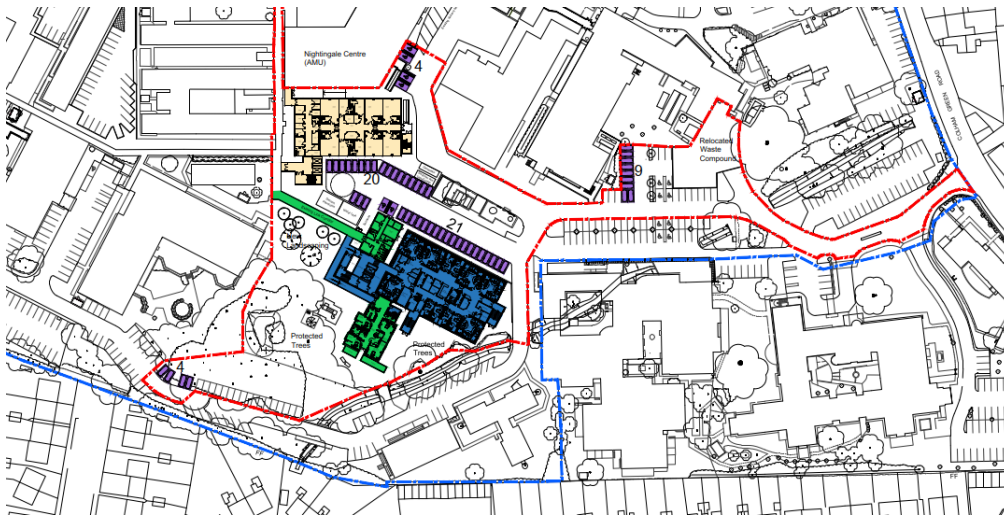


western

building systems

CONSTRUCTION ENVIRONMENT PLAN FOR HILLINGDON HOSPITAL MODULAR SOUTH



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1. Introduction and description of project

The works comprise of:

The Design, manufacture, installation, and commission of a multi storey modular ward block (3 story). The new multi-storey ward, known as Modular Ward South, will be located within the area of the previously demolished Building 4 at the hospital.

The address of the site is: Hillingdon Hospital, Pied Heath Road, Uxbridge, Middlesex UB8 3XX

The project is due to commence in late 2020 with a duration of 45 weeks.

2. Project Team

 WBS JOB NO:3278-HILLINGDON HOSPITAL TRUST						
Company Name	Contact Name	Discipline	Role	Email Address	Head Office Contact No	Mobile Contact No
HEAD OFFICE MANAGEMENT TEAM						
Western Building Systems Ltd	Shane Tinsart	Main Contractor	Contracts Director	shane.tinsart@westernbuild.com	028 87740740	07876798644
Western Building Systems Ltd	Stuart Hearty	Main Contractor	Commercial Manager	stuart.hearty@westernbuild.com	028 87740740	07796686734
Western Building Systems Ltd	Eamonn Boyle	Main Contractor	Project Manager	eamonn.boyle@westernbuild.com	028 87740740	07821562575
Western Building Systems Ltd	Patrick McKernan	Main Contractor	Quantity Surveyor	patrick.mckernan@westernbuild.com	028 87740740	
Western Building Systems Ltd	Nigel Donaldson	Main Contractor	Production Manager	nigel.donaldson@westernbuild.com	028 87740740	
Western Building Systems Ltd	Diarmuid Robinson	Main Contractor	Document Controller / Administrator	diarmuid.robinson@westernbuild.com	028 87740740	
DESIGN TEAM & SPECIALISTS						
Bailey Partnership	Giles Biehl	Architectural	Partner Architect	g.biehl@baileyp.co.uk	01752229259	07890901039
Bailey Partnership	Dave Vickerstaff	Architectural	Project Architect	d.vickerstaff@baileyp.co.uk	01752229259	07870240085
Bailey Partnership	Solomon Dangana	Architectural	Architectural Technologist	s.dangana@baileyp.co.uk	01752229259	07800906308
Bailey Partnership	Ben Vanner	Building Services	Director of Building Services Engineering	b.vanner@baileyp.co.uk	01732 885 835	07526172624
Bailey Partnership	Chris Hitchcock	Building Services	Senior Electrical Engineer	c.hitchcock@baileyp.co.uk	01732 885 835	
Bailey Partnership	Lelia Tavendale	Building Services	Senior Mechanical Engineer	l.tavendale@baileyp.co.uk	01732 885 835	07515457155
Bailey Partnership	Derren Harris	Building Services	Senior M&E Technician	d.harris@baileyp.co.uk	01732 885 835	
Alan Wood & Partners	Michael Blake	Civil & Struct	Director	michael.blake@alanwood.co.uk	01723 865 484	07876133831
Alan Wood & Partners	Paul Sedman	Civil & Struct	Office Director	paul.sedman@alanwood.co.uk	01723 865 484	07880201234
Alan Wood & Partners	Jack Leavy	Civil & Struct	C&S Engineer	jack.leavy@alanwood.co.uk	01723 865 484	
Alan Wood & Partners	Kevin Dowley	Civil & Struct	C&S Engineer	kevin.dowley@alanwood.co.uk	01723 865 484	
BB7	Ray Quinn	Fire Engineering	Fire Engineering Consultant	rquinn@bbseven.com	0203 603 5535	
Assent Building Control	Ian Wright	Building Control	Building Regulations Service	ian@assentbc.co.uk	01206 561 938	07837 369 897
WBS SITE MANAGEMENT TEAM						
Western Building Systems Ltd	KEVIN WYLLIE	Main Contractor	SITES MANAGER	Kevin.Wyllie@westernbuild.com		07739726139
Western Building Systems Ltd	SIMON-WHITE MILLER	Main Contractor	BUILDING PROJECT MANAGER	Simon.WhiteMiller@westernbuild.com		07489 812 894
Western Building Systems Ltd	NICOLAE URSU	Main Contractor	MODULAR BUILDING FOREMAN	nicolae.ursu@westernbuild.com		07776 426 024
Western Building Systems Ltd	SEAN HEALEY	Main Contractor	CIVILS ENGINEER / CIVILS PM	sean.healey@tfsolutions.co.uk		07481 739 169

3. Roles and Responsibilities

Contracts Director

- Ensure that workplaces under their control are adequately resourced in terms of finance and personnel
- Ensure, so far as reasonably practicable that a suitable project specific Construction Phase Plan is prepared and implemented
- Make appointments where necessary, e.g. Site Health & Safety Officer, Waste Company's Project Environmental Co-ordinator, Fire Wardens etc.;

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

- Ensure, so far as reasonably practicable, employees and contractors are competent
- Recommend training needs to suit individual and workplace requirements
- Include SHE issues within site and project meetings
- Review project management systems at regular intervals to ensure continued suitability and effectiveness;
- Report to the client on SHE matters as required
- Assist in any regulatory, external or internal audit as required;

SHE Manager

- Provide advice to the Directors to enable them to set appropriate performance objectives and improvements;
- Report on the levels of performance to enable Directors to review the effectiveness of current SHE arrangements;
- Advise managers on measures to ensure the effective operation of the project
- Give advice and guidance, to any person who may require it, to promote the understanding and operation of SHE best practice;
- Carry out regular inspections and audits, provide reports, and give guidance and advice to managers, contractors, Health and Safety Supervisors etc.
- Liaise with site management as required;
- To assist in any regulatory, external or internal audit as required;
- Report any SHE initiatives that they consider could lead to improvement.

Site Management

- Be familiar with this Construction Phase Plan and co-operate in its implementation;
- Report any SHE initiatives that they consider could lead to improvement;
- Manage all SHE risks associated with their work activity / package in accordance with WBS procedures;
- Provide completed environmental reports to the WBS's SHE Manager
- Provide environmental toolbox talks to site staff
- Report all potential / actual SHE risks to WBS's SHE Manager as soon as possible;
- Assist in any regulatory, external or internal audit as required;
- Report any SHE initiatives that they consider could lead to improvement

4. Environmental Aspect

The environmental impacts associated with the project are summarised as follows:

Aspect	Possible Impact
Works close to trees with a Tree Protection Order	Damage to the trees or their roots
Works close to a stream	Contamination of the stream
Works within a live hospital	Disruption of hospital activities
Delivery of large building components	Disruption of traffic flow on surrounding roads
Dust, noise and vibration	Contamination and risk to high risk patients

5. Environmental Targets

The targets for the project are as follows:

- Zero environmental issues including spillages and contamination
- 97% recycling of waste materials
- Zero complaints from the hospital and members of the public
- Score of 38 or better on CCS Audit

6. Site Working Hours

Working hours are restricted to 8.00am – 5.00pm Monday – Friday; 8.00 -1.00pm Saturday. No works permitted on Sundays or Bank Holidays.

7. Access and Egress

Access to the site will be via Entrance D on Colham Green Road. The entrance is used by staff, patients and visitors attending the hospital. All HGV's will be accompanied from the hospital entrance on Colham Green Road to the site. Directional signage will be erected from the access route to the site compound.

8. Parking

All parking will be within the site compound only. No parking is permitted on the access roads or hospital car parks. The compound can accommodate up to 15 vehicles. Where demand exceeds availability, we will source offsite parking.

9. Site Compound

The site compound will be equipped with suitable welfare facilities to accommodate up to 70 persons. Welfare facilities will include, a canteen, and an office/meeting room. We will take possession of the existing plant buildings to use as offices, drying rooms and toilets.

Suitable signage will be erected at the entrance to the site which will include contact details for site management.

WBS will use an additional access into the site beside the hospital crèche to accommodate telescopic handlers and MEWP's. There is a 12te weight limit on the bridge across the stream leading to the site. Suitable signage identifying the weight limits will be erected on the bridge.

10. Materials Delivery and Storage

Key Deliveries

Item	Delivery Method
Welfare Units	HIAB
Structural Steel	40ft lorry
Precast Concrete Slabs and stairs	40ft lorry
Modular Building Sections	40ft lorry
Scaffolding Components	Flatbed Lorry
Cladding	40ft lorry
Windows	Box Lorry
Large Mechanical Components	Various

A delivery schedule will be produced for all the above deliveries. Deliveries will be scheduled outside peak hospital hours of 8.00am -9.00am and 4.00pm – 5.00pm.

Loading and unloading of plant and materials shall take place only within the boundaries of the construction site.

Loading and storage areas will be created on site allowing sufficient area for the requirements of the project. Lorry movements will be fully considered, ensuring safe reversing / manoeuvring, access and egress.

When materials are delivered to the work area they shall be positioned so as not to obstruct vehicular or pedestrian routes or reduce visibility of site traffic and pedestrians. Materials shall be positioned outside of the root protection area of existing trees.

11. Traffic Management

All vehicles will be accompanied from hospital entrance D to the site. There is a speed limit of 10mph on the hospital access roads. No more than 1 HGV will be permitted within the hospital grounds simultaneously.

12. Highway Cleanliness

The existing highways leading to the site shall be kept free from mud, dirt, debris and other deleterious matter.

Road sweeping shall be implemented as required to prevent build-up of mud / dust on site roads and to ensure it is not deposited on adjoining public roads.

A high pressure hose shall be available at the site gate for the cleansing of vehicles should this be necessary to avoid the deposit of mud on the public highway.

13. Tree Protection

JS Stephens (Arborist) has carried out a tree protection assessment and Method Statement on behalf of Western Building Systems. The assessment has identified a number of trees for removal, pruning or protection. Trees and roots will be protected prior to mechanical excavation and construction works commencing.

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN



Hillingdon Hospital

Appendix B
BS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clear- ance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect Ion Distance (m)	Root Protect. Area (m2)
				N	S	E	W								
T1	Oak	15	est 900	7	7	7	7	4	Mature	Dense bramble and ivy around base, prevents detailed basal inspection. Heavily reduced in the past, but reasonable vigour to fresh growth.	Remove a section of ivy from lowest metre of trunk to enable more detailed inspection, 20% crown reduction, providing 1.5m canopy clearance to the new building line.	>40	A-B2	10.8	366
T2	Ash	12.5	190	4.5	2.5	1	4	5	Semi-mature	Showing reasonable vigour at present, but susceptible to ash dieback disease.	Prune to provide 1.5m canopy clearance to the building line.	15-30	B2	2.3	16
T3	Ash	8.5	190	0.5	3	1	1	2.5	Semi-mature	Three stems from base- average 110mm.	Remove	10-20	C2	2.3	16
T4	Ash	16	est 560	9	1	5.5	5.5	8	Mature	Dense ivy around base prevents detailed inspection. Tight fork beneath ivy.	20% crown reduction. Remove ivy.	15-30	B-C2	6.7	142
T5	Oak	17.5	1600	9.5	9.5	9.5	9.5	4	Veteran	Fine tree. Major limb to north east removed at 2.5m. Occasional minor deadwood and cavities, but showing good overall vigour.		>40	A1-2-3	15.0	707
T6	Ash	16.5	680	4.5	7.5	8.5	8.5	3.5	Mature	Three stems from base- average est. 390mm. Dense ivy and bramble around base.	Remove a section of ivy from lowest metre of trunk to enable more detailed inspection.	15-30	B2	8.2	209
T7	Oak	18	930	8	9	8	8	3	Mature	Good quality tree.		>40	A2	11.2	391
G8	Hedge	3	25-75					0	Mature	Dense evergreen hedge, containing a mixture of shrub species with dense ivy. Previously trimmed to 2.2m	Remove to facilitate development	10-20	C2	0.9	3
T8	Oak	16	650	8	7	9	5	3.5	Mature	Low branches recently removed. Good vigour.		>40	A2	7.8	191
T9	Oak	16.5	630	4	9	6	8	4	Mature	Recently pruned. Showing reasonable vigour.		>40	A2	7.6	179
T10	Ash	19	810	8	3.5	8	8	3	Mature	Canopy previously pruned back from building and low branches removed. Dense ivy. Susceptible to ash dieback disease.	Remove section of ivy from around base. Re-inspect within 18 months.	15-30	B2	9.7	297
T11	Oak	8	320	9	1	1	6	3	Early mature	Poorly structured tree which doglegs over site boundary and with branch hitting adjacent building. Prune 3m clearance to adjacent building.		10-20	C2	3.8	46
G12	Undergrowth	4-9.5	50-180					0.5	Early mature	Low quality thorn, oak, elder- mostly engulfed in ivy- none of particular individual merit.		10-20	C2	2.2	15
T13	Ash	19.5	680	9	5	7	7	8	Mature	Main stem bifurcates at 1.8m. Major deadwood.	Remove major deadwood	15-30	B	8.2	209

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Hillingdon Hospital

Appendix B BS 5837: 2012 Tree Schedule

Tree/ Group No.	Species	Height (m)	Stem Diam. at 1.5m (mm)	Branch Spread (m)				Canopy Clearance (m)	Age Class	Observations	Management Recommendations	Estimated Remaining Contribution (years)	BS 5837 Category Grading	Protect 40m Distance (m)	Root Protect Area (m ²)
				N	S	E	W								
T14	Oak	19.5	420	4	4	4	4	13	Early mature	Dense ivy to base. Major deadwood, but showing good vigour.	Remove major deadwood	>40	A2	5.0	80
G15	Ash	13-16	130-320					4	Early mature	Ash growing just outside site boundary, but leaning over site.		15-30	B-C2	3.8	46
T16	Ash	8	320	4	4	4	4	3.5	Early mature	Reduced vigour. Brick wall becoming embedded in trunk. Attractive crown shape.		10-20	B-C2	3.8	46
T22	Lawson cypress	12.5	340	1.5	1.5	1.5	1.5	1.4	Mature	Moderate vigour. Dense ivy.	Remove section of ivy from base.	15-3	B-C2	4.1	52
T23	Birch	7.5	150	2.5	2.5	2.5	2.5	1.5	Early mature	Attractive tree.	Remove to facilitate development	20-40	B2	1.8	10
G24	Yew, cherry, Lawson cypress, holly	3-7	10-150					0.8	Early mature	Dense thicket.	Remove to facilitate development	15-30	C2	1.8	10
T26	Cherry	3	50	1	1	1	1	1.7	Semi- mature	Low vigour.	Remove to facilitate development	<10	U	0.6	1
T27	Norway maple	7.5	180	3	3	3	3	1.5	Semi- mature	Reduced vigour because of inadequate tree pit, but still an attractive tree.	Remove to facilitate development	15-30	B2	2.2	15
T28	Norway maple	4.5	230	3.5	3.5	3.5	3.5	1.7	Semi- mature	Poor structure. Tree stakes embedded.	Remove stakes and ties as best possible.	15-30	B-C2	2.8	24
T29	Ash	11	360	6.5	6	6	6	1.8	Early mature	Major limb to north east from 0.9m. Occasional minor broken branches, but good overall vigour.	Remove secondary branch (80mm) over new parking entrance.	20-40	B2	4.3	59
T30	Ash	10	270	4	2	5	5	1.8	Early mature	Asymmetric canopy. Minor deadwood. Only moderate vigour.	Remove to create new parking area.	15-30	B-C2	3.2	33
T31	Ash	10	260	3	4	1.5	5	2	Early mature	Basal bark damage with underlying decay. Surface roots damaged. Reduced vigour.	Remove to create new parking area.	15-30	B-C2	3.1	31
T32	Ash	10.5	300	4	4	3	3	1.8	Early mature	Minor deadwood. Moderate vigour. Broken branches.	Remove to create new parking area.	15-30	B-C2	3.6	41
T33	Lime	17	640	6	6	6	6	2	Mature	Good quality tree.		>40	A2	7.7	185
T34	Field maple	8.5 est 250	3	3	3	3	3	2	Early mature	Growing outside site - base not inspected.		>40	B2	3.0	28
T35	Hedgerow	2-4.5	25-50	0	0	0	0	0.3	Early mature	Majority elder, with some field maple and pyracantha, growing outside site.	Cut back as necessary	10-20	C2	0.6	1
T36	Birch	9	230	3	3	3	3	0.6	Early mature	Attractive tree		20-40	B2	2.8	24

14. Storage of Fuels and Hazardous Substances

Containers must be stored within spill nappies, bund or any other suitable secondary containment system (SCS). All containers shall be located outside of/ away from the root protection areas of existing trees and in a safe place to minimise the risk of damage and locked-off when not in use. For oil tanks, intermediate bulk containers and mobile bowsers the SCS must be able to hold: Where one container is being stored - a minimum of 110% of the total volume; Where more than one container is being stored - a minimum of 110% of the largest container's storage volume, or at least 25% of their total volume (whichever is greater); For drum storage, the interceptor tray must be able to hold at least 25% of the total storage capacity of the drums.

Bunded areas must be made impermeable to water and oil. The base and walls must not be penetrated by any valve; pipe or opening that is used for draining the system.

Refuelling will not occur within 10m of the existing stream.

15. Waste Management

WBS has appointed Acorn Waste Management to provide skips, remove, transfer and dispose of waste. On site segregation will include metal, gypsum, timber and general waste. Acorn will provide a monthly report identifying waste channels and percentages of waste recycled or removed to landfill.

Burying or burning of waste or unlicensed removal will not be permitted.

Certificate of Registration under the Waste (England and Wales) Regulations 2011

Regulation authority

Name	 Environment Agency
Address	National Customer Service Centre 99 Parkway Avenue Sheffield S9 4WF
Telephone number	03708 506506

The Environment Agency certify that the following information is entered in the register which they maintain under regulation 28 of the Waste (England and Wales) Regulations 2011.

Carriers details

Name of registered carrier	Acorn Waste Management Ltd
Registered as	an upper tier waste carrier, broker and dealer
Registration number	CBDU340029
Address of place of business	ACORN WASTE MANAGEMENT UPTON MAGNA BUSINESS PARK UPTON MAGNA SHREWSBURY SY4 4TT
Telephone number	+448452704317
Date of registration	Wednesday 10th June 2020
Expiry date of registration (unless revoked)	Saturday 10th June 2023

Making changes to your registration

Your registration will last 3 years and will need to be renewed after this period. If any of your details change, you must notify us within 28 days of the change.

16. Noise Dust and Vibration

Control Measures

- Using sheeted lorries and sealed / covered skips;
- Using dust extraction equipment when drilling and cutting;
- Damping down haulage roads and stockpiled materials in dry or windy weather;
- Sweeping access roads regularly
- Grassing over topsoil which is being stockpiled for landscaping or off-site re-use
- Locating plant and equipment away from sensitive receptors where practicable
- Using screens, including earth bunds to act as acoustic barriers;
- Isolating plant and equipment when not in use;
- Keeping engine compartment doors closed and screening off generators
- Limit vehicle movements on-site where practicable
- Avoiding double handling of materials where practicable
- Monitoring noise, dust and vibration levels

17. Communication

Communication with the public will be via letter drops prior to the delivery of the modular building sections. Site Management contact details will be posted at the entrance to the site.

The project will be registered with the Considerate Contractors Scheme

Communication methods with site personnel will include inductions, a hazard board, toolbox talks, briefings, letters, memos and review meetings.

Communication with the hospital and their representatives will be through email, phone calls and project meetings. A monthly HSE report will be included within the project report.

18. Monitoring

Monthly environmental inspections will be carried out the SHE Manager of our SHE consultant and will be included within monthly client reports.
