Document Control Sheet

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Document Author:	Matthew Harmsworth, tech.arbor.a, DipRS, RPQ-s									
Project Manager:	Matthew Harmsworth									
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Photograph showing surveyed plot looking northwest.



Report no: 15_5837_04_06

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Date: 24.07.2014

FAO Kevin Corish PHD1 Construction Limited Cinnamon House Cinnamon Park Crab Lane Warrington WA2 0XP

Arboricultural implications assessment to BS 5837 of trees at: Norfolk St / St James St, Liverpool.

1. Scope

- 1.1 We have recently been instructed to undertake an appraisal of trees on the periphery of a plot identified for re-development. This site is known as Norfolk Street and is located close to Liverpool City Centre.
- 1.2 The data was collected to the British Standard BS5837 'Trees in Relation to Design, Demolition and Construction Recommendations' 2012.
- 1.3 The survey has been commissioned to offer support to a planning application for hard and soft landscaping.
- 1.4 The trees were inspected on the Friday 17th April 2015, following the guidance in the British Standard by Matthew Harmsworth. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; no invasive techniques were used at this stage.
- 1.5 Fourteen individual trees were surveyed. The weather was dry and warm with heavy vehicular and pedestrian movement on the adjacent public highway and footpaths. Some informal foot traffic was noted crossing a 'desire line' through the plot on the grass.

2. Site conditions / Site surroundings

- 2.1 The site is situated in the local authority control area of Liverpool City Council. The site is not located within a Conservation Area nor are any tree preservation orders present. Three conservation areas are located within 1km off the site, these are Rodney Street, Duke Street and Albert Dock.
- 2.2 The site is predominantly green space located east of some light industrial units within a square of matrix of roads faced by Watkinson Street to the north, St James St to the east, Norfolk Street to the south and Jamaica Street to the west. Norfolk Street is a cul-de-sac with hard landscape blocking its eastern most aspect.
- 2.3 The wider locality is a mix of light industrial to the north, south and west with some residential housing to the east. A bus stop is located on St James St mid-way along the surveyed tree feature.

- 2.4 A desktop assessment of the locality has indicated that it is not located within a conservation area and does not have any tree preservation orders. However any delay in the submission of a planning application should necessitate further checks.
- 2.5 All land designations where searched and validated during a desktop assessment at <u>www.liverpool.gov.uk</u> at 16:20 on the 24th July. Any delay in the submission of the planning application will necessitate a further check for Tree Preservation Orders.



Photograph showing the heavily damaged stem - T6

3. The Trees

- 3.1 Tree cover at the plot appears to be formal planting as part of the original setting out. Tree cover in this area is limited in terms of species spread and age structure.
- 3.2 Full details of the surveyed trees and groups is included in the appended arboricultural data tables and summarised in the paragraphs below.
- 3.3 Tree cover at the site is predominantly early mature to mature sycamore with a maximum height of 12 meters and an average crown spread of 8-10 meters. These trees are all located within a close mown grass matrix and are mutually suppressive. The majority of these trees have been categorised C1.
- 3.4 Some recent tree works have been carried out which appear to have been centred on the removal of dead or dying stems and the removal of a layer of dense shrubbery. Poor previous pruning works are evident on nearly all the surveyed stems. This is fairly typical of lower quality street trees in this kind of environment.
- 3.5 Crown clearance on all the trees are generally less than 2.5m which is leading to some conflict with the ground maintenance operations. This would account for the poor pruning.



Photograph showing damaged surface roots, typical of trees located within a grass matrix

- 3.6 The low crowns are also encroaching on various pieces of built infrastructure. This includes the adjacent lamp posts and a building on the northwestern corner of the plot.
- 3.7 A single young white beam is located toward the centre of the survey area. It is in very poor condition having been strimmed at the base with grass cutting equipment. This mechanical damage will ultimately lead to its death. This tree has been marked for removal.

4. The Proposals

4.1 No formal proposals have been provided to us at this stage. We understand however that there are to be upgrades in the hard and soft landscape close to the surveyed trees.

5. Recommendations

- **5**.1 Full details of suggested pruning works and removals are located within the appended arboricultural data tables.
- 5.2 Although individual the surveyed trees average a category grade of C1, collectively we would award them a grade of B2- for their landscape and amenity value. The trees provide useful screening to the adjacent buildings and shade for the footway and bus stop.

- 5.3 We would expect the Local Authority will wish to see these trees retained. As such excavation within the root protection areas highlighted on the appended tree constraints plan should be avoided. If this is a major design constraint then removal maybe possible if (as mitigation) at least 10 trees of heavy standard size are specified as replacements. These would need to be both robust and sustainable; located in dedicated tree pits with irrigation systems installed.
- 5.9 Tree removal and protection measures should be set down in an arboricultural method statement with a clear and concise tree protection plan suitable for the site manager and contractors to refer to.



Photograph showing the surveyed trees viewed from the street, a dominant feature within the local area

6. Summary

- 6.1 To summarise, the surveyed trees should be considered a constraint at this stage and designed around if possible. If this is not possible then the feature should be removed and extensive mature planting budgeted for.
- 6.2 Opportunity exists to enhance the diversity of tree species in this area by incorporating new planting regardless of the surveyed trees.

6. Limitations

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Trees were inspected from ground level only; trees were not climbed or inspected below ground. Inaccessible trees will have best estimates made about location, physical dimensions and characteristics.

Should you require any further information, please do not hesitate to contact us at any time.

Matthew Harmsworth

Mr. M Harmsworth tech.arbor.a, DipRS Consultant Arborist

Prepared by: Matthew Harmsworth. Checked by: Anne-Marie Harmsworth

Attached

Appendix 1 – Site location Appendix 2 – Arboricultural Data Tables Appendix 3 – Tree Constraints Plan Example of appropriate tree protection fencing and signage.



APPENDIX 1 - Site Location



Aerial photos courtesy of Bing Mapping.

APPENDIX 2 - Arboricultural Data Tables

Norfolk Street - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N-E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
Individual Trees												
T1	Bird Cherry	6	290	38	4-4-2-3	3 S	М	F	Limited long-term prospects. Poor shape & form. Part of linear group. Surface roots sustained bark damage. Major bark wounding on stem. Unbalanced crown shape. Crown distorted due to group pressure. Branches encroaching upon building.	Prune clear of building.	10+	C1
T2	Whitebeam	7	350	55	4-3-3-4	2 W	М	Ρ	Limited long-term prospects. Low vitality. Leaning South. Surface roots sustained bark damage. Low bud/leaf density. Unbalanced crown shape. Crown distorted due to group pressure. Branches encroaching upon building.	Rectify poor previous pruning.	<10	C1
T3	Sycamore	12	505	115	7-4-3-2	2 N	М	F	Part of linear group. Leaning North. Unbalanced crown shape. Crown distorted due to group pressure. Branches encroaching upon building.	Prune clear of building.	20+	C1
T4	Sycamore	11	420	80	2-2-3-2	2 N	EM	F	Part of linear group. Spindly habit. Unbalanced crown shape. Crown distorted due to group pressure.	No works required.	20+	В3
Т5	Sycamore	10	375	64	5-3-3-2	2 N	EM	F	Part of linear group. Spindly habit. Unbalanced crown shape. Crown distorted due to group pressure.	No works required.	20+	C1

project name:Norfolk Street client: PHD1 Construction Project number: 15_5837_04_06 **David Riding Limited**

Norfolk Street - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N-E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T6	Whitebeam	5	150	10	1-1-1-1	2 NE	Y	Ρ	Limited long-term prospects. Poor shape & form. Low vitality. Declining. Stunted habit. Surface roots sustained bark damage. Major bark wounding on stem. Dieback in crown. Low bud/leaf density.	Remove tree and root.	<10	U
Τ7	White Poplar	19	510	118	8-9-7-6	5 E	М	G	Surface roots sustained bark damage. Unbalanced crown shape. Crown distorted due to group pressure. Branches restricting highway light. Downgraded due to poor structure. Leader leans to the north.	Remove major deadwood.	20+	C1
Т8	White Poplar	20	500	113	5-6-8-5	5 S	М	G	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure. Branches restricting highway light. Better structure and form than adjacent tree. Branches extending over street lamp.	Prune clear of street lamp.	20+	B1
Т9	Sycamore	14	460	96	7-2-3-2	3 N	SM	F	Part of linear group. Leaning North. Major bark wounding on stem. Crown distorted due to group pressure. Poor previous pruning.	Rectify poor previous pruning.	10+	C1
T10	Sycamore	14	440	88	3-2-5-1	2 S	EM	F	Part of linear group. Spindly habit. Crown distorted due to group pressure.	No works required.	20+	C1

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Norfolk Street - Arboricultural Data Tables

tree no	species	height	DBH (mm)	RPA (av. radius)	crown spread N-E-S-W	height to 1 st significant branch	age class	condition	structural condition	preliminary management recommendations	estimated remaining years	Category grade
T11	Sycamore	15	450	92	6-1-4-2	2 N	SM	G	Part of linear group. Spindly habit. Branches restricting highway light.	No works required.	20+	C1
T12	Sycamore	14	390	69	4-2-6-1	2 N	EM	F	Part of linear group. Spindly habit. Branches restricting highway light.	No works required.	20+	C1
T13	Sycamore	13	270	33	6-1-3-1	2 E	Y	F	Part of linear group. Spindly habit. Unbalanced crown shape. Crown distorted due to group pressure.	No works required.	20+	C1
T14	Sycamore	16	520	122	7-3-4-3	2 N	М	G	Part of linear group. Surface roots sustained bark damage. Crown distorted due to group pressure. Good structure and vitality.	No works required.	20+	B1
	End of Records											

APPENDIX 3 - Tree Constraints Plan (2 sheets)

