#### Southampton to London Pipeline Project

#### Deadline 2

Response to the Examining Authority's First Written Questions Landscape and Visual (LV) (1 of 2)

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#### 1 Response to the Examining Authority's Written Questions – Landscape and Visual (LV)

**Table 1.1: Applicant response to Question** 

ExQ1	Question:	Applicant response to Question:
LV.1.1	Requirement 12 of the draft DCO [AS-059] requires the submission and approval of a LEMP in accordance with the REAC, which is contained within Chapter 16 of the ES [APP-056]. The LEMP would contain, amongst other things, details of the reinstatement of hedgerows and trees. Although the Applicant relies heavily on the measures contained within the LEMP to mitigate landscape matters, no outline document is before the Examination.  i) Justify the approach that no outline submission is before the ExA particularly as the final	<ul> <li>N.B. The responses to questions i, ii and iii are the same for both BIO.1.1 and LV.1.1.</li> <li>1.1 In answer to BIO.1.1 and LV.1.1 i), the mitigations and commitments relating to landscape and ecological matters and reflecting the conclusions of the Environmental Statement (ES) are set out in the Register of Environmental Actions and Commitments (REAC) (Application Document APP-056). These commitments provide the subjects that would be covered within the Landscape and Ecological Management Plan (LEMP).</li> <li>1.2 The Applicant considers that the relevant planning authority is the appropriate body to consider the local impacts and mitigation that will be set out in the LEMP. Given the subject matter, a LEMP is location specific and not capable of universal adoption along the pipeline route. In addition, at this stage in the project there is no meaningful detail that can be included in an outline LEMP as detailed design has not taken place and so the exact pipeline route, and therefore the necessary details for inclusion in the LEMP (or even an outline LEMP), are not known. It is accepted that a final LEMP would need to be approved by numerous relevant planning authorities, but the Applicant does not consider that provision of an outline document for examination would reduce that requirement or assist at the discharge stage. This is consistent with the approach adopted by other Development Consent Orders (DCOs).</li> </ul>
	LEMP would need to be approved by numerous relevant planning authorities.  ii) In the absence of outline contents, explain how the ExA	1.3 In answer to BIO.1.1 and LV.1.1 ii), commitments in respect of landscape matters are set out in the REAC (which also signposts which commitments would be included in the LEMP). As per Requirement 12(1) of the draft DCO ( <b>Document Reference 3.1 (3)</b> ), the LEMP for each stage must reflect the survey results and ecological mitigation and other measures included in the REAC, which, as part of the Environmental Statement, would be a certified document. These commitments are therefore secured. As set out in the relevant



ExQ1	Question:	Applicant response to Question:
	and the relevant planning authorities can be satisfied, that measures in the LEMP would deliver the mitigation that the conclusions of the submitted ES rely upon.  iii) Provide an Outline LEMP, listing measures that would be	requirement, the relevant authority would need to approve the LEMP, and any concerns they have over the delivery of the mitigation can be resolved as part of approval process. Part 2 of Schedule 2 of the draft DCO ( <b>Document Reference 3.1 (3)</b> ) governs this process, and if necessary, the relevant authority can request further information as part of its deliberations. Ultimately, if the Applicant and the relevant authority disagree over whether the LEMP should be approved with or without amendments, an appeal process is provided for with an appeal to the Secretary of State. This is consistent with the approach adopted by other DCOs.
	secured; drawings to be prepared; detailing consultation	1.4 In answer to BIO.1.1 iii and iv and LV.1.1 iii), as noted above, the Applicant does not consider it necessary or appropriate to provide an outline LEMP.
	that would be undertaken and with whom; and the interrelationship landscape and ecology.  iv) Provide a schedule detailing the areas or lengths of Potential Ancient Woodland, trees covered by area, and individual Tree	1.5 In answer to LV.1.1 iv), as explained in the Applicant's response to Written Question LV.1.8, the total number of trees to be removed during the construction phase has not been determined at this stage. This will be confirmed during the detailed design stage for the project. As the Applicant does not currently know exactly which trees would be lost and therefore which ones would require replacing, these details would be set out within the Landscape and Ecological Management Plan, which would be submitted to and approved by the Relevant Planning Authority (Requirement 12 of the draft DCO ( <b>Document Reference 3.1 (3)</b> ). Commitment G94 in ES Chapter 16 ( <b>Application Document APP-</b>
	Preservations Orders (TPOs), woodlands, hedgerows and important hedgerows that are proposed to be reinstated following completion of construction and the areas or lengths of off- site planting.	056), states that 'Land used temporarily would be reinstated to an appropriate condition relevant to its previous use'. Commitment G97 states 'where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement'.
	N.B – There is overlap between this question and BIO.1.1. The Applicant (and any other	



ExQ1	Question:	Applicant response to Question:
	Interested Parties) may wish to address the issue in a combined response to both questions.	
LV.1.3	Appendix C of the CoCP [APP-128] covers the replacement planting of vegetation and states that replacement planting will be secured through the LEMP. However, vegetation does not appear to be defined anywhere within the CoCP or within the draft DCO [AS-059].  Confirm that trees and hedgerows are included in the term "vegetation" as used in the CoCP.	<ul> <li>1.1 It was not considered necessary to define the term 'vegetation' since this is not a technical term and is widely understood as a general description of a range of plant types. Oxford University Press defines vegetation as 'plants considered collectively' (https://www.lexico.com/en/definition/vegetation).</li> <li>1.2 The Applicant can confirm that the use of the term 'vegetation' within the Environmental Statement and Development Consent Order would include plants collectively, including trees and hedgerows.</li> </ul>
LV.1.4	Notable trees are recorded in the ES Appendix 10.2 [APP-115] as being defined as Category A and B trees in accordance with British Standard 5837:2012.  Confirm that all category A and B trees within 15m of the Order Limits were recorded as notable trees or whether any other parameters were used in defining	1.1 The survey methodology for identifying notable trees was set out within Chapter 4 of Appendix 3 of the Scoping Report ( <b>Additional Submission AS-019</b> ). Paragraph 4.2.1 in the Scoping Report states 'The arboricultural surveys aim to capture tree data on woodlands, veteran/ancient trees and notable/mature trees that are likely to be lost or affected by the Project. The approach ensures an efficient and pragmatic approach to tree data collection, to provide category and definition criteria together with information to provide adequate tree protection during the construction phases.' In addition, notable trees are defined as 'prominent trees within the landscape and by nature will generally be the larger more mature specimens' (paragraph 10.2.10 in ES Chapter 10 ( <b>Application Document APP-050</b> )).



ExQ1	Question:	Арр	licant response to Question:
	notable trees, such as species, diameter height or overall height.		The Applicant can confirm that not all category A and B trees (as per British Standard 5837:2012) are recorded as notable. Table A3.4.1 of Appendix 3 of the Scoping Report ( <b>Additional Submission AS-019</b> ), sets out the parameters of the notable tree survey, which include:
			• stem size: Table A3.4.1 states 'The survey strategy aims to highlight the larger notable trees that may be impacted, for this reason the stem diameter size has been increased from the BS >75mm guidance to >300mm'; and
			• street/urban trees: Table A3.4.1 states 'Within the urban environment it is likely that the trees will have restricted rooting areas due to hard surfacing and installed infrastructure. Impacts to tree roots would be restricted to the excavation width only. It is anticipated that the guidance given within NJUG Volume 4 'guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees' will be followed'.
		1.3	The Applicant considers the approach to mapping notable trees as being consistent with the proportionate approach and targeted survey set out within paragraph 4.2.2 of Chapter 4 of Appendix 3 of the Scoping Report ( <b>Additional Submission</b> <u>AS-019</u> ).
LV.1.5	Figure 10.4 of the ES [APP-064] show the existing views of the route. With few exceptions, the vegetation is in leaf. Paragraph 10.2.26 describes a winter survey being undertaken in early 2018,		In response to i), paragraph 10.2.26 of Environmental Statement Chapter 10 ( <b>Application Document APP-050</b> ) further explains that 'An initial winter landscape survey was undertaken by landscape architects in early 2018 to gain familiarity with the landscape character, to gain an understanding of the general extent of visibility towards the project area from the surrounding landscape and to identify potential significant views towards the project area when visibility was most open prior to vegetation coming into leaf'.
	and states "The findings of the winter landscape survey were used to help influence the developing design and inform the	1.2	Photographs taken during this initial winter landscape survey provided an informal record of the site visits undertaken in early 2018 and were only one of many factors used to help influence the developing design and inform the final selection of Representative



ExQ1	Question:		icant response to Question:
	choice of Representative Viewpoints."	1	Viewpoints. It was not therefore considered necessary to submit these 'working' photographs with the Development Consent Order application.
	<ul> <li>i) Explain why these winter photographs, which were used to help influence the design and confirm representative viewpoints, were not submitted into the Examination; or</li> <li>ii) Provide these photographs.</li> </ul>		As requested in ii), the Applicant has provided these photographs in Appendix LV.1.5.1 of this document.
LV.1.6	no definitions of the significance criteria negligible, minor, moderate or major which are set out in Illustration 6.1, which is recommended by		The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations') require determination of whether an effect is significant or not. The EIA Regulations do not require determination of levels of significance.
		1.2	Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3) (Landscape Institute and Institute of Environmental Management and Assessment, 2013) does not state that it is necessary to define significance criteria. The focus is instead on whether the effect is significant or not.
		1.3	In accordance with GLVIA3 paragraph 5.55 option 1, the level of significance of landscape and visual effects within Environmental Statement (ES) Chapter 10 (Application
	Guidelines for Landscape and Visual Impact Assessment 3 (GLVIA3). Paragraph 6.4.10 states "A significant effect in relation to the EIA Regulations is taken to mean a moderate or higher adverse or beneficial significance. Effects of minor or negligible significance are not		<b>Document</b> APP-050) has been determined in terms of the relationship between the sensitivity of receptors and the magnitude of landscape and visual change, guided by the matrix shown in Illustration 6.1 of ES Chapter 6 (Application Document APP-046). Paragraph 5.54 of GLVIA3 states 'There may also be a need to adopt a consistent approach across all EIA topic areas and the EIA co-ordinator will need to be involved in the decisions on suitable approaches'. The approach across all EIA topics was to base the assessment of significance on the matrix shown in illustration 6.1 of ES Chapter 6 (Application Document APP-046).



ExQ1	Question:	Appl	icant response to Question:
	considered to be significant effects on the environment but are used to acknowledge that there would be some differences from the baseline conditions."		The assessment of landscape and visual significance is not formulaic and professional judgements have been made to determine the significance level of landscape and visual effects identified in ES Chapter 10 ( <b>Application Document</b> <u>APP-050</u> ). This is in accordance with GLVIA3, which advises in paragraph 2.23 that, ' <i>Professional judgement is a very important part of LVIA</i> '.
	Provide definitions of the significance criteria presented in Illustration 6.1 applicable to the assessment of landscape and visual effects.		It is not therefore considered necessary to provide definitions of the significance criteria presented in Illustration 6.1 of ES Chapter 6 ( <b>Application Document <u>APP-046</u></b> ) for the assessment of landscape and visual effects.
LV.1.7	The locations of the important hedgerows identified in the ES Appendix 7.2 [APP-082] and TPOs are illustrated in the General Arrangement Plans [APP-022] to [APP-024]. However, these plans show no details of notable trees and the locations of Ancient Woodland Inventory sites and Potential Ancient Woodland sites. There is also no information provided on the referenced TPOs.  i) Justify the omission; or ii) Provide these details.		In answer to i), the Applicant has produced the General Arrangement Plans (Additional Submission AS-056, AS-057 and AS-058) to comply with Regulation 5(2)(o) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009: 'any other plans, drawings and sections necessary to describe the proposals for which development consent is sought, showing details of design, external appearance, and the preferred layout of buildings or structures, drainage, surface water management, means of vehicular and pedestrian access, any car parking to be provided, and means of landscaping.' The Applicant's Navigation Document (Document Reference 1.5 (3)) states that 'These plans provide information on crossing points, narrow working areas, trenchless crossings, water bodies, Tree Preservation Orders, hedgerows, compounds, logistics hubs and above ground installations.' The plans only show those features within the Order Limits.  In answer to ii), the Applicant has presented the locations of notable trees, Ancient Woodland Inventory sites and Potential Ancient Woodland sites on Figure 10.3 Environmental Statement (ES) Landscape Constraints and Representative Viewpoints within ES Figures Chapter 10 Landscape and Visual (Application Document APP-064).



ExQ1	Question:	Applicant response to Question:	
		1.3 The Tree Preservation Orders located on the General Arrangement Plans (Additional Submission AS-056, AS-057 and AS-058) are referenced in the draft Development Consent Order (Document Reference 3.1 (3)) Schedule 8 – Trees Subject to Tree Preservation Orders, where the Tree Preservation Orders are detailed.	
LV.1.8	The ExA is not clear from the CoCP [APP-128], which is secured by Requirement 8, if the draft DCO [AS-059] or any other document identify the number of trees that would need to be removed for the Proposed Development to be constructed.  i) Confirm whether all trees within the Order Limits would need to be removed.  ii) Confirm the total number of trees to be removed during the construction of the Proposed Development, in particular at Fordingbridge Park.	<ul> <li>1.1 The Code of Construction Practice (CoCP) (Document Reference 6.4 Appendix 16.1 (2 is secured by Requirement 5 (not Requirement 8) of the draft Development Consent Orde (DCO) (Document Reference 3.1 (3)).</li> <li>1.2 In answer to i) and ii), the Applicant is not expecting to remove all trees within the Orde Limits. The Applicant cannot yet confirm the number of trees that would need to be removed because the detailed construction design necessary to determine the precise location of the replacement pipeline is not required to support the application for development consent. This is normally undertaken prior to construction and as part of the detailed design work on the eventual alignment of the pipeline. If the Applicant is granted development consent, the pipeline could be installed anywhere within the Limits of Deviation. This flexibility is required in order to deal with unforeseen ground conditions are local features.</li> <li>1.3 Paragraph 10.5.1 of the Environmental Statement (ES) Chapter 10 (Application Document APP-050) states that 'In order to consider a reasonable worst case, the assessment of potential impacts assumes loss of all trees and shrub vegetation within the Order Limits except where the good practice measures set out in Table 10.13 and reduced.</li> </ul>	
	<ul><li>iii) Confirm whether the use of trenchless techniques would harm or result in the loss to any tree.</li><li>iv) Confirm how and where tree replacement would occur, including details of number,</li></ul>	working widths identified within the REAC [Register of Environmental Actions ar Commitments] dictate otherwise. There is a commitment that the contractor(s) would reta vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings (G91). Therefore, tree loss would be expected to be less than the work case assumed for the purposes of assessment.' As such, although a worst case has been assumed for the purposes of the assessment, it is not anticipated that it would be necessary to remove all trees within the Order Limits including Fordbridge Park.	



ExQ1	Question:	Applicant response to Question:
	species and age of replacement trees.	1.4 In answer to iii), as stated in paragraph 3.2.4 of ES Chapter 3 ( <b>Application Document</b> APP-043), the 'minimum depth from the top of the pipe to the ground surface would be 1.2m in open cut sections, and deeper for trenchless crossings.' This is secured within the DCO ( <b>Document Reference 3.1 (3)</b> ) at Part II (6)(1)(B) which allows the undertaker to 'deviate the pipeline works vertically upwards to a limit of not less than 1.2 metres below the surface of the ground (except where ground conditions make compliance with this upwards limit impracticable in which case the upwards limit is 0.7 metres below the surface of the ground).'
		1.5 The Forestry Commission information note on The Influence of Soils and Species on Tree Root Depth (2005) states that 'Typically, trees have relatively shallow but widespread root systems (Dobson and Moffat, 1993; Dobson, 1995). It is uncommon for roots to penetrate to a depth greater than 2 m, with 80–90% found within the top 60 cm of the soil profile.' The note goes on to conclude that 'it should be emphasised that for all tree species, the vast majority of roots will occur in the uppermost metre of soil.' Therefore, except for where the drill pits are constructed, trenchless crossings would lie deeper than the majority of tree roots and overlying trees would not be affected.
		1.6 In answer to iv), as for the reasons outlined in paragraph 1.2 of this response, above, the Applicant does not currently know exactly which trees would be lost and therefore which ones would require replacing. These details, along with species and age, would be set out within the Landscape and Ecological Management Plan, which would be submitted to and approved by the Relevant Planning Authority (Requirement 12 of the draft DCO (Document Reference 3.1 (3)).
		1.7 The project has made the following commitments in relation to reinstatement planting:
		<ul> <li>Commitment G87: 'Vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable.'</li> </ul>



ExQ1	Question:	Applicant response to Question:
		<ul> <li>Commitment G88: 'Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements).'</li> </ul>
		Commitment G97: 'Where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by Esso would be used as a replacement.'
LV.1.9	115] sets out a schedule of notable tree and Figure 10.3: ES Landscape Constraints and Representative Viewpoints [APP-064] does include notable trees categories A and B. However, the ExA considers the schedule does not assist in knowing the exact	1.1 In response to i), the schedule entry for each notable tree in Table 1.2 of Environmental Statement (ES) Appendix 10.2 ( <b>Document Reference 6.4 Appendix 10.2 (2)</b> ) lists the coordinates. However, in response to the question, the Applicant has prepared a new set of figures showing the location of notable trees to accompany the Written Questions (see Figure LV.1.9.1).
		1.2 In response to ii), the quality category grading of the notable trees is listed in Table 1.2 of ES Appendix 10.2 ( <b>Document Reference 6.4 Appendix 10.2 (2)</b> ) under the heading of 'Quality Category Grading (based on BS5837)'.
		1.3 The assessment of the grading has been carried out in accordance with the category definitions in Table 1 of BS 5837:2012, Cascade chart for tree quality assessment. The quality category grading for the notable trees surveyed for the project are all grade A and B. The definitions for these grades in Table 1 of BS 5837:2012 are:
	<ul><li>i) Provide these plans.</li></ul>	Category A trees: 'Trees of high quality with an estimated remaining life expectancy of at least 40 years.''
	ii) Assess the quality of the identified trees within the schedule.	Category B trees: 'Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.'



ExQ1	Question:	Applicant response to Question:
LV.1.10	Chapter 10 of the ES [APP-050] identifies no compensatory planting or offsetting for the loss of trees covered by a TPO where a moderate effect at Year 15 is identified. Whilst it would not be possible to replace TPO trees lost on a 'like for like' basis, no additional planting of specimen trees off site, for example, is proposed. The tree planting and hedge infilling referred to in the ES and in Figure 7.5 [APP-061] is not stated as being mitigation for TPO trees that would be lost. The ExA is concerned with this approach.  Justify the stance that no replacement or compensatory planting is required for TPO lost trees where a moderate effect is identified at Year 15.	<ul> <li>APP-050) explains that the assessment of landscape and visual effects assumes the worst case in terms of vegetation loss, which would include trees with Tree Preservation Orders (TPOs): "the assessment of potential impacts assumes loss of all trees and shrub vegetation within the Order Limits except where the good practice measures set out in Table 10.13 and reduced working widths identified within the REAC [Register of Environmental Actions and Commitments] dictate otherwise."</li> <li>1.2 Paragraph 10.5.98 of ES Chapter 10 (Application Document APP-050) explains that "Whilst reinstatement planting would establish to reinstate lost vegetation, it would not be possible to fully mitigate the permanent loss of TPO trees There would be restrictions to planting trees over and around pipeline easements. There may also be less scope to accommodate reinstatement of trees within the wider urban area because of restrictions caused by built development, proximity to highways and underground services for example. However, the proposed tree planting and hedge infilling referred to in the ES and illustrated on Figure 7.5 of the ES (Application Document APP-061) forms "a</li> </ul>



ExQ1	Question:	Арр	licant response to Question:
LV.1.11	Confirm whether tree protection fencing, as set out in the REAC which is contained within Chapter 16 of the ES [APP-056] for notable trees, would also be provided for TPO trees and woodland, and other trees and woodland, hedgerows and important hedgerows and their root protection areas where they extend within the Order Limits which may be at risk of damage during the construction period.		Commitment G95 in Table 16.1 of Environmental Statement (ES) Chapter 16 ( <b>Application Document APP-056</b> ) states that 'The contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be applied to trees within the Order Limits which would be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction.' This is not limited to any particular designation of tree.  National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)) recommends the use of protective free-standing barrier to prevent damage to trees.
LV.1.12	The REAC [APP-056] states that notable trees (Ref G86 in Table 16.2), where they are at risk of damage, would be supervised by the Environmental Clerk of Works, and that such a person	1.1	In answer to i), no Ancient Trees have been recorded within 15m of the Order Limits on the Woodland Trust Ancient Tree Inventory (checked 29 August 2019). In addition, no potential ancient trees have been identified during the project arboricultural site surveys. Therefore, this response is only in relation to Tree Preservation Orders (TPOs) and veteran trees.  The Applicant has amended Commitment G86 to include TPO and veteran trees this
appropriately qualif aboriculturalist.	would be supported by an appropriately qualified aboriculturalist.  i) Confirm whether the	1.2	commitment is included in the updated version of the Code of Construction Practice submitted at deadline 2 ( <b>Document Reference 6.4 Appendix 16.1 (2)</b> ). Commitment G86 now states, 'Works to notable, TPO and veteran trees, where at risk of damage, would be supervised by the ECoW and supported by an experienced aboriculturalist'.
	provisions of the REAC would also apply to TPO trees and veteran and ancient trees; and	1.3	In answer to ii), commitment G3 states, 'A suitably experienced Environmental Manager would be appointed for the duration of the construction phase. A qualified and experienced Environmental Clerk of Works (ECoW) would be available during the construction phase, to advise, supervise and report on the delivery of the mitigation methods and controls



ExQ1	Question:	Applicant response to Question:
	ii) Confirm whether the Environmental Clerk of Works would be supported by an appropriately qualified aboriculturalist in respect to notable trees.	outlined in the CEMP. The ECoW would be supported as necessary by appropriate specialists.' This could include an experienced arboriculturist for works adjacent to notable trees if specialist advice is required.
LV.1.13	The REAC (Ref: G95 Table 16.2) [APP-056] refers to the contractor considering and applying, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines (NJUG) for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). The arboricultural assessment of notable trees was carried out with reference to British Standard 5837:2012. The NJUG Guidelines do not appear to contain any recommendations on tree protection fencing, whereas the British Standard has a comprehensive recommendation on this and other related issues,	<ul> <li>1.1 In answer to i), British Standard 5837:2012 Trees in relation to design, development and construction provides general guidance for development and is not specifically aimed at utilities works. The British Standard refers to the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)), for further guidance on construction in proximity to existing trees related to underground utility apparatus (paragraph 7.1.3).</li> <li>1.2 As NJUG Volume 4 provides specific guidance for trees in relation to utilities works, such as pipeline development, it is considered to be the relevant guidance for the project.</li> <li>1.3 The tree survey has been carried out in accordance with BS 5837:2012, as this is recommended in paragraph vii on page 6 of NJUG Volume 4.</li> <li>1.4 In answer to ii), as explained above, the use of BS 5837:2012 is not considered to be the most relevant guidance for this project.</li> </ul>



ExQ1	Question:	Applicant response to Question:	
	although tree protection zones are similar in each document.		
	i) Explain why British Standard 5837:2012 is not being used.		
	ii) Explain whether use of British Standard 5837:2012 would result in a better environmental outcome for trees likely to be affected by the Proposed Development.		
LV.1.14	Chapter 10 of the ES [APP-050] describes generic mitigation measures for proposed planting that are also confirmed in the REAC, which is contained within Chapter 16 of the ES [APP-056]. ES Figure 7.5 [APP-061] shows proposed mitigation planting of hedgerow infilling and tree planting at a scale of 1:10,000. However, there is no clear definition of the extent of	cannot yet confirm the number of trees that would need to be removed because the detailed construction design necessary to determine the precise location of the replacement pipeline is not required to support the application for development consent. This is normally undertaken prior to construction and as part of the detailed design work on the eventual alignment of the pipeline. If the Applicant is granted development consent the pipeline could be installed anywhere within the limits of deviation. This flexibility is required in order to deal with unforeseen ground conditions and local features. The Applicant has, however, committed to narrower working when crossing field boundaries that include hedgerows, trees or watercourses (commitment O1 in the REAC (Application Document APP-056)); several other commitments reduce the working width in specific areas.	
	proposed mitigation planting, for example on the Works Plans [AS-046], [AS-047] and [AS-048].	1.2 In answer to i), the Applicant has prepared a schedule setting out the approximate lengths of hedgerows and the approximate areas of woodlands to be potentially removed in Figure LV1.14.1. For the reasons outlined in 1.1 above, it is not possible to identify individual trees	



ExQ1	Question:	Applicant response to Question:
	The ExA is concerned that the probability of temporary or long-term significant effects arising from the removal of existing vegetation is at present unclear. The loss of vegetation is not quantified by individual trees, lengths of hedgerow or areas of woodland,	<ul> <li>likely to be removed as a result of the project. Therefore, individual trees have not been included in the schedule of removal in Figure LV1.14.1 submitted with this response.</li> <li>1.3 In answer to ii), the Applicant does not consider it to be appropriate to update the Works Plans to illustrate the worst-case tree, hedgerow and woodland removal, as the exact extents of removal within the Order Limits are not known at this stage. However, a set of figures illustrating the locations of hedgerows and woodland within the Order Limits that are at risk of removal has been prepared and submitted along with this response, as Figure LV.1.14.1. Commitment G87 of the CoCP (Document Reference 6.4 Appendix 16.1 (2)), states that 'Vegetation clearance, retention, protection and replanting/reinstatement</li> </ul>
	and the landscape and visual effects of vegetation removal is not shown by annotated photograph or photomontage.	drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable.'
	<ul> <li>i) Provide a schedule detailing the 'worst case' areas of lengths, as appropriate, of individual trees, hedgerows or areas of woodland that are expected to be removed to accommodate the Proposed Development from each section of the pipeline corridor.</li> <li>ii) Annotate the extents or lengths to be removed on the Works Plans [AS-046], [AS-047] and [AS-048].</li> </ul>	



ExQ1	Question:	Applicant response to Question:
LV.1.15	Potential impacts on landscape character are considered in Chapter 10 of the ES [APP- 050] during construction, at Year 1 and at Year 15 post construction, which assumes mitigation planting is established. However, in some paragraphs the assessment of effects at Year 15 seems to be at odds with the text which describes the effects, for example at paragraph 10.5.43: "Whilst reinstatement planting would have established to restore the landscape, it would not be possible to fully reinstate distinctive, mature vegetation and notable trees within 15 years. In year 15 post construction, the potential magnitude of impact would be small, and the significance of effect would be minor." There is no statement on the height that reinstatement planting is expected to have reached after 15 years, an important omission where the mitigation planting would be	<ul> <li>1.1 In year 1 post construction, the height of reinstatement planting would depend on the plant stock size at the time of planting. The assessment within Environmental Statement (ES) Chapter 10 (Application Document APP-050) assumed that native planting would typically comprise transplant planting at a height of approximately 0.6 to 0.9m.</li> <li>1.2 In year 15 post construction, the following heights for reinstatement planting have been assumed for the purposes of the assessment within ES Chapter 10 (Application Document APP-050): <ul> <li>Trees: 7m;</li> <li>Shrubs: 3-4m; and</li> <li>Hedgerows: 2m.</li> </ul> </li> </ul>



ExQ1	Question:	Applicant response to Question:	
	relied upon in the assessment of residual effects at Year 15.		
	Confirm what heights have been assumed for the proposed replacement planting in the assessment of the effects at Year 1 and Year 15 following completion of construction activities.		
LV.1.16	<ul> <li>i) Explain whether there has been any assessment for the potential for die back to retained trees due to compaction from adjacent construction activities and windthrow to retained woodlands and plantations where these are crossed by the pipeline corridor.</li> <li>ii) Explain whether any</li> </ul>	1.1 In answer to i), the Applicant cannot yet confirm the trees that would be affected by compaction and windthrow because the detailed construction design necessary to determine the precise location of the replacement pipeline is not required to support the application for development consent. This is normally undertaken prior to construction and as part of the detailed design work on the eventual alignment of the pipeline. If the Applicant is granted development consent the pipeline could be installed anywhere within the limits of deviation. This flexibility is required in order to deal with unforeseen ground conditions and local features. For this reason, impacts from compaction or windthrow to specific trees has not and cannot be assessed and the precautionary approach was taken to assess the impact that all such trees within the Order Limits would be removed.	
	mitigation measures would be implemented to address these issues.	1.2 In answer to ii), the Environmental Statement (ES) includes a number of commitments designed to avoid and reduce effects to trees, including potential for die back due to compaction or windthrow. These include:	
		<ul> <li>Commitment G95 in Table 16.1 of Environmental Statement (ES) Chapter 16 (Application Document <u>APP-056</u>) states that 'The contractor(s) would consider and apply, where practicable, the relevant protective principles set out in the National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees ('NJUG Volume 4' (2007)). This would be</li> </ul>	



ExQ1	Question:	Applicant response to Question:		
		const	ed to trees within the Order Limits which would be preserved through the ruction phase, and to trees outside of the Order Limits where such measures of thinder or prevent the use of the relevant working width for construction.'	
		Utility Appa protective	point Utilities Group Guidelines for the Planning, Installation and Maintenance of aratus in Proximity to Trees ('NJUG Volume 4' (2007)) recommends the use of free-standing barrier to prevent damage to trees within the root protection Area mary Zone).	
		trees trees and t	mitment G65: 'Working widths would be reduced in specific locations where or hedges are present. Where notable, TPO, Ancient Woodland and veteran would be retained within or immediately adjacent to the Order Limits, the trees heir root protection areas would be protected where they extend within the Order is and are at risk. This would be by means of fencing or other measures'.	
		repla phas	mitment G87: 'Vegetation clearance, retention, protection and nting/reinstatement drawings would be produced prior to the construction e. The contractor(s) would implement these plans including agreed mitigation e practicable'.	
		arboricultu Environme	to reduce the risk of compaction and windthrow would be set out in the ral management plan. This would be prepared as part of the Construction intal Management Plan, which would be 'submitted to and approved by the planning authority' in accordance with DCO Requirement 6 ( <b>Document 3.1</b> (3)).	
LV.1.17	The REAC (Ref G87 Table 16.2) [APP-056] states that "vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase.	reinstatem limits of de of environ	to i), the exact details of vegetation retention, protection and replanting or ent would be subject to detailed design. The detailed pipeline routing within the viation will need to optimise the alignment design, taking into account a number mental and technical constraints. The final pipeline route would therefore the extent to which existing vegetation can be retained, protected or reinstated,	



ExQ1	Question:	Applicant response to Question:	
	The contractor(s) would implement these plans including agreed mitigation where practicable". Chapter 10 of the ES [APP-050] states that "In order to consider a reasonable worst case, the assessment of potential impacts assumes loss of all trees and shrub vegetation within the Order Limits except where the good practice measures set out in Table 10.13 and reduced working widths identified within the REAC dictate otherwise". The REAC (Ref G91 Table 16.2) also states that "the contractor(s) would retain vegetation where practicable and	<ul> <li>the latter also taking into consideration restrictions on tree planting in the close proximity to the pipeline, valves or other infrastructure.</li> <li>1.2 Whilst vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the commencement of construction pursuant to Requirement 8 (Hedgerow and Trees) and Requirement 12 (Landscape and Ecological Management Plan), it is still possible that unforeseen circumstances could require variations to the alignment within the limits of deviation during the course of construction. Such variations would therefore have a consequential effect on the ability to implement the proposals set out in the pre-construction drawings. Examples of unforeseen circumstances could include archaeological finds, unexpected ground conditions, and discovery of protected species such as badgers or bats.</li> <li>1.3 The term 'where practicable' therefore recognises the numerous environmental and technical constraints that would need to be taken into consideration when implementing commitment G87 of the Register of Environmental Actions and Commitments (REAC) in Chapter 16 of the ES (Application Reference APP-056) and the potential need for adjustments to be made on site when implementing the detailed design in the event of any unforeseeable constraints.</li> </ul>	
	in accordance with, as a minimum, the vegetation retention drawings."  The ExA is concerned with the approach taken by the Applicant and the use of the words "where practicable". The wording would weaken the commitment to mitigation measures set out in the ES, REAC and draft DCO [AS-059] and could result in	<ul> <li>1.4 In answer to ii), the Applicant is of the view that they have fully committed to providing replacement planting save that it is not able to replace trees within the easement strip that extends either side of the pipeline once laid, and planting here would instead comprise native species of shrubs. Commitments set out within the REAC in ES Chapter 16 (Application Document APP-056) that relate to replacement replanting include:</li> <li>Commitment G87: 'Vegetation clearance, retention, protection and replanting/reinstatement drawings would be produced prior to the construction phase. The contractor(s) would implement these plans including agreed mitigation where practicable'.</li> </ul>	



ExQ1	Question:	Applicant response to Question:	
	significantly greater long-term landscape and visual effects than assessed in the ES, for example,	<ul> <li>Commitment G88: 'Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements)'.</li> </ul>	
	if the Order Limits were kept free of trees.	• Commitment G93: 'Hedgerows, fences and walls would be reinstated to a similar style and quality to those that were removed, with landowner agreement'.	
	i) Confirm the circumstances in which it would not be practicable to implement the vegetation retention, protection	<ul> <li>Commitment G98: 'Where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements, native shrub planting approved by the Applicant would be used as a replacement'.</li> </ul>	
	and replanting or reinstatement; ii) Explain why the Applicant	1.5 In answer to iii), as explained in the response to (i), the exact details of vegetation retention, protection and replanting or reinstatement would be subject to detailed design.	
		1.6 In answer to iv), as explained in Chapter 10 of the ES ( <b>Application Reference APP-050</b> ) at paragraph 10.5.1, 'in order to consider a reasonable worst case, the assessment of potential impacts assumes loss of all trees and shrub vegetation within the Order Limits except where the good practice measures set out in Table 10.13 and reduced working widths identified within the REAC dictate otherwise. There is a commitment that the contractor(s) would retain vegetation where practicable and in accordance with, as a minimum, the vegetation retention drawings (G91). Therefore, tree loss would be expected to be less than the worst case assumed for the purposes of assessment.'.	
	[APP-050] has presented a worst-case assessment.	1.7 The assessment in Chapter 10 of the ES ( <b>Application Reference APP-050</b> ) therefore adopts a reasonable worst-case scenario whereby, with certain exceptions, it is assumed that all trees within the Order Limits would be removed to facilitate installation of the project, unless otherwise stated in the REAC. This was because the project assumes limits of deviation within which the pipeline trench would be excavated, rather than a specific pipeline alignment, at this early stage in the design process. Since removal of all trees within the Order Limits is not the intention, the assessment has errred on the side of caution, and the overall environmental outcome following implementation of the pipeline	



ExQ1	Question:	applicant response to Question:		
		and associated mitigation measures is expected to be better than the worst case asessment.		
LV.1.18	The REAC (Ref: LV1 of Table 16.3) [APP-056] proposes native trees and hedgerow to be planted within areas identified as tree planting and hedge infilling in ES Figure 7.5 [APP- 061]. Chapter 10 of the ES [APP-050] states "this is a holistic approach to partly offset the envisaged loss of trees from the overall pipeline installation project."	1.1 In response to i), commitment LV1 in the Register of Environmental Actions and Commitments (REAC) set out in Environmental Statement (ES) Chapter 16 (Application Document APP-056) relates to the planting of native trees and shrubs within defined areas shown on Figure 7.5 of the ES (Application Document APP-061). The reference to 'vegetation clearance' in commitment G87 in Chapter 16 of the ES (Application Document APP-056) is therefore a separate issue. Commitment G87 would cover where vegetation clearance is required to facilitate installation of the pipeline 'vegetation clearance drawings [that] would be produced prior to the construction phase'. Commitment G87 also covers replanting, therefore where appropriate the drawings would also include the proposed native tree and hedgerow planting indicated on Figure 7.5 of the ES.		
	i) Confirm whether the measures discussed here apply equally to REAC ref G87 in Table 16.2 in respect to vegetation clearance.  ii) Explain the degree to which the extent of planting as illustrated in Figure 7.5 of the ES [APP-061] was determined and the agreements reached with	1.2 In response to ii), there has been no specific consultation to date on the extent of planting shown on Figure 7.5 of the ES ( <b>Application Document APP-061</b> ). However, DCO Requirement 12 ( <b>Document Reference 3.1 (3)</b> ) states that 'no stage of the authorised development must commence until a written landscape and ecological management [(LEMP)] plan reflecting the measures included in the REAChas been submitted to and approved by the relevant planning authority'. The relevant planning authorities would therefore be consulted on the design of proposed planting within the areas defined on Figure 7.5 of the ES ( <b>Application Document APP-061</b> ). In addition, the Applicant would also engage with the Interested Parties, for example the landowner, regarding reinstatement plans.		



ExQ1	Question:	Applicant response to Question:	
	relevant Interested Parties and Statutory Bodies.  iii) Explain the detailed design process that will lead to the implementation of the proposed planting.  iv) Explain who will be		In response to iii), during the detailed design stage, the pipeline routeing will become further refined and there will be a better understanding of the vegetation that would be a retained or lost as a result of the works. This information would inform the Arboricultural Management Plan, which would form part of the Construction Environmental Management Plan (CEMP). The detailed designs would also inform the production of the LEMP, which would set out the proposals for reinstatement. The CEMP and LEMP would both be submitted to the relevant planning authorities for approval (Requirement 6 and Requirement 12 respectively).
	consulted on and approved the proposed extent of planting, species, densities and heights of planting.	1.4	In response to iv), As noted in the response to ii), these details would be contained within the CEMP and LEMP which would be submitted to the relevant planning authority for approval.
	v) Provide details of monitoring and aftercare measures proposed to be applied to reinstated features, mitigation planting and tree and hedgerow infilling and how these will be secured in the draft DCO [AS-059].	1.5	In response to v), commitment G92, as secured by DCO Requirements 5, 8 and 12, states that 'A three-year aftercare period would be established for all mitigation planting and reinstatement'. DCO Requirement 12 ( <b>Document Reference 3.1 (3)</b> ) requires preparation of an LEMP. DCO Requirement 8 ( <b>Document Reference 3.1 (3)</b> ) states that 'Any hedgerow or tree planting which is part of an approved reinstatement plan that, within a period of three years beginning with the date of planting, is removed, uprooted, destroyed, dies or (in the reasonable opinion of the relevant planning authority) becomes seriously damaged or defective, must be replaced with planting material of the same specification as that originally planted'.



ExQ1	Question:	Appl	Applicant response to Question:		
LV.1.19	The REAC (Ref: G97 of Table 16.2) [APP-056] proposes the use of native shrub planting where woodland vegetation is lost and trees cannot be replaced due to the restrictions of pipeline easements.  i) Confirm whether Local Authorities, the National Park Authority, NE and local wildlife trusts will be invited to, or have made comments on the proposed species for replacement shrub, hedgerow, tree and woodland planting.  ii) Confirm how grass seed mixes would be selected.	1.2	In answer to i), the landscape and ecological management plan (LEMP) would be submitted to the relevant planning authorities for their approval in accordance with Requirement 12 of the draft Development Consent Order (DCO) (Document Reference 3.1 (3)). The LEMP would include a written plan of reinstatement in accordance with draft DCO Requirement 8 (Document Reference 3.1 (3)), which states that 'the reinstatement of all hedgerows and trees must be undertaken in accordance with a written plan of reinstatement [which] must form part of the landscape and ecological management plan approved in accordance with Requirement 12 (landscape and ecological management plan).' Species selection would form part of this plan.  The relevant planning authorities could consult Natural England and the local wildlife trusts on the LEMP at their discretion.  In answer to ii), the proposals for grass seed mixes would be included in the LEMP. The seed mixes would be selected to suit existing ground conditions in line with commitment G94 which states that 'Land used temporarily would be reinstated to an appropriate condition relevant to its previous use' and commitment G88 which states that 'Where possible, reinstatement of vegetation would generally be using the same or similar species to that removed (subject to restrictions for planting over and around pipeline easements)'.		
LV.1.21	The ExA acknowledges the working width is defined in Chapter 3 of the ES [APP-043]. The REAC [APP-056] records the sections of the route where there is a commitment to reduce the working width as mitigation. However, the General Arrangement Plans [APP-022], [APP-023] and [APP-024] are for		In response to (i), the areas where the Applicant is making a commitment to reduce the working width as part of the embedded design measures are depicted by the purple shaded areas on the General Arrangement Plans ( <b>Additional Submission AS-056</b> , <b>AS-057</b> and <b>AS-058</b> ). The ExA's attention is drawn to the legend on these plans which explains how the narrow working areas are shown on the General Arrangement Plans. In the case of the illustration that the ExA has made reference to, General Arrangement Plans sheet 28, the 15 meter wide working width committed to in the REAC as NW7 is labelled on the sheet as NW7 and shaded purple as the Order Limits go through Oak Park Golf Course. The Order Limit is kept at 26.1m because the Applicant would like to retain flexibility to choose where the 15m wide working width would go within the Order Limits		



ExQ1	Question:	Арр	Applicant response to Question:		
	the most part unchanged. An illustration of this is reference to General Arrangement Plans			e located within the limits of devaition and local the Order Limits. The fine routing of the pipeline stage.	
	drawing sheet 28, where the REAC makes a commitment to a 15m working width, but the Order Limit is annotated at 26.1m.	1.2	(),	row working is committed to are determined by ne General Arrangement Plans ( <b>Additional</b> ).	
	i) Explain the anomalies.	1.3	• • • • • • • • • • • • • • • • • • • •	fects has taken into account the fact that the within the Order Limits if their location is not	
	<ul> <li>ii) Explain how the locations within the Order Limits will be determined.</li> <li>iii) Explain how the assumptions, if any, have been made in the assessment of effects as the locations of narrow working areas.</li> </ul>		specified. Where narrow working has been taking into account in the assessment referenced in the text, for example at paragraph 10.5.91 in Environmental St Chapter 10 ( <b>Application Document</b> APP-050) in relation to west of Ewshot Woodstates 'There would be negligible effects on Potential Ancient Woodland (undes because narrow working would apply here (NW33), and the haul road and pipe inswould utilise an existing 5m gap between two areas of ancient woodland above a		
LV.1.22	for the proposed pipeline corridor		In response to i), the proposed working wid	Iths for the referenced pipeline corridor sections	
	sections: NW/11/13; NW15; NW20; NW23/24; NW30; and		Narrow Working ID	Working Width	
	NW33.  ii) Explain how the reduced working width areas would be secured in the draft DCO [AS-059].		NW11	15m	
			NW13	15m	
			NW15	5m	
			NW20	15m	



ExQ1	Question:	Applicant response to Question:			
			NW23	20m	
			NW24	20m	
			NW30	10m	
			NW33	5m	
			In response to ii), the reduced working width and narrow working Techniques are stipulated in Annex A of the Code of Construction Practice ( <b>Document Reference 6.4 Appendix 16.1 (2)</b> ). Grid references are provided in Annex A and references also shown in the General Arrangement Plans ( <b>Additional Submission AS-056</b> , <b>AS-057</b> and <b>AS-058</b> ). They are therefore secured by Requirement 5 of the draft DCO ( <b>Document Reference 3.1 (3)</b> ). It is not possible to give a firm boundary of the reduced working widths in the General Arrangement Plans as the lateral location of the working width within the Order Limits will be dependent upon where the pipeline is located within the limits of deviation.		
LV.1.23	The Forestry Commission indicated [AS-028] that discussions are taking place with the Applicant in respect of a methodology for working within tree root zones of Ancient Woodland and the need for a 15m buffer zone to be established.  Update this position and how discussions have progressed	1.1	To reflect concerns raised by the Forestry C has prepared a Technical Note on Ancient the approach to reduce the impacts of the ancient woodland within 15m of the Order the use of buffers and ground protection requirement for specialist construction to excavation within root protection areas. The the Forestry Commission and Natural Enveteran trees: protecting them from developmitigation principles, with avoidance of work recommended where practicable.	Woodland and Veteran Trees which sets be project on ancient woodland and poten Limits. This follows a hierarchy, ranging for around ancient trees and woodland, to exchniques to be used for any unavoided project had regard to the standing advice f	from the able from and and
	with the Forestry Commission, the Woodland Trust and NE.	1.2	The Technical Note has been submitted to tas part of agreeing the Statement of Comm		and,



ExQ1	Question:	Applicant response to Question:	
	N.B — There is an overlap between this question and questions BIO.1.18 and BIO.1.20 you may therefore wish to provide a combined response to these questions.		Natural England has signed a SoCG with the Applicant (REP1-005), section 3 of which sets out agreement on matters including:
			<ul> <li>avoiding classified ancient woodland and reducing impacts on potential ancient woodland;</li> </ul>
			• the mitigation proposed in chapters 7 ( <b>Application Document APP-047</b> ) and 16 ( <b>Application Document APP-056</b> ) of the ES.
			<ul> <li>working methods in relation to ancient woodland and veteran trees.</li> </ul>
		1.4	The Forestry Commission has signed an SOCG with the Applicant ( <b>Document Reference 8.6.20</b> ), section 3 of which sets out agreement on matters including:
			<ul> <li>that the proposed approach to mitigating effects on Ancient Woodland, potential ancient woodland and veteran trees, as described in the ES (Application Document APP-056) and the further information included in the Ancient Woodland and Veteran Trees Technical Note (Document Reference 8.15), are appropriate.</li> </ul>
			<ul> <li>that appropriate measures have been taken to identify all areas of Ancient Woodland, and areas of Potential Ancient Woodland that do not appear on Natural England's Ancient Woodland Inventory;</li> </ul>
			<ul> <li>that the Order Limits avoid all areas of existing classified Ancient Woodland;</li> </ul>
			• that the route will avoid all recorded ancient trees identified by the Ancient Tree Forum/ Inventory. Technical Note: Ancient Woodland and Veteran Trees provides clarity.
		1.5	The Woodland Trust's concerns regarding a buffer zone for ancient woodland were taken into account when developing the Technical Note, described above.



ExQ1	Question:	Applicant response to Question:	
LV.1.24	Explain the criteria used to determine when a narrow		A narrow working width <u>is</u> proposed in both Queen Elizabeth Park and Fordbridge Park. This is shown on the following General Arrangement drawings:
	working width would be used and why it is not proposed in public parks such as Queen Elizabeth Country Park and Fordingbridge Park, but it is proposed at Turf Hill.		<ul> <li>for Queen Elizabeth Park: NW17 shown on Sheets 34 and 35 (Additional Submission AS-058); and</li> </ul>
			• for Fordbridge Park: NW30 shown on Sheet 52 ( <b>Additional Submission AS-058</b> ).
			The position of the reduced working width corridor within the Order Limits has not yet been determined but would be a 15m width for NW17 and a 10m width for NW30. The determination of when a narrow working width would be used is based on a number of factors, such as:
			whether there is sufficient width to undertake the works safely and effectively;
			<ul> <li>if narrow working allowed the wider area affected to be reinstated and back into use more quickly; and</li> </ul>
			<ul> <li>if narrow working would reduce the effects on 'sensitive' features, but still retain the route outside of the immediate 'sensitive' feature (the required working width and pipeline alignment may be driven by other elements outwith the area of the sensitive feature).</li> </ul>
		1.3	See response to ALT.1.5 ( <b>Document Reference 8.6.01</b> ) for further information.



#### 2 References

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Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3). London: Routledge.

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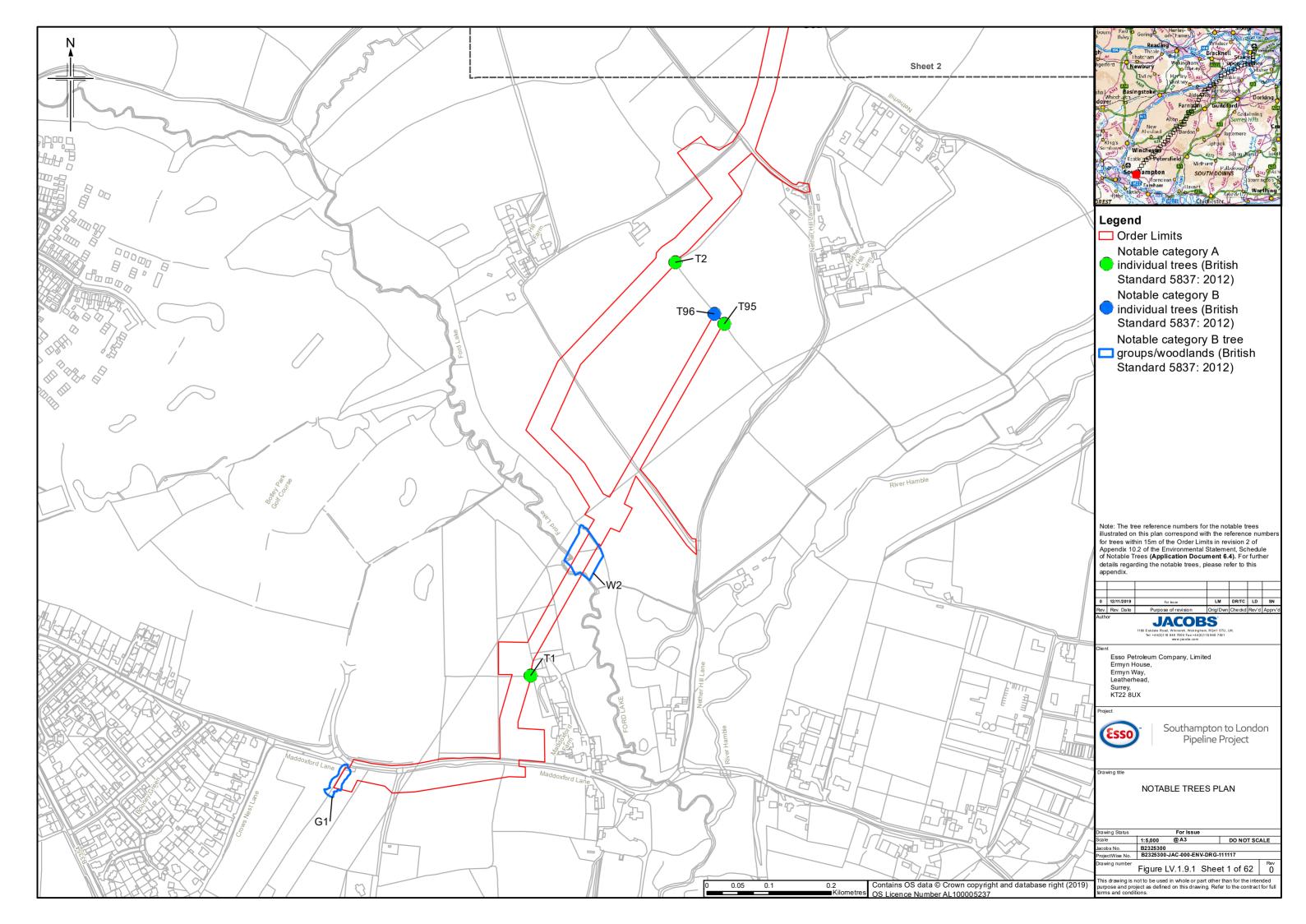
Forestry Commission (2005). The Forestry Commission information note on The Influence of Soils and Species on Tree Root Depth. Accessed 22 October 2019.

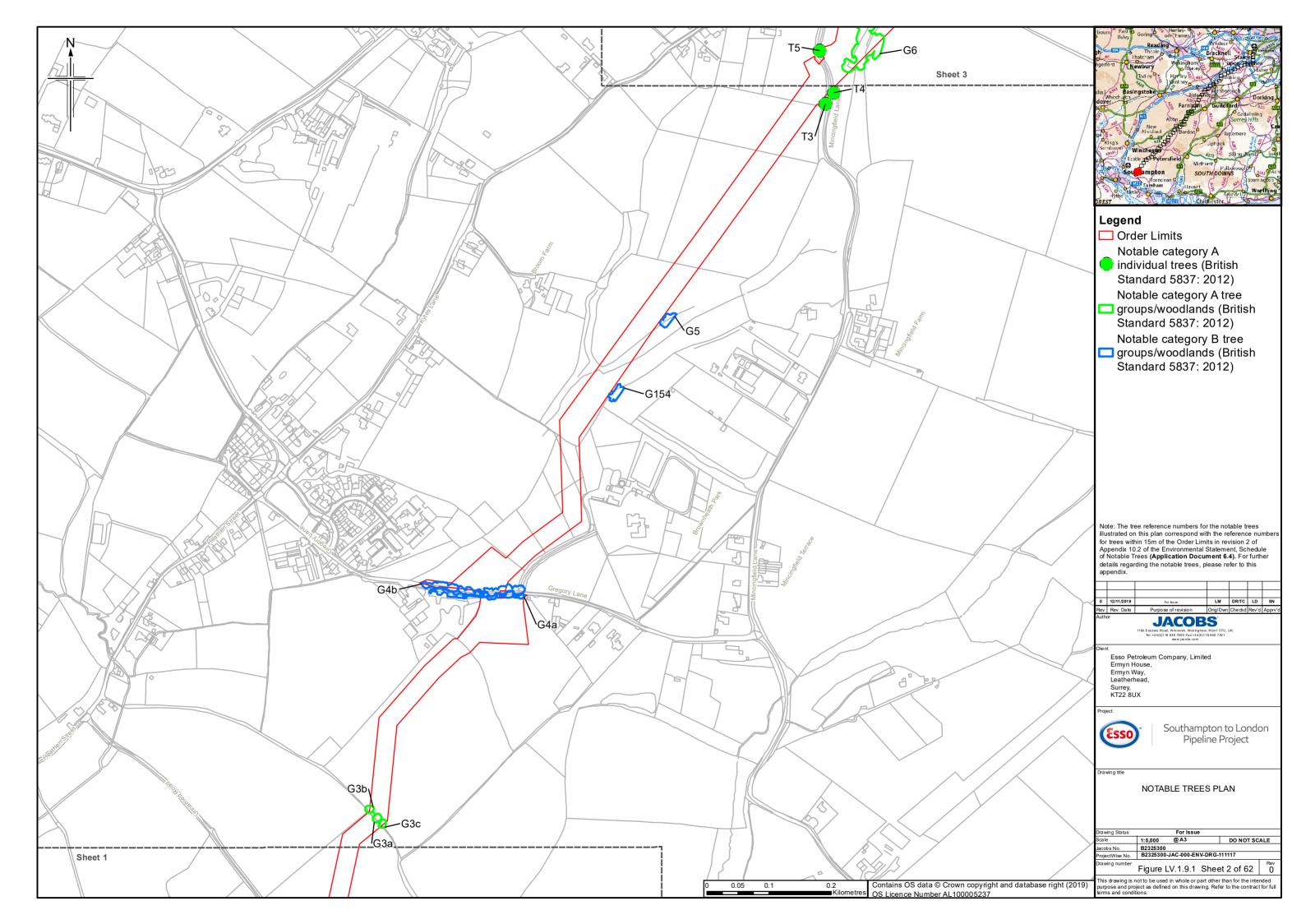
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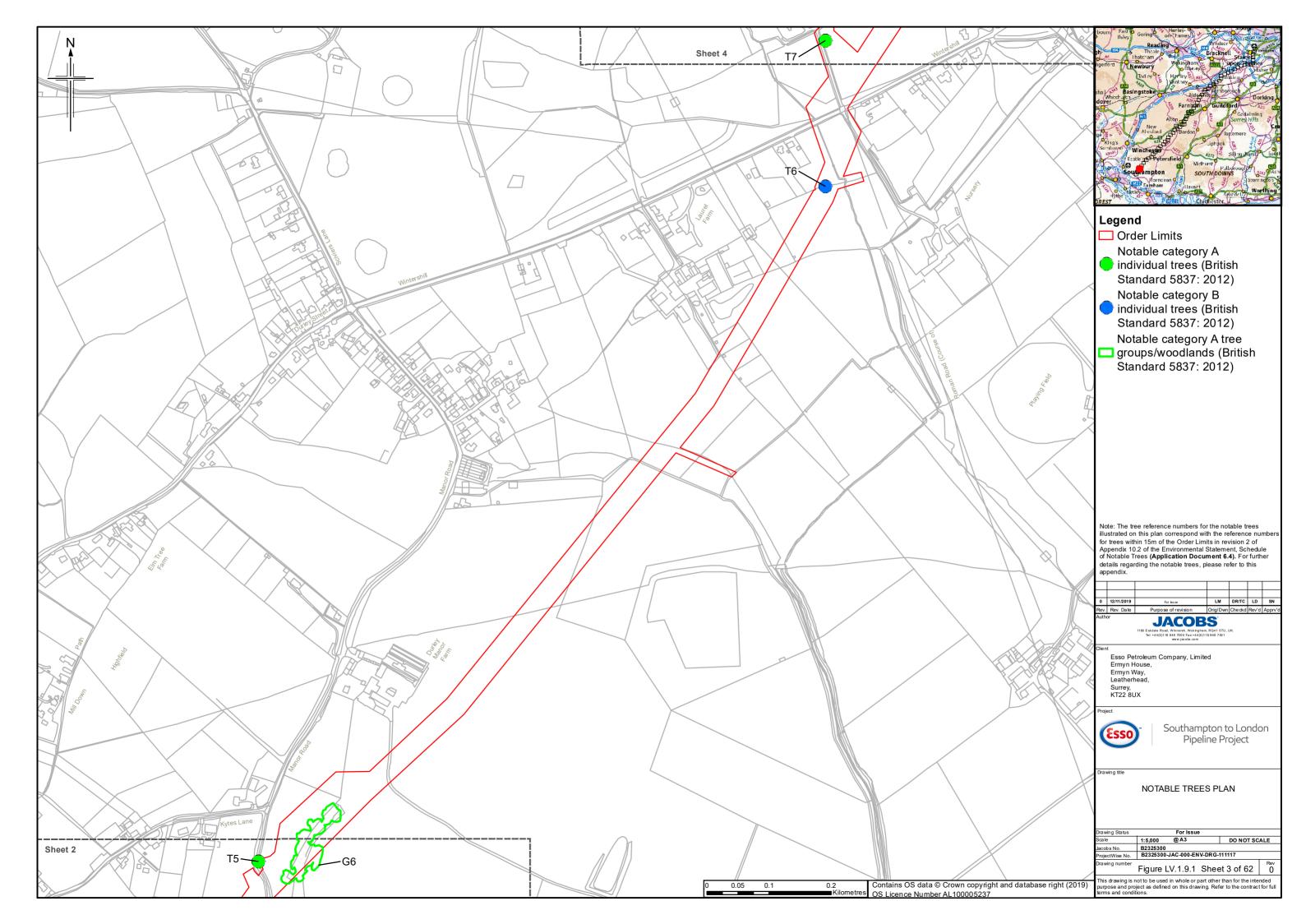


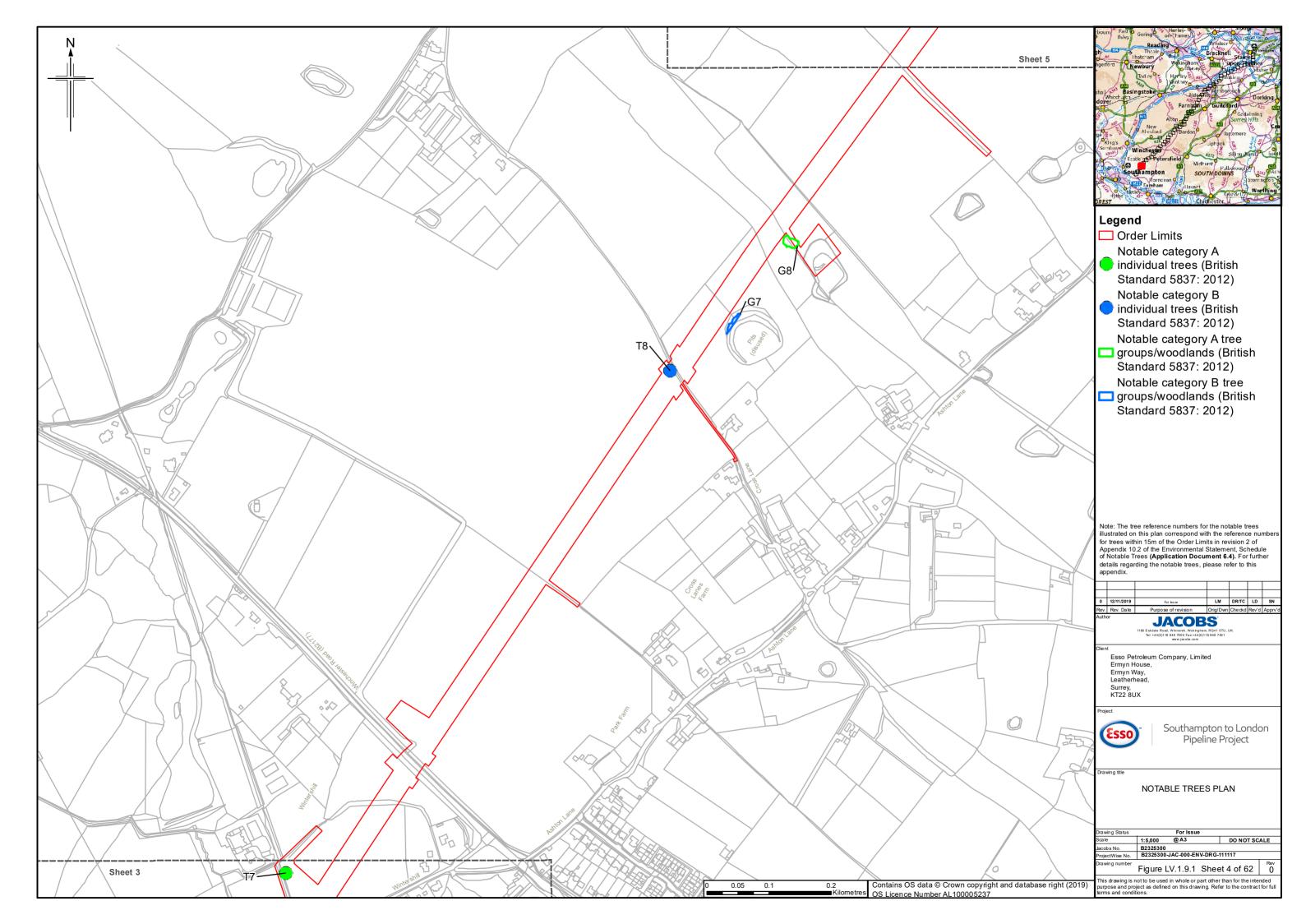
#### 3 Figures

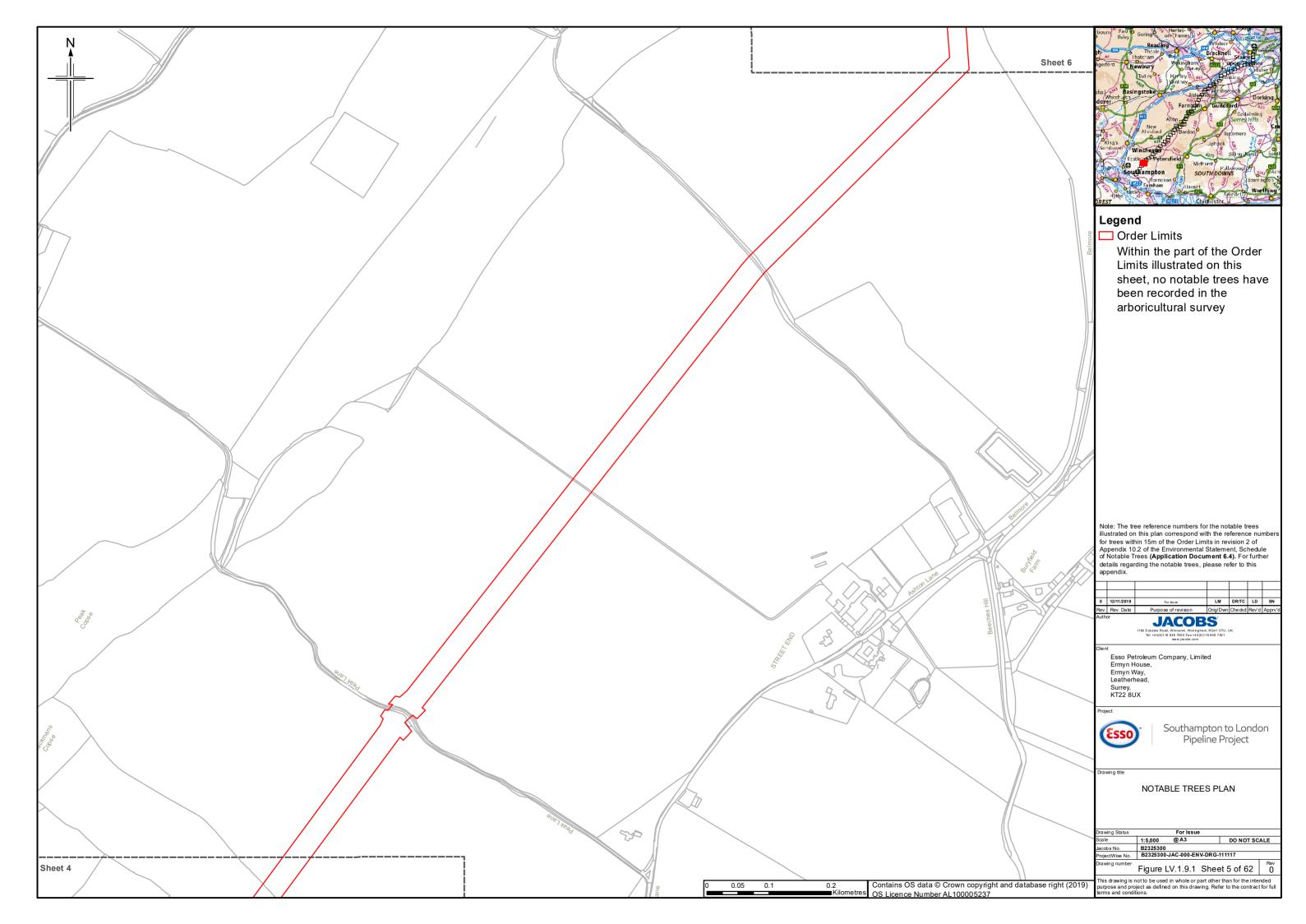
**Figure LV.1.9.1: Notable Tree Plans** 

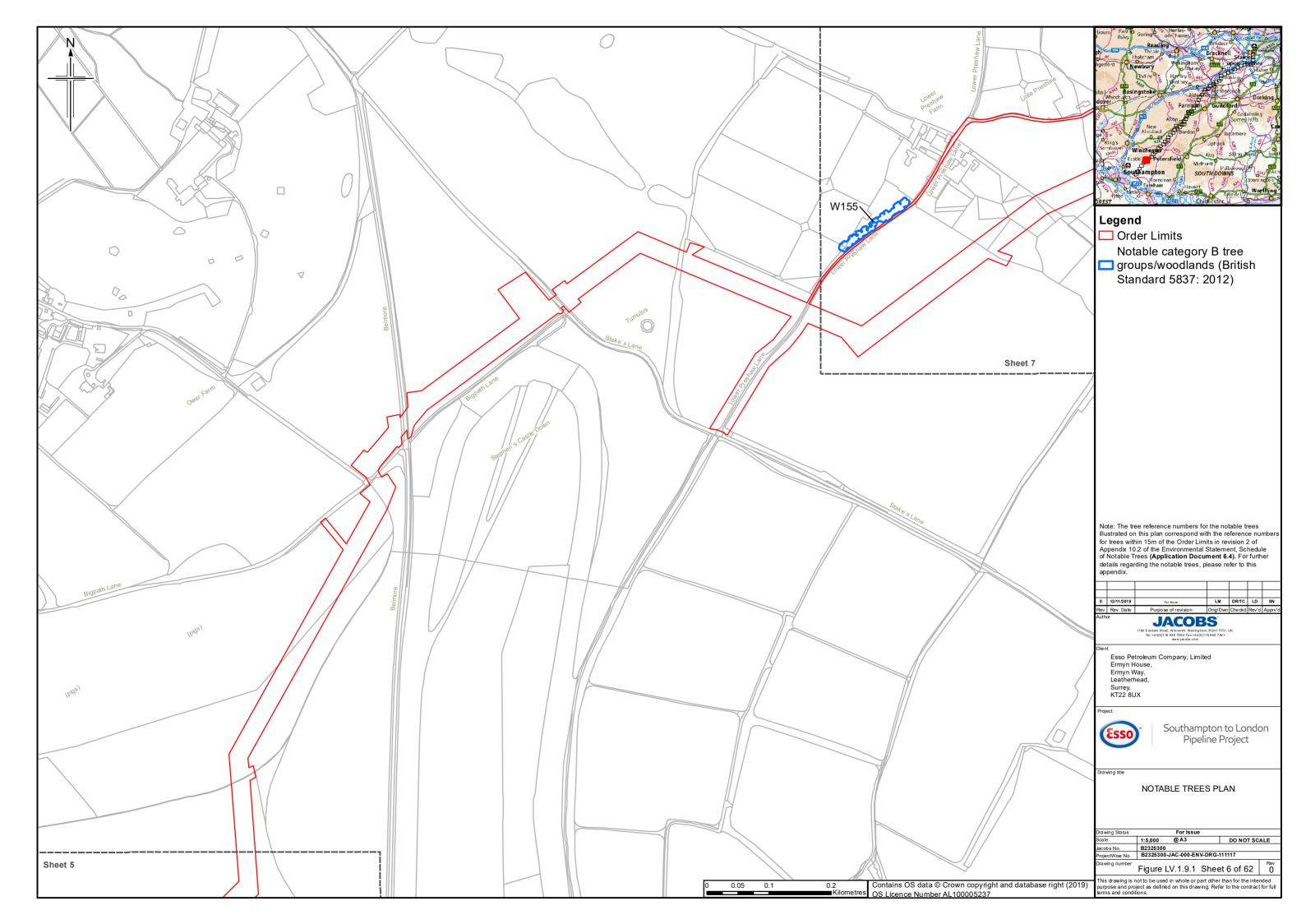




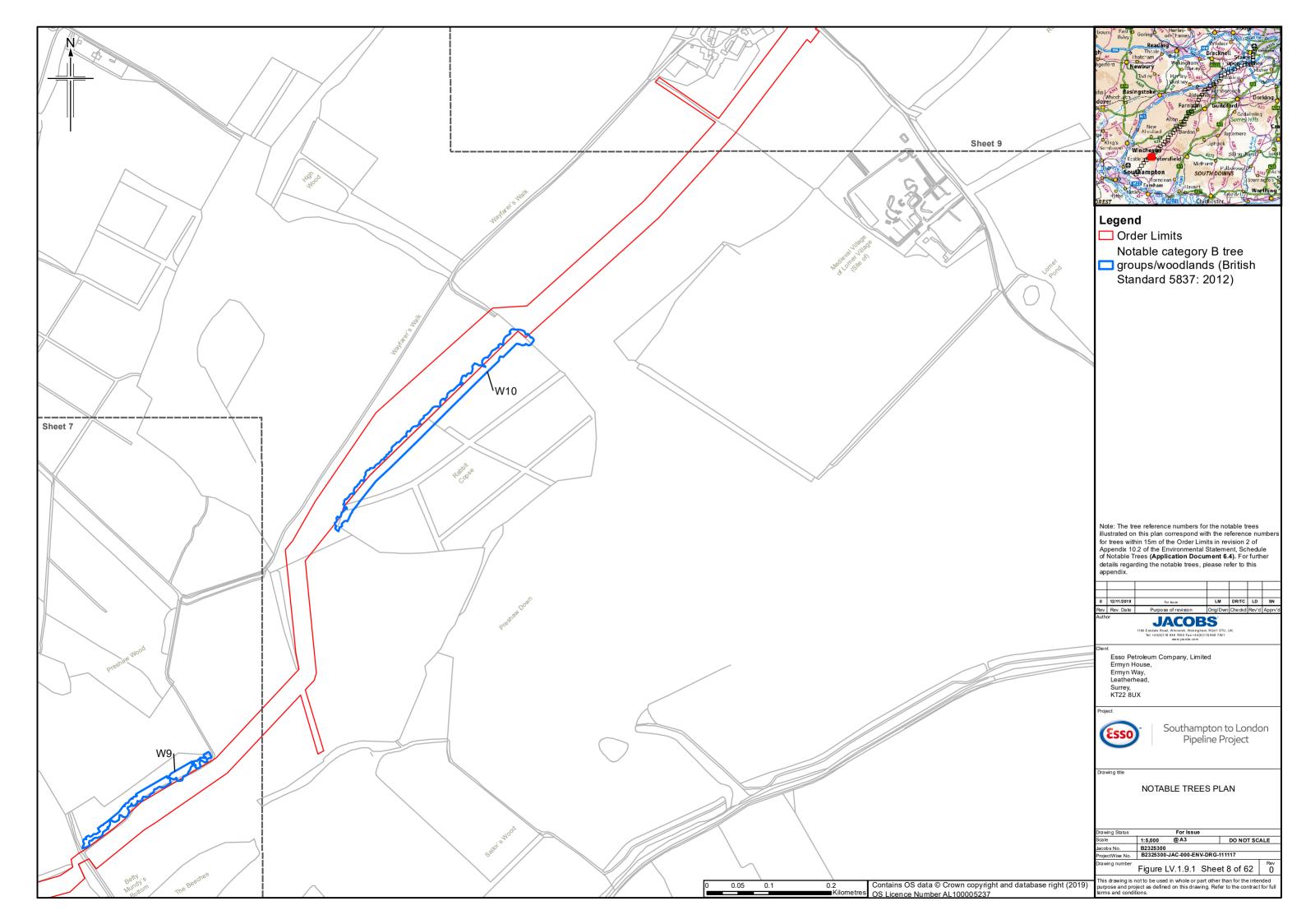


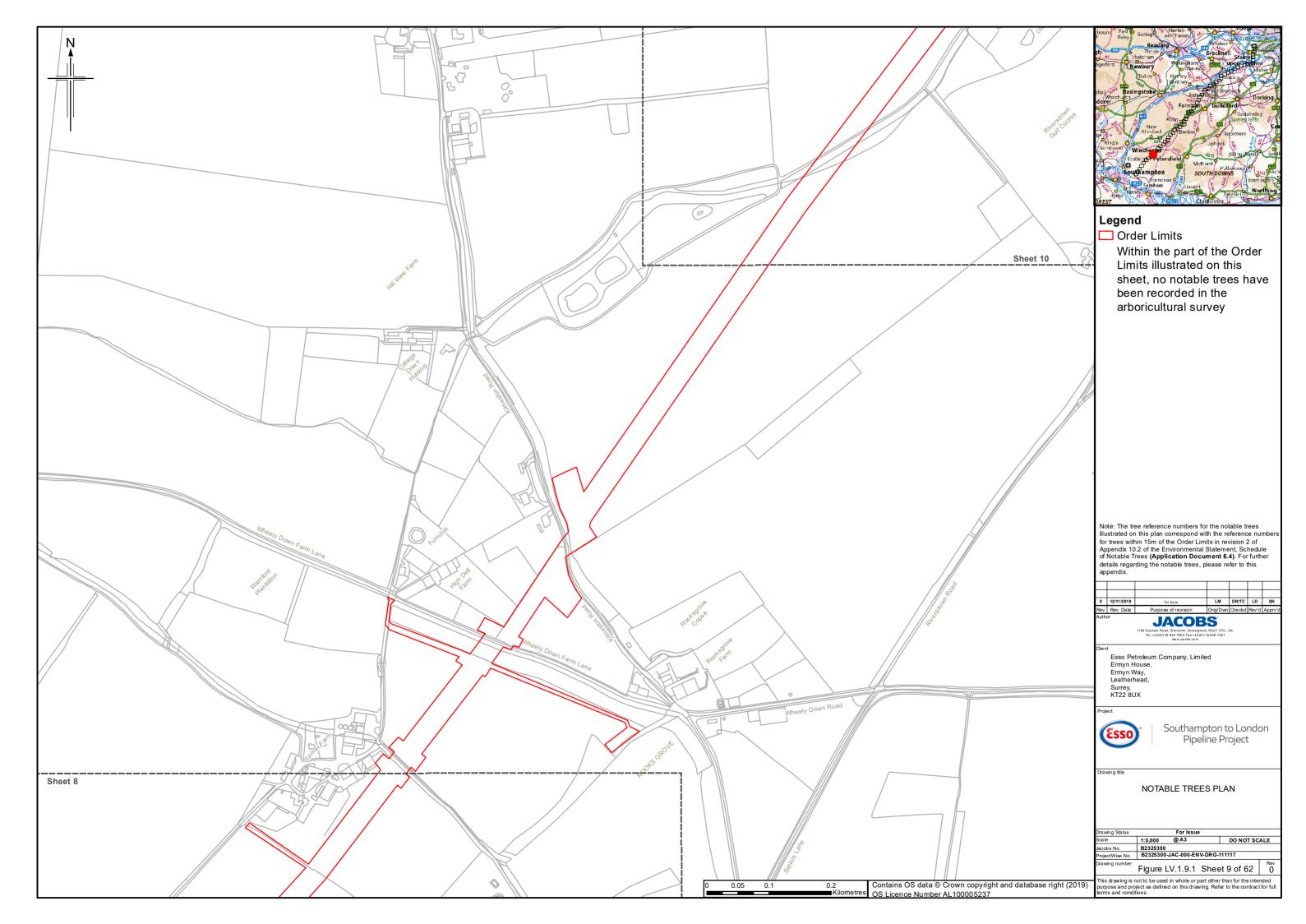




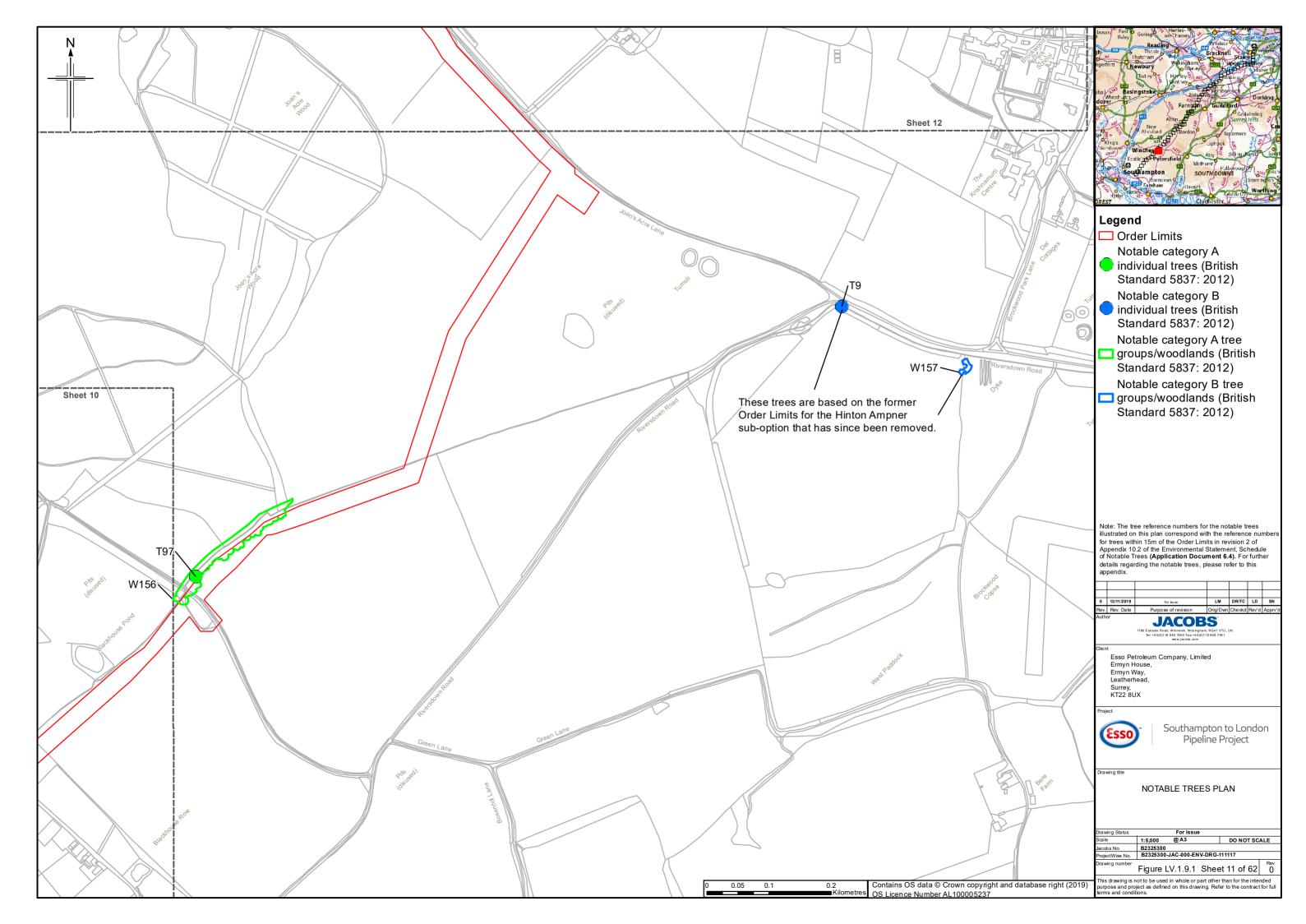


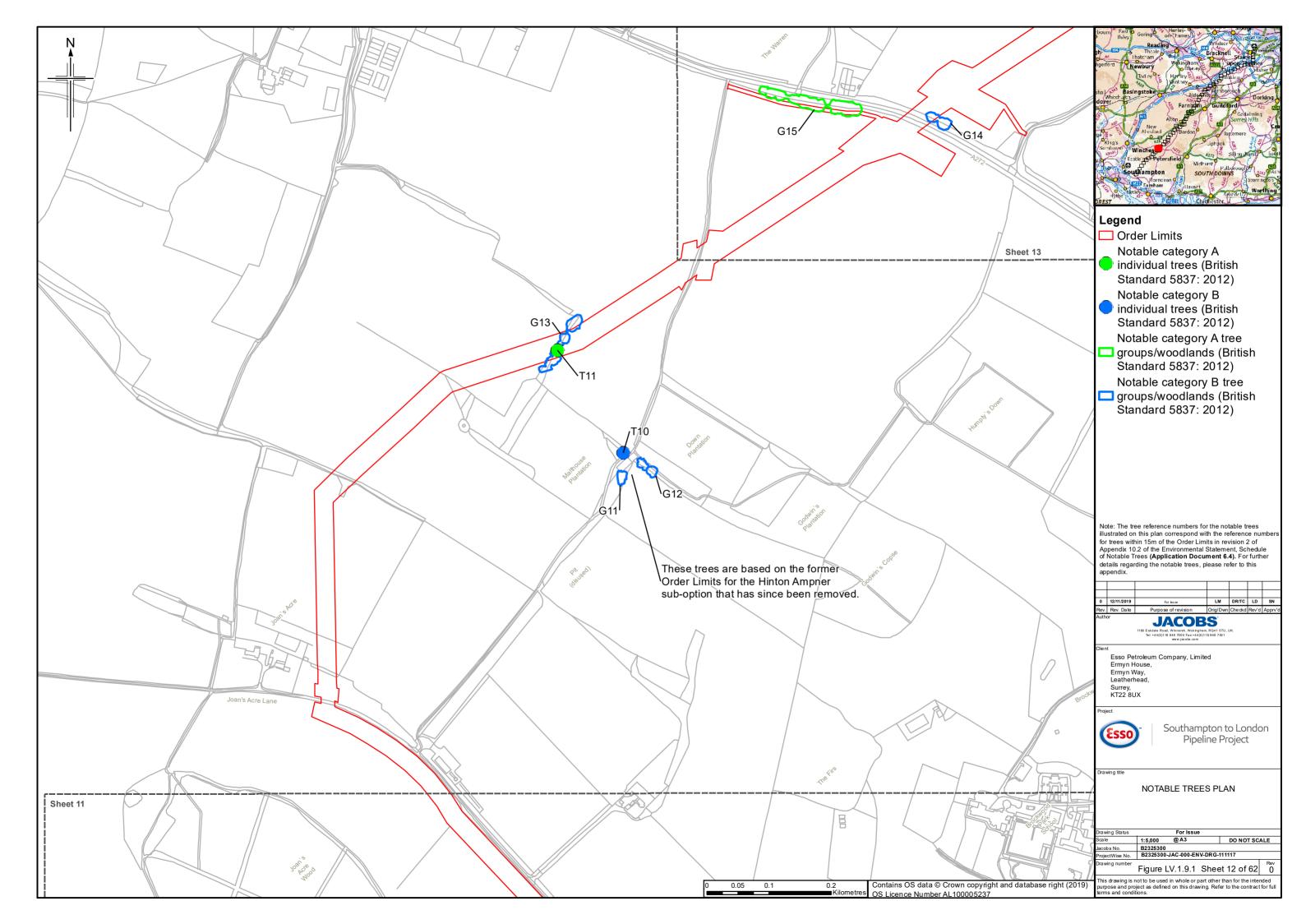


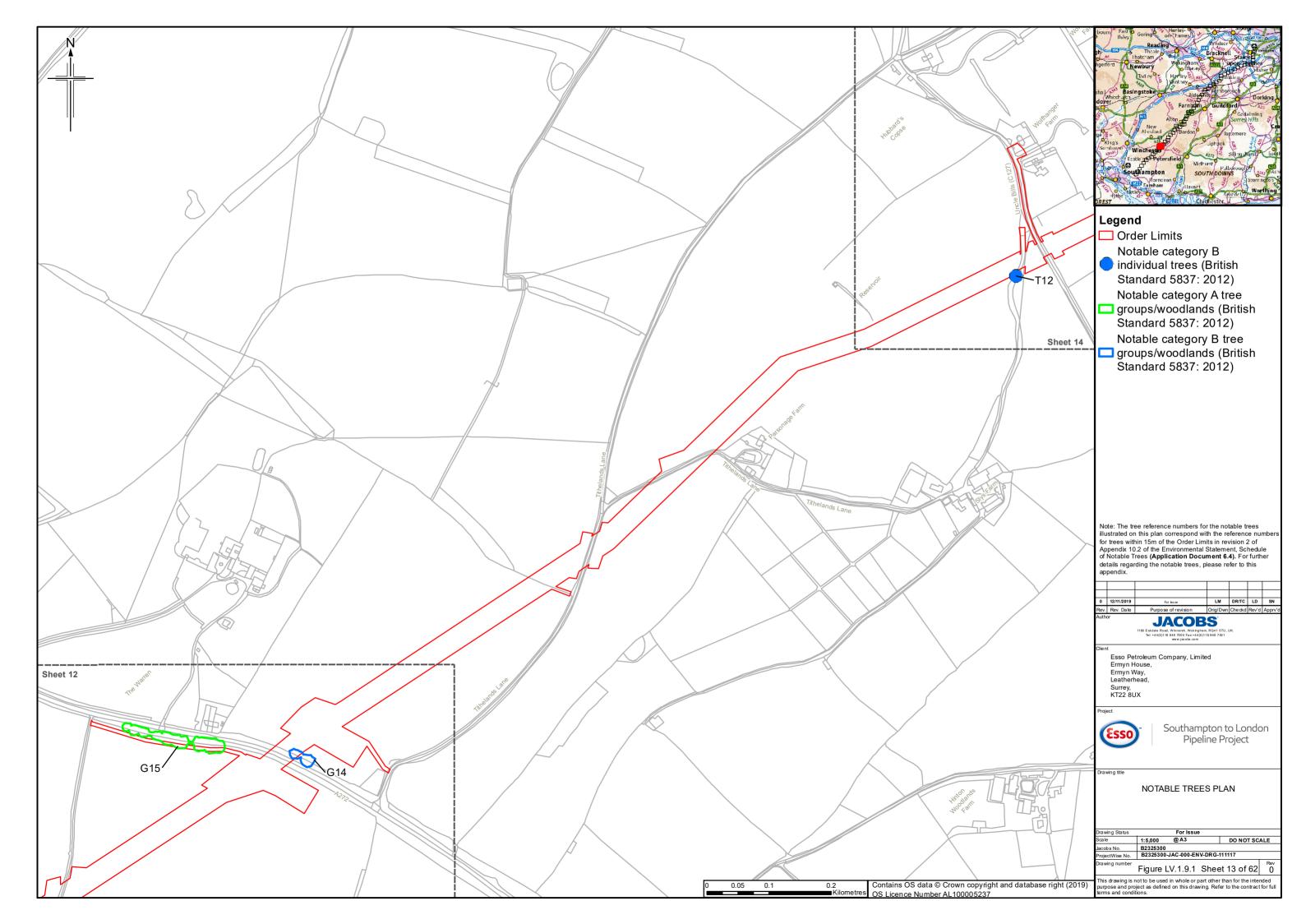


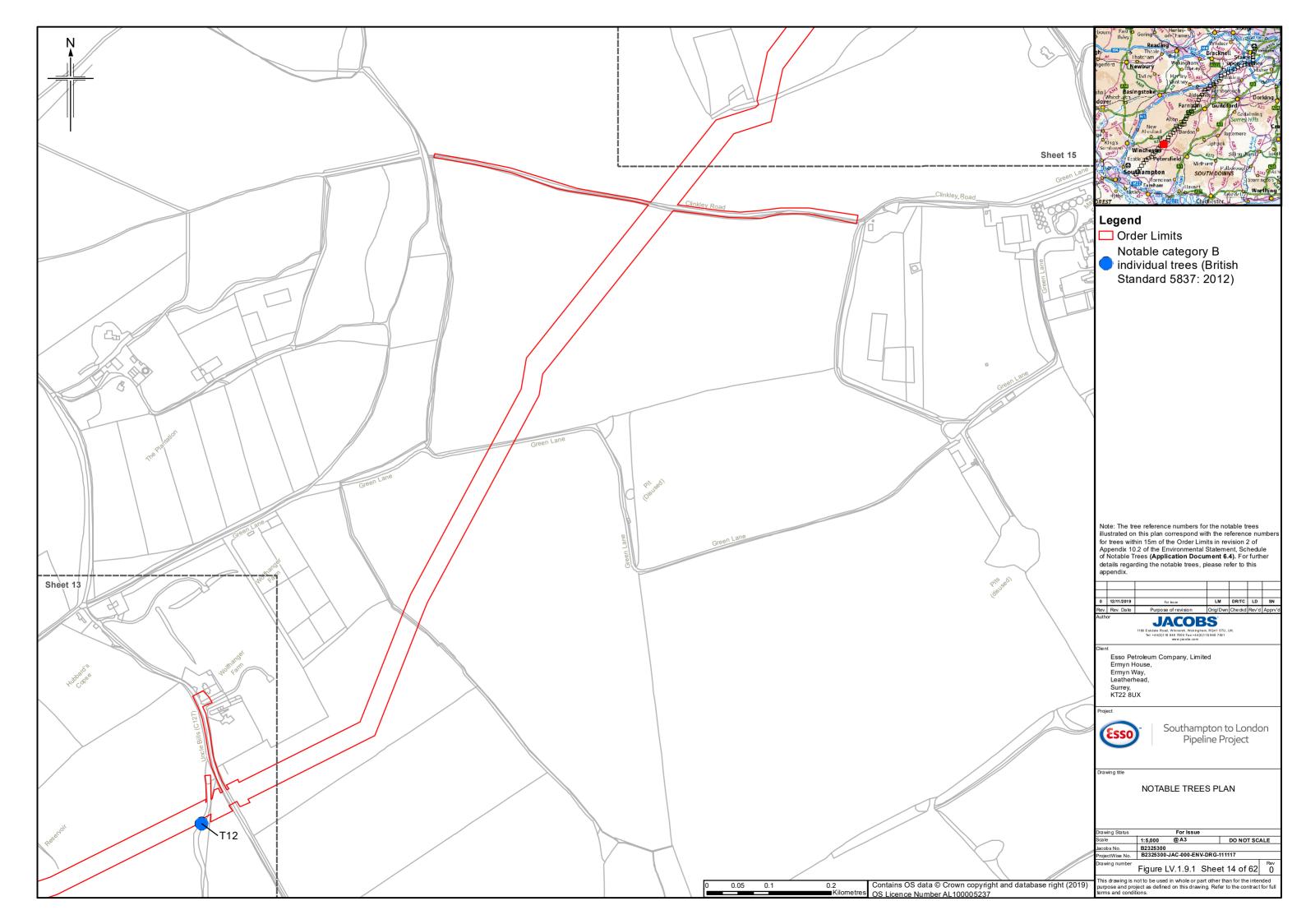


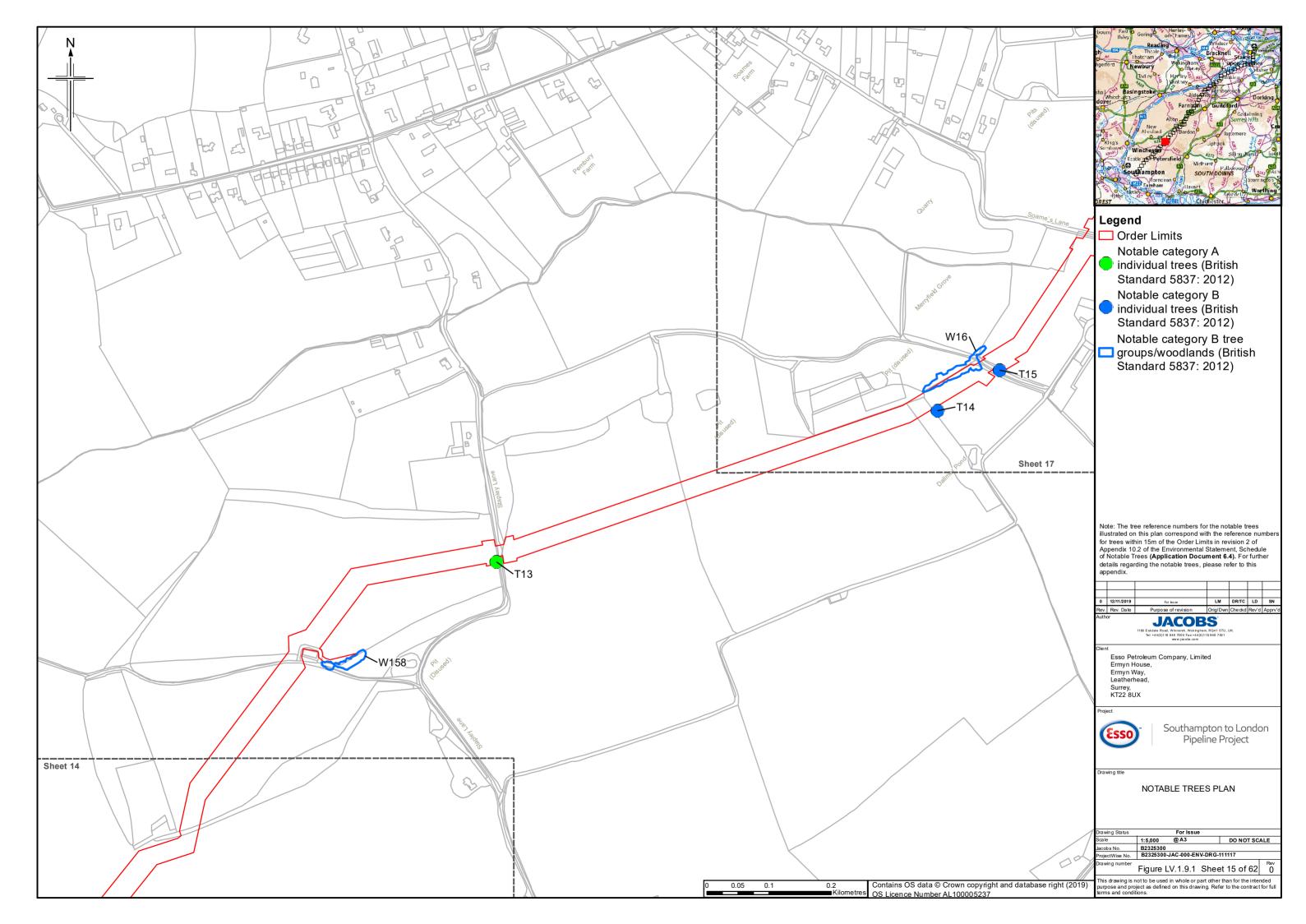






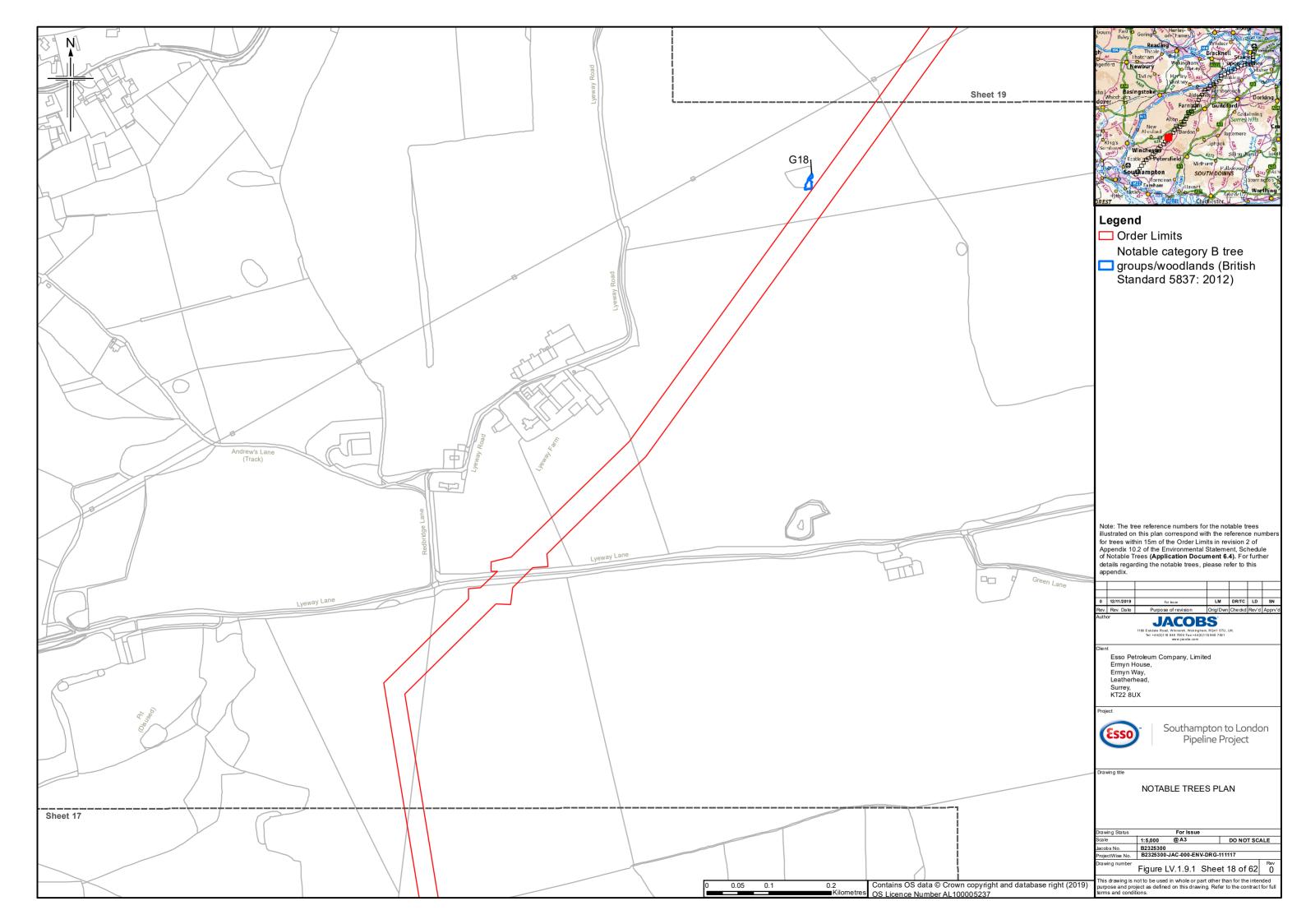


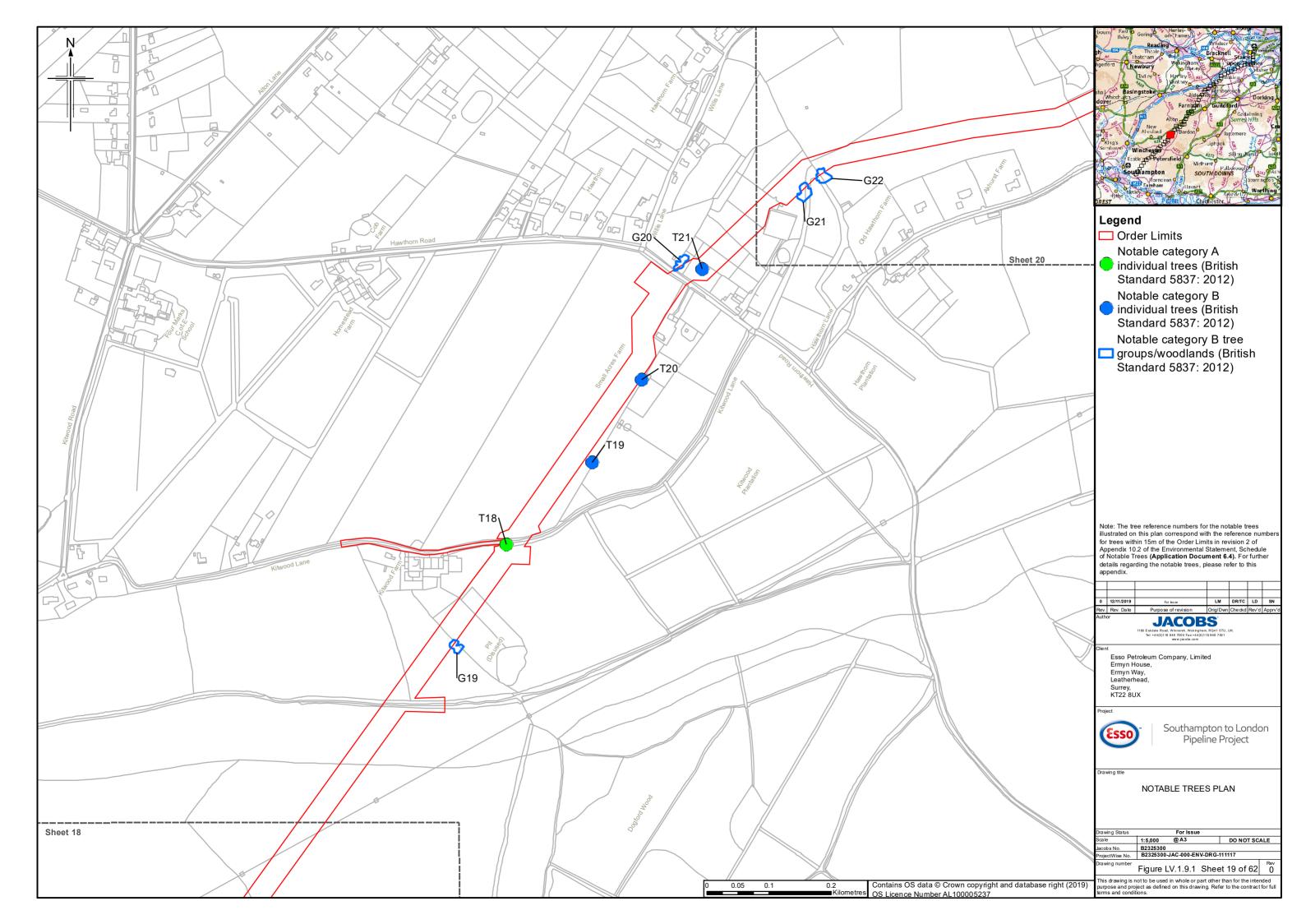


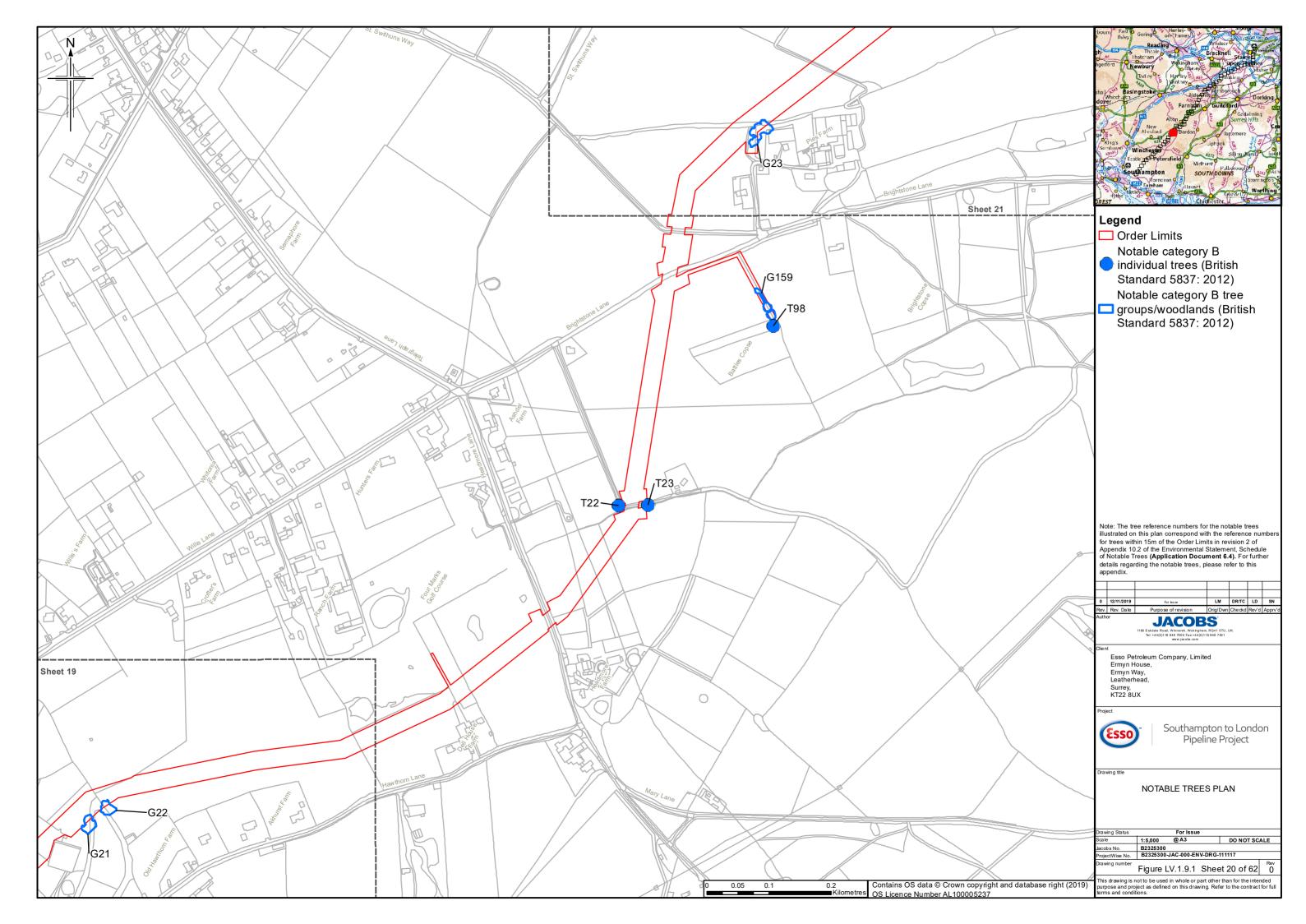


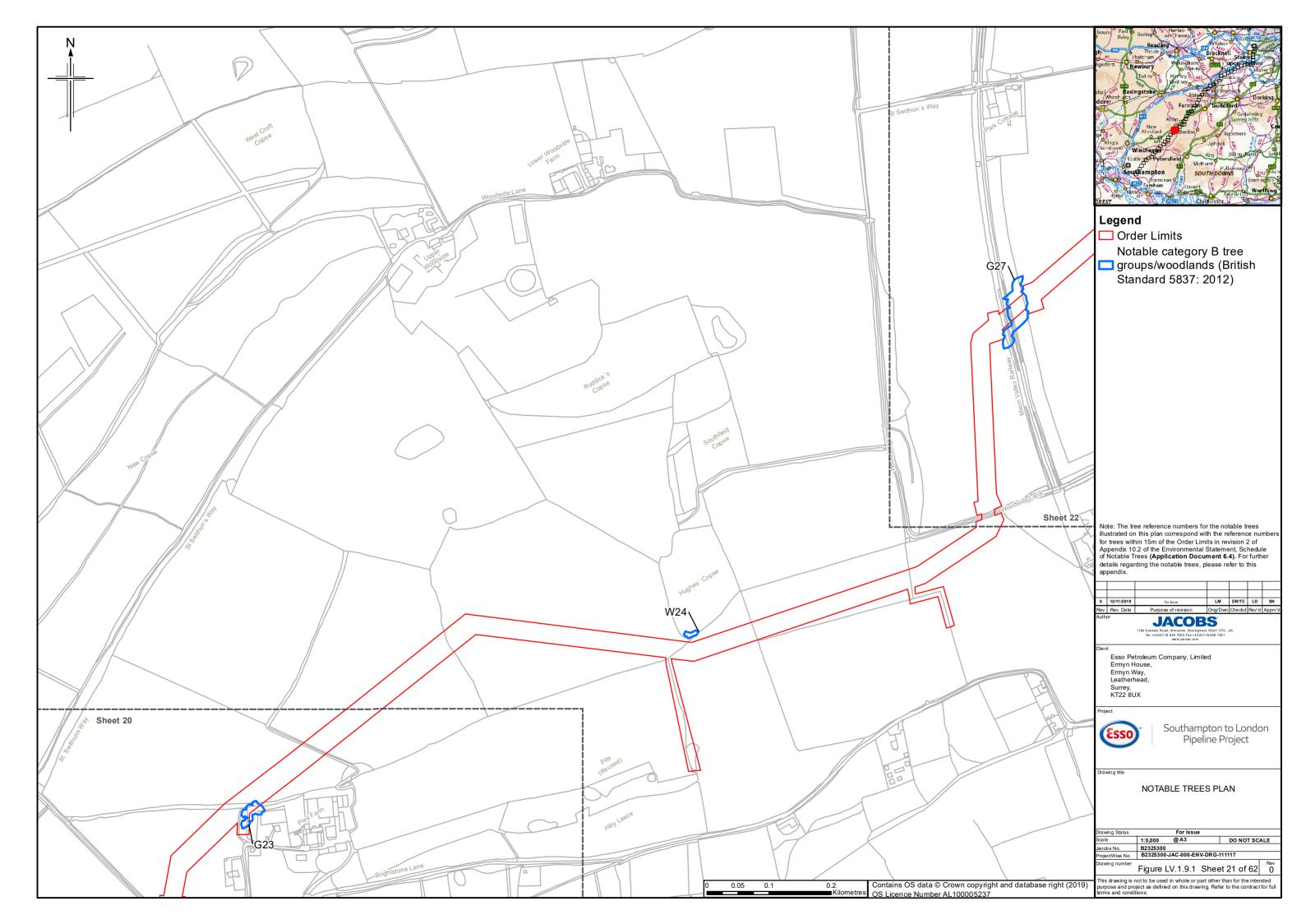


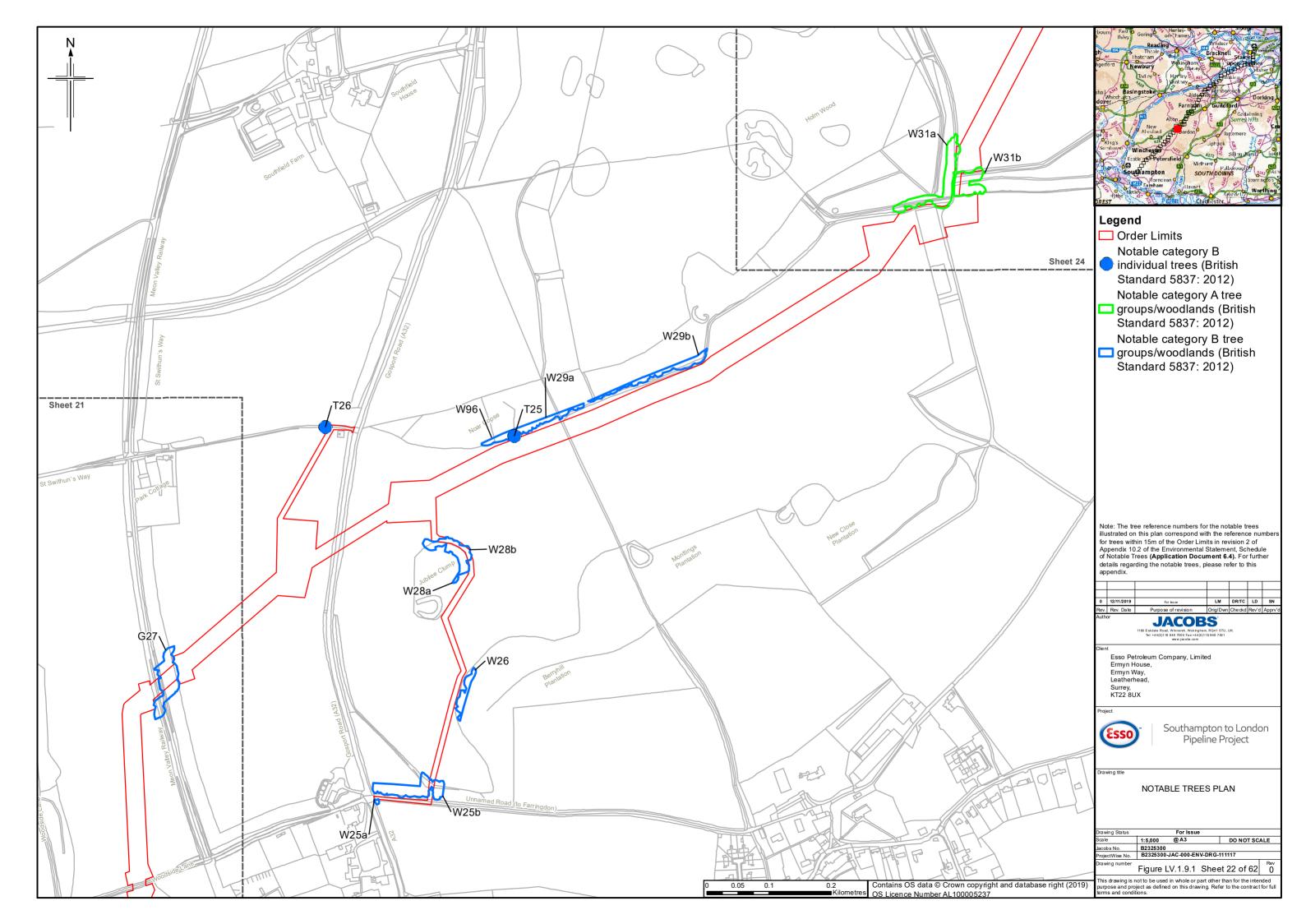


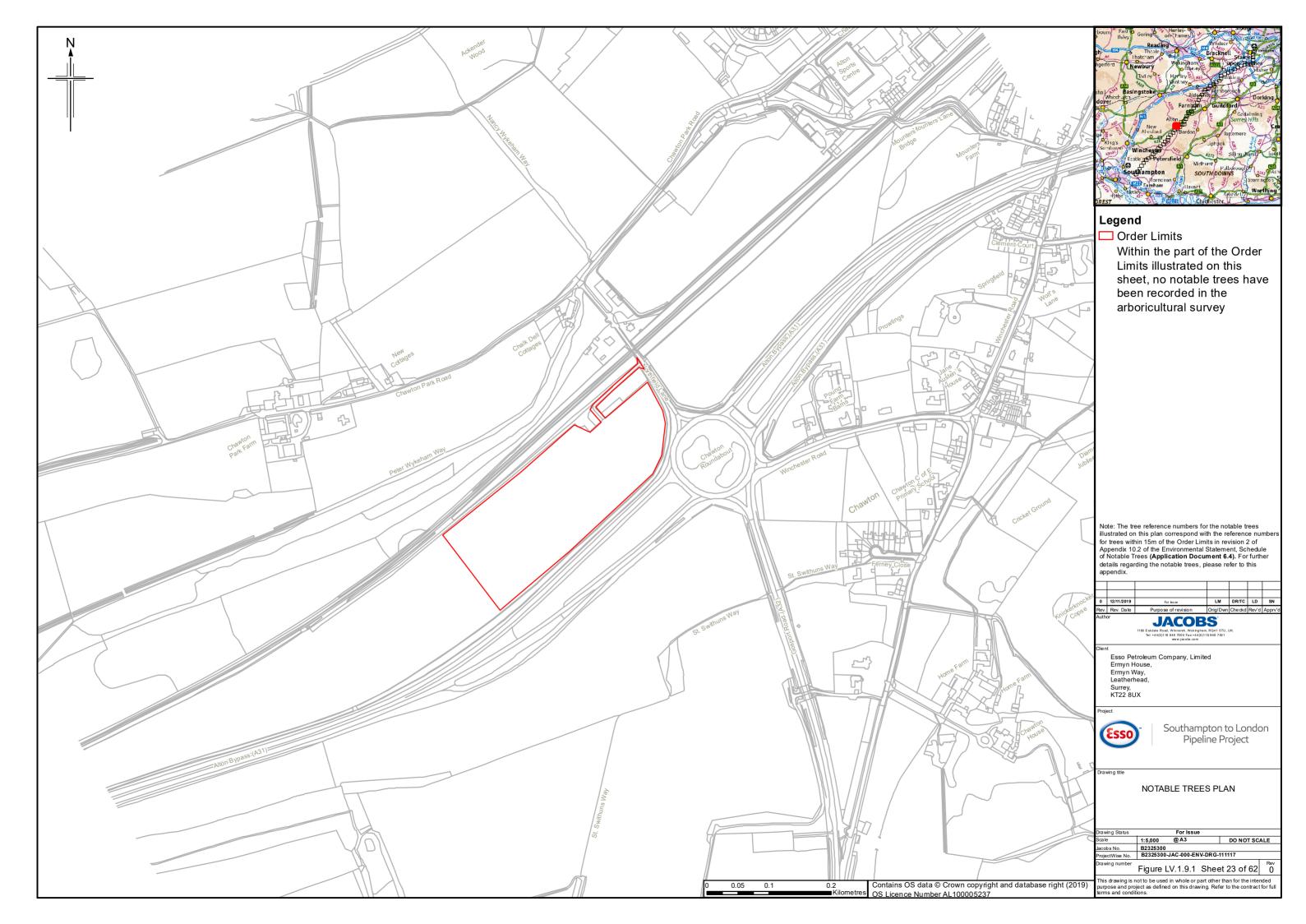


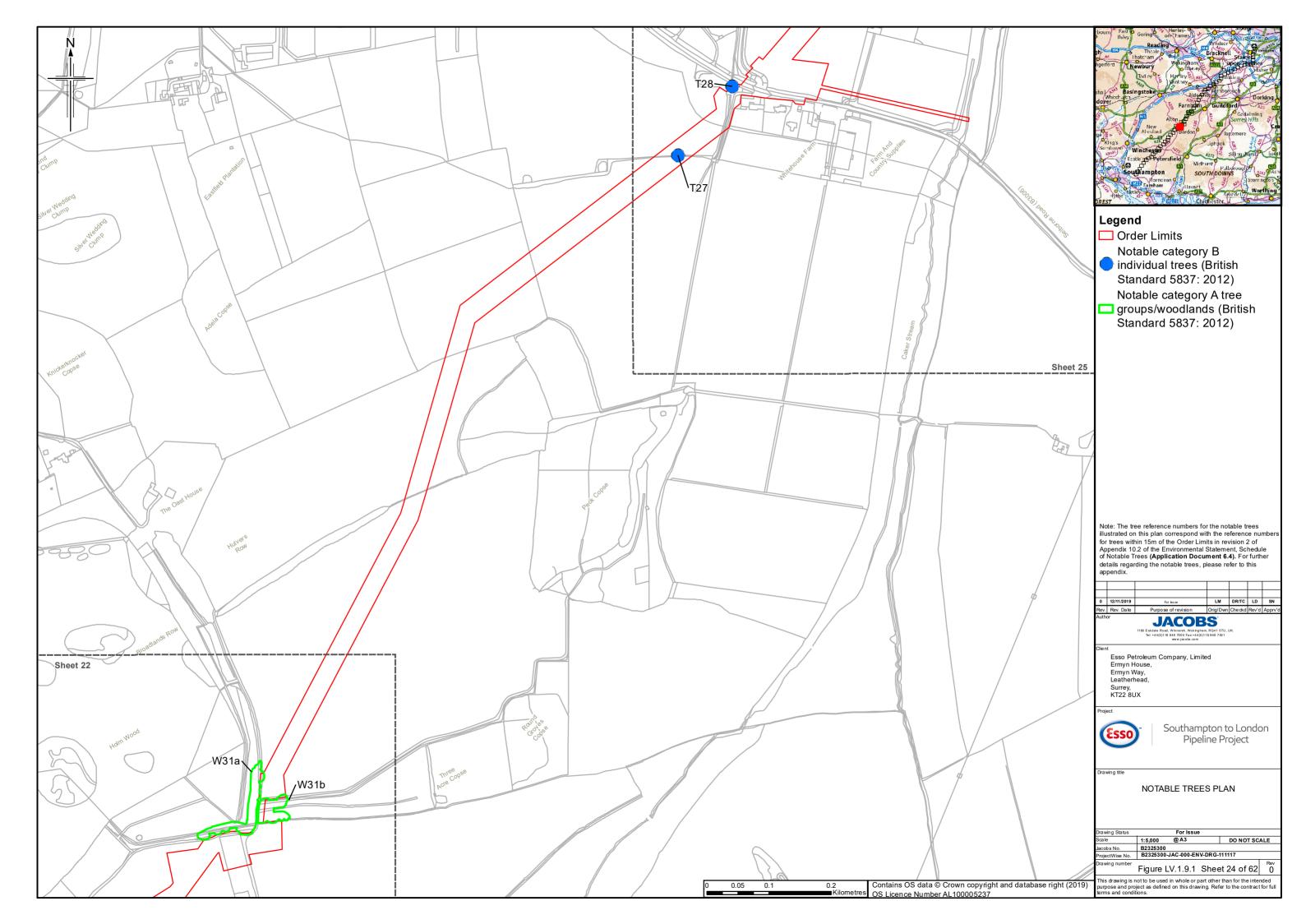


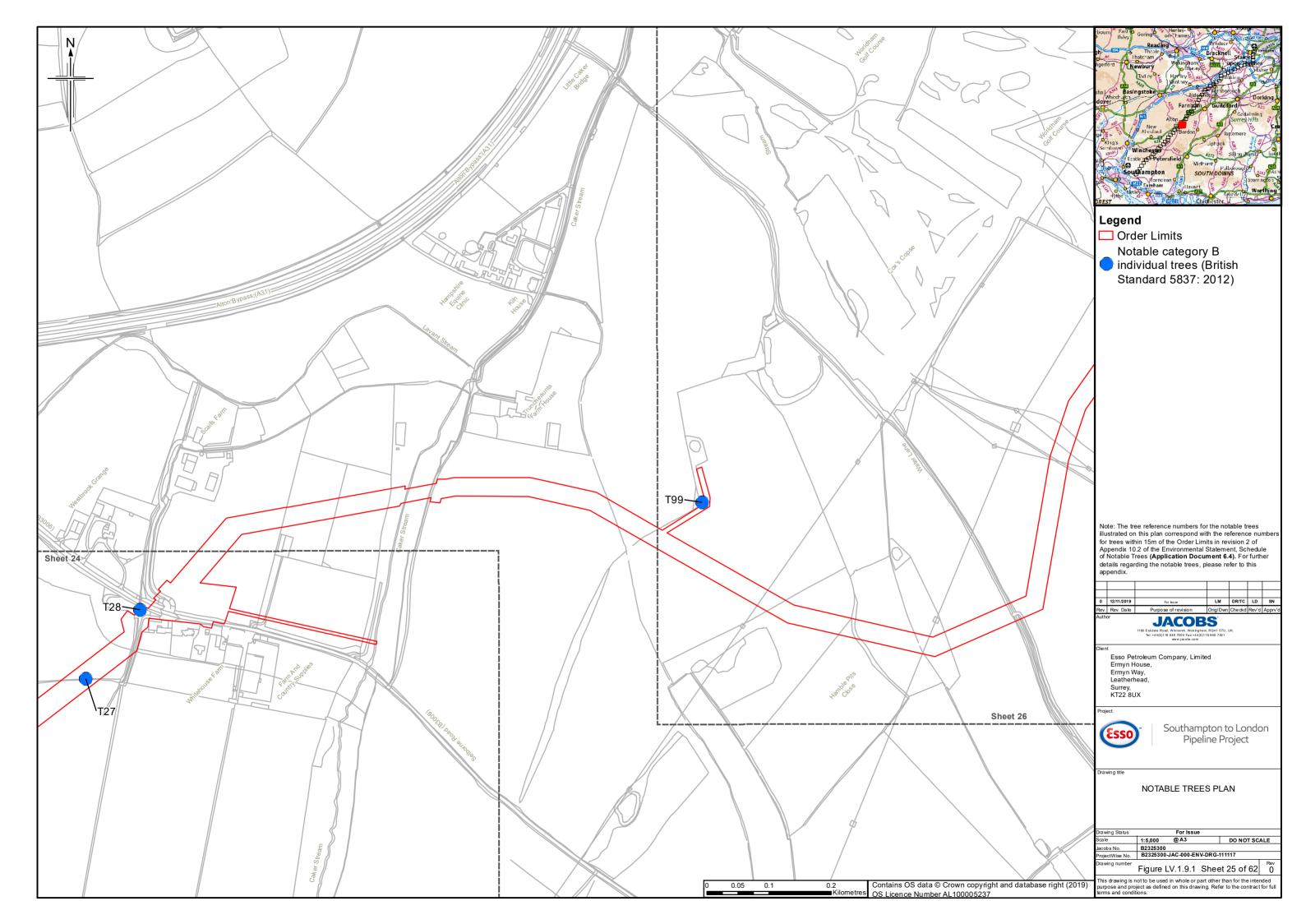


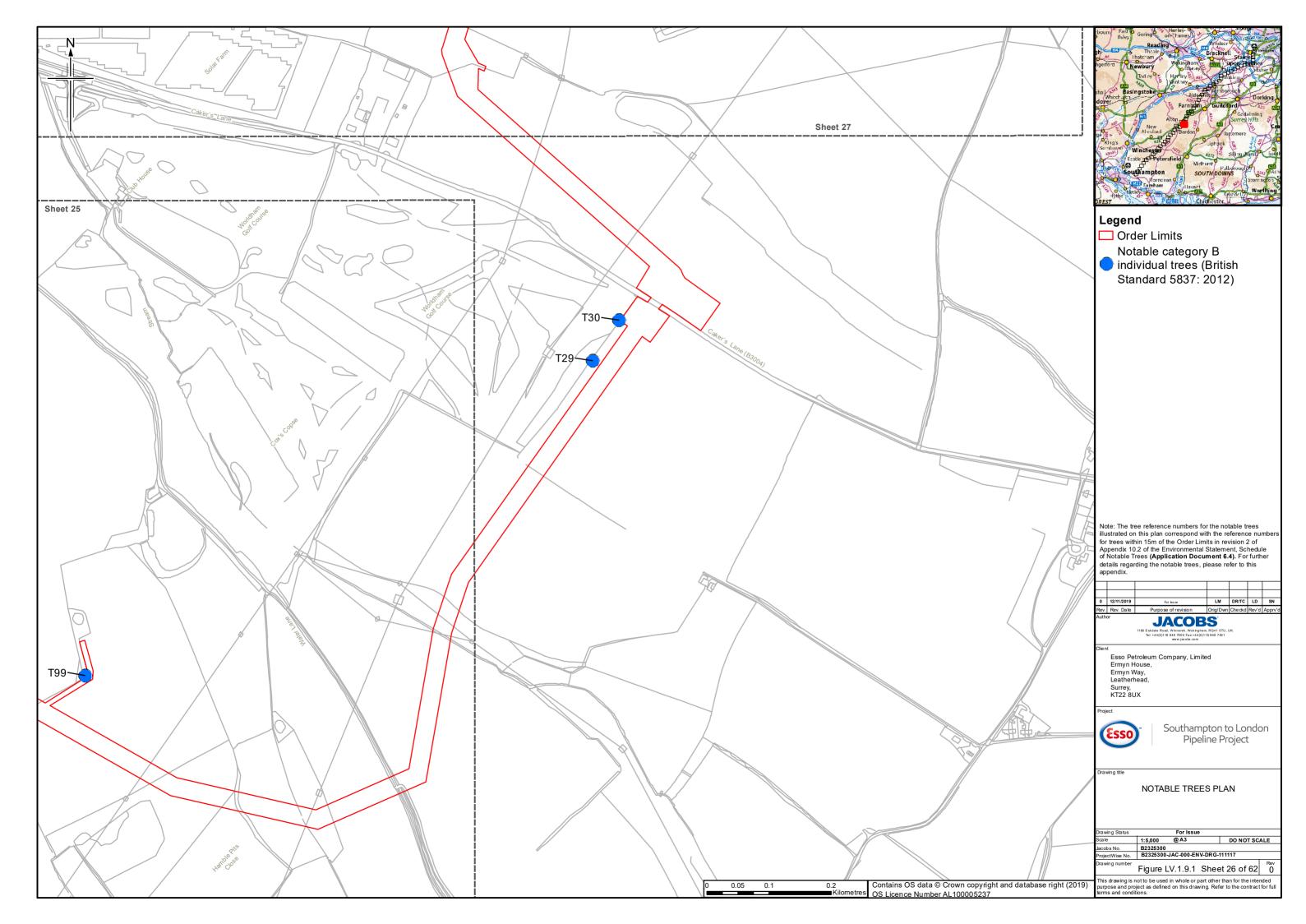


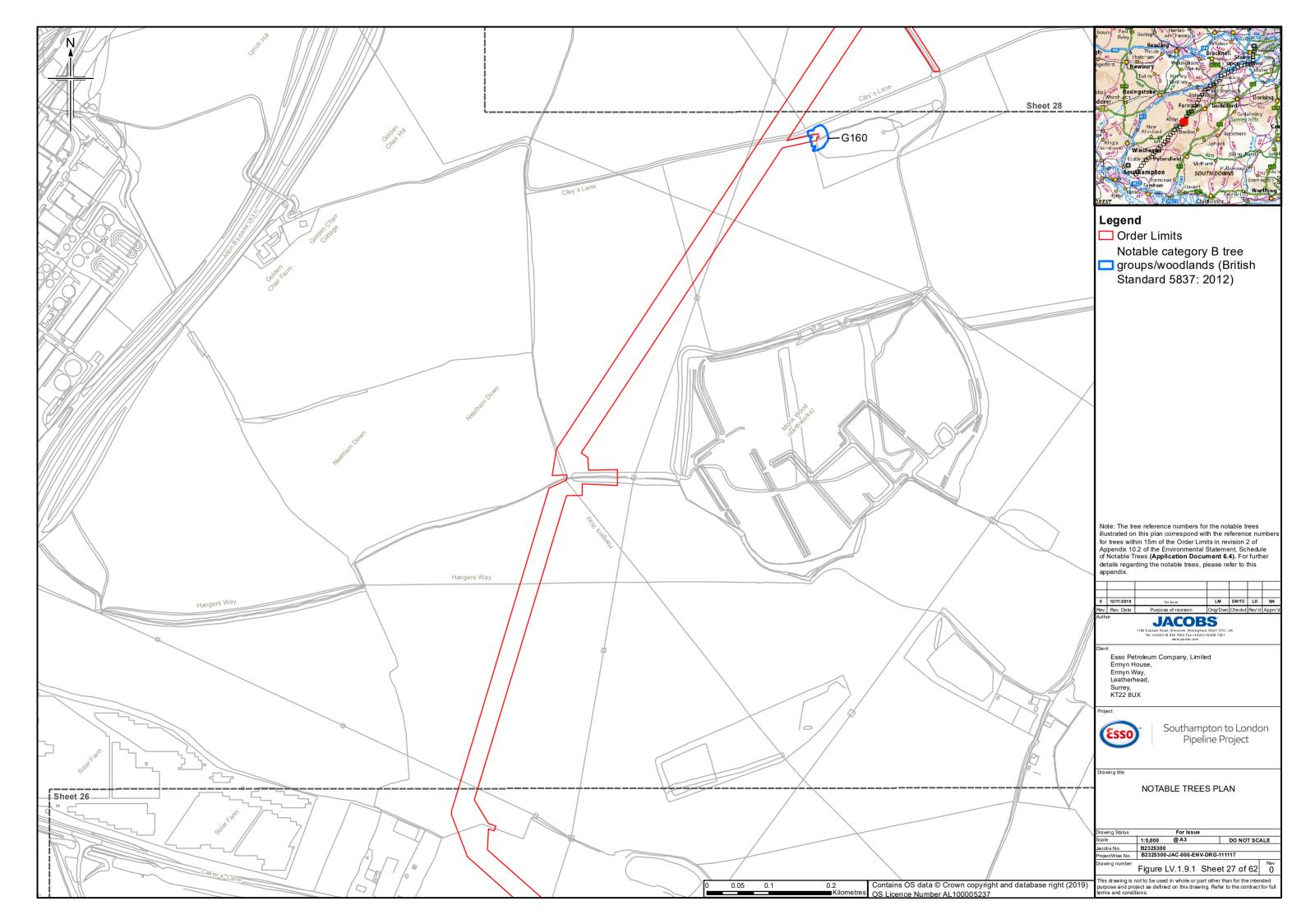


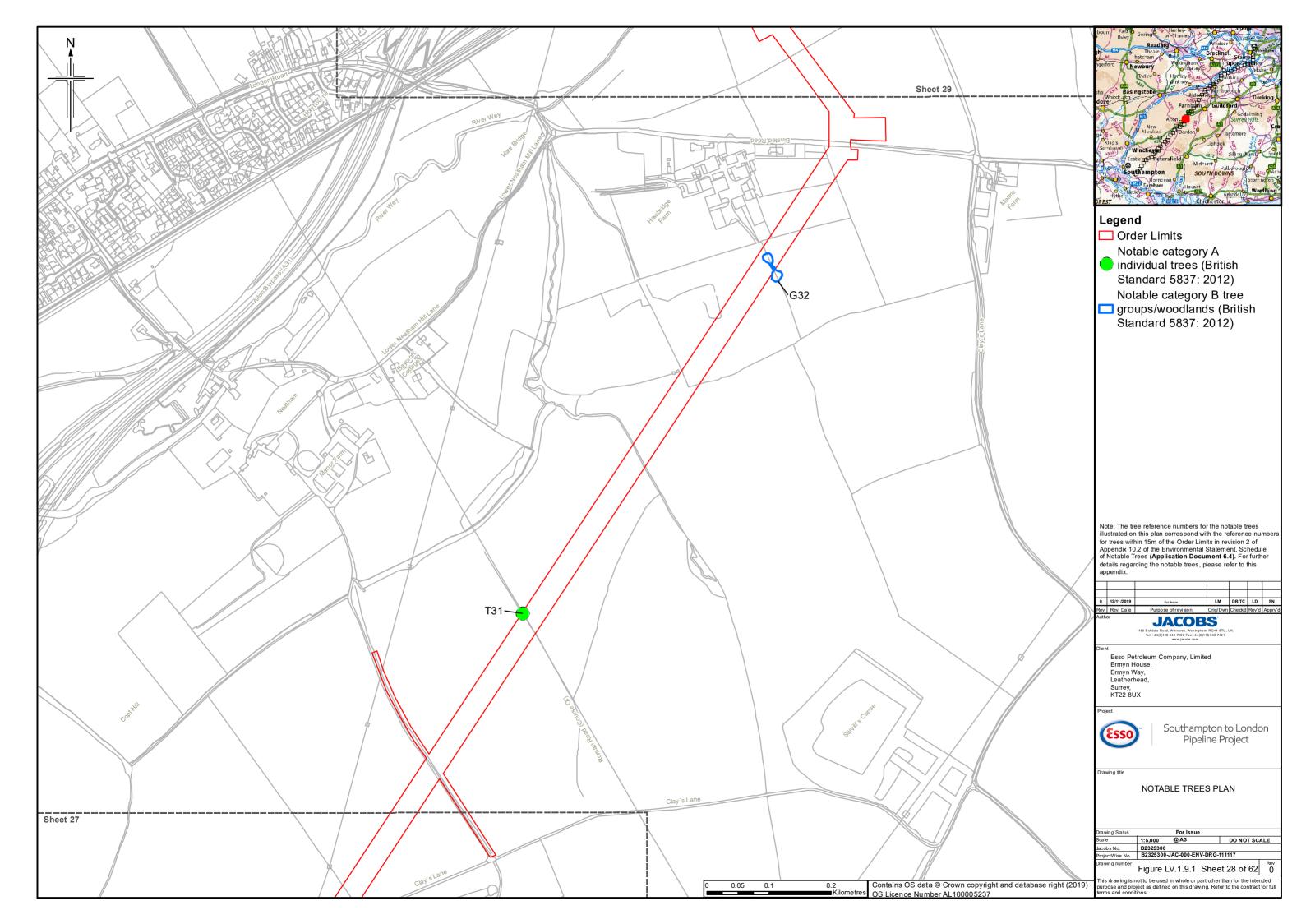


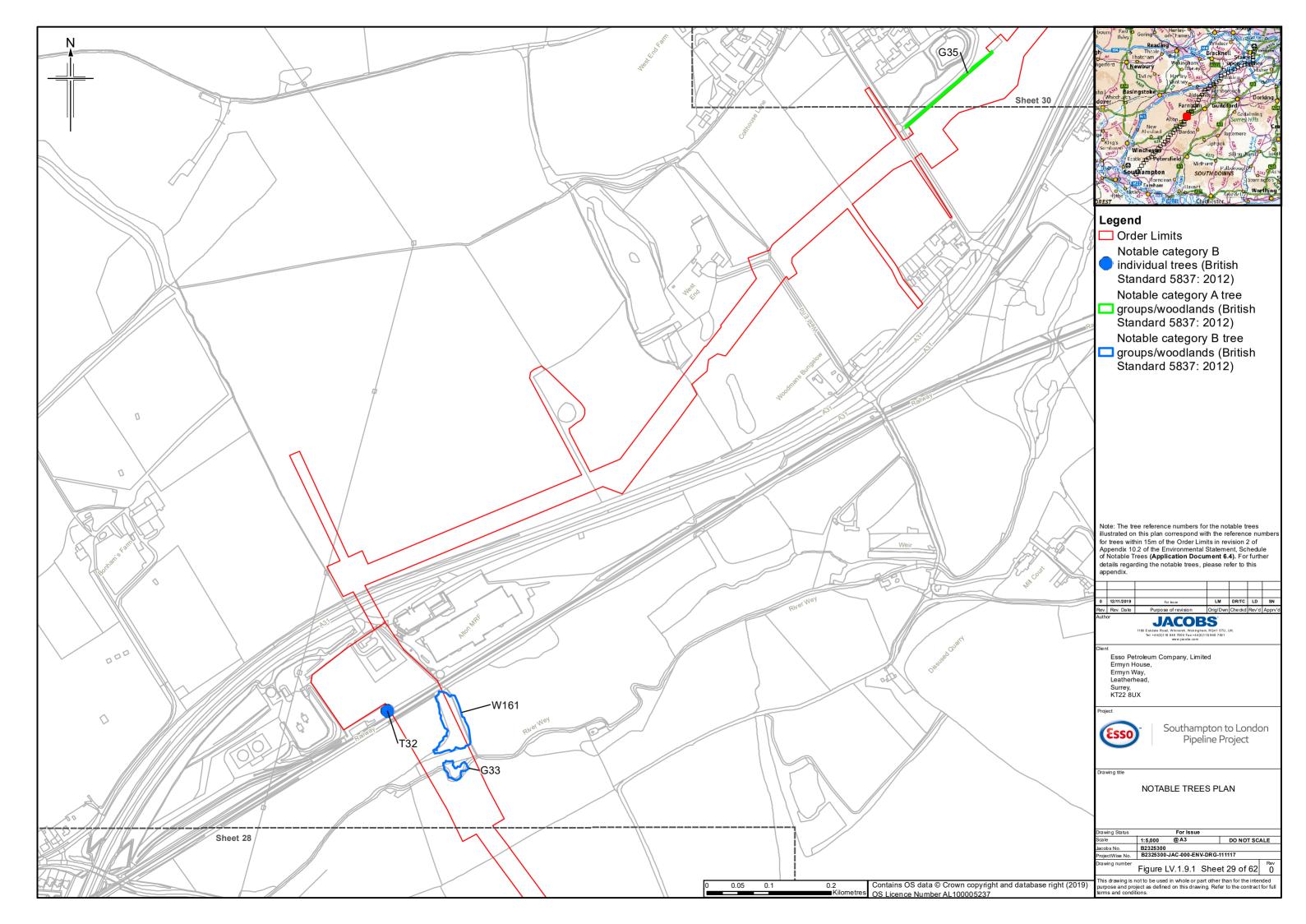


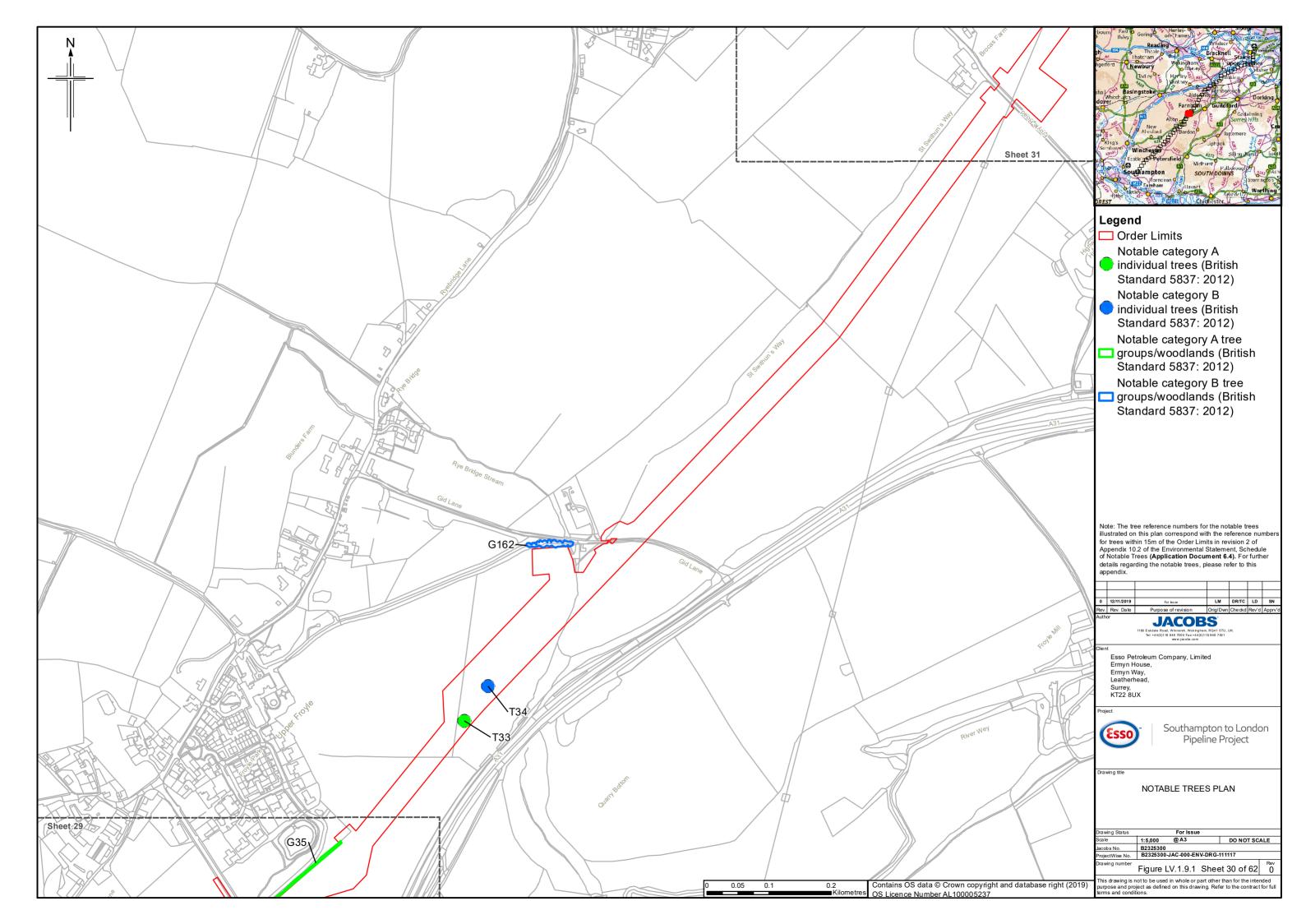


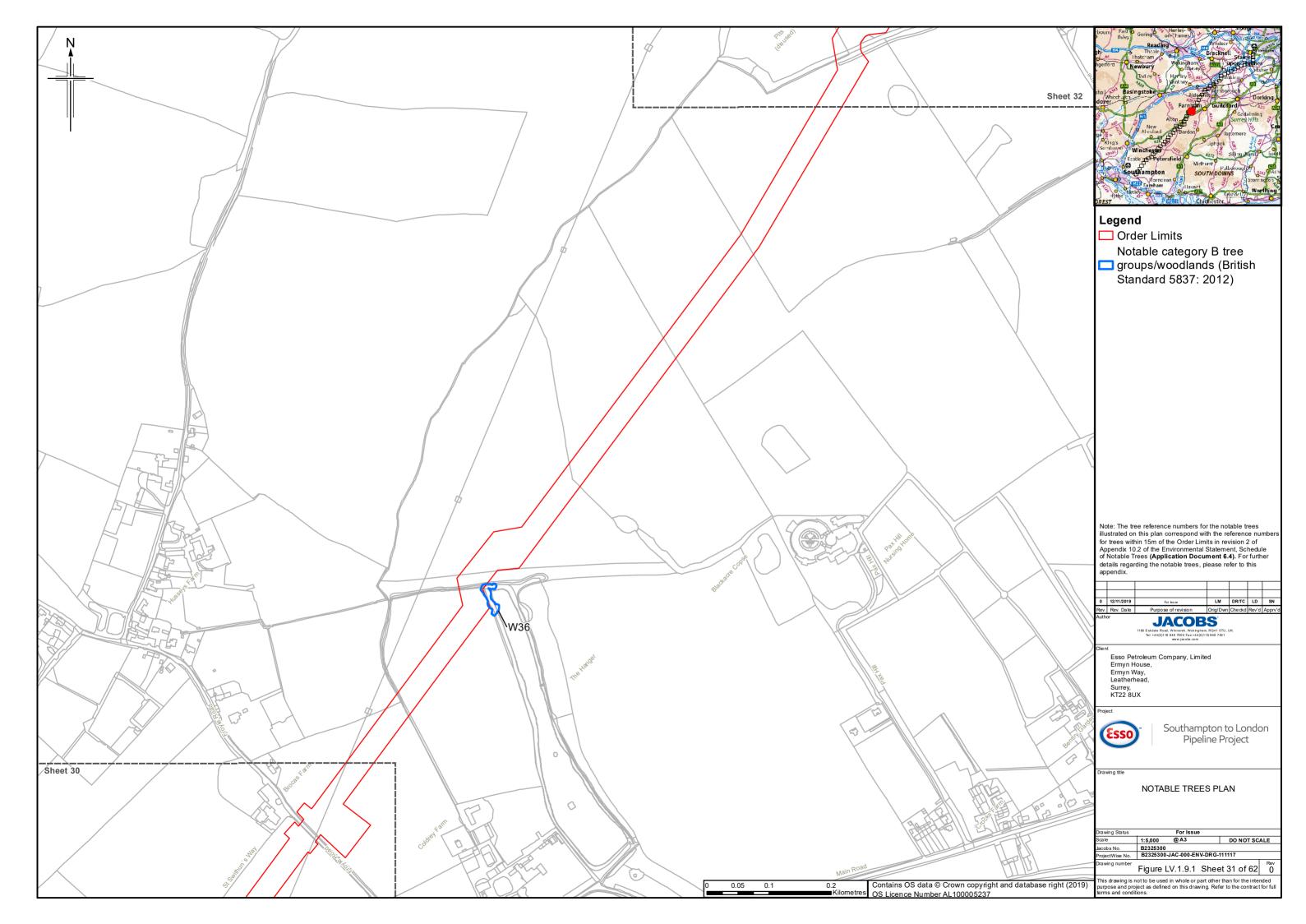




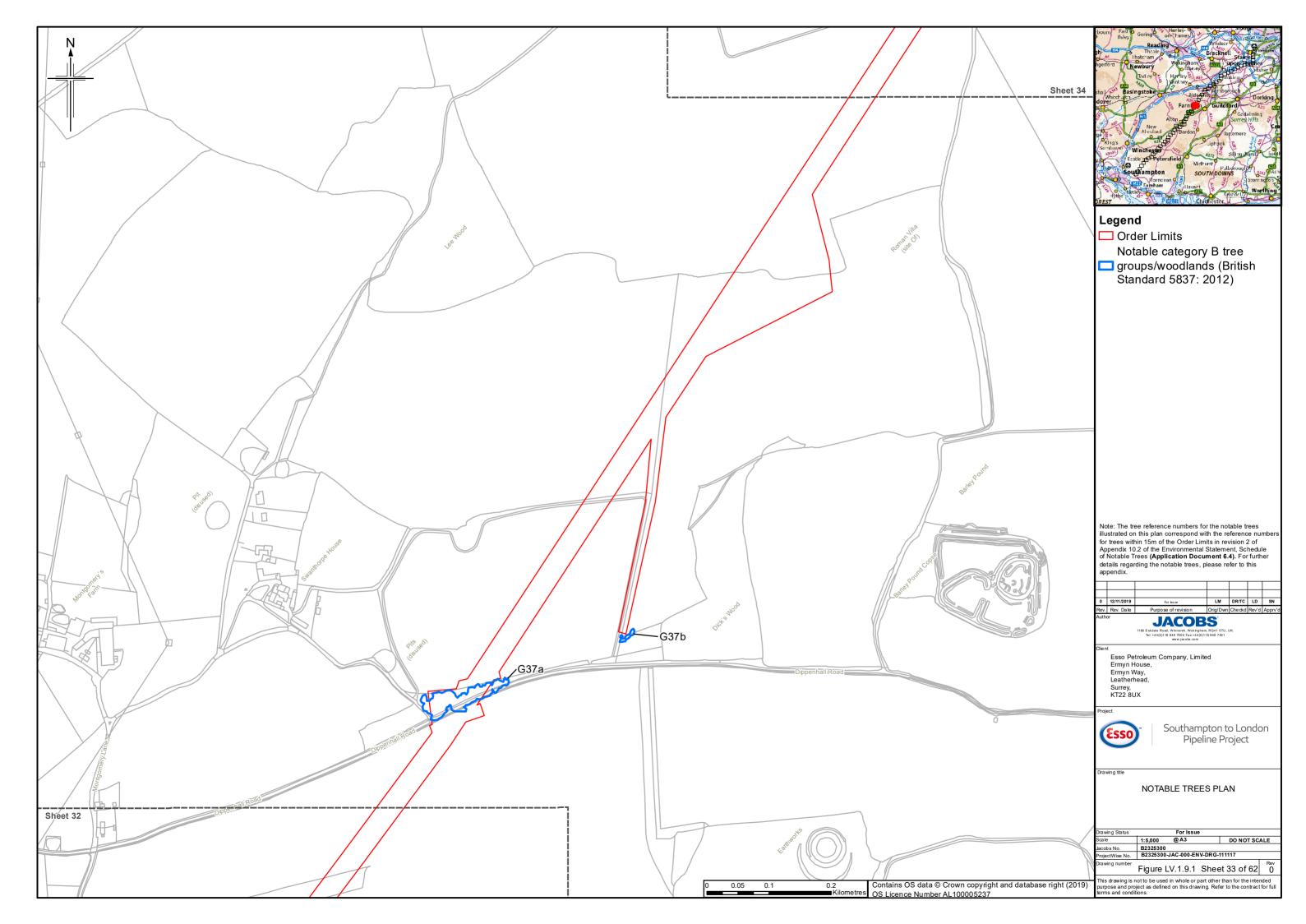


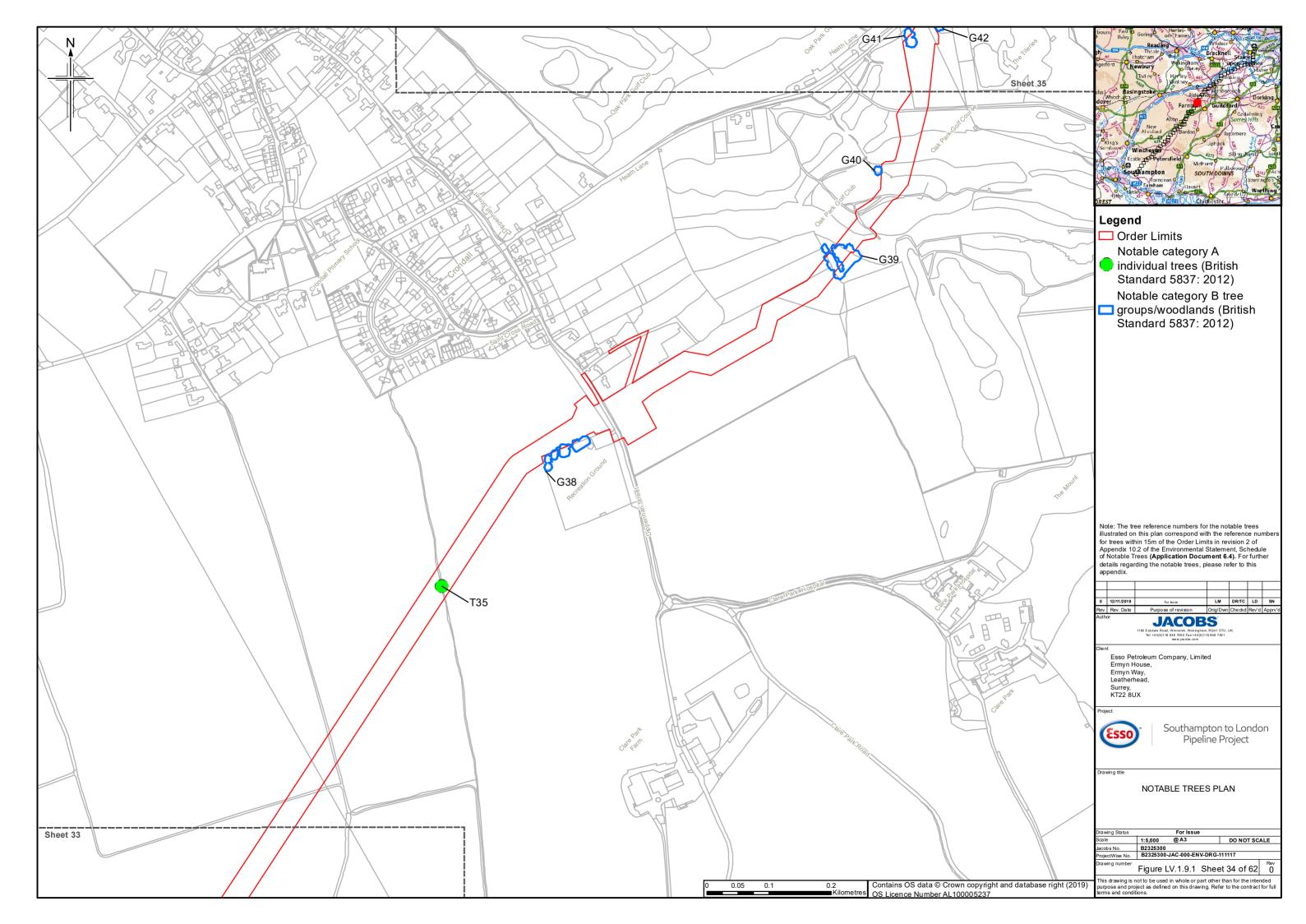


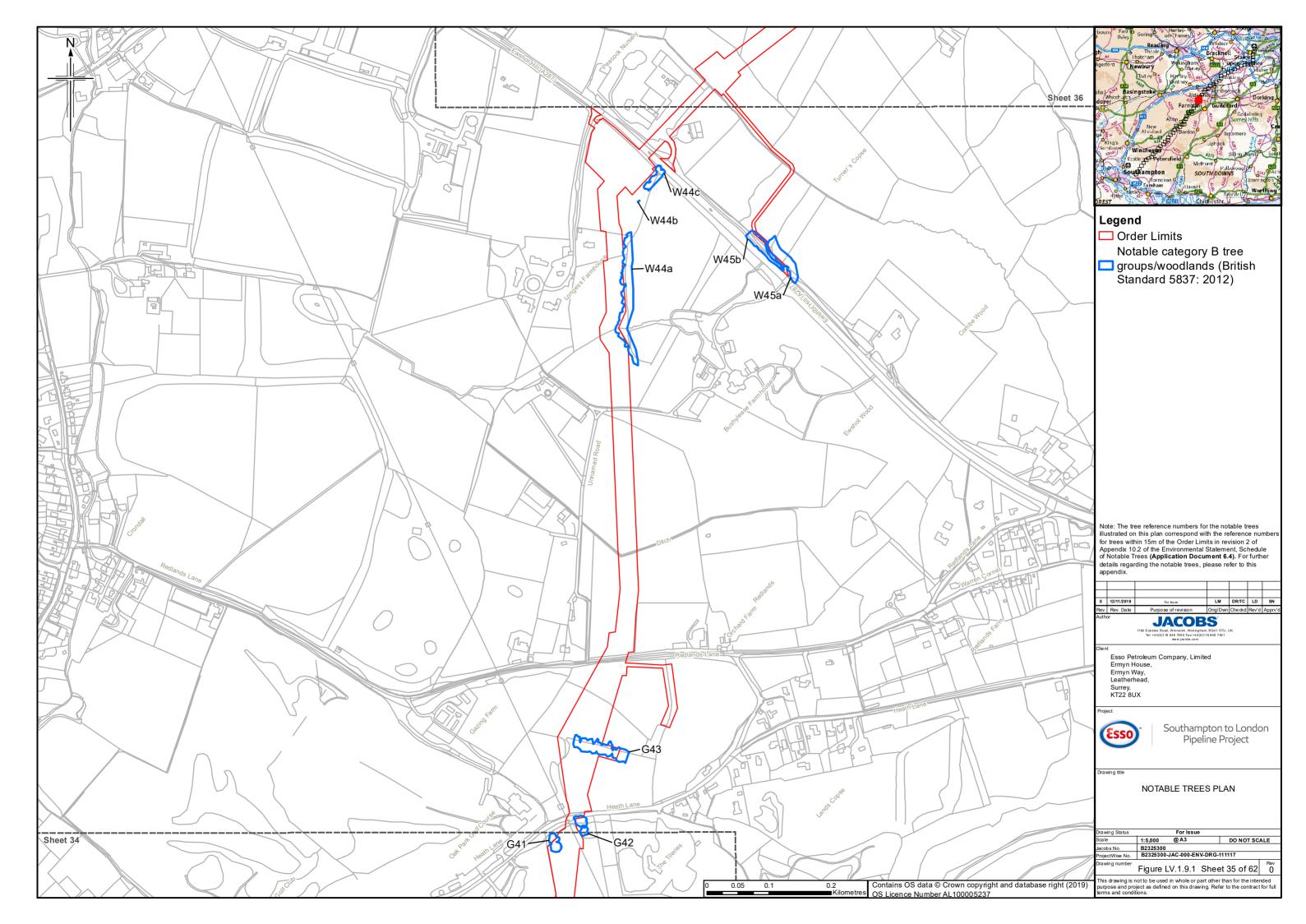


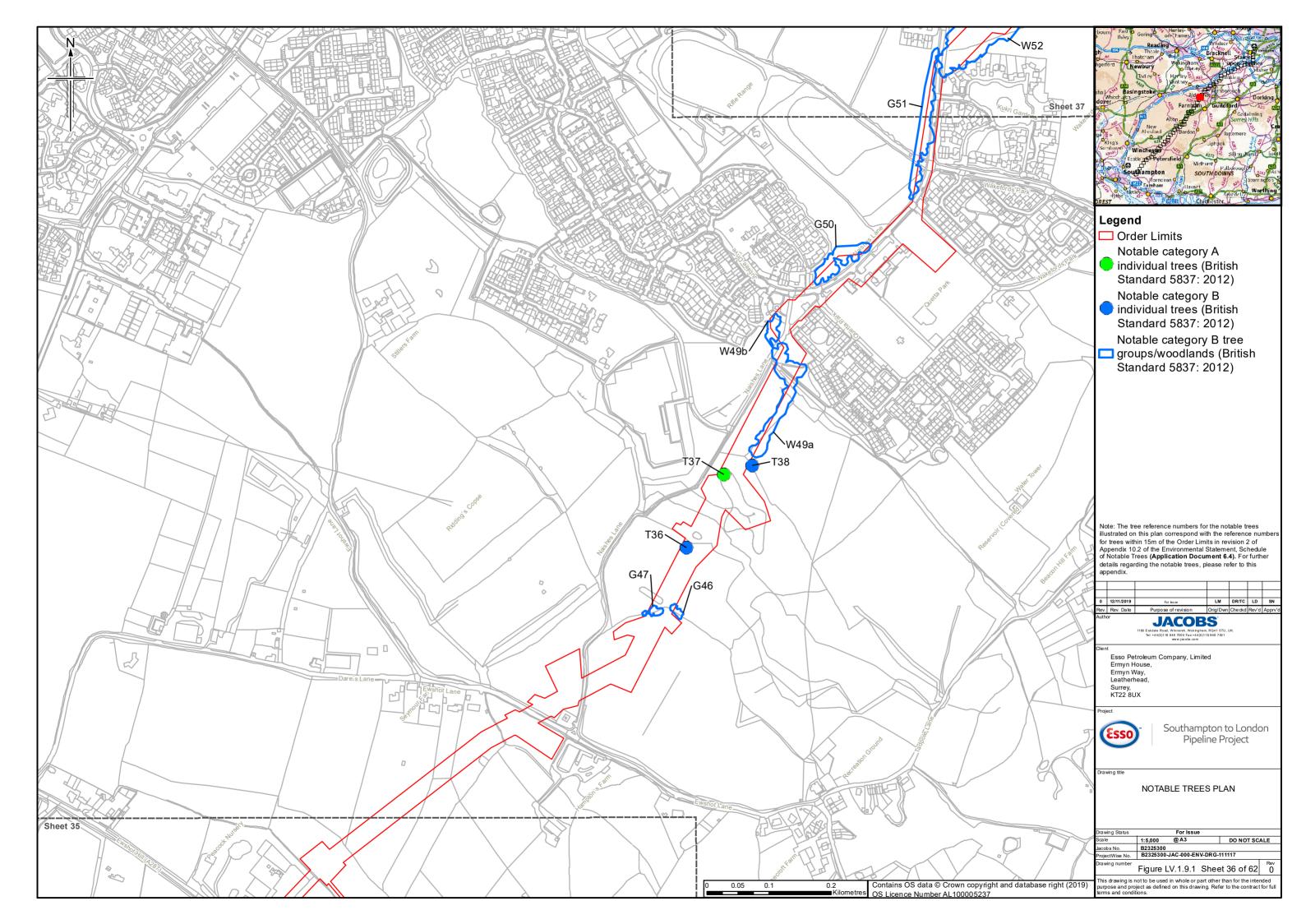


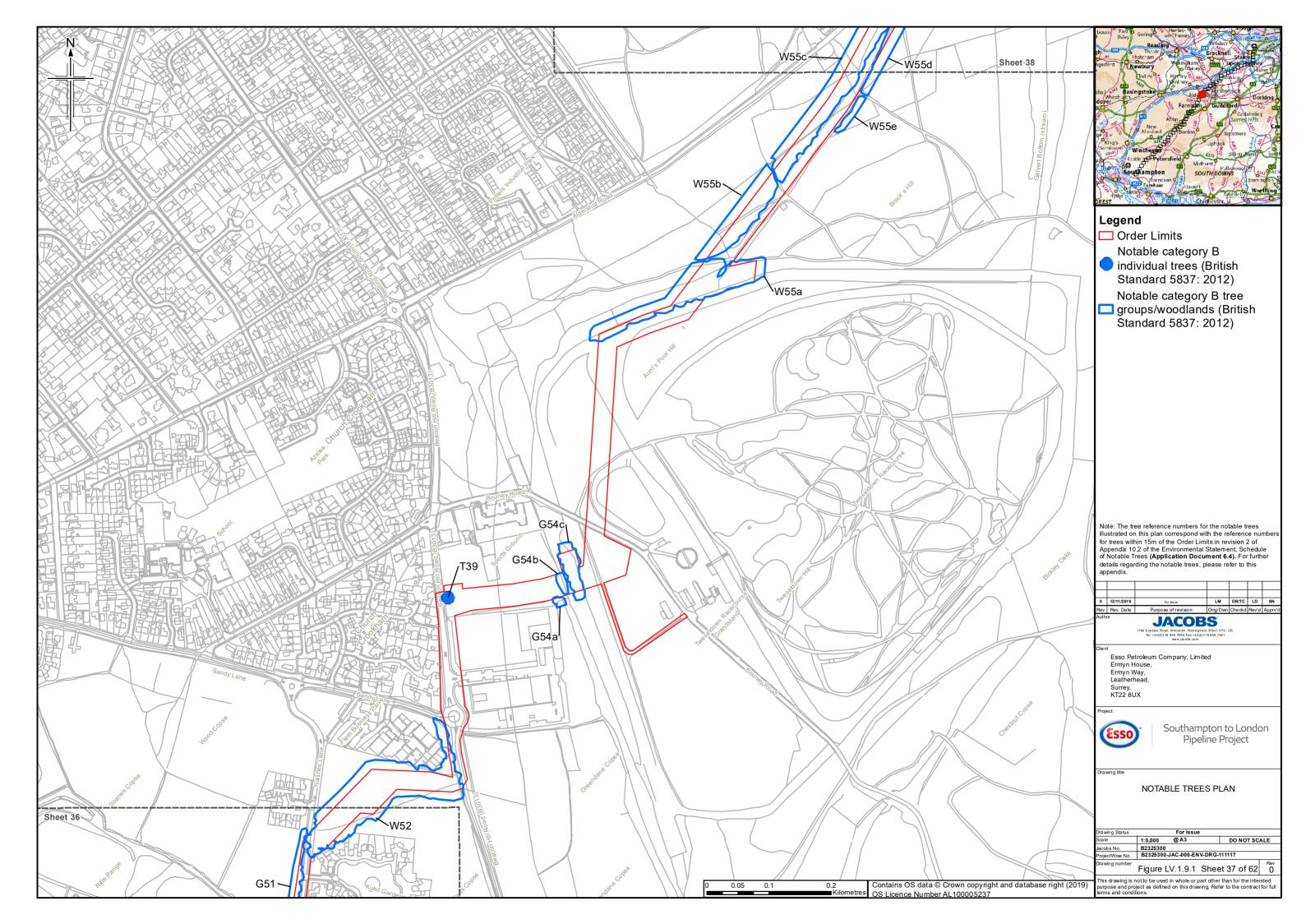


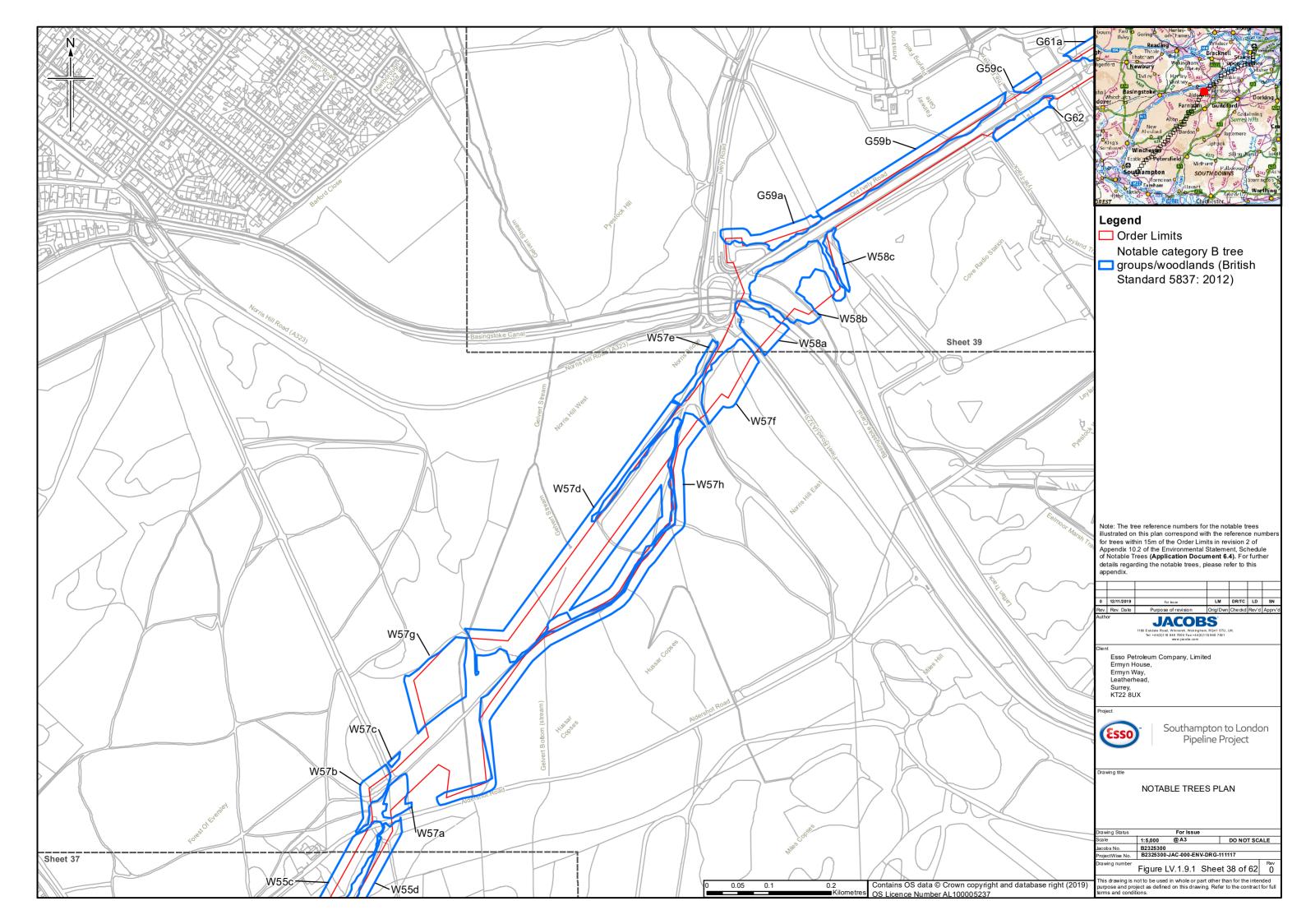


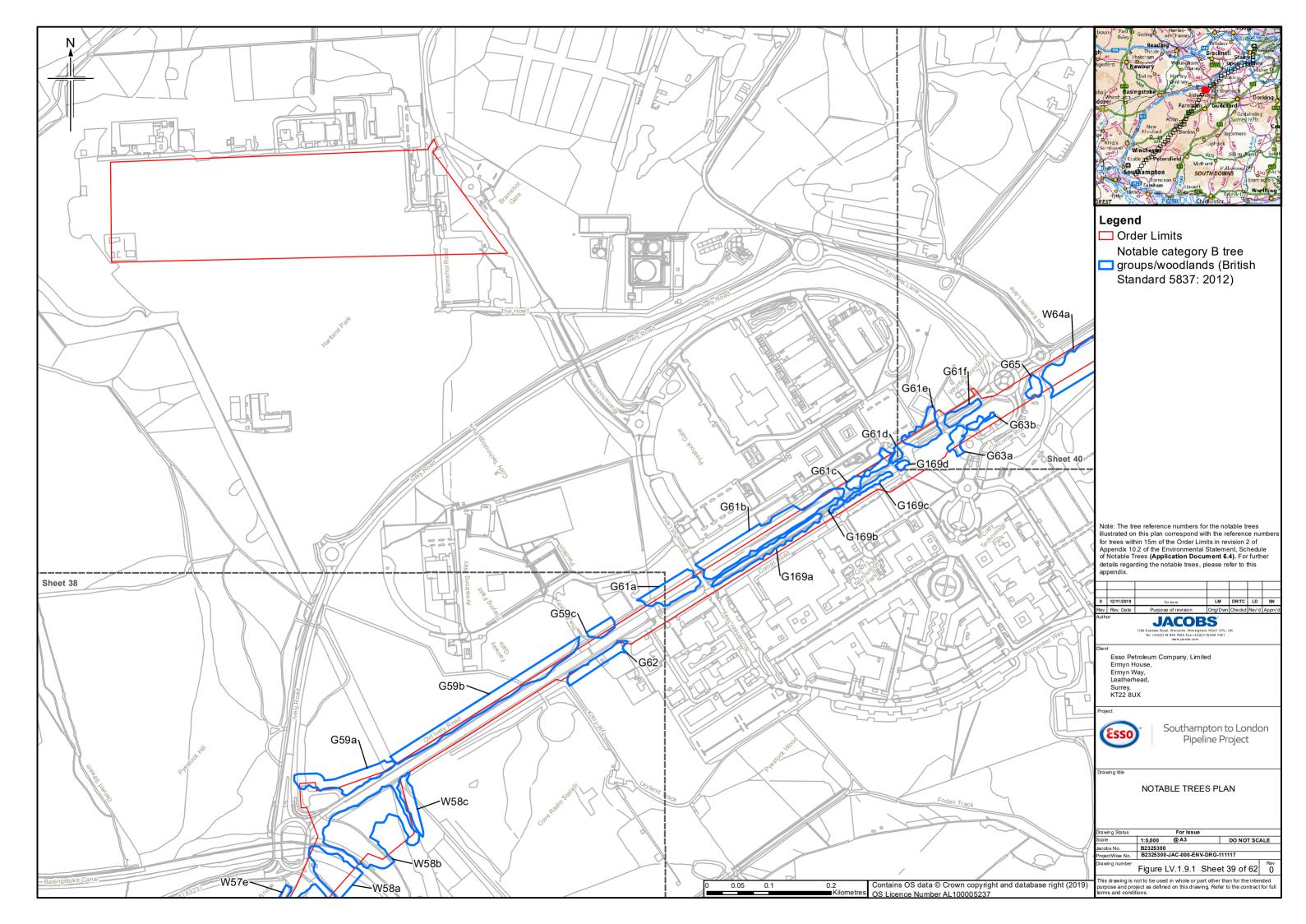


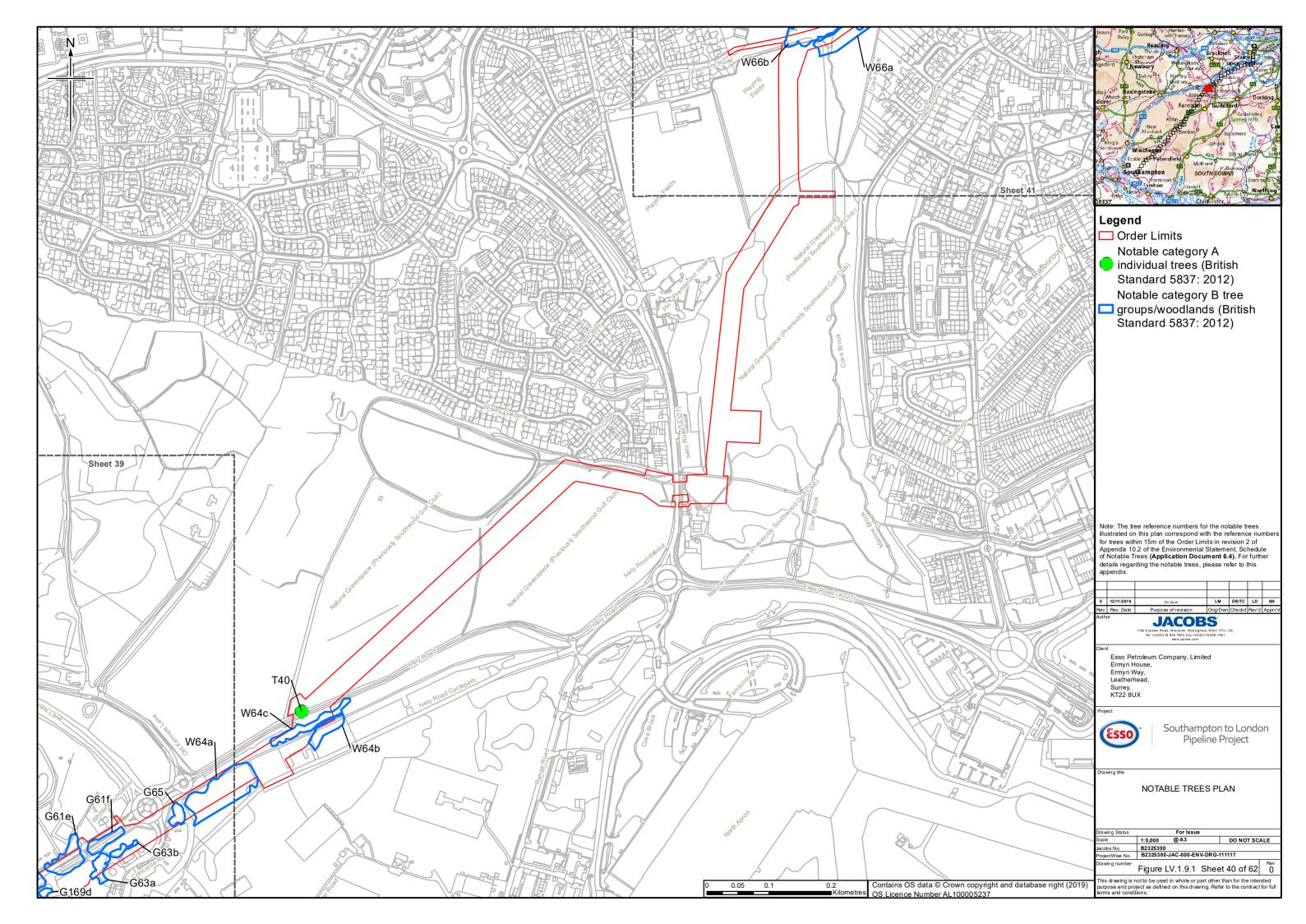


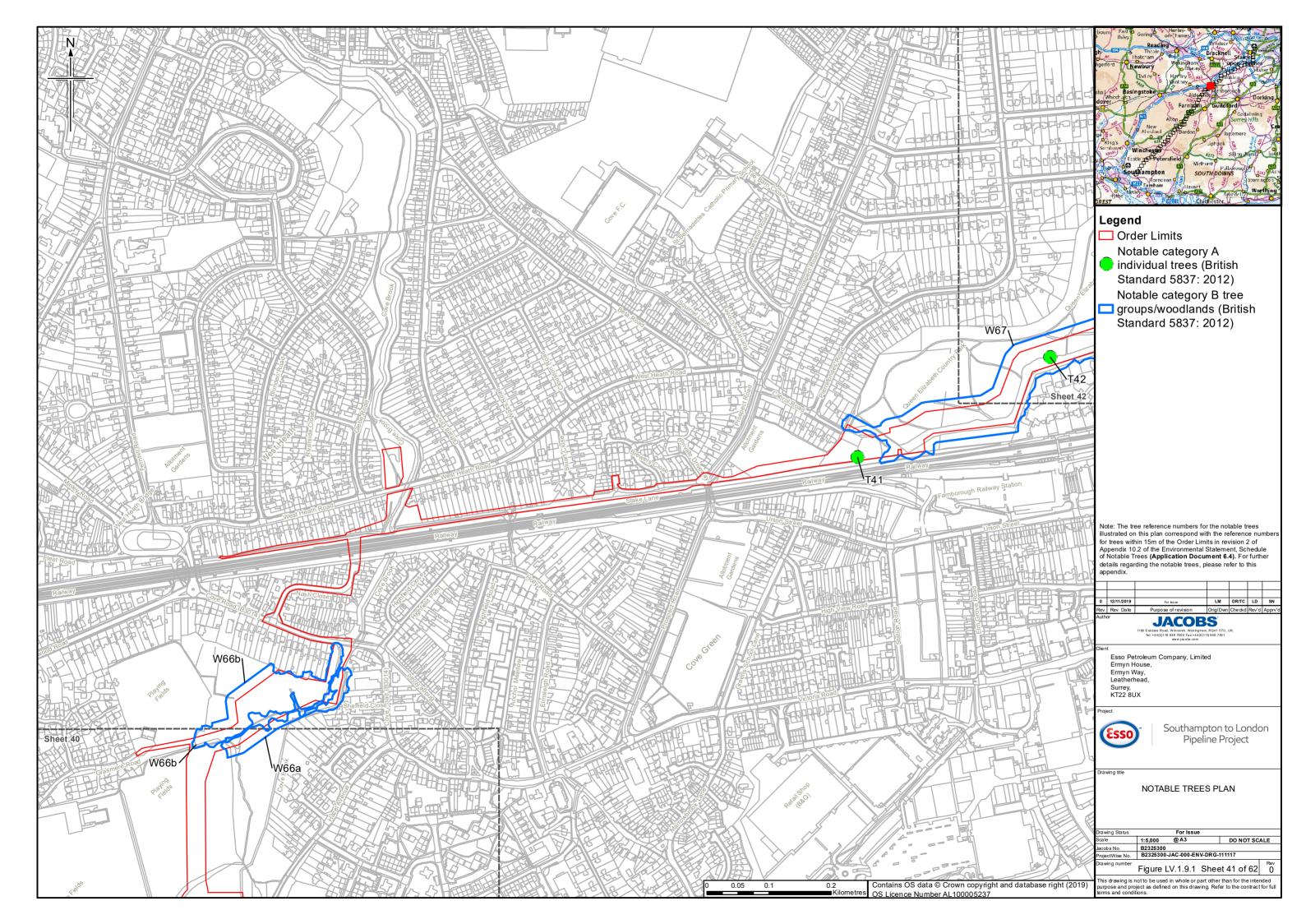


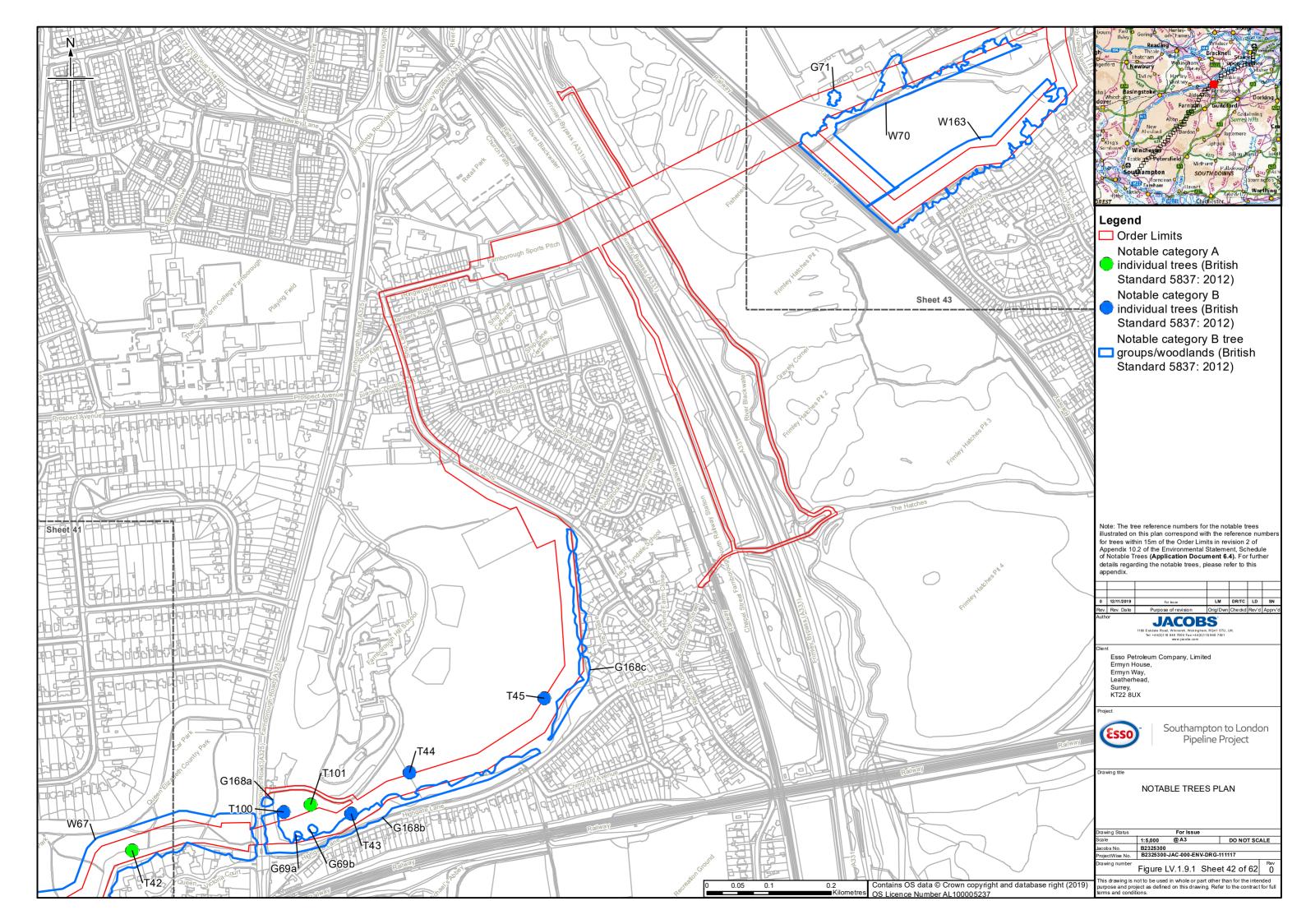


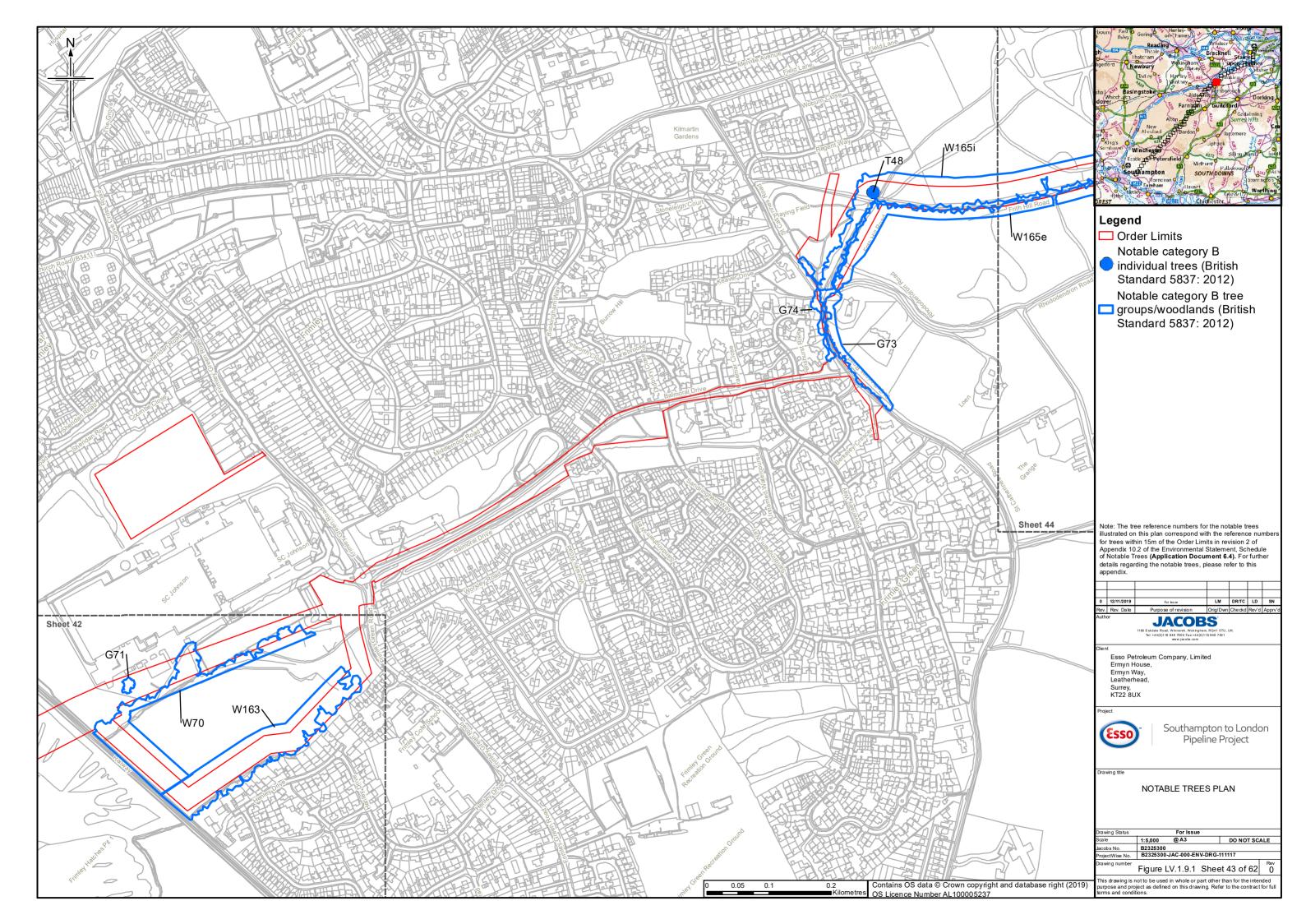


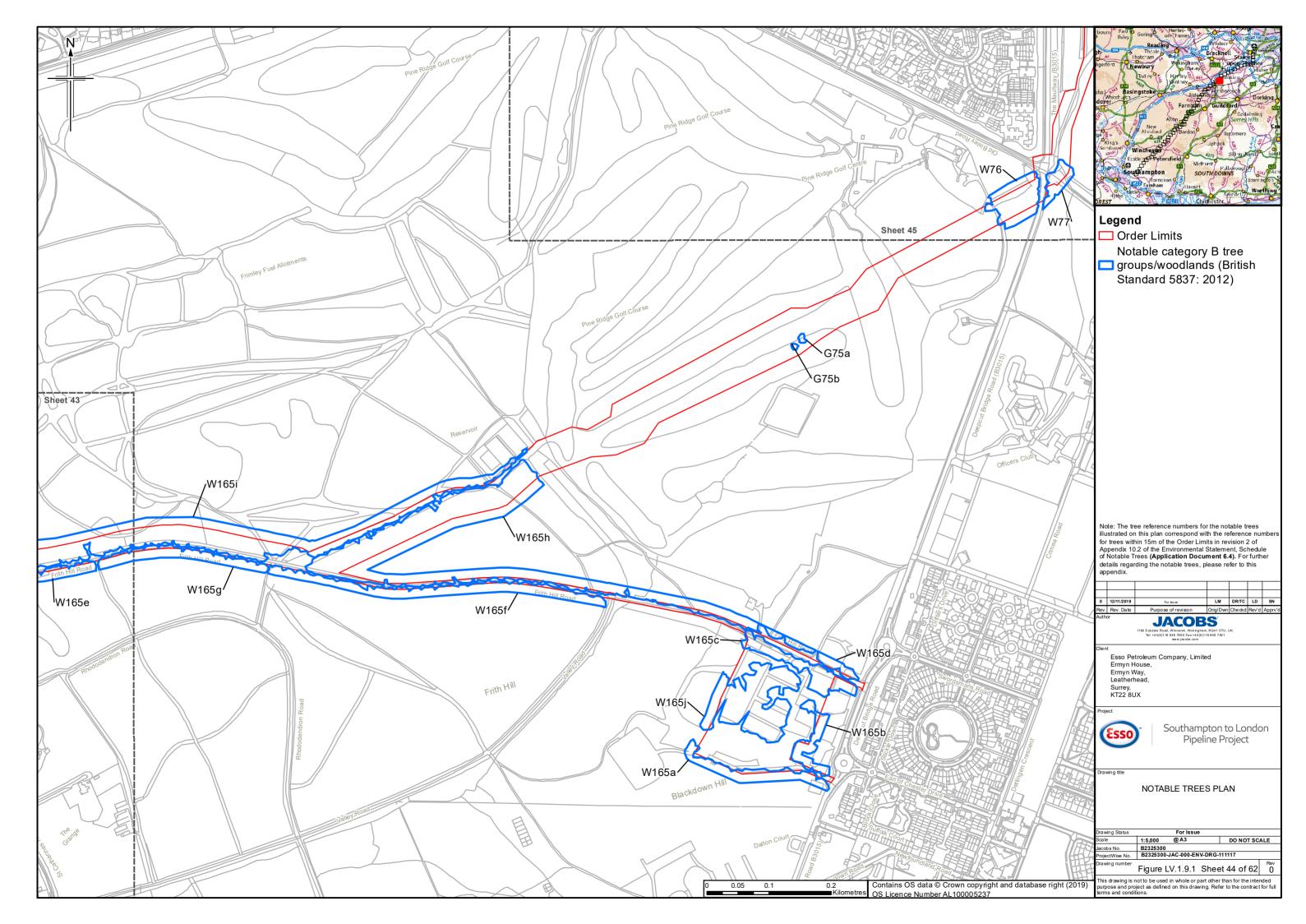


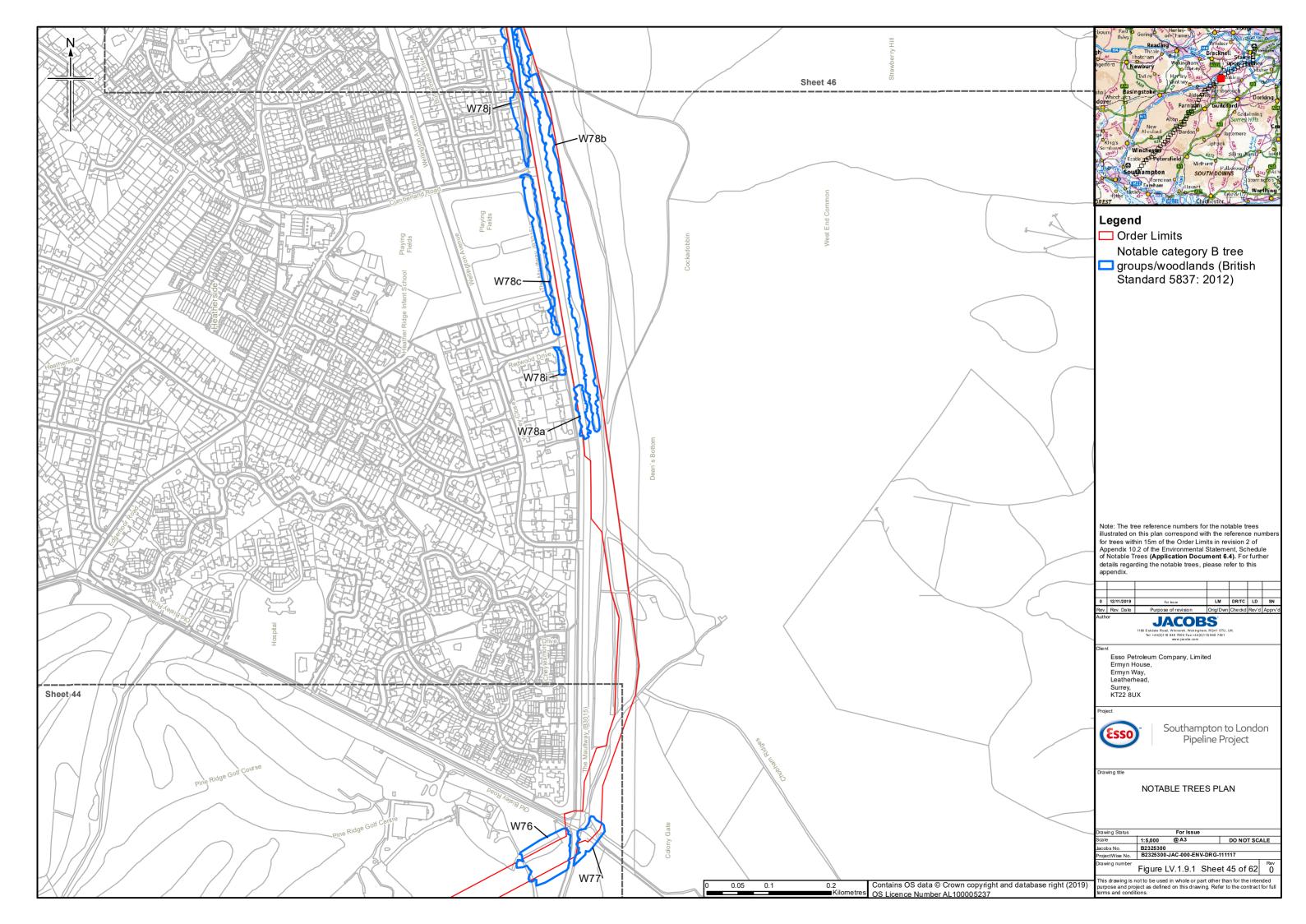


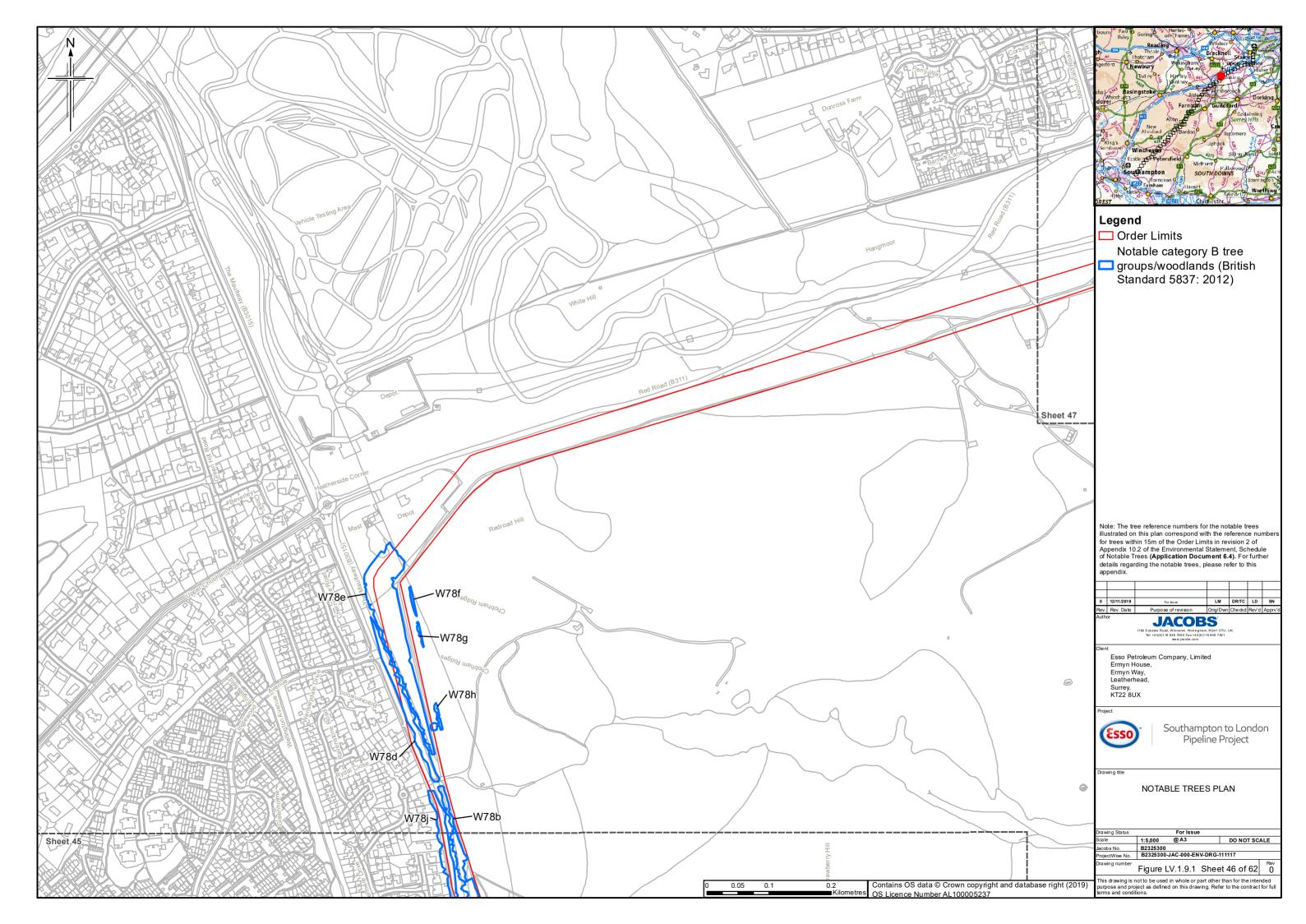


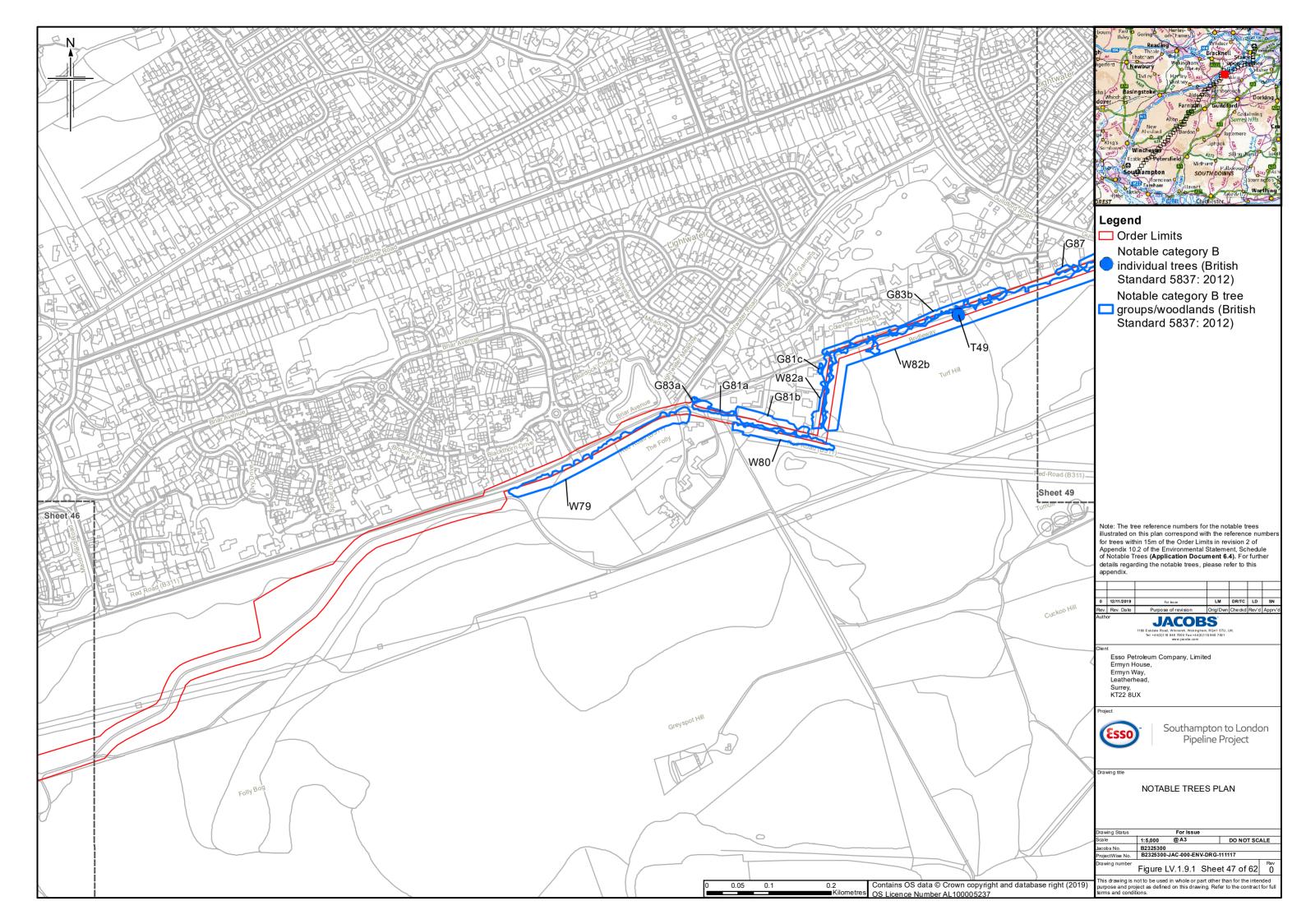


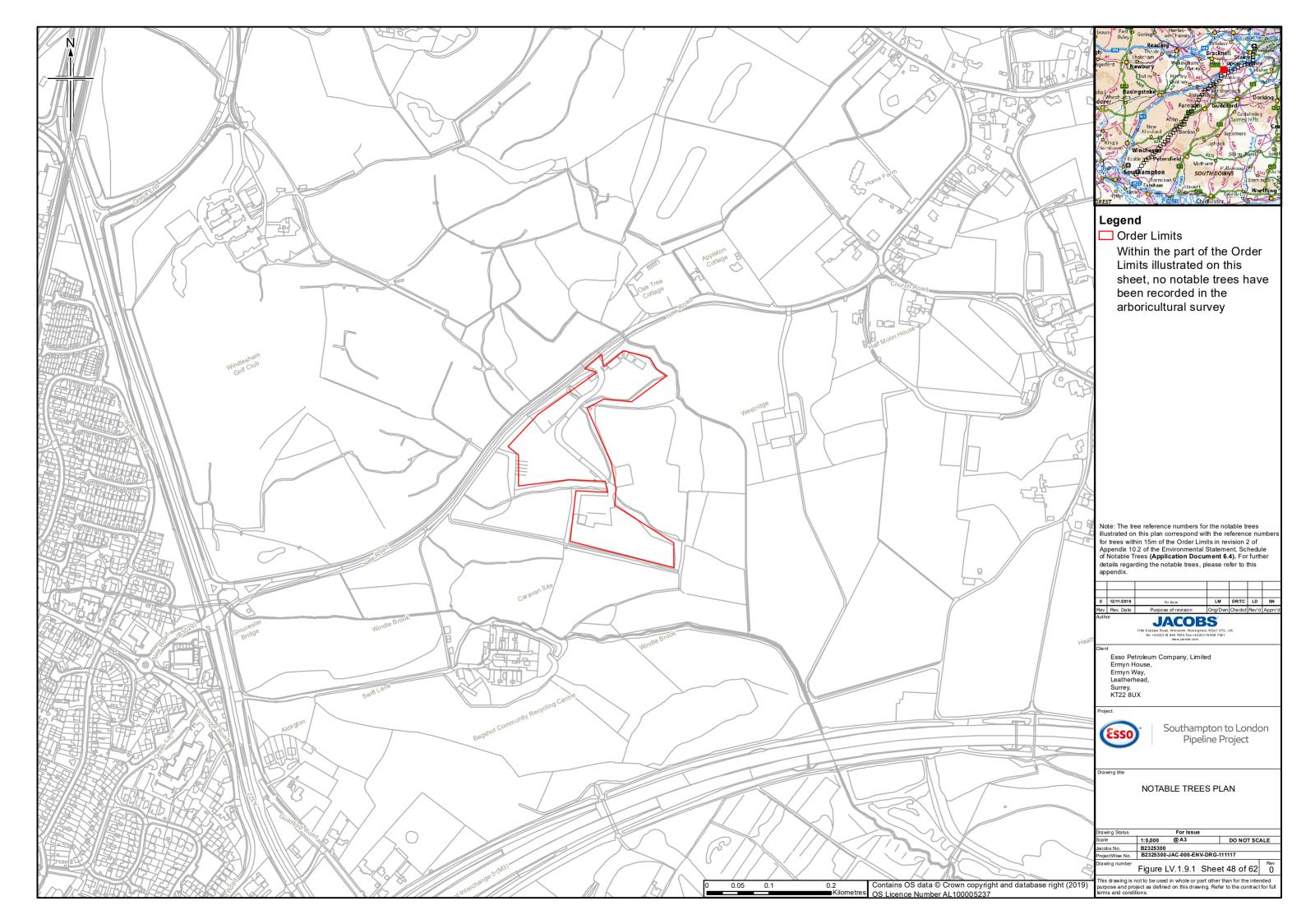


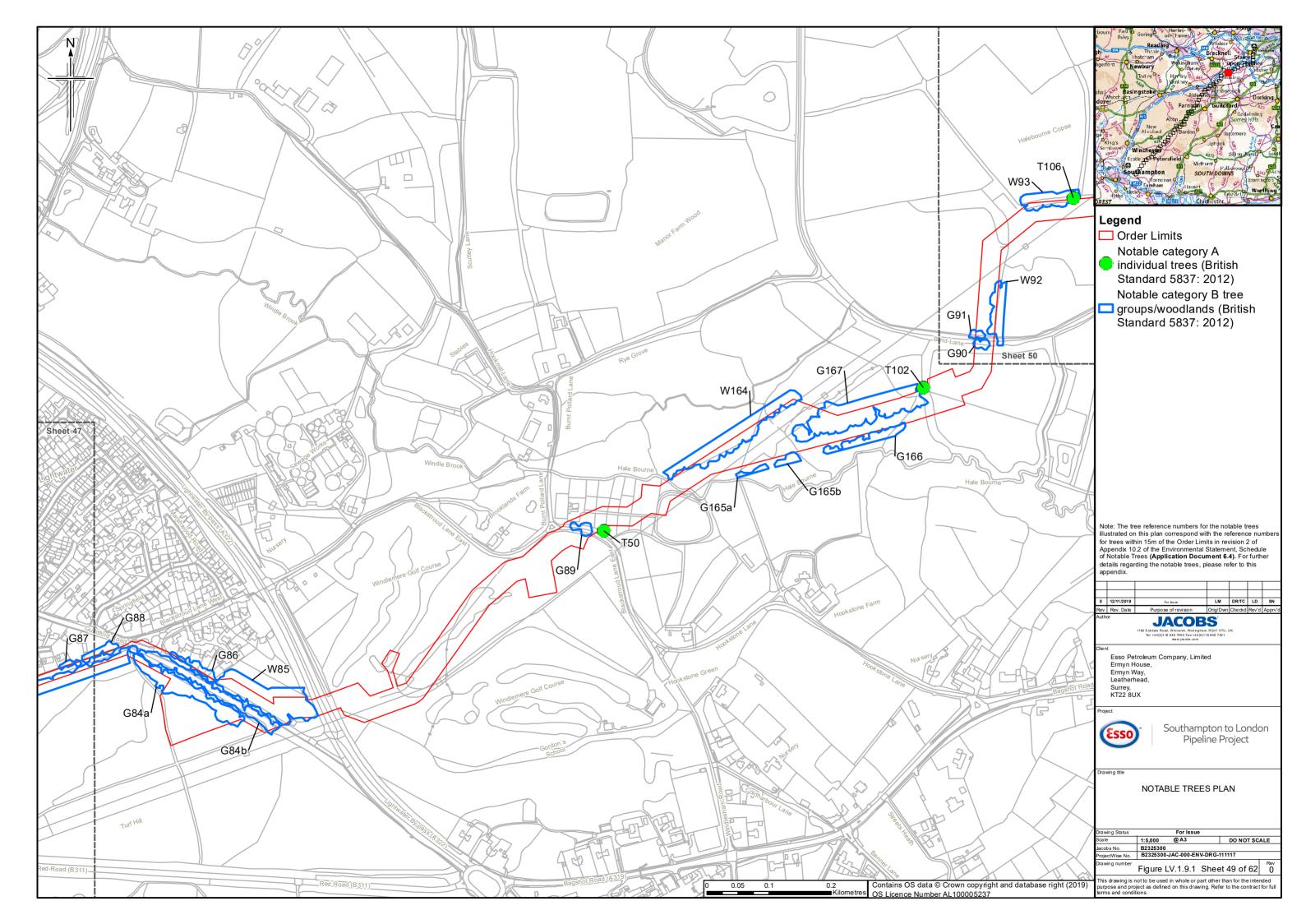


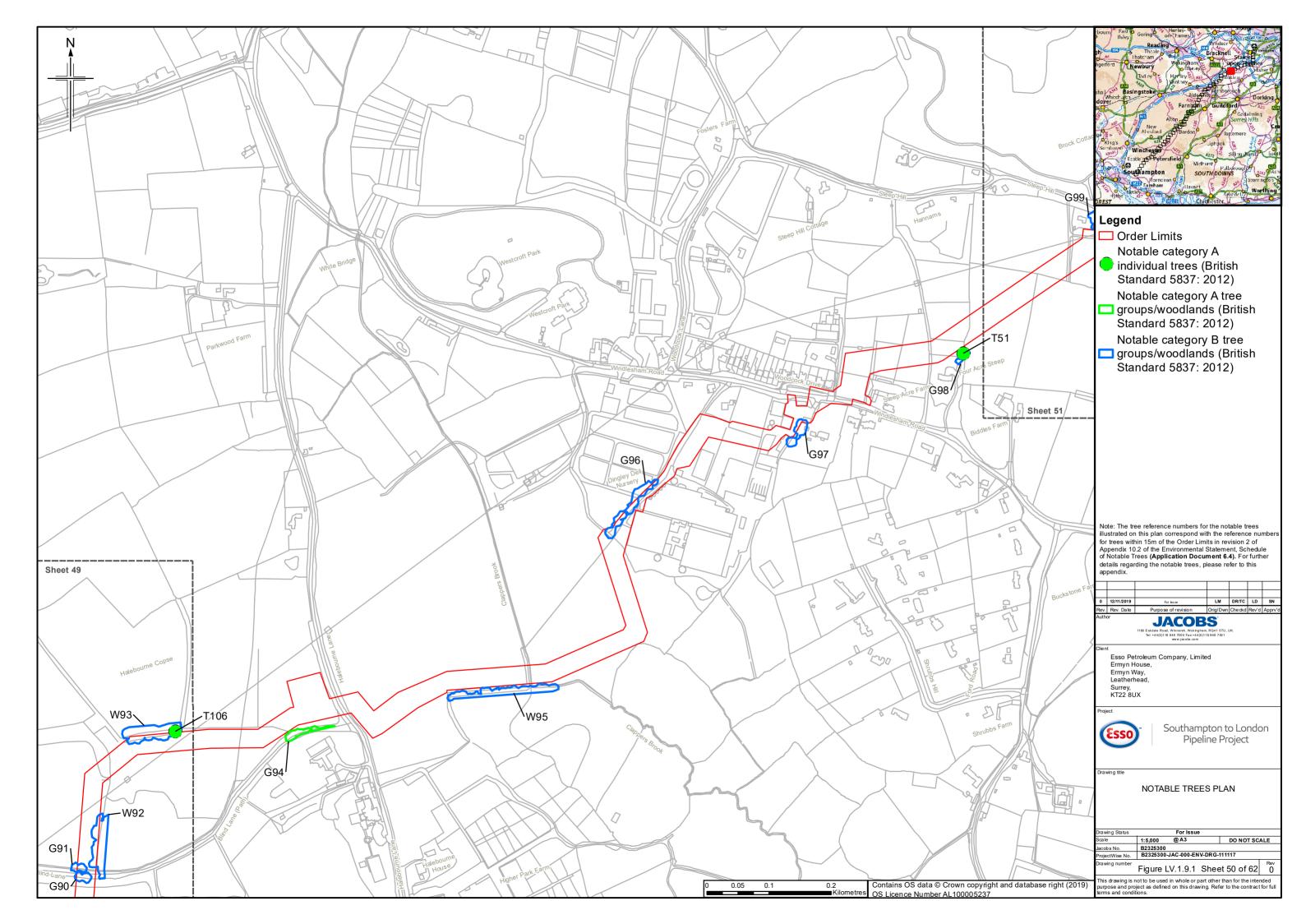




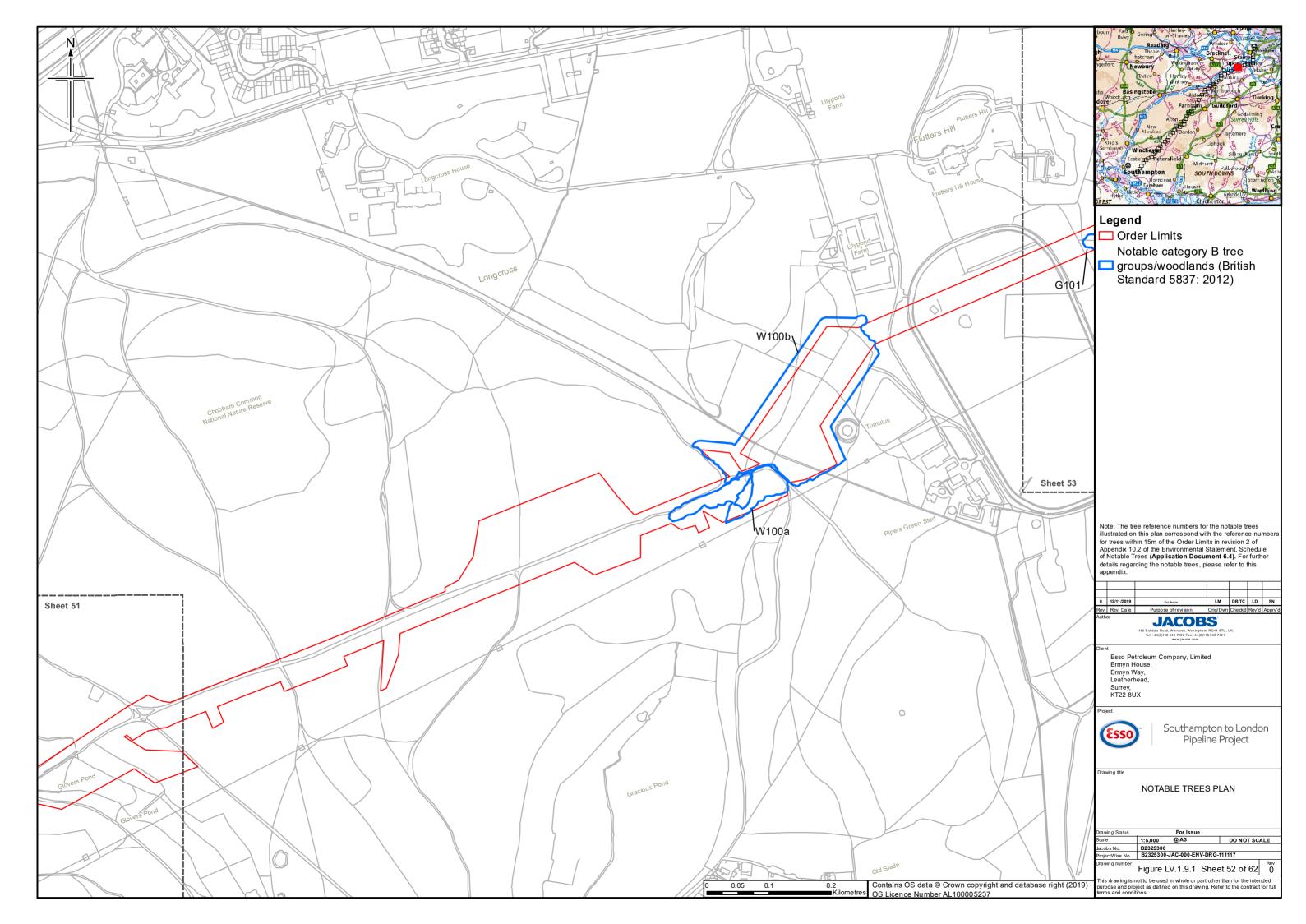


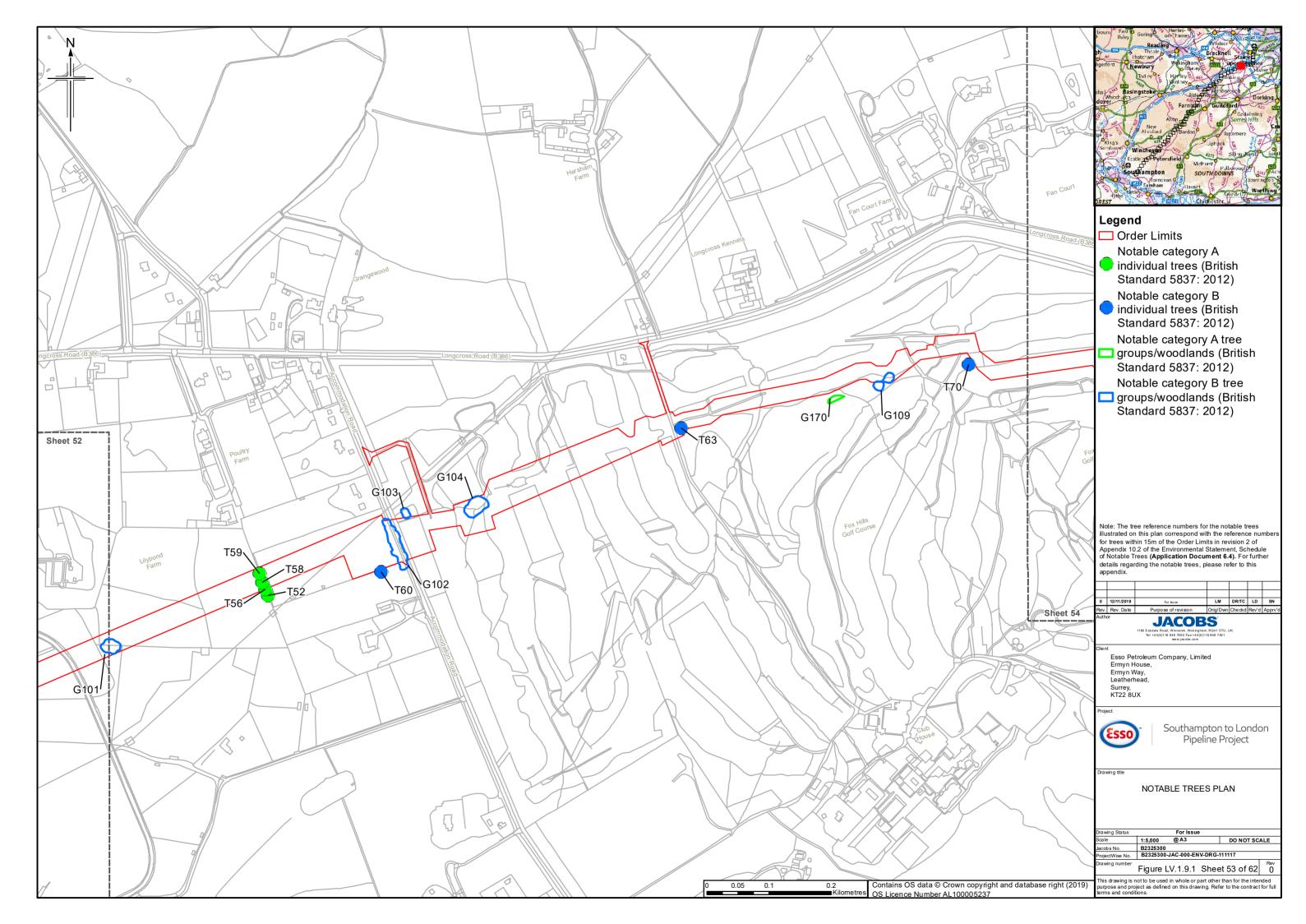


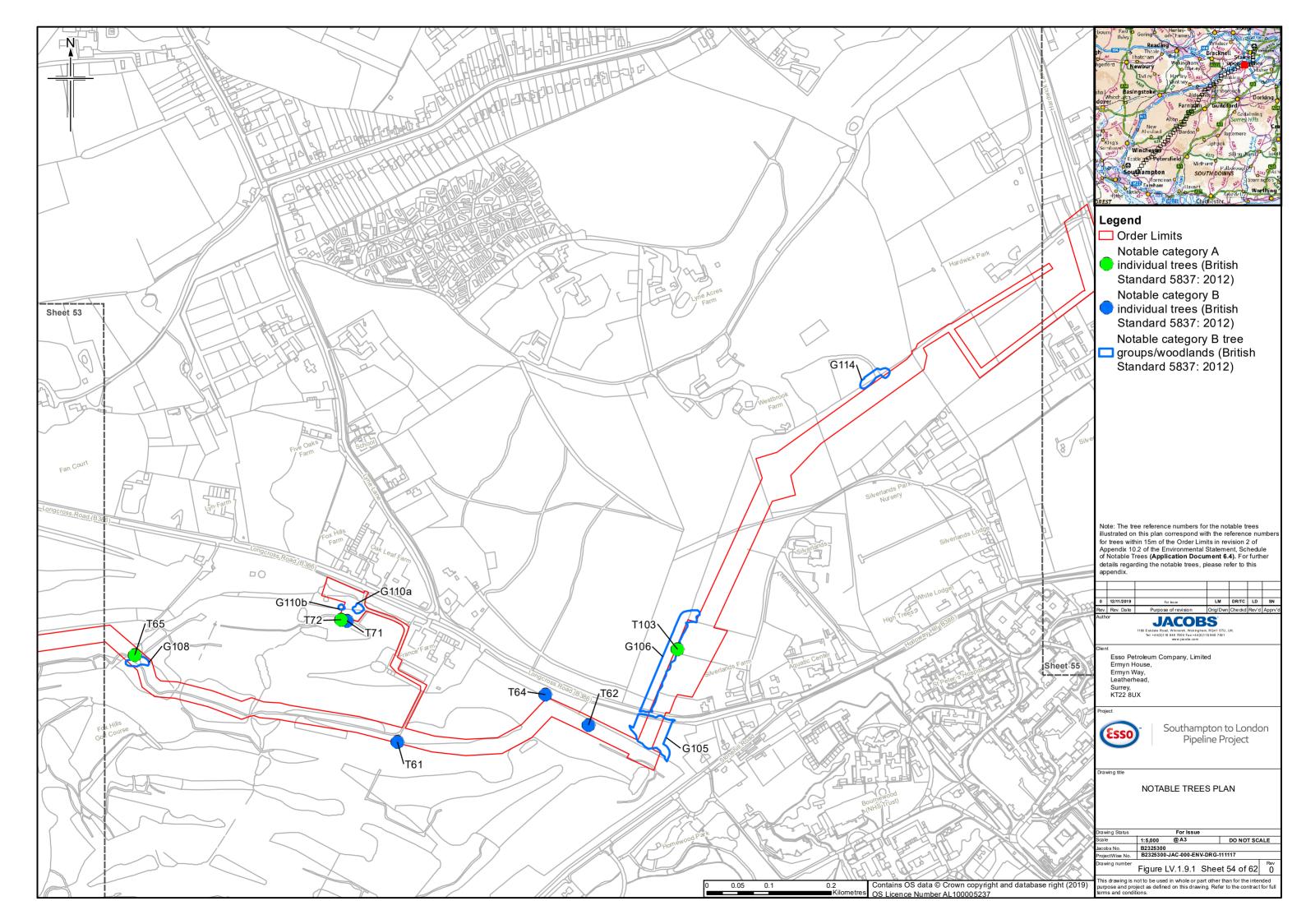


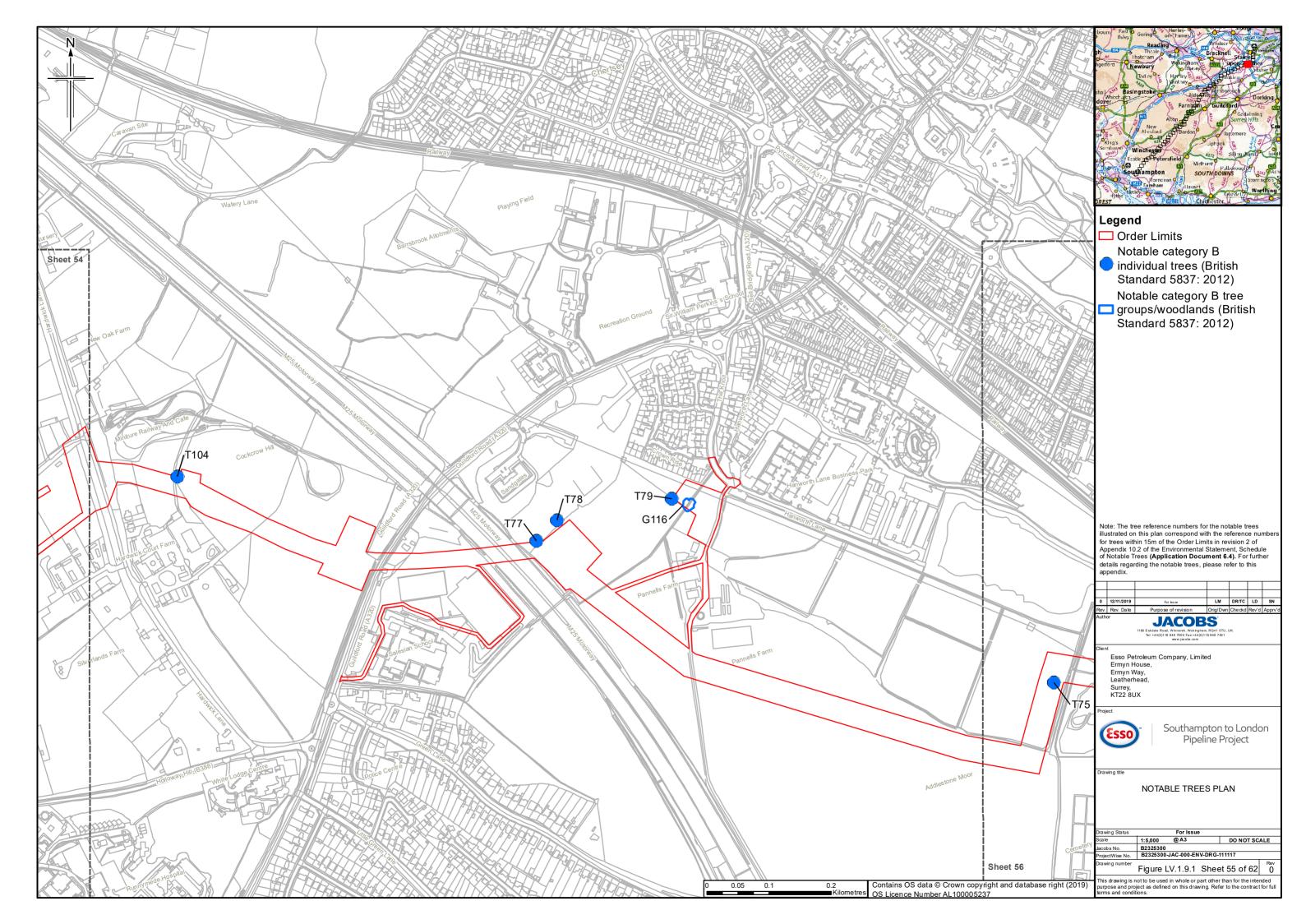


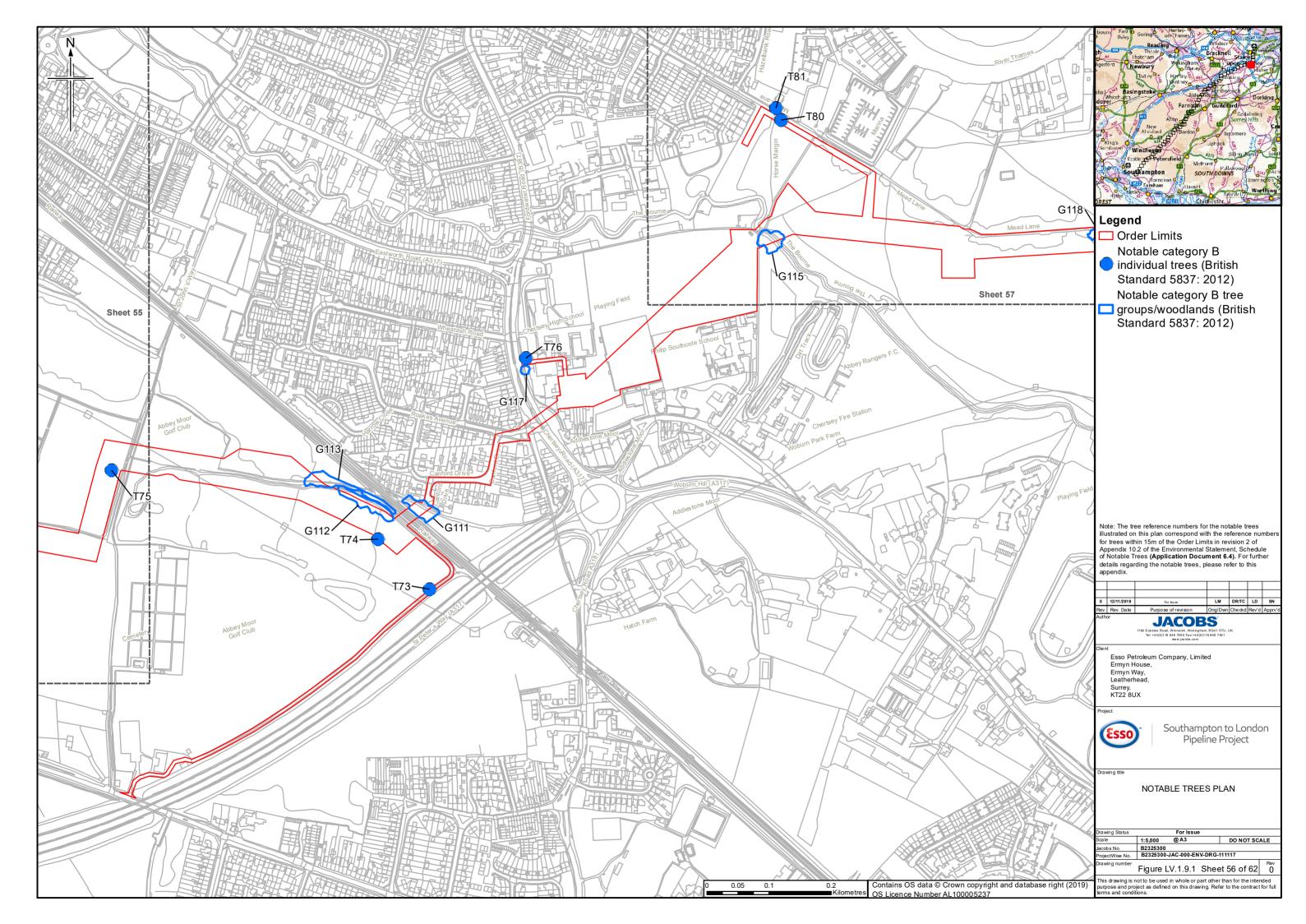


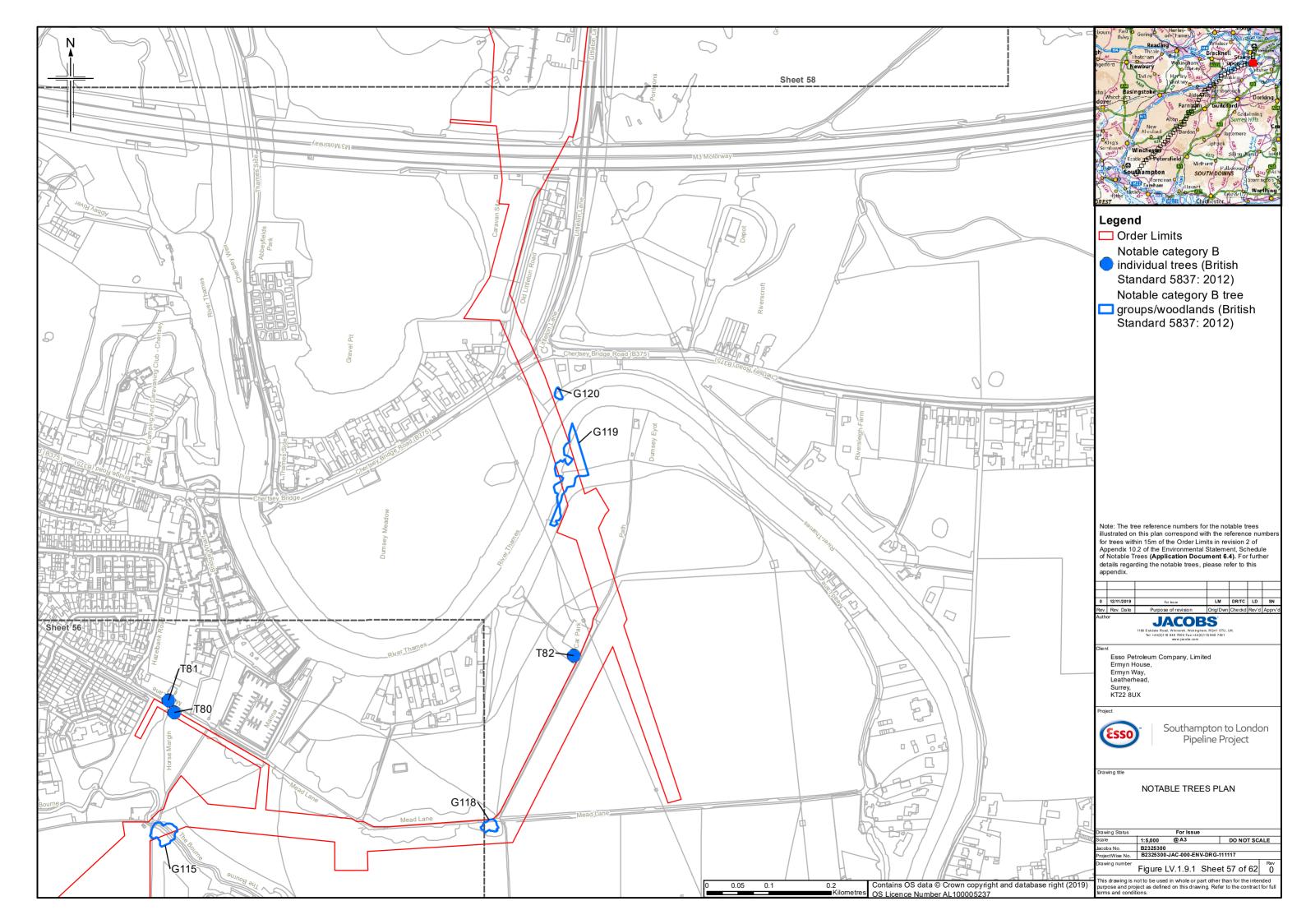


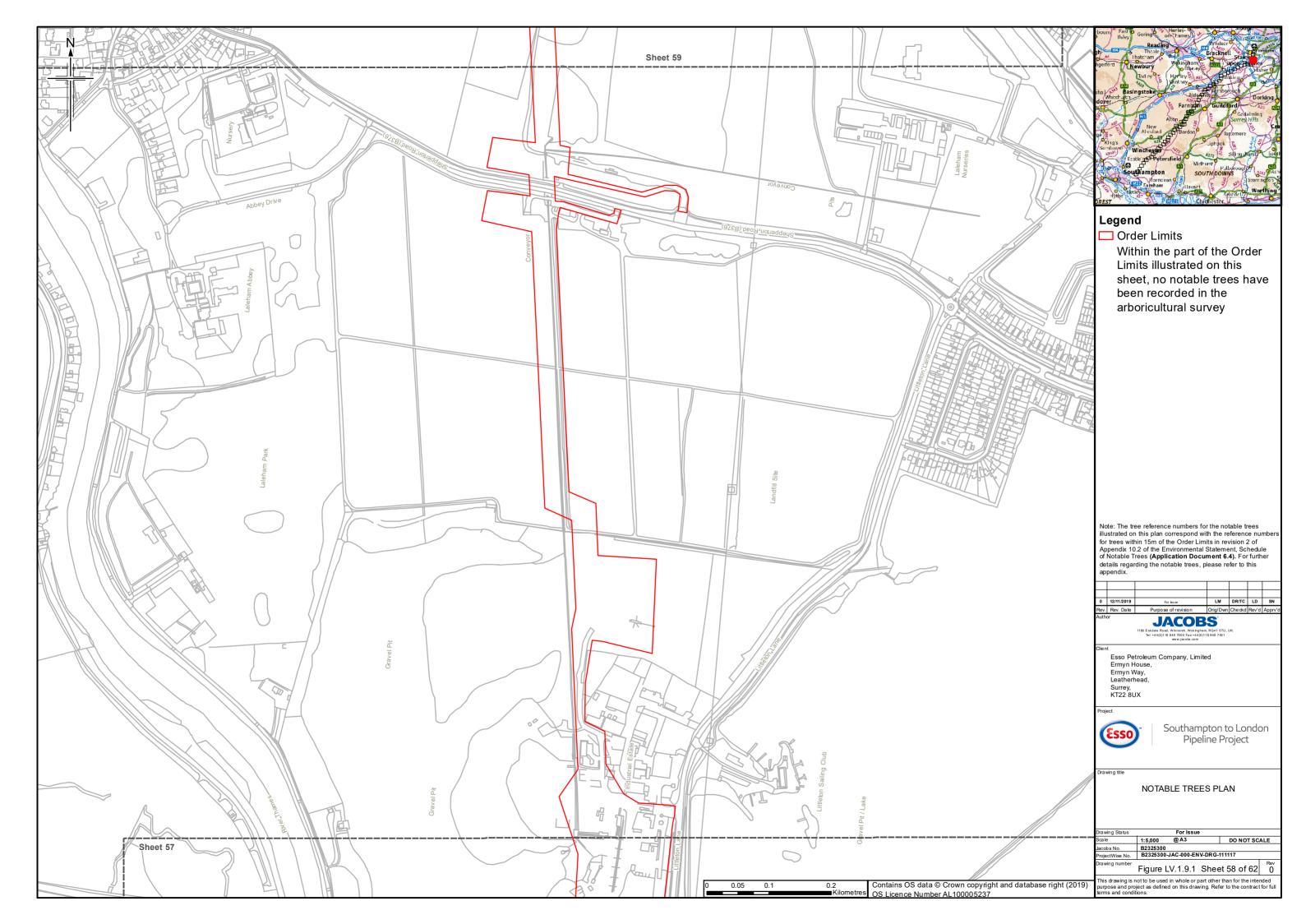


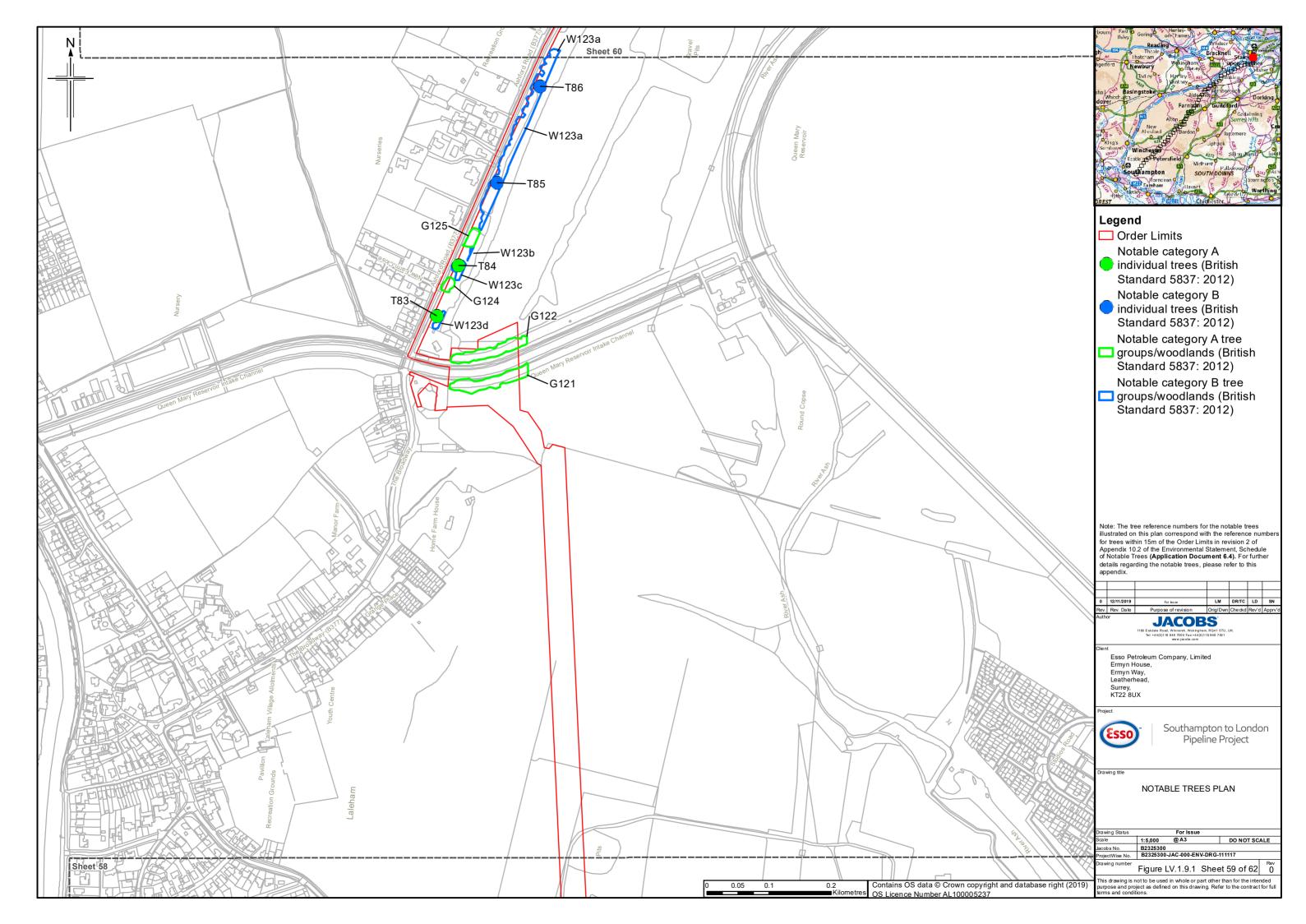


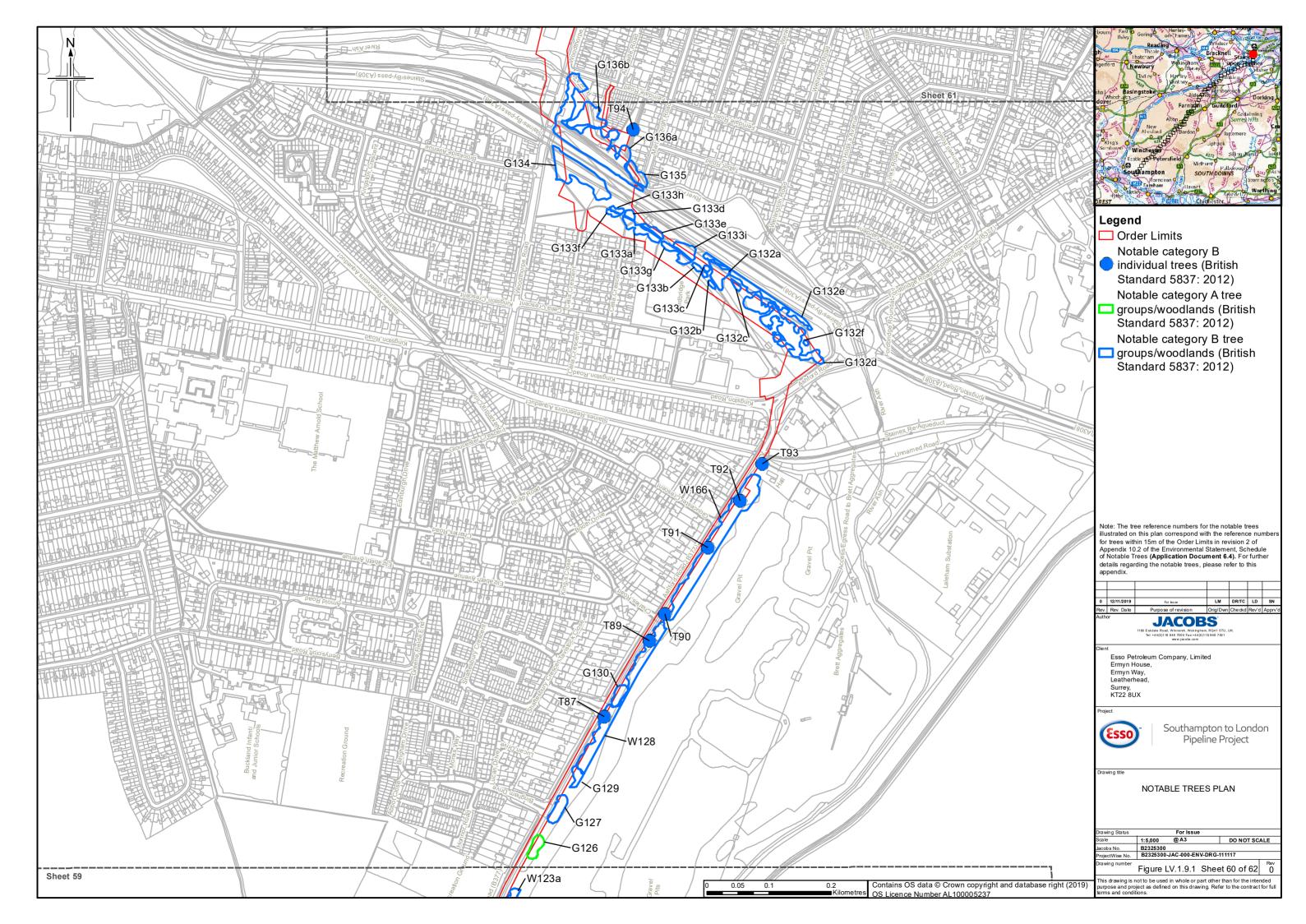


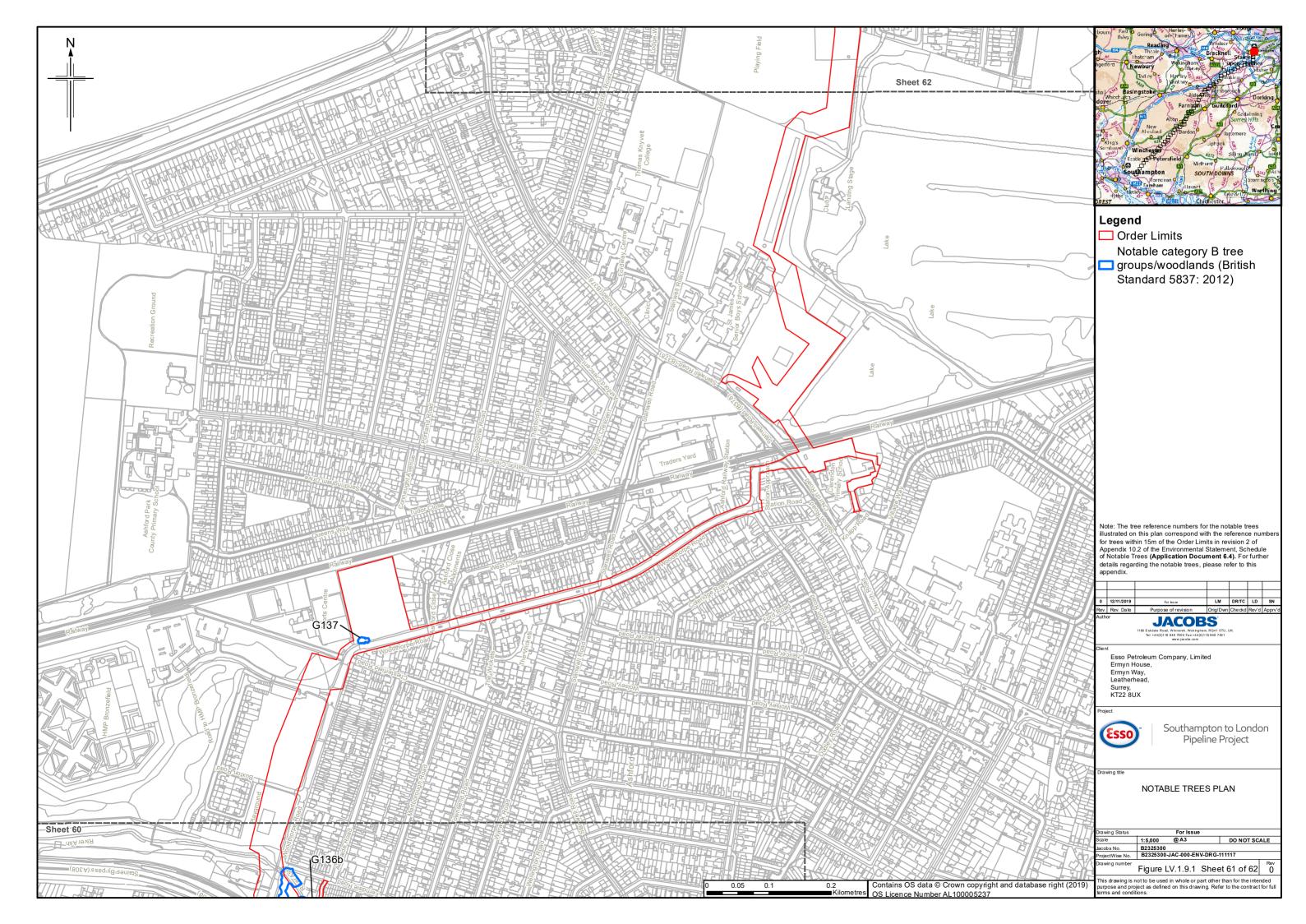














Southampton to London Pipeline Project
Response to the Examining Authority's Written Questions - Landscape
and Visual (LV)



Figure LV.1.14.1: Tree and Hedgerow Worst Case Removal

