

Arboricultural Impact Assessment

Phase 1, Eastern Gateway Pocket Park, Upper Heyford

On behalf Heyford Park Settlements LP

19 March 2019

Prepared by: Michael Paginton TechArborA

**BS5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION AND CONSTRUCTION –
RECOMMENDATIONS'**

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REVISIONS:

Date	Rev	Description	Initials
12.02.19	-	First Issue	MGP
19.03.19	A	Updated site layout	MGP

1 INTRODUCTION

1.1 LandArb Solutions Ltd have been instructed by Heyford Park Settlements LP to prepare an Arboricultural Statement to accompany a planning application for a proposed pocket park on land off Camp Road adjacent to the previous Phase 1 development.

1.2 With reference to the above information and BS 5837:2012, LandArb Solutions Ltd was subsequently also instructed to assess the impact of development proposals on the site's arboricultural resource and to produce the following:

- Arboricultural Impact Assessment; and
- Tree Retention/Removal and Protection Plan.

2 REPORT LIMITATIONS

- 2.1 Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. They have the potential to fail structurally, without prior manifestation of any reasonably observable symptoms. It is therefore not possible to categorically state that any tree is 'safe'.
- 2.2 This report is prepared for planning application purposes only and does not evaluate the degree of risk posed by trees.
- 2.3 It is beyond the scope of this report to comment in relation to structural damage – direct or indirect, existing or potential – that might be associated with vegetation growth, or vegetation-related soil subsidence or heave.
- 2.4 Any management recommendations set out within this report are of an advisory and preliminary nature only and relate to trees within the context of current site use. Any physical alterations to site conditions subsequent to the date of the site survey will have the potential to change/invalidate the findings and recommendations of this report.
- 2.5 The findings and recommendations of this report are limited to a period of 24 months from the date of this report.

3 DOCUMENTS AND INFORMATION RECEIVED

3.1 For the purposes of preparing this Arboricultural Impact Assessment LandArb Solutions were provided with the following information:

1. Previous Arboricultural Impact Assessment Report and Tree survey prepared by West Waddy ADP (February 2018).
2. Detailed Landscape Proposals, Pegasus Group, Drawing BIR4322_35K dated 21.12.2018
3. Detailed Landscape Proposals, Pegasus Group, Drawing BIR4322_35L dated 11.02.2019
4. Detailed Landscape Proposals, Pegasus Group, Drawing BIR4322_35M dated 18.03.2019

4 DESCRIPTION OF THE SITE AND TREES

Description of the site

4.1 The site is located on land on the corner between the entrance to Heyford Leys Camping Park and Camp Road, opposite Larsden Road, RAF Upper Heyford.

- Post Code OX25 5LX
- Grid reference: SP 51788 25710

4.2 The site comprises a small area of open space/grassland enclosed behind chain-link fence and site hoarding. Immediately to the south-west of the site area is an electric substation. Access to the sub-station is located to the Southern boundary of the site off the Heyford Leys camp site access. To the West of the site is residential development completed as part of Phase 1. To the North of the site is Camp Road and to the East is Duvall Park.

4.3 In terms of vegetation the interior of the site and North, Western and Southern boundaries are void of any trees or shrub. On the Eastern boundary is a small linear group of Leylandii cypress trees, many of which have been topped in the past. The majority of the group form understory vegetation to a mature Norway Maple and mature Horse Chestnut tree.

Tree Survey

4.4 The site was included as part of a tree survey of the Phase 1 site area in 2013 (Application 13/01394/REM). The survey was carried out by Pegasus Group. The previous survey identified the existing cypress group (G293) and Horse Chestnut (T292) tree as being of Low Quality (Category C). A further tree, T26 which comprised a Leylandii cypress was also identified and considered to be of Low Quality (Category C).

4.5 A re-survey of the site area was undertaken on 7th February 2018 by West Waddy ADP. Survey data is set out within Appendix 1 with tree locations shown on the Tree Retention/Removal and Protection Plan at Appendix 4. The re-survey was carried out in accordance within BS.5837:2012. The re-survey identified both G293 and T292 as

being of low quality. A large mature Norway Maple T26 was identified and considered to be of Moderate Quality (Category B).

5 STATUTORY TREE PROTECTION

- 5.1 The site is located within the RAF Upper Heyford Conservation Area.
- 5.2 It must therefore be noted that the trees that are located within the Conservation Area are subject to statutory protection. Notwithstanding specific exemptions and in general terms, a Conservation Area prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees or woodlands without the prior consent of the local planning authority.
- 5.3 Penalties for contravention of a Conservation Area tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £25,000 if convicted in a Magistrates' Court, or an unlimited fine if the matter is determined by the Crown Court.
- 5.4 Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

6 DEVELOPMENT PROPOSALS AND IMPACT ASSESSMENT

Description of Proposals

- 6.1 Proposals are for the creation of a Pocket Park. Proposals are shown on the Detailed Landscape Proposal Plan, Drawing BIR.4322_35-M, prepared by Pegasus Group (See Appendix 2)

Arboricultural Impact Assessment

- 6.2 With reference to BS5837:2012 '*Trees in relation to design, demolition and construction*', this AIA evaluates the direct and indirect effects of proposals on the site's arboricultural resource. With reference to BS5837:2012, the AIA includes the following information:

- Tree Retention / Removal and Protection Plan (Appendix 4); and
- a description of the potential impact of proposals (Appendix 3 and 6.3-6.10 below).

Tree Removal

- 6.3 It is proposed to redevelop the site to create a new Pocket Park. Both T292 and G293 are to be removed.
- 6.4 T292 has a poor form due to suppression from T26. It also exhibited signs of bleeding canker. G293 has been topped beneath the canopy of T26 and T292. Both T292 and G293 are assessed to be of low quality due to their condition. It is considered that their removal would be acceptable with their loss being of minor significance.

Assessment of Impacts to retained trees

- 6.5 T26 is a mature tree with public visual amenity value given its location in proximity to Camp Road. It has been assessed as having a good physiological condition with some minor deadwood and overall being of moderate quality.
- 6.6 A review of the proposed Landscaping Plan shows that T26 can be retained. Furthermore, it shows that proposals have responded to arboricultural constraints by locating a new Hoggin footpath, park benches and new parking bays outside of the RPA of T26. Although these works will occur outside of the RPA of T26, there is a

potential for some compaction impacts/ground disturbance to occur within the RPA (i.e. through storage of materials/equipment etc). It is therefore recommended that temporary tree protection fencing is installed to deter encroachment until the works to the western part of the pocket park are completed.

6.7 Proposals show that a 1m high flat top railing boundary fence is to be installed which encroaches into the RPA. Given the nature of the proposals, it is not considered that installation of the new fencing will cause any significant adverse impacts to T26. However, post hole excavation has the potential to cause minor root damage/severance therefore it is recommended that the following working methods are observed when carrying out any post hole excavations:

- Post holes to be excavated using hand tools only;
- If during post hole excavation large roots under 25mm are found these should be pruned back to edge of excavation using sharp cutting tool. Roots over 25mm are discovered these must be retained and alternative post hole locations excavated; and
- Post holes should be lined with an impermeable membrane prior to any concrete pouring.

Tree Protection

6.8 As a precaution it is recommended that following the removal of T292 and G293, temporary tree protection fencing is installed as shown on the Tree Retention/Removal and Protection Plan. Fencing will prevent access into the RPA whilst works are undertaken installing a new acoustic fence on the south-western boundary and new parking area, hoggin path and benches. Once these works are completed, the temporary fencing could be removed to allow installation of the flat top railings.

New Planting

6.9 It is noted that proposals are to be supported by new tree and shrub planting. The Detailed LAP proposals plan (drawing BIR.4322_35-M) proposes three replacement trees, including two *Carpinus betula* 'Frans Fontaine' (at Extra Heavy Standard) and one *Fagus sylvatica* f. *Purpurea* (at Semi Mature). Along with these three replacement

trees, proposals include for new climbers, shrub planting and native hedgerow planting.

- 6.10 The proposed creation of a pocket park represents a significant opportunity to increase the multifunctional green infrastructure quality of the site well beyond its current value and use. Although proposals will result in the loss of two survey items, proposals will more than compensate for the loss through new tree and shrub planting. More importantly new tree and shrub planting will help contribute to the creation of new high-quality open space for the benefit and enjoyment of local residents.

7 Summary

- 7.1 LandArb Solutions has been commissioned to prepare and Arboricultural Statement to support a planning application for the creation of a new Pocket Park.
- 7.2 The application site contains three survey items including mature field maple (T26), Horse Chestnut (T292) and early-mature line of cypress (G293).
- 7.3 It is proposed to retain mature field maple T26 and remove low quality items T292 and G293. Given the assessed quality, it is considered that the loss of these items is acceptable and can be mitigated by new tree and shrub planting on the site.
- 7.4 It is considered that proposals are acceptable from an arboricultural perspective for the following reasons;
- Proposals will retain moderate quality (Category B) T26;
 - All survey items to be removed are of low quality (Category C);
 - The loss of surveyed items T292 and G293 can be compensated/mitigated by new tree and shrub planting on site;
 - New tree and shrub planting has the potential to enhance the visual amenity of the site compared to the existing situation as well as lead to an increase in tree/shrub numbers and species diversity.

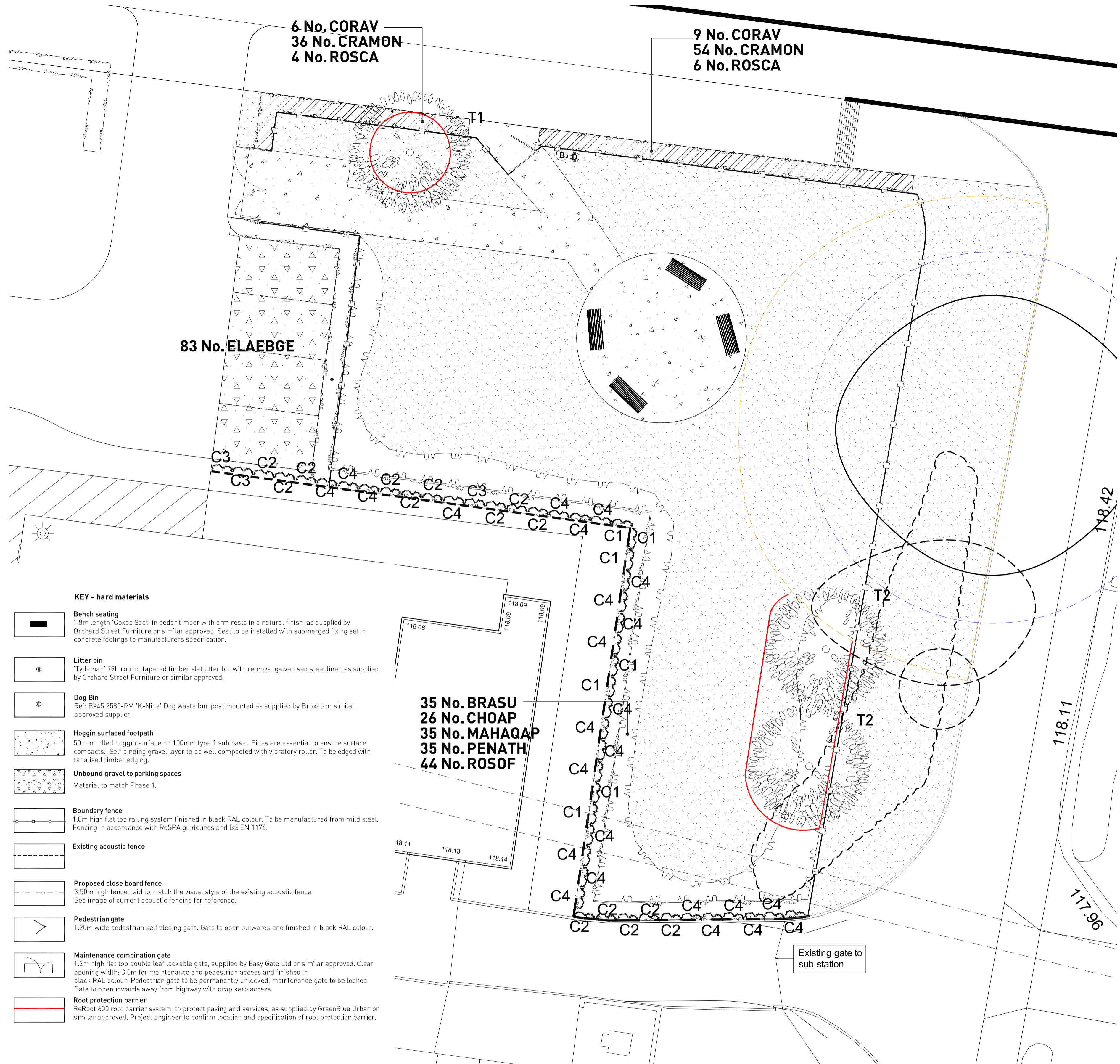
APPENDIX 1: TREE SURVEY SCHEDULE

Date: 07.02.18		Site: Upper Heyford											Surveyor: MP				Client: Dorchester Group				Job no:732					
Ref number	Species	Height	Estimate	Stem dia	Estimate	Spread						Crown clearance height				Life stage	General observations Physiological and structural condition. Preliminary management recommendations	Structural Condition	Physiological Condition	ULE	Quality grading	RPA radius	RPA area			
						N	E	S	W	Estimate	Estimate	Estimate	Estimate	1st branch	1st branch direction									Canopy	Estimate	
T26	Norway maple	15.0	-	690	-	6.0	-	6.5	-	7.0	-	7.0	-	2.0	-	North west	2.0	-	M	Fused branch on western side, dense canopy structure with good shape. Minor deadwood, set adjacent fence, union at 2m. Cypress growing beneath canopy	Fair	Good	20+	B1	8.3	215
T292	Horse chestnut	10.0	-	460	-	3.0	-	3.0	-	4.0	-	5.0	-	2.0	-	South	1.5	-	M	Union at 2m, suppressed to north and south, poor form. Black lesions on stem and lower branch to south possible canker.	Poor	Fair	10+	C1	5.5	96
G293	Cypress	10.0	-	100	-	0.0	-	0.0	-	3.0	-	2.5	-	0.0	-	-	0.0	-	EM	Cypress stems along boundary fence. Larger stem to south of horse chestnut with smaller stems under mature tree canopies to the north. Low quality group. Larger stem to south to 260mm smaller to north up to 100-150mm. Cypress under canopies have been topped.	Poor	Fair	10+	C2	1.2	5

APPENDIX 2: LANDSCAPE PROPOSALS PLAN

IMPLEMENTATION AND MAINTENANCE GUIDELINES

- 1.0 GENERAL**
- All plants shall conform to BS 3938 and be in accordance with the National Plant Specification. Supplying nurseries shall be registered under the NPL Nursery Certification Scheme. All plants shall be packed and transported in accordance with the Code of Practice for Plant Handling as produced by CPSE. Planting shall not be carried out when the ground is waterlogged, frosted or during periods of cold drying winds. All bare root stock shall be root dipped in an approved water-retaining polymer.
- If the formwork level is compacted it should be ripped through before topsoiling.
- Topsoil depths to be 150mm for shrub beds and 150mm for grass areas.
- 2.0 ORNAMENTAL SHRUBS AND TREES**
- 2.1 Ground Preparation**
Where necessary treat existing weeds with a glyphosate based herbicide and allow a suitable period as recommended by the manufacturer for this to take effect. A general purpose slow release fertiliser at the rate of 75g/m² and Tree Planting and Mulching Compost at the rate of 20kg/m² are to be incorporated into the top 150mm of topsoil during final site works. All non-soil matter such as plastic, wood, metal and stones greater than 50mm in any dimension shall be removed from site.
- Tree pits are to be excavated and the base broken up a further 150mm with the sides well scarified to prevent smearing. All trees up to and including selected standards are to be supported with single 30mm diameter stakes. All rootball, container grown and trees over heavy standard size shall be double staked. Any feature trees some mature in size to be secured with a before ground anchoring system back as a standard anchor. Stakes should be driven 500mm into undisturbed ground before planting the tree, taking care to avoid underground services and cables.
- 2.2 Planting**
Shrubs and hedges are to be set out as shown on the drawing and pit planted into the prepared soil at the specified centres with minimum disturbance to the rootball or to the well finished.
- Trees are to be placed into the pits and back filled with topsoil incorporating slow release fertiliser and Tree Planting and Mulching Compost as specified. Firm trees in well and secure with proprietary rubber tree ties and spacers.
- Water in all trees and shrubs at the end of each day of planting.
- Spread ornamental pine bark mulch to a depth of 75mm across all new planting areas, ensuring groundcover plants are not buried.
- 2.3 Maintenance**
The landscape contractor shall maintain all areas of new planting for a period of 12 months following practical completion. All stock deemed to be dead, dying or diseased within the defects period shall be replaced by the contractor at his own cost.
- The site to be visited monthly throughout the year to undertake the following operations:
Weed clearance: All planting areas are to be kept weed free by hand weeding or herbicide treatment.
Fertiliser: All trees to be removed from planting beds.
Watering: Planting areas are to be brought up to field capacity at each visit and each tree to receive 20 gallons.
Checking trees: All trees and stakes are to be checked and adjusted if too loose, too tight or if charring is occurring. Any broken stakes are to be replaced.
Formative pruning: Any damaged shoots/branches are to be pruned back to healthy wood. Plants are to be pruned in accordance with good horticultural practice to maintain healthy well-shaped specimens.
- 3.0 NATIVE HEDGE PLANTING**
- 3.1 Setting Out**
The hedge line shall be set out using 30x30x1200 stakes at maximum 50m intervals and all herbaceous material within 100mm of the centre line shall be sprayed out using an approved herbicide at least two weeks before planting.
- 3.2 Preparation**
The 800mm wide hedge line shall be cultivated to 150mm incorporating Ennag or equal at 75g/m².
- 3.3 Planting**
Plants shall be north planted in two rows 250mm apart and staggered at 300mm centres. All plants are to be protected with a 400mm proprietary shelter secured with a stake/cane and ties as recommended by the manufacturer.
- 3.4 Maintenance**
Main approved herbicides at 800mm wide swathe centred on the hedge line shall be kept weed free throughout the maintenance period.
- Each Autumn after planting and until hedges to the adjoining activity, the contractor will prepare a list of all plants which are dead, dying or diseased and will replace these plants during the following planting season.
- 4.0 GRASS**
- 4.1 Preparation**
The areas to be seeded shall be sprayed out with a glyphosate herbicide and cultivated to a depth of 100mm removing all weeds, debris and stones over 20mm diameter. The surface shall be raked to smooth flowing contours with a fine rib, incorporating pre-seeding fertiliser at 70 g/m².
- 4.2 Turf**
Turfing operations shall be in accordance with BS 4438.
- Whole turves shall be laid around the perimeter of the area to be turfed. The central area shall be laid in rows with staggered joints, well butted together, working from planks positioned on turves already laid. The turf shall be watered on completion. Any unevenness shall be made good by lifting the turf and adjusting the levels. Should shrinkage occur, the topsoil shall be brushed into the joints.
- 4.3 Seeding**
Grass seed shall be sown in April during calm weather and not when the ground is too hard or waterlogged. Seed shall be sown in two equal rows in transverse directions at 20 g/m². After sowing the contractor shall lightly rake the seed into the substrate with the soil. All seed mixers to be specified in accordance with those set out in the approved management plan.
- 4.4 Initial cut**
When newly seeded areas reach 50mm they should be cut back to a height of 50mm and then cut twice annually in early Spring and late Summer. All wastings shall be removed or spread evenly across grassland. Any bare patches shall be made good at the time.
- 5.0 TOPSOIL**
- 5.1 Existing Topsoil**
Pre-planting herbicide application:
Apply by suitable spraying apparatus, an approved translocated systemic herbicide to the manufacturer's instructions and to 1997 Control of Pesticides Regulations and 2002 COSHH regulations on all beds, except those which are both weed free and are to receive agricultural sheet mulch. Spray immediately if any weeds are present. If none are showing, but there may be a delay before planting, or the areas to be seeded, spray after one month following cultivation, to allow dormant seed to germinate. All spraying shall be carried out by skilled and qualified operators using protective clothing. In suitable weather (no wind and any damage caused by spray drift, from incorrect usage or spillage, shall be notified at the contractor's own cost, thereof as necessary to ensure complete kill and make up of all dead material from site.
- Carry out the following works to the existing topsoil on site to ensure it conforms to BS 3882:2015, being free from roots larger than 50mm diameter, concrete, all roots, wire, brick, and have less than 2% clay. Allow for pre-application of herbicide as above. Fertilise with 100g per meter square of 18-4-12 NPK slow release fertilizer, in accordance with the manufacturer's instructions. For beds less than 5 meters in width, fork over thoroughly or machine rotavate soil to a depth of 300mm, ensuring that the substrate and topsoil are completely broken up and free of debris, including any concrete. For beds greater than 5 meters in width, break up the substrate and topsoil using a tractor mounted subsoiler or ripper at 500mm centres to a depth of 300mm, except where there are services or within 10 meters of tree roots or 2 meters of existing hedges. Do not rip areas where roots greater than 10mm diameter are encountered.
- 5.2 Imported Topsoil**
Any imported topsoil for making up ground, shall conform to BS 3882:2015, and be free from roots over 50mm diameter, concrete, roots, wire and brick, and have less than 2% clay.



- KEY - hard materials**
- Bench seating**
1.8m length 'Coxes Seat' in cedar timber with arm rests in a natural finish, as supplied by Orchard Street Furniture or similar approved. Seat to be installed with submerged fixing set in concrete footings to manufacturers specification.
 - Litter bin**
'Tydeman' 79L round, tapered timber slat litter bin with removal galvanised steel liner, as supplied by Orchard Street Furniture or similar approved.
 - Dog Bin**
Ref: EX45 2580-PM 'K-Nine' Dog waste bin, post mounted as supplied by Broxap or similar approved supplier.
 - Hoggin surfaced footpath**
50mm rolled hoggin surface on 100mm type 1 sub base. Fines are essential to ensure surface compacts. Self binding gravel layer to be well compacted with vibratory roller. To be edged with tanalised timber edging.
 - Unbound gravel to parking spaces**
Material to match Phase 1.
 - Boundary fence**
1.0m high flat top railing system finished in black RAL colour. To be manufactured from mild steel. Fencing in accordance with RoSPA guidelines and BS EN 1176.
 - Existing acoustic fence**
 - Proposed close board fence**
3.50m high fence, laid to match the visual style of the existing acoustic fence. See image of current acoustic fencing for reference.
 - Pedestrian gate**
1.20m wide pedestrian self closing gate. Gate to open outwards and finished in black RAL colour.
 - Maintenance combination gate**
1.2m high flat top double leaf lockable gate, supplied by Easy Gate Ltd or similar approved. Clear opening width: 3.0m for maintenance and pedestrian access and finished in black RAL colour. Pedestrian gate to be permanently unlocked, maintenance gate to be locked. Gate to open inwards away from highway with drop kerb access.
 - Root protection barrier**
ReRoot 600 root barrier system, to protect paving and services, as supplied by GreenBlue Urban or similar approved. Project engineer to confirm location and specification of root protection barrier.

- KEY**
- Soft landscape proposals**
See plant schedule for details.
 - Existing trees/vegetation to be removed**
 - Existing trees/vegetation to be retained**
Root protection area (blue) and adjusted root protection area (yellow) to compensate for paving. Levels to be retained unchanged within RPAs.
 - Areas of grass seed**
Amenity grass seed mix to informal areas.

PLANT SCHEDULE

TREES

REF	SPECIES	SUPPLY	SIZE(cm)	GIRTH(cm)	CTRS(m)
T1	Fagus sylvatica f. purpurea	SM	500	20/25	as shown
T2	Carpinus betulus 'Frans Fontaine'	EHStd	450/650	18/20	as shown

All trees to be planted in accordance with the implementation and maintenance guidelines. The tree planting schedule and landscape proposals must be referred to by the Structural Engineer during foundation design. No tree species, size or location should be altered without prior approval from the Landscape Architect.

NATIVE HEDGE MIX

ABBR	SPECIES	SUPPLY	SIZE(cm)
CORAV	Corylus avellana	T 1-1	60/80
CRAMON	Crataegus monogyna	2x Fthd	125/150
ROSCA	Rosa canina	T 1-1	60/80

Hedgerow shrubs to be supplied as bare root stock unless stated and to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect.

Hedgerow shrubs to be planted on a double staggered row, 250mm apart with no less than 6 per linear metre within a 50cm wide bed and mulched in accordance with implementation and maintenance guidelines. The feathered Hawthorn is to have an upright central stem furnished with evenly spread and balanced lateral growth the full length of the stem. Shrubs to be attached to a double line support (one for feathered Hawthorn at 1m high and one for hazel and dog rose at 60cm high) fence using an approved clip tie and cut back to 1m in height at time of planting.

SINGLE SPECIES HEDGEROWS - for screening

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
ELAEBGE	Elaeagnus ebbingei 'Gilt Edge'	3L	40/60	Bushy	0.70

All hedgerow shrubs to be planted in accordance with the implementation and maintenance guidelines. The landscape proposals must be referred to by the Structural Engineer during foundation design. No hedgerow shrub species, size or location should be altered without prior approval from the Landscape Architect. Hedgerow shrubs to be planted in a single row within a 50cm wide bed and mulched in accordance with implementation and maintenance guidelines.

LAP SHRUB MIX

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT	CTRS(m)
BRASU	Brachyglottis 'Sunshine'	2L	20/30	Bushy	0.70
CHOAP	Chaioya 'Aztec Pearl'	2L	20/30	Bushy	0.70
MAHAQAP	Mahonia aquifolium 'Apollo'	2L	20/30	Bushy	0.70
PENATH	Pennisetum alopecuroides 'Haremin'	2L	-	Bushy	0.70
ROSOFF	Rosmarinus officinalis	2L	20/30	Bushy	0.70

All shrubs to be planted in accordance with the implementation and maintenance guidelines. No shrub species, size or location should be altered without prior approval from the Landscape Architect. Individual species to be planted in groups of 3-7.

CLIMBERS - To electric sub station buffer

ABBR	SPECIES	SUPPLY	SIZE(cm)	HABIT
C1	Hydrangea anomala subsp. petiolaris	2L	150/175	Trellis Framework
C2	Jasminum nudiflorum	25L	60/100	Trellis Framework
C3	Lonicera x heckrottii 'Gold Flame'	25L	60/80	Trellis Framework
C4	Ceanothus thyrsiflorus 'Concha'	20L	150/175	Trellis Framework

All feature climbers to be planted in accordance with the implementation and maintenance guidelines. No feature shrub species, size or location should be altered without prior approval from the Landscape Architect.

- M- 11/03/2019 JBI Amendments to plant specifications and gates/railings.
L- 11/02/2019 API Updated to client comments.
K- 12/11/2018 JBI Updated to client comments.
J- 12/02/2018 LBI Updated to suit latest Arb report at client request.
H- 18/01/2018 LBI Updated to suit client comments.
G- 17/01/2018 LBI Updated to suit client comments.
F- 15/01/2018 LBI Updated to suit client comments.
E- 13/11/2017 LBI Drawing title change at client request.
D- 09/11/2017 LBI Close board fence information updated as client request.
C- 03/11/2017 LBI Updated to suit client comments.
B- 26/10/2017 LBI Updated to suit client comments.
A- 12/10/2017 LBI Updated to suit client comments and latest layout.
Revisions:
First Issue- 31/08/2017 LB

Eastern Gateway
Pocket Park
Detailed Proposals

Drawing Ref: **Bir.4322_35-M**
Client: **Dorchester Group**

Date : 31/08/2017
Drawn by : WM/LB
Checked by : AP
Scale : 1 : 100 @ A1

Pegasus Group

APPENDIX 3: ARBORICULTURAL IMPACT SCHEDULE

		Arboricultural Impact Assessment Significance Matrix					
		Level of Impact					
		High	Medium	Low	Slight	None	
		e.g. removal required to facilitate development. Excessive root severance. Excessive above ground pruning. Hedgerows: >50% loss of overall length.	e.g root damage, soil compaction or above ground impacts tree management works unacceptable in terms of BS3998:2010. Hedgerows: >25% loss of overall length.	e.g. minor fine root loss, installation of no dig surfacing, temporary ground protection. Moderate tree works within the parameters of BS3998:2010. Hedgerows: 5-10% loss of overall length.	e.g.very minor works within root protection areas for example the installation of lightweight fencing or soft landscaping. Hedgerows: <5% loss of overall length.	E.g. trees located at a significant distance from development and construction activities.	
BS5837:2012 Quality Assessment Category	A	Major	Major	Moderate	Minor	None	Significance of effect
	B	Major	Moderate	Minor	Insignificant	None	
	C	Moderate	Minor	Insignificant	Insignificant	None	
	U	Minor	Minor	Insignificant	Insignificant	None	
		Significance of effect					

Significance of effect - definitions	
Major	Removal/acute damage to structural integrity/vitality/appearance of a high quality arboricultural feature. Depending on circumstances, may result in the loss of all/greater majority of public visual amenity value. Mitigation planting unlikely to be effective except in the long term (40+ years).
Moderate	In the case of damage: unlikely to give rise to tree death but likely to noticeably reduce vitality and deterioration of appearance in the short and medium term, with corresponding reduction in public visual amenity value where relevant. Tree removals that can be effectively mitigated in the medium term (20-40 years). For example notable crown dieback, foliage discolouration, low leaf density, or tree management works unacceptable in terms of BS3998:2010.
Minor	Short-term damage with limited distribution that can be reasonably compensated for by new growth. Unlikely to result in observable symptoms of damage in relation to structural integrity/vitality/appearance. No obvious impact on public visual amenity. Tree removals that can be mitigated in the short-term (10-20 years)
Insignificant	Minimal damage in very small amounts. No obvious impact on public visual amenity.
None	No impact to above or below ground components of tree reasonably anticipated.

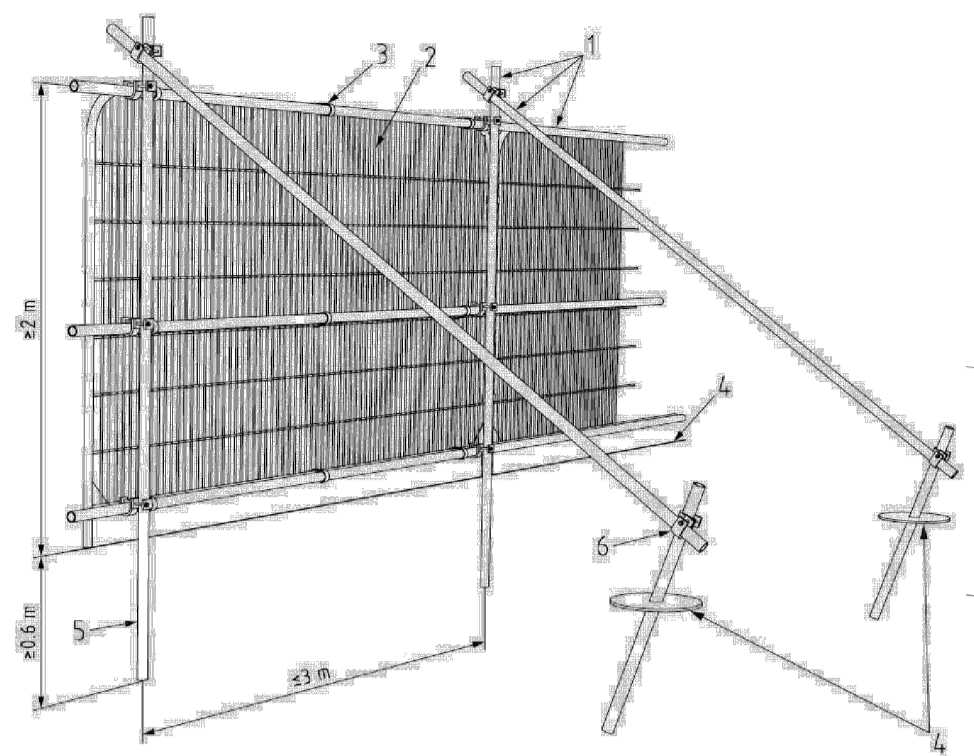
Arboricultural Impact Schedule

Site: Heyford Phase 1 Eastern Gateway

Ref: LAS 35

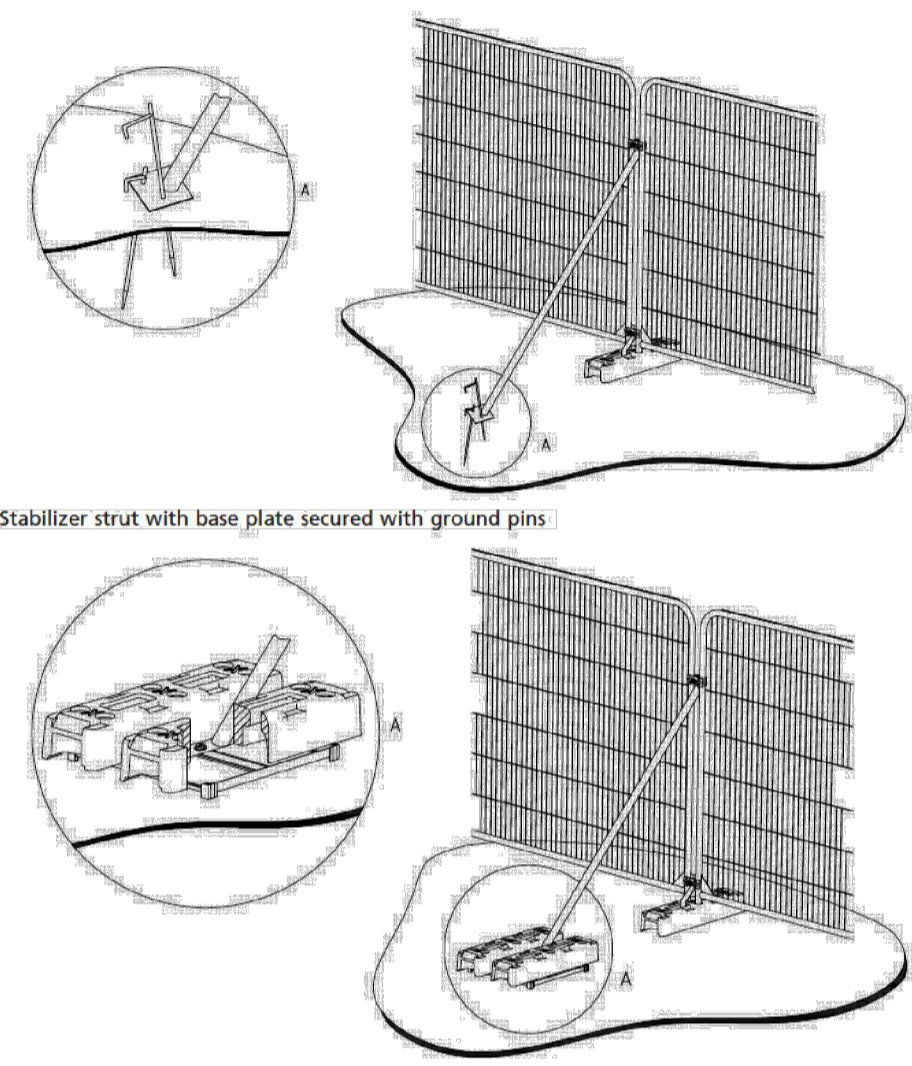
No	Species	Quality	Arboricultural effects (direct and indirect) of proposed design - description	Unadjusted scale of effect	Unadjusted significance of effect (scale effects x quality)	Recommended mitigation	Adjusted scale of effect following mitigation	Adjusted significance of effect (adj. scale effects x quality)	Tree removal required
T26	Norway maple	B1	Potential impacts from general construction activities associated with creating the pocket park. New railing fence to be constructed within the RPA	Medium	Moderate	Temporary tree protection fencing to deter encroachment into RPA during construction works for parking bays,, hoggin pathway and benches. Flat top railings to be installed with reference to AIA section 6.17	Slight	Insignificant	Retain
T292	Horse chestnut	C1	Remove as part of proposals	High	Moderate	Replacement tree planting	Medium	Minor	Remove
G293	Cypress	C2	Remove as part of proposals	High	Moderate	Replacement tree planting	Medium	Minor	Remove

APPENDIX 4: TREE RETENTION/REMOVAL AND PROTECTION PLAN



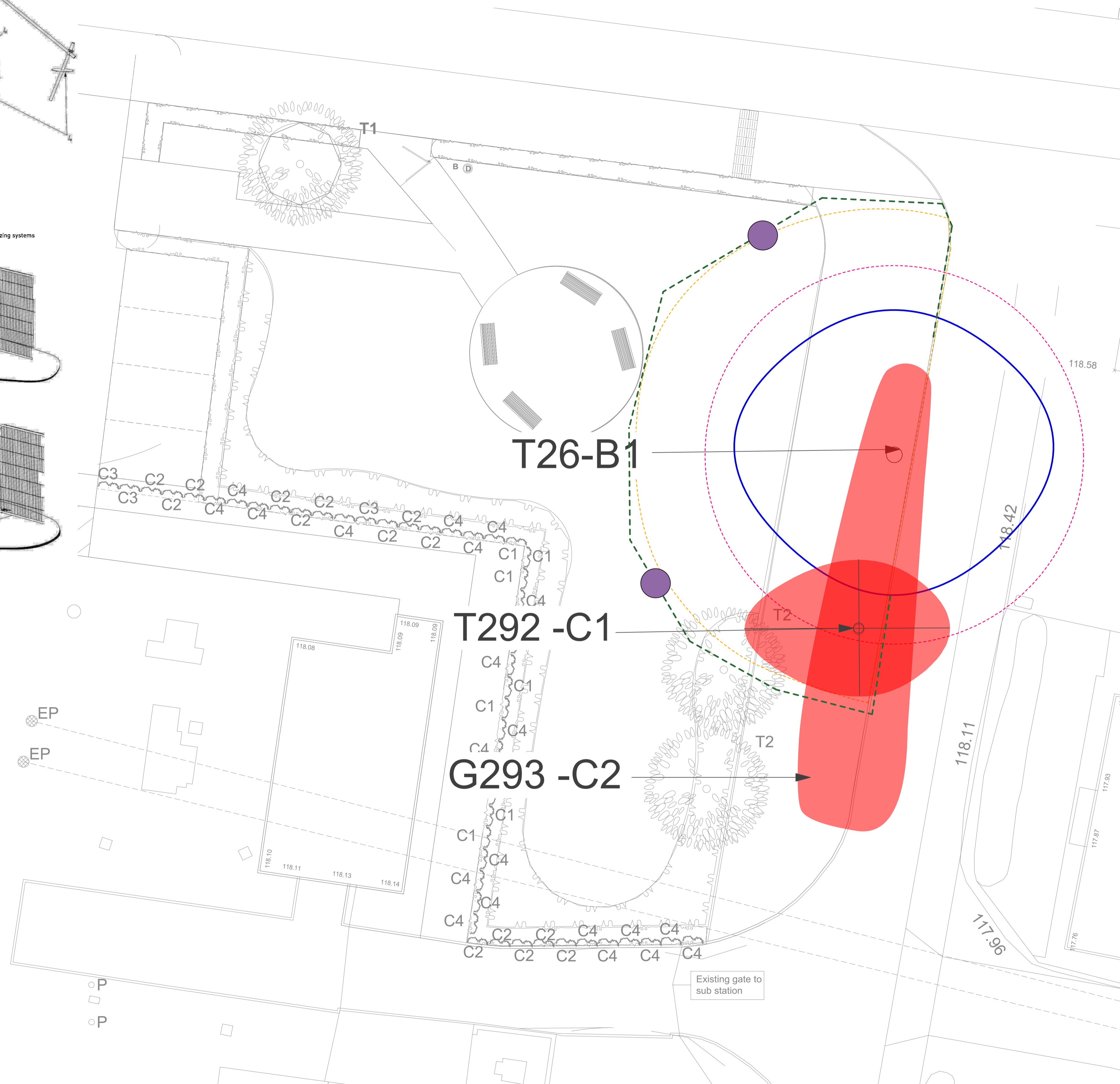
- Key**
- 1 Standard scaffold poles
 - 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
 - 3 Panels secured to uprights and cross-members with wire ties
 - 4 Ground level
 - 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
 - 6 Standard scaffold clamps

BS:5837:2012 Figure 3 Examples of above-ground stabilizing systems



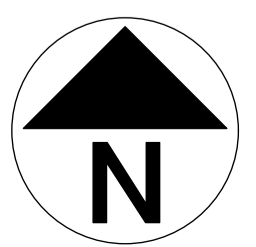
a) Stabilizer strut with base plate secured with ground pins

b) Stabilizer strut mounted on block tray



KEY BS 5837 : 2012 Categories

- Tree Category A - High Quality
- A Category - Hedgerow, Group, Woodland
- Tree Category B - Moderate Quality
- B Category - Hedgerow, Group, Woodland
- Tree Category C - Low Quality
- C Category - Hedgerow, Group, Woodland
- Tree Category U - Unsuitable for Retention
- Default Root Protection Area to BS:5837:2012
- Adjusted Root Protection Area to BS:5837:2012
- Tree to be Removed
- Tree Protection Barrier to BS:5837:2012
- All weather information notices to read 'Construction Exclusion Zone - Keep out' A2 in size. To be attached to tree protection barriers



Revision	Description	Date
-	First Issue	4/2/19

LANDARB SOLUTIONS

Client:
Dorchester Group
Project:
Upper Heyford - Eastern Gateway Pocket Park
Description:
Tree Retention Loss and Protection Plan

Status:
For Planning

Scale: 1:200 @A1	Drawn I Checked DP MP	Date: 04/02/2019
Job Number: LAS 35	Drawing Number: 01	Revision: -