

Notes:

Plan is based upon the supplied topographical Survey Plan. Copies of this plan are available in CAD Formats .dwg & .dxf upon request.

Revision Description:

A - Preliminary Issue

Client:

Ladycross Caravan Park

Title:

Arb Impact Assessment

Drawing No: BA11372AIA

Scale: 1:100 @ A1

Date: 03/05/2021

Drawn By: IB

Checked: SB

Approved: IB

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Horticulture

BALI

NYMNPA

27/07/2022

Est Pos	No.	Name	Age	Height	FSB	North	South	East	West	Condition	Life Exp	Category	Diameter	Stems	Tree Works Required for Scheme	Arboricultural Impacts	Control measures	Risk	RPR Radius	RPA Area
Est Group Numbers	G3	Scots Pine Goat Willow Silver Birch	EM	14	2	3	3	3	3	Good	20+	B2	250	1	Crown lift to provide 5.2m clearance existing track to improve access to high-sided vehicles.	Change in form will not affect streetscene.	Protect from site changes.	Low	N/a	N/a
Est Group Numbers	G4	Silver Birch Scots Pine	EM	6 to 12	1	4	4	4	4	Fair	10+	C2	75 to 200	1	Remove estimated 30 trees from the group	Partial loss of groups	Protect retained parts of the group with fencing and construction exclusion zones.	Low	2439	7
Est Group Numbers	G5	Silver Birch	EM	6 to 12	1	4	4	4	4	Fair	10+	C2	75 to 200	1	Remove estimated 30 trees from the group	Partial loss of groups	Protect retained parts of the group with fencing and construction exclusion zones.	Low	3012	9
Est Group	G6	Scots Pine Goat Willow Silver Birch	EM	6 to 14	2	3	3	3	3	Good	20+	B2	75 to 250	1	Crown lift to provide 5.2m clearance existing track to improve access to high-sided vehicles.	Change in form will not affect streetscene.	Protect from site changes.	Low	N/a	N/a
Est Group	G7	Scots Pine Goat Willow Silver Birch	EM	6 to 14	2	3	3	3	3	Good	20+	C3	75 to 150	1	Crown lift to provide 5.2m clearance existing track to improve access to high-sided vehicles.	Change in form will not affect streetscene.	Protect from site changes.	Low	N/a	N/a
Est Group Numbers	G8	Scots Pine, Silver Birch, Holly, Elder	EM	16 to 18	1	3	3	3	3	Good	20+	B2	150 to 400	1	Remove estimated 30 trees from the group	Partial loss of groups	Protect retained parts of the group with fencing and construction exclusion zones.	Low	8835	15

DO'S

TREE PROTECTION

DON'TS

Trees add value to the site, provide shade, improve habitat, improve air quality and are typically protected as part of any planning approval, so their protection is in everyone's interest to avoid costly stoppages and damage.

TREE ROOTS

Spread out a lot further than the branches over a large area and are usually found close to the surface of the soil, making them susceptible to damage.



To help trees survive any proposed changes a minimum amount of undisturbed rooting area needs to be protected or provided to help the tree feed itself and survive this can easily be done by creating a Construction Exclusion Zone. These are normally detailed on a Tree Protection Plan or detailed within an Arboricultural Method Statement. Please look at these before you start work to understand what fencing and ground protection are to be used where.

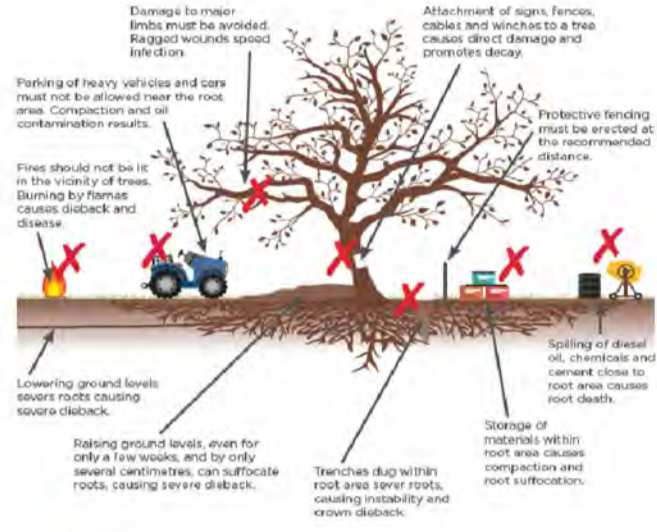


- Tree Protection is not a puzzle, everything you need is on the Tree Protection Plan or can be found in the Arboricultural Method Statement.
- Before work starts erect and maintain the correct fencing and ground protection.
- Tree protection is usually a planning condition and breaches can result in a stop notice, prosecution or fines.
- Tree damage can be avoided, if in doubt ask for help.
- Help avoid costly shut downs and financial penalties.

TREES ROOTS

Many people believe tree roots extend as deep as the tree is high, or simply plug into the ground like carrot, which is untrue.

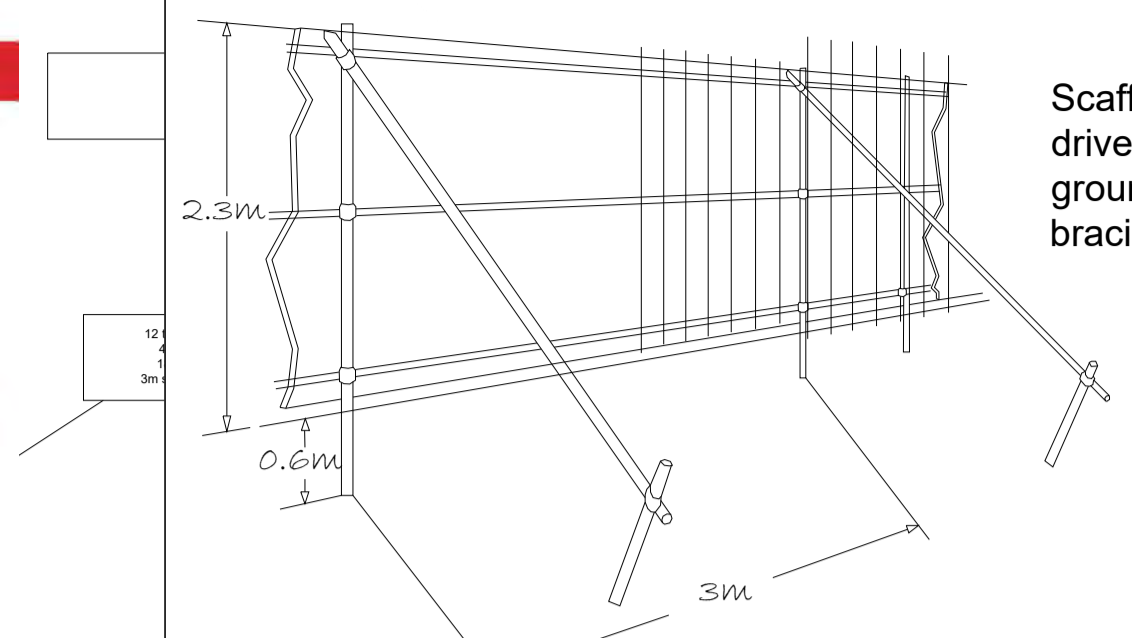
We must all avoid any unauthorised damage to trees.
The use of properly positioned protective fencing can prevent tree deaths occurring.



RESULTS OF BREACHING THE CEZ

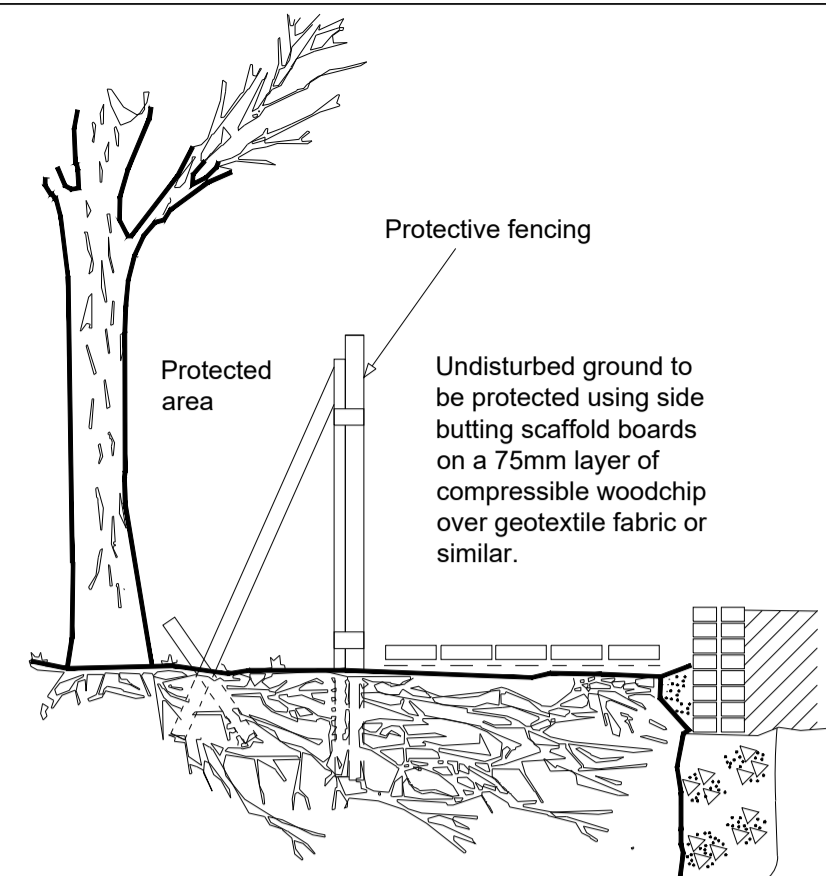
- Soil Compaction** Starves roots of oxygen and nutrients and increases water run off the site.
- Excavation** Cuts or damages the roots, which can affect a tree's health or stability.
- Turf or Soil Removal** Even shallow excavations can remove or damage fine feeder roots.
- Canopy/Branch Damage** Limits food production and encourages pest or disease.
- Chemical Spill Including Cement** Kills roots, starving the tree oxygen, water and nutrients.
- Fires** Scorch and burn leaves, stems and branches.

20mm exterior grade ply and/or Heras panels wired to uprights and horizontals. Wire twisted and secured on inside face of fencing to avoid easy dismantling



Scaffold Uprights driven well into the ground with additional bracing as required

Tree Protection Fencing



Ground Protection

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NOTES - Where tree works are proposed to be on site or to overhanging vegetation to enable construction, this shall be undertaken by qualified tree surgeon in accordance with the requirements of BS3998:2010, prior to the installation of Protective Fencing.

Existing tree's & vegetation on the site boundaries or overhanging the boundaries from the adjacent land which are to be retained shall be protected where necessary during works by 2300mm high mesh panel (Heras type) fencing secured to a scaffold tubing framework or supported on a suitable base pinned into the ground and connected by none tamper fixings.

Protective fencing shall be erected outside the canopy drip-line or beyond the minimum Root Protection Area (RPA) distance, detailed in the Tree Survey wherever possible. The tree works & fencing works shall be carried out prior to any demolition, groundworks, construction works.

Laminated, waterproof A4 signs shall be fixed to the fence posts at 10m intervals bearing the words 'CONSTRUCTION EXCLUSION ZONE - NO STORAGE OR OPERATIONS WITHIN FENCED AREA' as per the example on the plan.

PROTECTION OF CONSTRUCTION EXCLUSION ZONE

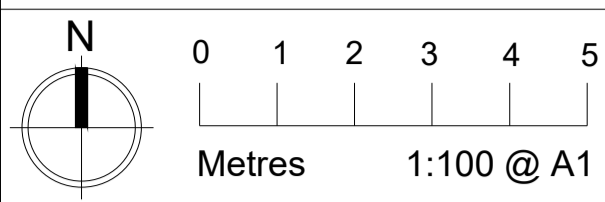
Inside the exclusion area of the fencing, the following prohibitions shall apply: -

- No mechanical excavation whatsoever.
- No excavation by any other means without arboricultural site monitoring.
- No hand digging without a written Method Statement approved in writing by the Project Arborist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools).
- No construction of a sealed hard surface - except where agreed with the Project Arborist.
- No storage of plant or materials.
- No storage or handling of any chemical, including cement washings.
- No vehicular access.

No fire lighting. In addition to the above, further precautions are necessary adjacent to trees: -

- A 10m separation distance shall be observed between any tree and substances injurious to tree health, including fuel, oil, bitumen, cement (including cement washings), builders' sand, concrete mixing and other chemicals.
- No fire shall be lit such that flames come within 5m of tree foliage; this shall be taken to mean a fire separation distance of 20m from any tree's canopy.

ALL WORKS AFFECTING TREES SHALL BE SUBJECT TO THE REQUIREMENTS OF BS5837:2012.



Legend

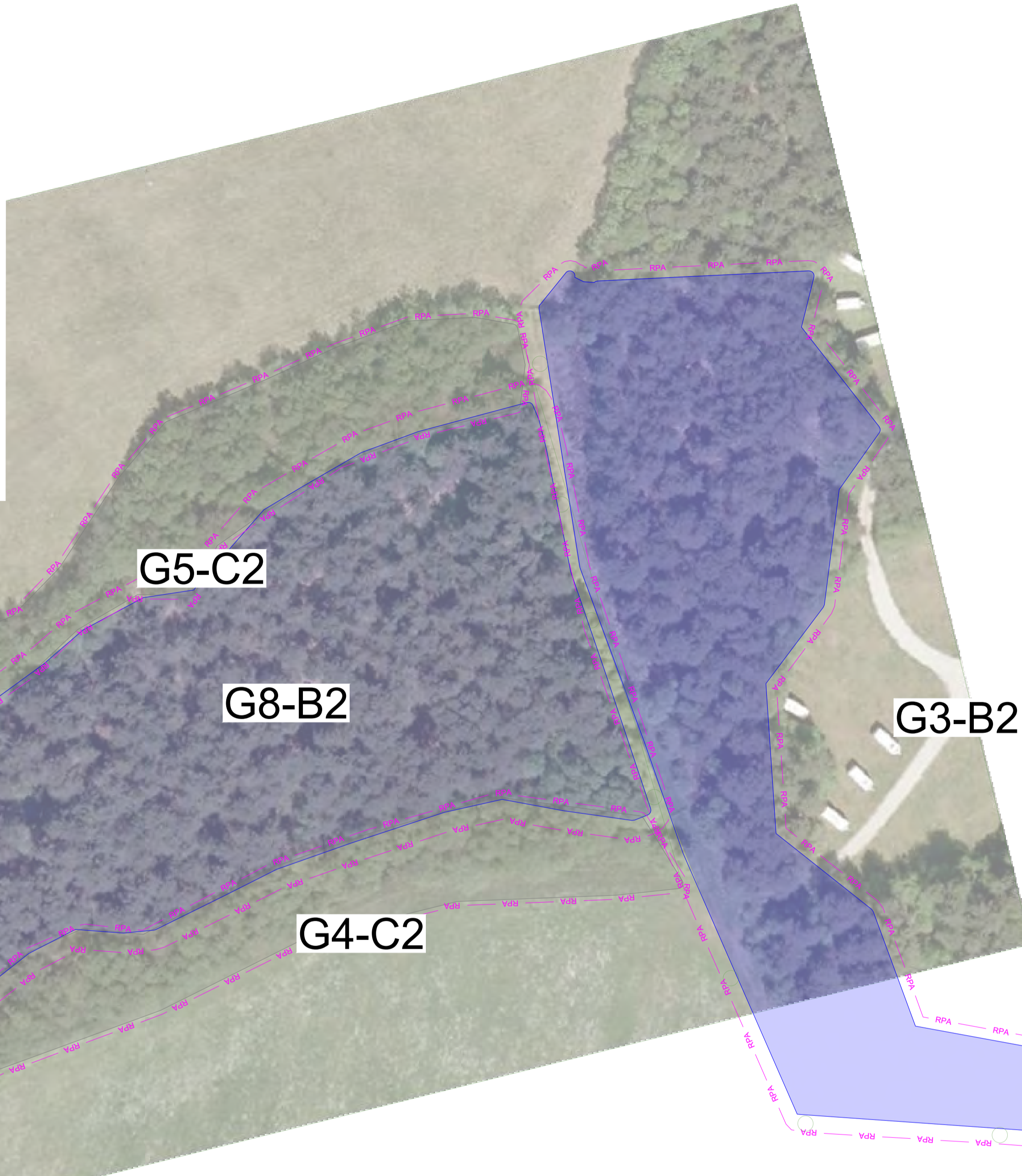
Notes:
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Revision Description:	A - Preliminary Issue
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Client:	Ladycross Plantation Caravan Park				
Benefit of:					
Project:	Ladycross Plantation Caravan Park				
Title:	Tree Protection Plan				
Drawing No:	BA11372TS	Status:	P		
Scale:	1:100 @ A1	Revision:	A		
Date:	03/05/2021				
Drawn by:	IB	Checked:	SB	Approved:	IB

BS5837 Tree Survey
 The following survey has been prepared from a visual assessment taken from ground level without any detailed investigation. Observations are based upon the body language of the trees and any visual indicators present at the time of inspection. This survey should be regarded as a preliminary overview; ongoing inspections will be required. Trees can be managed, but they cannot be controlled, and to live near a tree is to accept some degree of risk. In most situations the health, condition and safety of trees should be checked on a cyclic basis, alternating between early and late seasons to ensure a full picture of tree health is established. Inspections should only be carried out by a suitably qualified arborist.

Mathematical abbreviations: > = Greater than, < = Less than.
Est: This includes any attributes that have been estimated.
Measurements / estimates: Measurements are taken with a tape, clinometer or laser. If dimensions are estimated, this will be indicated within the Est column.
Tree number: Numbered Tag attached to each stem usually on the inside face of the stem at roughly 2.5 metres. Where the number is prefixed by a T, G, H, A, ST, S or W this denotes that the tag refers to a Tree, Group, Hedge, Area, Stump, Shrub or Woodland.
Est Pos: Estimated Position of tree - a tree included on the survey which has been added to the Topographical Information / Plan.
Name: Tree species are detailed by their common name.
Age: I record the age as an estimate of the tree likely span for guidance only i.e.
 Y Young Recently established/planted tree.
 EM Semi Mature Fully established and growing with high vigour
 M Mature The first third of its likely expected life span
 OM Over Mature The later one third of its likely expected life span with signs of canopy retrenchment.
 V Veteran An aged example of the species, typically with defects & conservation value
 A Ancient Beyond its expected life span possible of historical interest or in a state of decline
Height: I estimate height to the nearest metre to the mean height.
Height to underside: I estimate height to the nearest half metre to the mean underside of the canopy.
First significant branch: I estimate height & orientation of large branches below the underside of the canopy.
Diameter: These figures relate to a measurement of the stem at 1.5m above ground level recorded in millimetres, measured with a rounded down diameter tape.
No. Stems: I record the number of significant stems that compose the tree.
Canopy (N, S, E, W): I estimate the distance of the canopy radius to the nearest metre to provide a mean distance of separation between the stem and the outer canopy.
Vitality: Is a personal assessment of the tree's growth rate in the current season, in comparison to other trees within the locality, region and an indicator of the tree likely response to site change.
 Good A tree of high vitality
 Fair A tree of lower vitality
 Poor A tree in noticeable poor state
 Dead A dead or very low vitality tree
Safe Life: Is a personal assessment of the trees likely expected remaining safe life span in years, assuming the site management continues as it is at present or the tree is protected from significant environmental change. Trees can reverse even serious decline and the expected safe life can be significantly improved following changes / improvements to site management and following remedial works.
 40+ Good vitality a tree with high potential.
 20+ Normal vitality a tree in good health.
 10+ Early reduction in vitality leaf cover.
 5+ Marked decline, poor foliage cover.
 5- Serious decline very low vitality.
 1- Almost dead tree / serious defect.
Management Options: Comments detailing remedial works required improving immediate safety or improve the management of the tree.
Tree Risk Assessment: The International Society of Arboriculture (ISA) Tree Risk Assessment Qualification (TRAQ) takes a qualitative rather than quantitative approach to risk assessment. It uses metrics to compare the likelihood of failure of a tree or tree part, the likelihood that it will impact the target and the potential consequences of failure. Unless stated otherwise the risk assessment assumes the risk offered over the next year.
Minimum RPA: Root Protection Area: Minimum distance in metres of position of protective fencing in line with section 4.6 BS5837:2012. In order to avoid damage to the roots or rooting environment of retained trees, an area equivalent to a circle with a radius 12 times the stem diameter.
Root Protection Area (Radius) (M): RPA given in metres from the centre of the stem.
Root Protection Area (Area) (M²): The ideal total area for the RPA given in metres squared.



Site Address: Ladycross Plantation Caravan Park, Whitby YO21 1UA

Tree Surveyor: Matt Metcalfe

Date of Assessment: 07/03/2022

Assessment Method: Visual assessment, undertaken from ground level only.

Weather Conditions: Bright warm, and sunny with good visibility.

Site Description: The site is a caravan park set in a mainly coniferous plantation on the North Yorkshire Moors

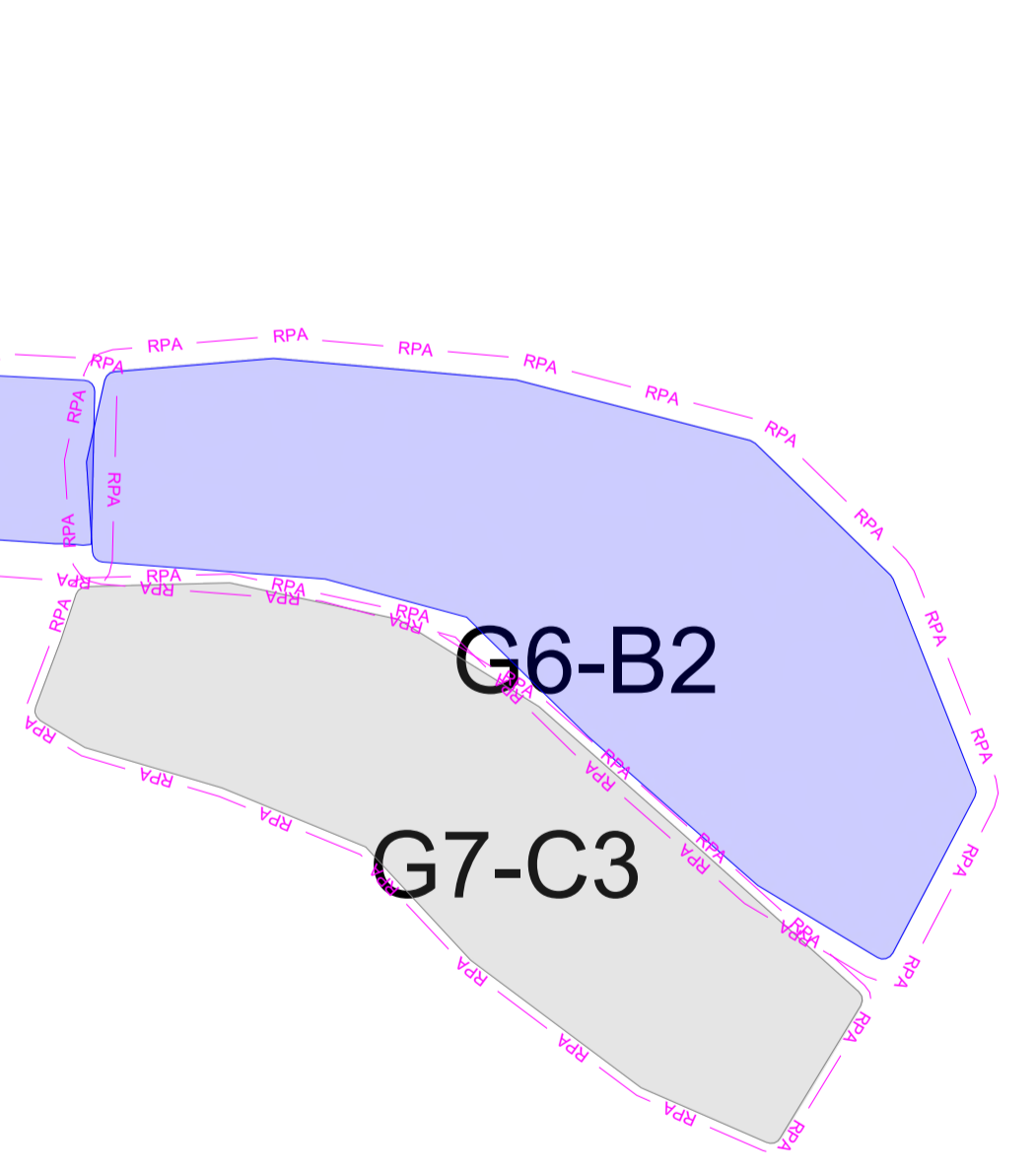
Tree Population: The site is within a Pine plantation however there are other species such as Birch and Willow present onsite as the primary species.

Exposure: The site is located high on the North Yorkshire Moors with altitude adjusted peak windspeeds expected to reach 28m/s.

Legislative Protection: Information on the Scarborough Borough Council Online resources suggest the site is not within a Conservation Area and has no Tree Preservation Orders Present. The site is however part of The North Yorkshire Moors National Park.

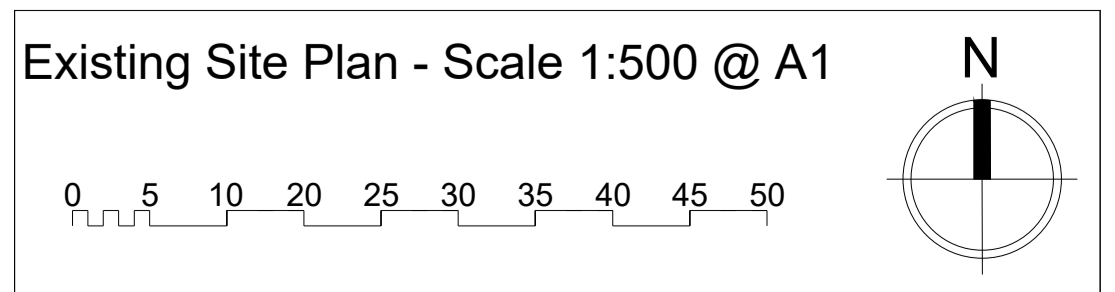
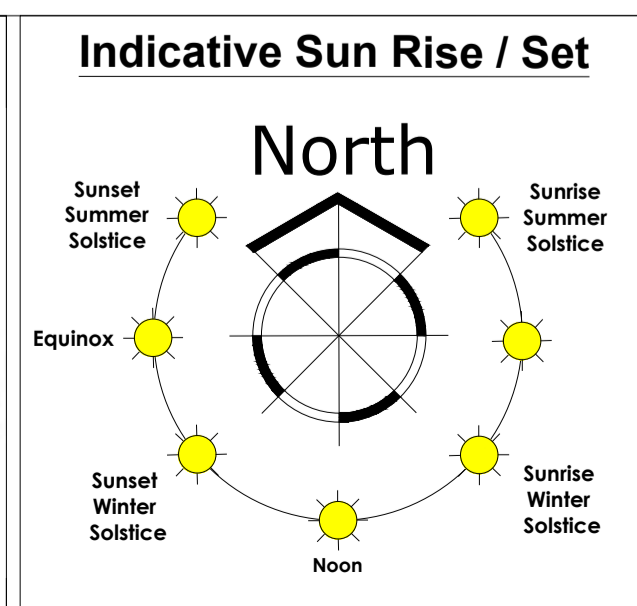
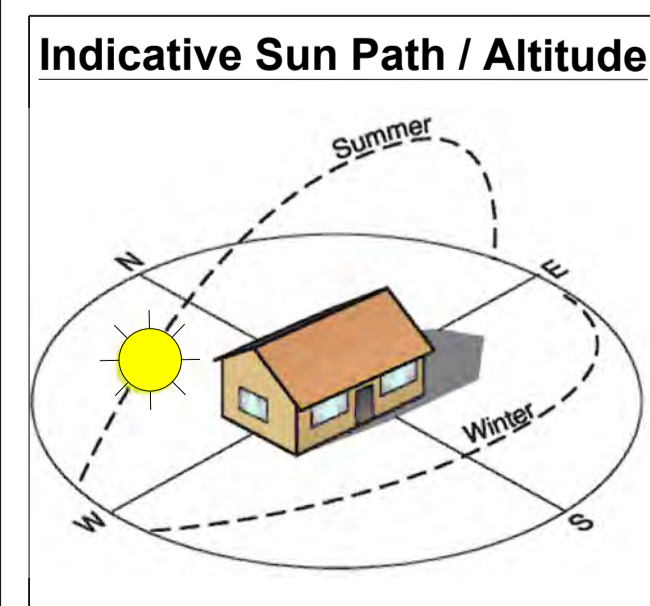
Soil Type: Soil Type: Information of the National Soils Resources Institute, which refers to the soils on site being 'Freely draining very acid sandy and loamy soils'

Table 4 – BS5837:2012		Cascade chart for tree quality assessment		
Category and definition	Criteria (including subcategories where appropriate)	Identification on plan		
Trees unsuitable for retention (see Note)				
Category U 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	Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unsuitable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. <i>NOTE: Category U trees can have existing or potential conservation value, which it might be desirable to preserve, see 4.5.7</i>	Red on Plan		
Trees to be considered for retention				
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	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 trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unympathetic past management and stem damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals, or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Green on Plan	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without the conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	
			Blue on Plan	
			Grey on Plan	



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27/07/2022

Est Group Numbers	Est Height	Est Spread	Est DBH	Species	Age	Health	Vitality	Safe Life	Canopy	Notes	Retain	Low	N/a	N/a	N/a	3	28.28									
G3				Scots Pine Goat Willow Silver Birch	EM	14	2	3	3	3	3	Good	20+	10	250	1	1	Growing as principally a pine woodland with a strip of mixed deciduous trees such as willow and birch on the western side at greater spacings. A typical semi managed woodland with all associated contributing factors.	None required.							
G4				Silver Birch Scots Pine	EM	6 to 12	1	4	4	4	4	Fair	10+	C2	75 to 200	1	1	Growing as edge trees of the pine plantation on the southern windward face. Typical form and condition of outer face trees. Some dead trees present.	In current usage and target occupancy, retain as natural.	Low	2439	7	170	1.8	10.18	
G5				Silver Birch	EM	6 to 12	1	4	4	4	4	Fair	10+	C2	75 to 200	1	1	Growing as edge trees of the pine plantation on the northern protected face. Typical form and condition of outer face trees. Some dead trees present.	In current usage and target occupancy, retain as natural.	Low	3012	9	271	1.8	10.18	
G6				Scots Pine Goat Willow Silver Birch	EM	6 to 14	2	3	3	3	3	Good	20+	10	75 to 250	1	1	Growing as principally a pine woodland with a strip of mixed deciduous trees such as willow and birch on the southern side at greater spacings. A typical semi managed woodland with all associated contributing factors. Estimated distance to the pine racks is 5m.	Remove the weaker leaning trees over the track and highway.	Low	N/a	N/a	N/a	3	28.28	
G7				Scots Pine Goat Willow Silver Birch	EM	6 to 14	2	3	3	3	3	Good	20+	C3	75 to 150	1	1	A poorly developing group of low quality deciduous trees with small numbers of pine interspersed. Multiple level changes due to storage area for soil and timber. Overdeveloped of poor form trees growing towards the main highway which may require removal as part of general management.	Remove the weaker leaning trees over the track and highway.	Low	N/a	N/a	N/a	1.8	10.18	
G8				Scots Pine, Silver Birch, Holly, Elder	EM	16 to 18	1	3	3	3	3	Good	20+	10	150 to 400	1	1	Growing as part of a woodland. Monoculture of pine and birch. Southern wind bearing pines on average 400mm diameter with trees becoming slender to the north of the group to an average of 200mm. The woodland appears to have had very little management and no evidence of past thinning.	In current usage and target occupancy, retain as natural.	Low	8835	15	1325	4.8	72.39	



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Legend:

Individual Tree Symbols

- Canopy Spread to cardinal points shown in category colour
- Rootplate (Orange circle)
- Tree stem shown to scale
- Category (see tree below)
- 20% of RPA (Yellow circle)
- Tree Number & Category
- Minimum RPA (magenta circle)

BS5837 - Conditional Colour Code

- A - High Quality Tree or Group
- B - Moderate Quality Tree or Group
- C - Low Quality Tree or Group
- U - Unsuitable for Retention

Qualitative Tree Risk Assessment

- Moderate Risk Tree
- High Risk Tree
- Extreme Risk Tree

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Group sizes and volumes are based on measurements taken using Google Earth and sample plots using a mean average.

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 A - Preliminary Issue

Client:
 Ladycross Plantation Caravan Park

Project:
 Ladycross Plantation Caravan Park

Title:
 Tree Survey & Constraints

Drawing No.: BA11372TS **Status:** P

Scale: 1:500 @ A1 **Revision:** A

Date:
 10/03/2022

Drawn By: MM SB IB

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