

Mrs Nicola Bird
Bird's Nest
Lea
Ross-on-Wye
Herefordshire
HR9 7LN

Our Ref: 4797/TB

22 February 2021

Dear Nicola,

RE: PROPOSED ANNEXE AT BIRDS NEST, LEA, ROSS-ON-WYE HR9 7LN
HEREFORDSHIRE COUNCIL PLANNING APPLICATION No. 203309

It is proposed to convert and extend existing outbuildings at the above site to form an annexe, complete with parking and log store. At your instruction we have undertaken preliminary desk study researches in order to identify previous site and adjacent site uses, potential contaminants arising from those uses, and produce a preliminary conceptual site model identifying any possible sources, pathways and receptors located on site, to comply with Herefordshire Council planning permission No. 203309.

Background Setting

Centred on National Grid Reference SP 66870 21331 and located approximately 740m SE from the village of Lea, the site comprises an irregular shaped plot of land presently occupied by a residential development. It is surrounded by mature mixed trees immediately to the southwest, a single lane road to the east, agricultural fields to the north and adjacent residential buildings to the south. The ground is generally level but with a steady fall from c145m AOD in the southeast, to 143m AOD towards the northwest.

Walkover Inspection

The walkover inspection was undertaken on 11th February 2021 and identified an unmade access road leading to the existing outbuilding located in the northeast of the site, comprising a single storey brick building with tiled roofing, with an open tin roofed lean-to located around the back. The interior of the building was separated into two sections, with the western section appearing to be used as a stable, with saw dust covering the tiled floor. The eastern section seems to be

used as a miscellaneous storage shed, filled with an assortment of tools, furniture and discarded equipment, all lying on a concrete floor. The rear lean-to was observed to have an intact and unbroken ACM (asbestos containing material) roof, and was used as wood storage, containing both broken wooden furniture and split logs. No areas of obvious contamination were seen around or inside the outbuilding. The surrounding area to the west and south was grass overlay, with a steep decline in topography towards the northwest.

Desk study researches have been undertaken with reference to in-house records and historic Ordnance Survey maps, findings are summarised below.

TABLE 1: SUMMARY GEO-ENVIRONMENTAL SEARCH RESULTS

Item	Site Affected?	Abnormals Identified?
Bedrock geology	Brownstones Formation (BRS)	No
Superficial deposits	None recorded	No
Natural ground stability	Negligible-v low risk	No
Aquifer designation	Secondary A	No
Groundwater Source Protection Zone	No	No
Groundwater vulnerability	High	No
Drinking water safeguard zone	No	No
Water abstractions	Savidge & Son - 757m NW	No
Site history	No previous development recorded since earliest OS map dated 1881	No
Recorded landfills <250m	No (nearest recorded landfill is 261m W)	No
Historic quarries/ponds etc	Old disused quarry – 60m S	No
Radon affected	No	No
UXO risk	Low	No
Environmentally sensitive	No	No
Pollution Incidents on/near site?	No	No
On-site/nearby industrial premises	Alan Keef Ltd (Railway and locomotive builders – 300m W)	No

As shown on drawing 4797/3, historical Ordnance Survey mapping shows that the site comprised of mixed grassland and woodland, with a single building located on the eastern boundary, from the earliest available mapping of 1881 to modern day, with a single outbuilding constructed between 1995 and 2000, located in the northern corner of the site. The site borders the former 'Great Western Railway' to the southwest, with the derelict single-track railway entering a tunnel 40m to the south (disused since 1960s) near a small former quarry (itself disused since at least 1885) but not recorded to have been infilled. Residential buildings to the south-east weren't

constructed until between 1924 and 1953. Mapping shows no significant change to the site or immediate surrounding area thereafter.

Preliminary Risk Assessment and Conceptual Site Model

The site and its immediate surroundings have been assessed in terms of current and historical land use and the environmental, geological and hydrogeological setting. In view of the proposed residential development, for risk assessment purposes the critical receptor would be a young female resident (age class 1-6) and our assessment has been progressed on this basis. The potential sources and principal contaminants of concern are as follows:

TABLE 2: POTENTIAL CONTAMINATION SOURCES AND PRINCIPAL CONTAMINANTS OF CONCERN

Potential Sources		Principal Contaminants of Concern
ON-SITE	General near-surface made ground / topsoil	Toxic and phytotoxic metals PAH and TPH compounds Asbestos fibres / fragments
OFF-SITE	Former small quarry c60m S	N/A - Discounted as viable source of landfill-type gas migration by virtue of size, likely shallow nature, age of any infill and distance across freely-venting intervening ground

The above information is converted into the preliminary conceptual site model shown in Figure 1 below, and the potential pollutant linkages involving future site users, proposed services and local environmental receptors are discussed in Table 3, with appropriate risk levels. Suspected ACM roof sheeting on the lean-to appear unbroken, so provided it undergoes careful controlled removal prior to any demolition/conversion, it should not pose any viable risk of fibres released.

Potential Sources	Pathways	Receptors						Comments	Preliminary Risk Assessment
		R1	R2	R3	R4	R5	R6		
ON-SITE									
S1	P1	X						Proposed residential development; greatest risk in areas of gardens and/or soft landscaping, but no visual evidence or expectation of contaminated ground	Low
	P2	X							
	P3		X						
	P4			X					
	P5								
	P6								
	P7								
OFF-SITE									
S2	P1							Former Quarry located downslope, no record of having been infilled, any infill would now be at least 100 years old, so possible landfill gas migration considered low - negligible	Low - Negligible
	P2								
	P3								
	P4								
	P5								
	P6					?			
	P7								
SOURCES	S1	Possible elevated toxic metals, PAH, TPH and ACM within general near-surface made ground							
	S2	Possible landfill gas migration from former disused Quarry (c60m south)							
PATHWAYS	P1	Direct dermal contact or ingestion via soil on vegetables							
	P2	Inhalation of dust and vapours							
	P3	Permeation into new water supply pipework							
	P4	Vertical leaching of leachable contaminants in unsaturated zone and lateral migration in saturated zone							
	P5	Direct contact with high sulphate-bearing clay							
	P6	Landfill gas migration through unsaturated zone and accumulation within confined spaces							
	P7	Radon gas migration through unsaturated zone and accumulation within confined spaces							
RECEPTORS	R1	Future site users (critical receptor is female resident of age class 1-6)							
	R2	Potable water supply							
	R3	Groundwater (Brownstone Formation classified as 'Secondary A' aquifer)							
	R4	Surface waters (None)							
	R5	Proposed dwelling(s) incl. concrete foundations							
	R6	Adjacent site users/occupants (adjacent residential, 20m south)							

Conclusions

On this basis even though the proposed annexe development is relatively sensitive in that most of the normal human health exposure pathways of direct dermal contact and/or ingestion via soil on vegetables grown for consumption will be potentially viable, there is no evidence of any significant potential human health risks. As such, in terms of the preliminary conceptual site model (see Figure 1), no pre-construction ground investigation and contamination testing is considered necessary. As usual any unexpected contamination that may be found during onward site excavations should be reported to us to enable appropriate further assessment.

I trust that this suitably addresses your requirements, however please do not hesitate to contact me should you require anything further. This report is subject to our standard terms and conditions.

Yours sincerely



THOMAS W BEACH BSc (Hons) FGS
GEOLOGIST
for
WILSON ASSOCIATES (CONSULTING) LIMITED

SITE LOCATION (based on Microsoft Bing Mapping)

Job No.

4797/1

Drawing No.

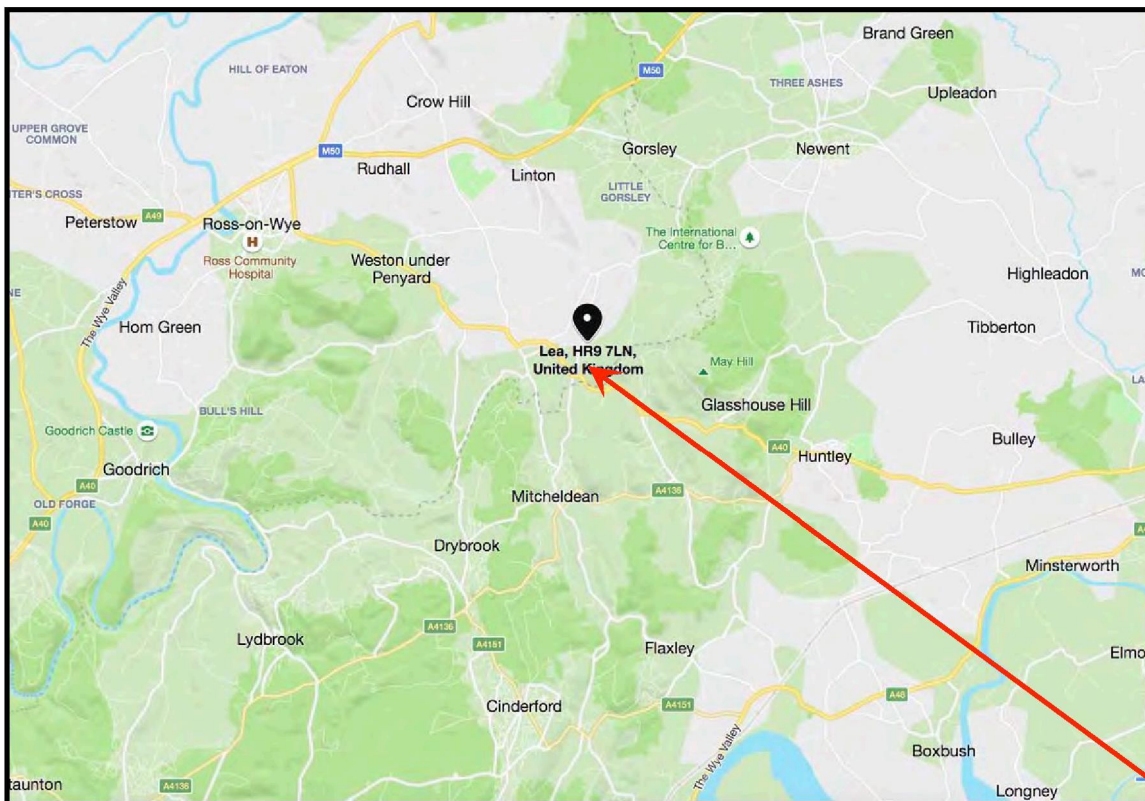
4797/1

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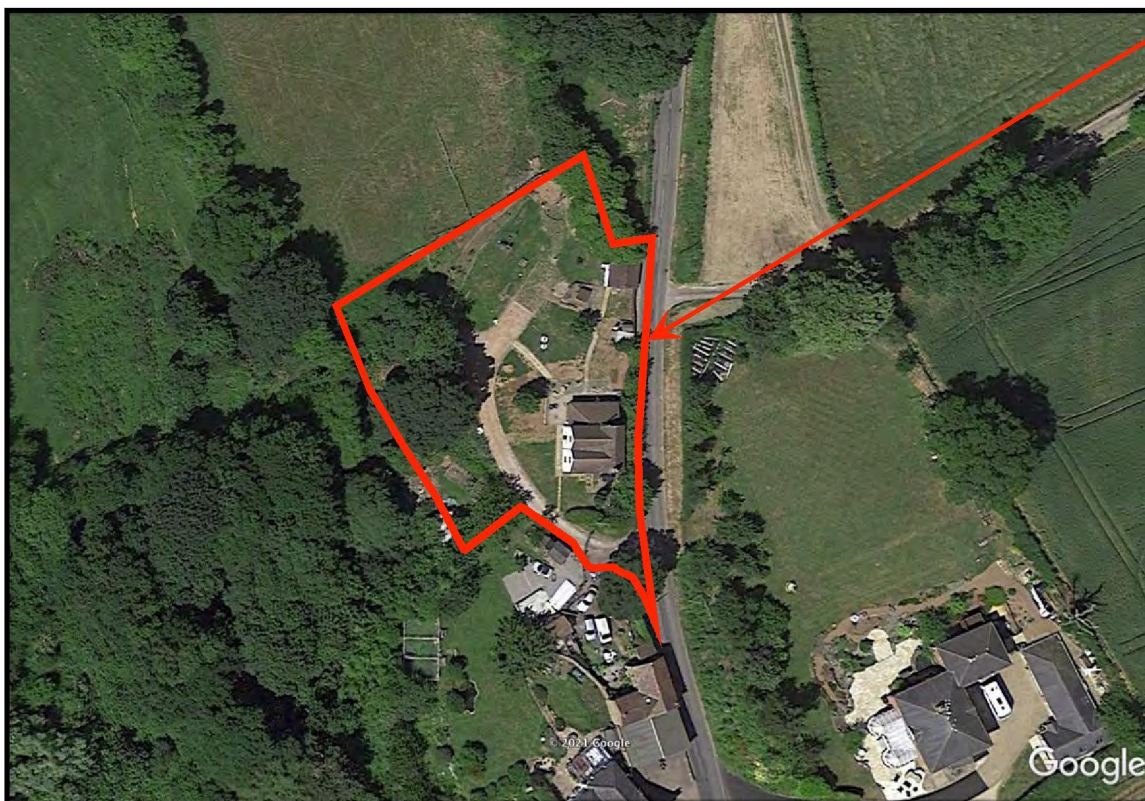
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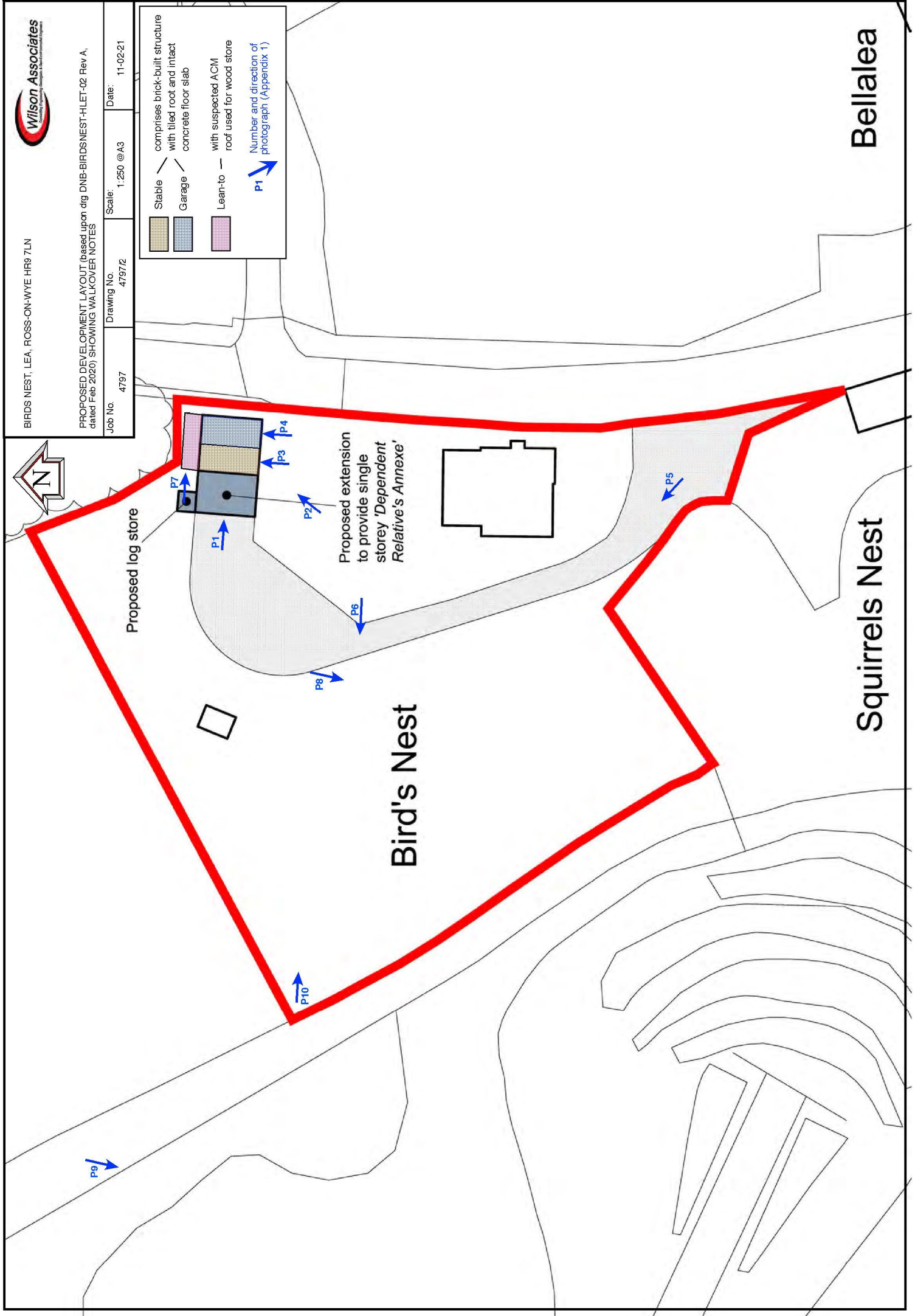
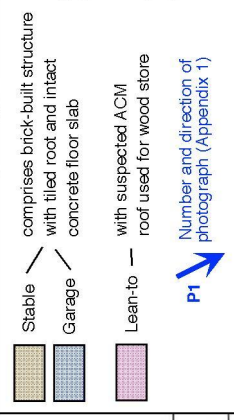
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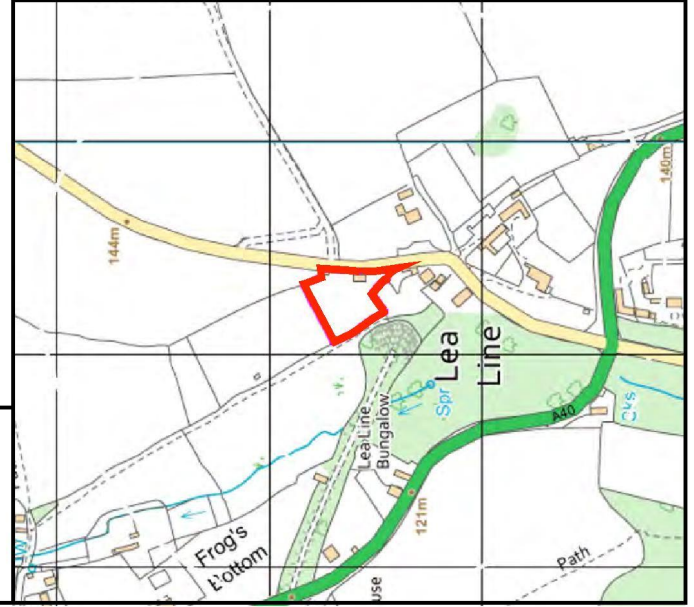
08-02-21



THE
SITE

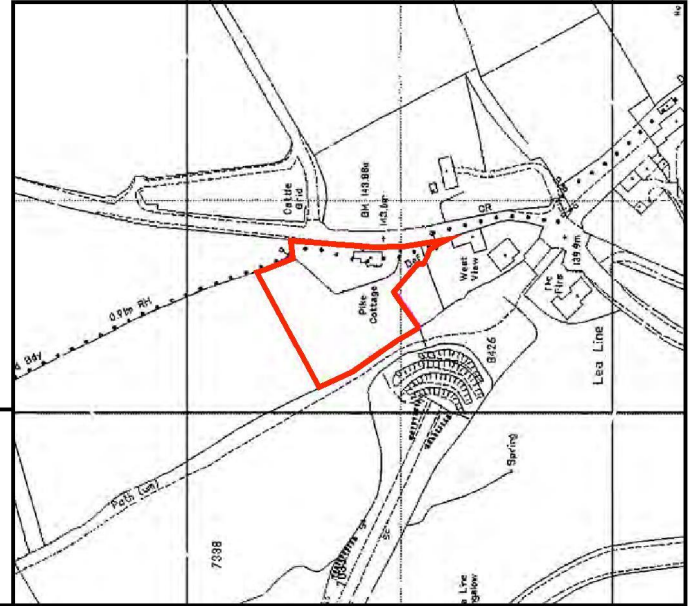






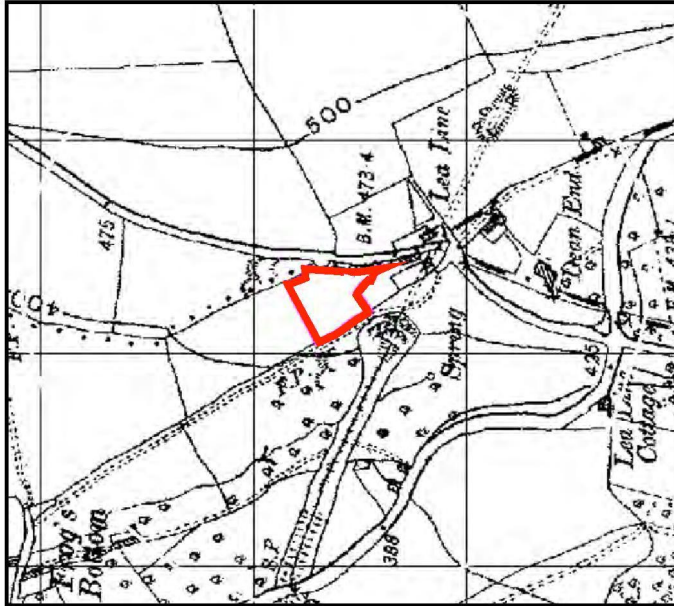
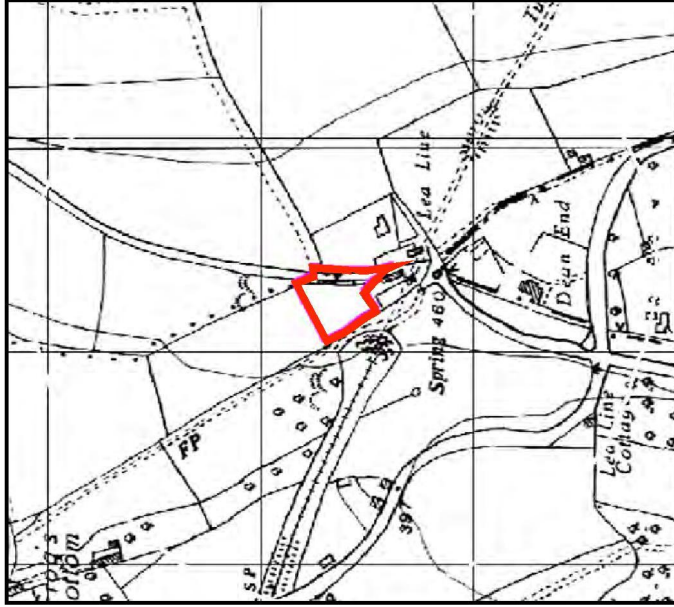
1954-55
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2020
(scale 1:5000)



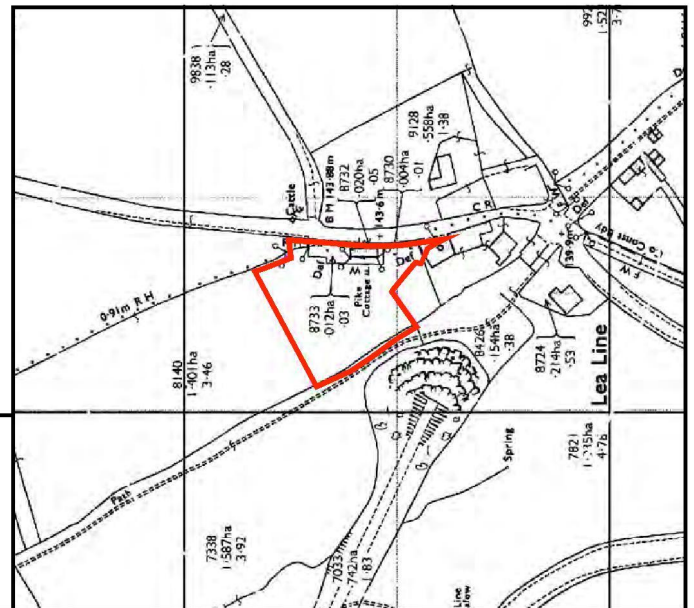
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1995
(scale 1:2500)



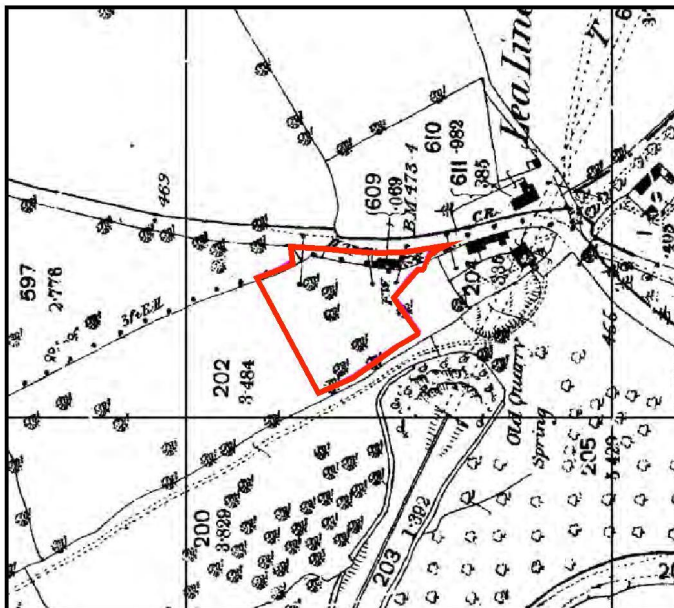
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1995
(scale 1:2500)



1889
(scale 1:2500)

1970
scale 1:2500)





APPENDIX 1

SITE PHOTOGRAPHS



Photograph P1



Photograph P2



Photograph P3



Photograph P4



Photograph P5



Photograph P6



Photograph P7



Photograph P8



Photograph P9



Photograph P10

CONDITIONS OF CONTRACT - CONSULTANCY SERVICES

- 1 Wilson Associates (Consulting) Limited ("the Consultant") shall carry out the Services, including any proposal, report or other document, as detailed in any relevant correspondence, which forms part of this Agreement, for the Client with reasonable skill, care and diligence. The Consultant shall use reasonable endeavours to adhere to any agreed programme. Each instruction or acceptance of a quotation shall be deemed to be an offer to purchase the services subject to the conditions laid out in this document.
- 2 An interim invoice will normally be submitted upon completion of the site works, to include all disbursements and fees to date, and for contracts extending over a long period, monthly invoices will be submitted for payment. The final report will not be issued until payment of the first interim invoice has been received, unless agreed with this Practice beforehand. Invoices are not to be assigned to a third party without prior agreement. Should the contract be cancelled after either preparatory or fieldwork has commenced then a claim will be made for work completed to that date.
- 3 The rates quoted, are net of Value Added Tax (VAT) which will be added to invoices at the standard prevailing rate, and are valid for a period of 12 weeks from the date of the quote. The Consultant shall issue accounts monthly in respect of that part of the Services carried out in the preceding period. The Client shall make payment of accounts without discount or retention within 30 days of submission. Disputes should be raised within 10 days. In the event of non-payment of the account(s) within the specified period the Consultant reserves the right to charge, from time to time, interest on the unpaid amount at the rate of 2% per calendar month above the Bank of England base rate (at time of original invoice date).
- 4 In the event of non-payment of the account(s), the Client undertakes to pay to the Consultant all costs and expenses, on an indemnity basis, incurred by the Consultant in: (i) the recovery from the Client of money or arrears (ii) the enforcement of any of the provisions of these conditions of contract (iii) the service of any notice relating to the breach by the Client of any of their obligations under this contract whether or not the same shall result in court proceedings (iv) the cost of any bank or other charges incurred by the Consultant if any cheque written by the Client is dishonoured or if any standing order payment is withdrawn by the Client's bankers (v) compensation for the breach of any terms of this agreement.
- 5 Unless expressly stipulated to the contrary, payment of the account(s) is not dependent upon the Client achieving regulatory approval for or discharge of a planning condition relating to the project, nor is it dependent upon the Client's securing of funding for the development where this may be conditional upon the prior granting of planning or building regulations approval, nor the Client's onward sale of the site to another party. In the case of provision of services to another consultant, payment of our account is not dependent upon the prior settlement of their own account by their Client.
- 6 No work will commence until an official written order or completed Quote Acceptance form has been received by post or email. Such order will be deemed to constitute acceptance of the quotation and these terms and conditions. Where the instruction to undertake the Services may have been issued by an intermediary on behalf of the Client, full Client details including confirmation of and contact details for the person responsible for authorising payment must be provided to the Consultant. In the event that the Client defaults or otherwise fails to pay the due account, the Consultant reserves the right to pursue and recover any unpaid amount from the instructing intermediary.
- 7 Neither party shall assign any obligation or benefit under this Agreement without prior written consent of the other Party. The Client shall not be entitled to assign the report(s) or any part of it without our prior written consent. Re-assignment of reports can be provided on request, subject to liaison with our Insurers and standard administration costs. Any assignment shall exclude the Contracts (Rights of Third Parties) Act 1999. Provision of a Collateral Warranty can only be considered if it is agreed at the pre-works stage, and fees for legal advice and warranty provision agreed before the works commence.
- 8 The Client guarantees that it has the right to have the Services performed and that he has obtained all the necessary certificates, licences, permits and consents required by Statute or any order or regulation made there under or by any regulation or by-law of any authority undertaker. The Client shall indemnify and hold harmless the Consultant from and against all consequences of a failure in this respect. The Client shall arrange such rights of access to property and use of Client's facilities as described in (or reasonably to be inferred from) this Agreement. The Client shall use reasonable endeavours to supply to the Consultant, promptly and free of charge: (a) any other necessary things in accordance with this Agreement; (b) any instructions, decisions, consents and approvals; and (c) any relevant data and information in the Client's possession; all of which the Consultant may reasonably require in order to carry out the Services. The Client will indemnify the Consultant in respect of any failure by the Client under this Clause.
- 9 In line with the Construction (Design & Management) Regulations 2015 and AGS guidance, neither the Consultant nor any sub-contractor shall be held responsible for any accidental damage or the consequences of any damage to buried services such as cables, pipes, sewers, etc., the positions and nature of which have not been clearly indicated to the Consultant in writing prior to the commencement of the work, unless the locating of same is expressly part of the Services. Where necessary it is assumed that the Client will permit the use of their toilet/welfare facilities by Consultant's staff and sub-contractors, including domestic properties. We will normally undertake the role of Contractor on a ground investigation project, but may occasionally 'inherit' the role of Principal Contractor. In either case that role is restricted to the ground investigation phase ONLY and not the subsequent build.
- 10 The Consultant shall not be held responsible for any loss, damage or injury arising from actions or omissions of the Client, his agents, servants and/or independent contractors. The Client shall indemnify the Consultant from any such acts or omissions.
- 11 Each Party shall retain the copyright of its documents. Information relating to the contract will only be disclosed to those employees who require it to carry out their job. If necessary this may include subcontractors. Any other third party enquiry about the purposes of these works will be referred back to the Client. Upon completion any technical information or ground investigation data obtained as part of your commission will thereafter be archived as 'in-house' data, and may be used (without specific reference to your site) on other projects in the future; this specifically excludes any personal data.
- 12 Copyright And Non-Disclosure Notice - The contents and layout of any report produced by the Consultant are subject to copyright owned by Wilson Associates save to the extent that copyright has been legally assigned by us to another party or is used by Wilson Associates under licence. To the extent that we own the copyright of a particular report, it may not be copied or used without our prior written agreement for any purpose other than the purpose indicated in that report. The methodology (if any) contained in that report is provided to you in confidence and must not be disclosed or copied to third parties without the prior written agreement of Wilson Associates. Disclosure of such a information may constitute an actionable breach of confidence or may otherwise prejudice our commercial interests. Any third party who obtains access to that report by any means will, in any event, be subject to the Third Party Disclaimer set out below.
- 13 Third Party Disclaimer - Any disclosure of our report(s) to a third party is subject to this disclaimer. Reports are prepared by Wilson Associates at the instruction of, and for use by, our client named on the front of that report. It does not in any way constitute advice to any third party who is able to access it by any means. Wilson Associates excludes to the fullest extent lawfully permitted all liability whatsoever for any loss or damage howsoever arising from reliance on the contents of that report. We do not however exclude our liability (if any) for personal injury or death resulting from our negligence, for fraud or any other matter in relation to which we cannot legally exclude liability. Legal re-assignment to another party can be arranged - see Clause 7.
- 14 The Consultant's liability under this Agreement shall be limited to £500,000 (five hundred thousand pounds). The Consultant shall maintain professional indemnity insurance in this amount providing that such insurance cover is available at commercially reasonable rates.
- 15 To comply with the General Data Protection Regulation (GDPR) 2018, we will only request contact details sufficient to complete our project with you, name/job title, address/postcode/email. Any data collected will be used only by authorised personnel in the context of that project. We are committed to ensuring that your information is secure and in order to prevent unauthorised access or disclosure, we have put in place suitable physical, electronic and managerial procedures to safeguard and secure the information we collect. We will not share your information with third parties.