
Arboricultural Impact Assessment

Proposed Commercial Units – Park House, Nottingham

Client: Meller

Reference: 22.121.3.R2

Issue Date: 19th October 2023



QUALITY ASSURANCE

Report Version	1	2	3	4
Prepared by	George Pickering TechArborA	George Pickering TechArborA	Sam Selwyn Dip Arb L4 (abc)	
Position	Consultant	Consultant	Consultant	
Reviewed by	John Goodwin	John Goodwin	John Goodwin	
Position	Director	Director	Director	
Issue Date	23 January 2023	14 June 2023	19 October 2023	
Comments	-	-	-	

Professional Consult Limited

hello@professionalconsult.co.uk

07704 672683

www.professionalconsult.co.uk

This report has been prepared by Professional Consult Limited in accordance with the agreed terms and conditions of the appointment. Professional Consult Limited cannot accept any responsibility for use of, or reliance on, the contents of this report by any third party.

Professional Consult Limited is registered in England (11635570). Registered Office: 534 Edenfield Road, Rochdale, Lancashire OL12 7QJ

TABLE OF CONTENTS

1	INTRODUCTION	4
2	PLANNING POLICY & LEGISLATION	6
3	BASELINE TREE SURVEY	8
4	ARBORICULTURAL IMPACT ASSESSMENT	9
5	TREE PROTECTION	11
6	REFERENCES	13
APPENDIX 1:	SITE LOCATION PLAN	14
APPENDIX 2:	TREE SCHEDULE	15
APPENDIX 3:	PLANS	16
APPENDIX 4:	TREE PROTECTION SPECIFICATION	19
APPENDIX 5:	GEOWEB INSTALLATION METHOD	21
APPENDIX 6:	TEMPORARY GROUND PROTECTION	25
APPENDIX 7:	LIMITATIONS	26

1 INTRODUCTION

Background & Instruction

- 1.1.1 This report has been prepared by George Pickering BSC (Hons), TechArborA. George is a Technician Member of the Arboricultural Association (AA) and is therefore required to uphold the professional and ethical standards within the AA Codes of Conduct. George holds the LANTRA certificate in Professional Tree Inspection.
- 1.1.2 This Arboricultural Impact Assessment (AIA) has been prepared by SEED Arboriculture Ltd, an approved associate consultant to Professional Consult Limited, in support of a planning application for a new industrial units and associated parking at Park House in Nottingham (to be referred to hereafter as ‘the Site’).
- 1.1.3 The planning application is to be submitted to Gedling Borough Council (GBC).

Purpose

- 1.1.4 The tree survey and AIA has been carried out in accordance with the recommendations outlined within British Standard BS5837:2012 ‘Trees in relation to design, demolition and construction Recommendations’.
- 1.1.5 This AIA report:
- ② Provides the baseline survey data of existing trees, including a Tree Schedule and Tree Constraints Plan (TCP); and
 - ② Evaluates the direct and indirect impacts of the Proposed Development upon the existing trees.

Site Description

- 1.1.6 The Site is centred at UK National Grid Reference (SK 61488 40099) and comprises of existing industrial unit / offices. The site is bordered by residential areas to the north and west, industrial units to the east and Mile End Road and a small woodland to the south. The application boundary is illustrated on the Site Location Plan detailed in Appendix 1.

Reference Documents

- 1.1.7 Table 1 provides a summary of documents which provide the basis for this tree survey and AIA.

Table 1. Reference Documents

Document	Reference Number	Prepared By	Date
Topographical Survey	43682_T	Greenhatch Group	May 2022
Proposed Site Plan	220301-SK200	Meller Ltd	December 2022

Limitations

- 1.1.8 The limitations of this report are presented in Appendix 7.

Confidentiality

- 1.1.9 Professional Consult has prepared this report solely for the use of the Client. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Professional Consult; a charge may be levied against such approval.

2 PLANNING POLICY & LEGISLATION

National Planning Policy Framework (NPPF)

2.1.1 The following paragraphs within the NPPF set out policies which guide the planning policy and decision-making process of Local Planning Authorities in relation to trees. These are:

Paragraph 131

2.1.2 Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.

Paragraph 174 (b & d)

2.1.3 Planning policies and decisions should contribute to and enhance the natural and local environment by: Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Paragraph 180

- 2.1.4 When determining planning applications, Local Planning Authority's (LPA) should apply the following principles:
- If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
 - Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
 - Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Statutory Tree Protection & Designations

- 2.1.5 A search using the online service provided by GBC has confirmed all the trees on site are subject to a Tree Preservation Order (TPO) – Tree Preservation Order: LP 000119.
- 2.1.6 The site is not located within a Conservation Area.
- 2.1.7 No Ancient Woodland¹ designations are present upon or adjacent to the Site.

Felling Licence

- 2.1.8 Tree felling is restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for “Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990)”
- 2.1.9 If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

¹Ancient woods are areas of woodland that have persisted since 1600 in England and Wales, and 1750 in Scotland. The Magic Maps website (<https://magic.defra.gov.uk/MagicMap.aspx>) has been used to search for ancient woodland on or adjacent to a site.

3 BASELINE TREE SURVEY

3.1.1 The tree survey was undertaken in on 5th December 2022 by George Pickering BSc (Hons), TechArborA, Assistant Arboricultural Consultant at Seed Arboriculture Ltd.

3.1.2 The tree survey was undertaken in accordance with the methodology outlined within BS5837:2012.

3.1.3 The locations of the trees surveyed are illustrated on the Tree Constraints Plan (TCP) (Appendix 3) together with details of the constraints to new development in accordance with BS5837, including:

- ② Tree Retention Category;
- ② Root Protection Areas (RPAs); and
- ② Tree Canopy Spreads

3.1.4 Details for each of the trees surveyed are provided in the Tree Schedule (Appendix 2), including; reference numbers, species, tree dimensions, life stage, physiological and structural condition, and retention category.

Tree Survey Summary

3.1.5 The survey recorded 10no. individual trees comprising of 4no. category A, 1no. category B and 5no. category C retention value.

4 ARBORICULTURAL IMPACT ASSESSMENT

- 4.1.1 The impact of the proposed development upon existing trees is illustrated on the Arboricultural Impact Plans (Appendix 3).
- 4.1.2 1no. tree of category C retention value will be removed to facilitate the proposed development. This tree is of low quality overall and offer limited value currently. The removal of these trees is not considered to be a constraint to the proposed development.

Table 2. Tree Removal

Tree Removal for Proposed Development			
Reference Number	BS5837:2012 Category	Reason	Notes
T9 (Silver Birch)	C	Conflict with proposed layout	-

- 4.1.3 None of the trees proposed for removal are considered aged or veteran and therefore the principles for refusal within the NPPF would not be considered applicable.

Root Protection Areas (RPAs)

- 4.1.4 The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.
- 4.1.5 The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s), to avoid soil compaction, changes in levels or soil contamination which could alter the trees condition and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.
- 4.1.6 The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown in relation to the Proposed Development on the Arboricultural Impact Plan at Appendix 3.

New RPA Incursions

- 4.1.7 The Proposed Development will result in a number of new RPA incursions as detailed below.
- ② **T1 (London Plane)** – New incursion of 32.6m² out of a total RPA of 327m² = New RPA incursion of 10%
Mitigation – No dig tree root protection to be installed.
 - ② **T6 (Silver Birch)** – New incursion of 5.2m² out of a total RPA of 41m² = New RPA incursion of 12%
Mitigation – No dig tree root protection to be installed.
 - ② **T7 (Common Beech)** – New incursion of 119.1m² out of a total RPA of 327m² = New RPA incursion of 36%
Mitigation – No dig tree root protection to be installed.
 - ② **T8 (Sycamore)** – New incursion of 24.4m² out of a total RPA of 72m² = New RPA incursion of 34%
Mitigation – No dig tree root protection to be installed.

Tree Canopies & Shade

- 4.1.8 The distribution of tree canopy cover on and within influencing distance of the site is illustrated on the TCP (Appendix 3). The Tree Schedule lists the vertical clearance from site ground level to significant tree branching of individual trees. This measurement informs the impacts of accessibility and development beneath tree canopies.
- 4.1.9 If considered appropriate the principal tree shadow constraints can be shown on the TCP and are plotted in accordance with BS5837 using the current height of surveyed trees.
- 4.1.10 Where shading is unavoidable, the potential adverse impact of shadowing should also be reviewed on balance with the positive aspects of retaining a degree of canopy shade. BS5837:2012 (para. 5.3.4, a) NOTE 1) states that “shading can be desirable to reduce glare or excessive solar heating, or to provide comfort during hot weather. The combination of shading, wind speed/turbulence reduction and evapotranspiration effects of trees can be utilised in conjunction with the design of buildings and spaces to provide local microclimatic benefits”.
- 4.1.11 The impact of shade upon the Proposed Development is not considered to be significant or negative.

Future growth

- 4.1.12 Due to the location of retained trees, future growth of trees is not considered to be an issue to the Proposed Development.
- 4.1.13 Minor pruning of lateral branches will address any issues where the canopy of trees encroaches towards the proposed buildings.

5 TREE PROTECTION

Tree Protection Fencing

- 5.1.1 The principal protection for the retained trees is provided by Tree Protection Fencing (TPF) positioned to form a Construction Exclusion Zone (CEZ) around retained trees. No access should be allowed to the other than for operations specified in the approved documents or those agreed with the LPA later.
- 5.1.2 In this instance, the site boundary will provide a protective barrier for the off-site trees.
- 5.1.3 Should no boundary fence be erected, Tree Protection Fencing should be in the location show on the Tree Protection Plan at **Appendix 3**.
- 5.1.4 The CEZ must be in place prior to the commencement of construction work on site. The TPF must not be moved or relocated without approval from the Project Arboriculturist and, where necessary, approval from the Local Planning Authority.
- 5.1.5 The TPF specification should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees.
- 5.1.6 The most common specification as illustrated in BS5836:2012 Figure 3b (Appendix 4) comprises welded mesh panels (Heras Fencing) on rubber or concrete feet, the panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from within the fence. The distance between fence couplers should be at least 1m and should be uniform throughout the fence. The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins. Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray.
- 5.1.7 Weatherproof signage will be attached to the fencing with words such as 'Construction Exclusion Zone – No Access'.
- 5.1.8 At the end of the project the fence will be removed only after confirmation by the Project Arboriculturist and the Council that this is appropriate.
- 5.1.9 At the end of the project the TPF will be removed only after confirmation by the PA and the Council that this is appropriate.

Temporary Ground Protection

- 5.1.10 In order to implement the Proposed Development, there will be a requirement to position construction scaffolding and/or a working zone within the RPA of several trees to be retained.
- 5.1.11 The location of temporary ground protection is illustrated on the Tree Protection Plan at Appendix 3.
- 5.1.12 The specification will be as set out in BS5837:2012 - Paragraph 6.2.3.3 - For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.
- 5.1.13 An example specification has been included at Appendix 6, the final specification will be agreed with the appointed contractor and details submitted to the LPA prior to installation. Tree Root Protection.

-
- 5.1.14 To facilitate the installation of new pavement within the RPA of three retained trees, a cellular confinement tree root protection system is advised. The location of this Tree Root Protection is shown on the Tree Protection Plan at Appendix 3.
- 5.1.15 For the purposes of this AIA, Greenfix Geoweb has been recommended. The final specification should be confirmed within an Arboricultural Method Statement.
- 5.1.16 For this application, the depth of system to be used is:
- ② 100mm – Suitable for light vehicle traffic (up to 6t gross weight).
- 5.1.17 The top surface for all areas will be a permeable block paving or similar.
- 5.1.18 The manufacturers recommended method statement for installation of the system can be found at Appendix 5.
- 5.1.19 The appointed Project Arboriculturist will be on site throughout the installation of the Tree Root Protection system.

6 REFERENCES

- 6.1.1 British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'
- 6.1.2 British Standard 3998:2010 'Tree work – Recommendations'
- 6.1.3 BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations
- 6.1.4 National Planning Policy Framework (NPPF) 2021
- 6.1.5 The Forestry Act 1967
- 6.1.6 The Town and Country Planning Act 1990
- 6.1.7 The Town and Country Planning (Tree Preservation) (England) Regulations 2012.

APPENDIX 1: SITE LOCATION PLAN

Figure 1

Site Location Plan



APPENDIX 2: TREE SCHEDULE

Figure 2														BS5837:2012 TREE SCHEDULE				
Tree No.	Common Name	Botanical Name	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown (m)	Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary recommendations	BS5837 Retention Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
T1	London plane	<i>Platanus x hispanica</i>	17	850	6	5	5	6	2		Mat	Good	Good	Located on grassy area next to main building. Tree is consistent with adjacent trees. Previously been pollarded with good regrowth. Strong aesthetic value and offers screening with adjacent residential dwellings.	No works required at time of survey	A1	327	10.20
T2	Norway maple	<i>Acer platanoides</i>	15	790	5	6	5	4	3.5		Mat	Good	Good	Located on grassy area next to main building. Tree is consistent with adjacent trees. Tree has previously been pollarded with good re growth. Strong aesthetic value and offers screening with adjacent residential dwellings.	No works required at time of survey	A1	290	9.60
T3	London plane	<i>Platanus x hispanica</i>	18	830	6	6	5	5	4.5		Mat	Good	Good	Located on grassy area next to parking area. Tree is consistent with adjacent trees. Tree has previously been pollarded with good re growth. Hard surfacing present to west, approx 3m from base. Strong aesthetic value and offers screening with adjacent residential dwellings.	No works required at time of survey	A1	308	9.90
T4	Silver birch	<i>Betula pendula</i>	15	300	6	5	2	5	5		EMat	Good	Fair	Tree located within grassy verge next to parking area. Tree is consistent with neighbouring specimens. Tree has previously been crown raised with partially occluded pruning wounds associated.	No works required at time of survey	C1, 2	41	3.60
T5	Silver birch	<i>Betula pendula</i>	15	210	2	3	2	3	5		EMat	Fair	Fair	Located within grassy verge next to parking area. Tree is consistent with neighbouring specimens. Tree has moderate vigour and a small canopy. Minor deadwood associated.	No works required at time of survey	C1, 2	18	2.40
T6	Silver birch	<i>Betula pendula</i>	9	290	2	2	2	2	2.5		EMat	Fair	Fair	Located within grassy verge next to parking area. Tree is consistent with neighbouring specimens. Tree is showing decline within canopy with moderate canopy vigour. Tree has previously lost par of canopy. Minor deadwood associated.	No works required at time of survey	C1, 2	41	3.60
T7	Common beech	<i>Fagus sylvatica</i>	18	850	7	8	8	7	2		Mat	Good	Good	Tree located within grassy area directly on edge of hard surfacing car park. Hard surfacing present at base to north of tree with curb being raised. Good vigour with a radial canopy. Strong aesthetic value.	No works required at time of survey	A1	327	10.20
T8	Sycamore	<i>Acer pseudoplatanus</i>	13	390	5	4	4	5	2.5		EMat	Good	Fair	Part of the ornamental planting on site located at front of site.	No works required at time of survey	B1	72	4.80
T9	Silver birch	<i>Betula pendula</i>	8	300	3	3	3	3	4.5		EMat	Fair	Fair	Part of the ornamental planting on site located at front of site.	Remove tree to facilitate proposed development	C1	41	3.60
T10	English holly	<i>Ilex aquifolium</i>	4	180	3	3	3	3	1.3		S/Mat	Fair	Fair	Offsite tree located directly behind wooden panel fence. No access to base, attributes estimated.	No works required at time of survey	C1	14	2.10

APPENDIX 3: PLANS

Figure 3

TREE CONSTRAINTS PLAN



KEY:

- Trees / Groups
- Canopy Spread
- True Stem
- Root Protection Area
- A Category Tree (High quality / retention value)
- B Category Tree (Medium quality / retention value)
- C Category Tree (Low quality / retention value)
- D Category Tree (No remaining retention value)
- Hedges (Not assigned B55833:2012 category)

Rev	Description	Date



PROJECT Park House, Nottingham	
TITLE Tree Constraints Plan	
DRAWING REF 1494-TCF-001-A	DRAWING NO 001
SCALE 1:500 @ A3	REVISION Rev A

Figure 4

ARBORICULTURAL IMPACT PLAN



- KEY:**
- Tree / Group
 - Canopy Spread
 - Tree Stem
 - Root Protection Area
 - A Category Tree (High quality / retention value)
 - B Category Tree (Moderate quality / retention value)
 - C Category Tree (Low quality / retention value)
 - U Category Tree (Poor remaining retention value)
 - Hedge (not assigned BS5837:2012 category)
- ARBORICULTURAL IMPACT**
- Tree to be REMOVED
 - New RPA Incursion

Rev 1	Issue 1	19/10/2023
Rev 2	Issue 2	19/10/2023
Rev 3	Issue 3	19/10/2023
Rev 4	Issue 4	19/10/2023

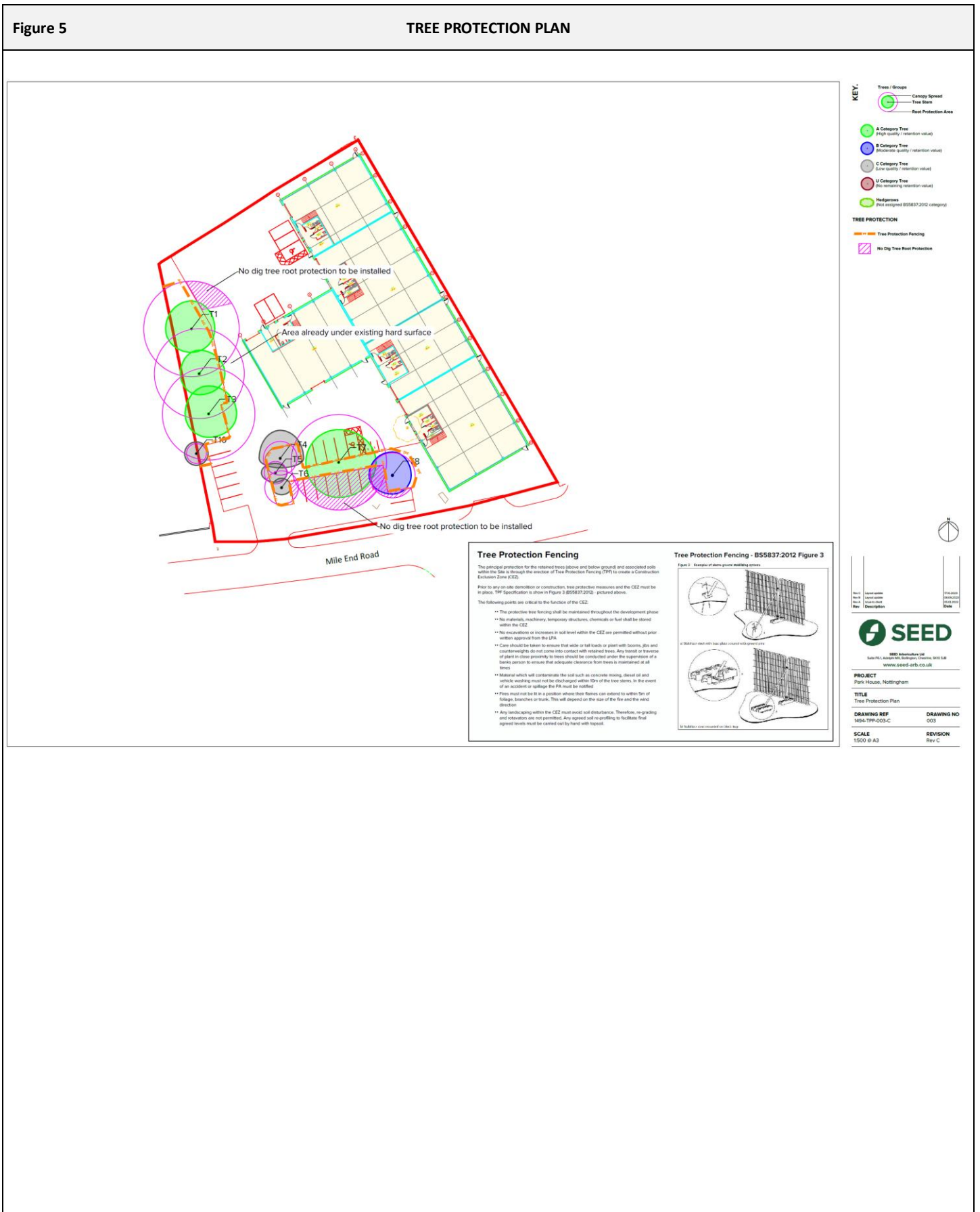


SEED Arboriculture Ltd
 Suite 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

PROJECT	
Park House, Nottingham	
TITLE	
Arboricultural Impact Plan	
DRAWING REF	DRAWING NO
1634-AP-002-C	002
SCALE	REVISION
1500 @ A3	Rev C

Figure 5

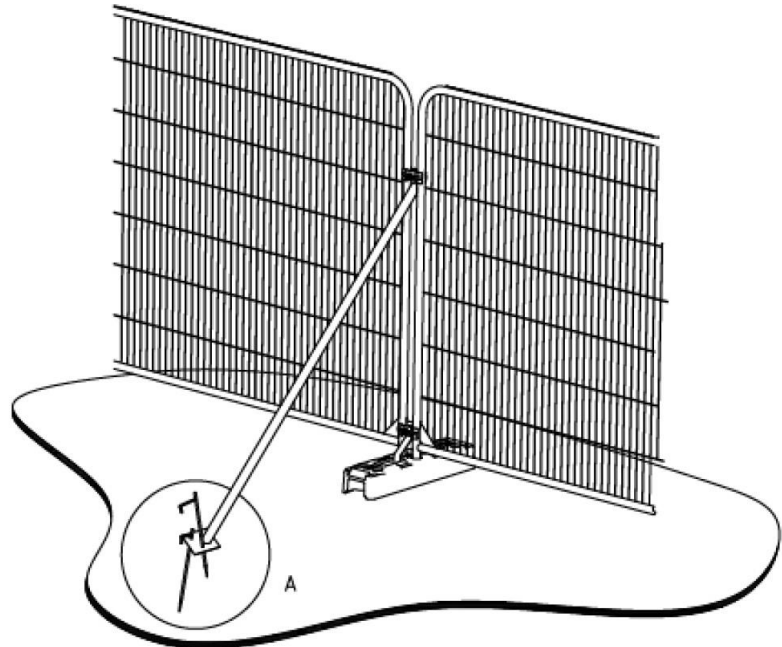
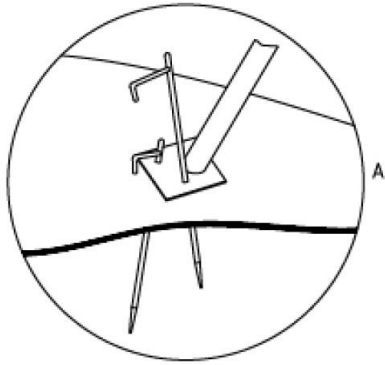
TREE PROTECTION PLAN



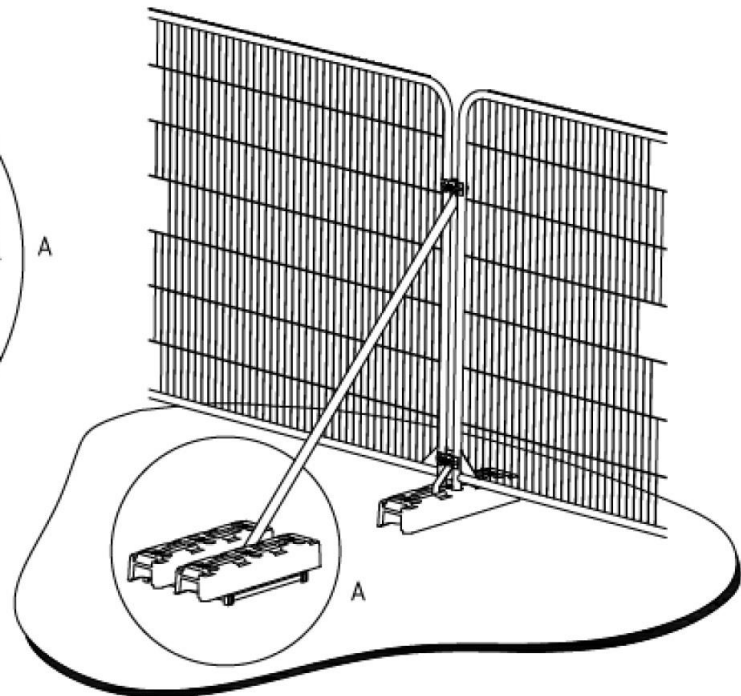
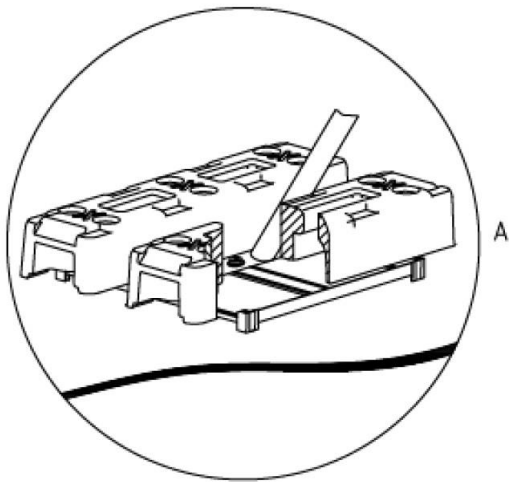
APPENDIX 4: TREE PROTECTION SPECIFICATION

Figure 6

Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Figure 7

TREE PROTECTION AREA



NO ACCESS - TREE PROTECTION AREA

- NO MATERIALS, MACHINERY, TEMPORARY STRUCTURES OR CHEMICALS SHALL ENTER OR BE STORED WITHIN THIS AREA
- FENCING WILL NOT BE ALTERED OR MOVED WITHOUT PRIOR AGREEMENT OF THE PROJECT ARBORICULTURIST.



TREE PROTECTION FENCING

- TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
- UNAUTHORISED DAMAGE TO PROTECTED TREES IS A CRIMINAL OFFENCE AND COULD LEAD TO ENFORCEMENT ACTION.



For any issues relating to this Tree Protection Fencing or other guidance with any arboricultural matters on this development, please contact **Seed Arboriculture Ltd.**

www.seed-arb.co.uk

-

info@seed-arb.co.uk

-

01625 460 252

APPENDIX 5: GEOWEB INSTALLATION METHOD

PRESTO



INSTALLATION GUIDE

■ simplified



GEOWEB® Tree Root Protection



INSTALLATION GUIDE
simplified version



GEOWEB® Tree Root Protection

- 1 Prepare subgrade. Remove debris, rocks.



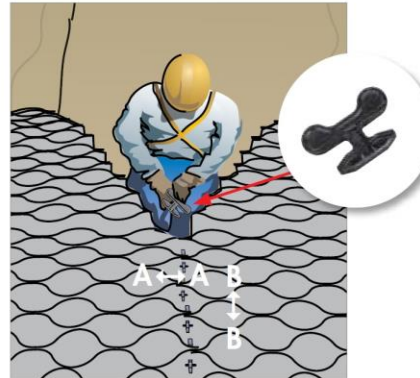
- 2 Install TRP4000 geotextile.
Overlaps by minimum 300 mm.



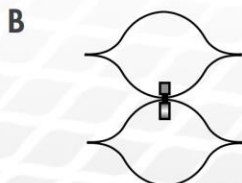
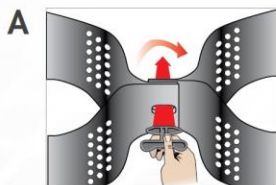
- 3 Partially expand GEOWEB® sections.



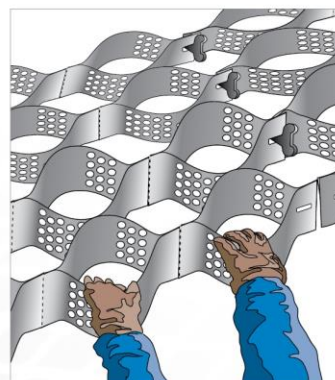
- 4 Connect GEOWEB® sections with ATRA® keys.



- 5 Connect side to side (A) and end to end (B).



- 6 Fully expand GEOWEB® sections.

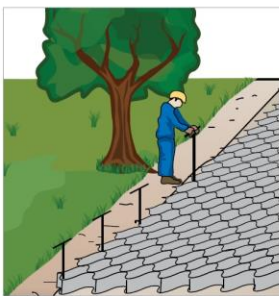


IMPORTANT NOTE:

The simplified installation guide provided by Presto GEOSYSTEMS® is intended as a general guideline only. The contractor should follow contract plans and specifications and refer to detailed installation guidelines for more information.

7 Hold sections open. Use Options A, B, C or D.

A T-Bars



B ATRA® anchors



C Wood Stakes



D Infill Select Cells



8 Infill GEOWEB® cells.



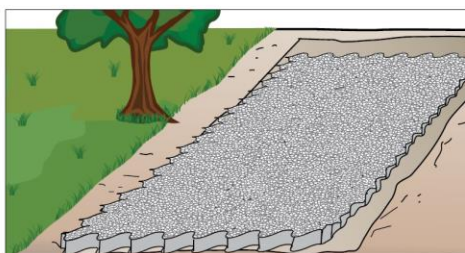
9 Spread Infill ensuring a 25 mm overfill at all times.



10 If required, use a 4t smooth, non-vibrating roller on overfilled GEOWEB® system. Refill as needed to ensure a 25 mm overfill.



11 Surface option ready to install according to specification.



Greenfix
Soil Stabilisation and Erosion Control Specialists

info@greenfix.co.uk
 tel: 01608 666027
www.greenfix.co.uk

Geoweb infill material for Tree Root Protection
Clean Angular Stone 4-20mm

Specification for open graded infill material for Geoweb cellular confinement within tree root protection applications. The no fines material is to ensure high ratio void space which corresponds with ideal soil void ratios for tree root health.

Material to BS EN 13242 or BS EN 12620. Crushed gravel is not permitted.

Properties of material	Test	Value
Grading of particle size	BS EN 13242	Grading 4-20mm
Fines Content	BS EN 13242	F4
Shape flatness index	BS EN 13242	F30
Resistance to fragmentation	BS EN 13242	LA50
Resistance to wear	BS EN 13242	Mix20
Water absorption rate BS EN 1097-6:2000 clause 7	BS EN 13242	WA _{4,2}
For typical W/A: 2% magnesium sulphate soundness	BS EN 13242	MS2
Acid soluble sulphate content air-cooled blast furnace slag	BS EN 13242	ASo1
Acid soluble sulphate content non air cooled blast furnace slag	BS EN 13242	ASo2
Total sulphur aggregates other than air cooled blast furnace slag	BS EN 13242	<1% by mass
Total sulphur air cooled blast furnace slag	BS EN 13242	<2% by mass

Sieve Size mm	Percentage of 4-20mm passing
40	100
31.5	98 - 100
20	90 - 99
10	25 - 70
4	0 - 15
2	0 - 5
1	-



Air cooled blast furnace and steel slag should be free from Dicalcium silicate and iron disintegration in accordance with BS EN 13242:2002, 6.4.2.2 V5
 Leaching of materials for blast furnace slag and other recycled materials should meet requirements of the Environmental waste acceptance criteria for inert waste when tested in accordance with BS EN 12457-3
 On poor site conditions which require compaction, this should be minimum 4 passes of a smooth wheeled roller at max weight 1000kg/m width without vibration.

For assistance on correct 4–20mm clean angular stone infill specification, please contact Greenfix technical team.



MATERIALS SUPPLIED BY Greenfix

GEOWEB®



TRP4000
Non-woven Geotextile



ANCHORS



ATRA® KEY



ADDITIONAL MATERIALS REQUIRED

4–20mm clean, angular stone



LIMITED WARRANTY

Presto GEOSYSTEMS® warrants each GEOWEB® section which it ships to be free from defects in materials and workmanship at the time of manufacture. Presto's exclusive liability under this warranty or otherwise will be to furnish without charge to Presto's customer at the original f.o.b. point a replacement for any section which proves to be defective under normal use and service during the 10-year period which begins on the date of shipment by Presto. Presto reserves the right to inspect any allegedly defective section in order to verify the defect and ascertain its cause.

This warranty does not cover defects attributable to causes or occurrences beyond Presto's control and unrelated to the manufacturing process, including, but not limited to, abuse, misuse, mishandling, neglect, improper storage, improper installation, improper alteration or improper application.

PRESTO MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, IN CONNECTION WITH THE GEOWEB® SYSTEM. IN NO EVENT SHALL PRESTO BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OR FOR ANY OTHER REASON, INCLUDING NEGLIGENCE, IN CONNECTION WITH THE GEOWEB® SYSTEM.

GEOSYSTEMS®, GEOWEB®, and ATRA® are registered trademarks of Reynolds Presto Products Inc.

GEOWEB® MANUFACTURER:



PRESTO GEOSYSTEMS®
Appleton, Wisconsin, USA

EU HEAD OFFICE/ENGINEERING SUPPORT:



SOILTEC GmbH: Germany
www.soiltec-geosystems.de

DISTRIBUTED BY:



Greenfix Soil Stabilisation & Erosion Control Limited
Old Manor Farm Yard
Beckford Road
Ashton under Hill
Evesham
Worcestershire
WR11 7SU
info@greenfix.co.uk
www.greenfix.co.uk
01608666027

APPENDIX 6: TEMPORARY GROUND PROTECTION

Recommended specification

BS5837:2012 - Paragraph 6.2.3.3 - For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.

Membrane - TERRAM T1000 Geotextile

Compression later – woodchip (provided on-site by tree work contractors) 150mm depth

Ground Protection Boards – Ground-Guards MultiTrack 39kg mats

Edging – Timber or other similar.

Image 1- Ground-Guards temporary tree root protection- example



APPENDIX 7: LIMITATIONS

The contents of this report are valid at the time of writing. SEED Arboriculture Ltd shall not be liable for any use of this report other than for the purposes for which it was produced. Owing to the dynamic nature of trees, this report is valid for a period of 12 months.

Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made.

The tree survey was a preliminary assessment from ground level and observations were made solely from visual inspection for the purposes of an assessment relevant to planning and development. This report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a tree risk assessment.

This is not an ecological report. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 make it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Where the presence of birds or bats is suspected, a qualified ecologist or Natural England should be contacted for advice.