ecological services

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ARBORICULTURAL ADVICE:

LONG SUTTON LIBRARY, TRAFALGAR SQUARE, LONG SUTTON, LINCOLNSHIRE

Final

August 2021

DOCUMENT CONTROL

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FIGURES

1-01 AIA Survey Results.

EXECUTIVE SUMMARY

ESL (Ecological Services) Limited (ESL) has been commissioned by Kier Business Services Limited to provide arboricultural advice with regard to temporary works at Long Sutton Library, Long Sutton, Lincolnshire (the 'Site').

The proposed works comprise the installation of two UK123 Portakabins ('Units') within the car-park of the existing library. These Units will provide temporary library facilities during roofing works to the existing building. Installation of the Units requires the use of a 60t crane.

The locations for the crane and Units (as shown on Figure 1-01) have been carefully chosen to minimise any impact to the Stock. Minor crown modification will be required, including crown-lifting (removal of minor growth over the car-park exit) of one tree to provide clearance for the crane to leave the Site and shortening of some minor branches on one tree; these overhang the car-park and the reduction is required to facilitate positioning of the Units.

All work will be carried-out in accordance with BS 3998:2010 Tree Works - Recommendations.

Statutory Sites, Tree Preservation Orders (TPO) and Conservation Areas.

- There are no statutory sites or TPOs within the Site boundary. The Site falls within a conservation area (South Holland District Council reference CA11).

Summary of potential impacts:

- Minor crown modification will be required however, the proposed work will have a negligible impact on the trees or their amenity value.
- An active wood pigeon nest is present in one tree

Summary of proposed mitigation:

- No arboricultural mitigation is considered necessary.
- Protective measures are required for nesting birds

ARBORICULTURAL ADVICE: LONG SUTTON LIBRARY, TRAFALGAR SQUARE, LONG SUTTON, LINCOLNSHIRE

1 INTRODUCTION

1.1 SCOPE OF WORK

1.1.1 ESL has been commissioned by Kier Business Services Limited to provide arboricultural advice with regard to temporary works at Long Sutton Library, Long Sutton, Lincolnshire.

1.1.2 The Site, located centrally in the village of Long Sutton (approximate grid reference TL4296323009), comprises an existing library building in the northeast corner of a roughly triangular site with hardstanding (car-park) to the south and west. There are residential properties to all sides. The car-park entrance is off Swapcoat Lane to the west and the exit is onto Bull Lane to the south. Between the car-park and the public footpath adjacent to the carriageways is a narrow grass-verge with mature Stock.

1.1.3 The proposed works comprise the siting of a 60t crane and the installation of two Units within the car-park of the existing library. These Units will provide temporary library facilities during roofing works to the existing building.

1.1.4 Locations for the crane and Units (shown on Figure 1-01) have been carefully chosen to minimise any impact to the Stock. Minor crown modification will be required, including crown-lifting (removal of minor growth over the car-park exit) of one tree to provide clearance for the crane to leave the Site and shortening some minor branches that overhang the car-park to facilitate positioning of the Units.

1.1.5 The entire Site and immediate surroundings was surveyed to assess the impact of the proposed works.

1.2 LIMITATIONS

1.2.1 ESL does not pronounce on the health of trees beyond the initial informal visual assessment. The surveyor had full, unrestricted access to the Site.

1.3 STANDARDS AND HARDWARE USED

1.3.1 Tree positions were recorded with a Trimble Geo 7X (accurate to sub 500mm).

1.3.2 Stem diameters were measured using a stem diameter tape in accordance with Annex C of BS 5837:2012 (the Standard). All measurements are given in millimetres (mm).

1.3.3 Tree heights were measured using the Trimble's laser range finder module (accuracy: ±50mm @ 120m).

1.3.4 Canopy spreads and other measurements were made using a Leica DISTO D110.

1.3.5 For the purposes of this report, a 'minor' branch is one with a diameter of less than 25mm; anything with a diameter above 25mm is considered a 'major' branch.

1.3.6 The entire Site was walked on 29th July 2021. Measurements were taken to assess whether trees adjacent to the proposed works would be impacted. Where this is not the case, those trees are not considered further in this report.

1.3.7 A schedule of the Stock surveyed is given as Appendix 1.

1.3.8 Common names are used throughout this report with scientific names given in the Schedule. Where species not given in the Schedule are referred to in the text, the scientific name is given at the first instance.

1.3.9 Prior to the site visit, a risk assessment was undertaken by the Project Manager in order to make all fieldworkers aware of any site-specific risks and of the required safe working methods. These assessments are updated as required during the course of the survey.

2 METHODS AND RESULTS

2.1 STATUTORY SITES, TPOS AND CONSERVATION AREAS

2.1.1 Natural England's GIS datasets were used to determine the proximity of any statutory sites. There are none on or adjacent to the Site, the nearest being The Shrubberies Local Nature Reserve some 356m to the northwest.

2.1.2 South Holland District Council's website was consulted for information on TPOs and conservation areas. There are no TPOs on or adjacent to the Site, the nearest being TPO reference TPO/11/30/2004 ca.40m to the north.

2.1.3 As the Site falls within a conservation area (South Holland District Council reference CA11), the relevant authority must be notified of any proposed works to trees and have six weeks to respond.

2.1.4 The TPO/conservation area search results are given as Appendix 2.

2.2 ARBORICUTURAL SURVEY RESULTS

2.2.1 The Stock on Site comprises five trees and two ornamental shrubs within a narrow grass verge adjacent to the car-park; a mature London plane *Platanus* x *hispanica* north of the entrance off Swapcoat Lane, together with the ornamental shrubs (*Colutea arborescens* and *Symphoricarpos* sp.) will not be impacted by the proposed works so are not considered further in this report.



Photograph 1. Looking northwest along the tree line: T01 on the right and T05 left, showing exit onto Bull Lane.

2.2.2 Tree T01 is a mature walnut, trees T02, T04 and T05 are mature horse chestnuts and T03 is a wayfaring tree (Photograph 1). All are in generally good condition and appear to be well maintained, showing signs of historic pruning in the form of occluded and semi-occluded pruning wounds on stems and within their canopies. They show no significant signs of colonisation by pests or pathogens.

2.3 IMPACT ASSESSMENT

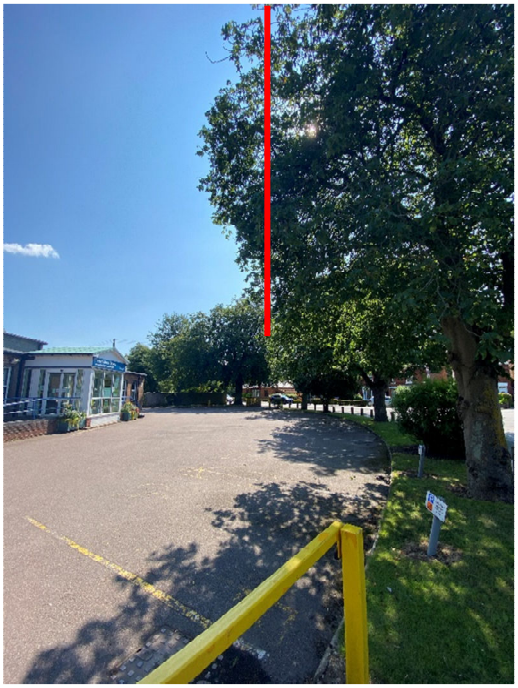
2.3.1 According to the Portakabin Lifting Info document supplied (given as appendix 3), two concrete bollards and the metal gate post south of the entrance will be removed to give access to the Site (Photograph 1). There is no requirement to modify the crown of T01 in this area however, a banksman will be needed to ensure vehicles manoeuvring onto the Site do not impact the canopy.

2.3.2 It should not be necessary for any vehicle or personnel to enter onto the grass verge adjacent to the trees at any stage or the proposed works, including during access facilitation works. If this changes, ground protection must be installed first and clearance to the canopies must be confirmed before works start.

2.3.3 The northeast canopy of T01 will need to be modified slightly to facilitate installation of the Units. This can be achieved by selective-pruning, shortening branches in this area by a maximum of 1,600mm (Photograph 2). This will likely only effect minor branches.



Photograph 1. Three bollards to be removed to facilitate access.



Photograph 2. Approximate extent of T01 canopy to be removed.



Photograph 3. Extent of T05 canopy to be removed. Red arrow shows lowest point of lowest major branch (see Photograph 4), blue arrow shows location of 'No-Entry' sign.



Photograph 4. Lowest point of lowest major branch on T05 (4,300mm above finished road surface); note pigeon nest.

2.3.4 A minimum clearance of 4,000mm is required to allow the crane to leave the Site (exit onto Bull Lane). The lowest point of the lowest major branch on T05 is at 4,300mm (as shown on Photographs 3 and 4). Crown-lifting T05 to 4,000mm above the finished road surface between the wall east of the exit and the end of the canopy will require the removal of between 1,000mm and 1,500mm of minor growth from the western side of T05's canopy. This will also go some way to improving the visibility of the 'No-Entry' sign adjacent to the exit (Photograph 3).

2.3.5 The wall to the east of the exit and the bollards to the west (seen on Photograph 3) will remain in situ, ensuring vehicles cannot enter onto the verge in this area.

2.3.6 Trees T02 and T04 will not be directly impacted by the proposed works but due to proximity, a banksman must be in place to ensure there are no impacts to the canopies. No vehicles, personnel or materials are permitted onto the verge in this area.

2.3.7 All tree operations must be carried out according to BS 3998:2010 Tree work - Recommendations.

2.3.8 Horse chestnut is prone to infection by *Pseudomonas syringae* pv. *aesculin* and while no sign of this disease was noted in the trees on Site, care must be taken when undertaking works. Clean tools are a must.

2.3.9 Modifications to trees T01 and T05 are minor and will not impact the amenity value or long-term viability of either tree.

2.4 STATUTORILY-PROTECTED WILDLIFE

2.4.1 The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 provide protection for a range of habitats and species. The most notable with regards to work affecting trees is the presence of active bird nests and bats.

2.4.2 The Stock on Site has no potential for use by bats but an active pigeon nest is present in the tree over the car-park exit. Whilst it is not an offence to disturb common bird species, it is an offence to damage or destroy an active nest (one under construction, with eggs or with young).

2.4.3 To avoid the commission of an offence, a nesting-bird check must be undertaken by an ecologist within two days of any works being carried-out on the trees. Any active nests must be protected until the young have fledged. Depending on the timing of work, this may already have taken place before work starts.

APPENDIX 1

TREE SCHEDULE

Tree number	Species	Height	Stem type	Estimated	Stem Diameter	Branch spread - North	Branch spread - East	Branch spread - South	Branch spread - West	Height above ground - First significant branch and direction	Height above ground - Canopy	Life stage	Physiological condition	Structural condition	Preliminary Management Recommendations	Estimated Remaining Contribution	Category	RPA (m)	RPA (m^2)
T01	Jreg	N\A	S		580	5.00	5.50	5.50	4.50	6N	3.00	Mature	Good	Good	None	40+	A2/3	6.90	15
T02	Ahipp	N\A	S		660	6.00	5.50	6.00	5.50	4N	2.50	Mature	Good	Good	None	40+	A2/3	7.80	191
T03	Vlant	N\A	MS		200	3.00	2.00	3.00	3.50	2N	2.00	Mature	Good	Good	None	40+	A2/3	2.40	18
T04	Ahipp	N\A	S		510	5.00	5.00	5.50	7.50	4.5N	3.50	Mature	Good	Good	None	40+	A2/3	6.00	113
T05	Ahipp	N\A	S		1100	10.00	6.50	9.00	9.00	4.3W	2.50	Mature	Good	Good	None	40+	A2/3	13.20	547

Code	Scientific name	Common name
Ahipp	Aesculus hippocastanum	Horse chestnut
Jreg	Juglans regia	Walnut
Vlant	Viburnum lantana	Wayfairing tree

Key to Tree Schedule

PHYSIOLOGICAL CONDITION
Good – A tree in good health with no significant defects.
Fair – A tree in generally good health that might require remediation for some issues.
Poor – A tree in poor health having issues that cannot be remediated.
Dead – A tree without sufficient live material to sustain life.

STRUCTURAL CONDITION
Good – A tree with no obvious sign of defect.
Fair – A tree with minor defects or defects that can be corrected.
Poor – A tree with major defects or defects beyond remediation.

CATEGORY
U - Trees unlikely to contribute beyond 10 years.
A - Trees of HIGH quality with an estimated remaining life expectancy of at least 40 years.
B - Trees of MODERATE quality with an estimated remaining life expectancy of at least 20 years.
C - Trees of LOW quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter of less than 150mm.

KEY

- Cat A tree
- Canopy
- Proposed location for crane
- Proposed location for Units



ESL (Ecological Services) Limited

SITE NAME:
Long Sutton Library, Trafalgar Square, Long Sutton, Lincolnshire.

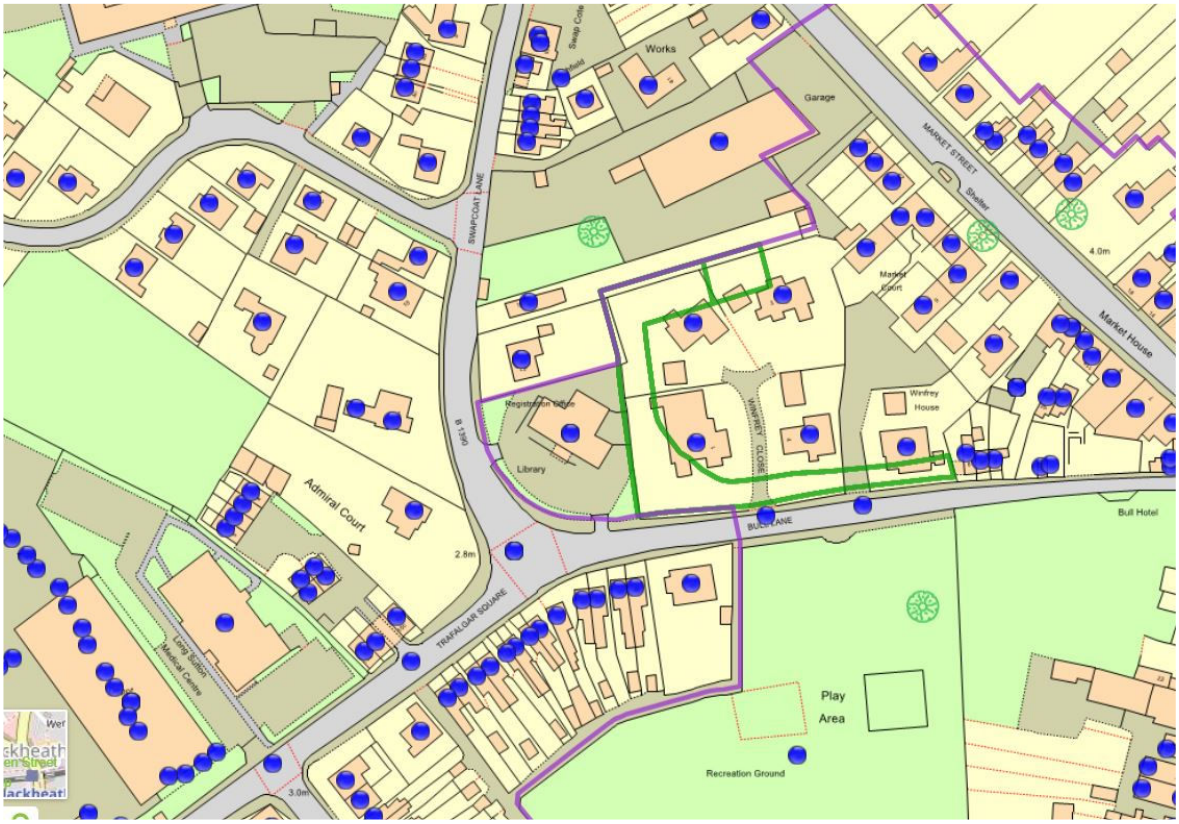
DRAWING TITLE:
AIA survey results.

Dwg no.: ARB20-L110-001
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Date: Aug 2021
Figure: 1-01

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APPENDIX 2

TPO AND CONSERVATION AREA SEARCH RESULTS



TPO and Conservation area search results.

APPENDIX 3

PORTAKABIN LIFTING INFO

Site Inspection Request & Preconstruction Information

Site Inspection Request: Please note page one must be completed and the document issued electronically in advance of a site visit being arranged.

Sections highlighted in grey must be completed by commercial staff for Level 2 projects with no install line on the quotation.

Requested by	Suzanne Willey	**Hire Centre**	Derby
Client	Kier Business Services Limited	**Site Contact**	Tim Payne
Project Title	Temporary Library	**Phone**	07796 312665
Site Address	Long Sutton Library Trafalgar Square Long Sutton PE12 9HD	**Email**	tim.payne@kier.co.uk
		Visit Date	25th May 2021
		Quote No.	OPP1244775
		Contract No.	
		Date of Works	
		Hire period	266 weeks
Description of works	Installation of 2 x UK123 modules to form temporary library.		

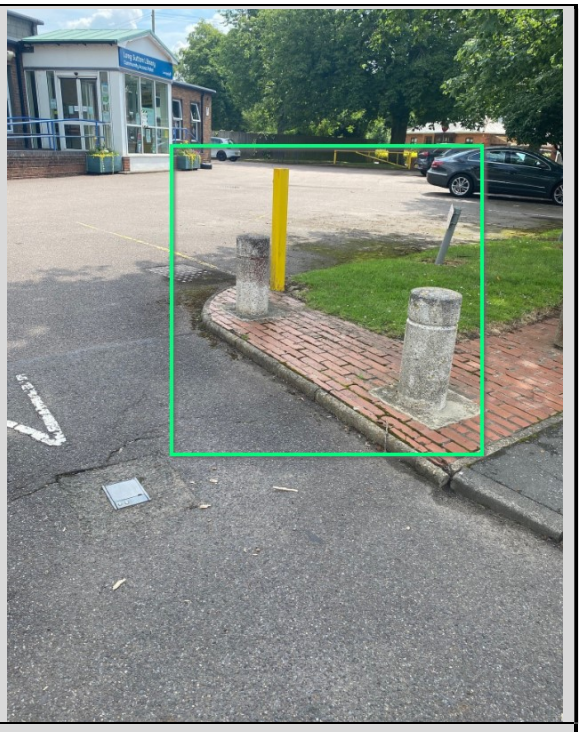
Potential Building Services / Additions

TS Planning / BC		Building skirt	X	Emergency Lighting	X	Datakom	X
Service connections	X	Steps		Intruder/ Fire Alarm	X	Interiors	
Foundations	X	Ramps	X	Aircare		Exteriors	
Portaloo		Waste Tanks		Generator		Water Bowser	

CDM 2015 Duties	**Duty Holder**
Principal Designer	**Client**
Principal Contractor *Consider general site conditions – page 2	Client

Notes : Building to be installed into front car park of existing library. Some tree pruning will be required along with 3 x bollards to be removed to allow access for the units. Client will act as Principal Contractor and provide welfare facilities.

Potential Risk / Hazards	Yes	No	Comment / Recommended Mitigation
General Site Conditions			
Any additional measures required to protect the general public or vulnerable persons beyond normal barriers, fencing and signage?		**x**	
Is any additional lighting required		**x**	
Are there any noise restrictions?		**x**	
Are any additional PPE required?		**x**	
Do we need to provide site office & welfare?		**x**	
Are client site inductions required (note duration & set times)?	**x**		**Times TBC**
Site Access & Transport			
Access. Are there any width / height restrictions? Including overhead cables, trees, etc.	x		3 x Bollards to be removed, to be quoted by Groundworks.

			
Will vehicles need routing, directing to site or into position?	x		
Is traffic management required?	x		TM required to see units in off the road.
Is crane or lorry loader required?	x		Crane
Any specific loading instructions?		x	
Initial assessment of ground conditions within delivery area. Any additional requirements to allow access i.e. Trackway?		x	
Will proposed site work block emergency exits / escape routes?		x	
Do building fascia need to be removed due to restrictions on route to site?	x		
Any specific building loading instructions?		**x**	
Potential Risk / Hazards	**Yes**	**No**	**Comment / Recommended Mitigation**
Crane / Hiab Installation			
Sufficient space for crane to rig? Check spread of riggers?	x		

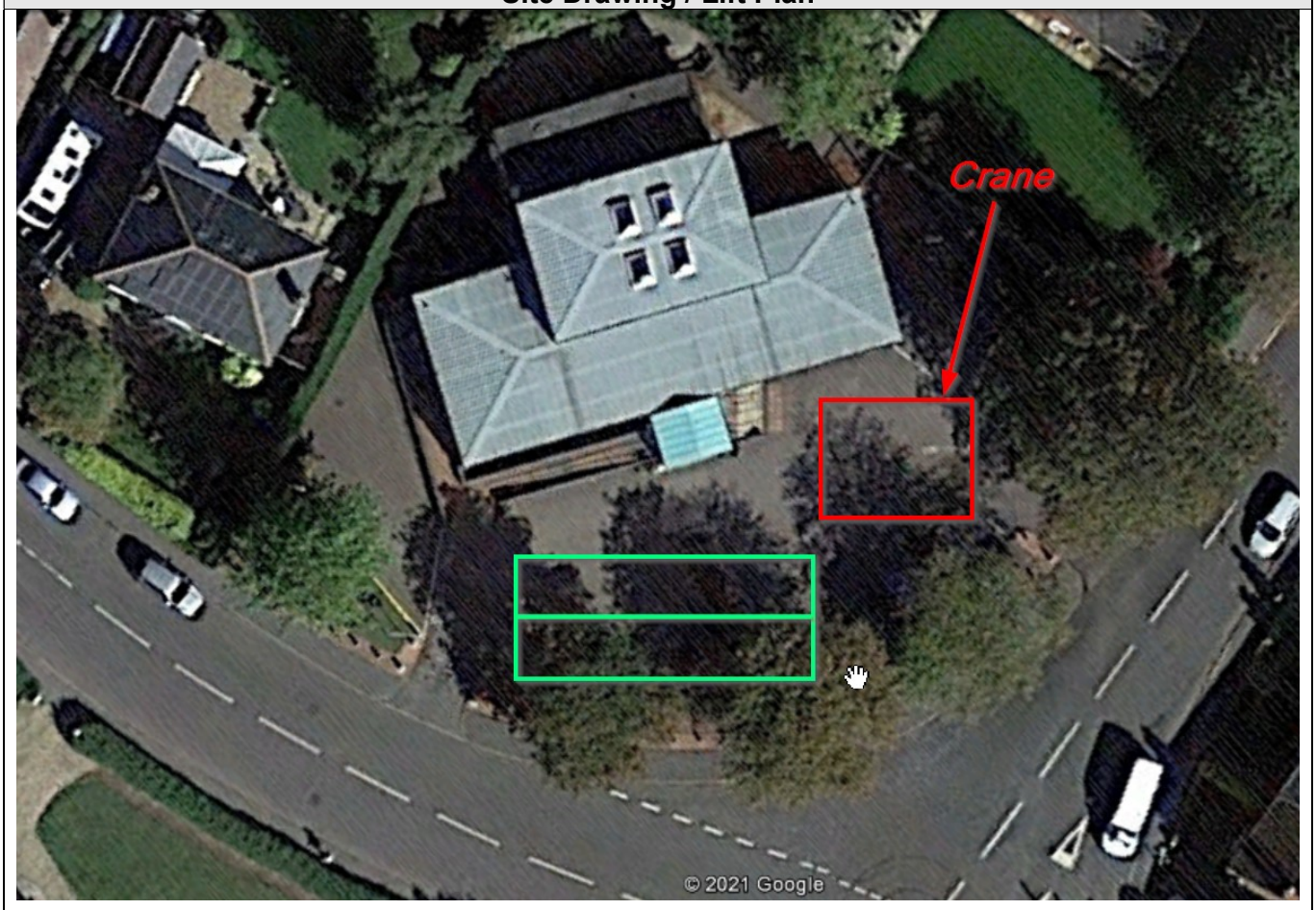
Initial assessment of ground conditions within crane area. Any additional requirements to allow access i.e. Track way?	x		3 x 1 m mats for crane required.
Are any additional supports required for crane?	x		As above
Is there less than 600mm clearance for slew?		x	
Does crane / working area need to be coned off in addition to existing site?		x	
Is there a maximum jib height?		x	
Are there any overhead cables?	x		Crane can be positioned away from telephone cables.
Are there any underground services identified?	x		
Are there any other nearby hazards?	x		Pedestrian footpaths
Will crane block fire/emergency routes?		x	
Will it be a blind lift?		x	
Is traffic management required?	x		
Hazards in close proximity? Buildings, roads, railways, airport, waterways?		x	
Potential for over-sail?		x	
Do adjacent buildings need evacuating?		x	
Any additional notifications? Rail, Airport?			
Ground Conditions for Unit Installation			
Is the ground level?	x		
Any services under proposed footprint?		x	
Sufficient space for proposed unit(s)?	x		Tree's require pruning

			
Are foundation pads required?	x		
Survey information available from client?		x	

Potential Risk / Hazards	Yes	No	Comment / Recommended Mitigation
Specific security arrangements?		x	
Client Specific Emergency Procedures		x	
Is the site secure, do we need to provide any specific additional security?		x	
Working times on site?			8-5
Best time for activity to take place. Weekend? Early morning? Evening?		x	Weekday
Follow up visits required?			
Haulier/Crane rep/Trackway visit required?	x		
Building Services or Total Solutions			

Initial Crane Selection	
Crane Supplier AP on site?	Contract lift
Size/Capacity	60 t
Type	Liebherr
Specific model	
Counterweight	
Crane accessories	
Additional Comments on Crane and Logistics.	

Site Drawing / Lift Plan



Tree’s to be pruned to allow crane to exit.

