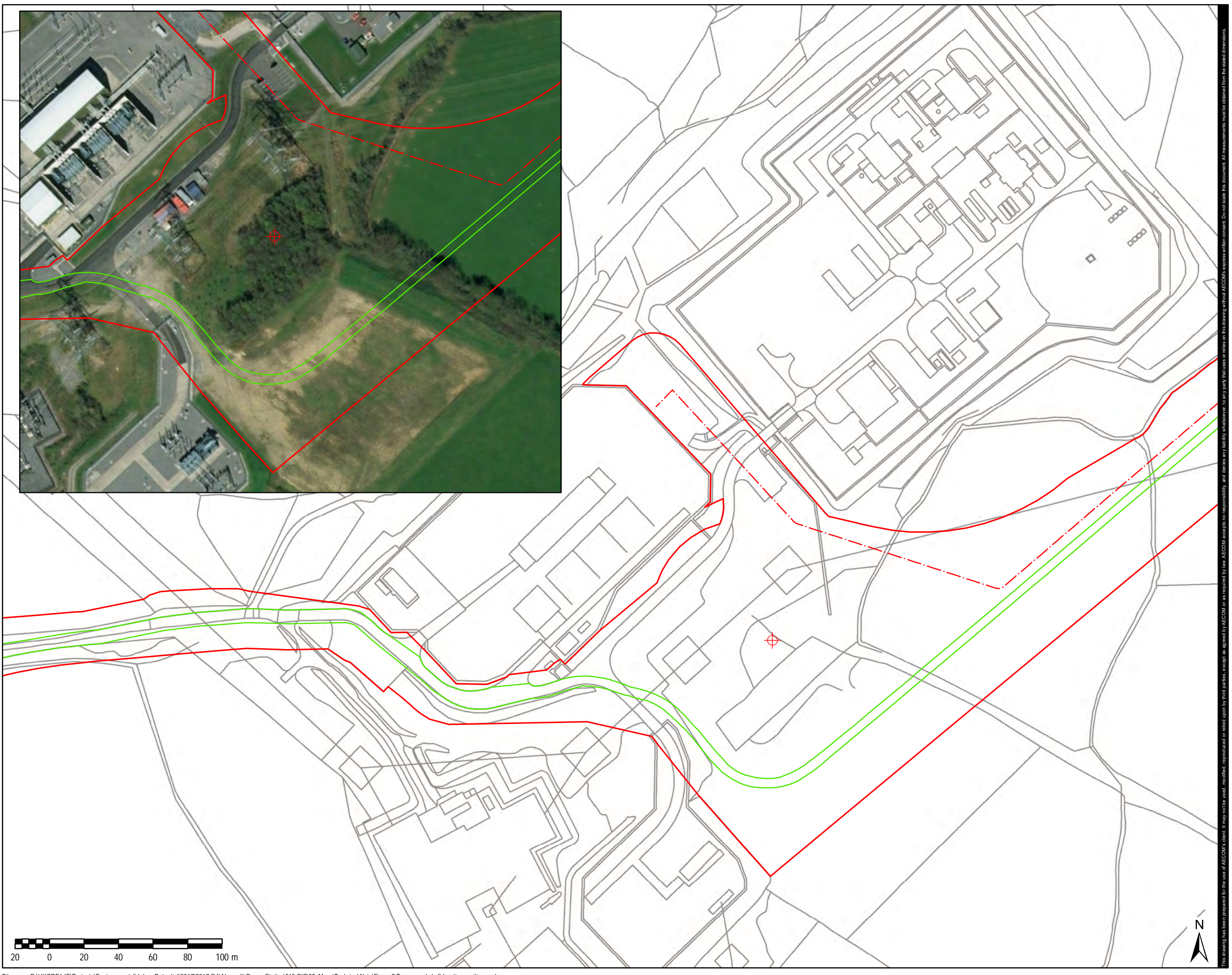
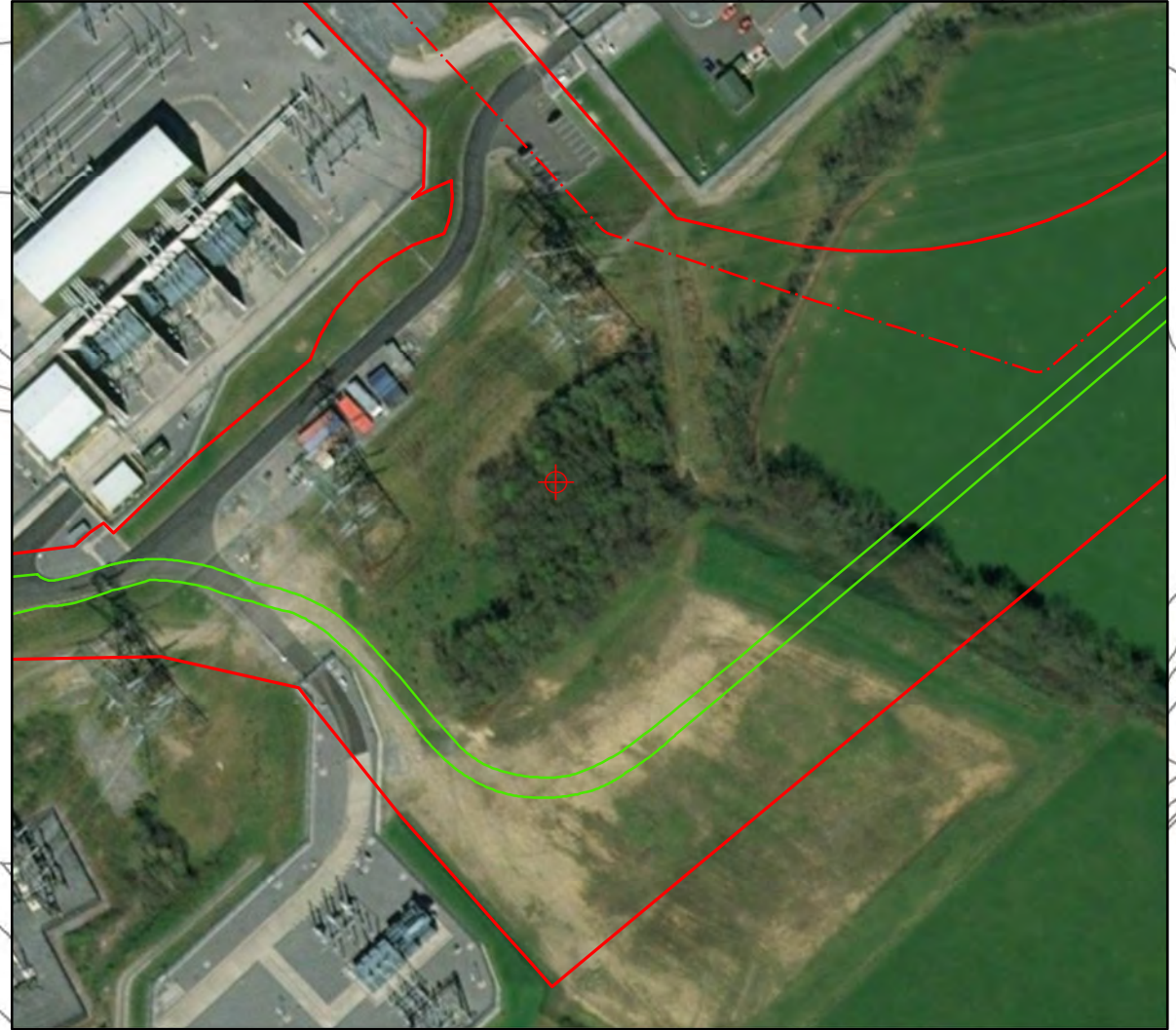
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Drawing No: FIGURE 1 **Rev:** 005

Drawn: GM **Chk'd:** CC **App'd:** CA **Date:** 18/12/18

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- LEGEND**
-  Project Site Boundary
 -  Disused mine shaft
 -  Access Road
 -  Electrical Connection (400kV Cable)



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AECOM Internal Project No:
60542910

Drawing Title:
TRANPOSED SHAFT
LOCATION POSITION,
SHOWN ON
TOPOGRAPHIC MAPPING
AND AERIAL IMAGERY

Scale at A3: 1:2,000
Drawing No: FIGURE 2
Rev: 005
Drawn: GM **Chk'd:** CC **App'd:** CA **Date:** 18/12/18

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Appendix 4

**Table showing extent of land affected by proposed
CA powers owned by Wynne Watkins, Redisplay
Limited and Michael Edwards**

Appendix 4

Affected land ownerships: Michael Edwards and Wynne Watkins

Landowner: Michael Edwards - please see the attached land parcels plan which shows the freehold registered title, the application site boundary, the plots of land within the ownership of Mr Edwards which are included on the Land Plans and listed in the Book of Reference, and the indicative final access road layout and indicative route of the electrical cable to show the intended final permanent land affected (subject to detailed design and micro siting).		
Extent of freehold land ownership:	Areas shown on the Land Plans:	Anticipated permanent land take:
Title number CYM102724 Absolute Freehold - Maese glwys Farm, Pantlasau, Morryston, Swansea (SA6 6NR) Total area of landholding: 64.64 acres	Yellow land (temporary): Plot numbers 13A and 13B 1.26 acres (1.95%) Blue land (acquisition of rights): Plot numbers 13, 14 and 15 8.01 acres (12.39%) <i>[Note – Mr Edwards has been listed in the book of reference in respect of a reputed interest in plots 17, 17A and 17B. These are not part of registered title CYM102724, and lie outside of the boundary fences for the areas currently used for grazing. This land is not included in the figures above. The total area of plots 17, 17A and 17B is 0.12 acres.]</i>	16m (combined access road and electrical cable) ¹ : 1.8 acres (2.78%) 6m electrical cable easement ² : 0.71 acres (1.098%) 9m access road easement ³ : 0.93 acres (1.44%)

¹ This is for the section of route where the access road and electrical cable follow the same route. Please see the land parcel plan for the indicative routes.

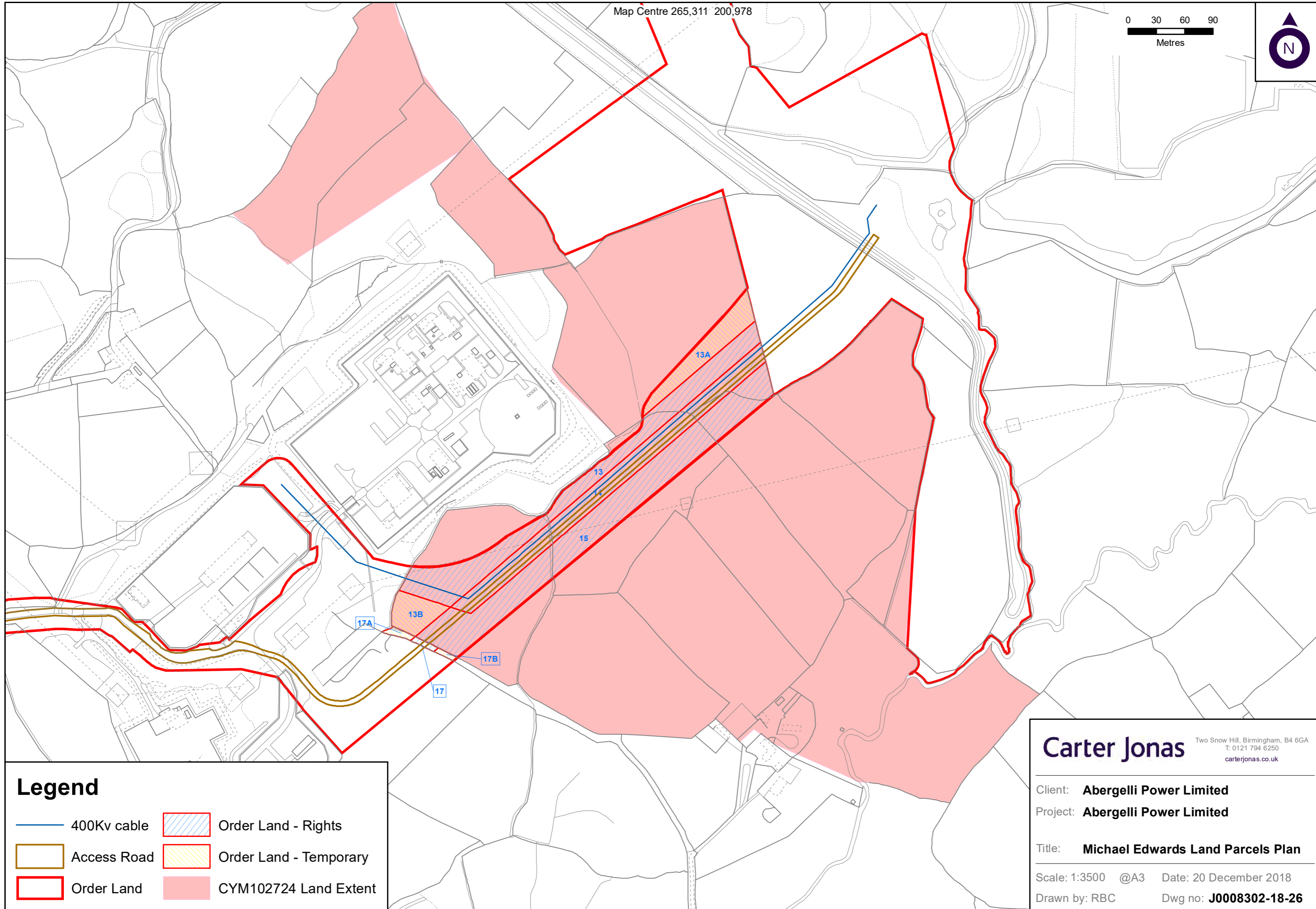
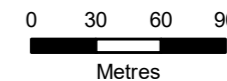
² This is for the section of route where the electrical cable runs in to the National Grid substation, where its route deviates from the access road. Please see the land parcel plan for indicative electrical cable route.

³ This is for the section of route where the access road continues past the point where the electrical cable route deviates to enter the National Grid substation. Please see the land parcel plan for indicative access road route.


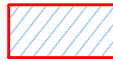




Landowner: Wynne Watkins – please see the attached land parcels plan which shows the freehold registered title, the application site boundary, the plots of land within the ownership of Mr Watkins which are included on the Land Plans and listed in the Book of Reference, and the indicative final access road layout to show the intended final permanent land affected (subject to detailed design and micro siting).

Extent of freehold land ownership:	Areas shown on the Land Plans:	Anticipated permanent land take:
<p>Title number: WA277102</p> <p>Absolute Freehold - Bryn Whilach Farm, Velindre, Llangyfelach, Swansea (SA5 7PE)</p> <p>Total area of landholding: 72.23 acres</p>	<p>Yellow land (temporary): Plot numbers 18A and 18B</p> <p>1.53 acres (2.12%)</p> <p>Blue land (acquisition of rights): Plot numbers 18, 21 and 24</p> <p>1.33 acres (1.84%)</p>	<p>9m access road easement:</p> <p>0.28 acres (0.39%)</p>

Map Centre 265,311 200,978



Legend

 400Kv cable	 Order Land - Rights
 Access Road	 Order Land - Temporary
 Order Land	 CYM102724 Land Extent

Carter Jonas Two Snow Hill, Birmingham, B4 6GA
T: 0121 794 6250
carterjonas.co.uk

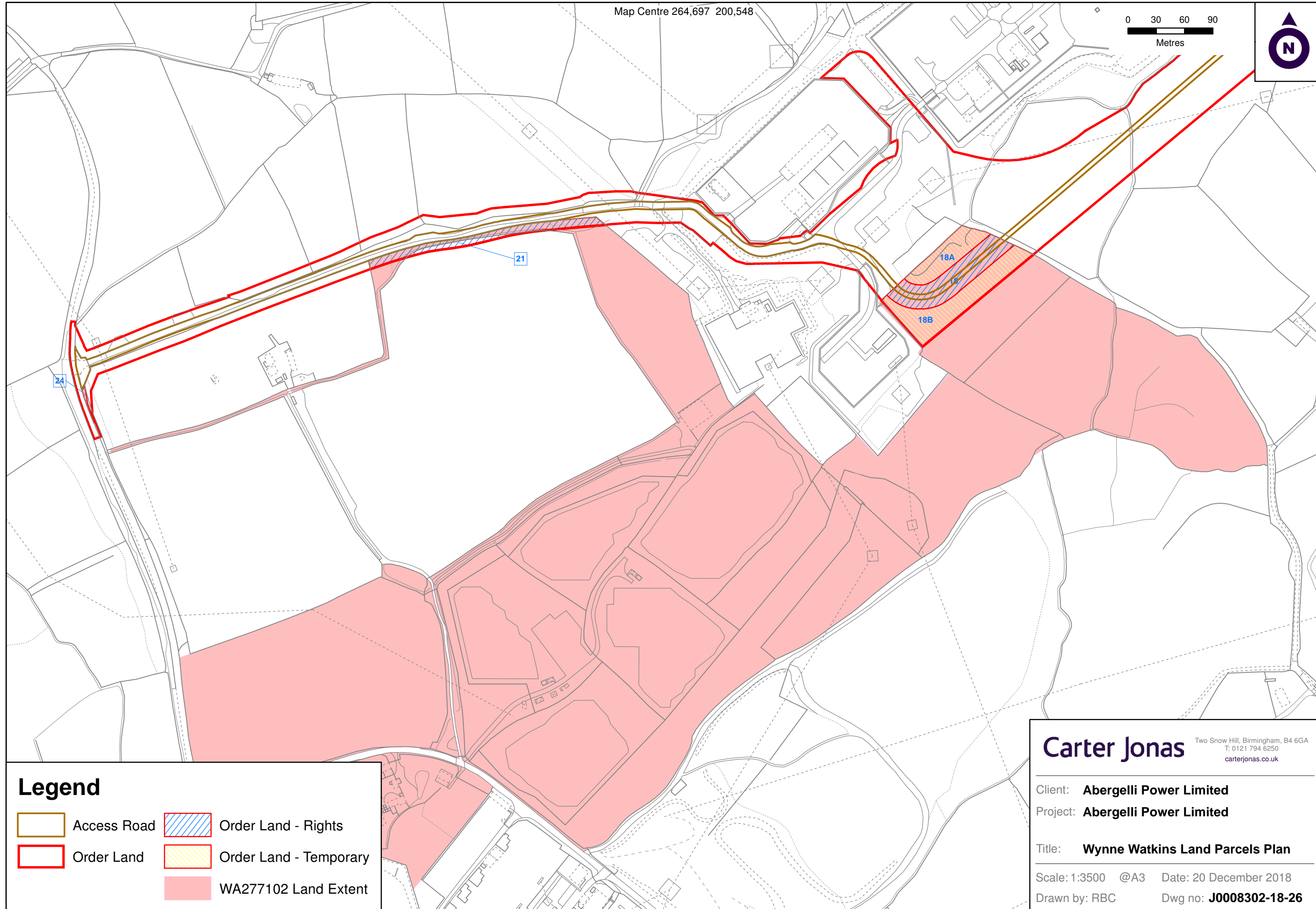
Client: **Abergelli Power Limited**
Project: **Abergelli Power Limited**

Title: **Michael Edwards Land Parcels Plan**



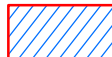


Scale: 1:3500 @A3 Date: 20 December 2018
Drawn by: RBC Dwg no: **J0008302-18-26**

Map Centre 264,697 200,548

0 30 60 90
Metres



Legend

-  Access Road
-  Order Land
-  Order Land - Rights
-  Order Land - Temporary
-  WA277102 Land Extent

Carter Jonas

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Client: **Abergelli Power Limited**

Project: **Abergelli Power Limited**

Title: **Wynne Watkins Land Parcels Plan**

Scale: 1:3500 @A3 Date: 20 December 2018

Drawn by: RBC Dwg no: **J0008302-18-26**

Appendix 5

The Applicant's access note commenting on each of the access options considered and setting out the utility interfaces

Abergelli Power Limited

Deadline 3 – note on access options

1. Introduction

- 1.1 This note summarises the factors considered by the Applicant in determining its preferred site access option, and responds briefly to the options raised on behalf of Mr Wynne Watkins, Redisplay Limited and Mr Michael Edwards during the Compulsory Acquisition Hearing held on Wednesday 12 December 2018.
- 1.2 Figure 1 (attached as Appendix 1 to this note) shows each of the Access Options discussed below.
- 1.3 Reference is also made in this note to the Utility Plan (Environmental Statement Figure 3.5) and to the image showing an aerial view with overlaid land ownership boundaries (attached as Appendix 2 to the Applicant's written summary of oral submissions for the Compulsory Acquisition Hearing held on 12 December 2018).
- 1.4 As noted at the Compulsory Acquisition Hearing, the Applicant requires access to the Generating Equipment Site to be suitable for the construction, operation and decommissioning stages of the Project. The access therefore needs to be permanently available for the lifetime of the Project, and be able to accommodate the likely traffic which in summary will include Abnormal Indivisible Loads (AIL) (during construction and operational maintenance), Heavy Goods Vehicles (HGV) (daily during construction, monthly during operation, and daily during decommissioning as well as for emergency situations e.g. in the event that the gas turbine or 400kV transformer need replacing due to a technical fault) and light vehicles (daily during construction, operation and decommissioning).
- 1.5 The Applicant acknowledges that it is technically feasible to have separate HGV and AIL routes, however, such an approach has been discounted in the route selection process considering technical, environmental and other practical considerations throughout the construction, operation and maintenance, and decommissioning stages of the project. The Applicant concluded that the revised Option B route (described as "Option 2B2" in this note) would provide an optimal technical solution for AIL movements, minimising environmental impacts, and provide a pragmatic route considering utilities and their protection, such a route would be equally effective for HGVs. The Applicant has decided to install a permanent bridge, crossing the disused oil pipeline and 1.7 metre diameter water main, thus avoiding the need for a suitable temporary bridge to be installed at short notice if a large item of equipment needs to be removed from the Generating Equipment Site during the operations phase.

2. Feasibility – prior to 2014 statutory consultation

- 2.1 Prior to statutory consultation in 2014, the Applicant considered a number of site access options in order to determine which options were the most realistic and feasible to take forward to public consultation.
- 2.2 The routes were considered on the basis of the scheme design at the time, which was for up to 5 generating units on the site. The design of the Generating Equipment determines the size and number of vehicles estimated to be required for construction, including HGV traffic AILs. The options studied at PEIR in 2014 and taken forward to statutory consultation are outlined below.

3. **Option 1 (2014)**

3.1 Option 1 was presented during statutory consultation by the Applicant in 2014, and information on Option 1 was presented as part of the PEIR which accompanied statutory consultation.

Overview/Description of Route
<p>This route follows Pant-lasau Road and Rhyd-y-pandy Road, entering the Project Site from the north. The existing access road west of Brynheulog past Abergelli Farm would need to be extended to the Generating Equipment Site, as shown between the points D and C on Figure 5.1 of the Environmental Statement. This option involved widening of the existing gravel track to 6 m and localised upgrades along the Rhyd-y-pandy Road. The track crosses the National Gas Transmission System. It runs parallel to the Welsh Water high pressure water main but does not cross it.</p> <p>It shares part of its route with the final section of the purple routes (described below).</p>
Physical Constraints
<p>Identified utility interfaces: Access Option 1 runs parallel to Welsh Water main and the decommissioned oil pipeline. In order to widen the access track to 6m adjacent to the Welsh Water main, this will require significant reinforcing works in close proximity to the water main, which may not be possible given Welsh Water's concerns about the water main. Crossing of National Transmission System high pressure gas pipelines is also required.</p> <p>Other physical constraints: As well as the impact on third parties highlighted in the swept path analysis (due to tight turns and narrow roads), the maximum gradients and rapid change in gradient would require further re-profiling of road surfaces and the possible reconstruction of the bridge over the Afon Llan due to weight restrictions and width limitations. The need for multiple motive power units to allow AILs to overcome the gradients only exacerbates the problems with length and turning radii.</p> <p>Swept Path analysis/constraints – Swept path analysis has been carried out for the single Gas Turbine (GT) option. The 5 GT option has the same width, but would typically be accomplished with only the 14.0m trailer (106te GT, 12.4m long). The Applicant emphasises that the width issues were present in 2014 and that the change to the single GT has only exacerbated the existing difficulties with the turning radius.</p> <p>When reviewing potential routes for construction traffic as part of the revised Project design and specification in 2017 (and as outlined in Chapter 5 of the Environmental Statement), Option 1 was deemed unsuitable. To demonstrate that the route is unsuitable, swept path analysis (or vehicle 'tracking') has been undertaken along key sections of the route using the largest vehicle travelling to the Project Site (i.e. an AIL measuring 37.1m length x 5.0m width). An overview plan showing the locations of analysis and the associated tracking drawings are contained in Appendix 2 to this note. The analysis has focused on the sections of the route identified as having the potential to create particular constraints for vehicle manoeuvring, i.e. junctions, reduced carriageway width, tight bends, etc). These show that the extent of the carriageway at all the assessed locations is insufficient to accommodate the AIL.</p> <p>In regard to the section labelled 'Location B', it was identified that this has particular constraints in terms of topography and gradient; as such, it would require a double tractor unit arrangement towing the AIL. This double tractor vehicular arrangement would measure 47.510m length x 5.0m width, which evidently exceeds the scale of the vehicle that has been simulated as part of this assessment, and therefore it is reasonable to conclude that the route is also unsuitable for this longer and wider vehicle type.</p>

Environmental Impacts

The use of Option 1 was discounted on the basis of a longer route to the Project Site, increased adverse impacts to the roads leading to the Murrison Hospital, and would also require a number of improvements, upgrades and construction works specifically related to the construction of a new access road where the route passes Abergelli Farm towards the Project site.

Where Option 1 travels through Pant-lasau, Rhyd-y-pandy and other smaller hamlets, the potential for increased severance, delay and intimidation to other road users would have increased in addition to potential for increased noise, vibration and dust issues. AILs using this route would have also required additional area for clear movement along the route, which would have resulted in structures being reinforced and trees, hedgerows and habitats being removed.

Consultation Feedback

At the outset of the pre-application consultation phase of the Project, the Applicant engaged in a series of statutory consultation activities with CCS, PINS, prescribed consultees, locally elected representatives, interested parties and the local community during Phase 1 consultation. As outlined in paragraph 10.3.9 of the Consultation Report (APP-059), both s47 and s42(1)(d) respondents raised a number of concerns with regard to the route options for the Project, and in particular the proposed use of Option 1 (via Pant-lasau and Rhyd-y-pandy Road).

Figure 7-9 in paragraph 7.4.11 of the Consultation Report (APP-059) presents the number of 2014 Phase 1 s47 consultation responses received in respect of each topic theme including Transport, for which a total of 11 comments were received. Five out of these 11 comments relate to route options in particular and two of these comments specifically refer to interruption of the access route to Murrison Hospital. One of these comments states that the main road to Murrison Hospital is extremely busy as the only A&E unit in use in Swansea is located there, and that Option 1 (via Pant-lasau and Rhyd-y-pandy Road) is "*surely a recipe for disaster*". The remaining three comments state that they disagree with the route option but do not specify which route option they are referring to. A complete list of the consultation responses received during Phase 1 statutory s47 consultation, together with the Applicant's response, is provided in Consultation Report Appendix 6.B (APP-065).

Regarding the 2014 statutory s42 consultation, paragraph 7.2.10 of the Consultation Report (APP-059) reports a meeting held between the Applicant and Welsh Water on 08 October 2014 to discuss potable/service water pipeline protection. Meeting minutes, contained in Consultation Report Appendix 2.D.VIII (APP-068) note that in Welsh Water's view of the two routes being proposed, Option 1 (via Pant-lasau and Rhyd-y-pandy Road) would cause more disruption to its activities and operations. Natural Resources Wales (NRW) had concerns with both route options, stating that Option 1 would result in some habitat loss to Sites of Importance for Nature Conservation (SINC) and Option 2 would result in the permanent loss of Ancient Woodland. A complete list of the consultation responses received during Phase 1 statutory s42 consultation, together with APL's response, is provided in Consultation Report Appendix 6.D (APP-065).

In addition to the issues with the AILs, the road through Rhyd-y-pandy is not suitable for the volume and type of HGV required for construction; for example the houses are close to the road, the road surface is uneven and there will be vibration issues. It is appropriate that the Applicant placed significant weight on the need to avoid impacts here and on the views of the residents.

4. Option 2 (2014)

Overview/Description of Route
<p>The Option 2 route to the Project Site is shown in orange in Figure 1 (Access Route Options) in Appendix 3, labelled as '2014 Option 2 to site'.</p> <p>Option 2 utilises an existing AIL route from the west via the B4489, along the access road to the Substation and Felindre Gas Compressor Station, which will require minimal works to accommodate the abnormal loads required during construction, and then along a new section of purpose built access road to be constructed across undeveloped land to the Generating Equipment Site as shown between the points A and B on Figure 5.1 of the Environmental Statement.</p>
Physical Constraints
<p>Identified utility interfaces: The purpose built extension from the existing access road to the Generating Equipment Site will cross under two 400 kV overhead electrical lines, over two watercourses, over a disused oil pipeline and over a 1.7m diameter Welsh Water main.</p> <p>Other physical constraints: The gradients between the M4 junction 46 and National Grid site are suitable for use by AILs with shallow gradients and slow rate of rise; the road widths are suitable for the size of AIL proposed. The new section of access road between the National Grid site and the Applicant's power plant site will require additional motive power units due to the relatively steep gradients involved, but the road can be specifically designed for this requirement. A bridge will be required in order to carry the access road over the oil and water pipelines and both temporary and permanent structures have been assessed.</p> <p>Swept Path analysis/constraints: A swept path analysis has shown that with the change in the size of the AIL, work will be required to the corner where the existing National Grid Access road joins the B4489.</p>
Environmental Impacts
<p>The use of Option 2 is a significantly shorter route compared to Option 1, avoids multiple villages and hamlets and does not require any additional land take or habitat loss due to the use of the existing road network by an AIL. The only effects relate to:</p> <ul style="list-style-type: none">• Negligible effect on land use (based on agricultural land classification category 4¹).• The removal of two trees along the existing National Grid Access track (mitigated by the Landscape and Ecological Mitigation Strategy (LEMS) and the Ecological Mitigation Area (EMA)).
Consultation Feedback
<p>At the outset of the pre-application consultation phase of the Project, the Applicant engaged in a series of statutory consultation activities with CCS, PINS, prescribed consultees, locally elected representatives, interested parties and the local community during Phase 1 consultation.</p> <p>Figure 7-9 in paragraph 7.4.11 of the Consultation Report (APP-059) presents the number of 2014 Phase 1 s47 consultation responses received in respect of each topic theme including Transport, for which a total of 11 comments were received. Five out of these 11 comments relate to route options in particular and two of these comments specifically refer to interruption of the access route to Morryston Hospital. One of these comments states that the main road to Morryston Hospital is extremely busy as the only A&E unit in use in Swansea is located there,</p>

¹ At the time of the assessment and consultation in 2014 the land was listed as category 4. Please see clarification notes in the Applicant's Written Summary of Oral Submissions at the Compulsory Acquisition Hearing held on 12 December 2018 for a summary of the current position on agricultural land classification.

and that Option 1 (via Pant-lasau and Rhyd-y-pandy Road) is “*surely a recipe for disaster*”. The remaining three comments state that they disagree with the route option but do not specify which route option they are referring to. A complete list of the consultation responses received during Phase 1 statutory s47 consultation, together with the Applicant's response, is provided in Consultation Report Appendix 6.B (APP-065).

Regarding the 2014 statutory s42 consultation, paragraph 7.2.10 of the Consultation Report (APP-059) reports a meeting held between the Applicant and Welsh Water on 08 October 2014 to discuss potable/service water pipeline protection. Meeting minutes, contained in Consultation Report Appendix 2.D.VIII (APP-068) note that in Welsh Water's view of the two routes being proposed, Option 2 was considered by Welsh Water to be less disruptive to its activities and operations.

Natural Resources Wales (NRW) had concerns with both route options - Option 2 would result in the permanent loss of Ancient Woodland. A complete list of the consultation responses received during Phase 1 statutory s42 consultation, together with APL's response, is provided in Consultation Report Appendix 6.D (APP-065).

5. **Project decision to proceed with Option 2 (2015)**
- 5.1 Paragraph 7.5.5 of the Consultation Report (APP-059) states that in January 2015, the Applicant's project team posted an information update letter (Appendix 5.C.II, APP-065) to all statutory s42 consultees confirming that the Option 2 access route was being taken forward for inclusion in the Development Consent Order (DCO) application and inviting consultees to provide comments. No significant concerns were raised in response to this information update. A summary of the responses is set out in Appendix 6.E (APP-065). A list of the statutory consultees who received this information update is in Appendix 5.C I (APP-065). The list includes Michael Edwards, Wynne Watkins and Redisplay Limited.
6. **Review of options on project restart and redesign from 2014 scheme with up to 5 units to a single unit.**
- 6.1 Following a pause to the Project, design work recommenced and a decision was taken to change the Project design from a configuration including up to 5 units, to a single unit. The Applicant considered the differences in vehicle types and numbers that would be required for construction, operation and maintenance of the revised design for the generating equipment. The Applicant confirmed that its decision to prefer Option 2 remained correct. Further design and assessment work was undertaken.
- 6.2 During Phase 2 statutory consultation, two variants of Option 2 were proposed for the purpose built new section of the Access Road from the Substation to the Generating Equipment Site. These variants were described in the 2018 consultation as "Option A" and "Option B". In this note, they are referred to as Option 2A and Option 2B1.

7. **Access Option 2: Variant A (2018 statutory consultation) – this is the same as Option 2 from the 2014 PEIR and is referred to in this note as Option 2A.**

<p>Overview/Description of Route</p>
<p>The early consideration for the continuation of the route from the National Grid site to the Applicant is shown in pink, labelled as '2018 Option 2A new section of access track'.</p> <p>The route is unchanged from 2014 consultation, but the size of the AILs has changed and the longer AILs will require work to the corner where the existing National Grid access road joins the B4489</p>
<p>Physical Constraints</p>
<p>There are no additional constraints, the larger loads are likely to require additional motive power units, but the widths and turning radii are adequate and the new road section can be designed specifically for the braking units needed on the gradient.</p> <p>The decision has been taken to pursue a permanent bridge for the crossing of the oil pipeline and water main as this will ensure that there are no delays at any point during the operational period if an AIL movement is required, as opposed to having to arrange for and erect a temporary structure if a temporary one was used for construction AIL movements. The use of a permanent structure allows for significantly reduced visual impact compared to any kind of temporary structure.</p>
<p>Environmental Impacts</p>
<p>Option 2A avoids the majority of the Ancient Woodland area adjacent to the Substation and Felindre Gas Compressor Station but it would sever a row of trees aligned to the Ancient Woodland and is also known to be bat habitat. It would also require a greater level of cut and fill due to the angle through the embankment.</p>
<p>Consultation Feedback</p>
<p>Paragraphs 9.4.3 to 9.4.25 of the Applicant's Consultation Report provide details of the statutory s47 consultation carried out in 2018. The Consultation Report records that respondents expressed concerns over traffic impacts as a result of the Project. Paragraph 9.4.12 of the Consultation Report (APP-059) states that several respondents to the 2018 statutory s47 consultation expressed concern that additional traffic generated by the Project will have an adverse impact on the local highway network, nearby settlements and Morrision Hospital (Appendix 11.A of the Consultation Report Appendices, APP-061). The traffic and transport assessment detailed in Chapter 12 of the 2018 PEIR included an assessment of the effects on Junction 46 of the M4 and the proposed route to the Project Site along the B4489 and concluded that effects on the junction during construction would be temporary and not significant.</p>

8. **Access Option 2: Variant B (2018 statutory consultation) (referred to in this note as "Option 2B1")**

Option 2B1 was presented in the 2018 statutory consultation as a variant of Option 2 (consulted on in 2014).

Overview/Description of Route
<p>The 2018 Option 2B1 new section of access track is shown coloured light blue on the plan in Appendix 1.</p> <p>The route from the M4 junction 46 to the National Grid site is identical to Option 2A, except that the route turns South East following the access road to a lower voltage sub-station before heading East and then North East towards the Applicant's site.</p>
Physical Constraints
<p>The route was selected as an option because it minimised the interaction with National Grid operations by shortening the shared access, it has advantages in that the road can be designed to have a more consistent slope with shallower gradient compared to Option 2A. The route passes under an additional 400kV overhead electrical line, but the necessary clearances can be maintained.</p>
Environmental Impacts
<p>Reduced level of cut and fill are required to create the new section of Access Road. This is due to the fact that the embankment that borders the southwestern edge of the Substation and Felindre Gas Compressor Station has a lesser gradient at the point where the new section of Option 2B begins.</p> <p>Avoids greater proportion of Ancient Woodland than Option 2A but would still require the removal of some Ancient Woodland.</p>
Consultation Feedback
<p>Paragraphs 9.4.3 to 9.4.25 provide details of the statutory s47 consultation and state that respondents expressed concerns over traffic impacts as a result of the Project. Paragraph 9.4.12 of the Consultation Report (APP-059) states that several respondents to the 2018 statutory s47 consultation expressed concern that additional traffic generated by the Project will have an adverse impact on the local highway network, nearby settlements and Murrumbidgee Hospital (Appendix 11.A of the Consultation Report Appendices, APP-061). The traffic and transport assessment detailed in Chapter 12 of the 2018 PEIR included an assessment of the effects on Junction 46 of the M4 and the proposed route to the Project Site along the B4489 and concluded that effects on the junction during construction would be temporary and not significant. One comment agreed with the Project's proposed transport route (Route Option B) and was pleased that the Rhyd-y-pandy Road route was not to be used (see Consultation Report Appendix 11.A, APP-061).</p>

9. **Revised Option 2: Variant B2 – Application version (2018) (referred to in this note as "Option 2B2")**

Overview/Description of Route
<p>This route is shown in green in the plan attached at Appendix 1.</p> <p>Option 2B2, slightly revised from its presentation in the 2018 PEIR, has been selected for the Project. The final route begins before the Substation and extends south before running east towards the Generating Equipment Site. The route of Option 2B1 has been amended to avoid an area of Ancient Woodland. This would also avoid an element of cut and fill, although some excavation is still likely.</p> <p>Construction traffic associated with the AGI will follow the same routeing arrangements, but will continue north along the B4489 and then east along Rhyd-y-pandy Road.</p>
Physical Constraints
<p>The reduction in angle on the approach meant that there was a greater clearance factor between the potential Option 2A embankment approach and the overhead lines it would have to pass under.</p> <p>There are no additional physical constraints.</p>
Environmental Impacts
<p>Option 2B2 further reduced the level of cut and fill required to create the new section of Access Road. This is due to the fact that the embankment that borders the southwestern edge of the Substation and Felindre Gas Compressor Station has a lesser gradient at the point where the new section of Option 2B2 begins</p> <p>In addition, Option 2B2 avoids all the designated Ancient Woodland as opposed to Option 2A and Option 2B1, and allows for greater clearance from the Ancient Woodland including its roots and canopy.</p> <p>The impacts will be reduced compared to Options 2A or 2B1.</p>
Consultation Feedback – Relevant Representations
<p>Paragraph 10.3.11 notes that further to Phase 2 consultation, Option 2B1 (which starts west of the original spur at the car park adjacent to the Felindre Gas Compressor Station and extends southwards towards open fields) was chosen for the new section of the Access Road to take forward for the DCO Application. In response to feedback received from the statutory s42 consultees City and County of Swansea Council (CCS) and Natural Resources Wales (NRW) during Phase 2 statutory consultation, this route was subsequently revised from the route presented in the 2018 PEIR to curve further south thereby avoiding an area of Ancient Woodland. (Appendix 11.B.I, APP-061).</p>

10. **Alternatives raised by respondents at the Compulsory Acquisition Hearing on 12 December 2018**
- 10.1 Further to the Compulsory Acquisition (CA) hearings last week, other options have been suggested as alternatives. These alternative routes for HGV/AIL access can be considered as internal route and external route options as follows:
- 10.1.1 The internal route is referred to as the 'National Grid route' shown as the yellow route in Appendix 1 and extends from the existing National Grid access road.
- 10.1.2 The external routes that have been considered are the '2018 Alternative Routes' shown in purple in Appendix 1. The purple routes are shown accessing the local highway network at two separate locations but ultimately share a route at Abergelli Farm and using the Gallops.
- 10.2 This note now considers the three additional suggestions raised by the Respondents in the Compulsory Acquisition Hearing. For ease of review and to provide a visual reference, this note should be read in conjunction with the figures contained within Appendix 1 and Appendix 2 of this note. The descriptions of the routes that follow relate to that plan.

11. **Respondents' suggestion of route past National Grid compound boundary (referred to in this note as "Option 2C")**

Overview/Description of Route
<p>The route for Option 2C (shown in yellow on the plan in Appendix 1) follows that for option 2A, using National Grid owned access roads, except that where 2A drops away to the east when it reaches the National Grid staff car parking area, option 2C follows a gravel track around the National Grid Pressure Reduction Site (PRS) boundary fence before a steep downward gradient from the National Grid plateau and heading across the farmland, across the Gallops, and into the Generating Equipment Site.</p>
Physical Constraints
<p>The National Grid PRS site is located upon a built up, constructed plateau to create a level area within challenging gradients. This plateau extends beyond the foundations of the PRS compound to create a service strip and is then graded down to level using soil embankments within the designated Ancient Woodland. The structure of this area of the plateau is not likely to have been designed to take HGVs or AIL, and so the application of significant loading near the soil slopes may cause sheer collapse. The only certain method to ensure that this route would be suitable would be to excavate and construct an appropriate road surface. Given the nature of the National Grid PRS compound, this may cause security issues to the National Grid infrastructure and its foundations.</p> <p>Given the gradient of the existing slope, a retaining wall and significant cut and fill activity would be required to construct the access road: the existing access track around the fence line is designed for use by light vehicles only, in order to utilise this route for AILs, significant slope support works would be required, and large volumes of fill imported in order to construct the 6m wide access road. This is especially true where the fence line changes direction, the access road will necessarily have to "cut the corner" due to the length of the multi-wheel trailer and this will entail considerable earthworks. The fence line around which Option 2C passes encloses the flare stack for the PRS.</p> <p>The gravel track width is around the width of a light vehicle with some safety margin. There is no scope for widening this route to provide for two-way travel or pedestrian footway provision, without extending the plateau further. The track is of an insufficient width to accommodate both an AIL and maintain a safe level of clearance from National Grid infrastructure (this is a top tier COMAH site requiring an additional distance between vehicles and infrastructure). The platform would therefore have to be extended to a suitable width, which would require the removal of the designated Ancient Woodland. A mine adit has also been identified within this area and so an extensive amount of ground stabilisation may be required.</p> <p>The transfer from the National Grid level down to the field and onwards towards the Generating Equipment Site would need to be achieved through construction of an appropriate road ramp or similar. This would need to be engineered to suitable strength and gradient and connect to an onward road. There would be earthworks associated with this route and this could result in export or import of materials potentially in excess of the current option. The ramp towards the Generating Equipment Site would also need to consider the angle into the site to allow for AILs to travel appropriately, and also any crossing of the Water Main and decommissioned oil pipelines.</p> <p>Rather than run down the slope of the National Grid plateau, Option 2C projects the access road away from the plateau, requiring either a steeper gradient or a more substantial ramp than is required for Options 2A or 2B.</p> <p>The use of this route is subject to use of National Grid property, specifically an unmade service strip. There are uncertainties around the structural ability of the plateau to carry HGV and AIL loads and whether there could be damage to existing infrastructure. The route would need to be excavated and reconstructed to provide certainty, and the Applicant considers this is unlikely to</p>

be agreed by National Grid, given the disruption and likely risk to foundations.

National Grid has an obligation to keep the gas network operating. This track is used solely for National Grid Gas operations. In the event of an emergency situation, National Grid Gas operational traffic would require unhindered access to this site. Given the construction timescales and increases in HGV traffic and AILs, National Grid Gas have advised the Applicant that the disruption to operations would be unacceptable.

The other constraints for Option 2C are the same as for Options 2A or 2B in terms of the need for a bridge to cross over the oil and water pipelines.

This route has therefore been discounted due to a high number of concerns as outlined above.

Environmental Impacts

There would need to be investigation in to the required safety distances from National Grid property, and additional width given to AILs which would require the removal of the designated Ancient Woodland habitat suitable for bats and commuting routes. The loss of Ancient Woodland would be significantly larger for Option 2C than Option 2A (which passes through the strip) or Option 2B2 which avoids the Ancient Woodland altogether (Option 2B2).

Option 2C would also result in the loss of landscape mitigation planting provided to screen the Felindre Gas Compressor Station.

Additional environmental mitigation would be required for loss of habitats, potentially requiring additional mitigation land elsewhere.

12. **Respondents' suggestion of use of farm access roads to the north of the existing National Grid Access Road (Referred to in this note as Option 3)**

Overview/Description of Route
<p>This route is shown in brown on the plan in Appendix 1. Continuing 350m past the National Grid access along the B4489, a farm access road is on the right just before the B4489 narrows to less than 5m. The farm access road passes by a number of residences before joining the Option 4 route at Abergelli Farm and following an alignment adjacent to the residential dwelling, private parking and garages, before joining the Option 1 route at the start of the Gallops (the farm track that runs parallel to the Welsh Water main).</p>
Physical Constraints
<p>The junction from the B4489 that serves Route 3 is narrow; a HGV and an AIL would not be able to manoeuvre into or out of the junction without widening works. The very close proximity to houses along the route would make it unsuitable for use by the number and type of HGVs needed for construction. The lane width provision is also very narrow and bordered by banks, mature hedging and trees. These would need to be removed along the route to ensure sufficient width. There are bends within the route that would not allow sufficient room for a HGV to manoeuvre. The quality of the existing carriageway is unknown and some parts may need to be rebuilt or widened to accommodate large vehicles.</p> <p>Routes 3 and 4 both have similar areas for concern in that there is no lighting and limited scope for marshalling along this route to prevent oncoming vehicles. The quality of the drainage system for these routes, if one exists, is unknown and it is unlikely that they have been designed to modern standards, creating a possible situation of flooding and collection of mud, silt and debris which would be a risk for a vehicle carrying heavy loads to negotiate.</p> <p>The section of route that both options 3 and 4 would use to arrive at the Gallops and the Project Site is along a residential private drive. This passes in front of a residential dwelling and private garages and would appear inappropriate for the types of heavy vehicles being considered.</p> <p>To provide certainty of a route which is capable of supporting the HGV and AIL vehicles, the existing tracks would have to be significantly upgraded, reconstructed and widened. The use of these routes is therefore considered more disruptive and subject to more risk of delays, severance and intimidation than the current option.</p> <p>When this route reaches the Gallops, the same issue as arises with Option 1 would exist, namely the need to construct retaining works in close proximity to the Welsh Water main in order to constrict the 6m wide access track. As such it may not be possible to use this section of track.</p>
Environmental Impacts
<p>The removal of trees and hedges would have ecological effects, and could mean additional environmental mitigation is required for the loss of habitats, potentially requiring additional land elsewhere.</p>

13. **Respondents' suggestion of use of haul roads to the north of the existing National Grid Access Road (Referred to in this note as Option 4)**

Overview/Description of Route
<p>This route is shown in purple on the plan in Appendix 1, and continues 800m past the National Grid access, along the B4489, past a left-hand junction and under the 400KV overhead lines before turning off south east and following a gravel track. The route crosses over three watercourses and through a number of fields before joining option 3 at Abergelli Farm and follow an alignment adjacent to the residential dwelling, private parking and garages before joining the option 1 route at the start of the Gallops.</p>
Physical Constraints
<p>To the north of the National Grid access, the B4489 becomes noticeably more rural and the width of the carriageway reduces. The route serves Felindre and rural properties and would be in use throughout any movement of heavy infrastructure. The road width is such that there would be little room for an AIL and any other vehicle, and there is a lack of passing places for vehicles travelling in the opposite direction.</p> <p>The width of the B4489 north of the Option 3 turn-off is less than 5m in places and the bend radii are unlikely to be suitable for the AIL movements, as such the road will need to be widened or re-aligned in a number of places.</p> <p>The track access from the B4489 is wider than Route 3 option described previously above, although it is constructed as a temporary surface using crushed aggregate. The route appears private and could not be surveyed but indications are that it is a temporary agricultural access which could be suitable for vehicles prepared for rural and off-road travel. The HGVs and AIL cannot be prepared for off-road travel and any areas which are not sufficiently stable to accommodate exceptional loads or areas of loose material all pose a risk of the vehicle becoming stuck, with little options available for recovery. They would therefore need to be upgraded to an appropriate surface.</p> <p>Routes 3 and 4 both have similar areas for concern in that there is no lighting and limited scope for marshalling along this route to prevent oncoming vehicles. The quality of the drainage system for these routes, if one exists, is unknown and it is unlikely that they have been designed to modern standards, creating a possible situation of flooding and collection of mud, silt and debris which would be a risk for a vehicle carrying heavy loads to negotiate.</p> <p>The section of route that both options 3 and 4 use to reach the Gallops and the Project Site is along a residential private drive. This passes in front of a residential dwelling and private garages and would appear inappropriate for the types of heavy vehicles being considered.</p> <p>To provide certainty of a route which is capable of supporting the HGV and AIL vehicles, the existing routes being proposed would have to be significantly upgraded, reconstructed and widened. The use of these routes is therefore considered more disruptive and subject to more risk of delays, severance and intimidation than the current option.</p> <p>As with Option 1 and Option 3, the route requires the construction of an access track along the Gallops next to the Welsh Water main, with the need for retaining works in close proximity to the water main and this may not be possible.</p>
Environmental Impacts
<p>The creation of the access track east of the B4489 will require removal of trees and hedgerows. The removal of trees and hedges would have ecological effects, and could mean additional environmental mitigation is required for the loss of habitats, potentially requiring additional land elsewhere.</p>

14. **Conclusions**

- 14.1 The alternatives proposed by the respondents at the Compulsory Acquisition Hearing are not suitable for the reasons described above.
- 14.2 Option 2 routes are suitable for ALL movements without road widening and the use of the route by HGVs will have minimal impact as there are no dwellings nearby. Option 2 routes also avoid the need to run parallel to the Welsh Water main, being able to cross at a single location using a bridge.
- 14.3 However, Options 2A, 2B1 and 2C would require loss of Ancient Woodland and loss of habitat, something that Option 2B2 avoids. There are also other technical reasons why Option 2C is challenging and may not be permitted by National Grid.
- 14.4 The Applicant continues to consider that its selection of Option 2B2 in the Application is a robust and appropriate access route, and that the Applicant has properly had regard to a range of considerations, including impact on land ownerships, environmental effects, consultation, as well as technical feasibility and interfaces with surrounding utility infrastructure in reaching its decision on its preferred route.
- 14.5 The existing National Grid access is purposefully constructed to HGV manoeuvring standards. The existing access route is secure, manageable in terms of marshalling and has already been used to carry similar loads and vehicles. It would not seem appropriate to discount this fit-for-purpose route in favour of major construction works in rural area on routes which are not as direct or commodious, and which all also require the use of third party land.

APPENDICES

Appendix	Title
Appendix 1	Figure 1 - Access routes overview plan
Appendix 2	Option 1 tracking plan

APPENDIX 1

Project Title:

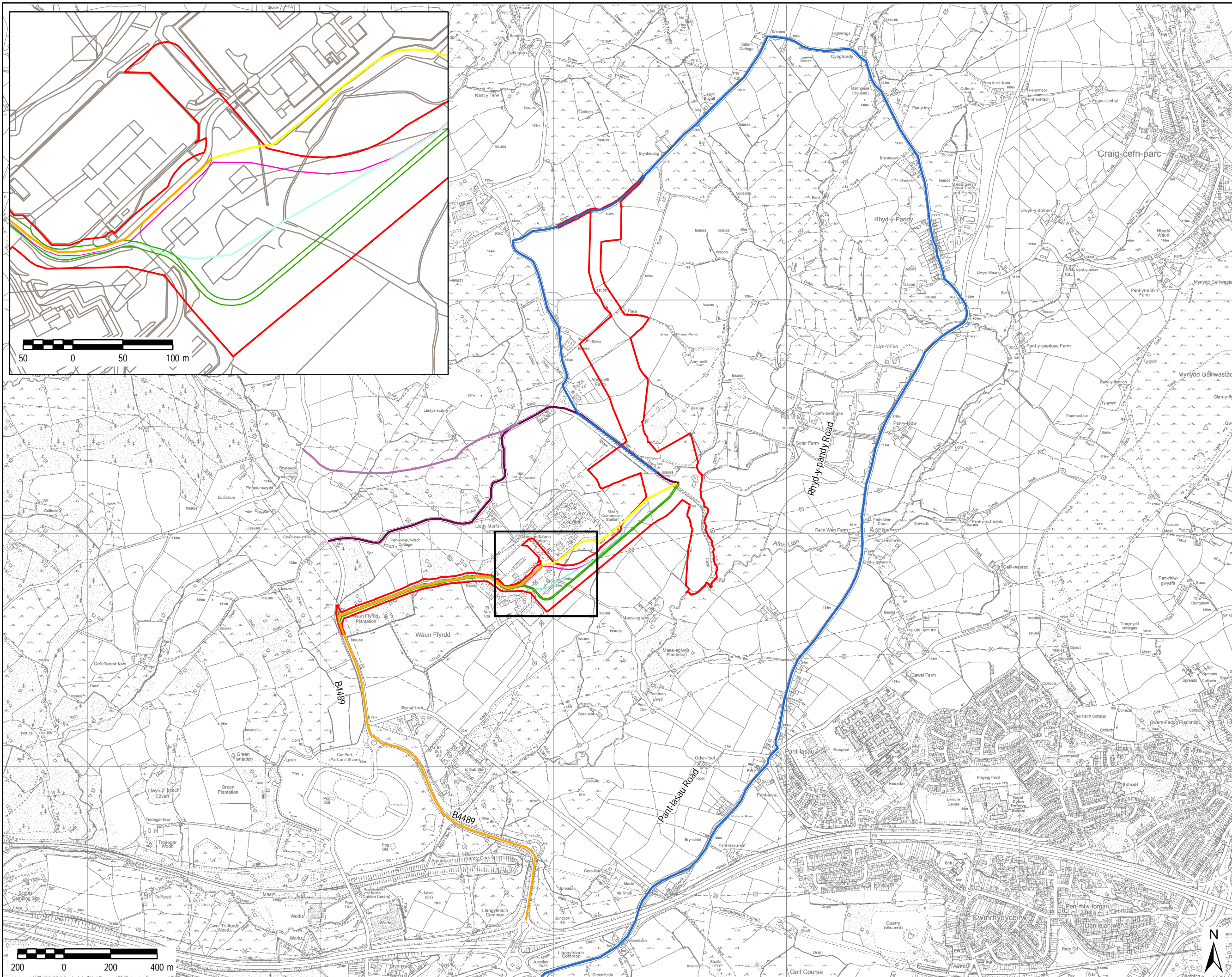
ABERGELLI POWER PROJECT

Client:



LEGEND

- Option 1 (2014)
- Option 2 (2014)
- Option 2A
- Option 2B1
- Option 2B2
- Option 2C
- Option 3
- Option 4
- Project Site Boundary



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[2017] Ordnance Survey 0100031673

AECOM Internal Project No:

60542910

Drawing Title:

ACCESS ROUTE OPTIONS

Scale at A3: 1:15,000

Drawing No: Rev:

FIGURE 1 001

Drawn: Chk'd: App'd: Date:

NS KM CA 21/12/18

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APPENDIX 2

Project Title:

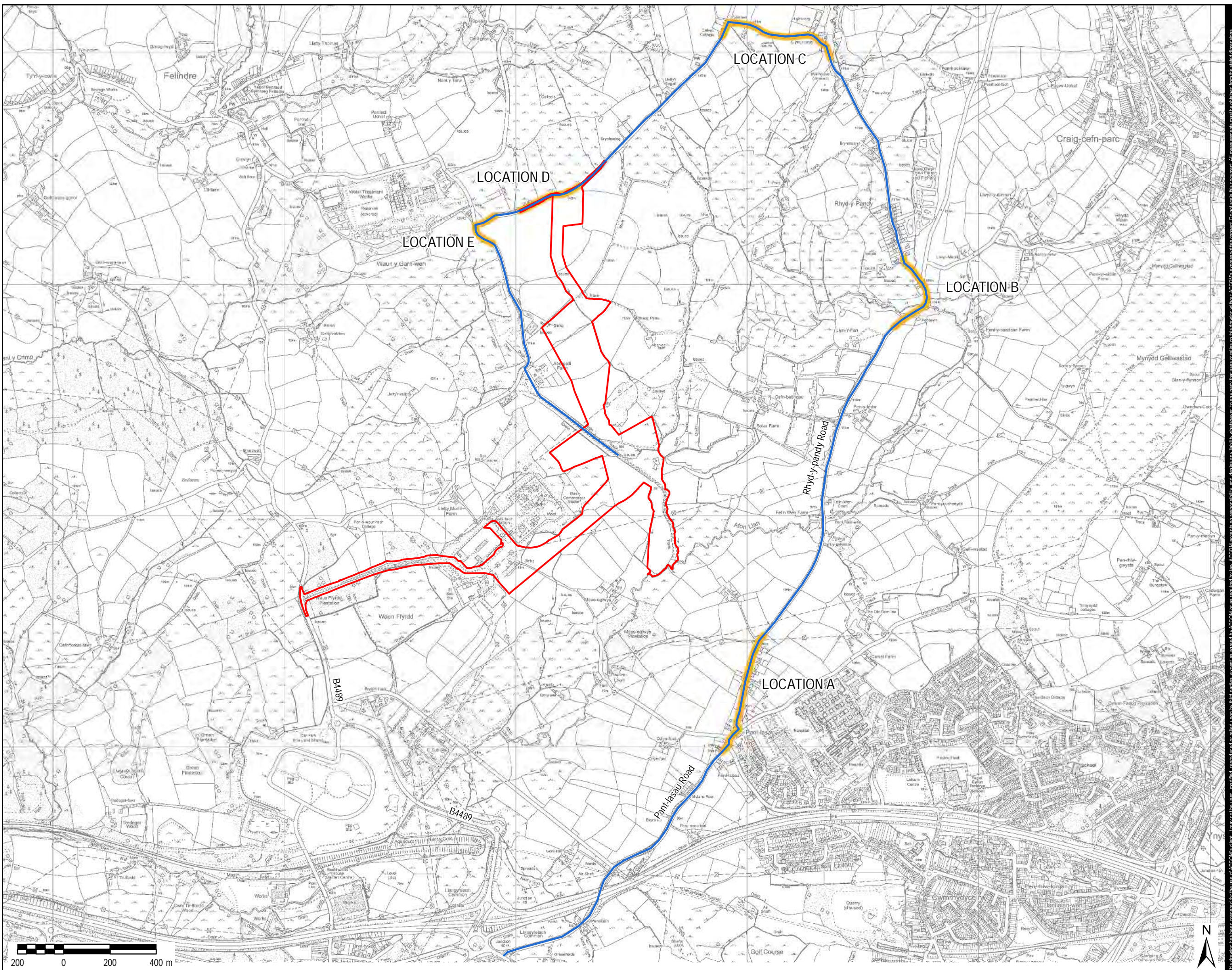
ABERGELLI POWER STATION

Client:



LEGEND

- Option
- 2014 Option 1 to site
- Project Site Boundary



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[2017] Ordnance Survey 0100031673

AECOM Internal Project No:

60542910

Drawing Title:

OPTION 1 TRACKING AREAS

Scale at A3: 1:15,000

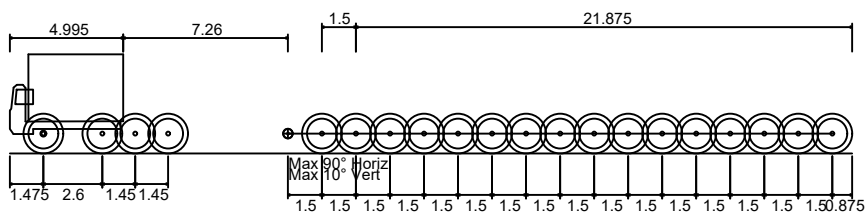
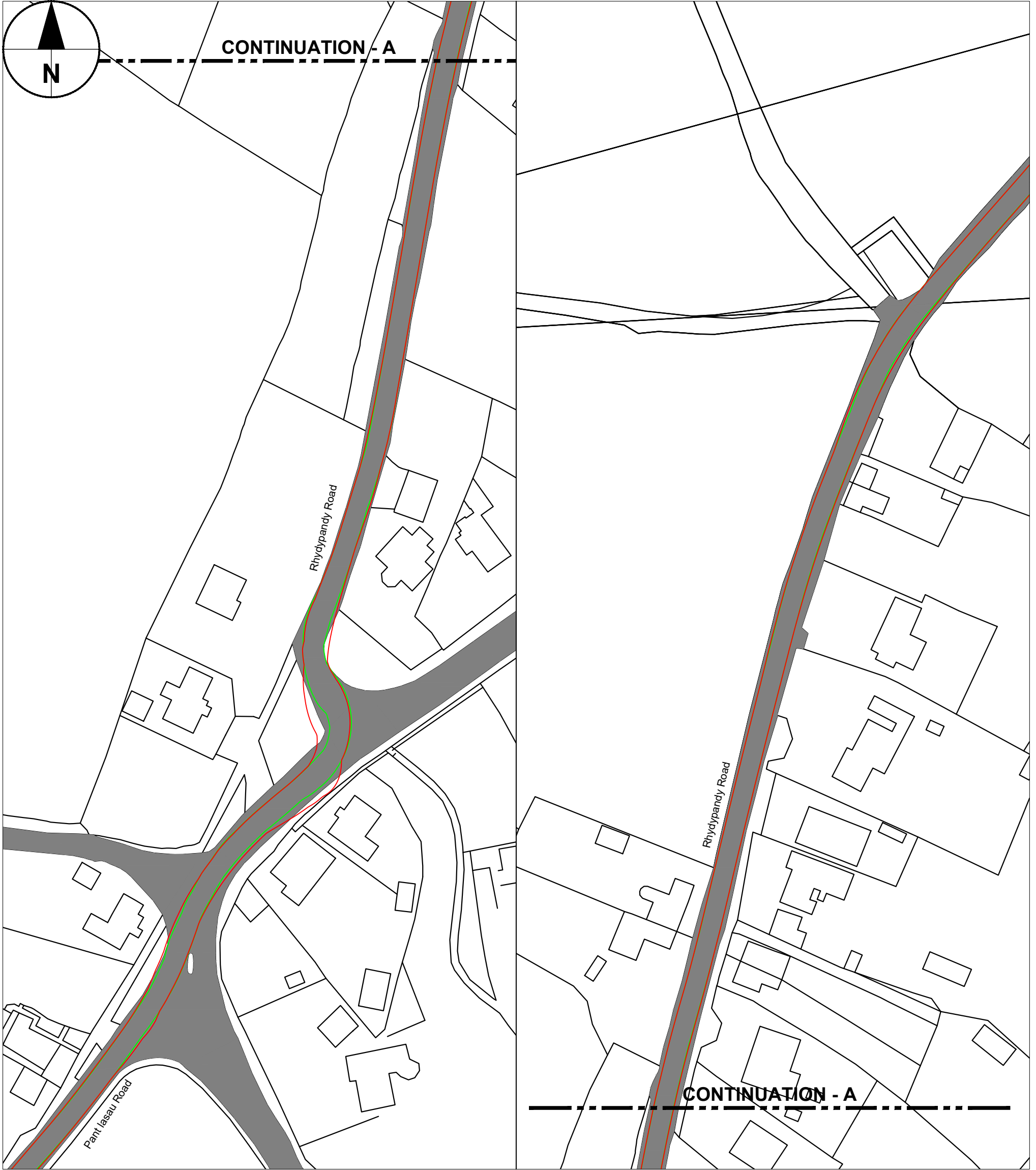
Drawing No: Rev:

FIGURE X 001

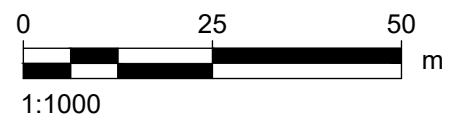
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GM NW CA 18/12/18

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Abnormal load vehicles 25m
 Overall Length 37.130m
 Overall Width 5.000m
 Overall Body Height 4.371m
 Min Body Ground Clearance 0.855m
 Track Width 5.000m
 Lock to lock time 4.00s
 Max Wheel Angle 45.00°
 Red line Wheels path
 Green line cab body path



ABERGELLI POWER STATION

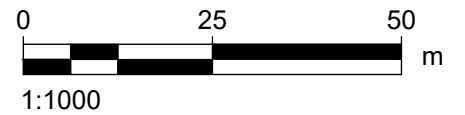
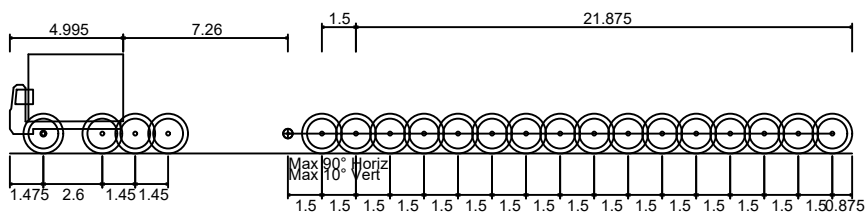
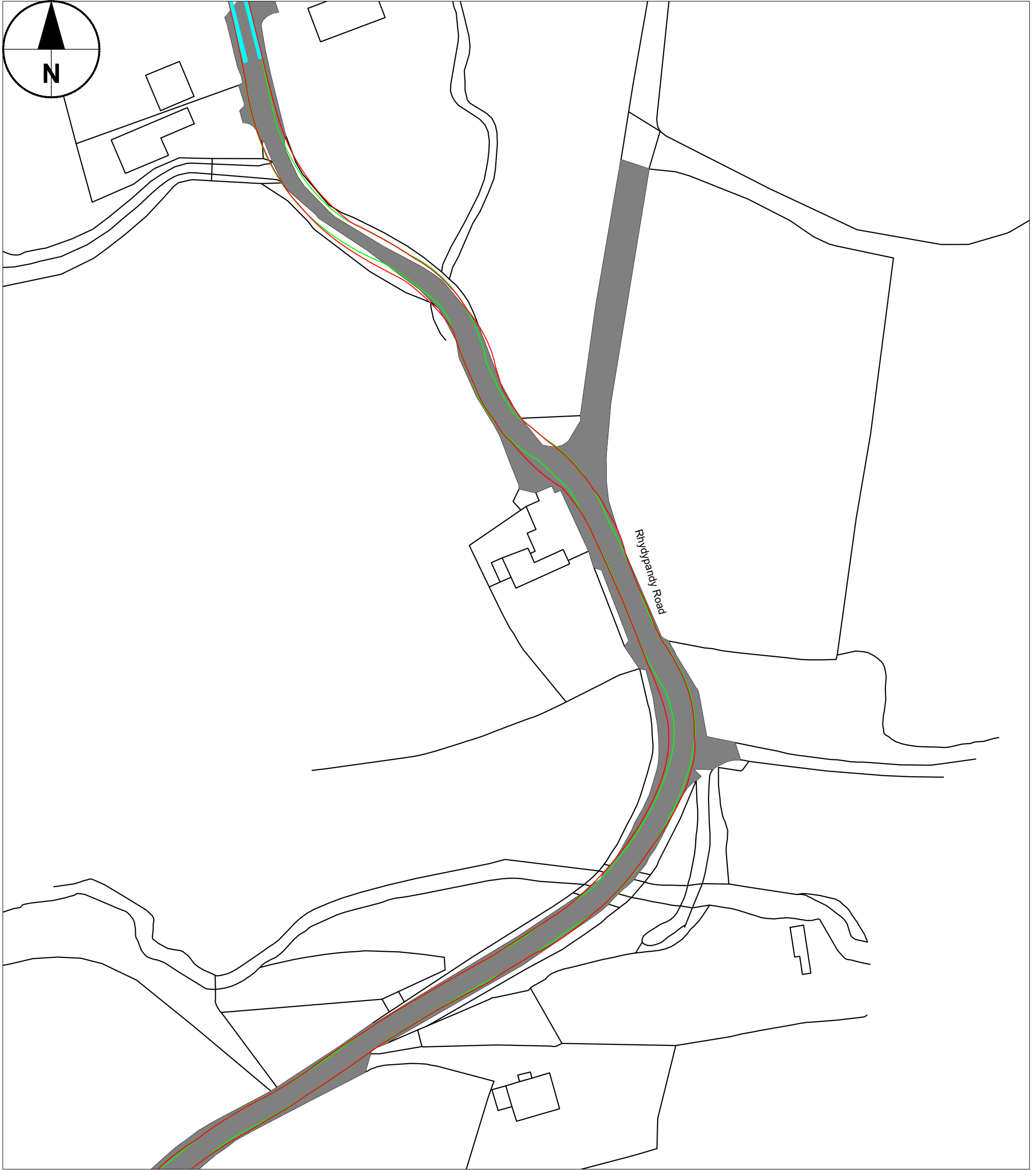
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 LOCATION A

Date:2018-12-17



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ABERGELLI POWER STATION

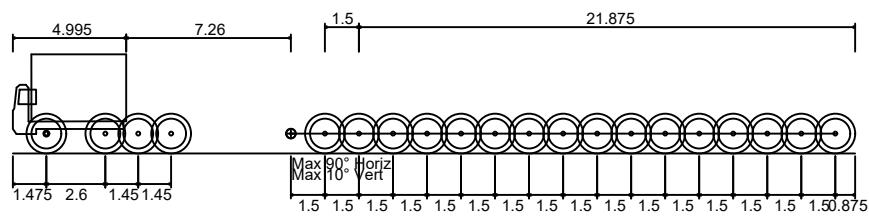
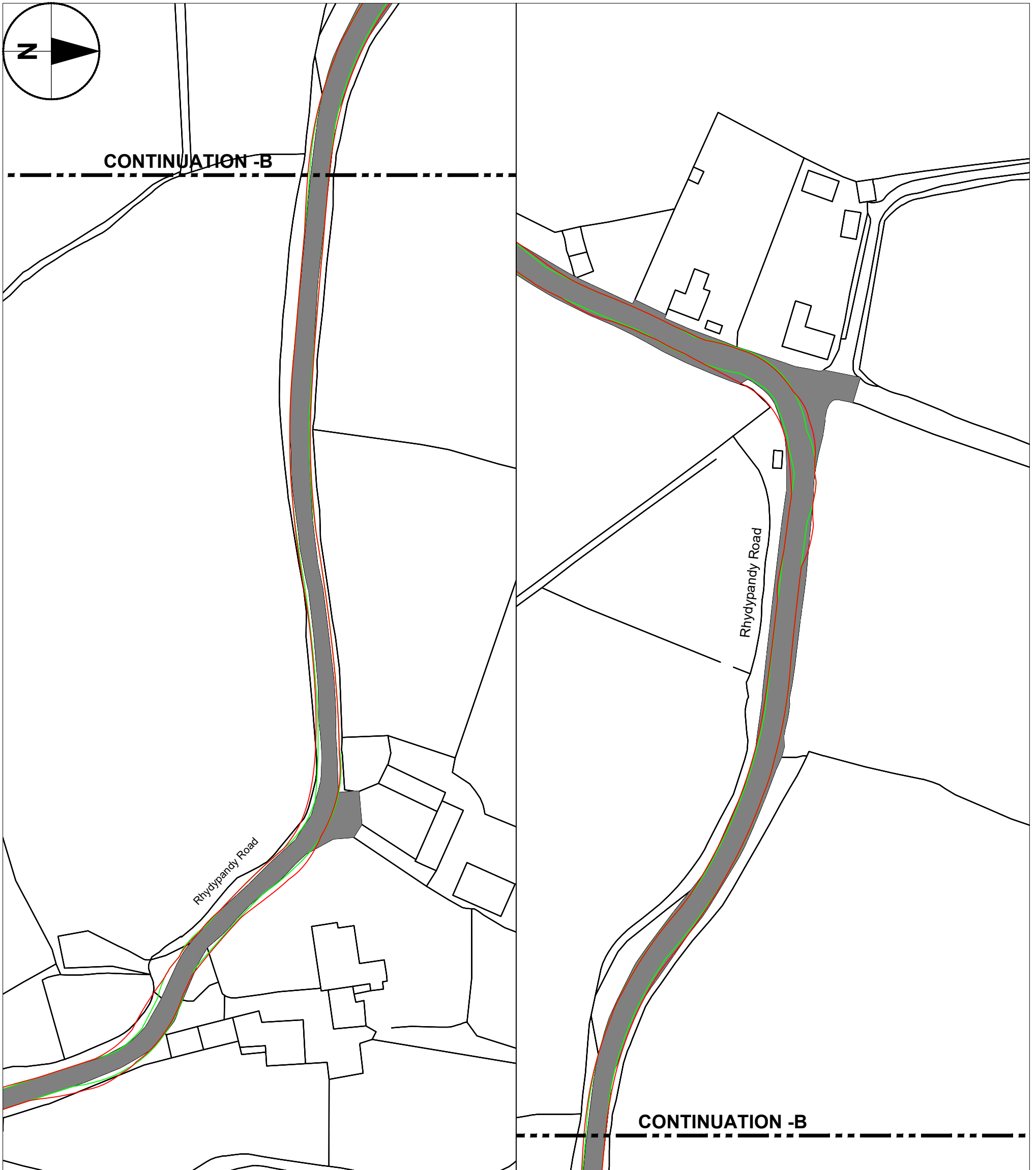
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LOCATION B

Date:2018-12-17

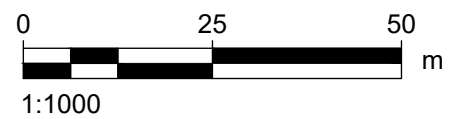


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Abnormal load vehicles 25m
 Overall Length 37.130m
 Overall Width 5.000m
 Overall Body Height 4.371m
 Min Body Ground Clearance 0.855m
 Track Width 5.000m
 Lock to lock time 4.00s
 Max Wheel Angle 45.00°
 Red line Wheels path
 Green line cab body path



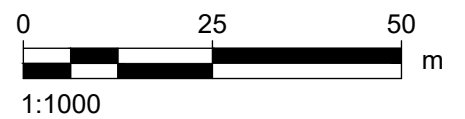
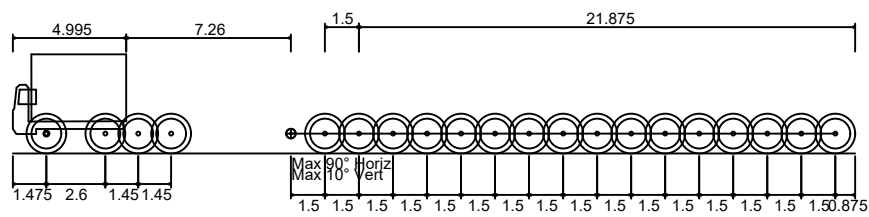
ABERGELLI POWER STATION

ACCESS ROUTE OPTION 1
 LOCATION C

Date:2018-12-17



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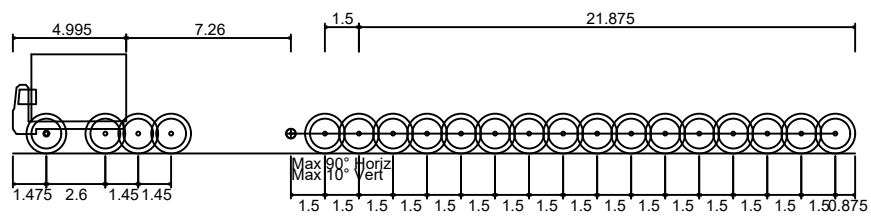
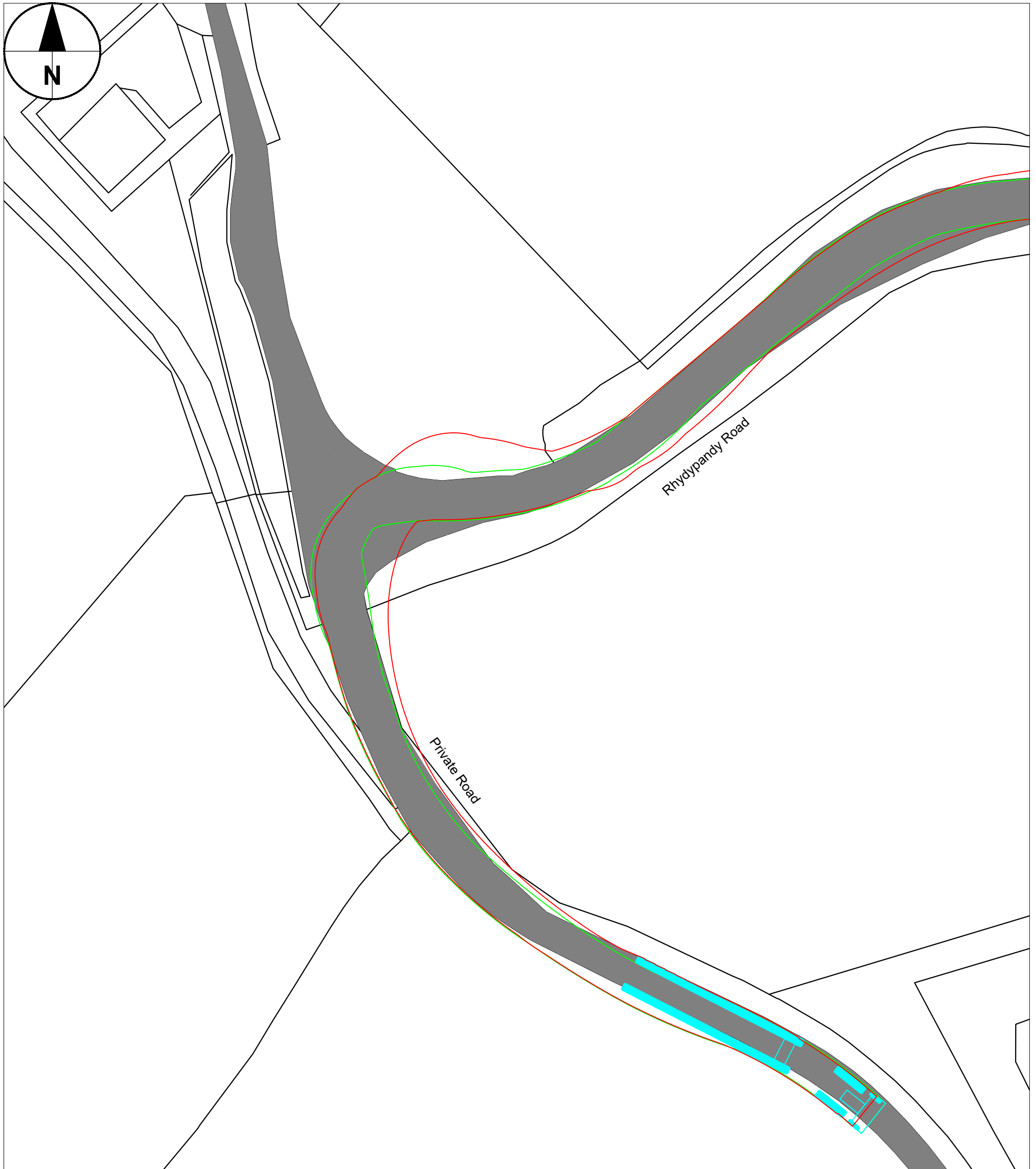
ABERGELLI POWER STATION

ACCESS ROUTE OPTION 1
LOCATION D

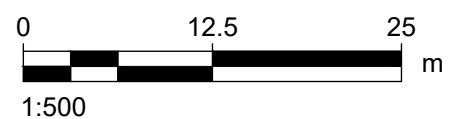
Date:2018-12-17



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Abnormal load vehicles 25m
 Overall Length 37.130m
 Overall Width 5.000m
 Overall Body Height 4.371m
 Min Body Ground Clearance 0.855m
 Track Width 5.000m
 Lock to lock time 4.00s
 Max Wheel Angle 45.00°
 Red line Wheels path
 Green line cab body path



ABERGELLI POWER STATION

ACCESS ROUTE OPTION 1
 LOCATION E

Date:2018-12-17



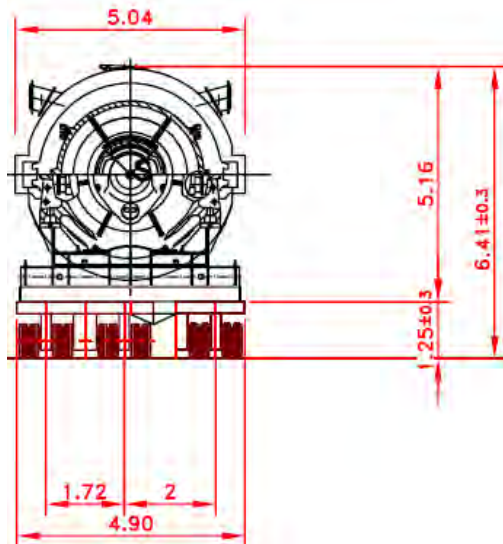
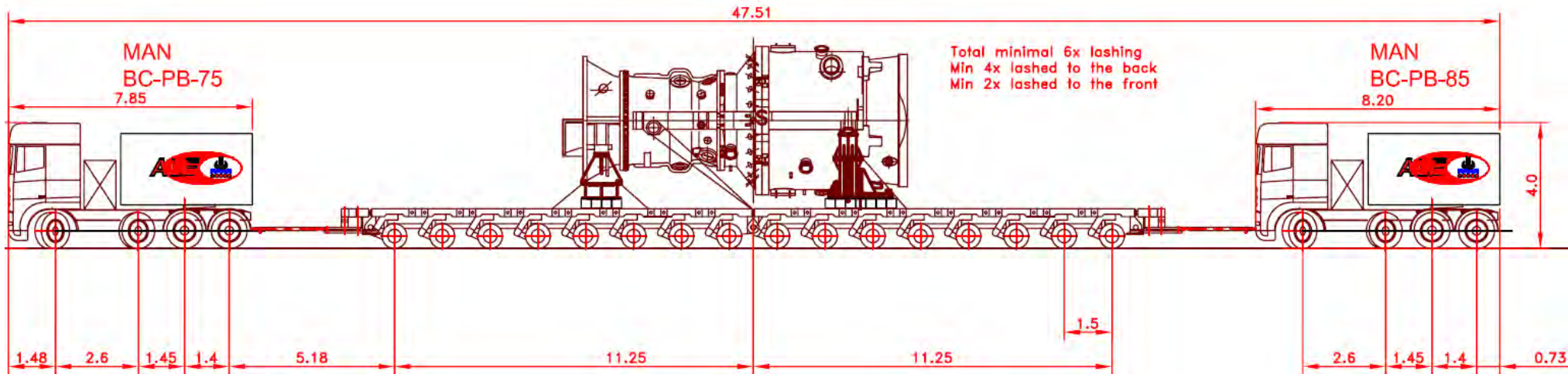
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Appendix 6

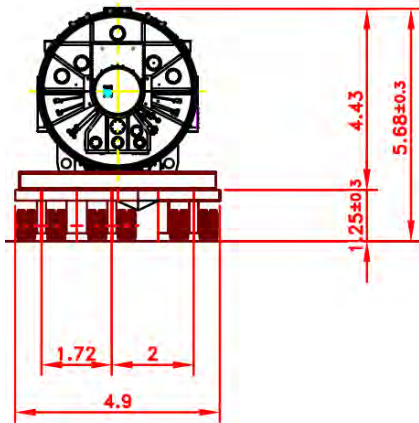
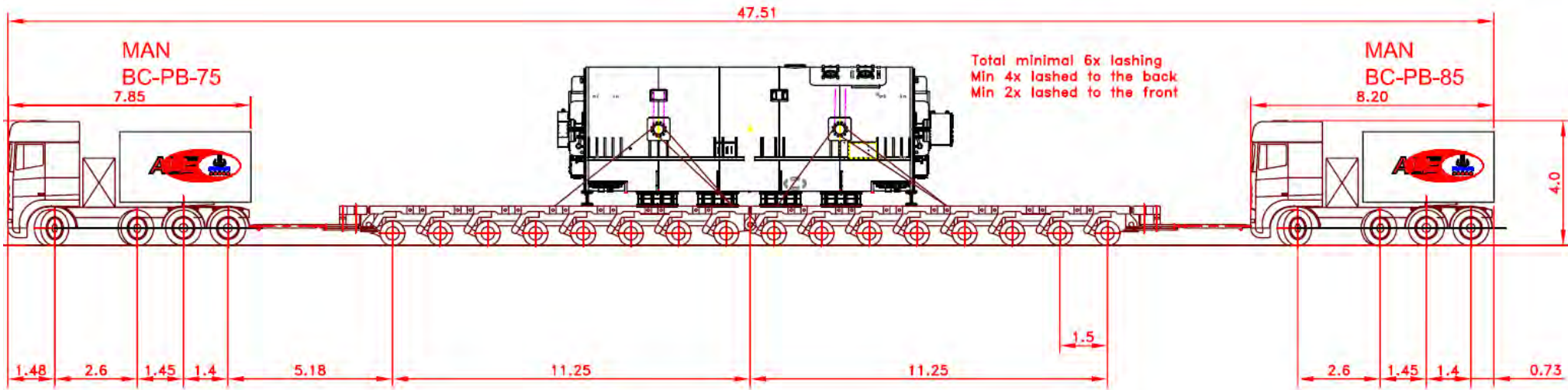
Illustrative drawing showing the likely dimensions of AIL for delivery of turbine to site

Turbina a Gas



- **Peso da Carga:** 306 t
- **Peso total:** 395 t
- **Comprimento:** 47.5 m
- **Largura:** 5.0 m
- **Altura:** 6.4 m

Gerador



- **Peso de Cargo:** 282 t
- **Peso total:** 386 t
- **Longitud:** 47.5 m
- **Anchura:** 4.9 m
- **Altura:** 5.7 m

Appendix 7

Chapter 12 (Traffic, Transport and Access) of the 2014 PEIR

The full document is available here: <http://www.abergellipower.co.uk/wp-content/uploads/2017/12/AbergelliPowerProjectPreliminaryEnvironmentalInformationReport-1.pdf>

12 TRAFFIC, TRANSPORT AND ACCESS

12.1 Introduction

12.1.1 This chapter provides the traffic, transport and access preliminary environmental assessment of the proposed Abergelli Power Project based upon assessment carried out up to September 2014. The proposed development is set out in Chapter 2 which forms the primary basis for the assessment carried out to date.

12.1.2 The following factors have specifically been taken account of in this preliminary assessment: a Power Generation Plant capable of generating ~299MW, a Gas Connection, and an Electrical Connection. The worst case considers a plant with up to 5 generators and stacks as this is likely to generate the greatest level of traffic during construction.

12.1.3 Embedded mitigation included within the assessment of traffic, transport and access consists of a Construction Traffic Management Plan, and Travel Plan for construction and operational workers (see Chapter 2). These documents aim to mitigate the impact of vehicular trips on the local road network.

12.2 Approach

Relevant Policy and Guidance

12.2.1 The traffic assessment in the PEIR has taken account of planning policy and guidance set out in Section 3, as well as the following documents:

- Wales Transport Strategy (2008);
- Wales Infrastructure Investment Plan (May 2012); and
- Regional Transport Plan for South West Wales (2010-2015).

12.2.2 The likely significant effects of the Project in environmental terms will be evaluated in accordance with the Institute of Environmental Assessment's (IEA) 'Guidelines for the Environmental Assessment of Road Traffic' (1993).

Assessment Methodology

12.2.3 A meeting was held with the CCS and the South Wales Trunk Road Agent in Swansea on 7th August 2014 in order to discuss the Project with these Authorities and the potential impacts of the Project and the available data sources to assist with the assessment.

12.2.4 The preliminary assessment has established the existing capacity conditions around the Project Site and assessed network and corridor

performance in relation to a number of receptors. This is based on data collected on site and existing data.

- 12.2.5 In addition, the ES Chapter will present the findings of trip estimates from the Project, the mode split of all trips, and the likely distribution across the transport network. Forecasting of baseline traffic data will be carried out to establish a 'do minimum' scenario for a future year.
- 12.2.6 The impact of the Project will be established by adding trips associated with the Project to the 'do minimum' scenario to create a 'do something' scenario and the effects will be presented in the ES Chapter. The cumulative effects of all other development will also be assessed. If necessary, mitigation measures will be proposed to reduce the number of trips, or provide capacity to cater for these additional trips.
- 12.2.7 A Travel Plan will be created and adopted in which sustainable transport will be promoted throughout the life cycle of the Project.
- 12.2.8 Additionally, an outline Construction Traffic Management Plan will be produced as a basis to manage the traffic associated with the construction phase of the Project.
- 12.2.9 Potential environmental effects are likely to be most significant for receptors within the local community, and employees at the Project, although any user of the highway network or of the local public rights of way around the Project could be affected.
- 12.2.10 The Project may cause potential effects to both motorised and non-motorised users and it will be ensured that effects for all modes of transport are considered and kept to a minimum.
- 12.2.11 As further work is progressed, the transport related environmental effects (as defined by IEA guidelines) are being assessed for the following factors:
- Traffic flows;
 - Delay;
 - Road safety;
 - Intimidation and fear;
 - Severance; and
 - Pedestrian amenity.
- 12.2.12 The effects of traffic in relation to noise and vibration, and air quality are considered in the relevant sections of the PEIR.

Traffic Flows

- 12.2.13 The changes in traffic flow will be assessed in terms of impacts on key junctions and links surrounding the project site. These locations are awaiting agreement from SCC but are likely to include:
- M4 Junction 46 northern dumbbell;
 - M4 Junction 46 southern dumbbell;
 - A48 / Pant Lasau Road mini roundabout;
 - Pant-Lasau Road / Mynydd Gelli Wastad Road / Heol Maes Eglwys mini roundabout;
 - B4489 to Felindre;
 - Rhyd-Y-Pandy Road; and
 - Unnamed Road north of Abergelli Fach Farm.
- 12.2.14 The impact of flow changes at these locations will be assessed for the traffic related to the construction/decommissioning phase or the operational phase, whichever is greater.
- 12.2.15 It is estimated that the construction and decommissioning phases will result in approximately 200 car or van trips per day and around 150 HGV deliveries per day during the peak construction/decommissioning period. This assumes a 22 month construction period, as per similar peaking plants, with the peak of HGV deliveries occurring during the first quarter of construction (months 1 to 3) and the peak of car and van trips occurring during the fifth quarter of construction (months 13 to 15). The car or van trips would be limited to the start and end of the working day whilst HGV trips would be spread across the day.
- 12.2.16 During the operational period, it is anticipated that approximately 3 people would be present on site during each shift. With three shifts per day, this would equate to 18 two-way car trips.
- 12.2.17 The construction/decommissioning phase has the largest impact in terms of traffic generation and the impacts of this scenario on the surrounding road network will be assessed in the ES.
- 12.2.18 The junctions will be assessed for:
- a base year (2014);
 - a do minimum scenario to represent baseline levels of traffic during the peak construction period (year dependent on construction timetable); and
 - a do something scenario to represent the impact of the construction traffic over and above the do minimum.

12.2.19 The do something scenario will assess the construction worker traffic and HGV deliveries arriving at and departing from the site for each of the components of the project; the Electrical Connection, the Gas Connection, and the Power Generation Plant.

12.2.20 Traffic surveys are in the process of being commissioned to determine the peak hours for assessment. From initial investigations, traffic generated by the Project is likely to have a greater impact on Access Option 1, as this route, from the M4 Junction 46 to Pant-Lasau, is an important route enabling access to Morriston Hospital and is used by emergency service vehicles.

Delay

12.2.21 The change in delay resulting from the change in traffic flow will be presented in the ES and the percentage increase reported. The change in delay will be assessed through the assessment of delay at key junctions in the vicinity of the Project Site.

Road Safety

12.2.22 An analysis of collisions over a five-year period will be undertaken in the ES to identify any significant patterns or clusters in the vicinity of the project site. The collision history at each of the junctions identified for traffic assessment will be reported in the ES.

Intimidation and Fear

12.2.23 Intimidation and fear can be caused by location, highway layout, level of crime, and driver stress. As discussed in the IEA guidelines, there are no commonly agreed thresholds for estimating these from other measurable factors.

12.2.24 Therefore a qualitative judgement, based on content of the ES Chapter including a site audit and non-motorised user assessment will be used to determine the intimidation and fear effect of the Project.

Severance

12.2.25 Severance will be assessed in the ES in relation to the increase in traffic flow. A qualitative assessment will be provided based on traffic volumes, and impacts on footways and PRoW.

Pedestrian Amenity

12.2.26 Pedestrian Amenity is defined within the IEA guidelines as the “relative pleasantness of a journey”. This is affected by traffic flow, traffic composition, pavement width and separation from traffic.

12.2.27 There are no commonly agreed thresholds for quantifying the significance of changes in pedestrian amenity, although in this case the traffic flow will be assessed for the increase in the proportion of HGVs. If the proportion of HGVs double, a significant effect is likely to arise. A qualitative assessment of the effect of the Project on pedestrian amenity will then be given using the Site Audit and Non-Motorised User Assessment.

12.2.28 A preliminary assessment of the likely impacts listed above for each of the elements of the Project and each Project phase is presented in Section 12.4 to 12.6 below.

Significance Criteria

12.2.29 IEA provides guidance on how the magnitude of changes in traffic flow should be determined, as shown in Table 12.1

Table 12.1: Criteria Defining Magnitude of Change in Traffic Flow

Magnitude	Criteria
High	Considerable change in condition (90+%)
Medium	Readily apparent change in conditions (60-90%)
Low	Perceptible change in conditions (30-60%)
Very Low	No discernible change in conditions (0-30%)

12.2.30 The overall significance of change is categorised based on the sensitivity of the receptor as shown in Table 4.3. For many effects, there are no simple rules or formulae which define thresholds of significance and there is, therefore, a need for interpretation and judgement on part of the assessor, backed-up by data or quantified information wherever possible. Consultation with stakeholders will enable determination of the sensitivity of each receptor.

12.2.31 The positive or negative effect of changes may therefore vary across receptors, with some road links experiencing a beneficial effect or being of low sensitivity, whereas others may have high sensitivity and high magnitude of impact and these will be identified accordingly.

12.2.32 Effects of moderate significance or above are considered to be significant for the purposes of the assessment.

Limitations

12.2.33 The limitations are split into the following two categories:

- Assessments not yet complete in the PEIR; and
- Limitations in assessments which will remain in the ES.

12.2.34 The assessments not yet complete in the PEIR are as follows:

- The calculation of trips generated by construction vehicles and construction workers;
- No detailed analysis of routes for abnormal loads has been undertaken;
- Surveys to determine the existing traffic flows on the surrounding network had not been undertaken in time for the PEIR assessment; and
- The theoretical capacity of existing junctions was not assessed or modelled.

12.2.35 The limitation in the assessment which will remain in the ES is that the usage of the local road and PRow networks by non-motorised users was not known.

[Consultation and Consultation Responses](#)

12.2.36 A summary of the consultation responses received to date from the scoping response document in relation to traffic, transport and access, and how these will be considered is provided in Appendix 4.1.

12.3 Baseline Conditions and Receptors

[Highway Network](#)

12.3.1 The B4489 lies west of the Project Site and runs north-south linking Felindre to Llangyfelach and is marked with a 40mph speed limit. North of the access to the Swansea North electrical substation and Felindre Gas Compressor Station, the B4489 is a narrow rural road. It then widens to a single carriageway road for the rest of its length, with the stretch leading to the junction with the A48 having two lanes south-bound.

12.3.2 The Rhyd-Y-Pandy Road is an unclassified road which runs east and north of the Project Site, from Pant-lasau to Rhyd-Y-Pandy in an almost directly north-south direction. It is of varying width, alternating along its length between narrow rural road and single carriageway. The road has a 30mph speed limit in proximity to both Pant-lasau and Rhyd-Y-Pandy, but increases to national speed limit in between the two settlements.

12.3.3 There are several other private roads in proximity to the Project Site, all of which are rural in nature. The local highway network is shown in Figure 12.1.

Junctions

12.3.4 Consideration will be given to the assessment of junctions within the area and will be identified in collaboration with CCS and South Wales Trunk Road Agent (SWTRA) at a later stage. An initial scoping assessment of junctions has identified the following three junctions as a preliminary focus for investigation (see Figure 12.2):

- M4 Roundabout Junction 46;
- A48/Pant-lasau Road; and
- Pant-lasau Road/Heol Maes Eglwys/Rhyd-Y-Pandy Road.

Road Safety and Collisions

12.3.5 An initial review of accident data shows that between 2009 and 2012, there was 1 accident on the Rhyd-Y-Pandy Road. This was a slight accident involving two vehicles and with one casualty. There were also four more slight accidents along the Pant-lasau Road within the same time period. One of these involved two vehicles, whilst the other three all had only one vehicle involved. All of them had one casualty.

12.3.6 There were also several accidents along the B4489 within this time period, however, none within close proximity to the Project Site or potential access routes.

12.3.7 There is a cluster of slight accidents at the M4 Junction 46 roundabout which will be expected at a junction of this type.

12.3.8 Figure 12.3 provides a summary of the accidents in the study area.

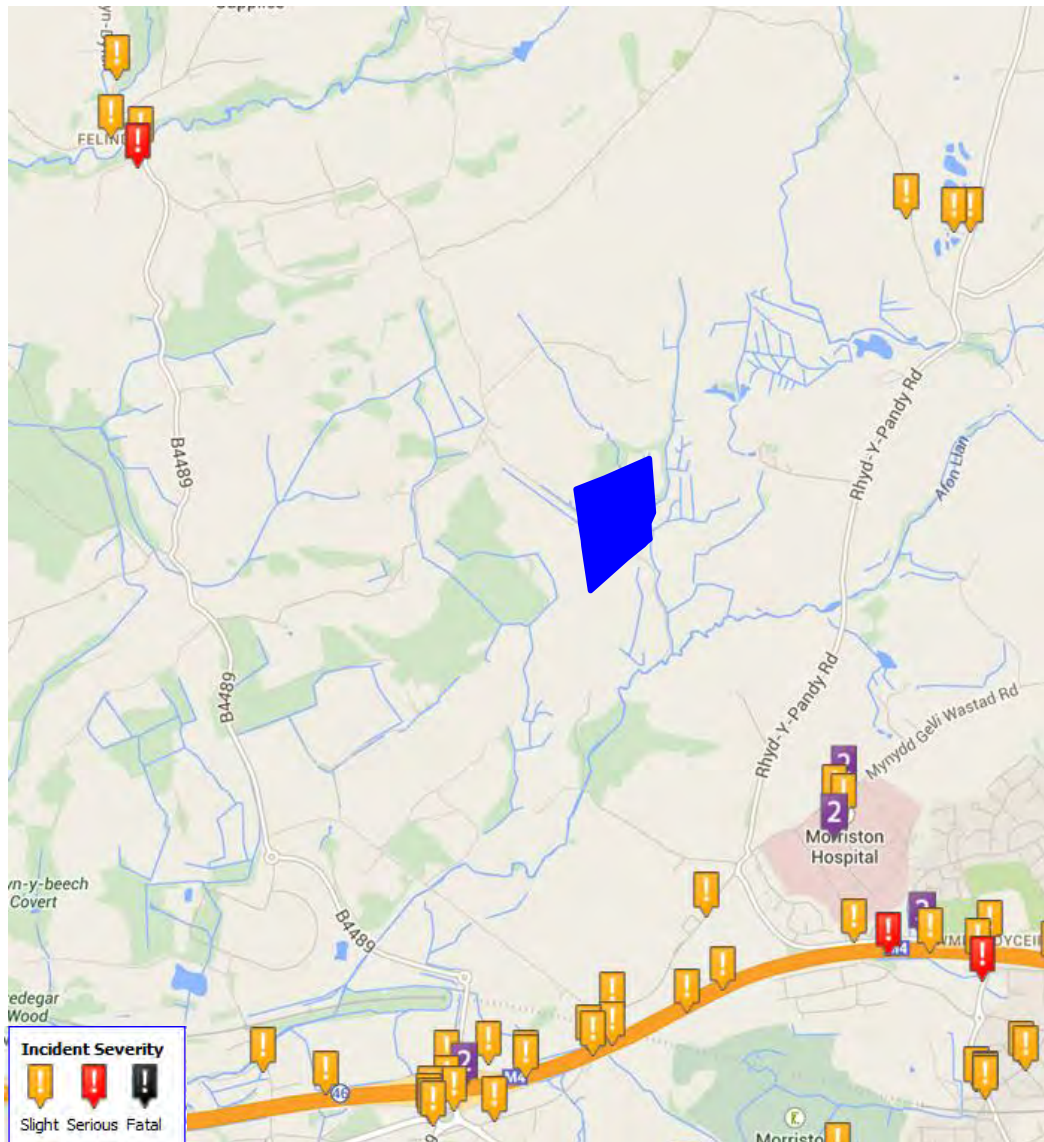


Figure 12.3: Road accidents in vicinity of Generating Equipment Site

12.3.9 The initial analysis of the accident records does not identify any abnormal results or clusters that are of concern. A further, more detailed collision assessment will be undertaken as part of the ES.

[Pedestrian and Cycle Facilities](#)

12.3.10 There is no pedestrian footway provision in close proximity to the Project Site. However, there is a footway provided on one side of the B4489, for approximately 1.2 km north of the M4 Junction 46 (see Figure 12.4).

12.3.11 There is no cycling infrastructure in place within the vicinity of the Project Site, except a short, local route which runs from the B4489 for approximately 1.5 km to the Pant-lasau Road (see Figure 12.5).

Bus Services

12.3.12 There is one bus route in the vicinity of the Project Site, although there are several other bus routes that pass through nearby villages (see Figure 12.6). The nearest bus stop is Lliw Reservoirs, approximately 0.25 km from the entrance of the Access Option 1. The next nearest bus stop is Taironen, which is approximately 1.5 km east of Access Option 1. Both are served by the 142 service provided by South Wales Transport, the route of which links Garnswllt to Swansea, Kingsway. The 141 service runs between Swansea and Garnswllt and passes south of the Project Site through Pant-lasau to Morryston Hospital.

Table 12.2: Bus Services

Service	Operator	Route	Frequency	First Service	Last Service
141	South Wales Transport	Morryston - Gorseinon	Irregular	0753	1650
		Gorseinon - Morryston		0728	1732
142	South Wales Transport	Swansea - Garnswllt	Irregular	1015	1750
		Garnswllt - Swansea		0909	1559

Rail Services

12.3.13 There are no train stations in close proximity to the Project Site. Llansamlet is the nearest railway station, approximately 5.5 km south east of the Project Site, and is accessible by private car from Junction 44 of the M4. However, Swansea station, whilst being an extra 2 km away, is an important local transport hub and is more easily accessible by public transport.

12.3.14 Rail services at Swansea station are managed by Arriva Trains Wales. There are four services daily from Swansea to Shrewsbury; an hourly service from Swansea to Manchester Piccadilly, which calls at Cardiff Central, and two/three services hourly from Swansea to Cardiff Central. First Great Western also provides services from Swansea to London Paddington, calling at Bristol.

12.4 Power Generation Plant Assessment

Construction/Decommissioning

- 12.4.1 Table 12.3 provides a summary of the likely effects of the Construction of the Power Generation Plant split into two potential access roads identified above. Decommissioning is likely to cause the same effects as that of construction, but goods are taken away from site rather than to site, therefore the impacts have been assessed together in Table 12.3.
- 12.4.2 The assumptions in relation to the assessment of significance are set out in paragraph 4.6.3.

Table 12.3: Findings of Preliminary Assessment of Effects of Power Generation Plant during Construction/Decommissioning

Receptor name and description	Preliminary Assessment of Impacts	Potential Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Power Generation Plant (Access Road – Option 1)				
Access road construction (improvement of existing road)	Temporary restriction of unclassified road that runs between Salem and Felindre during road works at junction with the access track to Abergelli Fach Farm	Access road construction (improvement of existing road)	Access maintained.	Assessment of traffic management options required.
Access road construction (construction of new road)	Track crosses utilities and watercourses in the following locations: <ul style="list-style-type: none"> • NTS Pipeline (Feeder 28) 2no. Pipes • NTS Pipeline (Feeder 28) 3no. Pipes In addition, the track runs parallel to a Welsh water pipeline but does not cross the pipe. Over-run may cause disruption or require diversion of utilities/road alignment if not	Access road construction (construction of new road)	Neutral	Further design and liaison with National Grid and other Utility Companies required.

	designed according to standards			
Construction worker traffic, consisting of cars and LGVs travelling to and from Project Site.	Increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Travel Plan measures to reduce the number of vehicles on the road network.	Slight/moderate increases in traffic	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
HGV construction delivery traffic	Increased HGV traffic levels on the unclassified road name above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times	Construction Traffic Management Plan to be produced. Assessment of HGV numbers to be undertaken.
Abnormal load deliveries	Obstruction for normal vehicles and potential impact on street furniture	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival.	Slight effects e.g. disruption to the road network during off peak times	Construction Traffic Management Plan to be produced and access routes to be appraised to all sections of the Project Site.
Cycling Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	Construction vehicles will travel along Rhyd-Y-Pandy Road, bus 142 also uses this route.	N/A	N/A	No further assessment
Power Generation Plant (Access Road – Option 2)				

<p>Access road construction (construction of new road)</p>	<p>Track crosses utilities and watercourses in the following locations:</p> <ul style="list-style-type: none"> • 400kv Cable • Watercourse • HP LTS Pipeline • Watercourse <p>Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards</p>	<p>Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.</p>	<p>Neutral</p>	<p>Further design and liaison with National Grid and other Utility Companies required.</p>
<p>Construction worker traffic travelling to and from Project Site.</p>	<p>Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.</p>	<p>Travel Plan measures to reduce the number of vehicles on the road network.</p>	<p>Slight/moderate increases in traffic</p>	<p>Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.</p>
<p>HGV construction delivery traffic</p>	<p>Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.</p>	<p>Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted.</p>	<p>Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times.</p>	<p>Construction Traffic Management Plan to be produced. Assessment of HGV numbers to be undertaken.</p>
<p>Abnormal load deliveries</p>	<p>Obstruction for normal vehicles and potential impact on street furniture</p>	<p>Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival</p>	<p>Slight effects e.g. disruption to the road network during off peak times.</p>	<p>Construction Traffic Management Plan to be produced and Access routes to be appraised to all sections of the Project Site.</p>

Cycle Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	No impact.	N/A	N/A	N/A

Operation

12.4.3 There is likely to be minimal impacts during the operation of the Power Generation Plant as operational staff numbers will be low (of the order of 15 full time employees) and the delivery and removal of goods to the Project Site are also expected to be very low.

Table 12.4: Findings of Preliminary Assessment of Effects of Power Generation Plant during Operation

Receptor name and description	Preliminary Assessment of Impacts	Potential Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Power Generation Plant (Access Road – Option 1)				
Operational worker traffic travelling to and from Project Site	Low numbers of workers expected so negligible impact on surrounding road network.	Travel Plan measures to ensure workers have choices for travel.	Neutral effect on surrounding road network.	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
Power Generation Plant (Access Road – Option 2)				
Operational worker traffic travelling to and from Project Site	Low numbers of workers expected so negligible impact on surrounding road network.	Travel Plan measures to ensure workers have choices for travel.	Neutral effect on surrounding road network	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.

12.5 Gas Connection Assessment

Construction/Decommissioning

12.5.1 The number of construction workers required to construct the Gas Connection Route will be low in relation to the Power Generation Plant. As such, there is likely to be limited impacts associated with additional trips on the network. There will be some additional traffic caused by the arrival and departure of construction workers and HGV's

delivering and removing goods from the corridor, however, this is anticipated to be low.

12.5.2 The decommissioning stage will generate very few vehicle movements, as it is likely that the Gas Connection will be left in situ. Some elements of the AGI may be removed, although there are not anticipated to be any impacts on the traffic network.

Table 12.5: Findings of Preliminary Assessment of Effects of Gas Connection during Construction/Decommissioning

Receptor name and description	Preliminary Assessment of Impacts	Potential Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Gas Connection (Access Road – Option 1)				
Construction worker traffic travelling to and from Project Site	Minor increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46.	Travel Plan measures to reduce the number of car and LGV vehicles on the road network.	Minor/moderate increases in traffic.	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
HGV construction delivery traffic	Increased HGV traffic levels on the unclassified road name above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46.	Delivery timings to be monitored to reduce impacts at peak times.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in reduced impact during peak times.	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.

Abnormal Loads	Obstruction for normal vehicles and potential impact on street furniture.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced once complete.	Minor planned disruption to the road network during off peak times.	Construction Traffic Management Plan to be produced and access routes to be appraised to site.
Cycling Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	Construction vehicles will travel along Rhyd-Y-Pandy Road, bus 142 also uses this route.	N/A	N/A	No further assessment
Gas Connection (Access Road – Option 2)				
Construction worker traffic travelling to and from Project Site	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.	Travel Plan measures to reduce the number of vehicles on the road network.	Minor/moderate increases in traffic.	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
HGV construction delivery traffic	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times.	Construction Traffic Management Plan to be produced. Assessment of HGV numbers to be undertaken.
Abnormal Loads	Obstruction for normal vehicles and potential	Abnormal load routing will be agreed with CCS	Minor planned disruption to the	Construction Traffic Management

	impact on street furniture.	officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced once complete.	road network during off peak times.	Plan to be produced and Access routes to be appraised to site.
Cycling Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	No impact	N/A	N/A	No further assessment

Operation

12.5.3 Maintenance vehicles are expected to be very infrequent and are not anticipated to cause any detriment to the local transport network. Table 12.6 identifies likely impacts associated with the operation of the Gas Connection.

Table 12.6: Findings of Preliminary Assessment of Effects of Gas Connection Impact during Operation

Receptor name and description	Preliminary Assessment of Impacts	Potential Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Maintenance vehicles expected to be infrequent	Very low additional traffic on the network	None required	Neutral effect on surrounding road network	Further work to identify frequency of maintenance

12.6 Electrical Connection Assessment

Construction/Decommissioning

12.6.1 The number of construction workers required in the construction and decommissioning of the Electrical Connection will be low in relation to the Power Generation Plant. As such, there is likely to be limited impacts associated with additional trips on the network. There will be

some additional traffic caused by the arrival and departure of construction workers and HGV's delivering and removing goods from the corridor. The impacted roads will be either the B4489 or the Rhyd-Y-Pandy Road, the Pant-lasau Road and several other unclassified roads, depending on the access route chosen.

Table 12.8: Findings of Preliminary Assessment of Effects of Electrical Connection during Construction/Decommissioning

Receptor name and description	Preliminary Assessment of Impacts	Potential Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Electrical Connection (Access Road – Option 1)				
Construction worker traffic travelling to and from Project Site	Minor increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46.	Travel Plan measures to reduce the number of vehicles on the road network.	Minor/moderate increases in traffic	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
HGV construction delivery traffic	Increased HGV traffic levels on the unclassified road name above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46.	Delivery timings to be monitored to reduce impacts at peak times.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in reduced impact during peak times.	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
Abnormal Loads	Obstruction for normal vehicles and potential impact on street furniture.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and	Minor planned disruption to the road network during off peak times.	Construction Traffic Management Plan to be produced and Access routes to be appraised to site.

		adhered to and any street furniture is removed prior to arrival and replaced once complete.		
Cycling Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	Construction vehicles will travel along Rhyd-Y-Pandy Road, bus 142 also uses this route.	N/A	N/A	No further assessment
Electrical Connection (Access Road – Option 2)				
Construction worker traffic travelling to and from Project Site	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.	Travel Plan measures to reduce the number of vehicles on the road network.	Minor/moderate increases in traffic	Further trip estimate, junction and link capacity assessment work will be undertaken in the ES.
HGV construction delivery traffic	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4.	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times.	Construction Traffic Management Plan to be produced. Assessment of HGV numbers to be undertaken.
Abnormal Loads	Obstruction for normal vehicles and potential impact on street furniture.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is	Minor planned disruption to the road network during off peak times.	Construction Traffic Management Plan to be produced and Access routes to be appraised to site.

		removed prior to arrival and replaced once complete.		
Pedestrian Access	The proposed electrical connection crosses an existing pedestrian footpath. This may lead to the temporary closure of the footpath.	Temporary diversion routes.	Minor disruption to PRow.	Details of the temporary closure and diversion of the footpath to be detailed in the CTMP.
Cycling Access	Existing cyclists will share road with construction traffic.	N/A	N/A	No further assessment
Public Transport	No impact	N/A	N/A	No further assessment

Operation

12.6.2 Maintenance vehicles are expected to be infrequent and are not anticipated to cause any detriment on the local transport network. Access to the Electrical Connection Compound will be via the B4489.

Table 12.9: Findings of Preliminary Assessment of Effects of Electrical Connection during Operation

Receptor name and description	Preliminary Assessment of Impacts	Potential Specific Mitigation	Potential Residual Effects	Further assessments and consultation to be undertaken
Operational worker traffic travelling to the Electrical Connection.	Very low number of vehicles anticipated – limited impact on road network	Gated access to substation required	Neutral effect on surrounding road network	Further work to identify frequency of maintenance

12.7 Project (as a whole)

12.7.1 The effects for the project as a whole will be considered in the ES for the following criteria:

- Traffic flows;

- Delay;
- Road safety;
- Intimidation and fear;
- Severance; and
- Pedestrian amenity.

12.7.2 The assessment to date has shown that traffic generated by the Project will impact upon the surrounding road network, including key junctions at the interchange with the M4. Two smaller junctions may also be impacted upon depending on the final decision on the access route option. The level of impact will be assessed in the ES.

[Construction/Decommissioning](#)

12.7.3 The effects of the whole project will be assessed, with the Power Generation Plant, Gas Connection, and Electrical Connection each generating construction worker trips or HGV deliveries.

[Operation](#)

12.7.4 The potential effects predicted to arise from the Electrical Connection and the Gas Connection are not material in the context of the Power Generation Plant so the overall assessment for the Project as a whole is considered to be the same as for the Power Generation Plant. In turn, the potential effects resulting from the Power Generation Plant during the Operational process are negligible in comparison to the construction/decommissioning period and therefore the overall assessment for the Project as a whole is not considered to be worse than as for the construction/decommissioning phase set out above

12.8 Cumulative Effects

[Construction/Decommissioning](#)

12.8.1 The cumulative effect in terms of number of construction workers and therefore trips created by the simultaneous development of the Power Generation Plant, Gas Connection and Electrical Connection on traffic will be considered.

12.8.2 There will be an assessment of other developments in proximity to the Project Site that have the potential to result in detrimental cumulative effects on the transport and traffic. This will include both planned developments identified in Section 4.8 and those already under construction and the list of those to be considered will be agreed upon with the relevant authorities at a later date.

[Operation](#)

12.8.3 The cumulative effect in terms of number of operational workers and other future developments will be undertaken in the ES to determine the cumulative effects of operational traffic.

12.9 Summary and Conclusions

Table 12.10: Summary of Effects

	Receptor name and description	Potential Mitigation	Preliminary Assessment of Residual Effects
Power Generation Plant with Access Road – Option 1			
Construction / Decommissioning	Temporary restriction of unclassified road that runs between Salem and Felindre during road works at junction with Private Means of Access	Temporary Traffic Management allowing for one way traffic or Alternative Diversion Route provided.	Access maintained.
	Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards	Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.	Neutral
	Increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the unclassified road named above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2)	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times.
	Obstruction for normal vehicles and potential impact on street	Abnormal load routing will be agreed with CCS officers and the	Slight effects from disruption to the road

	furniture during abnormal load deliveries.	SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival (see Chapter 2)	network during off peak times.
Operation	Low numbers of workers expected so negligible impact on surrounding road network	Travel Plan measures to ensure workers have choices for travel (see Chapter 2).	Neutral effect on surrounding road network
Power Generation Plant with Access Road – Option 2			
Construction / Decommissioning	Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards	Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.	Neutral
	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2)	Slight/moderate increases in traffic
	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in minor effects during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal load deliveries.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival (see Chapter 2).	Slight effects from disruption to the road network during off peak times
Operation	Low numbers of workers expected so negligible impact on surrounding road	Travel Plan measures to ensure workers have choices for travel (see Chapter	Neutral effect on surrounding road network

	network	2).	
Gas Connection with Access Road – Option 1			
Construction / Decommissioning	Minor increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the unclassified road named above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts at peak times.	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in reduced effect during peak times
	Obstruction for normal vehicles and potential impact on street furniture during delivery of abnormal loads.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced once complete.	Slight planned disruption to the road network during off peak times
Operation	Very low additional traffic on the network	None required.	Neutral effect on surrounding road network
Gas Connection with Access Road – Option 2			
Construction / Decommissioning	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak

		– Construction Traffic Management Plan to be adopted (see Chapter 2).	times resulting in reduced effect during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal load deliveries.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced once complete (see Chapter 2).	Minor planned disruption to the road network during off peak times
Operation	Very low additional traffic on the network	None required	Neutral effect on surrounding road network
Electrical Connection with Access Road – Option 1			
Construction / Decommissioning	Minor increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the unclassified road named above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts at peak times (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in reduced effect during peak times
	Obstruction for normal vehicles and potential impact on street furniture during delivery of abnormal loads	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced	Minor planned disruption to the road network during off peak times

		once complete (see Chapter 2).	
Operation	Very low number of vehicles anticipated – limited impact on road network	Gated access to substation required	Neutral effect on surrounding road network
Electrical Connection with Access Road – Option 2			
Construction / Decommissioning	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in reduced effect during peak times
	Obstruction for normal vehicles and potential impact on street furniture during delivery of abnormal loads.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival and replaced once complete (see Chapter 2).	Minor planned disruption to the road network during off peak times
Operation	Very low number of vehicles anticipated – limited impact on road network.	Gated access to substation required.	Neutral effect on surrounding road network
Project (as a whole) with Access Road – Option 1			
Construction / Decommissioning	Temporary restriction of unclassified road that runs between Salem and Felindre during road works at junction with Private Means of Access.	Temporary Traffic Management allowing for one way traffic or Alternative Diversion Route provided.	Access maintained.
	Over-run of existing gas pipes and other	Liaison with National Grid and Other Utility	Neutral

	utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards.	Companies to design an appropriate standard access road.	
	Increased car and LGV traffic levels on the unclassified road (north of the Project Site), the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the unclassified road named above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal load deliveries.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival.	Slight effects from disruption to the road network during off peak times
Operation	<u>Operational worker traffic travelling to and from Project Site –</u> Low numbers of workers expected so negligible impact on surrounding road network	Travel Plan measures to ensure workers have choices for travel (see Chapter 2).	Neutral effect on surrounding road network
Project (as a whole) with Access Road – Option 2			
Construction / Decommissioning	Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to	Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.	Neutral

	standards		
	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal load deliveries.	Abnormal load routing will be agreed with Swansea City and County Council officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival	Slight effects from disruption to the road network during off peak times
Operation	Low numbers of workers expected so negligible impact on surrounding road network	Travel Plan measures to ensure workers have choices for travel (see Chapter 2).	Neutral effect on surrounding road network
Cumulative Effects with Access Road – Option 1			
Construction / Decommissioning	Temporary restriction of unclassified road that runs between Salem and Felindre during road works at junction with Private Means of Access	Temporary Traffic Management allowing for one way traffic or Alternative Diversion Route provided (see Chapter 2).	Access maintained.
	Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards	Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.	Neutral
	Increased car and LGV traffic levels on the unclassified road (north of the Project Site), the	Travel Plan measures to reduce the number of vehicles on the road network (see	Slight/moderate increases in traffic

	Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Chapter 2).	
	Increased HGV traffic levels on the unclassified road named above, the Rhyd-Y-Pandy road and the Pant-lasau road, as well as the associated junctions. Increased traffic at M4 Junction 46	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads – Construction Traffic Management Plan to be adopted (see Chapter 2).	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak times resulting in slight effects during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal road deliveries.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival (see Chapter 2).	Slight effects from disruption to the road network during off peak times
Operation	Low numbers of workers expected so negligible impact on surrounding road network	Travel Plan measures to ensure workers have choices for travel (see Chapter 2).	Neutral effect on surrounding road network
Cumulative Effects with Access Road – Option 2			
Construction / Decommissioning	Over-run of existing gas pipes and other utilities may cause disruption or require diversion of utilities / road alignment if not designed according to standards	Liaison with National Grid and Other Utility Companies to design an appropriate standard access road.	Neutral
	Increased car and LGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Travel Plan measures to reduce the number of vehicles on the road network (see Chapter 2).	Slight/moderate increases in traffic
	Increased HGV traffic levels on the B4489 as well as the associated junctions, including Junction 46 of the M4	Delivery timings to be monitored to reduce impacts on congestion issues on the surrounding roads	Depending on the results of the monitoring, HGV traffic could arrive and depart during off peak

		– Construction Traffic Management Plan to be adopted (see Chapter 2).	times resulting in slight effects during peak times
	Obstruction for normal vehicles and potential impact on street furniture during abnormal load deliveries.	Abnormal load routing will be agreed with CCS officers and the SWTRA. This will ensure planned routes are agreed and adhered to and any street furniture is removed prior to arrival (see Chapter 2).	Slight effects from disruption to the road network during off peak times
Operation	Low numbers of workers expected so negligible impact on surrounding road network	Travel Plan measures to ensure workers have choices for travel (see Chapter 2).	Neutral effect on surrounding road network