Westwood Landscape

Chartered Landscape Architects

TREE SURVEY REPORT

PROPOSED RESIDENTIAL DEVELOPMENT
JACKTREES ROAD, CLEATOR MOOR

GLEESON HOMES

Revision A 30 07 25

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1 INTRODUCTION

1.1 SCOPE OF REPORT

1.1.1 This report was commissioned to assess the arboricultural constraints of a potential residential development of 69 detached and semi-detached units on agricultural land adjacent to Jacktrees Road (Cleator Gate) on the south-western edge of the settlement of Cleator Moor, Cumbria. It will form part of an application for detailed planning consent to Copeland Borough Council.

1.1.2 Westwood Landscape, Chartered Landscape Architects (with LANTRA Professional Tree Inspector Certification) were appointed by Gleeson Homes Ltd to carry out a survey and amenity value analysis of the trees on and adjacent to the proposed development site and appraise the potential impact of the development on retained trees.

1.1.3. The surveyors were Bruce Walker BSc(Hons) MPhil CMLI and James England NDF BSc(Hons)For Mic For and the survey work was carried out in October 2022.

1.1.4. The proposed development layout is shown on Knapton and Knapton Ltd Plan number SK/01 dated March 13/12/21.

1.1.5. The proposed development will have a single access road from Jacktrees Road serving 3 cul-de-sacs.

1.1.6. Revision A of this report adds an update to the assessment following an additional site survey carried out on 30.07.25. This confirmed that there was no significant change to the initial survey results and recommendations. It was noted that the dieback from the Ash Dieback disease on Ash trees T4, T6, T9-12, T16 and T24 had advanced in the 2 years and 9 months since the initial survey. Refer to the additional photographs in Appendix 3 (second section).

1.2 METHODOLOGY

1.2.1. The survey data and tree constraints assessment were recorded in the standard schedule format required by the Local Planning Authority. Survey work is in accordance with BS5837 2012 Trees in Relation to Design, Demolition and Construction. Direct and indirect constraints on trees and hedges within and adjacent to the site will be assessed and both above and below ground impact considered.

1.2.2. Tree height was recorded with a Leica Disto D810 digital laser measure to record distance to the tree base and to automatically calculate height.

1.2.3. Crown height and spread was recorded with a Leica Disto D810 digital laser measure. Trunk circumference is measured by tape at 1.5m above ground level.

1.2.4. Below ground constraints are influenced by the RPA and are determined in line with the recommendations set out in section 4.6 of BS 5837:2012. The Root Protection Area (RPA) radius is calculated as stem diameter (d.b.h.) x 12. The RPA for multi-stemmed trees is calculated from the diameter of the individual stems rather than the circumference above the root flare (recent change in the April 2012 update to the BS). The combined stem diameter for trees with 2-5 stems is calculated using the formula '*square root of the sum of individual diameters squared'.* For more than 5 stems a mean value is used. Trunk lean was measured with a clinometer and spirit level. Note that the RPA is recorded as a circle on the tree constraints plan in accordance with the BS but the actual spread of roots on site may vary significantly due to level changes, barriers and site conditions.

1.2.5. The walkover survey involved inspection and measurement of above ground parts of the trees only as required by the brief. No trial excavations, soil samples or tree testing was carried out. More detailed investigations may be required to appraise the potential arboricultural impact prior to the construction phase of the project.

1.2.4. The Tree Schedule records all the data required in British Standard BS5837: 2012 Trees in Relation to Construction. The criteria used is as follows:

<u>Classification Criteria</u>
Information on the trees is provided in the Tree Tabular Data as follows:

- Species Age Class:-

RP: Recently planted trees – up to approximately 5 years old.
Y: Young – established tree up to one third the expected ultimate height
EM: Early Mature (Semi-mature) – between one third and two-thirds the expected ultimate height. Growth rate still increasing.
YM: Young Mature (Semi-mature) – Growth rate stabilises, although tree has not obtained full potential stature.
M: Mature – full stature achieved, more or less full height, but still increasing in girth.
NOTE: The Young Mature and Mature period may account for approximately half the trees' life span.
LM: Late Mature (over mature) – Crown may begin to decline. Annual increment declines or slows down.
Intermediate classifications can been used where trees do not fall clearly within an age class.

- Diameter at Breast Height – (dbh. measured in centimetres at approx 1.5m)
- Height – (Approximate height measured in metres)
- Height of Main Fork – The height of top of main stem.
- Height of Crown – The height of the crown (to general lowest point above ground level) where appropriate.
- Condition - A general Classification of Condition: For example, Good; Fair; Poor; Dead; Dangerous, followed by information regarding condition or any other comments regarded as relevant.
- Recommendations - Action recommended in the interests of safety and in accordance with good arboricultural practice.

- Physiological Condition – Overall appraisal of the trees health / biological condition together with any relevant comments e.g. pests and diseases. Ratings: Good, Fair, Poor, Dead.
- Structural Condition – Overall appraisal of the trees structural condition together with any relevant comments e.g. dead, damaged branches. Ratings: Good, Fair, Poor, Dead. Action and Comments (in the context of proposed development).
- Recommendations – action required to facilitate the development, for safety or future health of the tree.

1.2.5. The tree quality assessment follows the following scale based on arboricultural qualities, landscape qualities and cultural values including conservation:

Trees unsuitable for retention

Category U
Trees in a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years and any existing value will be lost within that period. These trees should be removed for sound arboricultural reasons Note Category U trees can have existing or potential conservation value which might be desirable to preserve if this does not impose an unacceptable risk. Habitat re-instatement or protection may be appropriate for species such as bats. E.g. installation of bat boxes, or leaving as a safe structure of no arboricultural value, but very good for invertebrates, owls, woodpeckers etc.

Examples of trees in this category include:

• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse. Includes those that will be exposed following removal of other category U trees, because their sudden exposure increases risk of failure.
• Trees that are dead or are showing signs of irreversible, immediate decline.
• Trees infected with pathogens that threaten the health or safety of other trees nearby.
• Very low value trees restricting the growth of specimens of better quality.

Trees to be considered for retention

Category A
Trees of high quality and value with an estimated remaining life expectancy and substantial contribution of at least 40 years. They be good examples of the species (rare or unusual) or essential components of groups, or of formal or semi-formal arboricultural features. Trees, groups or woodlands which provide a definite screening or softening effect to the locality (views into or out of the site), or those of particular visual importance and high amenity value. These may include trees, groups or woodlands of significant conservation, historical or cultural value.

Category B
Trees of moderate quality and value with an estimated remaining life expectancy and substantial contribution of at least 20 years. They may not achieve Category A rating due to impaired condition from which they may recover. The tree condition, arboricultural, ecological habitat, landscape and amenity value will be lower than Category A trees but higher than Category C trees.

Category C

Trees of low quality and value with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. Trees in a suitable condition to be retained until they mature or improve (if damaged, diseased, misshapen, etc) or until other trees are established. The tree condition, arboricultural, ecological habitat, landscape and amenity value will be lower than Category A and B trees. Removal of Category C trees to accommodate a development is often considered acceptable as replacements trees can achieve the same level of landscape and amenity value quite quickly. Small trees below 150cm girth could be re-located.

2.0 SURVEY RESULTS

2.1. LEGISLATIVE PROTECTION

2.1.1. The Town and Country Planning (Trees) Regulations 1999 set out the scope of tree preservation orders and also the scope of the protection afforded to trees in Conservation Areas.

2.1.2. There are no known Tree Preservation Orders affecting the study area and it is not within a Conservation Area. The council's Tree Officer was not contacted to verify if any recent TPO's had been issued which may not have been updated on the Council website.

2.1.3. Statutory wildlife obligations must be considered including: The Wildlife and Countryside Act 1981 as amended, the Countryside and rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017. These regulations protect all wild birds and make it an offence to intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. Bats are protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 making it an offence to damage or destroy a roost site even if unoccupied.

2.2. SPECIES COMPOSITION AND CONDITION

2.2.1 The trees surveyed are mostly at the boundaries of the site and comprise Ash, Hawthorn, Alder, Field Maple, Silver Birch, Cherry, Sycamore, Oak and Leyland Cypress. These are very common mostly native species.

2.2.2. There were no unique species or specimens recorded. No special characteristics or protected or rare species were noted in the shrub or ground flora although no detailed botanical survey was carried out.

2.3. DIRECT IMPACT

2.3.1. Based on the Provisional Sketch Layout by Knapton and Knapton the removal of two small trees T21 and T22 will be removed to accommodate the proposed access and associated sightlines on Jacktrees Road (Cleator Gate). Also some of the tree associated with the remnant hedgerow within the site towards the north east will be cleared. Five of these trees are Category 'U' and should be removed for arboriculture

reasons and all the others are low quality Category ‘C’ which will be retained at the edge of the POS.

2.3.2. All the other trees and hedges are at the site boundaries and will be unaffected by the development.

3. LANDSCAPE AND AMENITY VALUE

3.1 All the trees and hedge sections to be removed are of low landscape and amenity value. They are all small trees which well away from the road corridor are not important components in any key viewpoints. Their loss will have a negligible impact on the landscape quality and amenity value and they are easily replaced within the proposals.

3.2. The boundary trees collectively have a moderate landscape and amenity value and individually range from low to moderate. There are no trees of notable size and quality and there are no Category ‘A’ quality trees.

3.3. There 3 Category ‘B’ trees 15-16m high: Sycamore T15 and T23 and Oak T26. Tree groups G2 and G3 are also Category ‘B’. All the other trees are lower quality Category ‘C’ or Category ‘U’ of low landscape and amenity value.

3.4. We recommend removal of all of the Category ‘U’ trees. Their loss will have a low impact on the landscape and amenity value and sufficient boundary trees will remain to ensure the tree lined boundary landscape setting is retained. The replacement trees proposed will more than compensate for the loss.

3.3. The boundary hedge H3 combines with tree group G2 to provide a good natural screen to views from Cleator Gate road and groups G2 combines with groups G3 and G4 to partially screen views from the south. These landscape features should be retained and enhanced with infill planting to the gaps.

3.3. Refer to the Tree Schedule in Appendix 1 for further detailed comments.

4.0 ARBORICULTURE METHOD STATEMENT FOR PROTECTION OF TREES

Refer to Appendices

4.1 Refer to Tree Mitigation Plan L03 for location of trees to be retained and extent of Root Protection Areas (RPA’s) which form a Construction Exclusion Zone (CEZ).

4.2 Protective fencing to be erected prior to the commencement of any other work to ensure that the trees are protected in accordance with British Standard 5837:2012 Trees in Relation to Construction. Such measures shall be retained for the duration of any approved works. Refer to detailed fencing drawing below in the Appendix.

4.3. Protective fencing must remain intact and in place, and protection procedures must be adhered to throughout the construction period. Removal of protective fencing should be the last job carried out on completion of the project.

4.4. No mechanical traffic should be allowed above a tree's root zone, since this could cause compaction and damage roots. No excavations of any kind to take place within the root zone area of protected trees. No materials should be stored within the RPA or any ground level increase. No re-fuelling or any other activity which may lead to chemical spillage should be carried out within or close to the RPA. No fires to be lit within the RPA.

4.5. In certain circumstances it is possible to accommodate construction activities within the RPA distances recommended by the B.S. 5837:2012 calculation. This is unavoidable for the proposed work but this will not necessarily lead to tree damage if this methodology is carefully followed. Intrusive work within the RPA should be restricted to one side of the tree and the protection zone extended on the other sides to compensate.

4.6. Pre-construction Stage

4.6.1. Prestart site meeting involving Architect, Contractor and potentially client and LPA representative if requested. Timing and implementation of the agreed Tree Works and installation of Tree protection measures.

4.6.2. Clearance of the required tree groups and pruning back canopies of retained trees which may be impacted by the development to crown raise to clear vehicular traffic.

4.6.3. Tree protection fence installed and LPA informed and given opportunity to inspect.

4.7. Development Stage

4.7.1. Contractors RAMS assessed by Architect and Landscape Architect/ Arboricultural Consultant.

4.7.2. Minimal dig construction method to be followed where work is unavoidable within the RPA of retained trees:

- Where construction traffic within the RPA at the site access routes is unavoidable a temporary protective track should be formed with interlocking panels (I-track system or similar) over a compressible layer of 200mm bark mulch or chipped wood. A more lightweight solution of timber boards will be suitable for pedestrian only routes. The boards must be suitable to spread the anticipated load such as heavy duty scaffold boards. For more permanent surface solutions within the RPA's a cellular confinement system of gravel-filled rigid cells of total construction depth of 150mm should be used to ensure unimpeded water and air penetration to the tree roots. These can be edge edged with treated timber (32 x 200mm), supported in place with 50mm x 50mm treated wooden pegs driven into firm ground rather than a concrete kerb requiring excavation for strip foundation which could sever roots. These requirements must be verified by the Engineer following appropriate CBR tests and design.

• Any existing vegetation over the area of the construction should be treated with a proprietary translocated Glyphosate based herbicide such as 'Roundup' and cut down to ground level. Remove vegetation to 25mm maximum depth.

• Any minor irregularities, lumps or hollows in the ground level will be evened out or filled in with topsoil using hand tools. A geotextile separation membrane such as Terram will be spread out over the no-dig access routes where these lie within the tree RPA's.

• Excavation of pits for foundations and services should be carried out carefully by hand or with an air spade if within the RPA's. Any exposed tree roots should be re-covered with topsoil as soon as possible with the tree pit backfilling or wrapped in hessian if they remain exposed. This will prevent root damage from drying out or sudden changes in temperature. The wraps should be removed before backfilling. Roots smaller than 25mm in diameter which are obstructing the work can be pruned with bypass secateurs or a handsaw except where they occur in clumps when the Arboricultural consultant must be consulted. Trial excavations using an air spade prior to detailed foundation design will inform the positioning of the excavations to avoid large roots.

4.7.3. Site inspections by the Landscape Architect/ Arboricultural Consultant is advisable as required during the works, especially if tree roots are encountered.

4.7.4. Removal of Protective Fencing once the main construction work is completed to allow re-surfacing and planting work within the CEZ.

2.12. Contacts:
Architect:
Contact: Knapton and Knapton Ltd

Landscape Architect/ Arboriculture Consultant:
Contact: Bruce Walker, Westwood Landscape Ltd, Carlisle Tel. 01228 712123 Mobile 07736 364337

5.0 TREE MANAGEMENT WORK

Refer to Tree Schedule in Appendix 1

5.1. Management of the retained trees is recommended but this will be minor pruning only.

6. PROPOSED PLANTING

6.1 No Detailed Landscape Plan was available when this report was issued. However Westwood Landscape Ltd developed a Landscape Concept and Strategy. This identified extensive replacement and additional tree planting throughout the site with avenue trees to the road corridors and arcs of trees across the landform contours between the houses to help to integrate the development with its landscape setting. Native species rich hedges are proposed for the boundaries to replace the sections lost and to enrich the local biodiversity. This includes the site frontage at Cleator Gate/

Jacktrees Road which will help to retain the rural lane character to some degree. The proposed POS and SuDS attenuation basin provides an opportunity to introduce further native species to enhance the ecology and wildlife value with marginals, trees, shrubs and wildflower meadow areas.

6.2. There are opportunities to establish wildflower margins to the boundary hedges to further enhance local biodiversity.

7.0 ARBORICULTURAL IMPLICATION ASSESSMENT AND MITIGATION DESIGN

7.1 The Arboricultural Implication Assessment considers how a proposed development and its associated trees and hedges will co-exist and interact in the present and future. An AIA is a document required by Planning Authorities to enable them to satisfy themselves that factors such as root protection, changes in levels, installation of services, material storage, etc have been duly considered during the development layout and that these items will not prove detrimental to the retained trees and hedges. It will address the combined effect of potential multiple site operations and will assess future issues such as the long- term effects of changing a surface level or the future requirement to prune or remove trees and hedges because they cast excessive shade or encroach upon property. The AIA considers constraints posed above and below ground and makes recommendations to mitigate impacts associated with development sites and retained trees.

7.2. The following factors were assessed:

7.2.1. Levels: Whilst no detailed levels plans were available we assume that the proposed levels for houses, access roads and parking area will generally follow existing levels with the foundations designed to minimise the grading required. Significant grading to achieve level platform areas and uniform gradients will be required for the building foundations and vehicle areas.

7.2.2. Services: There was no service information available for assessment but the routes should be sensitively design to avoid tree root damage and follow the service corridors associated with the proposed access roads. Proposed tree planting will avoid the existing 6m wide easement for the drainage pipe which runs along the north boundary.

7.2.3. Water demand: The proposals are not likely to significantly alter the supply to or requirement of the existing trees provided that the earthworks are sensitively designed to minimise grading.

7.2.4. Light: There will very limited restricted light to most of the proposed houses due to the proximity to the retained trees.

7.2.5. Canopy obstruction: No conflict is envisaged but minor crown raising may be beneficial to increase clearance and avoid damage at the construction access route and working areas close to the retained boundary trees.

7.2.6. Compaction of tree RPA: Provided the root protection fence is installed as recommended and the temporary access route protection is installed root damage from compaction within the RPA's will be avoided.

7.2.7. Storage of materials/ Compound: No material or temporary compound activities will be within the fenced off Construction Exclusion Zones. This will avoid compression or spillage damage to tree roots.

8.0 SUMMARY COMMENTS

8.1. The proposal is for 69 detached and semi-detached houses on agricultural land adjacent to Jacktrees Road (Cleator Gate) on the south-western edge of the settlement of Cleator Moor, Cumbria. It will form part of an application for detailed planning consent to Copeland Borough Council.

8.2. The trees surveyed are mostly at the boundaries of the site and comprise common mostly native species. They are mostly of low value category 'C' trees with only several Category 'B' trees and no Category 'A' trees. The trees have low to moderate landscape and amenity values and collectively are of moderate value as they provide a valuable natural screen to views form Cleator Gate/ Jacktrees Road and from the south and add to the rural landscape character at the edge of the settlement.

8.3. Two small boundary trees will be lost to accommodate the access road and 6 small Category 'U' trees for arboriculture reasons will have a negligible impact on the landscape and amenity value as the tree lined boundary landscape character will remain intact with all the taller more visually prominent trees being retained. The replacement trees proposed will more than compensate for the loss.

8.4. A landscape strategy has been developed which will compensate for the trees to be cleared and to enhance the local biodiversity. This includes avenue trees to the road corridors and arcs of trees across the landform contours between the houses to help to integrate the development with its landscape setting. Native species rich hedges are proposed for the boundaries to replace the sections lost and to enrich the local biodiversity. Hedging and trees to the site frontage at Cleator Gate/ Jacktrees Road will help to retain the rural lane character to some degree. The proposed POS and SuDS attenuation basin provides an opportunity to introduce further native species to enhance the ecology and wildlife value with marginals, trees, shrubs and wildflower meadow areas.

8.5. Provided the development methodology accommodates the advice in this report, particularly the earthworks design, the proposals are unlikely to have a negative effect on the retained trees and the trees will not constrain the development.

APPENDIX 1
Tree Schedule

APPENDIX 2
Tree Survey and Constraints Plan L02
Tree Mitigation Plan L03

APPENDIX 3
Photographs

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1 View from the north-east boundary of trees T23-T26 to the rear of Carron Cottage and Stirling Gate on Jacktrees Road. The trees provide a valuable natural screen and will be retained and protected.

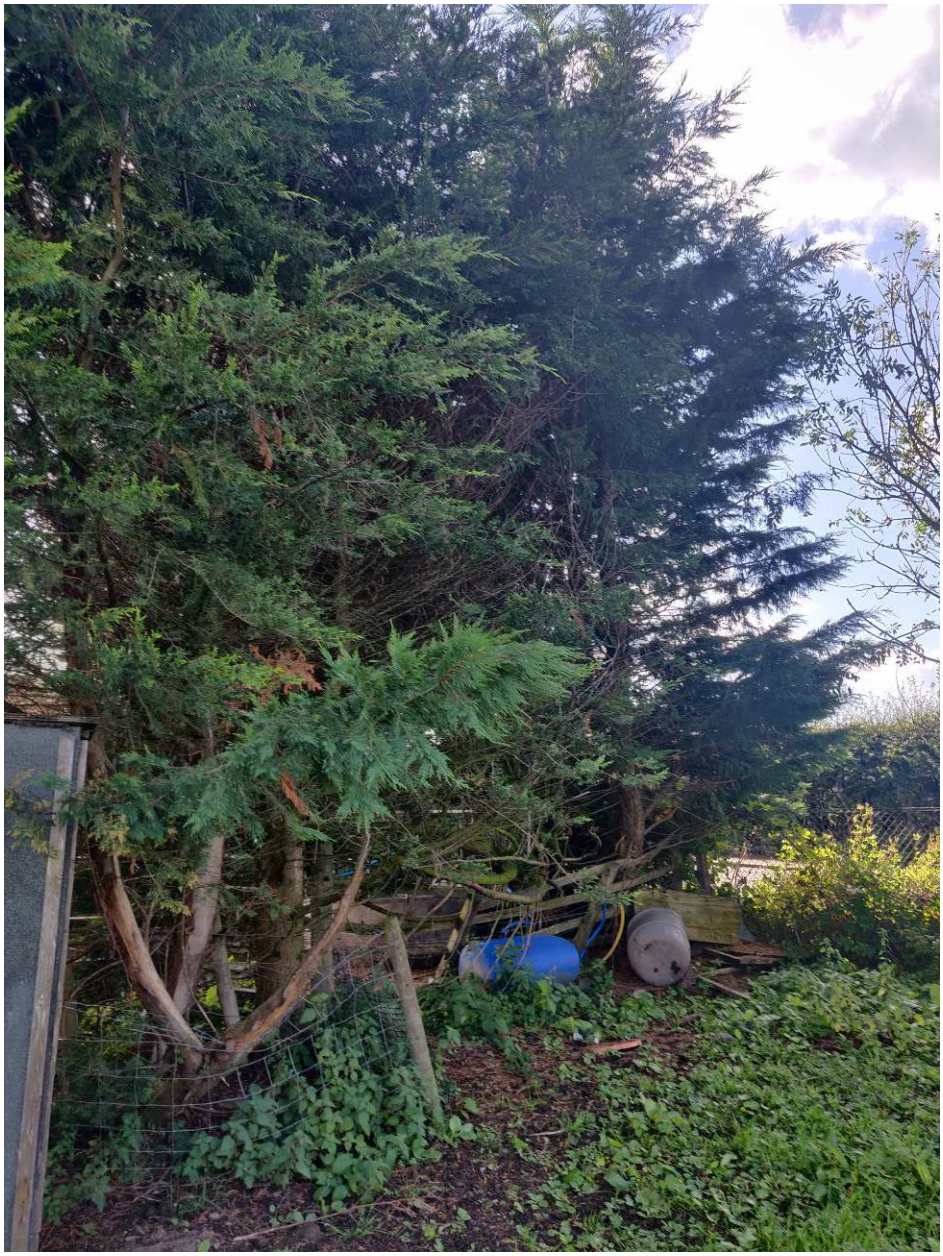
2 View from the north-east boundary of trees T23-T26 to the rear of Carron Cottage and Stirling Gate on Jacktrees Road to hedge H2 and tree group G2 to the left of the farm outbuildings.

3 Tree group G1

4 Tree group G2 on the west boundary which screens views towards the site from Cleator Gate.

5. Tree group G3

6 Tree group G4



7 Tree group G5

8 Hedge H3 to be retained and extended

9 Tree T20 at the road frontage to be removed for the road access.

10 Tree T21 at the road frontage to be removed for the road access.

11. Tree T23 a mature Sycamore at the rear of Carron Cottages on Cleator Gate

12. Tree T24 a mature Ash at the rear of Carron Cottages on Cleator Gate

13. Tree T25 a mature Sycamore at the rear of Carron Cottages on Cleator Gate

14. Tree T25 a mature Oak Category ‘B’ at the rear of Carron Cottages on Cleator Gate

PHOTOGRAPHS FROM SITE VISIT 30.07.25

1 Group G1

2 Group G1

3 Trees T4-Ts – severe Ash dieback.

4 Trees T8-T13

5 Trees T24-T26 on the north-west boundary.

6 Tree T23 Sycamore.

7 Trees T16-T18 on the west boundary.

8 Group G5

9 Tree T15 Sycamore.

10 Hedge H3

11 Group G2

12 Group G3.

13 Group G4.

APPENDIX 4
Tree Protection Fence Detail