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Arboricultural Consultancy
www.treeplanningsolutions.co.uk

Arboricultural Impact Assessment
and
Preliminary Method Statements

For

Land opposite Foots Farm, Thorpe Road, Clacton- On-Sea, Essex

Date	15/06/21 rev 03/02/24
Client	JCN Design and Planning
Report by	Mr James Choat BSc, M Arbor A
Site	Land Opp. Foots Farm
Reference No.	TPSarb1100120

Arboricultural ASSOCIATION Professional Member PR00530

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1. Summary

1.1.1 Tree Planning Solutions received instruction from JCN Design and Planning Ltd to complete a suitable arboricultural site survey and produce this subsequent impact assessment for an area of land opposite Foots Farm, Thorpe Road, Clacton-On-Sea, Essex.

1.1.2 The survey and this report are provided in support of a planning application for housing development, access, hard and soft landscaping. The scheme has been revised since the original planning application, the impact has been reduced with less works within the RPA and retention of more trees / hedgerows.

1.1.3 The site was surveyed on the 6th March 2020 and reviewed 4th December 2023; the weather was sunny, cold with a light wind. A total of 3 hedgerows and 1 individual tree were surveyed as part of the impact assessment.

1.1.4 The report provides the following information and data in accordance with the criteria provided within BS 5837 2012 '*Trees in relation to design, demolition and construction Recommendations'*

- Tree survey and schedule
- Tree constraints data and plan
- Arboricultural Impact Assessment
- Arboricultural Method Statement and Tree Protection Plan

1.1.5 **Tendring District Council's planning section were emailed 15/06/21 -The site is not subject to a Tree Preservation Order (TPO) and is not situated within a designated Conservation Area (CA). The hedgerows at the site are currently subject to the Hedgerow Regulations 1997 as they are located on land currently registered for agriculture. It is recommended the applicant obtain written consent from Tendring District Council and where applicable the Forestry Commission, before carrying out recommendations contained within this report. Furthermore, no works should be carried out to any 3rd party tree(s) without first obtaining consent from the owner(s) of the tree(s).**

1.1.6 Multi agency nature on the map GIS data (MAGIC) was checked 27/10/23. The site is subject to site of special scientific interest (SSSI) impact zone (Holland Haven Marshes SSSI) and nitrate vulnerable zone.

1.1.7 This report pays particular reference to:

▪ British Standard 5837 2012	Trees in relation to design, demolition and construction Recommendations
▪ British Standard 3998 2010	Recommendations for tree work
▪ NHBC CH 4.2	Building near trees
▪ NJUG 4	National Joint Utilities Group 'Working Near Trees'
▪ NPPF 2018	National Planning Policy Framework

1.2 Limitations

1.2.1 The applicant has supplied a plan of the existing and proposed (desired) site, no further information has been provided.

The following plans have been provided with the instruction of this report:

- Existing layout drawing provided by JCN Design and Planning Ltd
- Proposed layout/concept drawing provided by JCN Design and Planning Ltd

1.2.2 This survey is for the purpose of determining the impact of the development upon existing trees; it is not a detailed tree condition survey and should not be used as such. All trees have been assessed from ground level; no aerial or below ground parts have been inspected in detail.

1.2.3 The survey remains valid for 12 months. If during 12 months following the tree survey adverse weather conditions have occurred, or the site environment changed in any form, it is recommended the trees be reassessed.

1.2.4 The content of this report remains the property of Tree Planning Solutions unless otherwise stated. This report is not to be copied without written consent from Tree Planning Solutions.

1.2.5 The consultant is a qualified arboriculturist, occasionally opinions and views are provided regarding buildings and structures, the consultant is not a qualified buildings surveyor or structural engineer and therefore all opinions and views should be supported by a qualified structural/building engineer.

1.3 Qualifications

1.3.1 The consultant has been working within the Arboricultural industry for 24 years as a tree surgeon, tree officer and consultant. Knowledge and experience are regularly updated by attending industry related seminars and courses. Continued professional development is verified by professional membership to the Arboricultural Association (membership No. PR00530), CPD is updated on-line, a record can be provided upon request.

1.3.2 The consultant holds a Bachelor of Science (BSc) degree in Rural Resource Development, a Higher National Diploma (HND) in Rural Resource Management, the Lantra Professional Tree Inspection Award, the RFS Level 2 Certificate in Arboriculture, level 3 certificate in Ecology and is a registered user of Quantified Tree Risk Assessment (QTRA).

2.1 Site description

2.1.1 The site is located to the northeast of Little Clacton village and accessed via a crossover from Thorpe Road. The hedgerows subject of this report are situated to the south, east and western boundaries of the site, the site is within an increasingly urbanised area with normal associations, roads, footways detached dwellings and garages etc with limited standard tree features. The site does not contain any built structures. The site consists of the following habitat / green features – ruderals, hedgerows coppiced trees.

2.2 Topographical survey

2.2.1 A topographical survey was provided with the instruction for this project. OD recordings ranging from 18.18 to the south and 19.10 to the north over a linear distance of 166m were provided on the survey plan. The site is generally flat with no significant changes in levels that will influence root orientation or morphology, it is therefore reasonable to assume the root protection areas throughout the site will be normal in size and shape. Various inspection chambers were recorded during the survey, the date of construction/servicing is not known, it is not known therefore whether the below ground services are affecting / have previously affected the rooting zone of the trees. Overhead services were not recorded during the tree survey.

2.3 Soils

2.3.1 British Soil Geology Maps scaled at 1:50,000 show the site to be situated on bedrock of Thames Group – clay, silt and sand, superficial deposits are not recorded for the site itself, adjacent sites record data of Kesgrave Catchment Subgroup – sand and gravel. Sand and gravel soil texture is likely to offer a deeper rooting environment than that of clay as the roots can easily penetrate and explore sandy soils with little resistance, clay like soils tend to restrict root exploration. Clay soils can be modified by moisture, either reduced or increased in volume by fluctuations in moisture content, such fluctuations can influence how structures perform and therefore may require additional, engineered support to improve the stability or the structure. Local variations and differing soil seams of superficial and bedrock deposits do occur, differing bedrock and superficial deposits will have a different soil texture and

structure to those described above and will perform differently. It is recommended core samples be obtained to determine the exact soil texture at the site.

3.1 Tree survey and schedule

3.1.1 The tree schedule is an account of all the trees at or adjacent to the site and is written on to a tabular form. Each tree is given a unique reference number that is plotted on to a tree survey plan to be cross-referenced with the tabular form. Contained within the schedule are tree dimensions and any physiological or mechanical problems worthy of note. The tree is given an estimated life expectancy and then graded for its suitability for retention. The tabular form can be found in appendix 1 with explanatory notes for each column heading. The tree survey plan can be found in appendix 2. Provided below is a table of the existing trees, their current condition and British Standard 5837 category grading. The categories for retention are; A - high value, B - moderate value, C - low value and U - unable to be retained as a living tree, each category is given a colour code for use with the tree survey plan (appendix 2), A - Green, B- Blue, C - Grey and U- Red. There are further sub-categories used for the final categorisation, these are; 1 arboricultural, 2 landscape and 3 wildlife or historical values. British Standard 5837 recommends trees with a stem diameter of less than 150mm are categorised as C regardless of condition, form etc. it is assumed that a tree of this size can either be transplanted or replaced without any negative impact upon tree-based visual amenity.

Table 1 Tree condition table

Tree ref	Species	Age class	Observations	Category grading
H1	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	EM	Mostly elm and hawthorn. Ditch within hedgerow. Maintained at current height and spread with annual flail cut.	B1/2/3
H2	Field Maple *Acer campestre* Hawthorn Crataegus monogyna Blackthorn *Prunus spinosa*	EM	Split species - east Hawthorn/blackthorn west field maple. Maintained at current dimensions. Planted within last 20 years as part of highway landscaping.	B1/2/3
T1	Ash *Fraxinus excelsior*	M	Unable to fully assess due to dense vegetation. Multi stem with compression forks / included unions at base.	C1/2/3
H3	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	M	Lapsed hedgerow management. Occasional dead Elm.	B1/2/3

Further discussion

3.1.2 All trees have been categorised in accordance with British Standard 5837: 2012. With the exception of T1 and H3 visual tree amenity is good, the trees/ hedgerows can be seen from the publicly maintainable highway and footway, the landscape value is good the trees provide

screening and softening for the site and any proposed housing development. The hedgerows help reduce the perceptual load of the built environment and provide instant green infrastructure for the proposal. The wildlife value is reasonable the trees are generally native specimens and favour the early mature to mature age range, the structural diversity is good, the hedgerows are connected to further hedgerows providing migratory routes and corridors for navigation of wildlife.

3.1.3 Provided below is the British Standard 5837 categorisations with total number of trees for each corresponding categorisation:

A = 0

B = 1

C = 3

U = 0

3.1.1 The majority of category B trees should be retained where their long-term retention is achievable. A mixture of tree works, design modification and special construction techniques should be employed to accommodate these trees. Generally, category B trees have a life expectancy over 20 years and offer a medium to long-term contribution to the amenity/character of the area. They contain some defects that can be remedied with suitable tree works.

3.1.2 The category C trees are desirable for retention in the short term. Generally, category C trees have a life expectancy of less than 10 years and would be acceptable to remove once new planting is established. Category C trees contain many defects that are likely to reduce the long-term life expectancy of the tree. Category C trees do not add to the character or visual amenity of the area.

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Photo 1 H2 Field Maple

Photo 2 H2 Hawthorn and blackthorn

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4.1 Tree constraints

4.1.1 The above and below ground tree constraints are represented by the present crown spread and root protection areas (RPA) of each retained tree. British Standard 5837 provides a calculation for root protection areas for both single and multi-stem trees. The constraints are plotted to a site plan around each individual tree; the constraints plan is used to influence site layout and further clarifies tree retention or removal. The constraints plan can be found in appendix 2. Further consideration should be given to the future growth potential for each retained tree; the table below provides estimated growth rates that should be considered when achieving a suitable design layout.

4.1.2 Provided below is a constraints table that provides data for the radial distance required for the RPA, the present height and spread of the tree, the future increase in height and spread of the tree in 10 years and tree management considerations.

Table 2 Tree constraints table

					Branch spread							
Tree ref	Species	Height in m	Stem diameter in mm	Radial distance required for RPA	N	E	S	W	Height of crown clearance in m	Estimated increase in crown height in M in 10 years	Estimated increase in crown spread in M in 10 years	Management considerations
H1	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	3	150	1.8	1	1	1	1	0	0	0	Maintained to current dimensions
H2	Field Maple *Acer campestre* Hawthorn Crataegus monogyna Blackthorn *Prunus spinosa*	3	150	1.8	1	1	1	1	0	0	0	Maintained to current dimensions
T1	Ash *Fraxinus excelsior*	12	500	6	4	4	4	4	1	2	2	None
H3	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	6	200	2.4	2	2	2	2	0	0	0	Maintained to current dimensions

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5.1 Arboricultural impact assessment

5.1.1 Provided below is an assessment of the impact of the development on each individual tree and any design requirements for the site. Such factors include tree preservation orders, tree amenity, tree retention, removal of structures within RPA, infrastructure requirements, construction of infrastructure, end use of space, tree loss / new planting, veteran/aged tree assessment, light issues, proximity to structures, relationship with new homeowners and tree nuisance.

Table 3 Arboricultural Impact Assessment

Tree Ref	TPO/CA/other statutory protection. Amenity assessment. Retention recommendation.	Removal of existing structures and hard surfacing within RPA	Proposed Infrastructure within RPA	Construction methods for proposed infrastructure	End use of space	Tree loss and new planting	Shading and light	Proximity to structures	Future pressure for tree removal/works	Seasonal tree nuisance
H1 and H2	• Tendring District Council Planning emailed 15/06/21, trees not subject to a TPO. Site not situated within a designated conservation area. Hedgerows currently protected by the hedgerow regulations 1997. • MAGIC GIS checked 27/10/23 – site listed within Nitrate vulnerable zone, and SSSI Impact Zone. • Good amenity, landscape and wildlife value. • Trees recommended for retention.	N/a	N/a	N/a	N/a	• Small section of H1 to be removed to facilitate access. • Replacement and reinforcement planting as part of detailed landscape design.	N/a	N/a	N/a	• Leaf and fruit dispersal • Nuisance of blocked drains, gutters etc. • Recommend use of guards as appropriate to prevent blockages occurring. • Use surfaces that do not tarnish from tree deposits (shingle, loose stone, grass, etc.) Patios and sheds to be located outside present and future crown spread to prevent future nuisance occurring.

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Tree Ref	TPO/CA/other statutory protection. Amenity assessment. Retention recommendation.	Removal of existing structures and hard surfacing within RPA	Proposed Infrastructure within RPA	Construction methods for proposed infrastructure	End use of space	Tree loss and new planting	Shading and light	Proximity to structures	Future pressure for tree removal/works	Seasonal tree nuisance
T1 and H3	• Tendring District Council Planning emailed 15/06/21, trees not subject to a TPO. Site not situated within a designated conservation area. Hedgerows currently protected by the hedgerow regulations 1997. • MAGIC GIS checked 27/10/23 – site listed within Nitrate vulnerable zone, and SSSI Impact Zone. • Limited amenity value, reasonable landscape and wildlife value. • Trees recommended for retention.	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	• Leaf and fruit dispersal • Nuisance of blocked drains, gutters etc. • Recommend use of guards as appropriate to prevent blockages occurring. • Use surfaces that do not tarnish from tree deposits (shingle, loose stone, grass, etc.) • Patios and sheds to be located outside present and future crown spread to prevent future nuisance occurring.

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5.2 Further discussion

5.2.1 Below ground services for drainage, electricity, gas, water, telecoms, are to be located outside the RPA of the retained trees or connected to existing services within the site. If however, this is not viable then trenchless methods of working will be adopted, shallow trenching may be permitted although a trial trench should be prepared to determine the presence of roots to be affected and the impact upon the health of the tree affected. Overhead services such as lighting columns, electricity, telecoms, etc. are to be outside the present and future canopy spread, use of Table 2 'Tree Constraints' will aid design.

5.2.2 Guttering and drains will have guards to prevent leaf/fruit drain blockage. Where a significant loss of rainwater water is likely due to loss of natural soft surfaces, the rainwater drainage will be redirected into the rooting area of the retained trees. The drainage will result in an even and slow distribution at varying areas across the rooting area, it will not cause waterlogged conditions or damage to the soil structure, structural engineer to advise further.

5.2.3 The information provided in the impact assessment and constraints advice has provided a basis for tree retention, works specification and construction techniques required. Further details for this can be found in the following sections of this report.

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6.1 Tree removals and impact assessment

6.1.1 Provided below is a table of the trees to be removed. This is to be cross-referenced with the tree survey plan provided in appendix 2.

Table 4 Trees to be removed

Trees to be removed	Reason for removal	Impact upon visual amenity
Small section of H1	To provide access to the site.	Minor impact to occur, sufficient boundary hedgerow is being retained to mitigate loss, this to be further enhanced with replacement and reinforcement planting as part of the wider site landscaping.

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7.1 Tree works specification

7.1.1 All tree works are to be completed as a starting phase of development unless otherwise stated.

7.1.2 All works are to be completed to BS3998 2010 'Recommendations for tree works'

7.1.3 Research suggests that tree works are better completed when the trees are using the least amount of energy and when conditions do not favour pathogens. It is recommended that the works specified below be carried out in midsummer July/early August or the dormant period Jan/Feb. Specifically, times of bud break and leaf abscission should be avoided. This may need further assessment for different species or for aged/veteran trees whose energy reserve and potential to kinetic ratio is susceptible to change from minor tree works. Where this is likely to occur, a separate management plan for that individual tree may be required.

7.1.4 Provided below is a table showing tree works specification. The key for works urgency can be found in Appendix 1 Explanatory notes.

Table 5 Tree works specification

Tree ref	Species	Preliminary management recommendations	Works urgency
H1	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	Maintain at current dimensions. Remove small section to provide access to the site, see tree protection plan for location.	3
H2	Field Maple *Acer campestre* Hawthorn Crataegus monogyna Blackthorn *Prunus spinosa*	Maintain at current dimensions.	3
T1	Ash *Fraxinus excelsior*	Fell and grind stump following below ground service check.	0
H3	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	Fell and grind stumps following below ground service check.	3

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8.1 Tree protection

8.1.1 Tree protection is required to prevent physical damage to the stem, branch and crown structure. Tree protection is used also to prevent indirect damage caused by loads passing over the root protection area that would otherwise cause compaction of the soil. Soil compaction reduces soil pore space, which in turn reduces; soil air, available water and nutrients, the anaerobic environment will prevent healthy and strong root growth (elongation, thickening, mycorrhizal association, etc.). Prolonged anaerobic soil conditions will lead to longer term poor tree health with symptoms (crown die back, sparse crown, poor extension growth, etc.) not evident until well after the occurrence. The simplest and most effective way to prevent damage to any retained tree on the development site is the provision of a construction exclusion zone around the tree and its calculated rooting area.

8.1.2 The areas for protection will see the RPA confirmed on the ground with the erection of a scaffold frame with wire mesh attached (Please see appendix 3 Barrier protection construction profile, diagram 2). Where site personnel require access across the RPA, ground protection will be installed utilising scaffold boards laid on a compressible layer (100mm of woodchip) with geotextile membrane beneath, as per British Standard 5837 section 6.2.3.3 (see appendix 5 tree protection plan).

8.1.3 The barrier protection will contain and display information highlighting the protected tree and consequences of any breach of tree protection. Please see appendix 4, example of informative to be placed on barrier protection.

8.1.4 The tree protection plan is shown in appendix 5. This shows; the RPA for each retained tree, the location of protective barriers/ground protection and areas for site storage and contractors parking.

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9. Method statements

9.1 Provided in this section are arboricultural method statements primarily concerned with working within the RPA of the retained trees. The method statements are designed to minimise/remove any impact or damage/disturbance that may otherwise occur. The method statements provided should be distributed to all key staff involved with the development.

9.2 Soft surfaces within the RPA

9.3.1 Provided below is a method statement to avoid damaging/disturbance to the roots of the retained trees during soft landscape operations.

- No tractor mounted or heavy plant rotavating machinery is to be used unless working on surface fit for purpose to reduce/spread load and prevent soil compaction.

- Cultivation is to be completed using manual hand tools only.

- Existing soil is to be used, where additional soil is required it should be containment free, well drained and suitable PH, texture and structure for the site and planting/existing trees/shrubs.

- Damage to roots is to be avoided, large structural roots may be seen at or near the surface and where they radiate from the stem of the tree from large buttresses. Structural roots tend to taper to around 3cm in diameter after around 4m radial distance from the base of the stem.

- Changes in ground levels are to be avoided, any lowering or raising of levels should be carried out using a suitable method statement that maintains or improves soil conditions with continued gas exchange and water percolation.

- Planting is to be done with care and to avoid severing tree roots; generally, planting should be completed outside the RPA.

10.1 General arboricultural considerations

10.1.1 Provided in this section are wider arboricultural considerations to be used either at the later design stage or when on-site with the contracting team. Further information contained within this section provides details on tree and associated wildlife legislation. The method statements provided should be distributed to all key staff involved with the development.

10.2 Storage

10.2.1 There is to be no storage within the RPA of any retained trees. An outline area can be designated at pre-commencement construction site meeting.

10.3 Contractors parking

10.3.1 There is to be no parking within the RPA of any retained trees. An outline area can be designated at pre-commencement construction site meeting.

10.4 Slope

10.4.1 All mixing and storage of materials/chemicals to be done on a pre-prepared flat/level surface with sealed sides to prevent any runoff. Storage of all chemicals/materials likely to cause harm to the trees should be in a sealed container or area with a bund to prevent run off if spillages occur. Site personnel are to have access to spillage treatment equipment.

10.5 Services

10.5.1 Methods for service run construction within the RPA are micro tunnelling, Surface launched directional drilling, pipe ramming and impact moling, method statements for these should be provided by the relevant utility companies. Shallow trenching may be

acceptable for minor services; if shallow trenching is required then hand excavation should be adopted using an approved method statement.

10.5.2 All overhead services to be located outside the present and future crown spread of the retained trees, use tree constraints table provided in section 4 to aid design.

10.6 Levels

10.6.1 No stripping or raising of levels within the RPA without consent from the local authority. If site levels need to be reduced the use of hand excavation or an air spade should be adopted using an approved method statement. If site levels are to be raised the material added should allow for water infiltration and gaseous exchange allowing the roots to carry out their normal biological function, the use of structural soil and below ground aeration system may be required depending on area and depth.

10.7 Development phasing

10.7.1 All contracting staff working at the site should be briefed on approved working practices and protection requirements for the retained trees.

10.7.2 The tree works specification should be completed following approval from the local authority.

10.7.3 Prior to the commencing of development the chosen arboriculturist should re- assess all retained trees and provide further assessment.

10.7.4 All barrier/ground protection should be erected/laid and confirmed as correct by the arboriculturist. All signs should be placed on the barriers at a height of 2m at 3m intervals.

10.7.5 Barrier/ground protection removed after intensive phase of development.

10.7.6 Soft landscaping as final phase of development.

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10.8 Monitoring

10.8.1 Site key personnel

Architect and Contractors

Name	Position	Contact details
JCN Design and Planning	Lead consultant	lucy@jcndesign.co.uk
Builder TBC	Site manager TBC	

Planning Authority

Name	Position	Contact details
Clive Dawson	Tree and Landscape Officer	cdawson@tendringdc.gov.uk

Arboriculturist

Name	Position	Contact details
James Choat	Arboricultural Consultant	07813204621
		james@treeplanningsoutions.co.uk

10.8.2 It is recommended that all trees and protection methods be monitored for the duration of development. A qualified arboriculturist will make a regular visit; the project arboriculturist is to carry out an assessment of tree health and protection condition and make recommendations when required.

10.8.3 Site specific monitoring

Item	Number of visits required	Timing of visit
Pre-commencement site meeting with key personnel. (Contractor, site manager, architect). Tree works Tree protection installation (ground/barrier) as per tree protection plan and method statements within supplied arboricultural report. Identify area for contractors parking, site storage and access. Place 'exclusion zone' signs at 2m height, 3m intervals facing outwards on temporary fencing.	1 – 2 depending on whether items can be completed on same day.	Meeting to be arranged between architect and site manager before construction phase.
Site visit during construction phase to monitor tree health and tree protection condition.	2	During construction phase
Removal of tree protection.	1	After intensive construction phase

10.8.4 The above is subject to the client/site manager informing the project staff of the proposed date for each development activity. Following each site visit a brief report (see appendix 6 pro forma) to be sent to the client and local authority within 24 hrs following the visit. Any incidents will be dealt with within 2 hours and to be reported to the project arboriculturist, photos to be provided via email and recommendations provided verbally, if required a site visit should be undertaken to provide further advice/ recommendations.

10.9 Incidents/variations

10.9.1 Planned

- Site manager to contact arboriculturist for any anticipated/planned variations
- Arboriculturist to assess impact upon trees and offer advice regarding alternative methods
- Arboriculturist to update tree officer providing details of variations

10.9.2 Non-planned

- Site manager to inform arboriculturist of incident
- Site manager to photograph incident and send to arboriculturist
- Arboriculturist to provide initial advice via telephone or email

- Arboriculturist to make site visit within 1 day to assess impact upon trees and offer advice to reduce/remove impact
- Arboriculturist to update the local authority tree officer providing details of incident and measure taken to reduce/remove impact.

10.10 Wildlife legislation

10.10.1 The planning applicant should be mindful of the Wildlife and Countryside Act 1981, The Habitats Directive 1994 (consolidated under Conservation of Habitats and Species Regulations 2017) and The Countryside and Rights of Way Act 2000. These acts protect certain species of flora and fauna; it is an offence to intentionally or recklessly destroy species or habitats contained within these acts. Trees, especially veteran or ancient, can support associated flora and fauna that is protected via the above legislation. It is recommended the applicant employ a suitably qualified ecologist to carry out a survey of the area to ensure no offence is committed. See the following link for further details. https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications

10.11 Tree legislation

10.11.1 Before any tree works commence at this site it is recommended that written consent be obtained from the local authority. It is an offence to cut down, uproot, lop, top, or cause wilful damage or destruction to a tree subject of a tree preservation order or conservation area. Such acts will lead to prosecution and if convicted a fine not exceeding £20,000 in the magistrate's court; if the case is referred to the crown court the fine may be unlimited. See the following link for further details. https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas

10.11.2 Hedgerow regulations 1997 protect certain hedgerows from being removed (grubbed out), certain exemptions apply. A removal notice is required to be sent to the local authority before removing a hedgerow subject of the above regulations. See the

following link for further details.

http://www.legislation.gov.uk/uksi/1997/1160/contents/made

10.11.3 Forestry Act 1967 as amended - Felling licences are issued by the forestry commission, certain exemptions apply, you should check with the Forestry Commission that a licence is not required before felling trees. See the following link for further details.

http://www.legislation.gov.uk/ukpga/1967/10/contents

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11.1 Conclusion

11.1.1 All surveyed trees have been categorised in accordance with British Standard 5837 2012. With the exception of T1 and H3 visual tree amenity is good, the trees/ hedgerows can be seen from the publicly maintainable highway and footway, the landscape value is good the trees provide screening and softening for the proposed housing development. The hedgerows will help reduce the perceptual load of the built environment and provide instant green infrastructure for the proposal. The wildlife value is reasonable the trees are generally native specimens and favour the early mature to mature age range, the structural diversity is good, the hedgerows are connected to further hedgerows providing migratory routes and corridors for navigation of wildlife.

11.1.2 A small section of H1 is to be removed to facilitate end use access to the site, the removal of the small section of H1 will not have a detrimental effect on local landscape character or visual amenity, sufficient boundary hedgerow / tree cover is being retained to mitigate the loss, the trees to be removed are small managed specimens with little individual arboricultural merit. Replacement and reinforcement planting is to be provided as part of the wider landscape scheme to mitigate loss and further enhance local landscape character. No further tree works are required to facilitate development, the trees can be adequately protected by means of temporary barriers in accordance with BS 5837 2012. The retained tree stock will not be further obscured by the development proposal, the proposal is therefore considered to have a low impact upon visual tree amenity.

11.1.3 Tree protection and method statements have been provided within this report to reduce the risk of direct and indirect development related damage that may otherwise occur to the retained trees. In conclusion, assuming the method statements and tree protection are implemented as part of the development, the proposal can be constructed with reduced disturbance to the trees.

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Appendix 1 Tree survey and explanatory notes

Site: Land opposite Foots Farm Thorpe Road
Date of Survey: 06/03/2020

Surveyor J Choat
Weather: Cold,overcast,rain,ligh twind

Item colour coding	
	Subject to change following further assessment
	Estimated

						Branch spread											
Tree ref	Species	Height in m	Stem diameter in mm	RPA in M2	Radial distance required for RPA	N	E	S	W	Height of crown clearance in m	Age class	Ground condition	NHBC Water demand	Observations	Preliminary management recommendations	Works urgency	Estimated remaining contribution in years	Category grading
H1	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	3	150	10.18008	1.8	1	1	1	1	0	EM	Bare soil	High	Mostly elm and hawthorn. Ditch within hedgerow. Maintained at current height and spread with annual flail cut.	Maintain at current dimensions.	3	20+	B1/2/3
H2	Field Maple *Acer campestre* Hawthorn Crataegus monogyna Blackthorn *Prunus spinosa*	3	150	10.18008	1.8	1	1	1	1	0	EM	Bare soil	Varies	Split species - east Hawthron/blackthorn west field maple. Maintained at current dimensions. Planted within last 20 years as part of highway landscaping.	Maintain at current dimensions.	3	20+	B1/2/3
T1	Ash *Fraxinus excelsior*	12	500	113.112	6	4	4	4	4	1	M	Bare soil	Moderate	Unable to fully assess due to dense vegetation. Multi stem with compression forks / included unions at base.	None	0	20+	C1/2/3
H3	Elm *Ulmus sp* and Hawthorn *Crataegus monogyna*	6	200	18.09792	2.4	2	2	2	2	0	M	Bare soil	High	Lapsed hedgerow management. Occasional dead Elm.	Remove dead Elm, reinstate hedgerow management.	3	20+	B1/2/3

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Explanatory Notes

Referencing
Each tree is given a unique reference number and plotted on the attached plans for clear identity. Individual trees are referenced as T1, T2 etc, Groups G1, G2 etc Hedgerows H1, H2 etc and Woodlands W1, W2 etc

Species
All species are recorded using common names. Identification is made using experience and knowledge.

Tree dimensions
Tree height is measured and recorded in meters and taken from the base of the stem to the tip of the crown. Height is estimated using experience and knowledge.

Diameter at Breast Height (DBH) is measured at approximately 1.5m from the ground up the stem and is measured and recorded in millimetres. DBH is measured accurately using a diameter tape.

Crown spread is measured in meters from the stem to the extent of the crown spread to each compass point (NESW). Crown spread is estimated using experience and knowledge.

Crown clearance is the height from ground level to the lowest branch and is measured in meters. Crown clearance is estimated using experience and knowledge.

Age class
Age class falls in to 4 categories:

Y	Young
EM	Early Mature
M	Mature
OM	Over Mature

Observations
The biological condition of the tree is assessed and noted. Notable defects are recorded; fruiting bodies, cankers, die back, exudates, etc are recorded.

The mechanics of the tree are assessed and noted. Notable defects are recorded; buckling, rib formation, stresses, bulges, soil cracks, large cavities or wounds, tight branch junctions, etc are recorded.

Preliminary management recommendations
Tree management is recommended following the assessment of physiological and structural condition. Recommended works may include, no work required, crown reduction, crown lift, fell, crown thin, monitor etc.

Estimated remaining contribution in years
An estimate of remaining life expectancy recorded in years. Estimated remaining contribution is made using experience considering the structural and physiological condition of the tree, nuisance, previous management, etc.

Category grading and colour coding on plan
A (Green square) high quality and value

B (Blue square) moderate quality and value

C (Grey square) low quality and value

U (Red Square) those that cannot be retained as living trees

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Sub categories

1 arboricultural values

2 landscape values

3 cultural values, including conservation

Works priority

1 Works required immediately to make the tree safe

2 Works required within 60 days

3 Works required as part of routine operations

0 no works required

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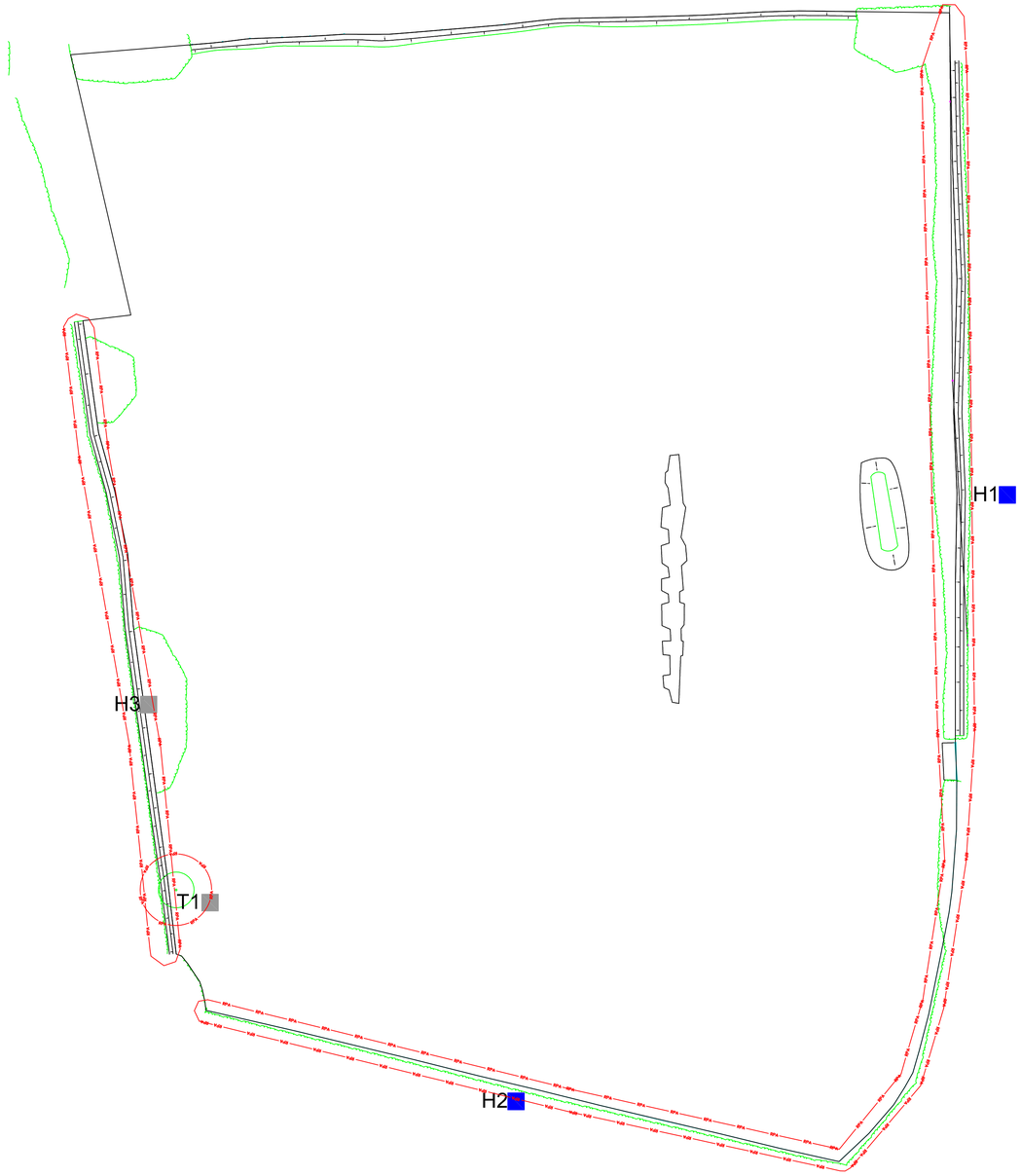
Appendix 2 Tree survey and constraints plan



Legend:

Tree reference T1

Tree and crown spread

Root protection area

BS 5837 Retention Category A T1

BS 5837 Retention Category B T1

BS 5837 Retention Category C T1

BS 5837 Retention Category U T1

N

Notes:

This drawing was produced in colour; a monochrome copy should not be relied upon.

Project:

Land Opposite Foots Fram, Thorpe Rd, Clacton

Drawing Title:

Tree Survey and Constraints Plan

TPS
Arboricultural Consultancy

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Date: 4th December 2023

Scale: 1:500 @ A1

Drawing Number: TPSarb1100120 TSCP

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Appendix 3 Barrier construction profile

Permission to reproduce extracts from BS 5837:2012 is granted by the British Standards Institution (BSI). No other use of this material is permitted. The complete British Standard can be purchased from the BSI online shop: http://shop.bsigroup.com/en/ProductDetail/?pid=000000000030213642

Diagram 1 Weldmesh panels with block supports pegged to brace light impact

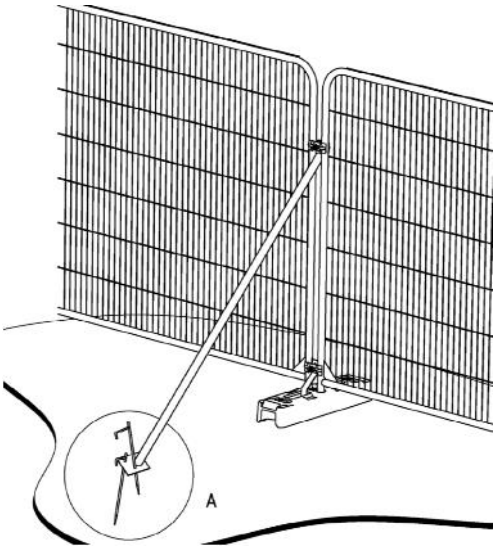
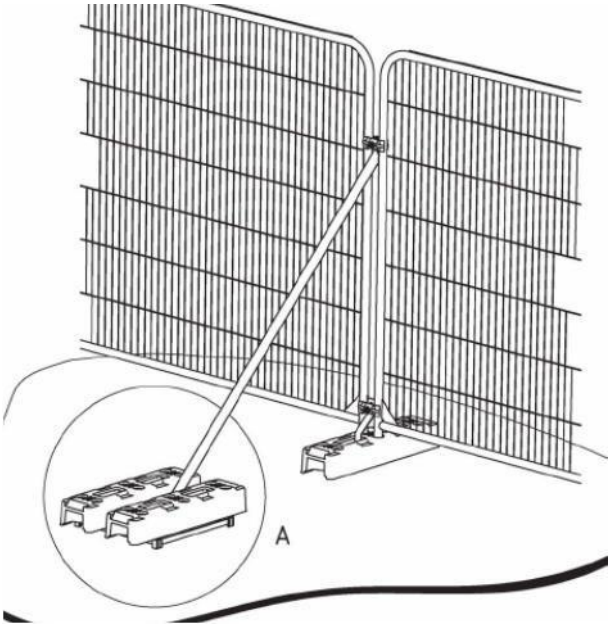
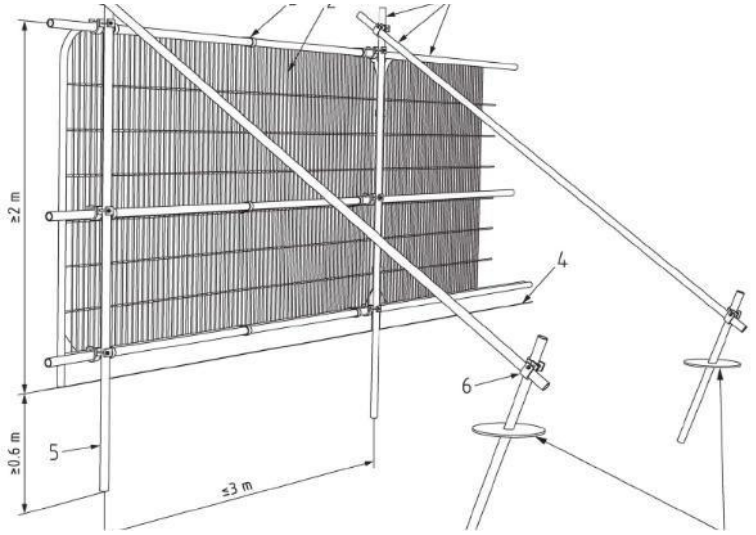


Diagram 2 Weldmesh panels with block supports and further block supports to brace intermediate impacts



TPS

Diagram 3 Weldmesh panels with scaffold frame posts driven into the ground to brace heavy impacts



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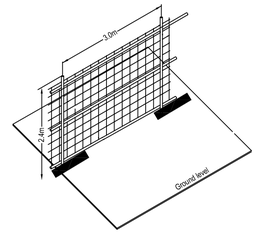
Appendix 4 Example of informative to be placed on barrier

Construction Exclusion Zone

These trees have been retained and protected as part of the planning permission for this site.

Any breach of the protection will result in enforcement action from the Local Authority.

Appendix 5 Tree protection plan



Tree Protection Barrier to BS5837: 2012

Protective barriers should be erected prior to the commencement of any site clearance, demolition or development . No storage within the construction exclusion zone (fenced areas)

The fencing should utilise a scaffold framework in accordance with the detail shown above.

Weldmesh panels should be set in rubber block supports and cable tied or clamped with scaffold clamps, to the adjacent panel.

The fencing should be erected at or beyond the extremities of the RPA as shown on the tree protection plan and should not be moved unless agreed with the project arboriculturist and local planning authority.

Informatives should be placed on barriers at 1.5m in height at 3m intervals, facing outwards, Informatives should clearly provide details of the protection zone and correct procedures.

Weatherproof informative to be placed on barriers

Construction Exclusion Zone

Access is not permitted

The trees beyond this protected zone are subject to planning conditions and statutory protection

Any breach of this zone will result in enforcement action by the Local Authority

Legend:

Tree reference

Tree and crown spread

Root protection area

Temporary barrier protection

Trees / hedges to be removed

New tree planting

Notes:

This drawing was produced in colour, a monochrome copy should not be relied upon.

Project:

Land Opposite Foots Fram, Thorpe Rd, Clacton

Drawing Title:

Tree Protection Plan

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Date:	3rd February 2024	
Scale:	1:500 @ A1	
Drawing Number:	TPSarb1100120 TPP	Rev D

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Appendix 6

Example of arboricultural monitoring form

Contract Monitoring Form

Details

Date	
Time	
Surveyor	
Client	
Site	
Ref	

Trees

Tree ref	Condition	Recommendations

Barrier

Tree ref	Barrier type	RPA radial distance as per planning permission	Actual barrier radial distance at site	Condition of barrier	Condition of signage	Comments

Ground Protection

Tree ref	Type of ground protection installed	RPA distance as per planning permission	Actual distance of ground protection at site	Condition of ground protection	Comments

Additional Comments