Job Number SF1942 Date October 2011

Royston High School
Arboricultural Survey - Update

Landscape Architects ■ Urban Designers ■ Ecologists ■ Horticulturists

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CONTENTS

1.0	Introduction	Page 3
2.0	Aims and Methodology	Page 4
2.1	Aims	Page 4
2.2	Survey Methodology	Page 4
3.0	Tree Survey	Page 5
4.0	Root Protection Areas	Page 6
5.0	Above Ground Constraints	Page 6
6.0	Arboricultural Implications and Mitigation	Page 6

Plan: Drawing number: SF1938/TS01 (reduced to A4)

1.0 Introduction

A tree survey was undertaken in accordance with the British Standard in November 2010 and Smeeden Foreman were commissioned by Kier Property Developments to re-fresh this survey in October 2011 terms of trees adjacent to the Royston School development site. This was required so an up-to date picture of the tree quality is known at the site design stage and so that any implications can be taken fully account of.

The school site, including the development area generally supports few trees. The majority of the trees lie immediately outside of the site boundary along the south west flank. While located outside of the site the root protection areas will extend into the development area ands as such consideration will be required of their well being. Further mature trees are planted in a line along the north west side of the existing car park to the Leisure Centre. This car park is to be extended and so further consideration will be required in terms of root disturbance.

There are other trees groups including a number of trees spread along the southern boundary to the site and an area, of mostly scrub, near the eastern part of the development area.

Generally, as would be expected, there is little change in the health and quality of the tree stock inspected during the survey and the findings and assessments are in line with those of the original survey. A few additional trees have however been included as these are considered to be located sufficiently close to the site and development to warrant inclusion.

The original survey included trees around the Leisure Centre and associated buildings, including a double row located beside Station Road. As these trees would not be affected by the proposals a fresh inspection was not made of these specimens.

Refer to drawing number SF1942 TS01.

2.0 Aims and Methodology

2.1 Aims

The aims of the survey are to undertake a non-invasive survey of the identified trees and any trees which have the potential to be affected by future works within the vicinity. The drawing SF1845 TC01 shows the location and category of the surveyed trees.

2.2 Survey Methodology

The survey was carried out to British Standard 5837:2005, using the categories explained below:

2.2.1 The trees were assessed visually from ground level. Where potential problems were identified, further inspection by tree climbing is recommended. No digging or drilling methods were employed during this survey;

2.2.2 The tree numbers within the schedules refer to the order in which the trees were recorded;

2.2.3 The approximate height of each tree is measured from ground level to top of canopy using a clinometer;

2.2.4 The diameter of each tree has been measured at 1.5m above ground level. The diameter of trees where the trunk was inaccessible have been estimated and marked as such within the survey schedules.

2.2.5 The age of each tree is based upon our experience;

2.2.6 The physiological condition of the trees is based upon our experience;

2.2.7 The structural condition and description is also based on our experience.

2.2.8 Both the approximate expected lifespan remaining and category / rating of each tree is based on our experience;

2.2.9 The retention category of each tree or group of trees is based upon the information detailed above using the following categories:

A	**Trees of high quality and value**	**(Light green on plan)**
B	**Trees of moderate quality and value**	**(Mid blue on plan)**
C	**Trees of low quality and value**	**(Grey on plan)**
R	**Trees to be removed for arboricultural reasons**	**(Dark red on plan)**

2.2.10 The following subcategories have been used in rating tree value:

1	**Mainly arboricultural value**
2	**Mainly landscape value**
3	**Mainly cultural values, including conservation**

3.0 Tree Survey

Tree Ref No.	Tree ID No.	Species	Approx. H (m)	Approx. DBH (mm)	Branch Spread	Crown Clearance	Age Class	Physiological condition	Structural condition	Preliminary management recommendations	Estimated remaining contribution (years)	Category Rating
T1 *(T30)*		Lime	16m	450mm	N 4m E 3.5m S 7m W 7m	2m	Early mature	Fair	A tree with a slightly curving stem and imbalanced due to adjacent tree. A significant break at 4m	Canopy clean	20+	**B2**
T2 *(T31)*		Ash	18m	630mm	N 7.5m E 6.5m 10.5mS W 7m	3m	Mature	Fair	A tree with a clear stem to 4m. Notable die back throughout canopy. Reasonably balanced.	Considerable dead wooding	20+	**B2**
T3 *(T32)*		Sycamore	16m	460mm	N 5m E 5.5m S 7.5m W 3m	2m	Early mature	Fair	A tree which forks at 3m and with notable breaks and deadwood. Reasonably balanced.	Address die back and breaks	20+	**B2**
T4 *(T32a)*		Holly	5m	300mm	N 2m E 2m S 2m W 2m	To ground	Young	Good	A holly with a good shape and which is multi stemmed from the base.	NWR	30+	**B2**
T5 *(T33)*		Lime	18m	580mm	N 5.5m E 6m S 6.5m W 5.5m	2m	Early mature	Fair	A clear stem up to 2m then forked at 4m. Light die back and breaks only. Reasonably balanced.	Canopy clean	20+	**B2**

Tree Ref No.	Tree ID No.	Species	Approx. H (m)	Approx. DBH (mm)	Branch Spread	Crown Clearance	Age Class	Physiological condition	Structural condition	Preliminary management recommendations	Estimated remaining contribution (years)	Category Rating
T6		Sycamore	6m	225mm	N 3m E 2.5m S 2.5m W 3m	1.80m	Young	Good	A tree with a slightly curving stem and with a canopy at 2m. Reasonably balanced and with some lower branch removal.	NWR	30+	**B2**
T7 *(T34)*		Sycamore	16m	450mm	N 6m E4m S7m W 5m	2m	Early Mature	Fair	A tree with a slightly curving stem and with a canopy 2m. Some lower branch removal. Reasonably balanced.	NWR	20+	**B2**
T8 *(T35)*		Lime	16m	460mm	N 5m E4.5m S 6m W 3m	3m	Early mature	Fair	A tree with a curving stem and branched from 2m .Die back particularly in the lower branches. Minor breaks	Canopy clean	20+	**B2**
T9 *(T36)*		Ash	18m	540mm	N 6m E 6m S 8.5m W 6m	4m	Mature	Fair	A tree with a curving stem and with a bias to the west. Forked at 5m. A bark wound exposes sound wood. Notable breaks and die back.	Canopy clean	20+	**B2**
T10 *(T37)*		Sycamore	18m	550mm	N 7m E 9m S 7m W 9m	2m	Mature	Fair	A tree with a clear stem to 4m and with a reasonably balanced canopy	Canopy clean	20+	**B2**

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T11 *(T38)*		Beech	12m	340mm	N 5m E 2.5m S 4m W 3.5m	2m	Young	Fair	A contorted tree which is forked at 1.5m and 2m. It has a lean and canopy bias to the west. Some branch removal	Light clean only	20+	**C2**
T12 *(T39)*		Cherry	13m	520mm	N 3.5m E 4.5m S 5m W 8m	2m	Semi mature	Fair	A tree forked from 1.5m and with an open habit. Reasonably balanced and with only minor breaks	Canopy clean and cut back extended branch	10+	**C2**
T13 *(T40)*		Ash	18m	800mm	N 5m E 7.5m S 6m W 4.5m	3m	Mature	Fair	Strong ivy coverage precludes full inspection. Two stems rising/. Considerable deadwood	Deadwood	20+	**B2**
T14 *(T41)*		Lime	19m	710mm	N 5m E 7.5m S 7m W 6.5m	2m	Mature	Fair	A reasonably balanced tree which is branched from 2m and forked at 4m. A cavity at 3m with no meaningful rot.	Check cavity and deadwood	20+	**B2**
T15 *(T42)*		Ash	18m	720mm	N 5m E 9m S 11.5m W 9.5m	4m	Mature	Fair	Large over extended Ash. Diseased tree.	Fell	-	**R**
T16 *(T43)*		Sycamore	15m	470mm	N 4m E 2m S 6m W 7m	2m	Early mature	Fair	A tree with a curving stem and with a canopy bias to the east. Some branch removal and light epicormic growth.	Clean base	20+	**B2**

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T17 *(T44)*		Lime	18m	680mm	N 6m E 8m S 4m W 4.5m	2m	Mature	Fair	A tree which is forked at 1.5m and with a bias / lean to the east. A tree with an open habit and with light die back	Clean	20+	**B2**
T18 (T45)		Sycamore	12m	520mm	N 5m E 3.5m S 5m W 6m	0m	Early mature	Fair	A tree with a curving stem but reasonably balanced. Strong epicormic growth and some branch removal.	Clear basal growth	20+	**B2**
T19 *(T46)*		Ash	20m	820mm	N 6m E 9m S 8m W 7.5m	3m	Mature	Fair	A large tree which is forked at 3m with two stems rising which are forked again. Extended over site.	Address deadwood and breaks monitor extended limbs	20+	**B2**
T20 *(T47)*		Sycamore	15m	610mm	N 5.5m E 5m S 5.5m W 7m	3m	Mature	Fair	A tree with a curving stem but is well balanced. Branched from 5m and with some branch removal.	NWR	20+	**B2**
T21 *(T48)*		Lime	18m	600mm	N 4m E 8m S 6m W 4.5m	2m	Mature	Fair	A tree with a lightly curving stem which is forked at 6m. There is a wound at 2.5m wood sound. Notable die back	Medium	20+	**B2**
T22 *(T101)*		Ash	16m	910mm	N 5m E 8.5m S 5m W 4m	3m	Mature	Fair	A strong coverage of ivy precludes full inspection. The tree leans slightly to the west.	Remove ivy and re-inspect.	20+	**B2**
T23 *(T102)*		Lime	19m	720mm	N 3m E 5.5m S4m W 3m	2m	Mature	Fair	A curving lean to the west but strong ivy coverage precludes fuller inspection.	Remove ivy and re-inspect	20+	**B2**

Tree Ref No.	Tree ID No.	Species	Approx. H (m)	Approx. DBH (mm)	Branch Spread	Crown Clearance	Age Class	Physiological condition	Structural condition	Preliminary management recommendations	Estimated remaining contribution (years)	Category Rating
T24 *(T103)*		Sycamore	18m	560mm	N 2.5m E 6m S 3m W 5m	2m	Mature	Fair	Extensive ivy coverage precludes full inspection. . Extensive die back	Remove ivy and re-inspect. Canopy clean	20+	**C2**
T25 *(T104)*		Ash	19m	780mm	N 6m E 7.5m S 4m W 7m	2m	Mature	Fair	Canopy bias to the west. Possible cavity at 3m. Forked at 5m. Ivy precludes fuller inspection	Remove ivy check cavity	20+	**B2**
T26 *(T105)*		Ash	19m	690mm	N 4.5m E 7m S 8m W 3.5m	2m	Mature	Fair	A tree with a clear stem to 5m. Reasonably balanced canopy. Considerable die back	Address die back	20+	**B2**
T27 *(T106)*		Sycamore	17m	590mm	N 6m E 6.5m S 5m W 4m	2m	Mature	Fair	Strong ivy coverage prohibits full survey. Imbalanced to the west and a lean to the south. Extensive die back	Remove ivy and re-inspect. Remove deadwood	20+	**B2**
T28 *(T107)*		Ash	19m	1090mm	N 9m E 8m S 8m W 9m	2	Mature	Fair	Very open upper canopy. Multiple stems rise from base. Strong ivy precludes full survey	Remove ivy and re-inspect.	20+	**B2**
T29 *(T108)*		Lime	18m	590mm	N 3m E 5m S 3.5m W 3.5m	2m	Mature	Fair	A tree which is forked at 2.5m with two straight stems rising. Strong ivy and notable die back	Remove ivy and re-inspect	20+	**B2**
T30 *(T109)*		Sycamore	17m	650mm	N 3m E 7m S 6.5m W 5m	2m	Mature	Fair	A tree with a congested canopy but which is reasonably balanced. Strong ivy precludes fuller inspection	Remove ivy and re-inspect	20+	**B2**

Tree Ref No.	Tree ID No.	Species	Approx. H (m)	Approx. DBH (mm)	Branch Spread	Crown Clearance	Age Class	Physiological condition	Structural condition	Preliminary management recommendations	Estimated remaining contribution (years)	Category Rating
T31 *(T110)*		Horse Chestnut	17m	690mm	N 3.5m E 5m S 4m W 6m	2m	Mature	Fair	A tree strongly covered with ivy precluding fuller inspection. But the tree leans to the west.	Remove ivy to allow fuller inspection.	20+	**B2**
T32 *(T111)*		Lime	16m	640mm	N 4m E 5m S 6m W 5.5m	2m	Mature	Fair	A tree of poor shape and open habit. Three main stems. Significant ivy coverage	Remove ivy to allow fuller inspection.	20+	**B2**
T33 *(T8)*		Mt Ash	6m	200mm	N 2.5m E 2.5m S 3.5m W 3m	2m	Semi mature	Fair	A multi stemmed tree from a low level and with some branch removal at 1m	NWR	20+	**C2**
T34 *(T9)*		Sycamore	12m	280mm	N 4.5m E 3m S 3m W 4.5m	1m	Semi mature	Fair	A tree with a slight lean to the south. Branched from a low level and growing close to the wall.	Clear basal growth	20+	**B2**
T35 *(T10)*		Beech	9m	370mm	N 2.5m E 3m S 3m W4.5m	2m	Early mature	Fair	A tree forked at 2m and with a contorted canopy. A cavity at 2.5m with wood sound at present Tree suppressed by tree 11. Growing very close to wall	Canopy clean check cavity	10+	**C2**
T36 *(T11)*		Beech	16m	810mm	N 7m E 4m S 7.5m W 9m	2m	Mature	Fair	A large tree which becomes multi stemmed at 3m and has one major limb cleanly removed. Some bark wounds but timber sound.	Reduce extended branching and check for internal decay	20+	**C2**

Tree Ref No.	Tree ID No.	Species	Approx. H (m)	Approx. DBH (mm)	Branch Spread	Crown Clearance	Age Class	Physiological condition	Structural condition	Preliminary management recommendations	Estimated remaining contribution (years)	**Category Rating**
T37 *(T12)*		Beech	16m	640mm	N 4.5m E 6.5m S 4m W 4.5m	2m	Mature	Fair	A tree which is forked at 2m. Major staining on trunk	Remove	-	**B2**
T38 *(T13)*		Weeping Willow	12m	700mm	N 5m E 4.5m S 4m W 4m	2m	Mature	Fair	Forked at 2m with three stems rising. Typical contorted shape.	NWR	-	**C2**
T39 *(T14)*		Cypress hedge	6m	200mm	N - E - S - W-	2m	Semi mature	Fair	Reasonable quality conifer hedge	NWR	20+	**C2**
T40 *(T15)*		Sycamore	15m	650mm	N 5m E 5m S 5m W 6m	.5m	Semi mature	Fair	Two stems rising from the base. Reasonably balanced. Some basal growth. No obvious defects.	Clear basal growth	20+	**C2**

4.0 Root Protection Area (RPA)

The minimum root protection area is shown on the plan SF1942/TS01 in orange dashed lines around the trees. These have been adjusted in terms of proximity to walls areas of hard standing. These areas identify the minimum root protection zone around a given tree and there should be a presumption against changes of level within these areas.

5.0 Above Ground Constraints

The root protection areas usually extend beyond the canopy spread of trees, however, when this is not the case care shall be exercised to ensure no damage occurs to the tree canopies. Consideration will also have to be given in terms of tree surgery and the reduction of extended limbs which would otherwise pose a possible hazard in terms of dropped branches.

6.0 Arboricultural Implications and Mitigation

The majority of the trees inspected are off site or away from the development, with the strong line of quality trees along the south west edge of the site. However their root protection areas extend into the development area and so warrant consideration and protection. Generally a no dig situation should occur within the root protection area and any hard surfacing proposed should be built up upon existing levels. In addition if any excavation is unavoidable within the root protection areas all work should be carried out by hand and the advice sought from Smeeden Foreman.

Tree protection fencing will be required to ensure that the root protection areas and tree canopies are not damaged during the construction works and it is of importance that the ground is not tracked or compacted nor any materials stockpiled within these areas.

Care will have to be exercised when undertaking the extension and modifications to the existing car park especially with regards to kerbing and possible infringement into root protection areas.

KEY:

- Retention Category A
  High quality and value
- Retention Category B
  Moderate quality and value
- Retention Category C
  Low quality and value
- Trees for removal Category R
- Min root protection zone

ROYSTON CIVIC HALL
BRICK BUILDING

TARMAC CAR PARK

THE ROVE
STONE BUILDING

ROYSTON LEISURE CENTRE

ROYSTON LIBRARY
BRICK BUILDING

ROYSTON LEISURE CENTRE

TARMAC

ROUGH GRASS

GRASS

TARMAC

RUSTON DRIVE

BRICK WALL

TARMAC

GALWAY CLOSE

THE LANE

NORTH

Rev A 12.10.12 Trees 46 - 54 surveyed

SMEEDEN FOREMAN

Project: Royston High School	
Title: Arboricultural survey	
Scale: 1:500 @ A1	Drawn by: IB
Date: October 2011	Checked: TF
Project No.: SF1942	Drawing No.: 1501
	Rev: A

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