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# **Arboricultural Impact Assessment Overview**

**in Relation to Proposed Construction of  
Four Detached Residential Properties at**



**Moorcock Inn, Slaidburn Road,  
Waddington, Lancashire, BB7 3AA**

Prepared by:

**Bowland**   
tree Consultancy Ltd

June 2016

# ARBORICULTURAL IMPACT ASSESSMENT OVERVIEW MOORCOCK INN, WADDINGTON

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**TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL**

**Site:** Moorcock Inn, Slatburn Road, Waddington, Lancashire, BB7 3AA  
**Agent for Client:** Sunderland Peacock & Associates Ltd

**Surveyor:** Phill Harris – Chartered Arboriculturist  
**Survey Date:** 14 June 2016  
**Job Reference:** BTC1130

| No. | Species      | Height | Stem Diam. | Branch Spread                    | Branch & Canopy Clearance | Life Stage | PC  | General Observations and Comments  | Management Recommendations   | ERC | Col. Grade | RPA (m <sup>2</sup> ) | RPA Radius (m) |
|-----|--------------|--------|------------|----------------------------------|---------------------------|------------|-----|--|--|-----|------------|-----------------------|----------------|
| T1  | Silver Birch | 12.5   | 430        | N 4<br>E 4.5<br>S 5<br>W 3.5     | 4-S<br>2.5                | EM         | M/P | <ul style="list-style-type: none"> <li>Very dense ivy up stem.</li> <li>Crown showing signs of a substantial reduction in vitality with small leaves and sparse foliage cover.</li> <li>Retaining wall to east of tree within RPA.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>    | 10+ | C1         | 84                    | 5.16           |
| T2  | Sycamore     | 9      | 330        | N 4<br>E 4<br>S 3.5<br>W 2.5     | 2.5<br>2                  | SM         | P   | <ul style="list-style-type: none"> <li>Crown showing signs of a significant reduction in vitality with small leaves, sparse foliage cover and extensive branch dieback.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>    | 10+ | C1         | 49                    | 3.96           |
| T3  | Downy Birch  | 8.5    | 210        | N 2.5<br>E 2.5<br>S 2.5<br>W 2   | 5<br>5                    | SM         | MD  | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul> | <10 | U          | 20                    | 2.52           |
| T4  | Downy Birch  | 8      | 190        | N 1.5<br>E 1.5<br>S 1.5<br>W 0.5 | N/A<br>5                  | Y          | MD  | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul> | <10 | U          | 16                    | 2.28           |
| T5  | Downy Birch  | 10     | 250        | N 2.5<br>E 2.5<br>S 4<br>W 2.5   | 3-S<br>4                  | SM         | P   | <ul style="list-style-type: none"> <li>Two partially occluded wounds up to 200mm long to lower stem, with no signs of progressive decay within.</li> <li>100mm diameter broken and hanging branch to stem at a height of approximately 3m</li> <li>Crown showing signs of a substantial reduction in vitality with small leaves and sparse foliage cover.</li> </ul> | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>    | 10+ | C1         | 28                    | 3              |
| T6  | Downy Birch  | 8      | 190        | N 3.5<br>E 3.5<br>S 2<br>W 1.5   | 3-N<br>3                  | Y          | P   | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul> | <10 | U          | 16                    | 2.28           |
| T7  | Downy Birch  | 7.5    | 160        | N 2<br>E 2<br>S 3<br>W 2         | N/A<br>3                  | Y          | MD  | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul> | <10 | U          | 12                    | 1.92           |

**Headlines and Abbreviations:**

**No.** - Allocated sequential reference number - Tree (T), Group (G), Woodland (W) or Hedge (H) reference number - refer to plan and to numbered legs where applicable  
**Species:** - Common name  
**Height:** - In metres, to nearest half metre - where possible approximately 60%, are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree  
**Stem Diam.:** - measured at nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed  
**Branch Spread:** - Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown  
**Branch & Canopy Clearance:** - Existing height above ground level, in metres, of final significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point - to inhibit on crown to height ratio, potential for shading, etc.  
**Life Stage:** - Estimated age class - Y = young, SM = semi-mature, M = mature, PM = post-mature  
**PC:** Physiological Condition - a measure of the tree's overall vitality, i.e. D = Dead, MD = Moderately, P = Poor, M = Moderate, G = Good  
**General Observations and Comments:** - Comments relating to the tree(s) overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.  
**Management Recommendations:** - Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate  
**ERC:** Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)  
**Col. Grade:** Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1  
**RPA m<sup>2</sup>:** Root Protection Area in m<sup>2</sup> - calculated area around the tree that must be appropriately protected throughout the development process in order to avoid root damage  
**RPA Radius (m):** Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection  
**# (Estimated Dimensions):** Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "r" symbol

**TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL**

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 Agent for Client: Sunderland Peacock & Associates Ltd

Surveyor: Phill Harris – Chartered Arboriculturist  
 Survey Date: 14 June 2016  
 Job Reference: BTC1130

| No. | Species            | Height | Stem Diam.          | Branch Spread                    | Branch & Canopy Clearance | Life Stage | PC | General Observations and Comments  | Management Recommendations   | ERC | Cat. Grade | RPA (nr) | RPA Radius (m) |
|-----|--------------------|--------|---------------------|----------------------------------|---------------------------|------------|----|--|--|-----|------------|----------|----------------|
| T8  | Leyland Cypress    | 4      | appr. 9x20 (ms)#    | N 2<br>E 2<br>S 2<br>W 2         | N/A<br>0                  | Y          | M  | <ul style="list-style-type: none"> <li>Multi-stemmed from ground level with included bark unions.</li> <li>Extensive foliar browning.</li> <li>Species considered unsuitable for rural moor-side location.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to low value and unsuitability of species.</li> </ul>  | 10+ | C1         | 2        | 0.72           |
| T9  | Variiegated Poplar | 7      | 230                 | N 2<br>E 2<br>S 2<br>W 2         | 0.2<br>1                  | Y          | P  | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul>   | <10 | U          | 24       | 2.76           |
| T10 | Downy Birch        | 9      | 200                 | N 5<br>E 1.5<br>S 3.5<br>W 2     | 3-S<br>4                  | SM         | MD | <ul style="list-style-type: none"> <li>Large 1m long partially occluded cavity to mid stem with evidently non progressive decay within.</li> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with very small leaves and very sparse foliage cover.</li> <li>In decline with short projected remaining life expectancy.</li> </ul> | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul>   | <10 | U          | 18       | 2.4            |
| T11 | Goat Willow        | 8      | 1x270<br>2x190 (ms) | N 0<br>E 5.5<br>S 6<br>W 5       | N/A<br>0.5                | EM         | G  | <ul style="list-style-type: none"> <li>Highly biased crown and severe stem lean to south.</li> <li>Stem trifurcates into sub stems at a height of approximately 0.3m.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul> | 10+ | C1         | 59       | 4.35           |
| T12 | Downy Birch        | 12.5   | 350                 | N 4<br>E 2<br>S 4<br>W 3         | 3-S<br>2                  | EM         | P  | <ul style="list-style-type: none"> <li>Has sustained multiple branch failures throughout crown.</li> <li>Number of <i>Piptoporus betulinus</i> (brown rot decay causing) fungal fruiting bodies to stem and branches.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove due to poor structural condition.</li> </ul>   | <10 | U          | 55       | 4.2            |
| T13 | Downy Birch        | 11     | 150                 | N 2<br>E 2<br>S 3<br>W 0.1       | N/A<br>4                  | Y          | P  | <ul style="list-style-type: none"> <li>Crown showing signs of a significant and evidently progressive reduction in vitality with small leaves, very sparse foliage cover and extensive twig dieback.</li> <li>In decline with short projected remaining life expectancy.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove due to short projected remaining life expectancy.</li> </ul>   | <10 | U          | 10       | 1.8            |
| T14 | Downy Birch        | 13.5   | 300                 | N 4.5<br>E 3.5<br>S 4.5<br>W 2.5 | 3<br>3                    | SM         | M  | <ul style="list-style-type: none"> <li>Very large 'witches' broom' stem at a height of approximately 3m.</li> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>  | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul> | 20+ | B1/2       | 41       | 3.6            |
| T15 | Downy Birch        | 12     | 260                 | N 4<br>E 2.5<br>S 6<br>W 3       | 5-S<br>4                  | SM         | M  | <ul style="list-style-type: none"> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul> | 20+ | B1/2       | 31       | 3.12           |
| T16 | Downy Birch        | 12     | 260                 | N 2.5<br>E 2.5<br>S 5<br>W 2     | 1-S<br>0.5                | SM         | M  | <ul style="list-style-type: none"> <li>Moderately severe upper stem curvature.</li> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>  | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul> | 20+ | B1/2       | 31       | 3.12           |

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| No. | Species     | Height | Stem Diam.                           | Branch Spread                | Branch & Canopy Clearance | Life Stage | PC | General Observations and Comments  | Management Recommendations   | ERC | Can. Grade | RPA (nr) | RPA Radius (m) |
|-----|-------------|--------|--------------------------------------|------------------------------|---------------------------|------------|----|--|--|-----|------------|----------|----------------|
| T17 | Downy Birch | 11.5   | 200                                  | N 3<br>E 1.5<br>S 0<br>W 2   | 6                         | SM         | M  | <ul style="list-style-type: none"> <li>Highly biased crown to north-east due to suppression by neighbouring tree.</li> <li>Moderately severe mid-stem curvature.</li> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>                                    | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul> | 10+ | C1         | 18       | 2.4            |
| T18 | Downy Birch | 13     | 190                                  | N 4<br>E 2<br>S 4.5<br>W 1   | 6-S<br>5                  | SM         | M  | <ul style="list-style-type: none"> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 16       | 2.28           |
| T19 | Sycamore    | 8      | 220                                  | N 4.5<br>E 3<br>S 4.5<br>W 3 | 1.5-S<br>2                | SM         | G  | <ul style="list-style-type: none"> <li>Under crowns of neighbouring trees.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 40+ | B1/2       | 22       | 2.64           |
| T20 | Downy Birch | 14     | 280                                  | N 4<br>E 4<br>S 5.5<br>W 4   | 4-S<br>6                  | SM         | M  | <ul style="list-style-type: none"> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 35       | 3.36           |
| T21 | Downy Birch | 13.5   | 350                                  | N 5<br>E 4<br>S 5<br>W 4     | 0.2-S<br>1                | SM         | M  | <ul style="list-style-type: none"> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 55       | 4.2            |
| T22 | Goat Willow | 8      | 1x200<br>2x160<br>2x100<br>(ms)<br>W | 3.5<br>3.5<br>5.5<br>3.5     | N/A<br>0.5                | SM         | G  | <ul style="list-style-type: none"> <li>Stem divides into multiple sub-stems at a height of approximately 0.5m with several included bark unions.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 50       | 4              |
| T23 | Downy Birch | 12     | 270                                  | N 4<br>E 2<br>S 4<br>W 2     | 5-S<br>4.5                | SM         | M  | <ul style="list-style-type: none"> <li>1m long partially occluded wound to stem base with no signs of progressive decay within.</li> <li>Moderate upper stem curvature.</li> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>                             | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 33       | 3.24           |
| T24 | Downy Birch | 7      | 200                                  | N 4<br>E 1<br>S 6<br>W 1.5   | 1.6<br>4                  | SM         | M  | <ul style="list-style-type: none"> <li>Stem bifurcates at a height of approximately 1.6m.</li> <li>Crown showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> <li>Growing below crowns of neighbouring trees with subsequently highly suppressed growth potential.</li> </ul> | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 10+ | C1         | 18       | 2.4            |
| T25 | Sycamore    | 12     | 370                                  | N 5<br>E 2<br>S 4<br>W 3     | 2-N<br>2                  | SM         | G  | <ul style="list-style-type: none"> <li>Part of group.</li> </ul>   | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 40+ | B1/2       | 62       | 4.44           |

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| No. | Species                         | Height | Stem Diam.    | Branch Spread                      | Branch & Canopy Clearance | Life Stage | PC  | General Observations and Comments   | Management Recommendations   | ERC | Cal. Grade | RPA (m <sup>2</sup> ) | RPA Radius (m) |
|-----|---------------------------------|--------|---------------|------------------------------------|---------------------------|------------|-----|---|--|-----|------------|-----------------------|----------------|
| T26 | Sycamore                        | 12     | 2x320 (ts)    | N 4<br>E 4<br>S 6<br>W 4           | 3-S<br>1                  | SM         | G   | <ul style="list-style-type: none"> <li>Two stems arise at ground level with a tight fork.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | 93                    | 5.43           |
| T27 | Sycamore                        | 9      | 200           | N 4<br>E 4<br>S 0<br>W 0           | 3<br>2.5                  | SM         | G   | <ul style="list-style-type: none"> <li>Highly biased crown to north-east due to suppression by neighbouring tree.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 40+ | C1         | 18                    | 2.4            |
| T28 | Goat Willow                     | 4.5    | 6x60 (ms)#    | N 3<br>E 3<br>S 3<br>W 3           | N/A<br>0                  | SM         | G   | <ul style="list-style-type: none"> <li>On stream bank.</li> <li>Multi-stemmed from ground level.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul>   | 40+ | C1/2       | 11                    | 1.9            |
| T29 | Downy Birch                     | 12     | 230           | N 2<br>E 3.5<br>S 3.5<br>W 3.5     | 3-S<br>0.5                | SM         | G   | <ul style="list-style-type: none"> <li>On opposite side of stream to site.</li> <li>Part of wider group.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul>   | 40+ | B1/2       | 24                    | 2.76           |
| T30 | Downy Birch                     | 12     | 280           | N 2<br>E 2<br>S 3<br>W 3           | 1-S<br>1                  | SM         | G   | <ul style="list-style-type: none"> <li>On opposite side of stream to site.</li> <li>No visible structural defects.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul>   | 40+ | B1/2       | 35                    | 3.36           |
| T31 | Downy Birch                     | 10     | 120           | N 1.5<br>E 2<br>S 2.5<br>W 2       | N/A<br>2                  | Y          | M   | <ul style="list-style-type: none"> <li>On opposite side of stream to site.</li> <li>No visible structural defects.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPA throughout development.</li> </ul>   | 10+ | C1         | 7                     | 1.44           |
| G1  | approx. 2no. Beech              | ≤ 10   | ≤ 3x200 (ms)# | N ≤ 2<br>E ≤ 6<br>S ≤ 7<br>W ≤ 2   | N/A<br>≥ 0                | SM         | M   | <ul style="list-style-type: none"> <li>Very closely spaced group of multi-stemmed trees.</li> <li>Evidently grown from previously cut stumps.</li> <li>May have previously formed part of hedge.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 40+ | C1/2       | ≤ 54                  | ≤ 4.16         |
| G2  | 2no. Downy Birch, 1no. Sycamore | ≤ 13   | ≤ 320         | N ≤ 4<br>E ≤ 4<br>S ≤ 5.5<br>W ≤ 3 | 1.5-S<br>≥ 1              | Y-SM       | P-G | <ul style="list-style-type: none"> <li>Very closely spaced group.</li> <li>Semi-mature Birch and Sycamore stem bases in contact.</li> <li>Birch crowns showing signs of a significant reduction in vitality with very sparse foliage cover.</li> <li>Birch to east has sustained multiple branch failures throughout crown, and has a number of <i>Piptoporus betulinus</i> (brown rot decay causing) fungal fruiting bodies to its stem and branches.</li> </ul> | <ul style="list-style-type: none"> <li>Remove Birch to east of group that has sustained branch failures.</li> <li>Retain remainder in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> </ul> | 10+ | C1         | ≤ 46                  | ≤ 3.84         |
| G3  | 2no. Downy Birch                | ≤ 12.5 | ≤ 240         | N ≤ 4<br>E ≤ 3<br>S ≤ 4<br>W ≤ 3   | 3-SW<br>≥ 3               | SM         | M   | <ul style="list-style-type: none"> <li>Closely spaced group.</li> <li>Crowns showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>  | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 20+ | B1/2       | ≤ 26                  | ≤ 2.88         |

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| No. | Species                            | Height | Stem Diam.   | Branch Spread                            | Branch & Canopy Clearance | Life Stage | PC  | General Observations and Comments  | Management Recommendations   | ERC | Cal. Grade | RPA (m <sup>2</sup> ) | RPA Radial (m) |
|-----|------------------------------------|--------|--------------|--|---------------------------|------------|-----|--|--|-----|------------|-----------------------|----------------|
| G4  | 3no. Downy Birch,<br>1no. Sycamore | ≤ 14   | ≤ 280        | N ≤ 5.5<br>E ≤ 5.5<br>S ≤ 6<br>W ≤ 5.5   | 3-S<br>≥ 6                | Y-SM       | M-G | <ul style="list-style-type: none"> <li>Closely spaced group.</li> <li>Crowns showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> <li>Western Birch has a 100mm diameter broken hanging branch.</li> </ul>          | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> <li>Prune to remove broken hanging branch from Birch.</li> </ul> | 20+ | B1/2       | ≤ 35                  | ≤ 3.36         |
| G5  | 2no. Downy Birch                   | ≤ 12   | ≤ 200        | N ≤ 3<br>E ≤ 1.5<br>S ≤ 3<br>W ≤ 1       | N/A<br>≥ 6                | Y-SM       | P   | <ul style="list-style-type: none"> <li>Very closely spaced group.</li> <li>Both trees have large partially occluded wounds to lower stems with evidently non progressive decay within.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 10+ | C1         | ≤ 18                  | ≤ 2.4          |
| G6  | 2no. Downy Birch                   | ≤ 12   | ≤ 280        | N ≤ 4<br>E ≤ 3<br>S ≤ 5<br>W ≤ 1.5       | 0.1-S<br>≥ 0.5            | SM         | M   | <ul style="list-style-type: none"> <li>Very closely spaced group.</li> <li>Crowns showing signs of a reduction in vitality with moderately small leaves and slightly sparse foliage cover.</li> </ul>  | <ul style="list-style-type: none"> <li>Remove in order to construct development as proposed.</li> </ul>  | 20+ | B1/2       | ≤ 35                  | ≤ 3.36         |
| G7  | Goat Willow                        | ≤ 5    | ≤ 4X60 (ms)# | N ≤ 3<br>E ≤ 3<br>S ≤ 3<br>W ≤ 3         | N/A<br>≥ 0                | Y          | G   | <ul style="list-style-type: none"> <li>Small very closely spaced group of self-set multi-stemmed trees on bank of stream.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 10+ | C1/2       | ≤ 7                   | ≤ 1.44         |
| G8  | approx. 4no. Downy Birch           | ≤ 12   | ≤ 230        | N ≤ 2<br>E ≤ 3.5<br>S ≤ 3.5<br>W ≤ 3.5   | N/A<br>≥ 0.5              | Y-SM       | G   | <ul style="list-style-type: none"> <li>Closely spaced group on opposite side of stream to site.</li> <li>Located on neighbouring land and therefore not inspected in detail.</li> </ul>  | <ul style="list-style-type: none"> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 40+ | B1/2       | ≤ 24                  | ≤ 2.76         |
| G9  | approx. 10no. Downy Birch          | ≤ 12   | ≤ 150        | N ≤ 2.5<br>E ≤ 2.5<br>S ≤ 2.5<br>W ≤ 2.5 | N/A<br>≥ 1                | Y          | G   | <ul style="list-style-type: none"> <li>Very closely spaced group on opposite side of stream to site.</li> <li>Evidently located within site boundaries.</li> </ul>   | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 10+ | C1/2       | ≤ 10                  | ≤ 1.8          |
| G10 | approx. 4no. Downy Birch           | ≤ 12   | ≤ 230        | N ≤ 2<br>E ≤ 3.5<br>S ≤ 3.5<br>W ≤ 3.5   | N/A<br>≥ 0.5              | SM         | G   | <ul style="list-style-type: none"> <li>Closely spaced group.</li> <li>Located on neighbouring land and therefore not inspected in detail.</li> </ul>   | <ul style="list-style-type: none"> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 40+ | B1/2       | ≤ 24                  | ≤ 2.76         |
| W1  | Downy Birch                        | ≤ 14   | ≤ 300#       | N ≤ 4<br>E ≤ 4<br>S ≤ 4<br>W ≤ 4         | N/A<br>≥ 1                | Y-SM       | G   | <ul style="list-style-type: none"> <li>Closely spaced group on opposite side of stream to site.</li> <li>Evidently monocultural woodland located on neighbouring land and therefore not inspected in detail.</li> <li>Trees are ≥4m from boundary fence and wall.</li> </ul> | <ul style="list-style-type: none"> <li>Ensure protection of RPAs throughout development.</li> </ul>  | 40+ | B1/2       | ≤ 41                  | ≤ 3.6          |
| H1  | Beech                              | ≤ 2    | N/A          | ≤ 2 wide                                 | N/A<br>≥ 0                | Y          | G   | <ul style="list-style-type: none"> <li>Section of maintained hedge along western boundary.</li> </ul>  | <ul style="list-style-type: none"> <li>Retain in context of proposed development.</li> <li>Ensure protection throughout development.</li> </ul>  | 40+ | C1/2       | N/A                   | 1              |

**BS5837:2012 Table 1 – Cascade Chart for Tree Quality Assessment**

| Category and definition   | Criteria (including subcategories where appropriate)   | Identification on plan  |
|---|--|---|
| <p><b>Trees unsuitable for retention (see Note)</b></p> <p><b>Category U</b></p> <p>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p>    | <p>■ 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 category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>■ Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</p> <p>■ Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</p> <p><i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.</i></p> | <p>Red</p>  |
| <p><b>Trees to be considered for retention</b></p>  | <p><b>1. Mainly arboricultural qualities</b></p>   | <p><b>3. Mainly cultural values, including conservation</b></p>   |
| <p><b>Category A</b></p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>  | <p>Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)</p>  | <p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p> <p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p> <p>Green</p>   |
| <p><b>Category B</b></p> <p>Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.</p>   | <p>Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage</p>   | <p>Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality</p> <p>Trees with clearly identifiable conservation or other cultural benefits</p> <p>Blue</p> |
| <p><b>Category C</b></p> <p>Those trees 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 150 mm</p> | <p>Trees not qualifying in higher categories</p> <p><i>Note – Whilst C category trees will usually 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</i></p>  | <p>Trees with very limited conservation or other cultural benefits</p> <p>Grey</p>  |

## **DISCLAIMER**

**Survey Limitations:** Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only.

Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potentially unacceptable risk to persons and/or property has been identified during our survey. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The tree survey and any report information provided is intended as a guide to identify key tree related constraints to site development only. As such, the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

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## - TEMPORARY PROTECTIVE FENCING SPECIFICATION -

**Construction Exclusion Zones (CEZs), enclosed by Temporary Protective Fencing, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:**

1. be retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area defined on the Tree Protection Plan (TPP);
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
6. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

### Temporary Protective Fencing Construction

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist shall inspect the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

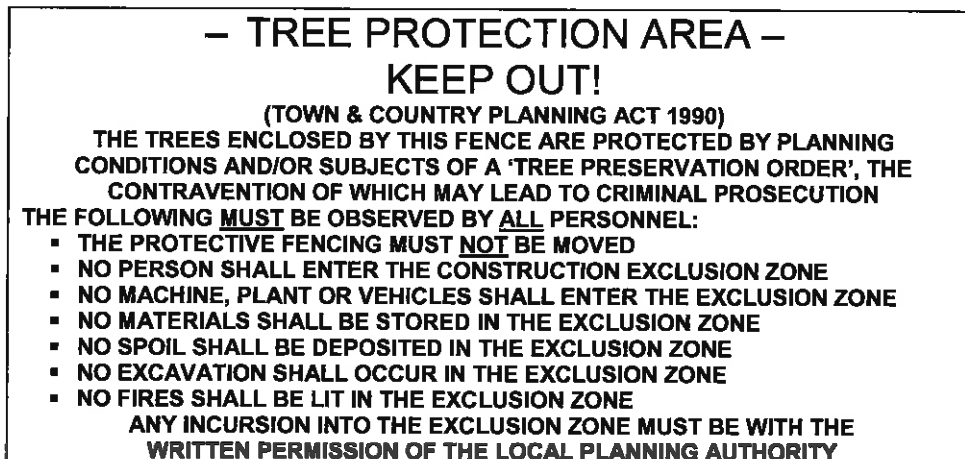


Figure 2: BS5837:2012 Default specification for protective barrier

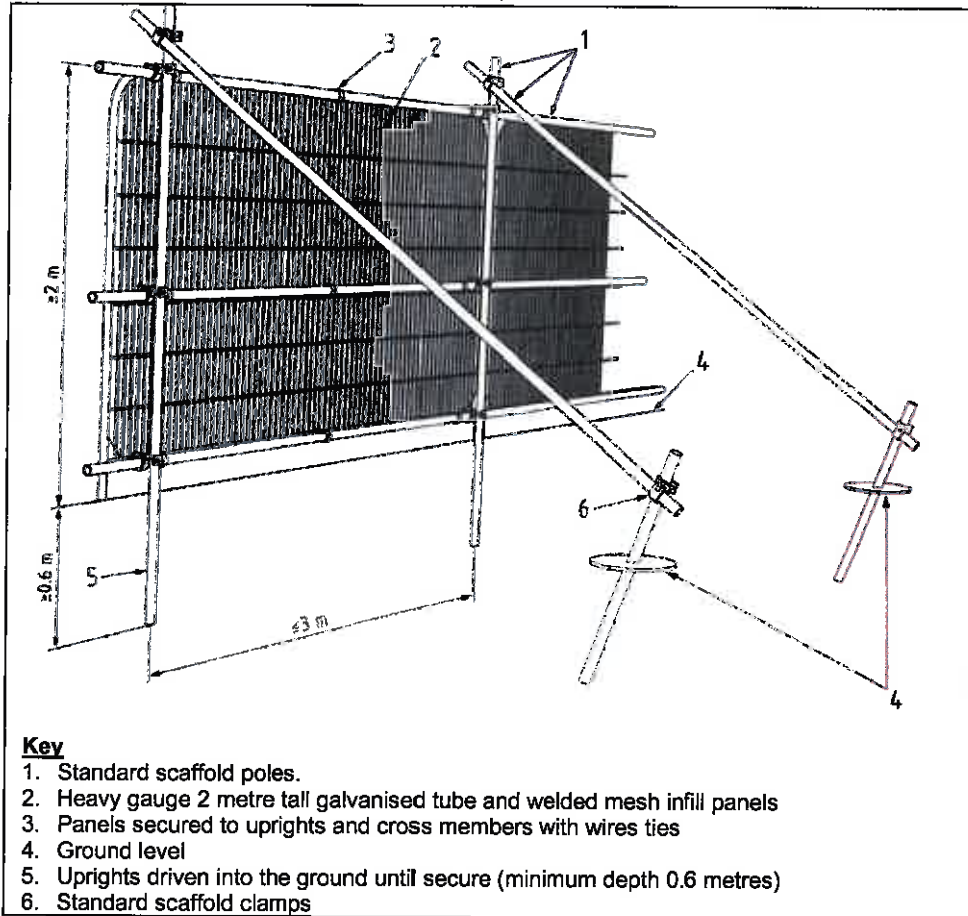


Figure 3: BS5837:2012 Examples of above-ground stabilising systems

