Arboricultural Report

Limerick City Street Trees at: -

1. Brookville Avenue
2. Childers Road
3. Nessan Road

Location: -
Limerick City, Co. Limerick

Prepared for: -
Limerick City & County Council – Active Travel (Pedestrian and Cycle Scheme)

Prepared by: -
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Contents

1.0 Introduction

1.1 Veon Ltd. has been commissioned by Active Travel to assess the tree and hedge vegetation at four locations around Limerick City and to produce an arboricultural report containing the following.

1.2 Tree Constraints Plan: a scaled site plan showing the position of surveyed trees and hedges with their crown spreads, estimated root zones, tag numbers and category grade per BS 5837: 2012. (See the three Tree Constraints drawings attached).

1.3 Tree Survey Schedule: a detailed assessment of the surveyed trees and hedges (See Tree Survey Schedule attached).

1.4 Site Description: a summary of the site area with the context of the trees and hedges within it, including pictures and maps to aid the description.

1.5 Arboricultural Impact Assessment: a detailed assessment of the likely impacts of the proposed layout on the surveyed trees and hedges; along with a summary table showing the number and percentages of trees to be retained, removed and impacted.

1.6 Tree Protection Plan: a scaled site plan of the proposed layout, showing and distinguishing (by colour coding) trees and hedges to be retained, removed and impacted; showing alignments of Tree Protection Fencing and areas to be excluded from construction activities. Root Protection Areas (RPAs) of all trees and hedgerows will be clearly shown on this drawing, along with site specific notes on how the trees will be protected (See the three Tree Protection Plan drawings attached).

1.7 Arboricultural Method Statement: clear and practically achievable measures to be used during the construction period, for the protection and management of all trees and hedges that are to be retained.

2.0 Site Inspection and Methodology

2.1 The site area was assessed between the 23rd and 25th of August 2022. Trees were visually assessed from ground level and the information recorded is in accordance with BS 5837: 2012 Trees in Relation to Design, Demolition and Construction. This report should be read in conjunction with the attached site drawings/maps and Tree Survey Schedule attached.

2.2 Our Tree Survey records the following: -

- Tree number (metal tags attached to each tree @ 1.5m). Trees that were too small to tag have been numbered numerically.
- Tree species (scientific and common name).
- Positions plotted on ArcGIS software (accurate to <20cm).
- Measurements - height (m), trunk diameter (mm), crown spread (m), lowest branch (m) and estimated rootzone (m).
- Age class (young, semi mature, early mature, mature, over mature).
- Physiological condition (good, fair, poor, dead).
- Structural condition (good, fair, poor).
- Comments and observations e.g., structural issues, diseases.
- Target areas e.g., roads, houses.
- Management recommendations (irrespective of any proposals).
- Life Expectancy (LE) in years.
- Category grade (see end of report for BS 5837: 2012 category grading system)
- Digital photograph of each tree.

3.0 Overall Site Description

3.1 The three areas surveyed are listed below:

1. Brookville Avenue
2. Childers Road
3. Nessan Road

Brookville Avenue:

3.2 This area is c.1km in length, beginning at the western end of Brookville Avenue where it meets Ennis Road, and commencing at the eastern end where it meets Cratloe Road.

3.3 The trees are located on the northern and southern side of busy public roads and are mainly of an early mature age class, with some semi-mature and young trees also present; they were planted as part of the landscaping of this area in the past.

3.4 The majority of trees are growing out of grass verges with hard surfacing around them, this will reduce their Useful Life Expectancy, with two trees (Tree Nos.1728 & 1734), already in decline, given Category U ratings <10 years.

3.5 The main tree species in this area is Norway maple (*Acer platanoides*), with some rowan (*Sorbus aucuparia*), sycamore *(Acer psuedoplatanus*) and hornbeam (*Carpinus betulus*) also present.

3.6 Overall, the trees in this area are in good condition. The majority form an avenue of trees that line both sides of the road at wide spacings and are a prominent feature in the local landscape; they hold more merit collectively than as individuals.

3.7 The trees that line the avenue have been pruned in the past at a height of c.3m, with multiple-stemmed regrowth from these pruning points. I suspect there is a pollarding cycle in place.

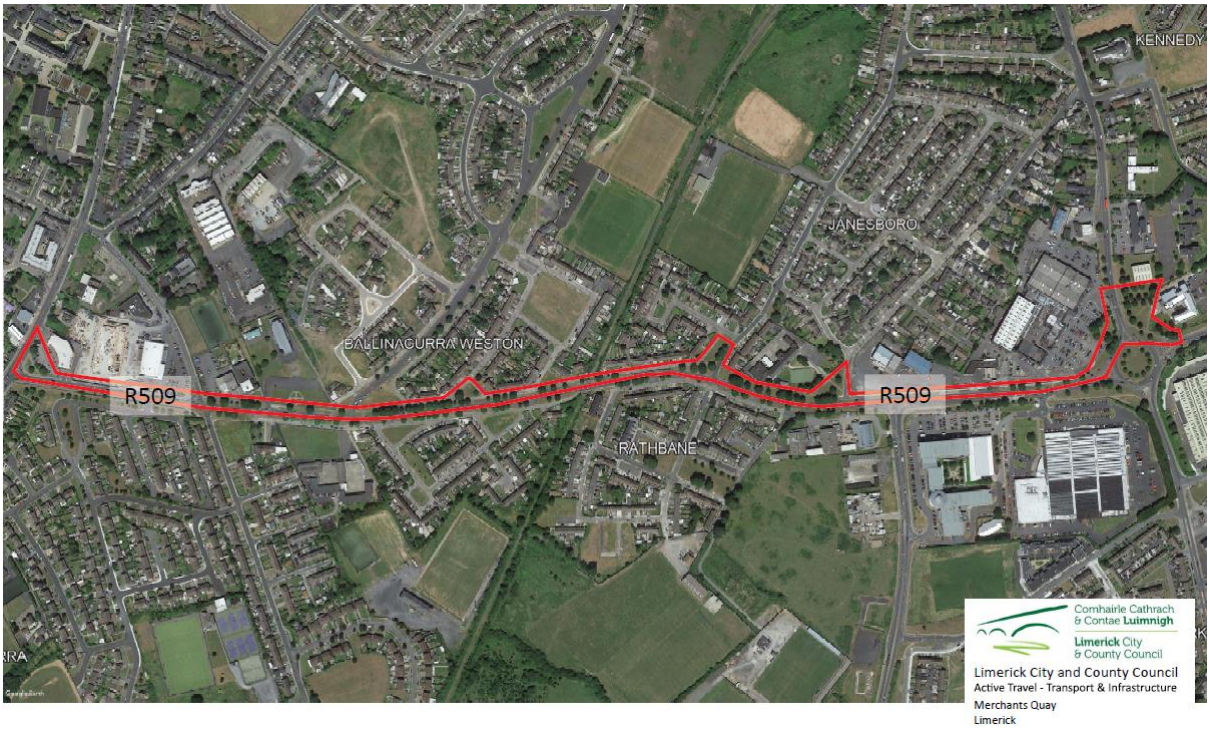
A rowan and red Norway maple in the narrow grass verge next to Sheelin Road.

Avenue consists mostly of Norway maples in narrow, grass verges. I suspect soil and root damage from trenching has resulted in tip-dieback to the smaller rowan (Tree No.1728) in the left background.

Red line shows where trees were pollarded in the past.

hornbeams growing on open grass areas at the Cratloe roundabout.

Childers Road:



3.8 The trees are located on the northern side of a busy public road and are mainly of an early mature age class, with some semi-mature trees also present; they were planted as part of the landscaping of this area in the past.

3.9 The majority of trees are growing out of grass verges with hard surfacing around them, this will reduce their Life Expectancy. Tree Nos 1622, 1623, 1624, 1629, 1630, 1631 are in decline from ash dieback (*Hymenoscyphus fraxineus*); and Tree No.1705, an over-mature sycamore, has extensive basal decay and is within falling distance of Le Chéile National School, all of these trees have been given Category U ratings <10 years (see Tree Survey Schedule attached for management recommendations).

3.10 The main tree species in this area is Norway maple (*Acer platanoides*), with some rowan (*Sorbus aucuparia*), sycamore *(Acer psuedoplatanus*), hornbeam (*Carpinus betulus*), ash (*Fraxinus excelsior),* oak *(Quercus robur),* Himalayan birch (*Betula utilis* var. *jacquemontii*), field maple (*Acer campestre*), fastigiate elm (*Ulmus × hollandica* 'Fastigiata'), lime (*Tilia* spp.), London plane (*Platanus × hispanica)* and silver maple (*Acer saccharinum*) also present.

3.11 Overall, the trees in this area are in good condition. They form a fragmented line of trees on the northern side of the public road and are a prominent feature in the local landscape; they hold more merit collectively than as individuals.

Tree No.1622, located at the Costcutter carpark, is infected with ash dieback.

Line of Norway maples in narrow, grass verge next to the West End Youth Centre.

Line of Norway maples in a wider, grass verge next to Ballyclough Avenue.

Tree No.1691 roots lifting the surrounding tarmac path next to Circle K Roxboro.

Mixed species group of trees growing with space to develop on the open grass area next to Le Chéile National School.

Church Hill Meadows:

3.12 This area is c.770m in length, beginning at the eastern end of Church Hill Meadows where it meets Dooradoyle Road, and commencing at the western end where it meets Ballycummin Road.

3.13 Overall, the trees in this area are in good condition. They form a fragmented line of trees on the northern side of the public road and are a prominent feature in the local landscape; they hold more merit collectively than as individuals.

3.14 The trees are located on the northern side of a not-so-busy road and are mainly of an early mature age class, with some semi-mature and young trees also present; they were planted as part of the landscaping of this area in the past.

3.15 The majority of trees are growing out of grass verges with hard surfacing around them, this will reduce their Useful Life Expectancy. Some trees are growing in the open grass areas behind the wall that divides the 'The Forts' from the main road.

3.16 The tree species in this area includes Norway maple (*Acer platanoides*), rowan (*Sorbus aucuparia*), sycamore *(Acer psuedoplatanus*), whitebeam (*Sorbus aria),* lime *(Tilia* spp.*),* cherry (*Prunus avium),* birch *(Betula pendula),* London plane *(Platanus x hispanica),* hawthorn *(Crataegus monogyna),* alder *(Alnus glutinosa),* purple plum (*Prunus cerasifera '*Nigra'*),* Italian alder (*Alnus cordata)* and black poplar (*Populus nigra).*

3.17 Overall, the trees in this area are in good condition. One of the larger trees, Tree No.1944 (Italian alder), has an included bark formation between stems and would

benefit from pruning to reduce pressure on this potentially structurally weak union (see Tree Survey Schedule attached for management recommendations).

Group of cherries and whitebeams in a gravel bed at the corner of Church Hill Meadows and Dooradoyle Road. Trees in the background seen in the open grass area of the 'The Forts'.

Tree No.1928, Leopoldii sycamore, beginning to interfere with house in 'The Forts'.

Tree No.1944 (Italian alder) on the right - located at Gallery Lane - would benefit from pruning to reduce pressure on included bark union.

Tree No.1952, a black poplar, growing beneath the overhead utility wire out of Hedge No.2 (Lawson cypress) at Bell View. It will interfere with the wire in several growing seasons and require pruning to clear.

Nessan Road:

3.18 This area is c.510m in length, beginning at the southern end of Nessan Road - Father Russell Road roundabout, and commencing at the northern end next to Crescent Shopping Centre.

3.19 The trees are located on the eastern and western side of the busy public road and are mainly of an early mature age class, with some semi-mature and young trees also present; they were planted as part of the landscaping of this area in the past.

3.20 A lot of the trees are growing out of grass verges, with hard surfacing around them, this will reduce their Useful Life Expectancy. There is a cluster of trees located in the small park area on the southern side of Ballinacurra Road and they provide a valuable green area in the urban environment.

3.21 The species in this area include Norway maple (*Acer platanoides*), rowan (*Sorbus aucuparia*), sycamore *(Acer psuedoplatanus*), lime *(Tilia* spp.*),* hawthorn *(Crataegus monogyna),* Turkish hazel (*Corylus colurna*), Italian alder (*Alnus cordata),* hornbeam (*Carpinus betulus*), beech *(Fagus sylvatica),* ash (*Fraxinus excelsior),* field maple (*Acer campestre),* horse chestnut *(Aesculus hippocastanum),* birch *(Betula* spp.), oak (*Quercus* spp.), fastigiate elm (*Ulmus × hollandica* 'Fastigiata') and Japanese maple (*Acer palmatum).*

3.22 Overall, the trees in this area are in good condition, except for Tree No.1832 which is in decline from ash dieback and positioned next to the public road and path (see Tree Survey Schedule attached for management recommendations).

Group of hornbeams situated on the roundabout at Nessan Road - Father Russell Road.

Cluster of trees growing in the small park area opposite May Park.

A line of lime trees growing out of the grass verge between Ballincurra Road and Ballykeefe Estate.

Group of trees on the northern and southern side of the road, and a single tree on the roundabout at McDonald's.

4.0 Category Grade Table & Percentages

The following tables break down the category grading of surveyed trees per the cascade chart in BS 5837: 2012.

Brookville Avenue	
Category Grade	**Tag No.**
Category U 2 Trees (2%)	1728, 1734
Category C 17 Trees (17%)	1724, T1, T2, T3, 1726, 1735, 1749, 1752, 1753, 1762, 1767, 1801 Tree Group No. 1 (5 trees)
Category B (81%) 84 Trees 1 Tree Line	1725, 1727, 1729, 1730, 1731, 1732, 1733, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1750, 1751, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1763, 1764, 1765, 1766, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1802, 1803, 1805, 1806, 1807, 1808, 1809, 1811, 1812, 1813, 1814, 1810, 1815, 1816, 1817, 1818 Tree Line No.1
Category A 0 Trees (0%)	
Total	**102 Trees**

Childers Road	
Category Grade	**Tag No.**
Category U 7 Trees (6%)	1622, 1623, 1624, 1629, 1630, 1631, 1705
Category C 15 Trees (14%)	1621, 1626, 1627, 1628, 1634, 1635, 1637, 1651, 1666, 1670, 1682, 1689, 1690, 1691, T5
Category B 82 Trees (80%)	1625, 1632, 1633, 1636, 1636, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1667, 1668, 1669, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1683, 1684, 1685, 1686, 1687, 1688, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723
Category A 0 Trees (0%)	
Total	**104 Trees**

Nessan Road	
Category Grade	**Tag No.**
Category U 1 Tree (1%)	1832
Category C (52%) 68 Trees 1 Hedge	1821, 1825, 1826, 1827, T4, 1829, 1833, 1834, 1835, 1836, 1842, 1843, 1844, 1846, 1848, 1849, 1850, 1857, 1858, 1859, 1862, 1863, 1864, 1866, 1867, 1870, 1872, 1873, 1899, 1904 Tree Group Nos. 2 (10 trees), 3 (3 trees), 4 (4 trees), 5 (5 trees), 6 (3 trees), 7 (9 trees), 8 (2 trees), 9 (2 trees) Hedge No. 1
Category B (47%) 62 Trees	1819, 1820, 1822, 1823, 1824, 1828, 1830, 1831, 1837, 1838, 1839, 1840, 1841, 1845, 1847, 1851, 1852, 1853, 1854, 1855, 1856, 1860, 1861, 1865, 1868, 1869, 1871, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1900, 1901, 1902, 1903, 1905, 1906, 1907, 1908, 1909, 1910
Category A (0%) 0 Trees	
Total	**131 Trees, 1 Hedge**

5.0 Arboricultural Impact Assessment

The objective of this arboricultural impact assessment is to assess the impact of the proposed design layout on the existing tree and hedge vegetation. The attached 'Tree Protection Plan' drawings highlight the trees to be retained, removed and impacted – and shows how the trees can be protected in impacted areas.

The following tables give a breakdown of the trees to be removed & impacted to facilitate the design layout; and their category grade per the cascade chart in BS 5837: 2012.

Brookville Avenue			
Category Grade	**Remove to Facilitate Design Layout**	**Remove for Health & Safety**	**Impacted by Design Layout**
Category U			1734 **1 Tree (0.8%)**
Category C			1735, 1801 **2 Trees (2%)**
Category B			1763, 1791, 1792, 1802 **4 Trees (4%)**
Category A			

Childers Road			
Category Grade	**Remove to Facilitate Design Layout**	**Remove for Health & Safety**	**Impacted by Design Layout**
Category U		1705 **1 Tree (1%)**	
Category C			1634, 1635, 1637, 1691, T5 **4 Trees (5%)**
Category B	1646 **1 Tree (1%)**		1632, 1633, 1636, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1647, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1691, 1692, 1693, 1694 **25 Trees (24%)**
Category A			

Nessan Road			
Category Grade	**Remove to Facilitate Design Layout**	**Remove for Health & Safety**	**Impacted by Design Layout**
Category U		1832 **1 Tree (1%)**	
Category C	1904, Tree Line No.1 (10metres) **1 Tree (1%)**		1825, 1826 **2 Trees (2%)**
Category B	1839, 1840, 1860, 1861, 1902, 1903, 1905, 1906, 1907, 1908 **10 Trees (8%)**		1868, 1869, 1890 **3 Trees (2%)**
Category A			

- The impact to the above tree's Root Protection Areas will be due to the resurfacing and construction of the roads and paths.
    - No-Dig methods, using Cell-Web or similar, will be applied between ground level and the finished surface (see Arboricultural Method Statement below for the application of Cell-Web).
    - Where No-Dig methods cannot be used, roots smaller than 25mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or of 25mm diameter and over should be severed only following consultation with an arboriculturist, as such roots might be essential to the tree's health and stability.
    - Where No-Dig methods cannot be used and surfaces are to be constructed close to a trees base, these trees will likely need to be removed – the project arboriculturist will be consulted in these instances.
    - Widening of footpaths must be to the side where there is less infringement on Root Protection Areas.
    - See notes on the 'Tree Protection Plan' drawings attached for where these mitigation measures should be implemented.

- Trees needed for removal are to facilitate the design layout.
    - Every tree removed will be replaced elsewhere.
    - If the Root Protection Area is retained, and the soil profile it is growing in, then it will be possible to replant these trees elsewhere, following consultation with an arboriculturist. Additional planting should also be carried out in the likelihood that replanted trees fail to establish.
    - The category B trees needed for removal are landscape features due to their collective group growing structures, as such, they will be more easily replaced by select standard trees, compared to replacing large size category B trees that are individual landscape features.

6.0 Arboricultural Method Statement

6.1 This arboricultural method statement provides information on how trees will be protected throughout the development. The attached 'Tree Protection Plan' will accompany this method statement and a copy of both will be retained in the site offices for reference. The protection of the woody vegetation is divided into three stages: **Pre-Construction stage, Construction Works Stage, Post-Construction Stage.**

6.2 Pre-Construction Works

6.2.1 The project arboriculturist will work with the design team to show how and where trees can be less impacted and how trees can have less impact on the development.

6.2.2 The design team will adjust the layout where practicable to reduce these impacts.

6.2.3 Any issues in relation to the trees on site will be discussed with the project arboriculturist and local authority prior to the works being carried out.

6.3 Site Meetings

6.3.1 Prior to construction work, meetings will be necessary between the project arboriculturist, the development team and local authority, so that the tree protection plan, and trees for removal and retention, can be agreed upon.

6.4 Tree Works

6.4.1 Trees that need to be removed to facilitate the proposal, and the recommended tree works in the Tree Survey Schedule attached, will be carried out prior to construction activity on site. The tree surgery contractor will be insured, qualified and have a method statement detailing how they will undertake the works required. The tree works will follow the guidance of BS:3998 2010.

6.4.2 The removal of a tree will not cause damage to another tree or its surroundings. When stumps are to be removed or grinded using heavy machinery, any neighbouring tree's Root Protection Area (RPA).will be protected using ground guards or sheets of heavy-duty plywood butted together over a layer of compressible woodchip.

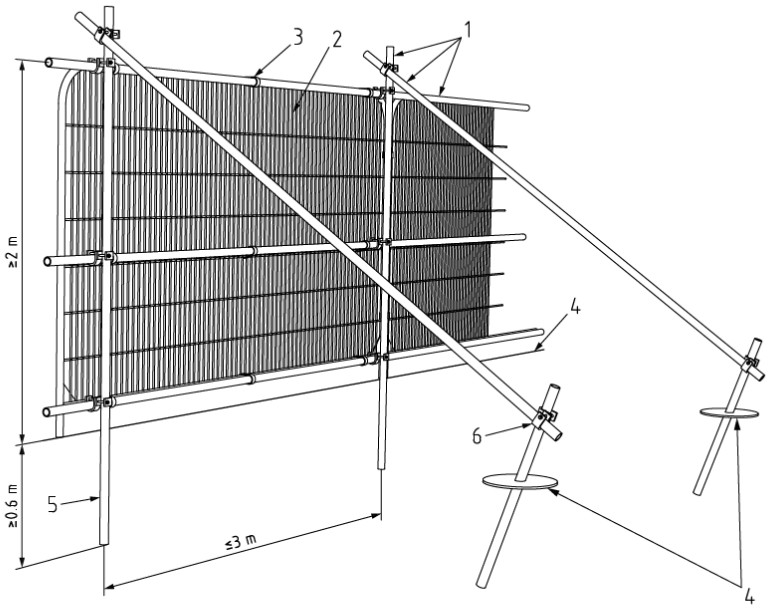
6.5 Tree Protection Fencing

6.5.1 Once the trees have been removed, the line of protective fencing will be erected per the 'Tree Protection Plan' attached. The area between the protective fence and trees is

the Construction Exclusion Zone (CEZ), this zone is necessary to protect the tree and its Root Protection Area.

6.5.2 The fencing will be 2.3m high, with vertical and horizontal scaffold bars well braced together with the verticals spaced out at a maximum of 3m centres (in some instances, site hoarding can serve as tree protective fencing), onto this, weld mesh panels will be securely fixed with wire or scaffold clamps:-

Default specification for protective barrier



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Where space is limited for the application of tree protective fencing, wooden tree protective boxes will be used:-

A wood frame around the trunk can be used to support a plywood surround.

6.5.3 All weather, 'Keep Out' signs will be secured to the fences:-

6.6 Site access, storage of material, work yards and staff car parking

6.6.1 These areas will be a minimum of 10 metres away from trees and away from slopes.

6.6.2 Storage area will be clearly sign posted so that all personnel know where to store materials.

6.6.3 Materials will be stored in containers and/or on pallets with plastic coverings in order to prevent soil from getting compacted and/or contaminated, respectively.

6.7 Ground Protection

6.7.1 Where traffic is expected within in a CEZ, and it has been approved by the project arboriculturist, ground protection will be used to dissipate the vertical load and prevent soil contamination. The ground protection will be a three-dimensional cellular confinement system, such as 'Cell Web' (see step by step instructions for 'Cell Web' installation below).

Step 1

- The existing ground cover vegetation (e.g., grass and weeds), if necessary, will be eradicated using an appropriate herbicide. Herbicides that can leach through the soil, e.g., products containing sodium chlorate, will not be used.
- Loose organic matter, woody vegetation and/or turf will be removed carefully using hand tools.
- If there is a delay in installing the surface following clearing, the soil surface will be covered immediately either with hessian sacking or plastic in order to prevent the surface drying out until the new surface is installed.

Step 2

- The non-woven, geotextile, fleece, separation filtration layer will be placed over the prepared ground surface, with dry joints overlapping by 300mm.

Step 3

- Constraints, such as treated timber or railway sleepers, will be placed along the edges to contain the fill material.

Step 4

- The cellular confinement system (Cell Web150-200mm) will be placed over the geotextile layer and the cell walls will be pinned and anchored open for infilling.

Step 5

- The infill material, 20-40mm clean sharp stone, will be filled into the open cells of the Cell Web in a 'roll-out' fashion so that the machinery is driving on the filled Cell Web. The infill material will be compacted to the desired density.

Step 6

- The Cell Web will be slightly surcharged with 25mm of 40-20mm clean angular stone.

6.8 Construction Works Stage

6.8.1 Once works have commenced on site, the project arboriculturist will be informed of any planned works within the Construction Exclusion Zone, so that a suitable protection plan can be put in place.

6.8.2 The project arboriculturist will monitor the trees for any decline during the development and make recommendations towards their health and safety as they arise.

6.9 Tree Protection Fencing

6.9.1 Throughout the construction phase, the tree protection fencing will remain in place, upright and rigid. It will be the main contractor's responsibility to check the fencing daily and have any faults immediately fixed.

6.9.2 Under no circumstances will the Construction Exclusion Zone (behind the Tree Protection Fencing) to be used for the storage of equipment or materials.

6.10 Working within the Construction Exclusion Zone

6.10.1 The project arboriculturist will be consulted when works are to occur behind the tree protection fencing, so that mitigation measures can be put in place e.g., ground guards or sheets of heavy-duty plywood butted together over a layer of compressible woodchip, or the use of three-dimensional cellular confinement systems.

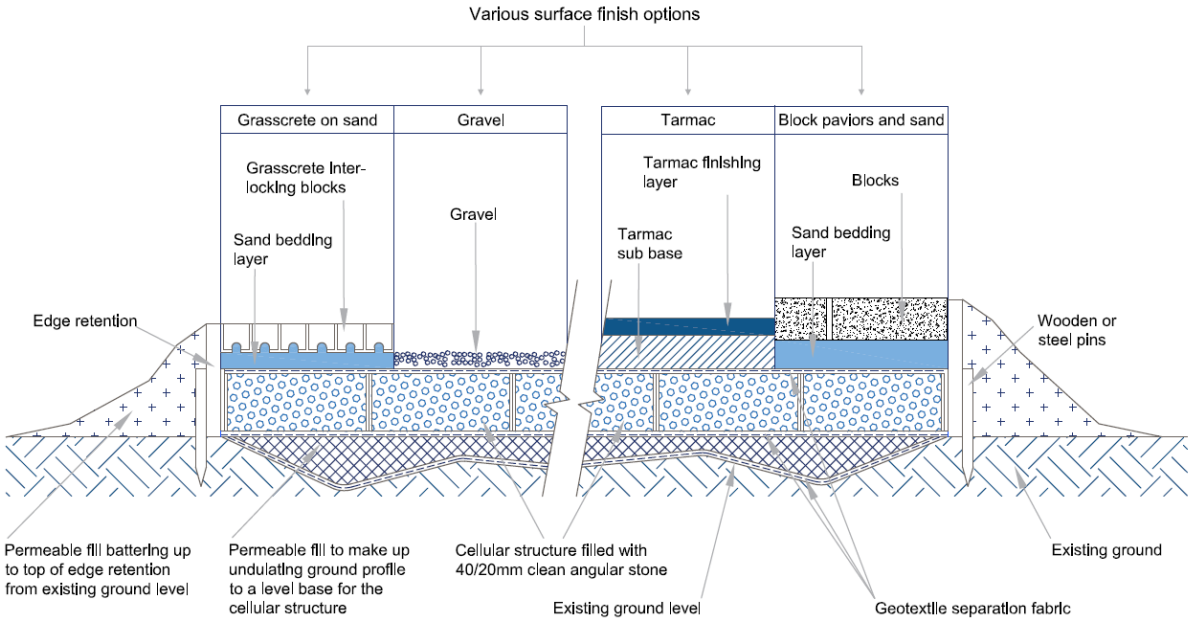
6.10.2 Where tree protection fencing is to be temporarily taken down for works within the CEZ, it will be stored in a secure location outside of the CEZ, before being reinstated after the works.

6.10.3 Ground protection for temporary works within the CEZ will be applied from outside the CEZ working in the way ('roll-out' method) on a singular route, and from inside the CEZ working away from the tree when being removed, this will reduce the potential for soil compaction.

6.10.4 Temporary portable barriers will be positioned at the edge of the temporary ground protection area to prevent personnel from entering into the unprotected Root Protection Areas during works.

6.10.5 All works will be carried out manually; no heavy machinery will be used within the CEZ.

6.10.6 Where permanent surfaces are to be installed within a RPA, No-Dig methods will be implemented and finished surfaces will be porous to allow gas and water movement (see No-Dig sample below).



Illustrative specification for no-dig cellular confinement surfacing with examples of finishing options.
Note: The final design must be site specific and detailed by an appropriate specialist.

6.11 Use of Cranes

6.12 If the use of cranes is expected to interfere with trees, then working space will be provided by facilitation pruning or temporarily tying back tree branches. Pruning or

tying will be undertaken in accordance with a specification prepared by the project arboriculturist.

6.13 The smallest crane practicable will be used to prevent potential damage to trees and soil compaction. If there is a large crane on site, then it may be more prudent to move materials around trees from a far as this will prevent soil compaction around trees.

6.14 To prevent damage to trees, a banksman will be used to direct the loads being lifted and there will be constant radio communication between the designated groundsmen and the crane operator.

6.15 Excavations

6.15.1 Excavations within a Root Protection Area will be avoided where possible. Where this is not possible, it will be viewed on site by the development team, local authority and the project arboriculturist, so that any potential impacts can be assessed and mitigated.

6.15.2 Excavations for strip foundations in a Root Protection Area will not be used. Instead, piling foundations will be used, using beams laid at or above ground level and cantilevered as necessary to avoid tree roots identified by site investigation.

6.15.3 Trial holes, using compressed air soil displacement (Air-Spade), or hand tools, will be made to a minimum depth of 600mm prior to installing piles, so that large roots (over 25mm diameter) can be avoided.

6.15.4 Roots <25mm in diameter may be pruned back using sharp cutting tools, such as a secateurs or hand pruning saw, leaving as clean a wound as possible. Roots occurring in clumps or of 25mm diameter and over will only be severed following consultation with the project arboriculturist, as such roots might be essential to the tree's health and stability.

6.15.5 If roots are to be left exposed overnight or for longer, they will be covered with soil removed from the pit or with hessian sack in order to reduce frost damage or drying out - hessian sack will be kept moist in prolonged dry periods, and dry in freezing temperatures. Hessian sack will be removed before the area is backfilled.

6.15.6 Ground protection will be used when installing piles within a RPA. e.g., ground guards or sheets of heavy-duty plywood butted together over a layer of compressible woodchip, or the use of three-dimensional cellular confinement systems. Gaps in the ground protection will be left for where the pile is to be installed.

6.15.7 Where piling is to be installed near to trees, the smallest practicable pile diameter will be used, as this reduces the possibility of striking major tree roots and reduces the size of the rig required to sink the piles, which reduces the potential of soil compaction.

6.15.8 If the rig is expected to interfere with the tree's crown, then working space may be provided by facilitation pruning or temporarily tying back tree branches. Pruning or tying will be undertaken in accordance with a specification prepared by the project arboriculturist.

6.15.9 A sleeved bored pile or screw pile will be used in order to protect the soil and adjacent roots from the potentially toxic effects of uncured concrete.

6.16 Services

6.16.1 Services will be routed outside of the Root Protection Area to avoid soil and root damage. Similarly, overhead services will be out of falling distance of trees to avoid damage.

6.16.2 If routing underground services through the RPA is unavoidable, trenchless insertion methods will be implemented, with entry and retrieval pits outside of RPA (see trenchless examples below).

Trenchless solutions for differing utility apparatus installation requirements

Method	Accuracy	Bore dia. [A]	Max. sub. [B] length	Applications	Not suitable for
	mm	mm	m		
Microtunnelling	<20	100 to 300	40	Gravity-fall pipes, deep apparatus, watercourse/ roadway undercrossings	Low-cost projects due to relative expense
Surface-launched directional drilling	≈100	25 to 1 200	150	Pressure pipes, cables including fibre optic	Gravity-fall pipes, e.g. drains and sewers [C]
Pipe ramming	≈150	150 to 2 000	70	Any large-bore pipes and ducts	Rocky and other heavily obstructed soils
Impact moling [D]	≈50 [E]	30 to 180 [F]	40	Gas, water and cable connections, e.g. from street to property	Any application that requires accuracy over distances in excess of 5 m

6.16.3 In order to avoid damage to roots when using trenchless insertion methods, the depth of the pit will be 750mm. Methods involving external lubrication of the equipment with materials other than water (e.g. oil, bentonite, etc.) will not be used when working within the RPA.

6.16.4 If the service route must pass through the RPA, it will be routed under the centre of the tree, where there are less roots.

6.16.5 If roots can be retained and protected, excavation using hand-held tools may be acceptable for shallow service runs – feeding the services between and under roots. Any exposed roots will follow the guidance in section 5.15.5.

6.16.6 Under no circumstances will machinery be used to excavate open trenches within a RPA.

6.16.7 See National Joint Utilities Group (NJUG) Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Volume 4, Issue 2 London NJUG 2007.

6.17 Finished Ground Levels & Landscaping

6.17.1 The existing ground levels of the Root Protection Area will be maintained and incorporated into the finished development. If the new ground level outside of the RPA is higher, then a retaining structure will be used to prevent water pooling around the tree. Similarly, a retaining structure or grading will be used when the finished ground level outside of the RPA is lower.

6.17.2 No heavy machinery will be used within the RPA. Landscaping will be done manually, and works within a RPA will follow the guidance in section 5.10.

6.17.3 If herbicide is to be used around retained trees, it will be systemic and not residual, spraying will also be kept as far away from retained trees as practicably possible.

6.18 The following is a list of additional activities that are not allowed within a Construction Exclusion Zone or within the vicinity of the trees being retained

6.18.1 Stockpiling of soil or rubble.

6.18.2 Burning rubbish.

6.18.3 Washing of machinery.

6.18.4 Attaching notice boards, cables, or other services to any part of the tree.

6.18.5 Using neighbouring trees as anchor points.

6.19 Post Construction Works

6.19.1 This development will not to be considered complete until all retained trees have been re-examined by the project arboriculturist and he is satisfied that they can be safely integrated into the finished development.

6.19.2 This report is for the sole use of the above-named client and refers to only those trees and hedgerows identified within. Its use by any other person(s) in attempting to apply its contents for any other purpose renders the report invalid for that purpose.

6.0 Limitations of Survey

The tree survey was conducted from ground level only, without the use of decay detection equipment. All findings, observations and recommendations are based on the knowledge and experience of the surveyor. Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of the inspection. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on multiple external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection. In the event of a falling tree causing damage to residential or non-residential buildings in their proximity, or to any person, any property public or private, or any mechanical vehicle or otherwise no liability will attach to this firm.

At your request we are providing you with AutoCAD drawings. Because the CAD information stored in electronic form can be modified by other parties intentionally or otherwise, without notice or indication of said modifications, Veon reserves the right to remove all indices of its ownership and/or involvement in material from each electronic medium not held in its possession. This material shall not be used by you or transferred to any other party for use in any other projects, additions to the current project or for any other purpose for which the material was not strictly intended by Veon without our express written permission. Any unauthorized modification or reuse of the material shall be at your sole risk, and you agree to defend, indemnify, and hold Veon harmless for all claims, injuries, damages, losses, expenses, and solicitors' fees arising out of the unauthorized modification or use of these materials. The recipient understands that the use of any project related computer data constitutes acceptance of the above conditions. On this basis, Veon is pleased to be able to provide CAD files related to the project.

BS 5837 – Survey Form Key

Tag No: Tag fixed to tree for reference
Species: Both scientific and common name are provided
Ht.: The height of the tree in metres
Stem diam: Stem diameter - diameter of the main stem in millimetres measured at 1.5m. This measurement forms the basis of the Root Protection Area calculation – that being the equivalent to a circle with a radius of 12 x the stem diameter
Crown spread: The radial spread of the crown from the centre of the tree, indicated at four cardinal points, north, south, east and west.
C.Ht: The height of the first significant branch, measured in metres
A: Average
T: Tree, **TL:** Tree Line, **TB**: Tree Belt, **TG**: Tree Group, **H**: Hedge, **SB**: Shrub Border
LE: Life Expectancy of the tree in years
Age classes:
Young: In the first fifth of its life expectancy
Semi-Mature: In the second fifth of its life expectancy
Early-Mature: In the third fifth of its life expectancy
Mature: In the penultimate fifth of its life expectancy, reached maximum height
Over-Mature: In the final fifth of its life expectancy, in natural decline
Dead wood diameter sizes:
Small: <50mm
Medium: Between 50 – 100mm
Large: >100mm
Phys Cond: Physiological condition, an assessment of the tree's overall health –
Good: no problem noted
Fair: slightly impaired
Poor: significantly impaired
Struc Cond: Structural condition, noting any structural defects –
Good, Fair, Poor as above
Management recommendations: Any initial work requirements in terms of sound arboricultural practice, irrespective of any proposals
Cat.: Category grade in terms of quality and value, see BS 5837 cascade chart below

TREES FOR REMOVAL				
Category and Definition	**Criteria**			**Identification on Plan**
Category U Those in such a condition that any existing value would be lost within 10 years, and could, in the current context, be removed for reasons of sound arboricultural management.	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). **Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.** **Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g., Dutch elm disease), or very low-quality trees suppressing adjacent trees of better quality.** (**NOTE**: Habitat reinstatement may be appropriate (e.g., U category tree used as a bat roost: installation of bat box in nearby tree).			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	Criteria – Subcategories **1.Mainly Arboricultural Values**	**2. Mainly Landscape Values**	**3. Mainly Cultural Values, including Conservation**	Identification on Plan
Category A **Those of high quality and value:** in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g., the dominant and/or principal trees within an avenue).	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g., avenues or other arboricultural features assessed as groups).	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g., veteran trees or wood-pasture).	**LIGHT GREEN**
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).	Trees that might be included in the high category but are downgraded because of impaired condition (e.g., presence of unsympathetic past management and minor storm damage).	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 arboricultural features (e.g., trees of moderate quality within an avenue that includes better. A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality.	Trees with clearly identifiable conservation or other cultural benefits.	**MID BLUE**
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits.	**GREY**
	NOTE: Whilst C category trees will not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.			

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1720	**oak** *Quercus robur*	8	220	3	3	3	3	2	2.64	Semi-Mature	Good	Good	Growing on a grass verge next to the public path. It's lower branches have been removed in the past to raise its crown	Public path	Crown will require pruning in the future to clear path	20+	B2
1721	**oak** *Quercus robur*	8	220	3	3	3	3	2	2.64	Semi-Mature	Good	Good	Growing on a grass verge next to the public path. It's lower branches have been removed in the past to raise its crown	Public path	Crown will require pruning in the future to clear path	20+	B2
1722	**sycamore** *Acer pseudoplatanus*	11	450	5	5	2	5	2	5.4	Early Mature	Good	Good	Growing on a grass verge next to the public path. It's lower branches have been removed in the past to raise its crown	Public path	Crown will require pruning in the future to clear path	20+	B2
1723	**sycamore** *Acer pseudoplatanus*	11	450	5	6	6	2	2	5.4	Early Mature	Good	Good	Growing on a grass verge next to the public path. It's lower branches have been removed in the past to raise its crown	Public path	Crown will require pruning in the future to clear path	20+	B2
T5	**birch** *Betula pendula*	11	310	4	3	4	4	2	3.7	Early Mature	Fair	Fair	Growing in the grass verge next to the roundabout. It is slow to come into leaf, indicating declining health.	Public path and road	Continue present maintenance of providing clearance over road and path	10+	C2
Nessan Road: The following trees are located at the Nessan Road - Father Russell Road roundabout, working eastwards.																	
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
TG2	**hornbeam** *Carpinus betulus*	6	150	2	2	2	2	2	1.8	Early Mature	Good	Good	Group of 10 hornbeams growing on the roundabout island with mulch at base. Collective landscape feature	Public road and path		20+	C2
1819	**Norway maple** *Acer platanoides*	6	220	4	4	2	4	3	2.64	Semi-Mature	Good	Fair	Growing on grass verge on east side of road. Pruning wounds from flush cuts on main stem	Public road and path		40+	B2
1820	**Norway maple** *Acer platanoides*	6	220	2	2	2	3	3	2.64	Semi-Mature	Good	Fair	Growing on grass verge on east side of road. Pruning wounds from flush cuts on main stem	Public path		40+	B2
1821	**fastigiate elm** *Ulmus × hollandica*	10	130	2	2	2	3	3	1.56	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Three oaks growing up beside each other	Public path		40+	C2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1822	**Norway maple** *Acer platanoides*	8	200	3	3	3	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Pruning wounds from flush cuts on main stem. Bark wounds at base	Public path		40+	B2
1823	**Norway maple** *Acer platanoides*	8	200	3	3	3	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Pruning wounds from flush cuts on main stem. Bark wounds at base	Public path		40+	B2
1824	**Norway maple** *Acer platanoides*	8	200	3	3	3	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Pruning wounds from flush cuts on main stem. Bark wounds at base	Public path		40+	B2
1825	**rowan** *Sorbus aucuparia*	4	120	2	2	2	2	2	1.44	Semi-Mature	Fair	Good	Growing on grass verge next to path.	Public road		20+	C2
1826	**rowan** *Sorbus aucuparia*	4	120	2	2	2	2	2	1.44	Semi-Mature	Fair	Good	Growing on grass verge next to path. Included bark developing at 1m.	Public road	Monitor included bark formation annually	20+	C2
1827	**oak** *Quercus robur*	6	180	2	2	2	3	3	2.16	Semi-Mature	Good	Good	Growing on grass are next to bench. It will Interfere with the street light in the	Public path	Crown will require pruning in the future to clear the street light	40+	C2
TG3	**Himalayan birch** *Betula utilis* var. *jacquemontii*	5	100	2	2	2	2	3	1.2	Semi-Mature	Good	Good	Three birch growing in open grass area. Bark wounds at base and pruning wounds from flush cuts on main stem	Public path		40+	C2
TG3	**Himalayan birch** *Betula utilis* var. *jacquemontii*	5	100	2	2	2	2	3	1.2	Semi-Mature	Good	Good	Three birch growing in open grass area. Bark wounds at base and pruning wounds from flush cuts on main stem	Public path		40+	C2
TG3	**Himalayan birch** *Betula utilis* var. *jacquemontii*	5	100	2	2	2	2	3	1.2	Semi-Mature	Good	Good	Three birch growing in open grass area. Bark wounds at base and pruning wounds from flush cuts on main stem	Public path		40+	C2
T4	**rowan** *Sorbus aucuparia*	4	120	2	2	2	2	2	1.44	Semi-Mature	Fair	Good	Growing on grass verge next to path. Included bark developing at 1m.	Public road		20+	C2
1828	**Norway maple** *Acer platanoides*	7	200	3	3	2	3	3	2.4	Semi-Mature	Good	Good	Growing on grass area on east side of road. Pruning wounds from flush cuts on main stem. Bark wounds at base	Public path and road		40+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1829	**ash** *Fraxinus excelsior*	13	500	4	5	5	4	4	6	Mature	Fair	Fair	Growing next to the wall. Basal suckers present. Minor symptoms of ash dieback	Public road and path	Remove basal suckers. Monitor annually for ash dieback	10-20	C2
1830	**lime** *Tilia* sp.	7	200	3	3	3	3	3	2.4	Semi-Mature	Good	Good	Growing on grass area on east side of road. Pruning wounds from flush cuts on main stem. Basal suckers developing	Public path and road	Remove basal suckers	40+	B2
1831	**horse chestnut** *Aesculus hippocastanum*	5	200	2	2	2	2	3	2.4	Semi-Mature	Good	Good	Growing on grass area on east side of road. Pruning wounds from flush cuts on main stem.	Public path and road		40+	B2
1832	**ash** *Fraxinus excelsior*	6	310	4	4	1	5	3	3.72	Early Mature	Fair	Fair	Growing on grass area on east side of road. In decline from ash dieback .	Public path and road	Remove to ground level	<10	U
1833	**ash** *Fraxinus excelsior*	11	400	4	4	4	4	3	4.8	Early Mature	Fair	Fair	Growing on grass area on east side of road. Pruning wounds from where large branches were removed in the past.	Public path and road	Monitor annually for ash dieback	10-20	C2
1834	**fastigiate elm** *Ulmus* × *hollandica*	8	170	1	1	1	2	3	2.04	Semi-Mature	Good	Good	Growing on grass verge on east side of road.	Public path		40+	C2
1835	**hawthorn** *Crataegus monogyna*	6	400	1	2	3	3	3	4.8	Mature	Fair	Fair	It was a multi stem tree but stems were removed in the past, leaving 2 stems	Public road		10-20	C2
1836	**ash** *Fraxinus excelsior*	10	310	3	3	3	4	3	3.72	Early Mature	Fair	Fair	Growing on grass area on east side of road. Pruning wounds from where lower branches were removed in the past.	Public path and road	Monitor annually for ash dieback	10-20	C2
1837	**Norway maple** *Acer platanoides*	9	250	3	1	4	2	3	3	Semi-Mature	Good	Fair	Asymmetrical crown due to suppression from tree to south. Bark wound at base	Public path		20+	B2
1838	**Himalayan birch** *Betula utilis* var. *jacquemontii*	10	250	4	1	2	2	3	3	Early Mature	Good	Fair	Cracked branch in lower crown. 10 degree lean on main stem. Bark bark wounds at base	Public path	Monitor lean annually	20+	B2
1839	**Norway maple** *Acer platanoides*	10	310	4	4	3	5	4	3.72	Early Mature	Good	Good	It's crown overhangs the path and road	Public path and		20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1840	**Norway maple** *Acer platanoides*	10	310	4	4	3	5	4	3.72	Early Mature	Good	Good	It's crown overhangs the path	Public path and		20+	B2
TG4	**ash** *Fraxinus excelsior*	5	180	3	3	3	3	3	2.16	Semi-Mature	Fair	Fair	Group of 4 ash trees growing in open grass area	Public path	Monitor annually for ash dieback	10-20	C2
TG4	**ash** *Fraxinus excelsior*	5	180	3	3	3	3	3	2.16	Semi-Mature	Fair	Fair	Group of 4 ash trees growing in open grass area	Public path	Monitor annually for ash dieback	10-20	C2
TG4	**ash** *Fraxinus excelsior*	5	180	3	3	3	3	3	2.16	Semi-Mature	Fair	Fair	Group of 4 ash trees growing in open grass area	Public path	Monitor annually for ash dieback	10-20	C2
TG4	**ash** *Fraxinus excelsior*	5	180	3	3	3	3	3	2.16	Semi-Mature	Fair	Fair	Group of 4 ash trees growing in open grass area	Public path	Monitor annually for ash dieback	10-20	C2
1841	**horse chestnut** *Aesculus hippocastanum*	8	200	3	1	4	3	3	2.4	Semi-Mature	Good	Good	Growing on grass area on east side of road. Pruning wounds from flush cuts on main stem.	Public path		40+	B2
1842	**oak** *Quercus robur*	8	150	3	3	3	4	3	1.8	Semi-Mature	Good	Good	Growing next to path. Ornamental tree.	Public path		40+	C2
1843	**sycamore** *Acer pseudoplatanus*	6	130	2	2	2	2	2	1.56	Semi-Mature	Good	Good	Growing next to the wall. Lower epicormic growth developing	Public road		40+	C2
1844	**ash** *Fraxinus excelsior*	9	210	4	2	3	4	2	2.52	Early Mature	Fair	Fair	Bark wound at base. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1845	**lime** *Tilia* sp.	9	210	4	4	4	4	3	2.52	Semi-Mature	Good	Good	Growing next to wall. Pruning wound from where branch was flush cut to raise crown. Lower epicormic growth developing	Public road and path	Remover lower epicormic growth	40+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1846	**ash** *Fraxinus excelsior*	9	210	4	2	3	4	2	2.52	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1847	**lime** *Tilia* sp.	9	210	4	4	4	4	3	2.52	Semi-Mature	Good	Good	Growing next to wall. Pruning wound from where branch was flush cut to raise crown. Lower epicormic growth developing	Public road and path	Remover lower epicormic growth	40+	B2
1848	**ash** *Fraxinus excelsior*	9	210	4	3	3	4	3	2.52	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1849	**fastigiate elm** *Ulmus × hollandica*	9	130	1	1	1	1	2	1.56	Semi-Mature	Good	Good	Growing next to bench. Ornamental tree.	Public road		40+	C2
1850	**fastigiate elm** *Ulmus × hollandica*	9	130	1	1	1	1	2	1.56	Semi-Mature	Good	Good	Growing next to bench. Ornamental tree.	Public road		40+	C2
1851	**Norway maple** *Acer platanoides*	8	200	1	3	2	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Acute union formation between stems at 2m.	Public road and path		40+	B2
1852	**Norway maple** *Acer platanoides*	8	200	1	3	2	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Acute union formation between stems at 2m.	Public road and path		40+	B2
1853	**Norway maple** *Acer platanoides*	8	200	1	3	2	3	3	2.4	Semi-Mature	Good	Good	Growing on grass verge on east side of road. Acute union formation between stems at 2m.	Public road and path		40+	B2
1854	**Japanese maple** *Acer palmatum*	4	300	3	3	3	3	1	3.6	Early Mature	Good	Good	Growing next to wall. Pruning wounds from where lower branches were removed in the past	Public road and path		20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1855	**lime** *Tilia* sp.	9	210	4	4	4	4	3	2.52	Semi-Mature	Good	Good	Growing next to wall. Acute union formation between stems at 2m. Lower epicormic growth developing. It's beginning to interfere with overhead utility wire	Public road and path	Remover lower epicormic growth. Prune crown clear of overhead utility wire	40+	B2
1856	**horse chestnut** *Aesculus hippocastanum*	5	200	3	2	2	3	3	2.4	Semi-Mature	Good	Good	Growing on grass area on east side of road. Pruning wounds from flush cuts on main stem.	Public path and road		40+	B2
1857	**ash** *Fraxinus excelsior*	6	210	3	2	3	2	3	2.52	Semi-Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback. Pruning wounds from where branches were cut flush to stem	Public road and path	Monitor annually for ash dieback	10-20	C2
1858	**Himalayan birch** *Betula utilis* var. *jacquemontii*	5	110	3	1	1	2	2	1.32	Semi-Mature	Good	Good	Growing next to path. Ornamental tree	Public road and path		20+	C2
1859	**Himalayan birch** *Betula utilis* var. *jacquemontii*	5	110	3	1	1	2	2	1.32	Semi-Mature	Good	Good	Growing next to path. Ornamental tree	Public road and path		20+	C2
1860	**Norway maple** *Acer platanoides*	7	220	2	2	2	2	2	2.64	Semi-Mature	Good	Good	It's crown overhangs the public footpath next to the main road	Public road		40+	B2
1861	**Norway maple** *Acer platanoides*	8	290	2	2	2	2	2	3.48	Semi-Mature	Good	Good	It's crown overhangs the public footpath next to the main road	Public road		40+	B2
1862	**oak** *Quercus robur*	6	100	3	2	2	2	2	1.2	Young	Good	Good	Potential to form the long term tree cover in this area			40+	C2
1863	**oak** *Quercus robur*	7	140	3	3	3	3	2	1.68	Semi-Mature	Good	Good	Potential to form the long term tree cover in this area			40+	C2
1864	**ash** *Fraxinus excelsior*	8	210	3	3	3	4	3	2.52	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1865	**lime** *Tilia* sp.	9	250	4	3	3	3	1	3	Early Mature	Good	Good	Growing next to wall. Pruning wounds from where lower branches were removed in the past. Lower epicormic growth developing. Upper crown beginning to interfere with overhead utility wire. Included bark formation at 2m	Public road and path	Prune crown clear of utility wire. Monitor included bark formation annually.	40+	B2
1866	**ash** *Fraxinus excelsior*	8	210	3	4	2	4	3	2.52	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1867	**horse chestnut** *Aesculus hippocastanum*	5	110	3	2	3	3	2	1.32	Semi-Mature	Good	Good	Growing in open grass area	Public path		40+	C2
1868	**sycamore** *Acer pseudoplatanus*	10	290	5	5	5	5	3	3.48	Early Mature	Good	Fair	It's crown overhangs the main road and public path. Included bark formation at 2m.	Public road and path		20+	B2
1869	**sycamore** *Acer pseudoplatanus*	11	290	3	5	3	5	3	3.48	Early Mature	Good	Good	It's crown overhangs the main road and public path. It will interfere with the light pole as it grows	Public road and path	It's crown will require pruning in the future to clear the light pole	20+	B2
TG5	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	5 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
TG5	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	5 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
TG5	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	5 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
TG5	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	5 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
TG5	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	5 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
1870	**ash** *Fraxinus excelsior*	12	390	5	5	5	5	3	4.68	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1871	**lime** *Tilia* sp.	9	250	4	3	3	3	1	3	Early Mature	Good	Good	Growing next to wall. Pruning wounds from where lower branches were removed in the past. Lower epicormic growth developing. Upper crown beginning to interfere with overhead utility wire	Public road and path	Prune crown clear of utility wire. Remove lower epicormic growth.	40+	B2
1872	**ash** *Fraxinus excelsior*	12	390	4	4	5	5	3	4.68	Early Mature	Fair	Fair	Growing next to path. Susceptible to infection by ash dieback	Public road and path	Monitor annually for ash dieback	10-20	C2
1873	**rowan** *Sorbus aucuparia*	6	160	3	3	3	3	3	1.92	Semi-Mature	Good	Fair	Included bark union developing at 2m.	Public road		10-20	C2
TG6	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	3 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
TG6	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	3 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
TG6	**Himalayan birch** *Betula utilis* var. *jacquemontii*	9	180	2	2	2	2	3	2.16	Semi-Mature	Good	Good	3 birch trees growing in open grass area. Lower branches removed to raise up crown, leaving pruning wounds	Public path		20+	C2
1874	**lime** *Tilia* sp.	8	270	4	3	3	3	2	3.24	Early Mature	Good	Good	It's crown overhangs the public road and path. Pruning wounds from where lower branches were removed in the past..	Public road and path	Continue current maintenance of maintaining clearance over road and path.	40+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1875	**purple sycamore** *Acer pseudoplatanus* 'Spaethii'	10	300	3	3	3	4	3	3.6	Early Mature	Good	Good	Growing on the west side of the road. It's crown overhangs the public road and footpath. It's lower branches have been removed to raise crown, causing pruning wounds	Public road, path, garden	Continue current maintenance of maintaining clearance over road and path.	20+	B2
1876	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1877	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1878	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1879	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1880	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1881	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1882	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1883	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1884	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads.. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1885	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
1886	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1887	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road and path.	20+	B2
Hedge No.1	**Viburnum, grisilenia, gorse, rowan**	2.5	120			3	3		2.5	Early Mature	Fair	Fair	Hedge with some small trees in the upper canopy. It provides screening between the public road and the houses. A pedestrian path intersects this hedge to provide access to the adjoining estate.		Continue present maintenance of regular trimming		C2
1888	**lime** *Tilia* sp.	13	420	4	4	4	4	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road.	20+	B2
1889	**lime** *Tilia* sp.	13	420	4	4	4	4	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown. Interfering with overhead utility wire	Public road and path	Prune crown clear of overhead wire. Remove lower epicormic growth.Continue current maintenance of maintaining clearance over road.	20+	B2
1890	**lime** *Tilia* sp.	8	420	4	3	3	3	3	5.04	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Pruning wounds where lower branches were removed to raise crown. It's crown will interfere with the overhead utility wire in the future	Public road and path	Remove lower epicormic growth. Crown will require pruning in the future to clear the overhead utility wire Continue current maintenance of maintaining clearance over road.	20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1891	**lime** *Tilia* sp.	8	350	4	3	4	4	3	4.2	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road path and bus stop	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road.	20+	B2
1892	**lime** *Tilia* sp.	7	200	3	3	3	3	2	2.4	Semi-Mature	Good	Good	Possibly added to this line of trees as smaller than the rest and set closer to the hedge. Horse chestnut scale present	Public road path and		40+	B2
1893	**lime** *Tilia* sp.	7	200	3	3	3	3	2	2.4	Semi-Mature	Good	Good	Possibly added to this line of trees as smaller than the rest and set closer to the hedge. Horse chestnut scale present	Public road path and		40+	B2
1894	**lime** *Tilia* sp.	8	350	4	3	4	4	3	4.2	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Bark wound at base on east side. Pruning wounds where lower branches were removed to raise crown	Public road and path	Continue current maintenance of maintaining clearance over road.	20+	B2
1895	**lime** *Tilia* sp.	7	200	3	3	3	3	2	2.4	Semi-Mature	Good	Good	Possibly added to this line of trees as smaller than the rest and set closer to the hedge. Horse chestnut scale present	Public road path and		40+	B2
1896	**lime** *Tilia* sp.	8	350	4	3	4	4	3	4.2	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road.	20+	B2
1897	**lime** *Tilia* sp.	7	200	3	3	3	3	2	2.4	Semi-Mature	Good	Good	Possibly added to this line of trees as smaller than the rest and set closer to the hedge. Horse chestnut scale present	Public road path and		40+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1898	**lime** *Tilia* sp.	8	350	4	3	4	4	3	4.2	Early Mature	Good	Fair	A line of lime trees growing on grass verge on west side of road between two roads. Lower epicormic growth developing. Pruning wounds where lower branches were removed to raise crown	Public road and path	Remove lower epicormic growth. Continue current maintenance of maintaining clearance over road.	20+	B2
1899	**Turkish hazel** *Corylus colurna*	4	120	2	2	2	2	2	1.44	Semi-Mature	Good	Good	Ornamental tree growing next to the hedge	Grass area		20+	C2
1900	**hornbeam** *Carpinus betulus*	12	520	4	4	4	4	2	6.24	Mature	Good	Good	Growing on a wider grass area than the line of limes. Lower epicormic growth is developing.	Public road path	Remove lower epicormic growth.	20+	B2
1901	**Italian alder** *Alnus cordata*	6	280	3	3	3	3	2	3.36	Early Mature	Good	Good	Growing on the roundabout islands in stone. lower epicormic growth developing.	Public road and path	Remove lower epicormic growth.	20+	B2
TG7	**lime** *Tilia* sp.	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**lime** *Tilia* sp.	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2

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TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
TG7	**beech** *Fagus sylvatica*	10	320	4	4	4	4	2	3.84	Early Mature	Good	Fair	2 limes and 7 beech trees growing on a grass area between the main road and the shopping centre internal road. They have a combined group canopy formation and depend on each other for support and shelter	Public road and path	Must be managed as a group	20+	B2
1902	**Norway maple** *Acer platanoides*	10	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area.	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.	20+	B2
1903	**Norway maple** *Acer platanoides*	8	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area. It's crown will interfere with the light pole as it grows	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.Crown will require pruning in the future to clear the light pole.	20+	B2
1904	**Norway maple** *Acer platanoides*	8	160	3	3	3	3	2	1.92	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area.	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.	20+	C2
1905	**Norway maple** *Acer platanoides*	8	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area. It's crown will interfere with the light pole as it grows	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.Crown will require pruning in the future to clear the light pole	20+	B2
1906	**Norway maple** *Acer platanoides*	8	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area. It's crown will interfere with the light pole as it grows	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future. Crown will require pruning in the future to clear the light pole	20+	B2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
1907	**Norway maple** *Acer platanoides*	8	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area. It's crown will interfere with the light pole as it grows	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.Crown will require pruning in the future to clear the light pole	20+	B2
1908	**Norway maple** *Acer platanoides*	8	340	3	3	3	3	2	4.08	Early Mature	Good	Good	A line of Norway maples growing on a grass verge next to the roundabout and McDonalds. Landscape feature in this area.	Public road and path	Continue to maintain clearance over path. It will require pruning to provide clearance over the road in the future.	20+	B2
1909	**lime** *Tilia* sp.	8	300	4	4	3	4	3	3.6	Early Mature	Good	Fair	Growing on grass verge between public path and road to McDonald's. Large bark wound on lower stem on north side	Public road and path	Continue to maintain clearance over path.	20+	B2
1910	**lime** *Tilia* sp.	8	300	4	4	3	4	3	3.6	Early Mature	Good	Good	Growing on grass verge between public path and road to McDonald's. Lower epicormic growth developing. Crown interning with speed sign.	Public road and path	Prune crown clear of traffic speed sign and remove lower epicormic growth. Continue to maintain clearance over path.	20+	B2
TG8	**birch** *Betula pendula*	8	250	4	3	3	4	2	3	Early Mature	Good	Fair	Two birch trees growing on grass area south of roundabout. They have a combined group canopy formation. Lower epicormic growth developing	Public road and path	Remove lower epicormic growth	20+	B2
TG8	**birch** *Betula pendula*	9	390	4	3	1	4	2	4.68	Early Mature	Good	Fair	Two birch trees growing on grass area south of roundabout. They have a combined group canopy formation.	Public road and path		20+	B2
TG9	**rowan** *Sorbus aucuparia*	5	200	3	3	3	3	3	2.4	Early Mature	Good	Fair	Two rowans growing on grass area south of roundabout. Pruning wounds present from where lower branches were flush cut to raise crown. Viburnum tinus hedge surrounds their base	Public road and path		20+	C2

Tag No.	Species	Ht. (m)	Stem Diam (mm)	N (m)	S (m)	E (m)	W (m)	C.Ht (m)	RPA (m)	Age Class	Phys Cond	Struc Cond	Comments/Observations	Target Area	Management Reccomendations	ULE (years)	CAT
TG9	**rowan** *Sorbus aucuparia*	5	200	3	3	3	3	3	2.4	Early Mature	Good	Fair	Two rowans growing on grass area south of roundabout. Pruning wounds present from where lower branches were flush cut to raise crown. Viburnum tinus hedge surrounds their base	Public road and path		20+	C2
Tree Line 2	**Lawson cypress** *Chamaecyparis lawsoniana* cv.	A 8	A 200	A 2	A 2	A 2	A 2	A 2	2.4	Semi-Mature	Good	Good	A Line of trees growing on the adjoining property side of the boundary wall. They have a combined canopy formation which provides shelter to each other.	Public road and path	Their lower crowns may require trimming in the future to provide clearance with the path.	20+	C2


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1:1,000
Location: Site 4.1 (West Tile)
Site Code: LCCC002/TreeSurv/12119
VEON


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TG8
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Location: Site 4.2 (East Tile)
Site Code: LCCC002/TreeSurv/12119
VEON

TIE-IN TO EXISTING FATHER RUSSELL

EXISTING ZEBRA CROSSING TO BE UPGRADED TO TOUCAN CROSSING

EXISTING ACCESSES TO BE RETAINED

EXISTING ZEBRA CROSSING TO BE UPGRADED TO TOUCAN CROSSING

SAINT PAULS ROUNDABOUT

BUS PRIORITY SIGNAL AT CROSSING

EXISTING STAGGERED ZEBRA CROSSING TO BE UPGRADED TO STRAIGHT TOUCAN CROSSING

MAYPARK ACCESS ROAD

EXISTING BUS STOP RE-CONSTRUCTED WITH ISLAND BUS STOP ARRANGEMENT

BUS PRIORITY SIGNAL AT BUS STOP

EXISTING BUS STOP RE-CONSTRUCTED WITH ISLAND BUS STOP ARRANGEMENT

BALLYKEEFFE ESTATE SIGNALISED JUNCTION

Trees Hatched Yellow Need Cell-Web To Protect Roots

BALLYKEEFFE ESTATE ROAD TO BE DENOTED SHARED STREET WITH TWO-WAY CYCLE ACCESS TO BALLYKEEFFE RBOUT

EXISTING TREES TO BE RETAINED

PROPOSED SEGREGATED TWO-WAY CYCLE TRACK TO LINK TO BALLYKEEFFE ESTATE ROAD AND POSSIBLE ADJOINING FOOTPATH LINK

TRAFFIC LANES TO MOVE ACROSS TO SUIT PROPOSED SOUTH CIRCULAR ROAD CYCLE LINK ARRANGEMENT

EXISTING ZEBRA CROSSINGS TO RE-CONSTRUCTED WITH TOUCAN STYLE CROSSING

EXISTING BUS STOP RE-CONSTRUCTED WITH ISLAND BUS STOP ARRANGEMENT

Cell-Web will be needed to protect roots

EXISTING CRESCENT PEDESTRIAN/CYCLE ACCESS

EXISTING ZEBRA CROSSINGS TO BE INCREASED IN WIDTH AND RE-CONSTRUCTED AS TOUCAN STYLE CROSSING

BALLYKEEFFE ROUNDABOUT

BUS PRIORITY SIGNAL AT CROSSING

EXISTING BUS STOP RE-CONSTRUCTED WITH ISLAND BUS STOP ARRANGEMENT

TIE-IN TO DOORADOYLE ROAD SCHEME

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES – FIGURED DIMENSIONS TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.
2. ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM MALIN HEAD.

LEGEND:

1. PROPOSED CARRIAGEWAY SURFACE DENOTED THUS.....
2. PROPOSED FOOTPATH DENOTED THUS.....
3. PROPOSED RAISED CYCLE TRACK DENOTED THUS.....
4. PROPOSED ON-ROAD CYCLE LANE DENOTED THUS.....
5. PROPOSED CORDUROY TACTILE PAVING AT CROSSING LOCATION DENOTED THUS.....
6. PROPOSED RED TACTILE PAVING AT CONTROLLED CROSSING LOCATION.....
7. PROPOSED RAISED ENTRY TREATMENT DENOTED THUS.....
8. PROPOSED BEVELLED KERBS AT ENTRANCE DENOTED THUS.....
9. PROPOSED LAND-TAKE BOUNDARY DENOTED THUS.....
10. EXISTING TREE TO BE REMOVED..... TREES/PLANTING TO BE PROVIDED TO COMPENSATE REMOVAL
11. EXISTING SURVEYED FEATURES SHOW THUS IN BLUE.....

Comhairle Cathrach & Contae Luimnigh
Limerick City & County Council

NTA
Údarás Náisiúnta Iompair
National Transport Authority

LEGEND: Tree Constraints

Root Protection Area — Tag No. 1522 — Trunk

Tree Impacted
Tree Retention
Tree Removal
Hedge Removal
Protective Fencing/Exclusion Area

Tree Layers Provided By:

1 Leopardstown,
Business Centre,
Ballyogan Road,
Dublin 18,
D18 N578

Project
LIMERICK CITY & COUNTY COUNCIL
DOORADOYLE CYCLE LANES
&
JUNCTION IMPROVEMENT

Drawing
R526 ST. NESSANS ROAD
ST. PAULS RBOUT TO BALLYKEEFFE RBOUT
EMERGING PREFERRED OPTION

Drawn	E. Gannon	Project No.	Drawing
Date	10.10.2022		Tree Protection Plan
Scale	1:750 AT A1 1:1500 AT A3		