

Tree Survey Report

Coláiste Chillian,
Clondalkin,
Dublin 22

Project No.	Project name	Date	Revision
TCOL002	Coláiste Chillian Primary School	22/03/23	-

Report Prepared by

Ciaran Keating

BSc Pl. Sci. & Ecol H.N.D. Hort AA Tech Cert Arb

E-mail: cmkhortandarb@gmail.com

Mobile: 086 3841891

Drumone, Oldcastle, Co. Meath

CMK
Horticulture & Arboriculture

CONTENTS

1. Client brief and Methodology	3
1.2. General description of trees	3
1.3. Notice of urgent tree works required	5
1.4. Image sheets	6
2. Impact and mitigation	9
3. Limitations of survey	10
4. Relevant legislation	10
5. Terminology	1
6. Tree condition analysis & preliminary recommendations	13
7. Measurements	26
8. Tree protection	29
9. References	30

1. Client brief & Methodology

CMK Horticulture + Arboriculture were commissioned by the Department of Education and Skills with the field work undertaken between the 27th of January 2023 and February 9th.

The survey methodology and supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

Site overview



1.2 General description of trees

The site is located off Old Nangor Road road in Clondalkin, Dublin 22. A total of 133 trees were identified on the site and surveyed for this report with the categorisation of the trees identified contained within table 1.

The trees on the site are contemporary with the school therefore there are no trees of great age or maturity present. The most prominent species is black poplar (*Populus nigra*) which has been planted as screening both on boundaries and internally as a linear planting (refer to chart 1; images 5&6). The remaining trees are a mixture of mainly ornamental species such as cherry which for the most part were probably planted when the school was first developed and self-seeded poplar and willow on a mound near the northern boundary. There are boundary hedges of beech and Leyland cypress (*Cupressocyparis leylandii*) which for the most part have been well maintained though a section of the latter on the northern boundary has become very large and has developed into a number of individual trees (refer to image 1).

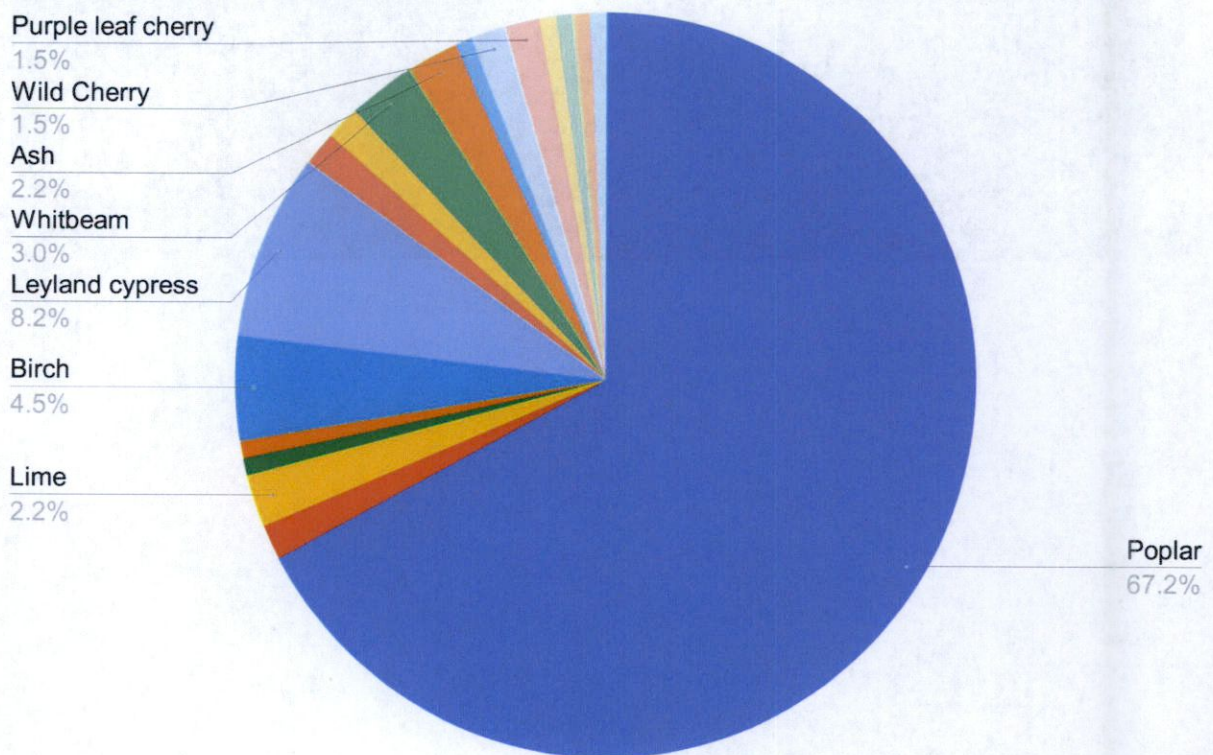
In terms of tree health the condition of the planted trees is good however there are some exceptions amongst the poplar and these should be removed due to their poor condition (refer to section 1.3). Limited management inputs has led to some of the ornamental trees developing basal suckers which undermine their vigour and visual qualities.

A bacterial canker is prevalent amongst the self-seeded poplar and is leading to extensive decay development in those trees affected. Although this infection appears to be only present in a small number of the original poplar planting it is likely that the infection will spread leading to the decline of these trees also.

Category	Number
A	0
B	79
C	33
U	21

Table 1. Tree Categories

Chart 1: Tree Species breakdown



1.2 General description of trees

Chart 2: Tree condition breakdown

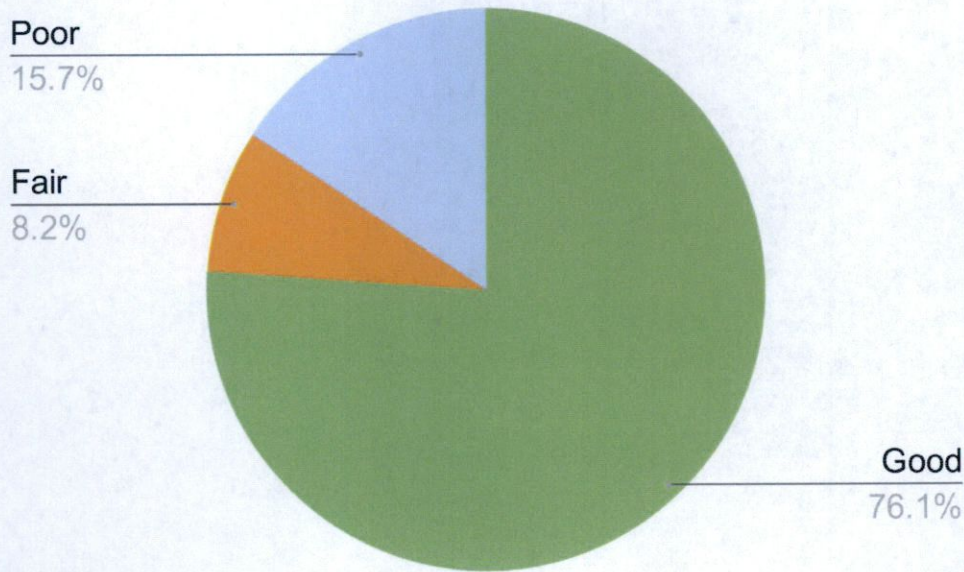
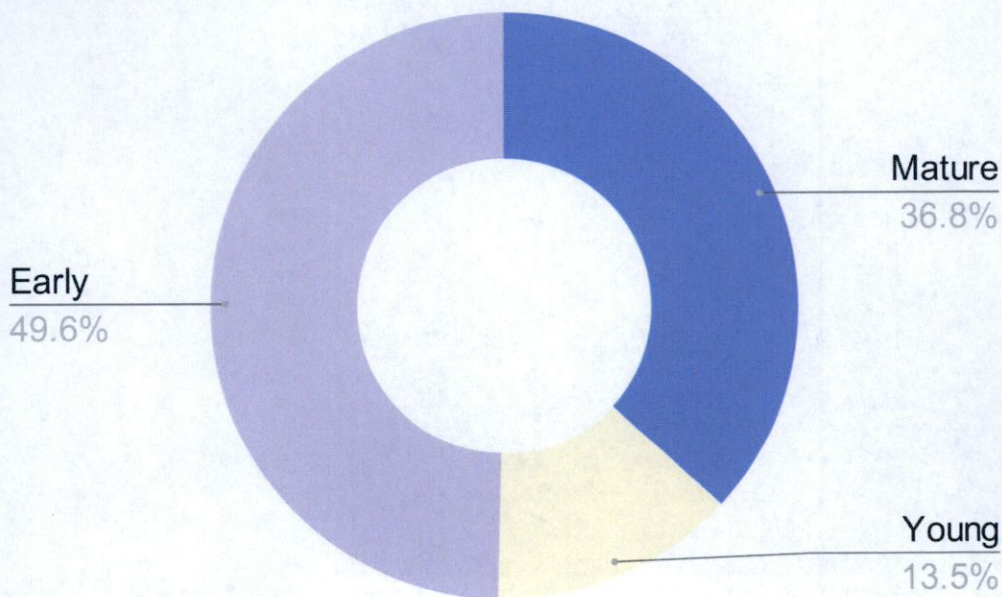


Chart 2: Tree age breakdown



1.3 Notice of urgent tree works required

A supplemental report, titled *Arboricultural Assessment: Notice of urgent tree works required*, was issued on the 10th of February to school authorities. This details the locations of a number of poplar trees which should be removed due to their poor condition and risk to school users.

Image sheets



Image 1. View of leyland cypress along the north-eastern boundary of site.



Image 2. Beech hedge along the Old Nangor road, south-western boundary of site.

Image sheets (cont.)



Image 3. Poplar #925 and #926 in the south eastern corner of the school.



Image 4. View of internal birch adjacent to school buildings.

Image sheets (cont.)



Image 5. View of the internal linear poplar planting in near the children's play area.



Image 6. Poplar adjacent to the northern boundary.

2. Impact and mitigation

2.1 Impact

The proposed development will have a significant arboricultural impact within the survey boundary. The proposed development will necessitate the removal of 109 trees, though 21 of these have been assessed as category 'U' as being in a state of failure or advanced decline. This represents a loss of 66.2% of all category 'B' and 'C' trees.

Category	Number
A	0
B	60
C	27
U	21

Table 1. Tree impact categories

The impact on tree loss is most pronounced on tree on the northern boundary adjacent to R134. The poplars located here are relatively young, do not contain many inherent issues and provide good screening from the nearby roadway, however they are unsuitable in the context of the proposed development and required underground services. Poplar have root systems that are extensive and fast growing, and can invade and clog adjacent water pipes. They also are known to drop high amounts of deadwood due to branches tending to have weak attachments, making them an issue for future management and ill-suited for inclusion in proximity to buildings and especially areas of high foot traffic, such as children's play areas.

Eight leyland cypress (#596-599 & #901-904) located on the north eastern boundary will be impacted due to proposed SUDs requirements.

Parts of a plot of young trees plating in the north-east corner of the site using the Miyawaki method will be impacted by SUDs and surfacing requirements.

2.2 Mitigation

The plots of young trees planted in the Miyawaki method, which are impacted by works, could be relocated, after extending new plots to the south. Given their young age this is likely to be successfully. Refer to drawings TCLO002 TREE PROTECTION 107-109 for locations that may be suitable for relocation.

Tree adjacent to the proposed construction site entrance on the Old Nangor Road at the south of site should have their canopies raised to avoid potential damage from high sided construction vehicles (Refer to drawings TCLO002 TREE PROTECTION 107-109).

Stephen Diamond Associates Landscape Architects have proposed a new generation of trees within their landscape masterplan. This will mitigate against tree loss from construction and will provide a suitable tree population within the context of this setting.

3. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only.

Every attempt was made to identify hazardous trees in this report however this survey was carried out from the ground and therefore cannot be held to have identified elements of decay which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site disturbance, man-made or natural, which may have an adverse effect on any trees present.

4. Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site however under Section 37 of the Forestry Act, 1946, it is illegal to uproot any tree over ten years old or to cut down any tree of any age (including trees which form part of a hedgerow), unless a Felling Notice has been lodged at the Garda Station nearest to the trees at least 21 days before felling commences.

The requirement for a felling licence for the uprooting or cutting down of trees does not apply where:

- The tree in question is a hazel, apple, plum, damson, pear, or cherry tree grown for the value of its fruit or any ozier;
- The tree in question is less than 100 feet from a dwelling other than a wall or temporary structure;
- The tree in question is standing in a County or other Borough or an urban district (that is, within the boundaries of a town council, or city council area).
- The tree is considered dangerous and hazardous.

Other exceptions apply in the case of local authority road construction, road safety and electricity supply operations.

The Act is administered by the Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford (053-9160200 or 1890-200223).

If you have any queries about felling in general or are unsure whether or not the trees fall under any of the above cases, it is recommended that you seek the advice of the Felling Section or of your local forestry development officer for further information.

Trees may contain bats. Bats are protected under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997. Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

5. Terminology

Tree categories	
A	Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential. (a minimum of 40 years)
A1	Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
A2	Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
A3	Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
B	Trees of moderate quality and value (a minimum of 20 years)
B1	Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage)
B2	Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
B3	Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
C	Trees of low quality and value (a minimum of 10 years).
C1	Not qualifying in higher categories
C2	Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
C3	Trees with very limited conservation or other cultural benefits.
U	Trees in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Trees that are dead, dying or showing immediate and irreversible decline.

Terminology (cont.)

Comments: Refers to the tree's condition and suitability for the site.

Common name: Most widely used non botanical name.

Co-dominant: Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

Crown Spread: Measured in meters north, south, east and west.

Decay fungi: Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

Defects: Refers to cracks, storm damage and any other damage mechanical or biological.

Diameter: Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

Genus & Species: Refers to the botanical names for the tree.

Height: Measured in meters.

Monitor: Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse weather conditions have impacted negatively on the trees.

Overhaul: A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

Recommendations: Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

Tree No. Refers to numbered tag fixed to tree during survey.

6. Tree condition analysis & preliminary recommendations

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
501	Black Poplar <i>Populus nigra</i>	Early mature	Good	Two stems from base with a close union which is likely to present issues in future.	Consider replacing with a more suitable alternative Due to public footpath south	C2	10-20
502	Black Poplar <i>Populus nigra</i>	Mature	Good	A multi stemmed specimen located on southern boundary. Becoming embedded in boundary fence. Structural weaknesses exist between stems at base but are unlikely to be significant at present. Upper canopy well developed. No heave visible on public footpath.	Deadwood over adjacent public pathway	B2	20
503	Black Poplar <i>Populus nigra</i>	Young	Good	A well developed specimen which appears to have self-seeded. No visible defects.	No action necessary	B2	30
504	Black Poplar <i>Populus nigra</i>	Young	Good	A well developed specimen which appears to have self-seeded. No visible defects.	No action necessary	B2	30
505	Black Poplar <i>Populus nigra</i>	Young	Good	A well developed specimen within open space area. One branch infected by bacterial canker. This likely to become more developed in time thereby reducing long-term potential.	Remove branch with bacterial canker present	C2	10
506	Black Poplar <i>Populus nigra</i>	Young	Fair	A well developed specimen within open space area. Early stage infection by bacterial canker visible in lower crown.	Remove branch with bacterial canker present	C2	10
507	Golden willow <i>Salix alba vitellina</i>	Young	Good	A well developed specimen within open space area. No visible defects.	No action necessary	B2	30
508	Black Poplar <i>Populus nigra</i>	Young	Poor	Located within open space area. Large areas of infection by bacterial canker present in trunk.	Fell	U	0
509	Golden willow <i>Salix alba vitellina</i>	Early mature	Good	A well developed specimen which appears to have self-seeded. No visible defects.	No action necessary	B2	30
510	Black Poplar <i>Populus nigra</i>	Young	Good	A slightly sub dominant specimen located on boundary. No visible defects	No action necessary	B2	30
511	Black Poplar <i>Populus nigra</i>	Mature	Good	A slightly sub dominant specimen located on boundary. No visible defects	No action necessary	B2	30
512	Black Poplar <i>Populus nigra</i>	Mature	Good	A slightly sub dominant specimen located on boundary. No visible defects	No action necessary	B2	30

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
513	Black Poplar <i>Populus nigra</i>	Mature	Good	A slightly sub dominant specimen located on boundary. No visible defects	No action necessary	B2	30
514	Black Poplar <i>Populus nigra</i>	Mature	Good	A slightly sub dominant specimen located on boundary. Crown poorly developed due to competition from neighbouring tree but not significantly so. Long term potential reduced due to competition from neighbouring trees and form.	No action necessary	C2	10-15
515	Black Poplar <i>Populus nigra</i>	Mature	Poor	Extensive basal decay present. Long term potential limited as a result.	Fell	U	<10
516	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. Upper trunk kinked due to competition from neighbouring tree but not significantly so. No visible defects.	No action necessary	B2	30
517	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
518	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
519	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
520	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
521	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
522	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. Trunk kinked due to competition from neighbouring tree but not significantly so. No visible defects.	No action necessary	B2	30
523	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
524	Black Poplar <i>Populus nigra</i>	Early mature	Good	A slightly sub dominant specimen on boundary. No visible defects.	No action necessary	B2	30
525	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
526	Black Poplar <i>Populus nigra</i>	Early mature	Good	A slightly sub dominant specimen on boundary. Trunk kinked and crown restricted toward north due to competition from neighbouring trees.	No action necessary	C2	30

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
527	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
528	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
529	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
530	Black Poplar <i>Populus nigra</i>	Early mature	Good	A relatively well developed specimen. Trunk co-dominant from 3.5m with a wide union between stems. Upper canopy well developed with no visible defects.	No action necessary	B2	30
531	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
532	Tag not in use						
533	Black Poplar <i>Populus nigra</i>	Early mature	Good	A relatively well developed specimen though trunk kinked due to competition from neighbouring tree. Not significantly so.	No action necessary	B2	30
534	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen. Trunk co-dominant from 1m with a wide union between stems. No visible defects.	No action necessary	B2	30
535	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
536	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
537	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
538	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
539	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. Trunk co-dominant from 3.5m with a wide union between stems. Upper canopy well developed with no visible defects.	No action necessary	B2	30
540	Black Poplar <i>Populus nigra</i>	Early mature	Good	A large dominant specimen on boundary. No visible defects.	No action necessary	B2	30
541	Black Poplar <i>Populus nigra</i>	Early mature	Good	A large dominant specimen on boundary. No visible defects.	No action necessary	B2	30

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
542	Black Poplar <i>Populus nigra</i>	Early mature	Good	A large dominant specimen on boundary. No visible defects.	No action necessary	B2	30
543	Black Poplar <i>Populus nigra</i>	Early mature	Fair	A sub dominant specimen located on boundary. Trunk co-dominant from 1.25m with a wide union between stems. Long term potential reduced due to competition from neighbouring trees.	No action necessary	C2	10-15
544	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
545	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
546	Black Poplar <i>Populus nigra</i>	Early mature	Good	A slightly sub dominant specimen located on boundary. No visible defects but long term potential reduced due to competition from neighbouring trees.	No action necessary	C2	10-15
547	Black Poplar <i>Populus nigra</i>	Early mature	Poor	A sub dominant specimen located on boundary. Form poor and long term potential reduced due to competition from neighbouring trees.	No action necessary	C2	10
548	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
549	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
550	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. Trunk co-dominant from 400mm with a wide union between stems. No visible defects.	No action necessary	B2	30
551	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
552	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary. No visible defects.	No action necessary	B2	30
553	Black Poplar <i>Populus nigra</i>	Early mature	Good	Located on boundary. Formerly co-dominant from base with one stem removed. Potential for decay development to occur where stem removed though unlikely to be significant at present. Minor branch damage in lower crown but upper canopy well developed with no visible defects.	No action necessary	B2	20

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
554	Black Poplar <i>Populus nigra</i>	Early mature	Poor	A poorly developed isolated specimen following removal of neighboring trees. Providing little in terms of screening or long term potential.	No action necessary	C2	10-15
555	Black Poplar <i>Populus nigra</i>	Early mature	Poor	A poorly developed isolated specimen following removal of neighboring trees. Providing little in terms of screening or long term potential.	No action necessary	C2	10-15
556	Black Poplar <i>Populus nigra</i>	Early mature	Good	A well developed specimen on boundary of site. Crown restricted toward west due to competition from neighboring trees. These trees have now been removed.	No action necessary	B2	30
557	Black Poplar <i>Populus nigra</i>	Young	Poor	Located within open space area. Bacterial canker present in trunk and lower crown. Long term potential reduced significantly as a result.	Fell	U	<10
558	Black Poplar <i>Populus nigra</i>	Early mature	Good	Located within open space area. Bacteria bacterial canker present in lower crown but not advanced at present. However long term potential reduced significantly as a result.	Fell	U	<10
559	Black Poplar <i>Populus nigra</i>	Early mature	Good	Located within open space area. Bacteria bacterial canker present in lower crown but not advanced at present. However long term potential reduced significantly as a result.	Fell	U	<10
560	Black Poplar <i>Populus nigra</i>	Young	Poor	Located within open space area. Bacterial canker present in lower crown; Long term potential reduced significantly as a result.	Fell	U	<10
561	Black Poplar <i>Populus nigra</i>	Young	Good	A well developed specimen within open space area. No visible defects and no sign of bleeding canker present. However it is most likely that infection will occur relatively soon. Has developed infection.	No action necessary	U	10-15
562	Black Poplar <i>Populus nigra</i>	Young	Poor	Located within open space area bacterial canker is present in tree with long term potential reduced as a result.	Fell	U	<10
563	Black Poplar <i>Populus nigra</i>	Young	Poor	A self seeded cluster of stems in open space area. Extensive bacterial canker present on stems. Long term potential very limited as a result.	Fell	U	<10

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
564	Black Poplar <i>Populus nigra</i>	Young	Poor	Self-seeded in open space area. Extensive bacterial canker present in trunk. Long term potential very limited as a result.	Fell	U	<10
565	Black Poplar <i>Populus nigra</i>	Mature	Good	A large well developed specimen on internal boundary. Trunk co-dominant from 0.75m with a wide union between stems. No visible defects.	No action necessary	B2	30
566	Black Poplar <i>Populus nigra</i>	Young	Poor	Self-seeded in open space area. Bacterial canker present in upper trunk. Long term potential very limited as a result.	Fell	U	<10
567	Black Poplar <i>Populus nigra</i>	Mature	Good	A large well developed specimen on internal boundary. No visible defects.	No action necessary	B2	30
568	Black Poplar <i>Populus nigra</i>	Young	Poor	A self seeded specimen located within open space area. Extensive bacterial canker present.	Fell	U	<10
569	Black Poplar <i>Populus nigra</i>	Mature	Poor	A large portion of this tree has failed rendering tree unsuitable for retention.	Fell	U	<10
570	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. There may be a long term weakness at 0.5m to north where a lower stem is located but unlikely to be significant at present.	Monitor yearly	C2	10-20
571	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. No visible defects.	Monitor yearly	C2	10-20
572	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. Hanging deadwood south at 2.75m.	Monitor yearly	C2	10-20
573	Black Poplar <i>Populus nigra</i>	Mature	Failed	Failed.	Stump grind	-	0
574	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed though slightly sub dominant specimen on internal boundary. No visible defects.	Deadwood/ consider for removal due to exposure form cat U neighbours	C2	10-20
575	Black Poplar <i>Populus nigra</i>	Mature	Poor	Located on internal boundary. Upper canopy lost to storm damage.	Fell	U	<10
576	Black Poplar <i>Populus nigra</i>	Mature	Good	Located on internal boundary. Trunk three-stemmed from 1m. Two of which have been cut at 1m. Decay visible at this point.	Fell	U	<10

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
577	Black Poplar <i>Populus nigra</i>	Mature	Good	Located on internal boundary. Three stemmed from base with wide unions between stems. Upper canopy well developed with no visible defects.	No action necessary	B2	30
578	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. No visible defects.	Remove soil buildup at base	B2	30
579	Black Poplar <i>Populus nigra</i>	Mature	Good	Located on internal boundary. Trunk co dominant from base with a tight union between stems. This may become an area of structural weakness in the future but in unlikely to be significant at present. Large limb failure at 3m south. Upper canopy well developed with no visible defects.	Remove as high likelihood of failure Due to decay	U	<10
580	Black Poplar <i>Populus nigra</i>	Mature	Poor	4m high remnant with secondary growth	Keep for possible eco benefits/do not allow growth over current size	C2	<10
581	Black Poplar <i>Populus nigra</i>	Mature	Good	A relatively well developed specimen on internal boundary. Hanging deadwood at 9m south. Failed small diameter stem at base south which is not significant at present.	Remove deadwood And hanging branch	C2	10-20
582	Black Poplar <i>Populus nigra</i>	Mature	Good	A relatively well developed specimen on internal boundary. Light suppressed Deadwood in lower canopy.	Deadwood	C2	10-20
583	Black Poplar <i>Populus nigra</i>	Mature	Good	Three stemmed from base with a tight union between two stems. Upper canopy well developed with no visible defects.	Consider for removal due to poor stem attachment	C2	10-20
584	Black Poplar <i>Populus nigra</i>	Young	Poor	Probably self seeded and located near playing fields. Decay in trunk rendering tree unsuitable for retention	Fell	U	<10
585	Black Poplar <i>Populus nigra</i>	Mature	Fair	A relatively well developed specimen located on internal boundary. There is a branch east that has grown into overhead lighting and should be removed. Deadwood in lower canopy.	Remove branch east at 9m that intrudes into overhead lighting/deadwood	C2	20
586	Black Poplar <i>Populus nigra</i>	Mature	Fair	A relatively well developed specimen located on internal boundary. Light deadwood in lower canopy.	Deadwood	C2	20

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
587	Black Poplar <i>Populus nigra</i>	Mature	Fair	Located on field boundary embankment. Trunk co-dominant from base with a tight union between and structural weakness at this point. Stems rubbing which increases chances of bacterial infections. Failure in medium term is likely due to these weaknesses	Fell	U	<10
588	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. No visible defects.	No action necessary	B2	30
589	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen on internal boundary. Trunk co dominant from base with a wide union between stems. Upper canopy well developed but slightly congested with minor branches.	No action necessary	B2	30
590	Black Poplar <i>Populus nigra</i>	Mature	Good	A relatively well developed specimen on internal boundary. Branch damage to lower crown from machinery impact. Upper canopy well developed.	Remove damaged branches	B2	30
591	Lime cultivar <i>Tilia</i> cv	Early mature	Good	Located within a lawn area this is a well developed specimen with a well structured crown. Minor branch congestion throughout crown but no visible defects.	Remove branch congestion	B2	>40
592	Alder <i>Alnus sp</i>	Early mature	Good	A well developed specimen with lawn area. No visible defects but stake with potential to damage trunk.	Remove stake	B2	>40
593	Lodgepole Pine <i>Pinus contorta</i>	Early mature	Good	A well developed specimen located within lawn area. Long term potential reduced due to competition from neighboring trees to west. No visible defects.	No action necessary	B2	30-40
594	Birch <i>Betula pendula</i>	Mature	Poor	Extensive decay in trunk to south.	Fell	U	0
595	Birch <i>Betula pendula</i>	Mature	Good	Located within open space area. Trunk co dominant from 0.5m with a wide union between stems. Upper canopy well developed with no visible defects.	Remove girdled roots north	B2	>40
596	Leyland cypress <i>Cupressocyparis leylandii</i>	Mature	Good	A large well developed specimen on northern boundary of site. Base of tree in contact with boundary fence but no damage to either tree or fence at present. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	>40

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
597	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Good	A large well developed specimen on northern boundary of site. Close stem unions may reduce lifespan though not significantly so. LBase of tree in contact with boundary fence but no damage to either tree or fence at present. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	40
598	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Poor	A poorly developed sub dominant specimen within screen planting on northern boundary. Effectively dead.	Fell	U	0
599	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Good	A relatively well developed specimen within screen planting on northern boundary. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	40
600	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Good	A relatively well developed specimen within screen planting on northern boundary. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	40
601	Black Poplar <i>Populus nigra</i>	Early mature	Good	Self seeded from nearby mature poplars. Poorly formed with three stems from base.	Remove	C2	10-15
602	Sycamore Acer	Early mature	good	Single stemmed self seeded and Relatively well developed. No defects visible.	No action necessary	C1	10-15
603	Sycamore Acer	Early mature	Good	Growing on heaped soil at the eastern boundary. Trunk co-dominant from 0.5 With wide union present. . Relatively well developed with no defects.	No action necessary	C1	10-15
Tags 604 - 900	Not in use						
901	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Fair	Subdominant to neighbouring tree group with a reduced canopy as a result. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	C2	40
902	Leyland cypress <i>xCupressocyparis leylandii</i>	Mature	Good	A relatively well developed specimen within screen planting on northern boundary. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	40

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
903	Leyland cypress <i>x Cupressocyparis leylandii</i>	Mature	Good	A relatively well developed specimen within screen planting on northern boundary. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	40
904	Leyland cypress <i>x Cupressocyparis leylandii</i>	Mature	Good	A large well developed specimen on northern boundary of site. Base of tree in contact with boundary fence but no damage to either tree or fence at present. Light suppressed deadwood scattered throughout crown but no visible defects.	Deadwood	B2	>40
905	Leyland cypress <i>x Cupressocyparis leylandii</i>	Mature	Good	A large well developed specimen on northern boundary of site. Base of tree in contact with boundary fence but no damage to either tree or fence at present. Light suppressed deadwood scattered throughout crown but no visible defects.	NA	B2	>40
908	Cherry avium cv <i>Prunus avium cv</i>	Mature	Good	A relatively well developed specimen within lawn area. Multi stemmed from base with included bark and areas of structural weakness present. Unlikely to be significant at present but long term potential reduced as a result.	No action necessary	B2	15-20
910	Lime cultivar <i>Tilia cv</i>	Early mature	Good	A well developed specimen within lawn area. Trunk multi stemmed from 0.5m with wide unions between stems. In time these will become more compressed and possibly hazardous but at present not an issue. Light branch congestion throughout crown. Has developed poor unions at 0.5m which have potential for failure in future.	Remove branch congestion	C2	30
911-924	Tags not in use						
925	Black Poplar <i>Populus nigra</i>	Mature	Good	A well developed specimen within a single line planting to north of school buildings. Trunk with a sub dominant stem from 0.5m with a tight union with trunk. Upper canopy well developed with no visible defects. Stem now removed. Well recovered.	No action necessary	B2	30
926	Black Poplar <i>Populus nigra</i>	Mature	Poor	Upper crown lost at 9m	Remove Swings as unsafe /fell	U	0

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
927	Birch <i>Betula pendula</i>	Mature	Good	A well developed specimen within lawn area adjacent to school buildings. Trunk co-dominant from 2m with a tight union between stems. This is an area of potential structural weakness in the future but is not significant at present.	No action necessary	B2	30
928	Whitbeam <i>Sorbus aria</i>	Early mature	Good	A well developed specimen within an internal area between buildings. Crown slightly congested with minor branches but no visible defects.	Remove branch congestion / reduce soil buildup at base	B2	30
929	Birch <i>Betula pendula</i>	Mature	Good	A well developed specimen within lawn area adjacent to school buildings. Trunk co-dominant from base with a wide union between stems. Upper canopy well developed with no visible defects.	No action necessary	B2	40
930	Whitbeam <i>Sorbus aria</i>	Mature	Fair	A relatively well developed specimen within lawn area near entrance to school. Crown slightly congested with minor branches but not significantly so.	No action necessary	B2	20
931	Birch <i>Betula pendula</i>	Early mature	Good	A well developed specimen near entrance to school. Trunk with a lean toward north but not significantly so. Heave visible at tarmac footpath north.	No action necessary	B2	40
932	Ash <i>Fraxinus excelsior</i>	Early mature	Good	A well developed specimen within lawn area. No visible defects.	No action necessary	B2	>40
933	Leyland cypress <i>Cupressus x leylandii</i>	Early mature	Good	A well developed specimen within lawn area. No visible defects.	Build back fence post before they open bark to infection	C2	>40
934	Cherry <i>Prunus avium</i>	Early mature	Good	A well developed specimen within lawn area adjacent to school buildings. No visible defects.	No action necessary	B2	40
935	Ash <i>Fraxinus excelsior</i>	Early mature	Good	A well developed specimen within lawn area adjacent to school buildings. No visible defects.	No action necessary	B2	>40
936	Crab apple cultivar <i>Malus cv</i>	Early mature	Good	A well developed specimen within lawn area adjacent to school buildings. No visible defects.	Remove stake	B2	40
937	Wild Cherry <i>Prunus avium</i>	Early mature	Good	A well developed specimen within a lawn area adjacent to school buildings. No visible defects.	No action necessary	B2	40

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
938	Purple leaf cherry <i>Prunus pissardii nigra</i>	Mature	Good	A relatively well developed specimen within lawn area adjacent to school buildings. Multi stemmed from base with tight unions between stems and suckers from base.	Remove suckers	C2	10-15
939	Wild Cherry <i>Prunus avium</i>	Early mature	Good	A well developed specimen within a lawn area adjacent to school buildings. No visible defects.	No action necessary	B2	40
940	Whitbeam <i>Sorbus aria</i>	Early mature	Fair	Located within a lawn area adjacent to school buildings. Co-dominant from base with a tight union between stems. Trunk with a lean but becoming vertical at 2m. No visible defects. Tight unions between stems will ultimately become structural weaknesses and could lead to failure.	No action necessary	C2	10
941	Fastigate Rowan <i>Sorbus cv</i>	Early mature	Fair	A relatively well developed specimen within roundabout. Basal suckers and stake present. Upper canopy slightly congested but not significantly so.	Remove stake, basal suckers and crown congestion.	B2	30
942	Purple leaf cherry <i>Prunus pissardii nigra</i>	Mature	Fair	A relatively well developed specimen within lawn area adjacent to school carpark. Multi stemmed from base with tight unions between stems. Suckers also present at base.	Remove suckers	C2	20
943	Lime cultivar <i>Tilia cv</i>	Early mature	Good	A relatively well developed specimen within a lawn area adjacent to school carpark. Trunk co dominant from 1m with a tight union between stems. This will ultimately become an area of structural weakness. Upper canopy well developed though minor branch congestion present.	Remove branch congestion	C2	20
944	Sycamore <i>Acer pseudoplatanus</i>	Early mature	Good	Growing through boundary hedge. Self-seeded and in close proximity to boundary fence. A relatively well developed specimen with no visible defects.	No action necessary	C2	15-20
945	Birch <i>Betula pendula</i>	Young	Good	A well developed specimen located a courtyard area. No visible defects but in close proximity to neighboring ash. Long term potential reduced as a result.	No action necessary	B2	20
946	Oak <i>Quercus robur</i>	Young	Good	A well developed specimen located a courtyard area. No visible defects but in close proximity to neighboring birch. Long term potential reduced as a result.	No action necessary	B2	10-15

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Category	Useful life expectancy
947	Whitbeam <i>Sorbus aria</i>	Early mature	Fair	A poorly developed specimen adjacent to boundary fence. Multi stemmed from base with congestion and included bark between stems. Basal suckers also present and crown poorly developed. Long term potential limited.	Remove basal suckers	C2	10
948	Ash <i>Fraxinus excelsior</i>	Early mature	Good	Located within a lawn area this is a relatively well developed specimen. No sign of ash dieback present.	No action necessary	B2	20-30
949	Norway maple <i>Acer platanoides</i>	Early mature	Poor	Located within a lawn area. Stem missing from base with good recovery reaction on bark at this point.	No action necessary	C1	20-30

7. Tree measurements

Tree No.	Height m.	D.B.H mm.	Spread m. N,E,S,W	Clear Stem N,E,W,W	Root Protection Diameter m.
501	16	380	4;3;3;4	0,0,0,0	2.0
502	23	1050	7;5;7;6	3,0,0,0	12.0
503	8	170	1,1,1,1	1,1,1,1	2.0
504	8	180	1,1,1,1	0,0,0,0	2.2
505	10	180	1,1,1,1	0,0,0,0	2.2
506	11	170	1,1,1,1	0,0,0,0	2.0
507	5	160	1,1,1,1	0,0,0,0	1.9
508	6	210	1,1,2,1	2,2,1,1	NA
509	4	170	1,1,1,1	0,0,0,0	2.0
510	9	230	1,2,1,1	1,0,2,3	2.2
511	19	330	0,1,1,1	2,2,1,3	3.1
512	20	230	0,1,1,1	3,3,3,5	2.2
513	20	240	0,1,1,1	8,0,0,8	2.3
514	23	270	0,1,2,0	2,2,2,2	2.5
515	20	360	0,1,1,1	4,2,4,4	NA
516	20	230	0,1,0,0	4,2,4,4	2.2
517	20	230	0,1,1,0	0,0,0,5	2.2
518	20	230	1,2,1,1	2,2,2,2	2.2
519	20	190	0,0,1,0	4,0,0,4	1.8
520	20	240	0,2,0,1	5,0,5,2	2.3
521	20	280	1,2,1,1	2,1,1,2	2.6
522	20	230	1,2,1,1	1,0,1,3	2.2
523	20	320	1,1,1,1	2,2,3,3	3.0
524	18	220	1,1,1,1	1,1,1,1	2.0
525	20	270	1,1,1,1	2,0,2,2	2.5
526	20	260	2,2,1,1	3,1,3,3	2.5
527	20	220	1,1,1,1	6,6,6,6	2.0
528	20	220	1,1,1,1	3,3,3,2	2.0
529	20	230	1,1,1,1	0,0,0,0	2.2
530	20	370	1,2,1,1	3,3,3,3	3.5
531	20	260	1,2,1,1	2,1,2,2	2.4
532	Tag not in use				
533	18	240	1,1,1,1	4,0,0,4	2.3
534	20	320	0,1,1,1	4,1,4,1	3.0
535	20	270	1,1,1,1	4,1,4,4	2.5
536	20	240	1,2,1,1	3,2,3,3	2.3
537	19	220	1,1,1,1	3,1,3,3	2.0
538	20	260	1,2,1,1	3,3,3,3	2.4
539	19	280	2,2,1,1	2,1,2,2	2.6
540	22	320	1,2,1,1	6,4,6,4	3.0
541	23	310	1,2,1,1	4,4,4,4	2.9
542	20	330	1,2,1,1	1,1,1,1	3.1
543	16	190	1,3,1,1	2,2,4,2	1.8
544	20	260	2,1,1,1	3,1,1,3	2.4
545	20	310	2,2,1,1	2,2,2,2	2.9
546	17	240	1,1,1,1	4,4,4,4	2.3
547	16	230	0,2,1,1	1,1,2,2	2.2
548	20	280	1,1,1,1	5,5,5,5	2.6
549	20	310	2,2,1,1	2,1,1,1	2.9
550	20	330	2,2,1,1	4,3,2,2	3.1
551	20	270	2,1,1,1	1,0,2,3	2.5
552	20	260	1,2,1,1	1,1,4,1	2.4
553	19	240	2,1,1,1	3,3,3,3	2.3
554	10	190	2,0,1,2	2,3,3,2	1.8
555	16	180	2,0,0,0	9,9,9,9	1.7

Tree No.	Height m.	D.B.H mm.	Spread m. N,E,S,W	Clear Stem N,E,W,W	Root Protection Diameter m.
556	20	400	1,1,2,1	3,3,3,3	3.7
557	13	240	1,1,1,1	0,0,0,0	NA
558	13	200	1,1,1,1	1,1,1,1	NA
559	13	200	1,1,1,1	0,0,0,0	NA
560	13	260	1,1,2,1	0,0,0,0	NA
561	12	190	1,1,1,1	1,1,1,1	1.8
562	15	280	1,1,2,2	0,0,0,0	NA
563	16	270	1,2,1,1	4,1,1,3	NA
564	17	230	1,2,1,1	8,8,8,8	NA
565	26	780	7;4;4;5	3,2,3,1	4.8
566	17	180	1,2,1,1	8,8,8,8	NA
567	24	520	7;7;4;3	2,1,1,2	4.1
568	10	180	0,2,1,1	4,2,1,1	NA
569	24	480	2;5;5;4.5;2	2,1,1,2	NA
570	25	460	2,1,1,2	4,1,3,4	4.1
571	25	480	2,3,2,2	3,1,1,1	4.8
572	25	580	5,3,1,2	2,1,2,2	4.6
573	1	340	3,2,1,1	4,1,2,2	4.1
574	21	660	5;4;5;2.5	2,2,2,2	4.6
575	14	320	1,3,1,2	8,2,3,3	NA
576	16	450	4,3,4,2	5,3,2,5	5.4
577	19	600	5;5;3.5;4.5	3.5E	4.2
578	19	500	3;5;2;4.5	4N	4.4
579	18.5	580	3;6;6;5	2,2,2,2	4.1
580	4	400	1;2;1;1	NA	4.8
581	19	420	4;5;3;3	2,2,2,2	4.6
582	20	460	5;4;4;5	2,2,2,2	4.3
583	21	230x2	5;6;3;5	3,2,2,2	3.3
584	18	310	2;2;2;2	3,3,3,3	NA
585	19	460	4;5;3;4.5	3,3,3,3	4.2
586	17	460	5;5;2;5	2,2,2,2	3.4
587	17.5	420	3;5;3;4	3,3,2,2	3.8
588	17	460	3;6;3;5.5	2,2,2,2	3.4
589	18	480	3;5;3;5	3,2,2,2	2.6
590	18	600	5;6;6;5	2,1,1,2	4.2
591	8.5	300	5;5;5;4.5;3	3E	2.5
592	12	240	2;2;3;2	4S	1.9
593	5	250	3;3;3;3	0,0,0,0	2.8
594	18	260	4;4;2;2	3,3,3,3	NA
595	16.5	620	5;5;6;2.5	3S	5.4
596	17.5	650	6;4;4;6.5	0,0,0,0	7.6
597	17.5	470	6;3;6;7	0,0,0,0	5.0
598	17.5	340	2,2,2,2	0,0,0,0	NA
599	17.5	390	3;1;5.5;1	0,0,0,0	4.7
600	16.5	350	4;1;4;1	0,0,0,0	4.0
601	8	250	2;2;2;2	0,0,0,0	2.5
602	7	240	3;3;3;3	0,0,0,0	2.3
603	8	370	4;4;4;4	0,0,0,0	3.8s
901	18.5	280	4;1;3;1	0,0,0,0	2.4
902	19	400	4;2;5.5;2	0,0,0,0	4.8
903	18.5	450	4;4;6;2	0,0,0,0	5.4
904	18.5	520	6;5;6;4	0,0,0,0	5.8
905	18	630	4.5;4.5;5.5	0,0,0,0	7.4
908	13	600	3,4,4,4	1,2,1,2	3.4
910	10	500	4;4;4;4	2,2,2,2	3.4
925	21	570	2,3,4,4	3,2,2,2	4.3
926	18	600	2,4,4,4	2,2,2,2	4.8
927	18.5	430	4;4;4;4	3,2,3,3	3.8

Survey carried out by: Ciaran Keating (BSc. Pl.Sc./Pl.Ecol., H.N.D. Hort., A.A. Tech Cert.)

Tree No.	Height m.	D.B.H mm.	Spread m. N,E,S,W	Clear Stem N,E,W,W	Root Protection Diameter m.
928	9	240	3;2;3;1	3,2,2,2	2.0
929	17	350	4;4;5;4;3.5	3,4,4,4	4.2
930	6	300	2.5;2;2;2	1,1,1,1	3.4
931	12	270	2;2;3;2	2,2,2,2	2.3
932	15	490	5;6;4;5	2,3,3,2	4.2
933	13	350	3;4;3;3	2,2,2,2	4.0
934	3.5	300	3;3;5;3	1,1,1,1	2.3
935	8	280	4;3;3;3	2,2,2,2	1.9
936	6	220	3;4;3;1	2,2,1,2	1.9
937	6	270	4;3;3;3	2,1,1,2	1.8
938	5.5	270	3.5;3.5;2;2	1,1,0,1	3.0
939	3	130	2,2,2,1	2,2,2,2	1.6
940	4	210	1,1,1,1	1,1,1,1	2.4
941	6.5	260	2;2;2;2	2,2,2,2	1.2
942	7	300	3;3;2;2	1,1,1,1	3.0
943	7	430	4;4;4;4	1,1,1,1	3.1
944	11	190	2,1,1,1	2,2,1,2	2.3
945	16	130	1,1,1,1	2,2,2,2	1.6
946	14	120	2,1,1,0	1,1,1,1	1.4
947	4	250	2,1,1,1	2,1,1,1	3.0
948	5	130	2;2;2;2.5	2,2,2,2	1.1
949	5	140	2;2;2;2	2,2,2,2	NA

8. Tree protection

Tree protection fencing must be erected before construction works commence and must be in accordance with BS 5837 (2012).

- a. Oil, bitumen, cement or other materials likely to be injurious to a tree should not be stacked or discharged within 10m of a bole, and materials generally should not be stacked or discharged within 5m of a bole. It is essential that allowance is made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.
- b. Concrete mixing should not be carried out within 10m of a tree.
- c. Fires should not be lit in a position where the flames could extend within 5m of foliage, branches or trunk, bearing in mind the size of the fire and the wind direction.
- d. As the majority of tree roots occur within the top 600mm of soil changes to soil levels within the root zone can have serious consequences for tree health.

Increases in soil levels within the root zone of trees can lead to root asphyxiation and ultimately to tree decline and/or death.

A reduction in soil levels may expose roots to drying out and/or being damaged and have the same effect on the tree as described above.

Tree root protection

The Root Protection Area should be calculated using as per Table 1 and/or Annex D (BS 5837 2012) as an area equivalent to a circle with a radius 12 times the stem diameter for single stem trees and 10 times basal diameter for trees with more than one stem arising below 1.5m above ground level.

Number of stems	Calculation
Single stem tree	$\text{RPA (m}^2\text{)} = \frac{(\text{stem diameter (mm)} @ 1.5 \text{ m} \times 12)^2 \times 3.142}{1000}$
Tree with more than one stem arising below 1.5m above ground level.	$\text{RPA (m}^2\text{)} = \frac{(\text{basal diameter (immediately above root flare (mm)} \times 10)^2 \times 3.142}{1000}$

9. References

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Mattheck and Breloer (1994). The body language of trees