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Bowfell Energy Centre,
TREE SURVEY REPORT (Rev B)

To be read in conjunction with
TPM Landscape drawing 876.01
March 2008

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SUMMARY

The site is a business park and is predominantly hardstanding and buildings, with trees planted along the boundaries and in amongst car parking bays / shrub beds.

All the trees within the development area are C category and can be easily replaced or moved.

1.0 Introduction

Background

This tree survey was prepared by TPM Landscape (Chartered Landscape Architects) with Arborlution (Arboricultural Consultants).

The trees were surveyed in accordance with BS 5837:2005 Trees in Relation to Construction, determining their overall size, condition, value for retention and providing recommendations for protective distances to ensure the future health and stability of the retained trees.

1.2 Site Description

The site is a business park and is predominantly hardstanding and buildings with trees planted along the boundaries and in amongst car parking bays / shrub beds.

1.3 Tree Preservation Orders

Advice has been sort from Manchester Metropolitan Borough Council and there are currently no Tree Preservation Orders on site.

2.0 Methodology

Site visit

The site was visited in March 2008, when the trees were assessed in accordance with BS 5837: 2005

Survey

A topographical survey was provided showing the position of the significant trees on or adjacent to the site. This was used as the base plan for the survey.

Survey Details

The following information was gathered for each tree: species, age class, estimated height, stem diameter at 1.5m above ground, crown spread north, east, south and west. Vigour was assessed using leaf density and recent shoot extension.

Tree Condition

An assessment was made of the trees' condition, with particular reference to the proposed change of use to accommodate the development. Trees were assessed visually from ground level. No climbed inspection, removal of ivy or detailed or detailed investigation of decay was made. If it is considered that further survey work is prudent then this is noted in the survey schedule, and a more thorough assessment of their condition may be required. It should be noted that trees can change significantly over a relatively short period of time, and therefore trees should be monitored on a regular basis for sign of deterioration.

Recommendations for Tree Works

Works are proposed in order to either remove/reduce hazards or promote good future growth of the tree. All works should be carried out to BS 2998: 1989 British Standard Recommendations for Tree Work. It should be noted that at this stage, proposed works are not recommended to accommodate the proposed development, and these will be subject to the production of Tree Works, Protection and Removals drawing to be supplies as part of the development proposals.

Tree Retention Codes

The trees desirability for retention was assessed in accordance with BS 5837: 2005, and was assessed taking into account the trees age, vigour, amenity value (as a function of size, prominence, attractiveness and screening), life expectancy, replaceability and appropriateness in relation to the development proposals. In some instance a tree may be afforded a higher or lower retention category than if the same tree was located elsewhere, for instance if trees are very scarce in the locality they will necessarily be deemed more important than in areas where trees are abundant.

3.0 Tree Protection

The impact of the development on the existing trees to be retained can be minimised by adequate protective fencing during construction. A drawing should be produced which indicates the extent of protective fencing and its proposed construction in accordance with BS 5837. The protective fencing should be erected prior to any works commencing on site and remain in place for the duration of the construction period. The protective fencing should be shown on the development layout proposals in order that it can be shown that the development can be constructed without requiring the removal of the fence.

Where development is proposed within the canopy spread of the tree or within the proposed protective fencing area, special construction methods may be required and these should be indicated on a Tree Works, Protection and Removals drawing.

4.0 References

BS 3998 1989: British Standard Recommendations for Tree Work
BS 5837 2005: Guide for Trees on Relation to Construction
Arboricultural Association Guidance Notes No 7 – Tree Surveys: A Guide to Good Practice
ETR 2000: Tree Preservation Orders: A Guide to the Law and Good Practice
Arboricultural Advisory and Information Service Practice Note APN 1
Driveways Close to Trees'

BS 5837:2005 Assessment Criteria				
Trees to be considered for retention				
Category and Definition	**Criteria – sub categories**			**Identification on plan**
	1 Mainly arboricultural values	**2 Mainly landscape values**	**3 Mainly cultural values**	
Category A **Those of high quality and value** In such condition as to be able to make a substantial contribution (minimum of 40 years)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (eg the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening to the locality in relation to views into or out of the site, or those of particular visual importance (eg avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (eg veteran trees or wood-pasture)	Double Dark line Light green if colour plan
Category B **Those of moderate quality and value:** Those in such a condition as to make a significant contribution (minimum of 20 years)	Trees that might be included in the high category, but are downgraded because of impaired condition (eg presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (eg trees of moderate quality within an avenue that contains better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact to the wider locality	Trees with clearly identifiable conservation or other cultural benefits.	Dark Line
Category C **Those of low quality and value:** currently in adequate condition to remain until new planting could be established (minimum 10 years), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits.	Light Dash-dot Line
	NOTE: While C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.			
Trees for removal				
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for sound arboricultural management	• Trees that have a serious, irremediable, structural defect, such as their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (ie 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 (eg Dutch Elm disease), or very low quality trees suppressing adjacent trees of better quality.			Light Dashed Line

TREE QUALITY ASSESSMENT – Assessment criteria in accordance with BS 5837:2005

Tree — **Number refers to tree No on survey drawing**

- **T** Trees
- **G** Groups of trees
- **H** Hedges

Species — **Common name**

Age

- **V** Veteran
- **OM** Over mature
- **M** Mature 60 years plus
- **MA** Middle age 20-60 years
- **Y** Young 0-20 years

Height — Height of tree given in metres

Girth — Diameter (mm) of trunk @ 1.5m above ground
MS refers to multi stemmed tree

Amenity Value — General appearance of tree

- **H** High
- **M** Moderate
- **L** Low

Health Condition — General health of tree

- **VG** Very good
- **G** Good
- **F** Fair
- **P** Poor
- **D** Dead/ Dangerous

Retention Value

Recommendation of tree retention with regard to both amenity and health. A general overview of the tree's retention value

A Category

Those of high quality and value: in such a condition as to be able to make a substantial contribution (minimum of 40 years)

B Category

Those of moderate quality and value: those in such a condition as to make a significant contribution (minimum of 20 years)

C Category

Those of low quality and value: currently in adequate condition to remain until new planting could be established (minimum 10 years), or young trees with a stem diameter below 150mm.

R Category

Trees in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.



G2 x2 Beech in shrub bed



T7 Beech adjacent building



G9 x5 Norway Maple along the Eastern boundary of the site adjacent Archway



G4 x2 Holm Oak and G5 x2 Blue Atlas Cedar to the Western boundary of the site

							Dimensions							
Tree number	Species	Condition	Amenity Value	**Retention Category**	Age Class	Life expectancy (yrs)	Height in metres	Diameter (m) @ 1.5m	Root Zone Radius	Root Protection Area (m2)	Spread in metres (north)	Spread in metres (east)	Spread in metres (south)	Spread in metres (west)
T1	Beech	F	L	**C1**	Y	40+	6	0.09	1.08	4	1.5	2.5	1.5	1
Notes	Single stemmed, recently planted. Minor stubs. Potential but easily replaced or moved. **No action**													
G2	2 x Beech	F	L	**C1**	Y	40+	7	0.14	1.68	9	Refer to drawing			
Notes	As T1 and located in shrub bed.													
G3	5 x Tree of Heaven	F	L	**C1**	Y	40+	<6	0.12	1.44	7	Refer to drawing			
Notes	Located in grass - raised plots within the car park. Single stemmed recently planted. Minor crossing branches. Potential but easily replaced or moved.													
G4	2 x Holm Oak	G	L	**C1**	Y	40+	<5	0.12	1.44	7	Refer to drawing			
Notes	Single stemmed, in shrub bed. Good shape and form. Easily replaced. Potential. No major visible defects.													
G5	2 x Blue atlas Cedar	G	L	**C1**	Y	40+	6	0.17	2.04	13	Refer to drawing			
Notes	Single stemmed, in shrub bed. Good shape and form. Easily replaced. Potential. No major visible defects.													
G6	2 x Beech	G	L	**C1**	Y	40+	9	0.13	1.56	8	Refer to drawing			
Notes	Single stemmed, in shrub bed. Good shape and form. Potential but easily replaced. No major visible defects.													
T7	Beech	G	L	**C1**	Y	40+	8	0.13	1.56	8	2	2.5	1	2.5
Notes	Reasonable shape and form. Bark wounds at base. Easily replaced.													
T8	Tree of Heaven	G	L	**C1**	Y	40+	8	0.08	0.96	3	1	1	1	1
Notes	Single stemmed. Staked. Reasonable shape and form. Potential but easily replaced. No major visible defects.													
G9	5 x Norway Maple	G	L	**C1**	Y	40+	6	0.15	1.8	10	Refer to drawing			
Notes	Highway trees situated within individual tree guards. Good shape and form. Potential. No major visible defects.													