



PROPOSED HOUSING

BARFS ROAD, DISTINGTON

TREE SURVEY REPORT

HOME GROUP HOUSING

Revision A 20 08 26

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1 INTRODUCTION

1.1 SCOPE OF REPORT

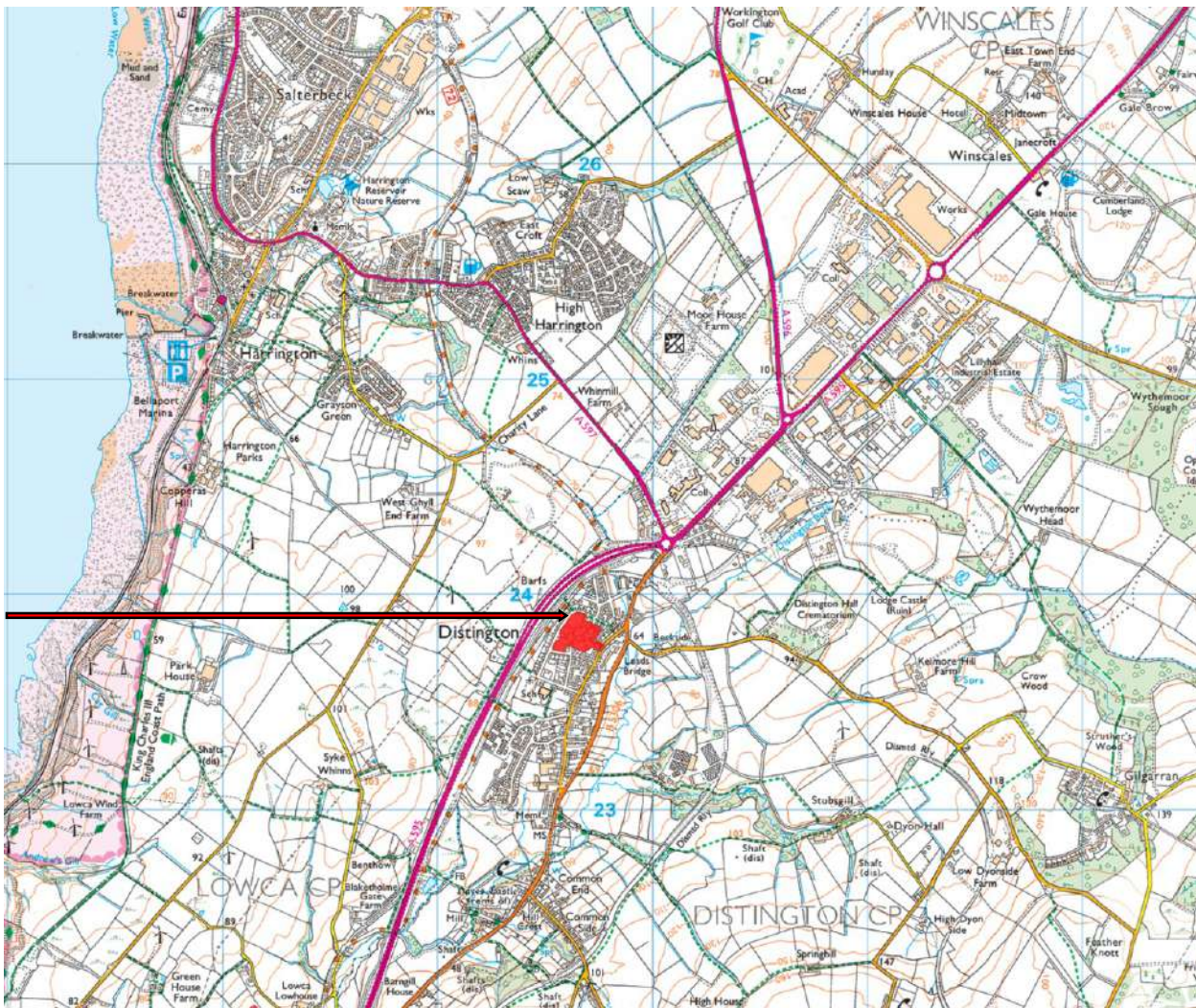
1.1.1 This report was commissioned to assess the arboriculture constraints of a proposed housing development on public open space within an established residential area at Barfs Road, Distington. Refer to the Site Location Plans below.

1.1.2 Westwood Landscape, Chartered Landscape Architects (with LANTRA Professional Tree Inspector Certification) were appointed in November 2025 by Architects Plus on behalf of the client Home Group Housing 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 November 2025.

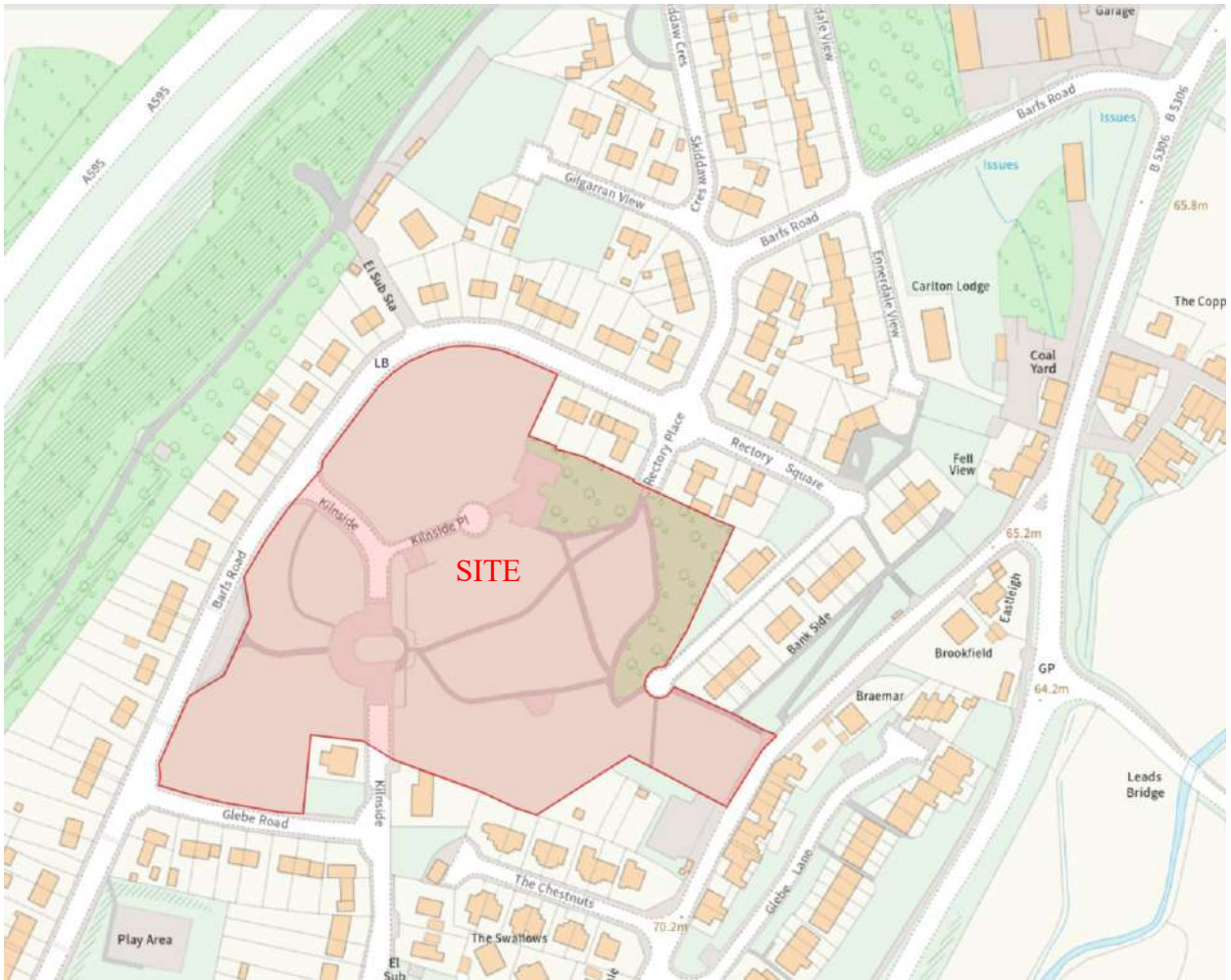
1.1.4. The proposed layout is indicated in Appendix 2.

SITE



Site location Plan showing the site in the context of Distington, the A595 road and the coast.

Westwood Landscape Design Ltd Ordnance Survey Licence Number AC0000830021



OS Plan showing the context of the site in relation to the adjacent residential areas and roads.

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SITE

Aerial view showing the site in the context of the tree groups, public open space landscape and residential areas.

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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:

Classification Criteria

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 be 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 (Tree Preservation England) Regulations 2012 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 Tree Preservation Orders affecting the study area which is not within a Conservation Area.
- 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 survey area was restricted to the trees which could potentially be affected by the Construction and Operational phases of the proposed development. The species surveyed were Scots Pine, Ash, Oak, Hawthorn, Alder, Silver Birch, Sycamore, Cherry, Crab Apple, Beech, Hazel, Holly, Poplar, Field Maple, Whitebeam, Japanese Larch, Norway Spruce and Rowan. These are common species and well represented in the area.
- 2.2.2. The hedges comprised Privet and Hawthorn with Blackthorn.
- 2.2.3. 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 design layout in Appendix 2 the potential direct impact on the trees as a result of the proposed development will include:
 - Removal of 6 individual trees and one group G2 which are Category 'U' and unsuitable for retention.
 - Removal of part of group G1 to accommodate the proposed houses and rear gardens at the eastern boundary. Some trees can be selected for retention at the site boundary.

- Pruning of group G3 to accommodate the proposed houses and rear gardens at the southern boundary. All trees can be retained.
- Removal of 10 Category 'C' trees which conflict with a proposed houses or will be too close to houses to allow growth to maturity.

2.3.2. The retained trees identified can be protected during the Construction Phase. The temporary tree protection fencing to protect these trees is indicated on the Tree Mitigation Plan L03.

3. LANDSCAPE AND AMENITY VALUE

3.1 The trees surveyed are collectively of low to moderate landscape and amenity value as they are landscape elements which contribute to the landscape character and setting of the urban public open space but they are all smaller young or middle- aged trees. There are no mature trees present.

3.2. Individually the trees are of mostly low and occasionally moderate landscape and amenity value and tree groups from low to moderate value. They comprise many native species and are of moderate ecological value.

3.3. There are no Category 'A' trees and only one Category 'B' tree T13; a middle-aged Sycamore which can be retained in a rear garden. Group G3 is also Category 'B' comprising young native trees planted as a shelterbelt and natural screen. Part of this group will need to be pruned back along the boundary within the rear gardens.

3.4. There are 23 Category 'C' trees of which 10 will be removed to accommodate the development.

3.5. There are 6 Category 'U' trees and one Category 'U' group identified which are in poor condition and should all be removed for safety and arboriculture reasons. These include Ash trees some of which are suffering from Ash Dieback disease which is likely to spread to all the Ash trees on the site.

3.6. The two hedges surveyed H1 Privet and H2 Hawthorn/ Blackthorn can be retained and there is an opportunity to improve and extend the native species hedge H2 to enhance the local habitat and biodiversity.

3.7. The clearance to accommodate the development will cause some reduction in landscape and amenity value but the integrity of the tree groups will be maintained. This loss will be fully compensated for with the proposed mitigation planting. The site is a poor quality public open space which currently has low amenity value and the development brings an opportunity to improve this substantially with high quality materials and mitigation planting. The resultant public open space will be reduced in size but will have greater amenity appeal and will enhance the landscape setting for the proposed homes.

3.8. 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 and hedges 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 as 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 may be unavoidable for the proposed works 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 trees and pruning back the canopies of trees adjacent to the proposed houses, roads and parking.

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 at the margins of the tree groups. This applies within an area 2m from the tree canopy line for the sections of the tree groups retained.

- For the permanent surface solution within the RPA's a cellular confinement system of gravel-filled rigid cells or simply gravel of total construction depth of 150mm should be used to ensure unimpeded water and air penetration to the tree roots. These can be 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. Alternative surface solutions are feasible provide they are permeable.
- 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.
- Excavation of the topsoil to a maximum depth of 150mm and no greater than 100mm beyond the proposed timber edges should be carried out carefully by hand or with an air spade within the RPA's. Any exposed tree roots should be re-covered with excavated topsoil as soon as possible 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 or careful hand excavation prior to detailed design will inform the position of any large roots which require protection. The depth and position of the proposed drainage plant may need to be adjusted to accommodate retained tree roots.
- Following excavation the timber edges will be installed followed by a Terram 1000 or a similar weed suppressant membrane laid over the whole RPA area to receive 5-40mm Type 3 sub-base aggregate to ensure water and gaseous exchange is maximised. Lightly compact the base to prepare for the gravel-filled geogrid or similar permeable surfacing.
- Once the final surfacing is installed topsoil should be spread to infill the void adjacent to the timber edges and to finish the ground level to a smooth profile. Any minor irregularities, lumps or hollows in the ground level will be evened out or filled in with topsoil using hand tools.
- Where construction traffic within the RPA of retained trees 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.

4.7.3. Site inspections by the Landscape Architect/ Arboricultural Consultant is advisable as required during the works, especially if tree roots are encountered. If large tree roots are encountered the methodology will be adapted to ensure protection.

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

Contacts:

Client: Home Group Housing

Architect: Architects Plus

Landscape Architect/ Arboriculture Consultant:

Contact: Bruce Walker, Westwood Landscape Design Ltd, Carlisle Tel. Mobile 07736 364337

5.0 TREE MANAGEMENT WORK

Refer to Tree Schedule in Appendix 1

5.1. Removal of the trees identified.

5.2. Management of the retained trees in accordance with the Tree Schedule.

6. PROPOSED PLANTING

6.1 The Landscape Plan indicates a planting strategy for a robust landscaping scheme which will fully compensate for the loss of the trees and groups identified. There are opportunities to enhance the local biodiversity through tree and hedge planting. Mostly native species of trees and hedges have been selected to ensure that the required biodiversity gain is achieved.

6.2. Biodiversity enhancement measures include areas of native scrub shrubs, wildflower grass and extended linear hedge habitats.

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 broadly assessed based on the initial site appraisal but not a provisional design layout:

7.2.1. Levels: Changes to ground levels within the RPA of the retained trees should be avoided. No proposed detailed level information was available but we assume that the houses, parking areas and roads will generally follow the existing ground levels and the requirement for regrading and retaining structures will be minimal. If these are required they should be outside the RPA of retained trees.

7.2.2. Services: There was no detailed service information available for assessment but the routes for the proposed pipes and cables should be sensitively designed to avoid tree root damage. No impact on the retained trees is anticipated.

7.2.3. Water demand: The proposals are not likely to significantly alter the supply to or requirement of the existing trees.

7.2.4. Light: The retained trees will impede light to the proposed houses in close proximity to the tree groups G1 and G3 as they mature. However this will not be overbearing, and the retention of these trees will be significant to retain some of the existing landscape character.

7.2.5. Canopy obstruction: Some pruning to the tree group margins will be required to avoid obstruction and damage in the Construction Phase. Refer to the clearance areas indicated on the Tree Mitigation Plan L03.

7.2.6. Compaction of tree and hedge RPA: Provided the root protection fence is installed as recommended 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.

APPENDIX 1

Tree Schedule

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Height (m) & Orientation of First Significant Branch	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W						
T1	Mountain ash	<i>Sorbus aucuparia</i>	8m	140	0.5	0.5	0.5	0.5	2m East	Young	Basal trimmer damage.	No work required.	10 - 20	C
T2	Silver birch	<i>Betula pendula</i>	9m	110	1.5	1.5	1.5	1.5	2.5m North	Young	Growing on property boundary. Dieback in the crown, deadwood. Basal trimmer damage.	Fell.	<10	U
T3	Whitebeam	<i>Sorbus arla</i>	14m	350	3	3	3	3	2.5m <u>South east</u>	Middle aged	Significant basal trimmer / mower damage.	No work required.	10 - 20	C
T4	Mountain ash	<i>Sorbus aucuparia</i>	6m	100	1	1	1	1	1.5m West	Young	Basal trimmer damage.	No work required.	10 - 20	C
T5	Poplar	<i>Populus spp.</i>	12m	340	3	3	2	3	1.9m North	Middle aged	Basal trimmer damage.	No work required.	10 - 20	C
T6	Silver birch	<i>Betula pendula</i>	5m	160	2	2.5	2	2	2.2m South	Young	Good form tree, Basal trimmer damage.	No work required.	10 - 20	C
T7	Hybrid Poplar	<i>Populus x canadensis</i>	17m	730	5	6	5.5	6	3m South	Middle aged	Large tree, some minor stem damage.	No work required.	10 - 20	C

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Height (m) & Orientation of First Significant Branch	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W						
T8	Ash	<i>Fraxinus excelsior</i>	7.5m	230	2	2	1.5	2	2m North	Young	Low vigour noted, reasonable form. Basal damage.	Monitor for ash dieback.	10 - 20	C
T9	Poplar	<i>Populus alba</i>	6m	140	2	2	2	2	2m South	Young	Basal damage.	No work required.	10 - 20	C
T10	Mountain ash	<i>Sorbus aucuparia</i>	4m	80; 100	2	1	1	1	2m North	Young	Leaning heavily to the north, extensive bark damage at the base from mower/trimmers. Poor form.	Fell & replant	<10	U
T11	Sycamore	<i>Acer pseudoplatanus</i>	5m	130; 150	2	3	2	2	1.8m <u>North east</u>	Young	Epicormic shoots leaning eastwards. Crown weighted eastwards. Poor form.	Prune epicormic shoots from the base, prune over footpath.	10 - 20	C
T12	Ash	<i>Fraxinus excelsior</i>	10m	240	3	3	3	3	2m North	Young	Stem wound on <u>south west</u> side, bacterial canker noted. Twin @ 1.9m	Fell & replant	<10	U
T13	Sycamore	<i>Acer pseudoplatanus</i>	12m	530	5	5	5	5	2m East	Middle aged	Good form and condition. No visible defects.	No work required.	20 - 40	B
T14	Beech fastigate	<i>Fagus sylvatica 'Dawyck'</i>	8m	100; 60; 80	1	1	1	1	N/A	Young	Upright formed tree, stem damage noted.	No work required.	10 - 20	C

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Height (m) & Orientation of First Significant Branch	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W						
T15	Beech fastigiate	<i>Fagus sylvatica</i> <i>'Dawyck'</i>	7.5m	140; 60	1	1	1	1	N/A	Young	Upright formed tree, stem damage noted.	No work required.	10 - 20	C
T16	Cherry	<i>Prunus avium</i>	11m	380	2	3	3	3	2.5m South	Middle aged	Bark removed through vandalism. Significant stem damage, open wound.	Fell & replant.	<10	U
T17	Alder	<i>Alnus glutinosa</i>	12m	360	3	3	2	3	1.9m West	Middle aged	Good formed tree, no visible defects.	No work required.	10 - 20	C
T18	Field maple	<i>Acer campestre</i>	10m	310	2.5	4	3	2	2.2m East	Middle aged	Leaning slightly to the east crown weighted to the east. Stem damage.	No work required.	10 - 20	C
T19	Horse chestnut	<i>Aesculus hippocastanum</i>	6m	140; 150; 120	1.5	1.5	2	2	2m West	Young	Basal stem damage from strimmer.	No work required.	10 - 20	C
T20	White poplar	<i>Populus alba</i>	8m	150; 160; 170; 160	3.5	4	4	4	1.8m East	Middle aged	Multi stem tree with significant stem damage.	Coppice.	10 - 20	C

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					N	E	S	W						
T21	Mountain ash	<i>Sorbus aucuparia</i>	7m	80; 100; 60	1.5	1.5	1.5	1.5	1.6m East	Middle aged	Multi stem tree, growing by wall.	No work required.	10 - 20	C
T22	Field maple	<i>Acer campestre</i>	10m	180; 140; 160	3.5	2	4	3	2m South west	Middle aged	Suppressed by T23. Stem damage.	No work required.	10 - 20	C
T23	Goat willow	<i>Salix caprea</i>	12m	9x stems avg. 180	6	5.5	5	4.5	2.5m East	Middle aged	Large multi stem tree growing close to a wall.	No work required.	10 - 20	C
T24	Cherry	<i>Prunus avium</i>	8m	300	2.5	2.5	2.5	2.5	1.8m North	Middle aged	Leaning north, stem damage.	No work required.	10 - 20	C
T25	Ash	<i>Fraxinus excelsior</i>	10m	270	4	3.5	4	3	1.7m East	Middle aged	Larger ash tree than the two adjacent, dominant and reasonable form and condition.	No work required.	10 - 20	C
T26	Ash	<i>Fraxinus excelsior</i>	8m	140	2	1.5	1	1.5	2m South	Young	Poor condition, some deadwood.	No work required.	10 - 20	C
T27	Ash	<i>Fraxinus excelsior</i>	7m	120	1	1	1	1	N/A	Young	Dead, ash dieback.	Fell.	Dead	U

Tree ID	Common Name	Botanical Name	Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Height (m) & Orientation of First Significant Branch	Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W						
T28	Hazel	<i>Corylus avellana</i>	4m	10x stems avg. 75	3.5	3.5	3.5	3.5	N/A	Young	Group of hazel stems previously coppiced. Some dead stems within.	Prune dead stems.	10 - 20	C
T29	Sycamore	<i>Acer pseudoplatanus</i>	7m	85	1	1	1	2	2m West	Young	Growing within Hedge H1. No visible defects.	No work required.	10 - 20	C
T30	Ash	<i>Fraxinus excelsior</i>	11m	200	1	1	1	1	2.5m East	Young	Ash dieback noted. Poor condition. Large amount of deadwood. Ivy on stem.	Fell.	<10	U

Group ID	Common Names	Est. No. of Trees	Average Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W					
G1	Scots pine, Japanese larch, yew, holly, sycamore, silver birch, alder	30	15m	250					Middle aged	Mainly a Scots pine group of trees of similar age and size. Two yew trees within are both poor in condition having been badly pruned. Larch tree on far west with wood nailed to the stem for a tree house.	No work required.	10 - 20	C
G2	Largely ash with a few beech and hazel	~20	12m	100					Young	Ash trees with dieback. Class 3/4. Beech tree with stem damage.	Fell ash and damaged beech tree.	<10	U
G3	Oak, cherry, sycamore, hazel, beech	~50	12m	300					Young	Shelterbelt planting of oak with the occasional mature sycamore to the east.	Retain. Would benefit from some selective thinning to favour the oak stems.	20 - 40	B

Group ID	Common Names	Est. No. of Trees	Average Height (m)	Calc. / Actual Stem Dia. (mm)	Crown spread (m)				Life Stage	General Observations	Preliminary Recommendations	Estimated Remaining Contribution (Years)	BS5837: 2012 Category
					N	E	S	W					

Hedge 1	Privet		2.5m	~20mm stem diameter					Middle aged	Largely undermanaged privet hedge.	Would benefit from being reduced and brought back into regular maintenance.	10 - 20	C
Hedge 2	Hawthorn, blackthorn		2m	~20mm stem diameter					Middle aged	Largely undermanaged hedge with dense bramble within. Should be trimmed back regular to maintain as a boundary hedge. The larger sycamore <u>grows</u> on the adjacent land.	Remove bramble, trim to maintain.	10 - 20	C

* Our interpretation of BS5837 standard is that the categories cannot easily be applied to hedges as they rarely have significant arboricultural merit. They are however frequently purely functional, with any such value being itself dependent upon the use to which the surrounding land is put. Their potential life expectancy is also difficult to quantify being almost entirely dependent upon the management regime applied.

NOTES:

1. There is widespread strimmer / mower damage to the vast majority of trees on the site, except within the groups. All of this damage was avoidable and will likely have a detrimental impact on tree health.
2. Ash dieback is widespread and the trees with significant dieback should be removed given the high usage of the area.
3. Tree protection measures will need to be adequately set out and managed during construction.
4. Given the number of trees on site an annual tree survey for safety is recommended.

APPENDIX 2

Tree Constraints Plan L02



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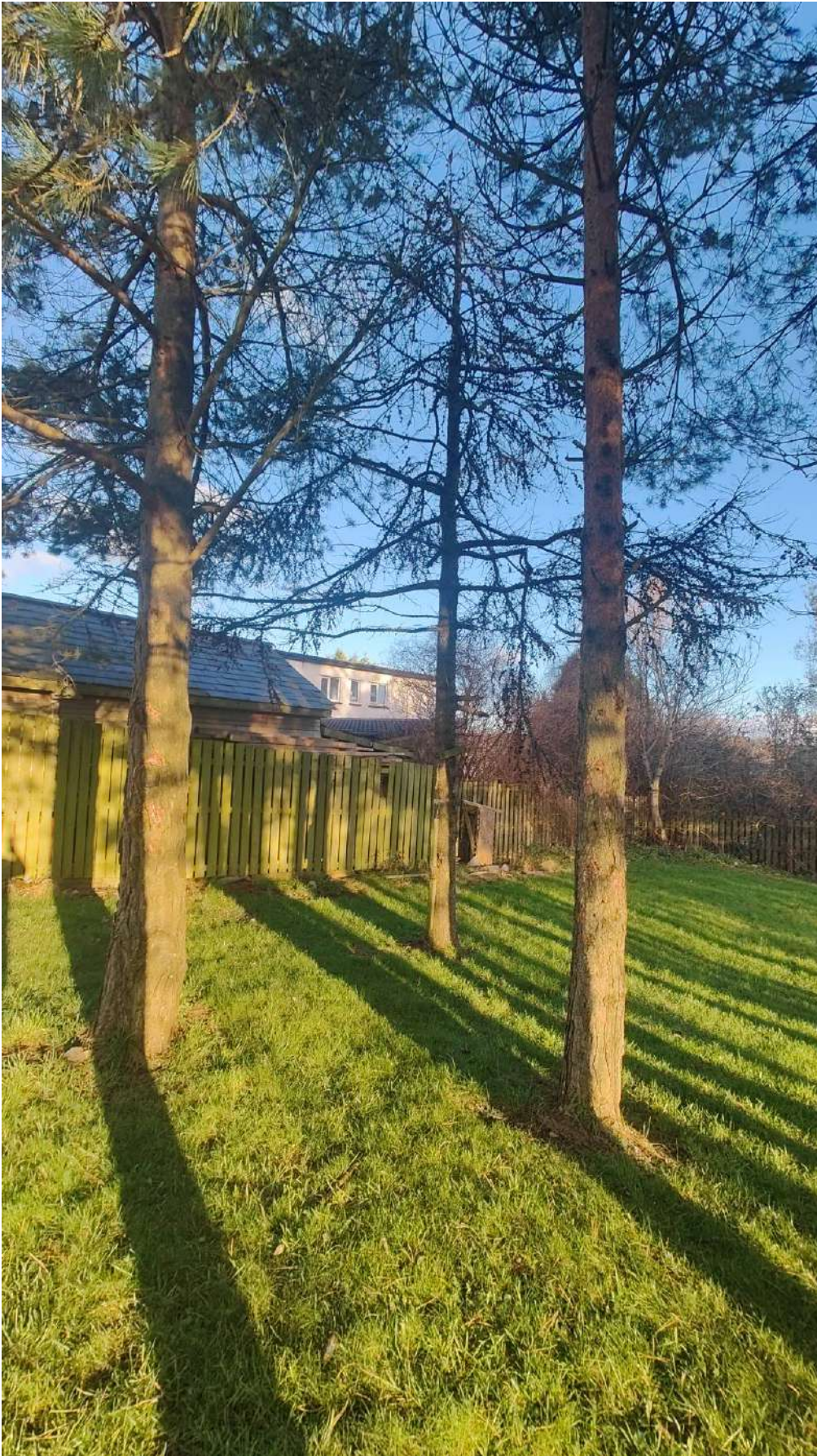
APPENDIX 3 Photographs



1. Hedge H1 Privet to be retained



2. Hedge H2 native species to be retained.



3. Group G1



4. Group G1



5. Group G2 young Ash which are likely to get diseased with Ash Dieback.



6. Group G3 most of which will be removed.



7. Group G3 young Oak.



8. Tree T1 Rowan



9. T2 Silver Birch



10. T3 Whitebeam



11. T4 Rowan



12. T5 Poplar



13. T6 Silver Birch



14. Trees T7, T8 and T9.



15. Tree T10 Rowan



16. Tree T11 Sycamore



17. Tree T12 Ash



18. Tree T13 Sycamore- the only Category 'B' individual tree.



19. Trees T14 and T15 Fastigate Beech



20. Trees T16 (front) Cherry and T17 Alder.



21. Tree T18 Field Maple



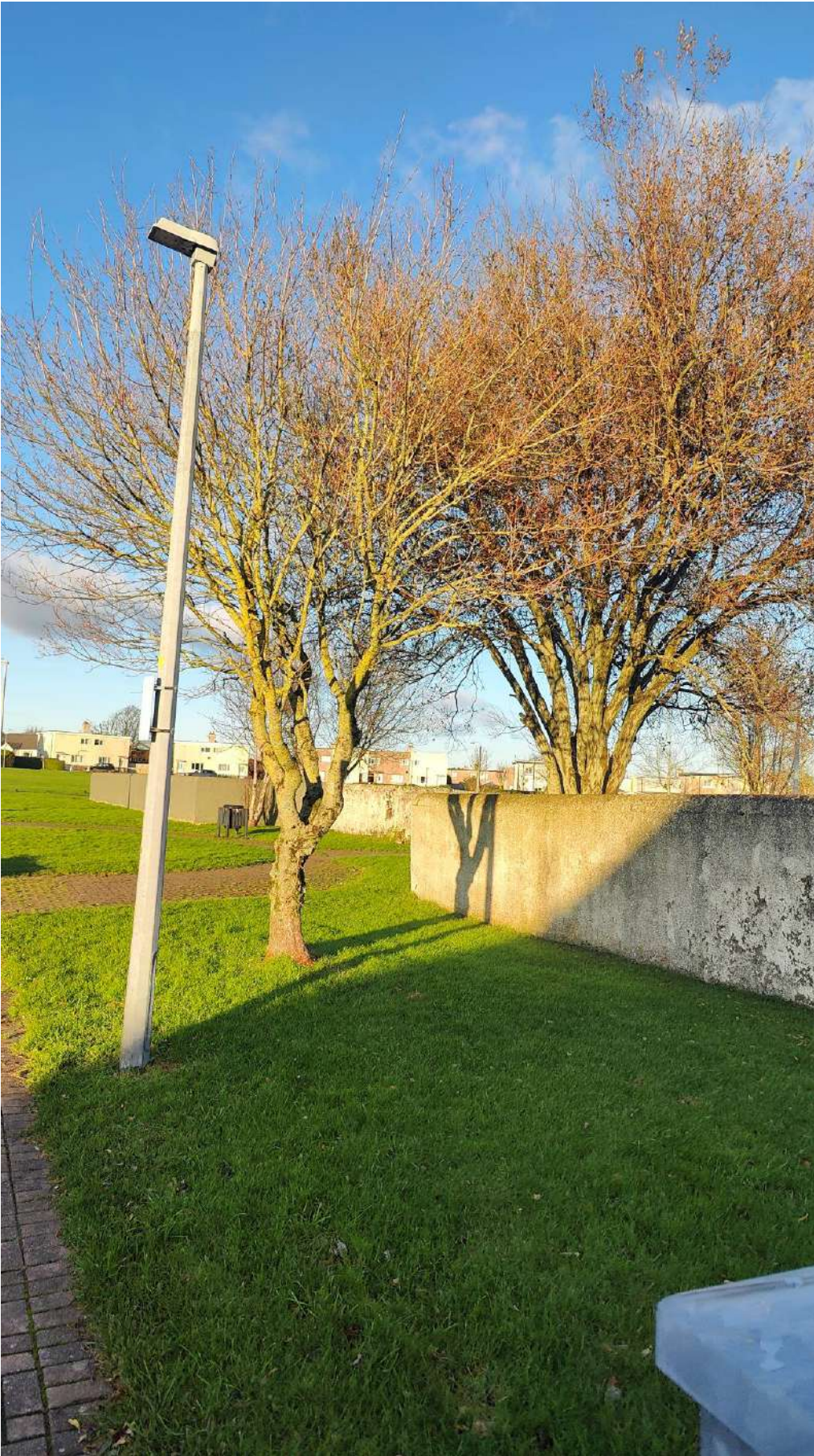
22. Tree T19 Horse Chestnut



23. T20 White Poplar.



24. T21 Rowan



25. Trees T22 Field Maple and T23 Goat Willow (right).



26. Tree T24 Cherry



27. Trees T25, T26 and T27 Ash (front to back)



28. Tree T28 Hazel



29. Tree T29 Sycamore



30. Tree T30 Ash.

APPENDIX 4 **Tree Protection Fence Detail**

