



PROPOSED HOUSING

QUEENS PARK MILLOM

TREE AND HEDGE SURVEY REPORT

19.03.26

Bruce Walker B Sc Hons M Phil CMLI
Chartered Landscape Architect



64 Newfield Drive, Carlisle,

Cumbria, CA3 0AF

07736 364337

bruce@westwoodlandscape.co.uk

Company number 16583104

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1 INTRODUCTION

1.1 SCOPE OF REPORT

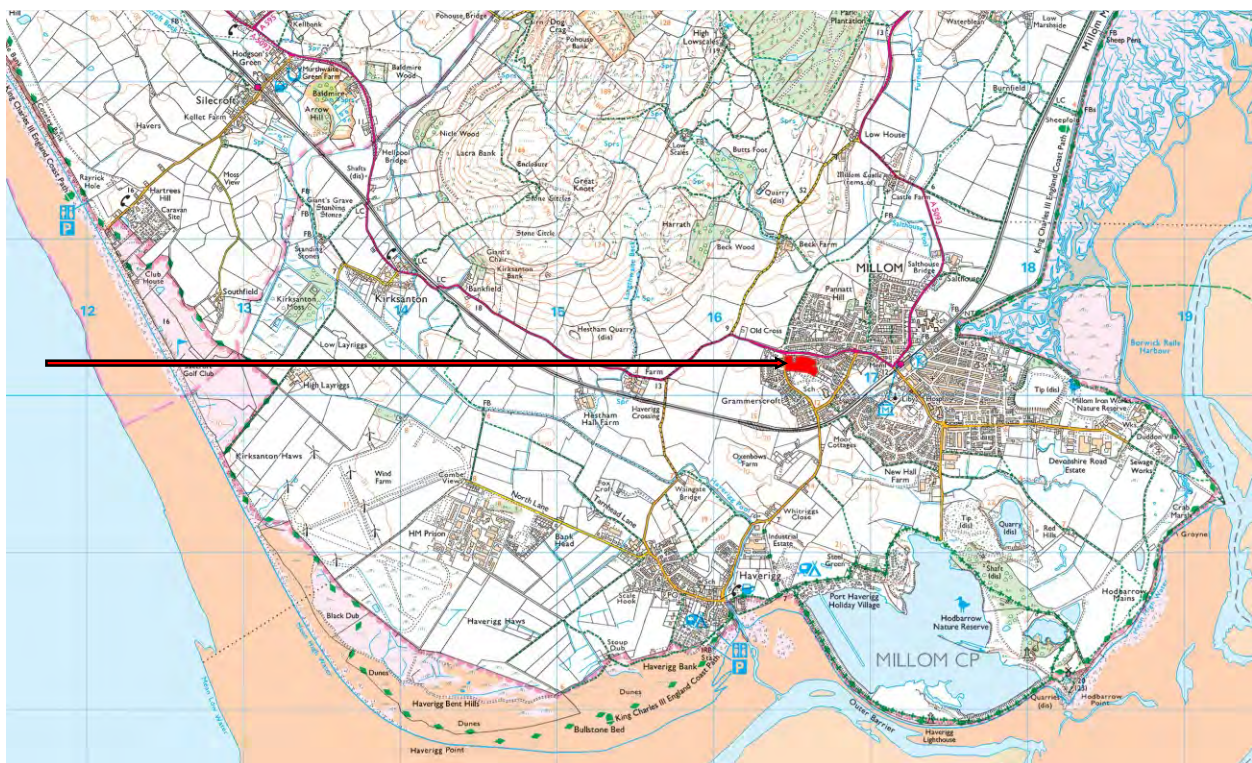
1.1.1 This report was commissioned to assess the arboriculture constraints of a proposed housing development within an established residential area at Queens Park, Millom. Refer to the Site Location Plans below.

1.1.2 Westwood Landscape, Chartered Landscape Architects (with LANTRA Professional Tree Inspector Certification) were appointed in November 2025 by Thomas Armstrong Construction 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 February 2026.

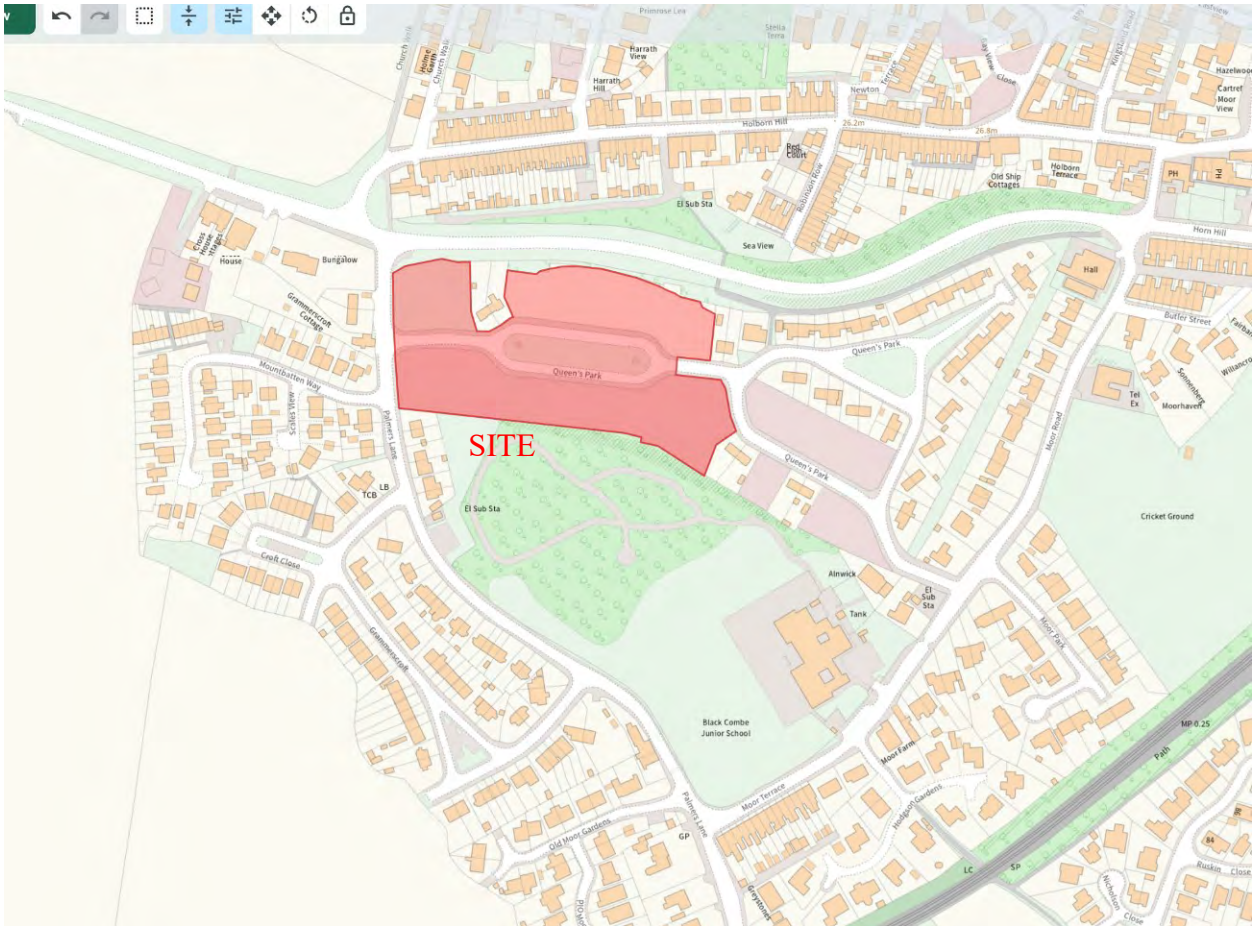
1.1.4. The proposed layout is indicated in Appendix 2 on the Tree Mitigation Plan L03 which is for 47 new homes with associated infrastructure and public open space. There will be two proposed access roads from Queens Park.

SITE



Site location Plan showing the site in the context of Millom and 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 adjacent 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 Ash and Goat, Willow with tree groups including Alder, Silver Birch, Hawthorn, Leylandii and Privet. These are common species and well represented in the area.
- 2.2.2. The hedges comprise Privet. Some sections of former hedgerows with only sparse remnants of Hawthorn and were not recorded on the Tree Constraints Plan.
- 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. Refer to the Preliminary Ecological Report by Envirotech.

2.3. DIRECT IMPACT

- 2.3.1. Based on design layout in Appendix 2 the potential direct impact on the trees as a result of the proposed development will include:
- Removal of Category 'U' tree T3 which is dead
 - Pruning back the canopy of tree groups G3 and G5 to accommodate the proposed rear gardens and fencing work.
- 2.3.2. Refer to the Tree Mitigation Plan L03B which indicates an overlay of the provisional Layout Plan.

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 residential area but are within low quality open ground. The larger scale tree groups create some natural infrastructure and contribute well to the local biodiversity.

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

3.3. All the trees are Category 'U' except the single dead tree T3 which will be removed.. These trees should all be retained and protected if possible.

3.4. The hedges surveyed comprise Privet and are of low landscape and amenity value and low ecological value.

3.7. The pruning to tree groups G3 and G5 to accommodate the development will cause a negligible reduction in landscape and amenity value although the integrity of the field boundaries and tree groups will be maintained.

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, 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 hedges 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: Thomas Armstrong Construction Ltd

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 and hedgerows identified.

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

6. PROPOSED PLANTING

6.1 The Landscape Plan in Appendix 2 indicates a planting strategy for a robust landscaping scheme which will enhance the quality of the landscape setting. There are opportunities to enhance the local biodiversity through tree and hedge planting with wildflower grass margins. Mostly native species of trees and hedges will be selected.

6.2. Other biodiversity enhancement measures include areas of native scrub to buffer and extend the tree groups, shrubs, wildflower grass meadows and native bulbs.

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 and the 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 and parking areas will generally follow the existing ground levels and the requirement for regrading and retaining structures will be minimal. Where retaining walls 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 within tree groups G1, G2 and G3 will potentially impede light to the proposed houses as they mature. However this will not be overbearing, and the retention of these trees will be significant to retain some aspects of the existing landscape character.

7.2.5. Canopy obstruction: Some pruning to the tree group margins to groups G3 and G5 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

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	Alder, ash, silver birch, goat willow, privet, hawthorn	100	8m	250					Middle aged	Some fallen trees within, looks largely self-established with some plantings within. No evidence of recent management. Ownership unknown but outside of development area.	No work required.	10 - 20	C
G2	Leyland cypress	7	14m	400					Middle aged	Established group of Leyland cypress on boundary, several snapped limbs and generally poor form and quality. Ownership unknown but outside of development area.	Consider removal.	10 - 20	C
G3	Goat willow	3	6m	250					Middle aged	Group of three multistem goat willow trees on adjacent land. In future could be coppiced.	No work required.	10 - 20	C
G4	Goat willow	10	4m	60					Young	Roadside group of multistem trees.	No work required.	10 - 20	C
G5	Alder 90%, sycamore, goat willow	30	12m	300					Middle aged	Roadside shelterbelt planting of largely alder trees. Largely outside of development site, small area may require pruning.	Assess if pruning is required to facilitate development.	10 - 20	C

Hedge 1	Privet		2.5m	~30mm stem size					Middle aged	Hedge growing on adjacent land.	No work required.	10 - 20	C
Hedge 2	Privet		3m	~40mm stem size					Middle aged	Hedge growing on adjacent land.	No work required.	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.

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	Ash	<i>Fraxinus excelsior</i>	8m	220; 200; 150	3.5	3	3	3	0.5m East	Middle aged	On adjacent land, ash dieback class 2.	Monitor.	10 - 20	C
T2	Ash	<i>Fraxinus excelsior</i>	6m	350; 120	3	4	3	4	1.8m North	Middle aged	Twin stem tree on adjacent land, ash dieback class 2.	Monitor.	10 - 20	C
T3	Goat willow	<i>Salix caprea</i>	6m	150	3	1	0.5	1	N/A	Dead	Windblown, dead tree.	Remove.	N/A	U
T4	Goat willow	<i>Salix caprea</i>	5m	120; 100; 100; 90	4	4	4	4	1m North	Middle aged	Growing within highway verge. Multistem tree.	No work required.	10 - 20	C

NOTES:

1. There are no high-quality trees on the site or adjacent to it.
2. The roadside tree group G5 encroaches onto the site ever so slightly to the south, so ownership will need to be established and there might be the need for some minor pruning to facilitate the proposals.
3. The site has previously been fully developed with houses but the vast majority have been cleared (only two remain to the north west). Aerial image below from 2010:



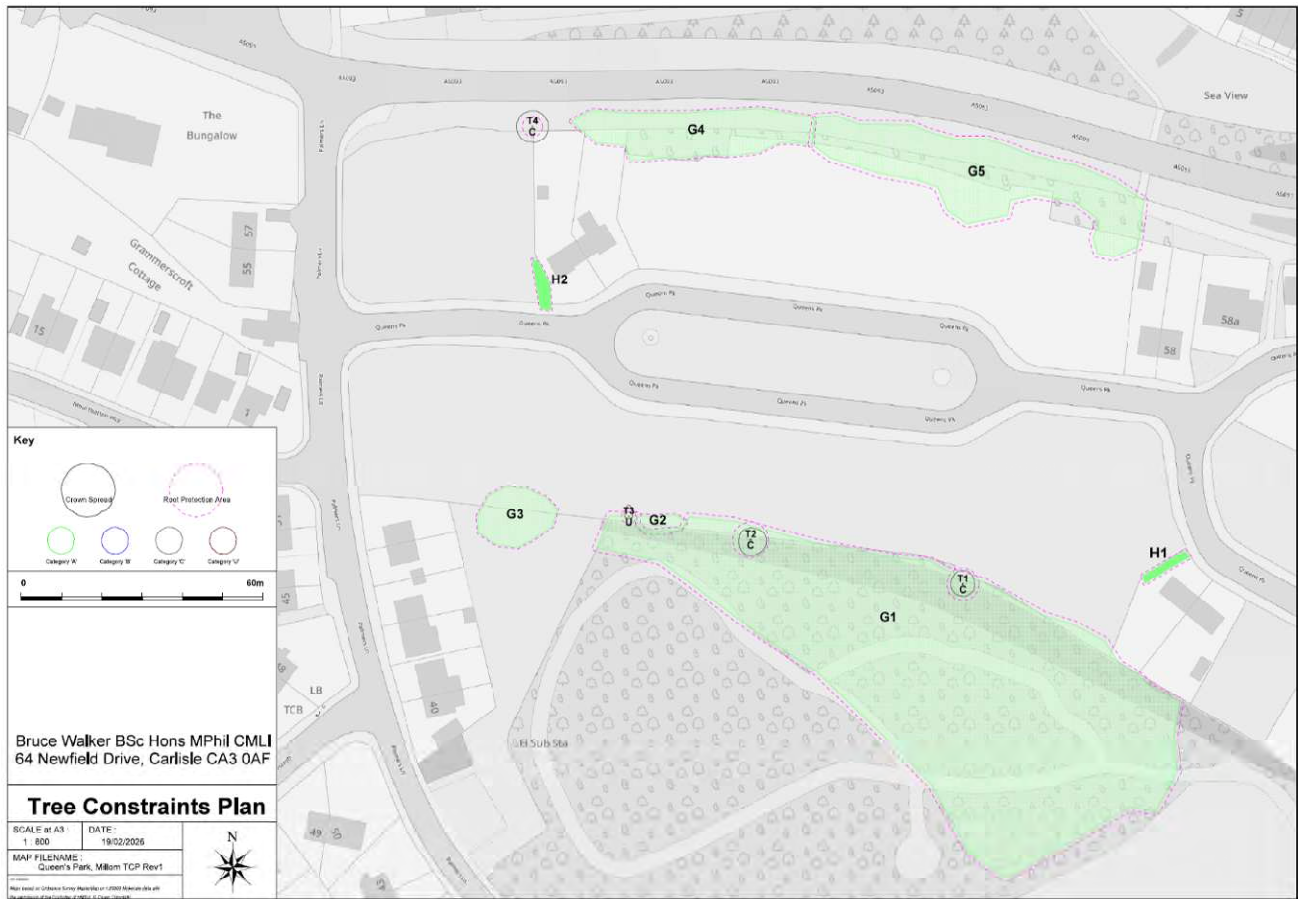
4. A number of ash trees are present with G1 and these are showing signs of ash dieback disease. Whoever owns G1 will need to monitor and proactively manage these trees.
5. Tree protection measures will need to be adequately set out and managed during construction.

APPENDIX 2

Landscape Plan L01



Tree Constraints Plan L02



Tree and Hedge Mitigation Plan L03



APPENDIX 3
Photographs



1. Tree T1 Ash



2. Tree T2 Ash



3. Tree T3 Goat Willow fallen



4. Tree T4 Goat Willow



5. Tree group G1



6. Tree groups G1 and G2 Leylandii



7. Group G2 Leylandii



8. Tree group G3 Goat Willow



9. Tree group G4



10. Tree group G5

APPENDIX 4
Tree Protection Fence Detail

