

Arboricultural Assessment

Chivers Factory Site

Coolock

Dublin 17

| Project No. | Project name | Date | Revision |
|-------------|--------------|----------|----------|
| TCHI001 | Chivers | 21/09/17 | A |

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1. Client brief & Methodology

CMK Hort + Arb were commissioned by Plus Architecture on behalf of Platinum Land to undertake a survey of trees on the former Chivers site in Coolock, Dublin. The fieldwork was undertaken between the 13th and 14th of August 2017.

The survey is designed to be an independent analysis of the trees therefore this assessment does not take into consideration any plans for the future development of the site.

The survey methodology, 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).

2. General description of trees

The site is located adjacent to Greencastle Road to the north, Coolock Drive to the west with the Cadburys industrial site to the east and a retail centre to the south (Image 1). With the exception of the eastern side all of the boundaries are fully or partially screened with established plantings of trees / shrubs. The condition of the trees is fair to good but the long-term potential of the trees is limited (table 1).

The dominant species are hybrid black poplar (*Populus x euramericana*) and to a lesser degree Leyland cypress (*xCuprocyparis leylandii*). These are mainly located on the boundary with Greencastle road. This planting type extends into the neighbouring Cadburys site. The condition of the trees is generally good though their long-term potential may be limited and suitability questionable.

A number of the poplar have large extended lower limbs over the public road which have potential to be hazardous to high sided vehicles and there are very early signs of the development of bacterial canker (*Xanthomonas populi*). Poplar are generally short-lived trees and as this planting, with the exception of a few self-seeded specimens, is even aged and possibly composed of clones if a pathogen becomes established within the tree population then the decline of the entire population of poplar is likely. In addition, poplar are susceptible to storm damage and as they increase in size and maturity this susceptibility increases. In this instance the poplar trees have been categorised as C2 and given a long-term potential of 15-20 years. This is based on the trees characteristics as described above and their close proximity to a public road.

The screen planting on the western boundary with Coolock Drive is located on a mound. The planting is dominated by the evergreen shrub *Olearia x haastii* which has developed well and provides a dense and visually impenetrable screen. There are occasional poplar scattered throughout the planting and laurel (*Prunus laurocerasus*) is present toward the site edge of the planting. The southern boundary is similar in terms of its species composition but contains a number of elm (*Ulmus procera*) one of which has been identified for removal based on its condition.



Image 1. Site location

| Category | Number | % of total |
|----------|--------|------------|
| A | 0 | 0 |
| B | 2 | 3 |
| C | 62 | 96 |
| U | 1 | 1 |

Table 1. Tree Categories

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 other;
- 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 Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|--|--------------|-------------------|---|--|----------|------------------------|
| 1000 | Leyland cypress xCuprocyparis leylandii | Mature | Good | Located on northern boundary of site. Trunk multi stemmed from base with tight unions between stems. Upper canopy relatively well developed with no visible defects. Crown overhanging road with potential to impact on high sided vehicles. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 999 | Hybrid black poplar Populus x euramericana | Mature | Good | A relatively large specimen located on northern boundary of site. Minor storm damage to lower crown. Upper canopy relatively well developed though large extended limbs overhanging road. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 998 | Hybrid black poplar Populus x euramericana | Mature | Good | Located on northern boundary of site. Trunk multi stemmed from 2m with unions of mixed quality present. However no visible defects at present. Upper canopy relatively well developed. Over-extended limbs present over public road. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 997 | Leyland cypress xCuprocyparis leylandii | Early-mature | Fair | A sub-dominant specimen located within screen planting on northern boundary of site. No visible defects but growth restricted due to competition from neighbouring trees. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 996 | Hybrid black poplar Populus x euramericana | Mature | Good | A relatively well developed specimen located within screen planting on northern boundary of site. Crown relatively well developed though somewhat restricted toward west due to competition from neighbouring tree. Heavy ivy growth up trunk obscuring view for assessment but no visible defects. | Cut ivy | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|---|----------|-------------------|---|--|----------|------------------------|
| 995 | Hybrid black poplar Populus x euramericana | Mature | Good | Located within screen planting on northern boundary of site. Minor storm damage in lower crown. Upper canopy relatively well developed but slightly restricted toward east due to competition from neighbouring tree. Lower limbs with potential to impact on high sided vehicles using public road. | Remove storm damage. Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 994 | Hybrid black poplar Populus x euramericana | Mature | Fair | Located within screen planting on northern boundary of site. Trunk with a strong lean toward north due to competition from neighbouring trees. Upper canopy also restricted toward south due to competition from neighbouring trees. Suitable for retention within current sheltered environment only. Lower limbs with potential to impact on high sided vehicles using public road. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 993 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A relatively well developed specimen located within screen planting on northern boundary of site. Trunk co dominant from 2m with a tight union between stems but unlikely to be significant within current sheltered environment. Crown slightly restricted toward south. Lower limbs with potential to impact on high sided vehicles using public road. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 992 | Hybrid black poplar Populus x euramericana | Mature | Good | A relatively well developed dominant specimen located within screen planting on northern boundary of site. Trunk co dominant from 3.5m with a tight union between stems. Crown relatively well developed but lower limbs toward north with potential to impact. Lower limbs with potential to impact on high sided vehicles using public road. | Remove limbs with potential to impact on high sided vehicles | C2 | 10-15 |
| 991 | Leyland cypress xCuprocyparis leylandii | Mature | Fair | A sub dominant specimen forming an element of under canopy within screen planting on northern boundary of site. Growth restricted by neighbouring trees but no visible defects. | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|--|----------|-------------------|---|---|----------|------------------------|
| 990 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Lower limbs toward north with potential to impact on high sided vehicles using public road. Remaining crown relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |
| 989 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A relatively well developed multi stemmed specimen located within screen planting on northern boundary of site. Wide unions between stems. No visible defects. | No action necessary | C2 | 10-15 |
| 988 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A relatively well developed multi stemmed specimen located within screen planting on northern boundary of site. Wide unions between stems. No visible defects. | No action necessary | C2 | 10-15 |
| 987 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. No visible defects. | No action necessary | C2 | 10-15 |
| 986 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A well developed multi stemmed specimen located within screen planting on northern boundary of site. Wide unions between stems and no visible defects. | No action necessary | C2 | 10-15 |
| 985 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A slightly sub dominant specimen located within screen planting on northern boundary of site. Crown slightly restricted toward west due to competition from neighbouring trees however no visible defects. | No action necessary | C2 | 10-15 |
| 984 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. No visible defects but lower limbs toward north with potential to impact on high sided vehicles. | Cut back limbs with potential to impact on high sided vehicles. | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|--|----------|-------------------|---|---|----------|------------------------|
| 983 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. No visible defects but lower limbs toward north with potential to impact on high sided vehicles. | Cut back limbs with potential to impact on high sided vehicles. | C2 | 10-15 |
| 982 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A slightly sub dominant specimen located within screen planting on northern boundary of site. No visible defects but lower limbs toward north with potential to impact on high sided vehicles. Crown slightly restricted toward east due to competition from neighbouring trees but not significantly so. | Cut back limbs with potential to impact on high sided vehicles. | C2 | 10-15 |
| 981 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. No visible defects but lower limbs toward north with potential to impact on high sided vehicles using public road | Cut back limbs with potential to impact on high sided vehicles. | C2 | 10-15 |
| 980 | Leyland cypress xCuprocyparis leylandii | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Trunk co-dominant from 400cm with a wide union between stems. Lower limbs toward north with potential to impact on high sided vehicles using public road. No visible defects. | Cut back limbs with potential to impact on high sided vehicles. | C2 | 10-15 |
| 979 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. No visible defects. | No action necessary | C2 | 10-15 |
| 978 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Trunk co dominant from 2.5m with a wide union between stems. Light deadwood scattered throughout lower crown but unlikely to be significant or indicative of decline. Deadwood possibly indicative of early bacterial canker infection | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|--|--------------|-------------------|---|-----------------------------|----------|------------------------|
| 977 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Trunk co dominant from 3m with a wide union between stems. | No action necessary | C2 | 10-15 |
| 976 | Hybrid black poplar Populus x euramericana | Young | Good | A sub dominant specimen located to inner edge of screen planting on northern boundary of site. Self-seeded with vigorous growth. Long term potential may be reduced due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |
| 975 | Hybrid black poplar Populus x euramericana | Early-mature | Good | A well developed specimen which has probably self-seeded as located off the line of original planting. No visible defects but crown restricted toward north due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |
| 974 | Hybrid black poplar Populus x euramericana | Early-mature | Good | A well developed specimen which has probably self-seeded as located off the line of original planting. No visible defects but crown restricted toward north due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |
| 973 | Hybrid black poplar Populus x euramericana | Young | Good | A sub dominant specimen located to inner edge of screen planting on northern boundary of site. Self-seeded with vigorous growth. Long term potential may be reduced due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |
| 972 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Trunk co dominant from 3.5m with a wide union between stems. No visible defects. | No action necessary | C2 | 10-15 |
| 971 | Hybrid black poplar Populus x euramericana | Young | Good | A well developed specimen probably self seeded. No visible defects but crown slightly restricted toward east due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |
| 970 | Hybrid black poplar Populus x euramericana | Young | Good | A well developed specimen probably self seeded. No visible defects but crown slightly restricted toward east due to competition from neighbouring trees. | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|---|--------------|-------------------|---|-----------------------------|----------|------------------------|
| 969 | Hybrid black poplar Populus x euramericana | Young | Good | A well developed specimen self seeded or as located within a gap in screen planting a sucker from a tree no longer present. No visible defects. | No action necessary | C2 | 10-15 |
| 968 | Hybrid black poplar Populus x euramericana | Young | Good | A cluster of well-developed stems self seeded or as located within a gap in screen planting a sucker from a tree no longer present. No visible defects. | No action necessary | C2 | 10-15 |
| 967 | Hybrid black poplar Populus x euramericana | Young | Good | A relatively well developed self seeded specimen located within screen planting on northern boundary of site. Crown slightly restricted toward east due to competition from neighbouring trees but not significantly so. | No action necessary | C2 | 10-15 |
| 966 | Hybrid black poplar Populus x euramericana | Early-mature | Good | A cluster of stems with one dominant stem in centre of clump. | No action necessary | C2 | 10-15 |
| 965 | Hybrid black poplar Populus x euramericana | Young | Good | A well-developed specimen located within screen planting on northern boundary of site. Probably self seeded. Sub dominant to neighbouring tree to west with crown restricted toward west as a result. | No action necessary | C2 | 10-15 |
| 964 | Hybrid black poplar Populus x euramericana | Mature | Good | A large dominant specimen located within screen planting on northern boundary of site. Trunk co dominant from 1m with a wide union between stems. Deadwood may be indicative of early stage bacterial canker development. | No action necessary | C2 | 10-15 |
| 963 | Hybrid black poplar Populus x euramericana | Mature | Good | A large dominant specimen located within screen planting on northern boundary of site. No visible defects. | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|--|----------|-------------------|---|-----------------------------|----------|------------------------|
| 962 | Hybrid black poplar Populus x euramericana | Mature | Fair | A slightly sub dominant specimen located within screen planting on northern boundary of site. Trunk with a strong lean toward south due to competition from neighbouring tree. Lean not significant at present but tree suitable for retention within current sheltered environment only. | No action necessary | C2 | 10-15 |
| 961 | Hybrid black poplar Populus x euramericana | Mature | Good | A relatively well developed specimen located within screen planting on northern boundary of site. Trunk co-dominant from 6m with a wide union between stems. Upper canopy relatively well developed. | No action necessary | C2 | 10-15 |
| 960 | Hybrid black poplar Populus x euramericana | Mature | Fair | A slightly sub dominant specimen located within screen planting on northern boundary of site. Trunk becoming embedded in boundary fence. Canopy restricted toward south due to competition from neighbouring trees. Suitable for retention within current sheltered environment only. | No action necessary | C2 | 10-15 |
| 959 | Hybrid black poplar Populus x euramericana | Mature | Fair | A sub dominant specimen with crown restricted toward south and with trunk lean toward west due to competition from neighbouring trees. Lean not significant at present but unlikely to be suitable for retention outside current sheltered environment. | No action necessary | C2 | 10 |
| 958 | Hybrid black poplar Populus x euramericana | Mature | Good | A well developed specimen located within screen planting on northern boundary of site. Trunk co dominant from 300mm with a wide union between stems. Upper canopy relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |
| 757 | Fastigiate Hornbeam Carpinus betulus 'Fastigiate' | Mature | Good | A well developed specimen located within a central area of site. Branched to base. No visible defects. | No action necessary | B2 | 40 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|---|----------|-------------------|--|-----------------------------|----------|------------------------|
| 956 | Fastigate Hornbeam Carpinus betulus 'Fastigate' | Mature | Good | A well developed specimen located within a central area of sit. Branched to base. No visible defects. | No action necessary | B2 | 40 |
| 955 | Hybrid black poplar Populus x euramericana | Mature | Good | Located within screen planting on western boundary of site. Trunk co-dominant from base with a tight union between stems. However unlikely to be significant at present. Upper canopy relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |
| 954 | Hybrid black poplar Populus x euramericana | Mature | Good | A large multi stemmed specimen located within screen planting on western boundary of site. Union between stems appear sound and upper canopy is relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |
| 953 | Hybrid black poplar Populus x euramericana | Mature | Good | A large multi stemmed specimen located within screen planting on western boundary of site. Unions between stems appear sound though an area of included bark between two stems to south however this is unlikely to be significant at present. | No action necessary | C2 | 10-15 |
| 952 | Small-leaved lime Tilia cordata | Young | Good | A tall slender specimen located within screen planting on western boundary of site. Trunk co dominant from 0.65m with a tight union between stems. However, this is unlikely to be significant at present particularly within current sheltered environment. | No action necessary | C2 | 20 |
| 951 | Hybrid black poplar Populus x euramericana | Mature | Good | Located within screen planting on western boundary of site. Trunk co-dominant from 300mm with a tight union between stems. However this is unlikely to be significant at present. Upper canopy relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|---|--------------|-------------------|---|-----------------------------|----------|------------------------|
| 950 | Hybrid black poplar Populus x euramericana | Mature | Good | Located within screen planting on western boundary of site. Trunk co dominant from 100mm with a tight union and an area of included bark between stems. Upper canopy relatively well developed with no visible defects. | No action necessary | C2 | 10-15 |
| 949 | Elm Ulmus procera | Early-mature | Good | A relatively well developed specimen located within screen planting on southern boundary of site. No visible defects however long term potential may be limited by potential for contracting Dutch elm disease. | No action necessary | C2 | 10-15 |
| 948 | Elm Ulmus procera | Early-mature | Good | Located within screen planting on southern boundary of site. Trunk co-dominant from base with included bark between stems. Structurally weak at this point but scale of tree within screen planting limiting potential failure. Longer long term potential may be limited by contracting Dutch elm disease. | No action necessary | C2 | 10-15 |
| 947 | Elm Ulmus procera | Early-mature | Good | Located within screen planting on southern boundary of site. Trunk co-dominant from base with a tight union and an area of included bark between stems. Union between stems appears sound at present but may be a limiting factor in the trees longer long term potential. | No action necessary | C2 | 10-15 |
| 946 | Elm Ulmus procera | Early-mature | Poor | Located within screen planting on southern boundary of site. Trunk co dominant from base with an extensive area of included bark between stems. This is a potential failure point in this tree. | Fell | U | <10 |
| 945 | Hybrid black poplar Populus x euramericana | Mature | Good | A large dominant specimen located within screen planting on southern boundary of site. Trunk co dominant from 2.5m with a wide union between stems. Upper canopy relatively well structured with no visible defects. | No action necessary | C2 | 10-15 |

| Tag No. | Species | Age Cat. | General Condition | Comments | Preliminary Recommendations | Category | Useful life expectancy |
|---------|---|----------|-------------------|--|-----------------------------|----------|------------------------|
| 944 | Black poplar fastigate form Populus nigra 'fastigiata' | Mature | Good | A well developed specimen located within screen planting on southern boundary of site. No visible defects. | No action necessary | C2 | 10-15 |
| 943 | Hybrid black poplar Populus x euramericana | Young | Good | Located on western boundary of site. Probably self seeded. No visible defects. Basal suckers present. | No action necessary | C2 | 10-15 |
| 942 | Hybrid black poplar Populus x euramericana | Young | Good | A cluster of stems on western boundary of site. No visible defects | No action necessary | C2 | 10-15 |
| 941 | Hybrid black poplar Populus x euramericana | Young | Good | A cluster of stems on western boundary of site. No visible defects | No action necessary | C2 | 10-15 |
| 940 | Hybrid black poplar Populus x euramericana | Young | Good | A cluster of stems forming a combined canopy. No visible defects | No action necessary | C2 | 10-15 |

7. Tree measurements

| Tree No. | Height m. | D.B.H. mm. | Spread m. N,S,E,W | Clear Stem 1 st Cardinal point. M | Root Protection Diameter m. |
|----------|-----------|------------|----------------------|--|-----------------------------------|
| 1000 | 16 | 480 | 6,5,5,5 | 0.1N | 5.7 |
| 999 | 21 | 840 | 8,8,4,4 | 0.5E | 10 |
| 998 | 18 | 490 | 8,6,4,4 | 0.5N | 5.8 |
| 997 | 6 | 250 | 3,4,3,3 | 0.5N | 3 |
| 996 | 22 | 440 | 6,6,4,2 | 1S | 5.2 |
| 995 | 22 | 420 | 8,6,3,4 | 0.5S | 5 |
| 994 | 22 | 310 | 7,2,4,4 | 4N | 3.7 |
| 993 | 14 | 330 | 5,1,2,2 | 2N | 3.9 |
| 992 | 22 | 610 | 8,6,4,4 | 0.3 S | 7.3 |
| 991 | 12 | 250 | 5,3,2,2 | 0.5N | 3 |
| 990 | 22 | 520 | 7,7,4,6 | 0.5S | 6.2 |
| 989 | 16 | 740 | 5,6,4,4 | 0.3 | 8.8 |
| 988 | 16 | 720 | 5,6,4,5 | 0S | 8.6 |
| 987 | 22 | 470 | 5,4,4,4 | 1S | 5.6 |
| 986 | 16 | 520 | 4,4,4,4 | 0.3W | 6.2 |
| 985 | 16 | 340 | 4,4,4,2 | 0.3S | 4 |
| 984 | 21 | 370 | 4,5,3,3 | 4N | 4.4 |
| 983 | 16 | 410 | 5,5,3,4 | 0.3S | 4.9 |
| 982 | 16 | 440 | 6,5,1,3 | 0.3S | 5.2 |
| 981 | 22 | 420 | 5,4,3,3 | 2N | 5 |
| 980 | 22 | 520 | 6,5,3,3 | 0S | 6.2 |
| 979 | 22 | 460 | 5,5,3,3 | 0.75N | 5.5 |
| 978 | 22 | 390 | 6,5,3,3 | 0.75N | 4.6 |
| 977 | 22 | 420 | 6,6,3,3 | 0.75N | 5 |
| 976 | 11 | 150 | 1,3,1,1 | 0.3W | 1.8 |
| 975 | 22 | 210 | 1,3,1,1 | 1S | 2.5 |
| 974 | 22 | 270 | 1,3,1,1 | 2S | 3.2 |
| 973 | 22 | 180 | 1,3,1,1 | 0.3W | 2.1 |
| 972 | 22 | 460 | 5,4,3,3 | 1E | 5.5 |
| 971 | 22 | 190 | 2,2,1,2 | 0.5S | 2.2 |
| 970 | 20 | 150 | 2,1,0,2 | 1N | 1.8 |
| 969 | 15 | 180 | 1,2,1,2 | 200mm N | 2.1 |

| Tree No. | Height m. | D.B.H. mm. | Spread m. N,S,E,W | Clear Stem 1 st Cardinal point. M | Root Protection Diameter m. |
|----------|-----------|------------|----------------------|--|-----------------------------------|
| 968 | 11 | 140av | 2,1,2,2 | 1N | 3 |
| 967 | 16 | 150 | 1,1,0,2 | 0.3S | 1.8 |
| 966 | 14 | 170av | 3,3,3,3 | 1N | 3 |
| 965 | 22 | 220 | 3,3,3,3 | 1N | 2.6 |
| 964 | 22 | 550 | 6,5,5,5 | 0.3N | 6.6 |
| 963 | 22 | 420 | 5,5,4,3 | 2.5N | 5 |
| 962 | 18 | 280 | 1,5,1,1 | 0.5S | 3.3 |
| 961 | 22 | 320 | 2,2,1,2 | 2S | 3.8 |
| 960 | 18 | 270 | 5,0,2,2 | 6N | 3.2 |
| 959 | 18 | 350 | 3,0,0,4 | 5W | 4.2 |
| 958 | 22 | 670 | 3,3,3,4 | 1S | 8 |
| 757 | 9 | 290 | 2,2,2,2 | 0 | 3.4 |
| 956 | 8 | 280 | 2,2,2,2 | 0 | 3.3 |
| 955 | 22 | 450 | 3,3,3,3 | 6W | 5.4 |
| 954 | 22 | 620 | 6,6,6,6 | 3W | 7.4 |
| 953 | 22 | 1100 | 6,6,6,6 | 2W | 13 |
| 952 | 22 | 220 | 3,3,3,3 | 1S | 2.6 |
| 951 | 22 | 570 | 6,6,6,6 | 1S | 6.8 |
| 950 | 12 | 510 | 4,4,4,4 | 0.4S | 6.1 |
| 949 | 12 | 320 | 4,3,3,3 | 1S | 3.8 |
| 948 | 12 | 250 | 2,2,2,2 | 3S | 3 |
| 947 | 12 | 470 | 4,4,4,4 | 3N | 5.6 |
| 946 | 12 | 350 | NA | NA | NA |
| 945 | 20 | 510 | 6,5,3,4 | 0.3N | 6.1 |
| 944 | 22 | 590 | 3,3,3,3 | 4S | 7 |
| 943 | 13 | 150 | 1,1,2,1 | 0 | 1.8 |
| 942 | 13 | 140 av | 1,2,2,2 | 2S | 3 |
| 941 | 11 | 140 | 1,1,1,1 | 0 | 1.6 |
| 940 | 9 | 140 | 1,1,1,1 | 0 | 1.6 |

8. Site images



Image 2. View of northern boundary planting of poplar and Leyland cypress.



Image 3. View of western boundary shelter-belt planting. Note dense screen provided by Olearia x haastii with poplar to rear of image.



Image 4. Fastigiate hornbeam #946 & 947 within internal area of site



Image 5. View of southern boundary. Note dense screen of *Olearia x haastii* with occasional poplar.



Image 6. View of western boundary planting from Greencastle Road.



Image 7. View of western boundary planting from Coolock Drive.

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

10. References

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

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