Old Rectory, North Barsham

Preliminary Ecological Appraisal

Produced for Simon Page

By Applied Ecology Ltd

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1 Introduction

Background

1.1 In September 2020 Applied Ecology Ltd (AEL) was commissioned by Cowper Griffith Architects on behalf of home owner Simon Page to carry out Preliminary Ecological Appraisal (PEA) of buildings and land with an address of The Old Rectory, Walsingham Road, Barsham, Norfolk, NR22 6AN ("the Site"). A plan showing the location of the Site is provided in **Figure 1.1**.

1.2 The study was required to determine the likely ecological constraints associated with a proposal for a small-scale residential development at the Site ("the Development"), and to establish the potential scope of further, more detailed ecological surveys which may be needed to support any future planning application(s). The development proposal is the construction of a small single-storey extension that would occupy land currently occupied by hard standing and a small brick outbuilding on the north side of the rectory, and the conversion of a grass surfaced tennis court to the north of the property to a natural swimming pond. The designs of both developments have not been seen but have been verbally described.

1.3 Where possible the report discusses at a high level the likely impacts of the development on ecological receptors based on the findings of the PEA. However, it does not provide, and nor is it intended to provide, a detailed or comprehensive assessment of development impacts in the form of an Ecological Impact Assessment (EcIA).

Purpose of this report

1.4 This report provides details relating to the surveys undertaken on the Site in October 2020. It includes a description of the Site's habitat features and protected species interest, and a summary of its biodiversity opportunities and constraints. Recommendations for further survey are also described, where these are considered relevant.

Legislation and Planning

Legislation

1.5 The Wildlife and Countryside Act 1981 (as amended) provides the main legal framework for nature conservation and species protection in the UK. The Site of Special Scientific Interest (SSSI) is the main statutory nature conservation designation in the UK. Such sites are notable for their plants, or animals, or habitats, their geology or landforms, or a combination of these. Natural England is the key statutory agency in England for advising Government, and for acting as the Government's agent in the delivery of statutory nature conservation designations.

1.6 Designation of a SSSI is a legal process, by which sites are notified under the Wildlife and Countryside Act 1981. The 1981 Act makes provision for the protection of sites from the effects of changes in land management, and owners and occupiers receive formal

notification specifying why the land is of special scientific interest, and listing any operations likely to damage the special interest.

1.7 The Countryside and Rights of Way Act 2000, and The Natural Environment and Rural Communities (NERC) Act 2006, provide supplementary protected species legislation. Specific protection for badgers *Meles melesis* provided by the Protection of Badgers Act 1992.

Habitats and Species of Principal Importance in England

1.8 The Natural Environment and Rural Communities (NERC) Act came into force on 1 October2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.

1.9 The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Habitats of Principal Importance

1.10 Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UKPost-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and sub-tidal sands and gravels.

Species of Principal Importance

1.11 There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier *Circus cyaneus* has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.1.11. In accordance with Section 41(4) the Secretary of State will, in consultation with Natural England, keep this list under review and will publish a revised list if necessary.

National Planning Policy Framework

1.12 The National Planning Policy Framework (NPPF) was first published in March 2012 and replaced previous planning policy guidance (PPS 9) on biodiversity. The NPPF was updated in July 2018, and in February 2019, and states the following in relation to biodiversity and planning:

"When determining planning applications, local planning authorities should apply the following principles:

a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

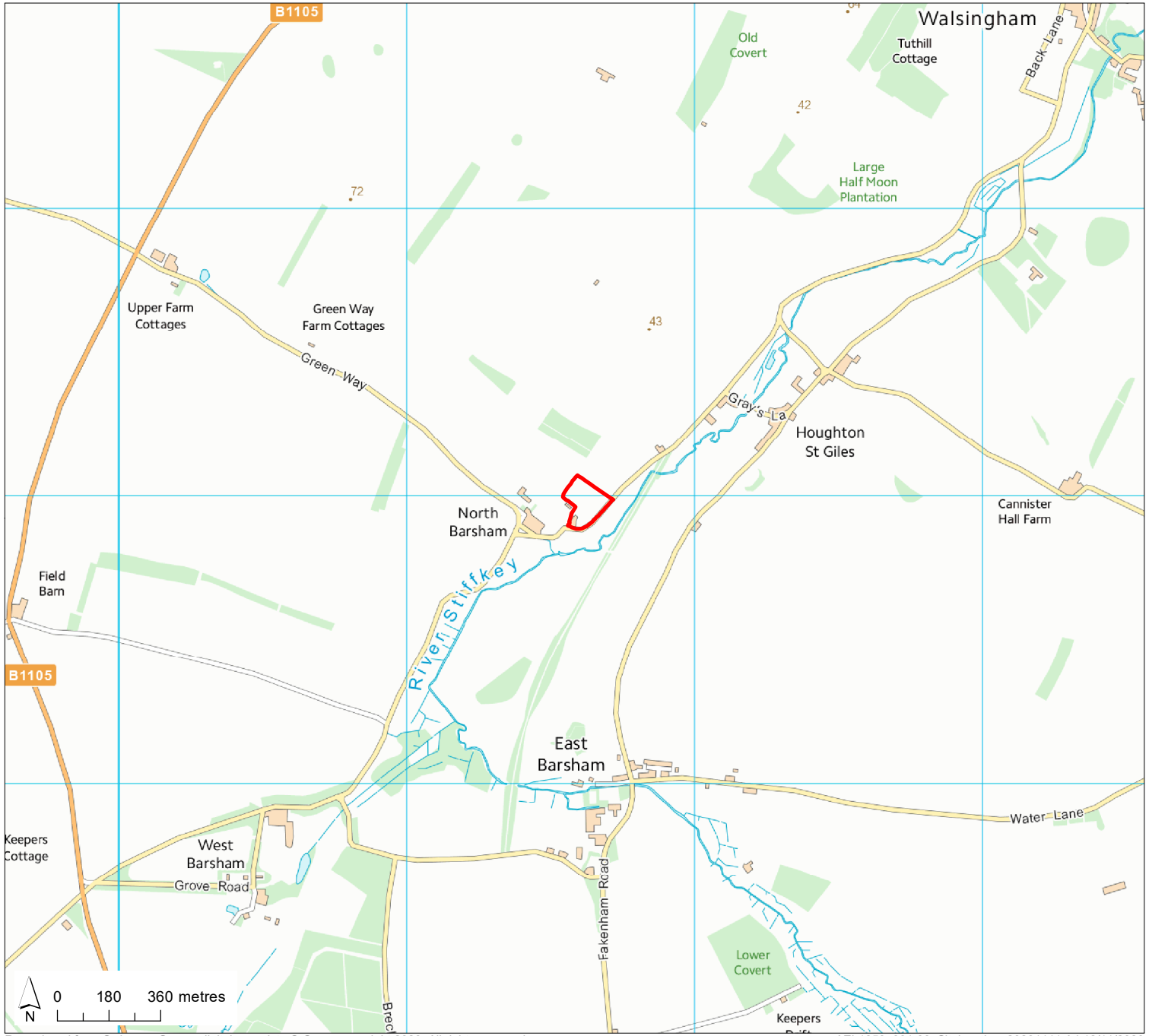
c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons1and a suitable compensation strategy exists; and*

d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

The following should be given the same protection as habitat sites:

- *potential Special Protection Areas and possible Special Areas of Conservation;*
- *listed or proposed Ramsar sites 2; and*
- *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."



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The Old Rectory, North Barsham

Site location

Site boundary

Figure 1.1

Map Scale @ A4: 1:20,000

Surveyed by: n/a	
Survey date: n/a	
Drawn by: RD	
Checked by: DP	
Status: Final	

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2 Methodology

Pre-existing Data Records

2.1 The Norfolk Biodiversity Information Service (NBIS) was commissioned by AEL to complete a search of their databases for existing biological records. This included a search for records of statutory and non-statutory wildlife sites, ancient woodland, and protected and notable species both on the Site and within 0.5 km about the Site's central point.

Habitats and Plants

2.2 An extended Phase 1 Habitat Survey was undertaken for the Site on 22 October 2020 by AEL ecologist Duncan Painter[1] CEnv MCIEEM (DP) in dry and bright conditions. The methodology adopted followed the standard JNCC approach to Phase 1 habitat survey (JNCC, 1993[2]) by which all habitats present within the site were classified and mapped according to standard categories. Habitat patches were mapped as polygon features, and if sufficient space on the map linear features (such as walls and fences) as lines where this provided added value. Point features were recorded where there were notable isolated trees or scrub. Plant species abundance was noted using the DAFOR[3] system.

2.3 The habitat map was subsequently digitised using a Geographical Information System (ArcGIS).

2.4 The survey was completed within the accepted season for completing Phase 1 habitat survey (which runs from late March until mid-October in southern England).

Fauna

2.5 The standard Phase 1 habitat survey was "extended" to include a watching brief for evidence of or potential for the presence of protected species or species of nature conservation interest within and close to the Site. This was not a detailed survey for such species, but included noting the presence of habitats suitable to support specific protected species, and where seen, any evidence of presence such as droppings, mammal tracks and footprints, shelters (or nests/roosts), hair caught on fence-wire, foraging signs, and so on.

Great crested newt

2.6 In advance of the survey, the 1:25,000 scale Ordnance Survey map was checked and online aerial photos inspected to identify any ponds within 250 m of the Site that could potentially

[1] Holds three separate licences pertaining to bat survey: WML-CL18; WML-CL21; and WML-CL32 and has been a registered bat roost volunteer visitor for Natural England (WML-CL15). Holds a class licences in relation to badger (WML-CL35) and great crested newt (WML-CL09 & WML-CL33), hazel dormice (WML-CL10A), and native crayfish (WML-CL11).

[2] JNCC (1993) *Handbook for Phase 1 Habitat Survey – A technique for Environmental Audit*. JNCC, Peterborough.

[3] DAFOR: whereby species occurrence may be classified as being **d**ominant, **a**bundant, **f**requent, **o**ccasional or **r**are. Rare in the context of a DAFOR score should not be confused with species rarity in the more widely accepted meaning of general scarcity.

support breeding populations of the legally protected amphibian great crested newt *Triturus cristatus* (GCN).

Preliminary Bat Roost Assessment

2.7 The client confirmed on the day of the survey that the proposed development constituted building a ground floor extension attached to north of the Old Rectory that would occupy an area of existing hard standing courtyard and would require the demolition of a small brick outbuilding. A preliminary bat roost assessment of the area of the proposed extension was completed by DP in line with best practice survey guidance (Collins 2016[4]). As highlighted previously, DP is a professional ecologist and bat surveyor with extensive bat field survey and mitigation planning experience in relation to bats and development across the UK.

2.8 The inspection of buildings to assess their roosting use/suitability for bats can be conducted at any time of year according to the best practice survey guidance. However, finding evidence of bats (e.g. their droppings) on external surfaces that are unprotected from rainfall may be restricted if undertaken outside the main bat active season (May to September) and/or after periods of wet weather. Bat droppings inside buildings may also quickly disintegrate in damp conditions.

2.9 A systematic external survey of the house in the vicinity of the proposed extension and an internal and external survey of the brick outbuilding that would need to be removed to enable the extension was completed using binoculars and a high powered cree torch. Evidence of bats searched for included live and dead bats, bat droppings on walls and other exposed surfaces, staining (caused by bat fur oils and/or urine spots).

2.10 The suitability of the building for roosting bats was classified according to the categories and descriptions defined by Collins 2016 for roosting habitats, as summarised in **Table 2.1**.

Table 2.1: Guidelines for assessing the potential suitability of proposed development sites for bats, based on the present of habitat features within the landscape, to be applied using professional judgement (after Collins, 2016)

Suitability	Description of roosting habitat
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger number of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain Potential Roost Features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

[4] Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).* The Bat Conservation Trust, London.

Survey Limitations

2.11 The survey was completed in the autumn when bats were active during the mating period and was not subject to any obvious seasonal limitations in terms of bat activity levels.

3 Results

Pre-existing Data Records

Protected sites

3.1 The Site is not covered by any statutory wildlife site designation and does not support ancient woodland.

3.2 The nearest statutory designated site is the **River Wensum Site of Special Scientific Interest (SSSI)** and **Special Conservation Area (SAC)**, located 4.8 km to the south, and has an outer Natural England development risk zone that overlaps the Site.

3.3 The closest non-statutory site is called **Walsingham Disused Railway County Wildlife Site** (CWS no. 1303) and occurs 270 m to the northeast. **Fakenham -Wells Railway County Wildlife Site** (CWS no. 1301) also occurs 375 m to the south. Both are disused railway lines that support species-rich unimproved grassland communities with scattered and continuous scrub.

3.4 The **Barsham (Formerly Little Snoring) Roadside Nature Reserve** (RNR no. 43) occurs 370 m to the south south-east and is an example of a lowland calcareous grassland.

Protected and notable species records

3.5 The data search returned a range of species records, including a number of bird species which included a red-listed species of elevated conservation and the Schedule 1 species red kite and barn owl. Mammal records included west European hedgehog, brown hare and common pipistrelle bat. The only amphibian record was common frog, however a 2017 survey licence record for the legally protected amphibian great crested newt is shown on Natural England's MAGIC website 1.3 km to the north-east.

Habitats and Plants

3.6 The Phase 1 habitat map is shown in **Figure 3.1**. A selection of habitat survey photographs can be found in **Figure 3.2**.

3.7 In summary, the Site was comprised of an existing dwelling house with an associated garden area that was connected to a semi-improved grassland field with a former grass tennis court with a planted avenue of semi-mature poplar trees to the north.

3.8 The garden was dominated by amenity lawn with introduced shrubs and a variety of native and non-native trees. Of particular note was a line of mature trees that formed a boundary between the garden and the field to the north with mature horse chestnut, Scots pine, poplar, ash and cherry trees providing an interconnected canopy.

3.9 A small, shallow and turbid pond that lacked submerged and emergent vegetation was located within a former chicken pen in the southeast corner of the field.

Fauna

Great crested newt

3.10 No waterbodies are obviously present within 250 m of the Site according to aerial photos and OS maps, and the only pond that could potentially support great crested newt (GCN) is the on-Site pond located in the south-east corner of the semi-improved grassland field.

3.11 The suitability of this pond for GCN was assessed using the Habitat Suitability Index (HSI) scoring system and it has a calculated HSI of 0.35 which makes it of poor suitability for GCN. While this does not prove GCN absence from the pond, it makes its presence unlikely.

Bats

3.12 No evidence of bats was seen in association with the brick outbuilding that would be removed to enable the construction of the extension. It was a single storey structure with two internal rooms separated by a walkway below a mono-pitched clay pantile covered roof. The roof appeared to have been recently replaced as it had a modern breathable roofing membrane, new roof timbers and a intact and recently mortared verge.

3.13 The building possessed no evidence of bats internally and externally and it was considered to be of **negligible bat roost suitability**.

The Old Rectory, North Barsham

Phase 1 habitat map

- Site boundary
- dense scrub
- semi-improved neutral grassland
- amenity grassland
- standing water
- introduced shrubs
- bare ground
- hard standing
- buildings
- species-poor intact hedge
- individual tree (indicative location)

Figure 3.1

Map Scale @ A4: 1:1,250

Surveyed by: DP	
Survey date: 22 October 2020	
Drawn by: RD	
Checked by: DP	
Status: Final	

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AEL1859_002-00_Phase1map_20201112 A4 12/11/2020

Figure 2.2: Selection of habitat survey photographs.

(a) north façade of the Old Rectory that is proposed to be extended.

(b) brick building that would be removed to enable the extension.

(c) brick building that would be removed to enable the extension.

(d) short turf amenity grassland former tennis court to be converted to a natural swimming pond.

(e) on site pond

(f) on site pond

(g) fenced grass court tennis court behind fencing.

(h) semi-improved grassland field.

4 Conclusions and Recommendations

Conclusions

Protected sites

4.1 The Site is located within an outer Site of Special Scientific Interest (SSSI) development impact risk zone around the River Wensum SSSI to the south. Development that Natural England consider a potential risk to the SSSI include any industrial or agricultural development that could result in air pollution and/or any large volume discharge of water or liquid waste. The current development proposals are small scale and not of a type that would constitute a risk to the SSSI.

Habitats

4.2 With the exception of mature native trees present within the Site, the habitats present were all of low relative biodiversity and nature conservation value, and do not present a significant development constraint. The proposed extension would result in a loss of small areas of hard standing and amenity grassland which in itself is not of significant ecological significance. Similarly, the proposed natural swimming pond would result in the conversion of an amenity grassland tennis court of low nature conservation to a standing water pond of higher ecological value.

Fauna

Bats

4.3 The extension would be connected to the north side of the rectory – a façade that possessed no bat roost features – and would also necessitate the removal of a small brick outbuilding of negligible bat roost suitability. In summary, the proposed extension is considered unlikely to result in any adverse impact (direct or indirect) on roosting bats.

4.4 The swimming pond proposal would result in no loss of any building or tree with bat roost potential, and would ultimately result in the creation of a new standing water habitat that has the potential to be of value to foraging bats once established.

Great Crested Newt

4.5 The presence of great crested newt (GCN) within the Site is unknown. There is a pond on Site that may support breeding amphibians, but it is considered to have limited potential to support GCN on account of its low Habitat Suitability Index (HSI) of 0.35. While this does not discount the presence of GCN completely, it suggests GCN presence is unlikely.

4.6 Assuming a development assessment worse case that GCN are present in the pond, an assessment of development risk can be calculated using Natural England's GCN development risk calculator tool.

4.7 This results in a "*green offence highly unlikely*" result for the proposed extension, and an "*amber offence likely*" for the swimming pond. Both developments occur within 100m of

the pond, with the extension equating to an estimated 90m^2 (0.009 ha) of land take, and the swimming pond 450m^2 (0.05h ha) of land take. In reality, both developments will not result in the loss of any habitat of shelter value to GCN, and the replacement of the amenity grass tennis court (currently of negligible value to GCN in their terrestrial life stages) with a pond is likely to constitute a GCN enhancement that would not need to be implemented under the auspices of a Natural England development licence as it will not result in any loss or damage to GCN habitat.

Recommendations

Mitigation

4.8 It is recommended that the tennis court continues to be subject to regular grass cutting to maintain the area as short turf amenity grassland of negligible value to sheltering wildlife immediately up until the pond construction commences.

Ecological enhancement

4.9 Given the known presence of barn owl in the local area, it is recommended that an Eco Barn Owl Nest Box (illustrated below) is installed on the mature tree at the northern end of the field seen in Photo h of this report.

4.10 The box should be attached to the north side of the tree at a height of a minimum of 3m above the ground such that it could be reached with a ladder for monitoring and maintenance in the future.

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