The Bourne Estate
Construction Management Plan

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18th August 2014 Updated

CONTENTS

1 INTRODUCTION

This Construction Environmental Management Plan (CEMP) sets out standards and procedures for the environmental impacts, public health and safety aspects which may affect the interests of local residents, businesses, the general public and the surrounding vicinity during the proposed construction on The Bourne Estate London EC1N 7SD.

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed with the Council. The Contracts Manager (Mark Collier Tel: 07791 669315) & Projects Manager (Ray Holmwood Tel: 07769 241627) shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the Development. Any future revised plan must be approved by the Council and complied with thereafter.

This plan has been compiled to address the potential environmental impact of the construction The study will look at methods to mitigate the specific environmental disturbances such as noise, vibration, dust, plant emissions and nuisance.

Location

The site is located on the existing Bourne Estate London E1N 7SD which is fairly densely populated in a fairly busy area with footpaths leading through the estate and service roads onto the estate as per the enclosed aerial photograph.

The existing buildings on the estate are predominantly between five and six storeys in height brick built with eternal walkways accessed via a staircase. There is an existing Multi Use Games Arena on the site and some landscaped communal areas. The service roads allow access onto certain sections of the estate and to limited residents parking bays, refuse collection and fire brigade access.

We will consult with the refuse department and the fire brigade regarding the proposed construction works. There are also outbuildings which house a caretaker's office and a Hall that is used by the local residents. There is a soft landscaped communal area to the rear of Gooch House. There is also a school namely St. Albans Primary School located in Baldwin's Gardens, a lot of the pupils access the school through the Estate again this will require a lot of consultation with the school whilst we carry out the construction works. The site is situated within the congestion zone and can be accessed via A5200 Gray's Inn Road it also has good bus links and is in close proximity to Farringdon Train Station, and Holborn Underground station.

Proposal

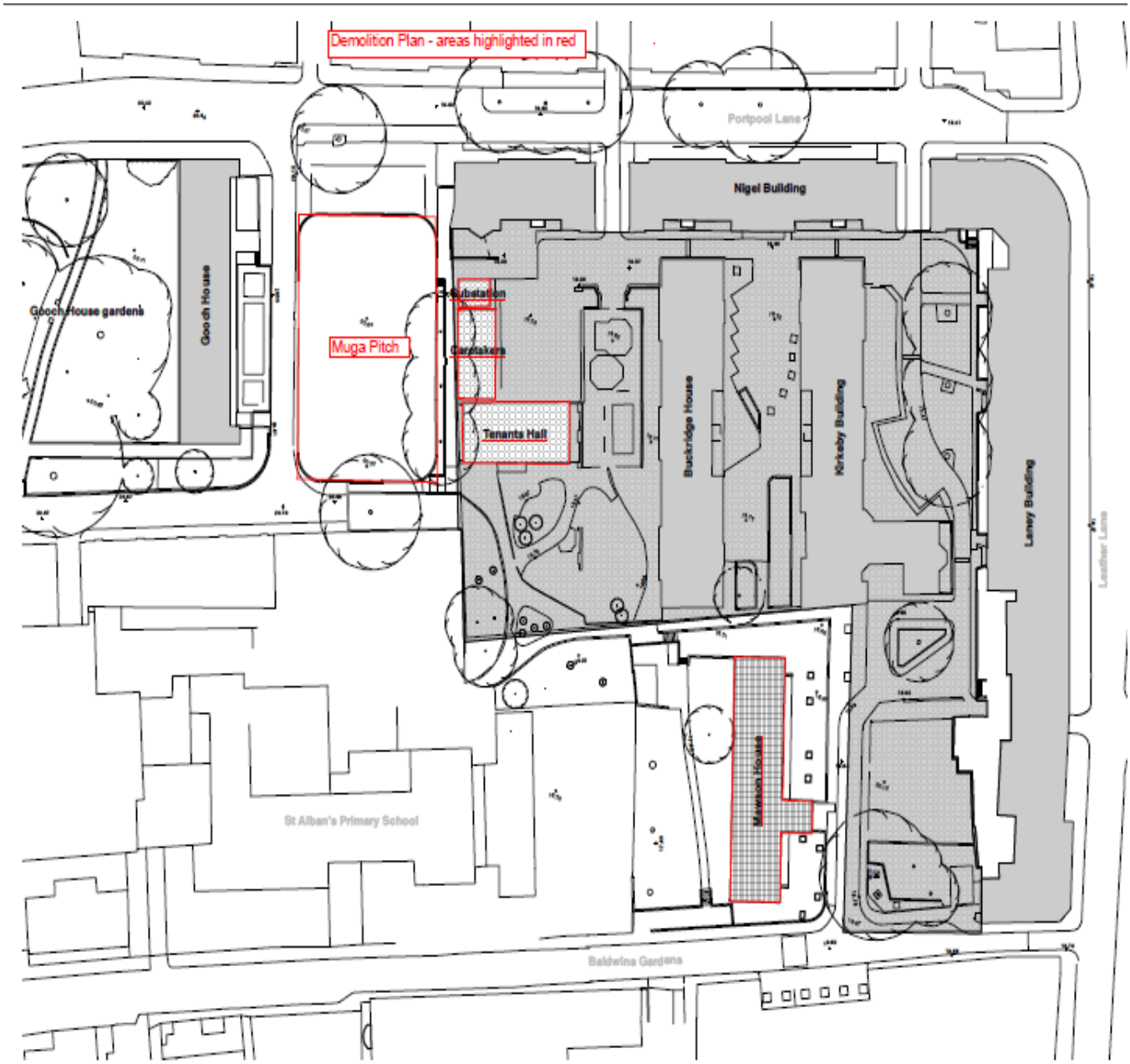
The works include the demolition of Mawson House and the existing MUGA, Caretakers Facilities and TRA Hall as per the attached demolition plan. The new buildings will be located in two blocks and will comprise of 75 fats consisting of Block 1 housing 27 flats a community centre, caretakers facilities sub-station, plant room and cycle storage and will be

located on the existing MUGA. Block 2 consists of 48 units and will be located on the current location of Mawson House. (see attached main structure will be reinforced concrete frame with internal lightweight cladding ,composite windows with external brick and tiling to the external elevations.

Preliminary & Enabling Works

The initial works on site will be to carry out surveys to determine the location of existing services, asbestos, and conditions of the existing buildings, roads and soil investigations. We may also carry out some tree pruning works that are restricted to certain times of the year. Included within the Enabling Works will the part construction of the new MUGA, along with a new access path and canopy into the rear of St. Albans School as per the attached plans. These works are scheduled to commence in May 2014 and are scheduled for completion August 2014.During the enabling works period we will carry out surveys and arrange for service disconnections and diversions prior to the demolition of Mawson House.

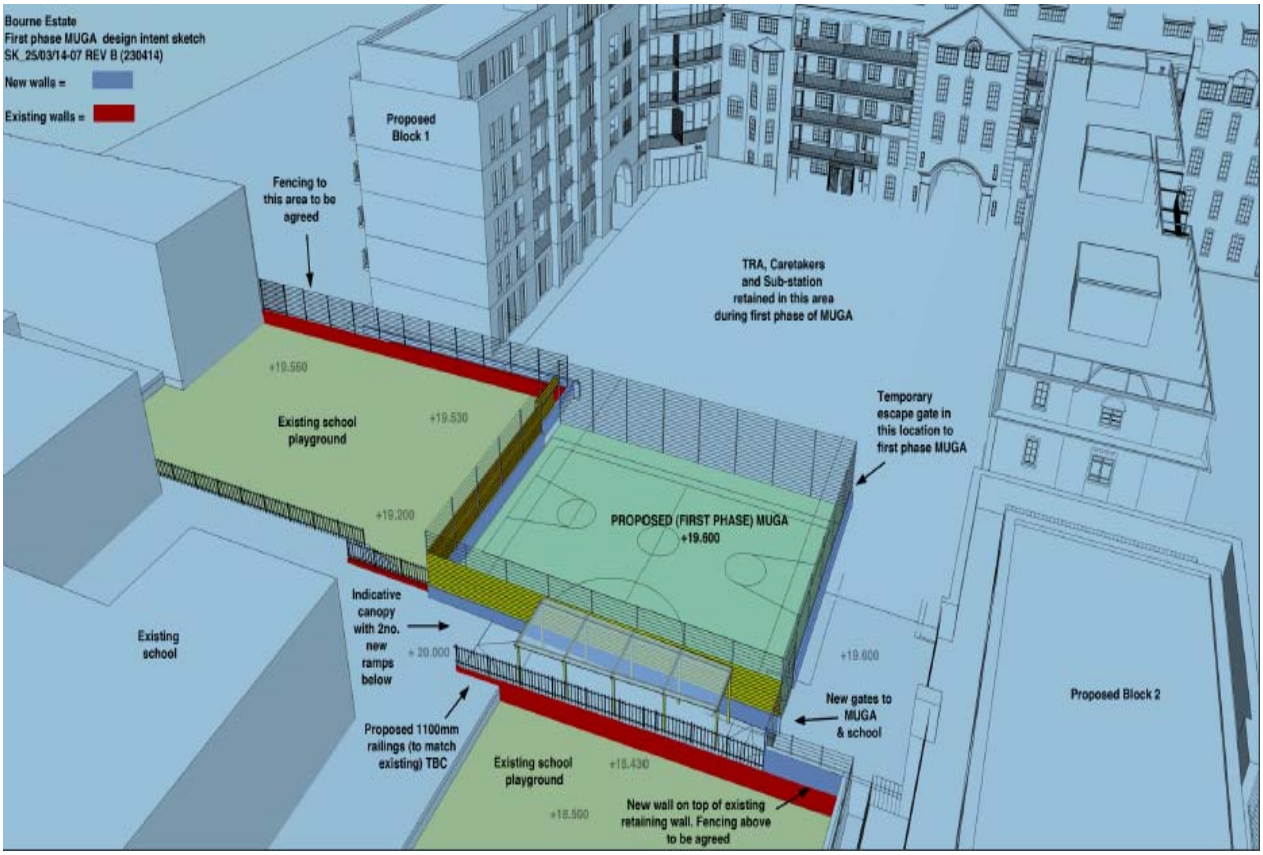
The Proposed Demolition Works



The demolition works will be carried out in Phases as follows

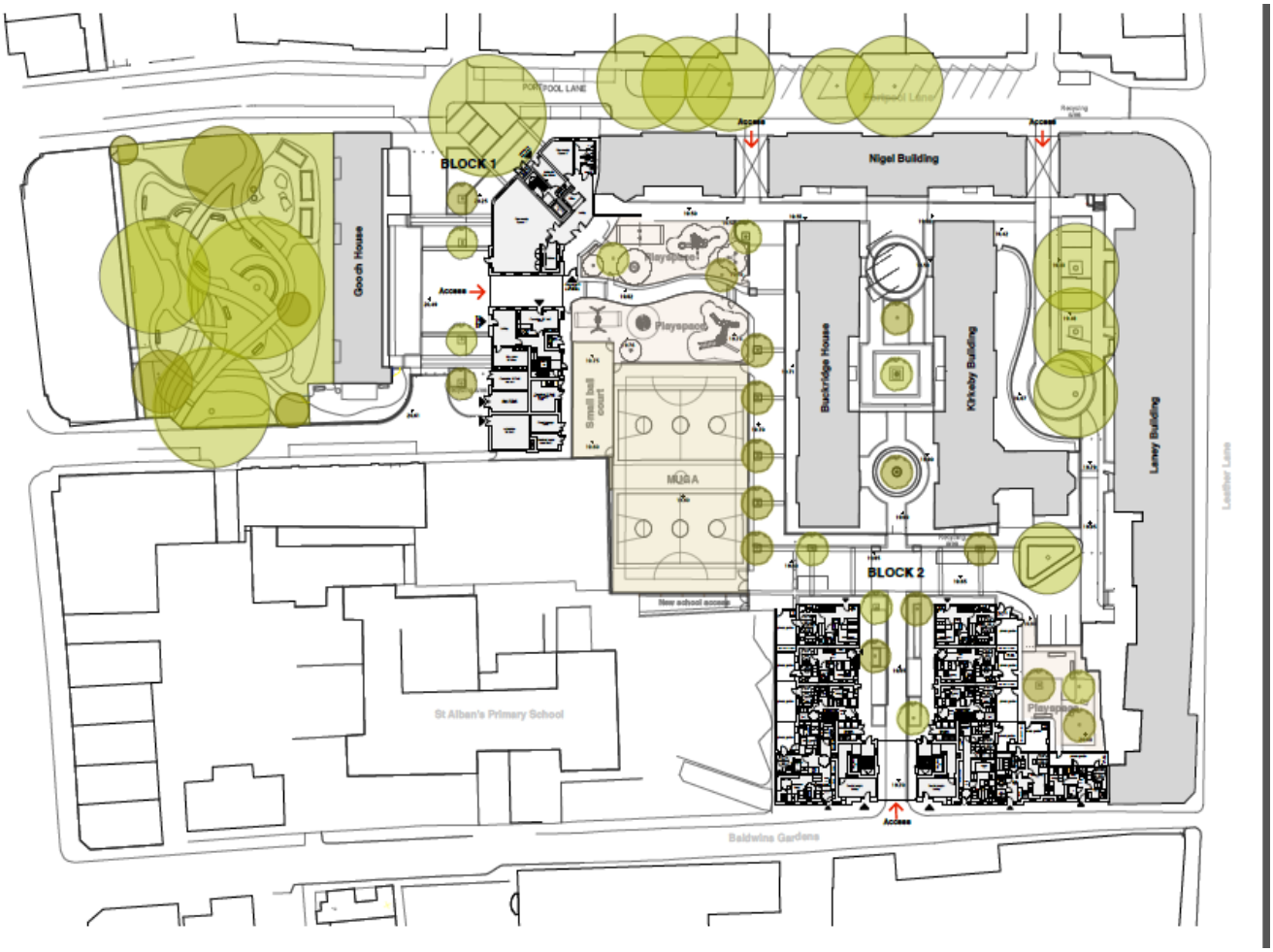
- Mawson House between May 2014 and September 2014.
- The demolition of the existing MUGA in August 2014
- Tenants Hall and Caretakers Hall May 2016.

Part Completion of the MUGA and Completion of the New School Access Ramp



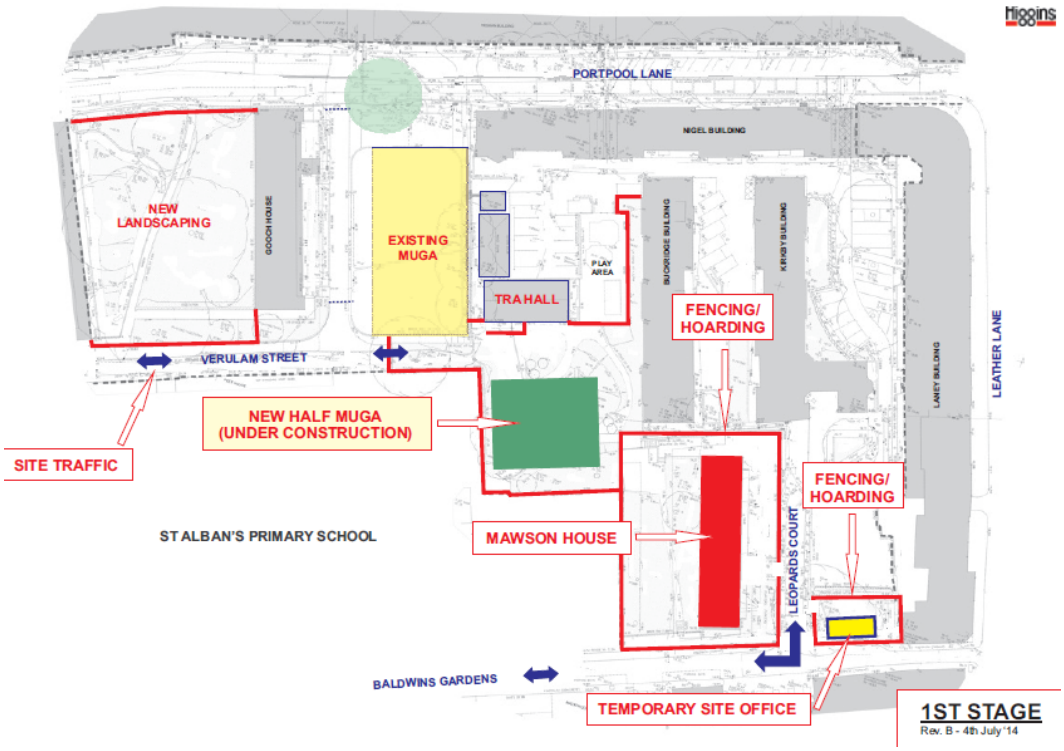
These works are critical as their completion allows the removal of the existing MUGA and the commencement of construction works to Block 1.Heras fencing will be installed around the site restricting access in this vicinity as per the 1st stage logistics plans. We will consult with the school and residents regarding the restricted access and egress around the site and on the estate. The main vehicular access onto this section of the site will be via Verlum Street for the MUGA works and access to Mawson House will be via Baldwin's Gardens as per the enclosed plan highlighting the first stage logistic plan.

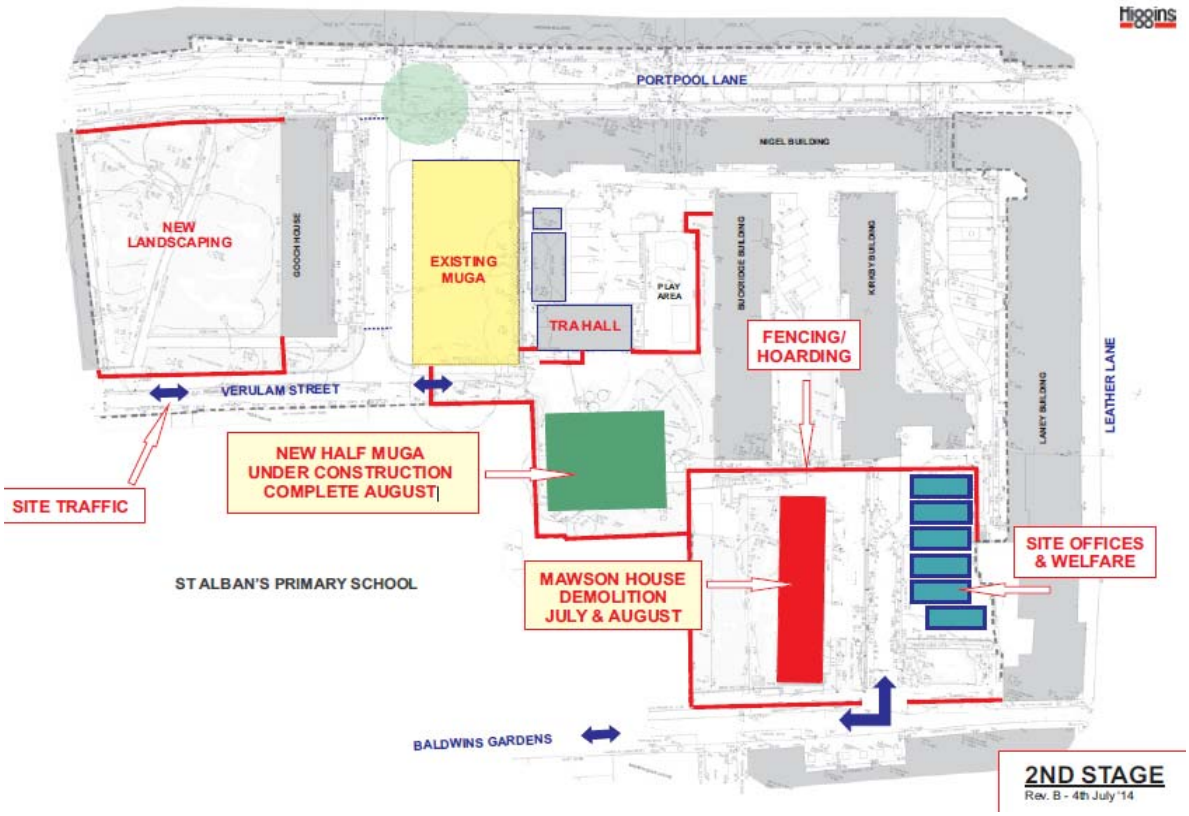
A Plan of the Completed Project



- Block 1 consisting of 27 units located off Portpool Lane
- Block 2 consisting of 48 units located off Baldwin Gardens
- Completed MUGA
- Completed landscaping to the rear of Gooch House
- Completed landscaping adjacent to The MUGA
- Detailed proposals will be formalised for work outside the main compound (block 1 & 2) and a temporary works plan and programme will be produced for each area which will be the basis for consultation prior to work starting on each area.

Plans Showing The Various Stages of Construction and Logistics


Higgins
PORTPOOL LANE
NIGEL BUILDING
NEW LANDSCAPING
GOOCH HOUSE
EXISTING MUGA
PLAY AREA
BUCKRIDGE BUILDING
KIRKBY BUILDING
TRA HALL
FENCING/ HOARDING
LANEY BUILDING
LEATHER LANE
VERULAM STREET
NEW HALF MUGA (UNDER CONSTRUCTION)
SITE TRAFFIC
ST ALBAN'S PRIMARY SCHOOL
MAWSON HOUSE
FENCING/ HOARDING
LEOPARDS COURT
BALDWINS GARDENS
TEMPORARY SITE OFFICE
1ST STAGE
Rev. B - 4th July '14


Higgins
PORTPOOL LANE
NIGEL BUILDING
NEW LANDSCAPING
GOOCH HOUSE
EXISTING MUGA
PLAY AREA
BUCKRIDGE BUILDING
KIRKBY BUILDING
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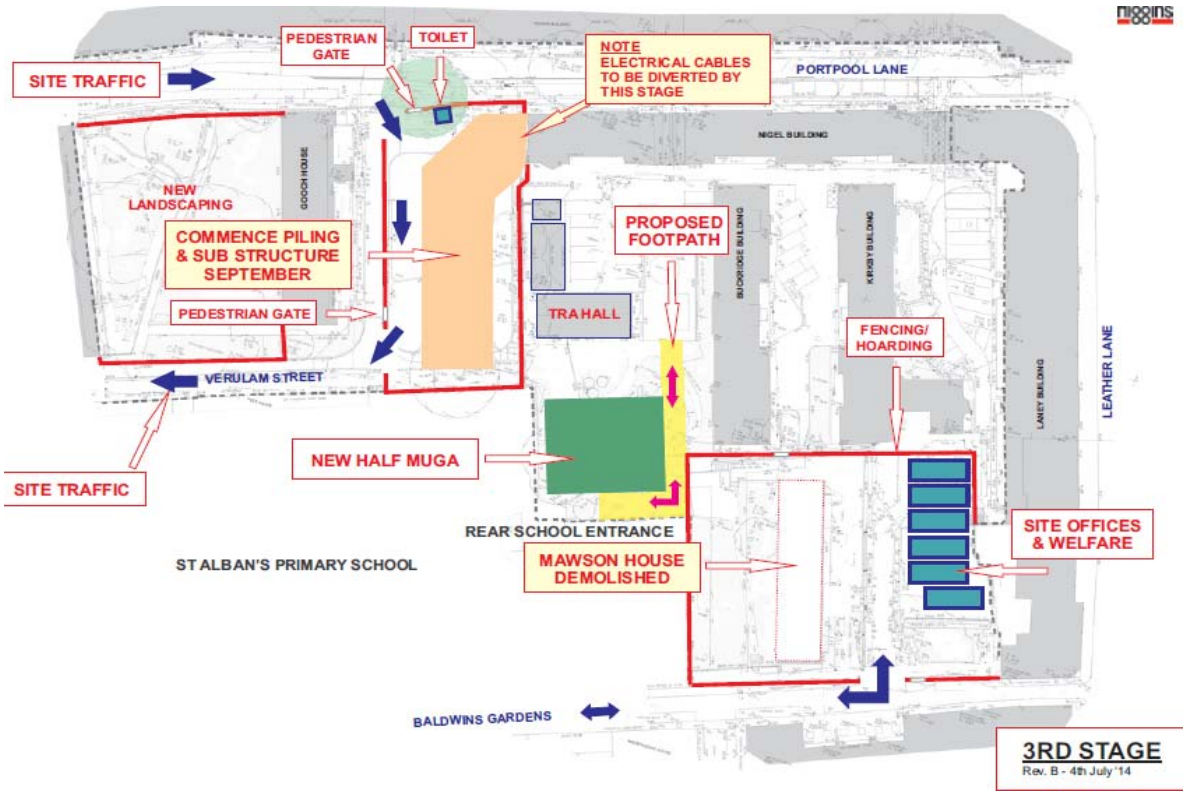
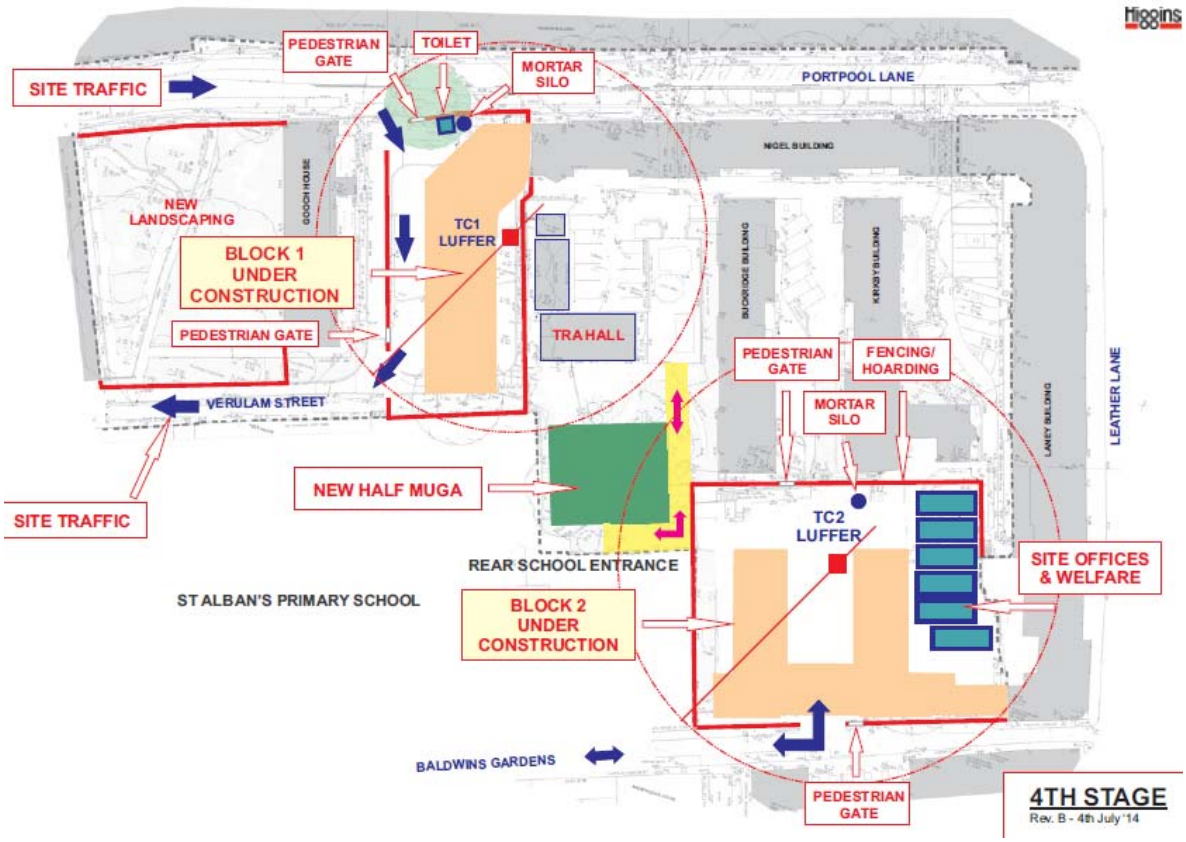
FENCING/ HOARDING
LANEY BUILDING
LEATHER LANE
VERULAM STREET
NEW HALF MUGA UNDER CONSTRUCTION COMPLETE AUGUST
SITE TRAFFIC
ST ALBAN'S PRIMARY SCHOOL
SITE OFFICES & WELFARE
MAWSON HOUSE DEMOLITION JULY & AUGUST
BALDWINS GARDENS
2ND STAGE
Rev. B - 4th July '14


PEDESTRIAN GATE
TOILET
NOTE
ELECTRICAL CABLES TO BE DIVERTED BY THIS STAGE
SITE TRAFFIC
PORTPOOL LANE
NIGEL BUILDING
GOOCH HOUSE
NEW LANDSCAPING
COMMENCE PILING & SUB STRUCTURE SEPTEMBER
PROPOSED FOOTPATH
BUCKRIDGE BUILDING
KIRKBY BUILDING
TRA HALL
PEDESTRIAN GATE
FENCING/ HOARDING
LANEY BUILDING
LEATHER LANE
VERULAM STREET
SITE TRAFFIC
NEW HALF MUGA
REAR SCHOOL ENTRANCE
SITE OFFICES & WELFARE
ST ALBAN'S PRIMARY SCHOOL
MAWSON HOUSE DEMOLISHED
BALDWINS GARDENS
3RD STAGE
Rev. B - 4th July '14


PEDESTRIAN GATE
TOILET
MORTAR SILO
SITE TRAFFIC
PORTPOOL LANE
NIGEL BUILDING
GOOCH HOUSE
NEW LANDSCAPING
TC1 LUFFER
BLOCK 1 UNDER CONSTRUCTION
BUCKRIDGE BUILDING
KIRKBY BUILDING
TRA HALL
PEDESTRIAN GATE
PEDESTRIAN GATE
FENCING/ HOARDING
MORTAR SILO
LANEY BUILDING
LEATHER LANE
VERULAM STREET
SITE TRAFFIC
NEW HALF MUGA
TC2 LUFFER
REAR SCHOOL ENTRANCE
SITE OFFICES & WELFARE
ST ALBAN'S PRIMARY SCHOOL
BLOCK 2 UNDER CONSTRUCTION
BALDWINS GARDENS
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4TH STAGE
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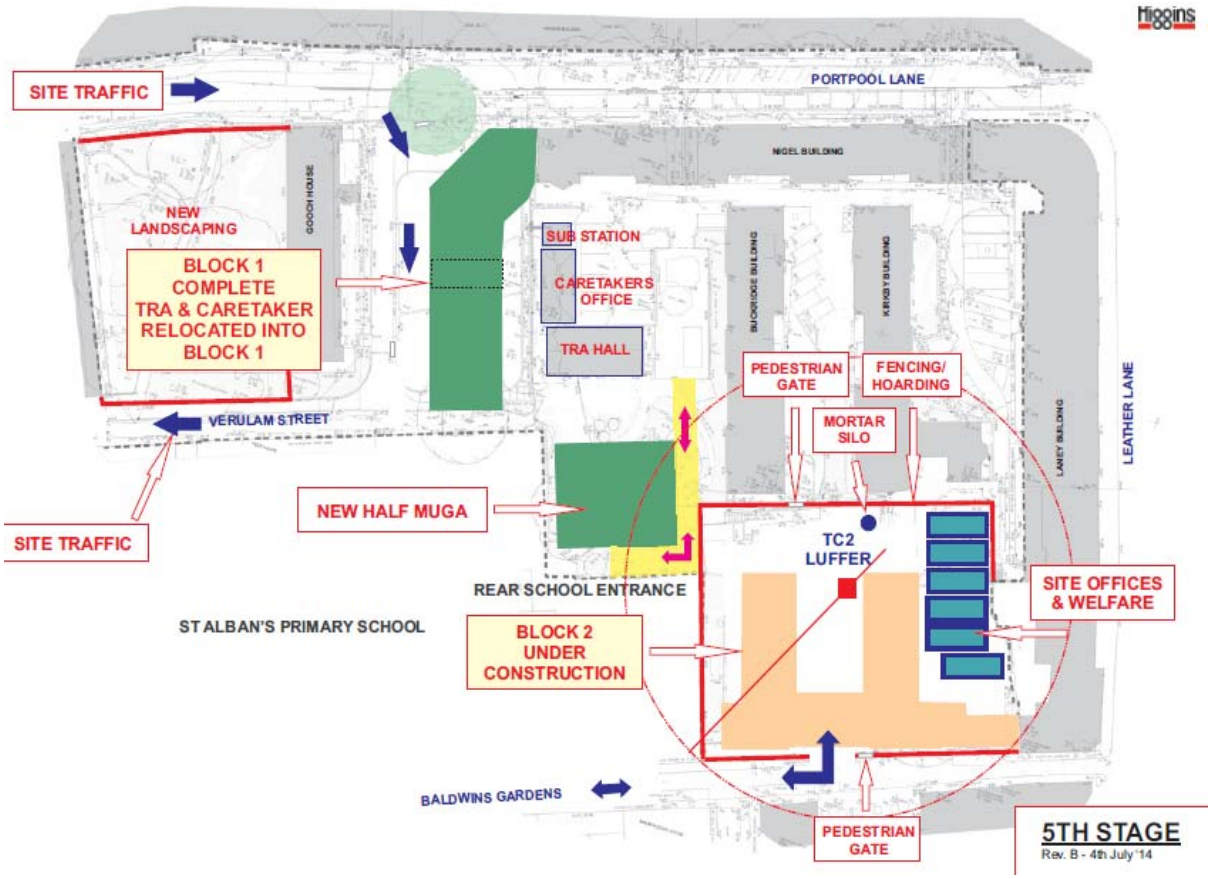
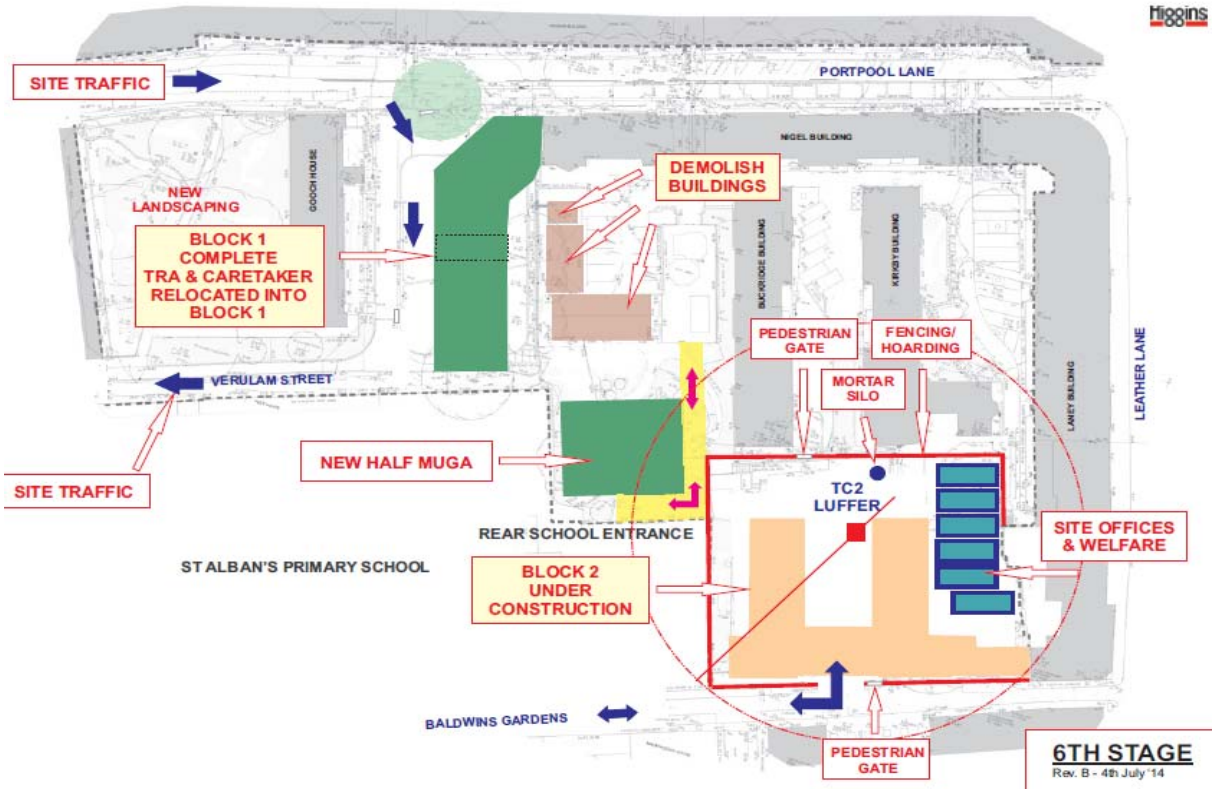

Higgins
SITE TRAFFIC
PORTPOOL LANE
NIGEL BUILDING
GOOCH HOUSE
NEW LANDSCAPING
BLOCK 1 COMPLETE TRA & CARETAKER RELOCATED INTO BLOCK 1
SUB STATION
CARETAKERS OFFICE
TRA HALL
BUCKRIDGE BUILDING
KRYSTY BUILDING
PEDESTRIAN GATE
FENCING/ HOARDING
MORTAR SILO
LANEY BUILDING
LEATHER LANE
VERULAM STREET
SITE TRAFFIC
NEW HALF MUGA
TC2 LUFFER
SITE OFFICES & WELFARE
REAR SCHOOL ENTRANCE
ST ALBAN'S PRIMARY SCHOOL
BLOCK 2 UNDER CONSTRUCTION
BALDWINS GARDENS
PEDESTRIAN GATE
5TH STAGE
Rev. B - 4th July '14


Higgins
SITE TRAFFIC
PORTPOOL LANE
NIGEL BUILDING
GOOCH HOUSE
NEW LANDSCAPING
DEMOLISH BUILDINGS
BLOCK 1 COMPLETE TRA & CARETAKER RELOCATED INTO BLOCK 1
BUCKRIDGE BUILDING
KRYSTY BUILDING
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FENCING/ HOARDING
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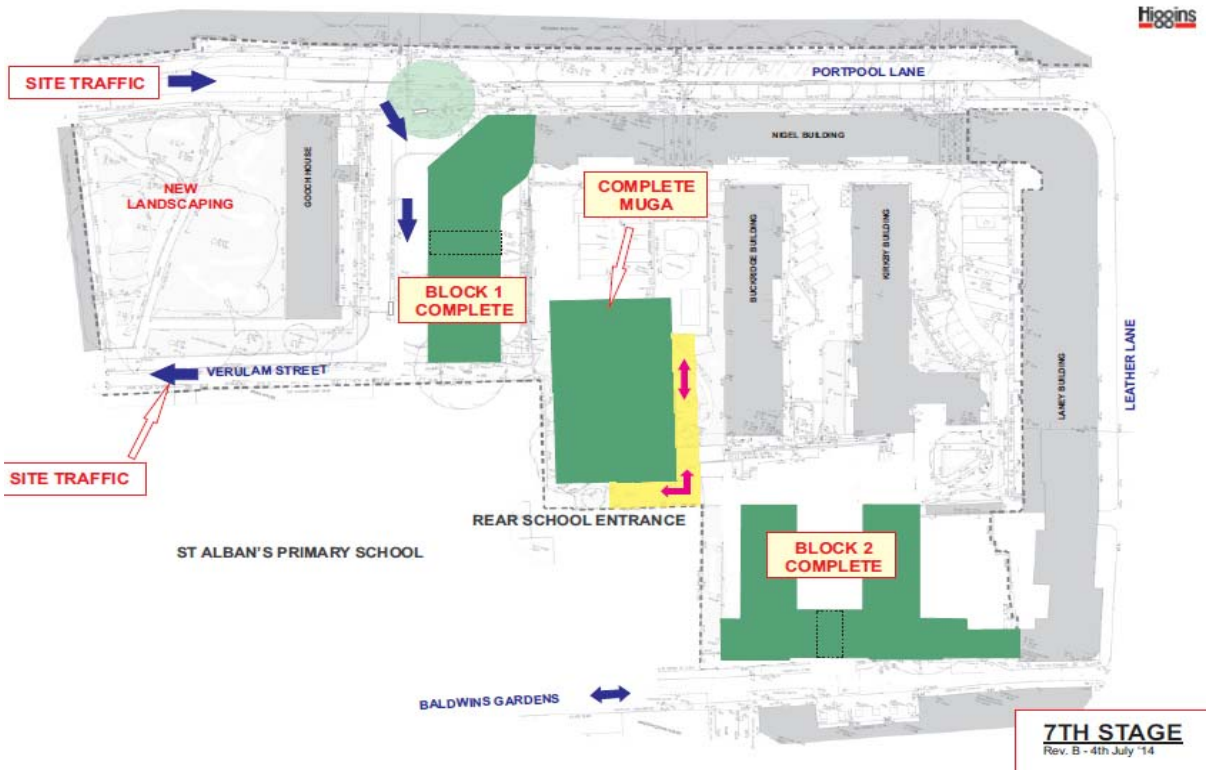
LANEY BUILDING
LEATHER LANE
VERULAM STREET
SITE TRAFFIC
NEW HALF MUGA
TC2 LUFFER
SITE OFFICES & WELFARE
REAR SCHOOL ENTRANCE
ST ALBAN'S PRIMARY SCHOOL
BLOCK 2 UNDER CONSTRUCTION
BALDWINS GARDENS
PEDESTRIAN GATE
6TH STAGE
Rev. B - 4th July '14



After the site hoardings around each block has been installed and the demolition of Mawson House is complete we will commence construction works commencing with piled foundations ,ground beams ,reinforced concrete frame and scaffolding ,waterproofing to the main roof and then the installation of the internal and external walls and the fitting of windows followed by the external masonry cladding.

Once the main envelope is complete and watertight we shall commence internal fitting out works. We will carry out any internal installations that are not subject to the weather as soon as is practically possible but the catalyst for plastering etc. will be the building being watertight.

Each major element of the fit out works will be inspected by the site team, prior to progressing to the next stage; therefore partitioning for example, will be inspected and signed off prior to fixing door linings and plasterboard. This discipline will ensure that a quality finish is achieved throughout the project. Key stage inspections will also be inspected along with Camden's reprehensive so we can set standards at an early stage of the project.

Maintaining a clean and tidy site is essential during the project; Higgins Construction will ensure that working areas are cleared of all rubbish and waste materials upon completion of each trade as works proceed and also externally around the site.

The external works will follow on once all scaffolding has been struck.

Final connections of all incoming mains services are included within the external works programme. The energisation of the sub-station will be critical. Reinstatement of all areas affected by the works will be reinstated and signed off.

Key to the development will be the early installation, on-going testing and final commissioning of the services within the units. Early involvement and programming of the stat companies will be a key factor in completion of the project. Our Sub-contractors will also complete relevant testing at key stages of the project that are documented and retained.

Higgins will inspect works at certain stages and rectify any defects to all units, prior to offering them up for the Employer's Agent inspection. Higgins will agree inspection and handover protocol with Camden and any of The Clients Representatives. The site manager will accompany the Employer's Agent during the inspection to agree an action plan should any further defects be found. As soon as a unit has been de-snagged, a formal handover will be arranged in compliance with any key dates agreed with Camden.

Programme Overview

The project is due to commence in May 2014 with a proposed completion date of August 2016 attached are some of the key milestone dates.

Phase 1 stage 1 May 2014

- Initial welfare set up
- New access ramp and canopy into the School
- Decant Mawson House
- Main welfare set up
- Stat disconnections to Mawson House

Phase 1 stage 2

- New Muga (half size)
- Divert power cables
- Stat diversions to Mawson House
- Demolish Mawson House

Phase 2 stage 1

- Piling and groundwork's Block 1 -August 2014
- Piling and groundwork's Block 2- October 2014

Phase 2 stage 2

- Superstructure & Envelope Block 1 – Jan 2015
- Superstructure & Envelope Block 2 – Feb 2015

Phase 2 stage 3

- Fitting Out Block 1
- Fitting Out Block 2
- Block 1 new sub-station installation
- Completion of Block 1 – May 2016

Phase 3

- Demolition of the existing sub-station
- Demolition of caretakers office & TR Hall

Phase 4

- Completion of Block 2 – August 2016
- External works
- Complete MUGA

Detailed programmes will be developed for the construction elements of the works and detailed short term programmes will be produced monthly by the site team and monitored.

Lead in times for key elements for the construction and fit out works have been identified within the Tender Programme; these will be developed during the design development period.

Milestones will also be incorporated into the procurement programme during the pre-construction period.

Key milestones have been considered and put into our Programme; these will be reported to at relevant Client meetings.

2 APPLICABLE CODES, STANDARDS AND ACTS OF PARLIAMENT

- There are many codes, standards and acts of parliament that cover environmental and related matters and these are to be complied with during construction activities as outlined in this CEMP.

Each section of this document sets out the main statutory provisions, regulations, and codes of practice and standards relevant to each environmental topic. We shall comply with all prevailing legislation at the time of construction, including any requirements under health and safety legislation.

We shall obtain licences from the local authority as appropriate for other aspects of construction as required:-

i Erecting any scaffolding, hoardings, gantry, temporary crossing or fence on the highway.

ii Depositing a skip; or any temporary road closure.

iii Operating a mobile crane, aerial platform, concrete pump lorry or any such equipment.

iv Re-location or suspension of a bus stop.

v Any tower crane erected on site will be registered with the HSE.

We shall inform local residents likely to be affected by the works at least 14 days prior to undertaking such activities. Such activities might include any road closures for delivery or use of mobile cranes or abnormal deliveries to the site.

3 ROADS AND FOOTPATHS

- Regulatory Overview

The Highways Act 1980 sets out requirements relating to construction work on or near the highway. Key requirements of the 1980 Act include:-

i Permission by formal agreement from the Highway Authority is required for any works to highways.

ii Licences are required for permission to place temporary obstructions on the highway (e.g. Hoardings, fenced storage areas, temporary cross-over's, scaffolding, gantries and skips).

iii Deposition of mud or other such materials on the highway is prohibited. Measures to prevent this (e.g. Wheel washing) can be required by order.

iv Surface drainage from a construction site must not be allowed to run across the footway part of a public highway.

The New Roads and Street Works Act 1991 amend earlier legislation and contain updated provisions for carrying out works to highways and construction of new roads. A Street Works licence issued by the Local Authority is required for excavation of the highway only for accessing installation, repair, or removal of apparatus.

The Town and Country Planning Act 1990 require that a public right of way may not be obstructed or diverted without an order permitting it.

Temporary and Permanent Road Closures - Statutory

We have applied to Camden for a licence to close part of the footpath and road in Baldwin's Gardens to allow for the erection of the site hoarding and the suspension of two parking bays to improve the access into site for delivery vehicles and limit the public interface. We have also applied for a licence to erect part of the hoarding in Portpool Lane and close off parking bays opposite the proposed site entrance.

- Work Affecting Carriageways and Footways

Before commencing construction at any part of the site which will involve interference with a carriageway or footway, we will consult and agree with the Local Authority the proposed

commencement date of these works, the area of the carriageway or footway to be occupied and duration, and the proposed methods of construction in order to minimise inconvenience to the public. All necessary consents and licenses will be obtained in advance.

All temporary and diverted footways shall be designed for access for wheelchairs and pushchairs where reasonably practicable, reasonable pedestrian routes will be provided throughout the construction period and will meet the following requirements:-

i Any temporary footway and carriageways will be constructed to the reasonable requirements of the Local Authority and will have uniform surfaces; there should be where possible no steps or gradients greater than 1 in 20.

ii Pavement ramps will be provided at all junctions of footways with carriages.

iii So far as is reasonably practicable, all footways and carriageways will be kept free of mud and other loose materials arising from the works.

iv Clear signage will be provided at all times for each pedestrian route with the minimum number of changes to all temporary layouts in order to reduce confusion. Advance warning will, if possible, indicate alternative existing wheelchair accessible routes.

v All openings or obstructions on the carriageway and footway will be barricaded with a continuous rail (lit at night) strong enough to offer necessary resistance should a blind person walk into it.

vi Headroom clearance over footways will be a minimum of 2.3m to soffit if possible.

vii All pedestrian routes diverted onto the carriageway will be clearly defined by continuous barriers, constructed to the reasonable requirements of the Highway Authority.

viii Lorries entering or leaving the site will only be allowed to cross footways under the control of a competent Banksman.

ix After completion of the works all material arising from the works will be cleared from the highway leaving the same in clean and tidy condition to the reasonable requirements of the Highway Authority.

Should there be any requirement to close paths outside of the site, outside of those we have statutory agreement to close, we will consult with the residents and ensure that diversions are clearly marked.

Mud on Roads

Higgins Construction always take the preventative approach with regard to mud and try not to generate it in the first place. We will therefore take strict measures to minimise this problem, and we will predominately using existing hard standings on the site during the construction process so that we do not generate mud and therefore it will not leave the site area.

Should mud be generated the control measures will include (where practicable):-

i The provision of easily cleaned hard standings for vehicles entering, parking and leaving the site.

ii Should we require the use of wheel washing facilities a jet wash will be located at the vehicular gates.

iii The use of a mechanical road sweeper to clean the site hard standing and any mud or debris deposited by site vehicles on roads or footpaths in the vicinity of the site.

- Avoidance of Fly-Tipping

To prove the correct depositing of excavated material and to prevent the occurrence of fly tipping, a ticket system will be operated at all sites. We shall provide when requested by the Local Authority a sequentially numbered system to confirm that each lorry load of spoil is deposited at an approved site.

We shall also ensure that fly tipping by others does not take place on the site by ensuring adequate site security or hoarding.

TRAFFIC MANAGEMENT PLAN

Deliveries

Block 1

All delivery vehicles will enter and leave the site in a forward direction driving into site via Portpool Lane and exit via Verlum Gardens via a one way system.

Block 2

Due to Leather Lane having a width restriction adjacent to the site all delivery vehicles will have to drive down Baldwins Gardens from A5200 and then reverse into site under guidance and exit out via Baldwins Gardens back onto A5200 Gray's Inn Road. Large deliveries e.g. Piling Rig, Tower Crane and large items of plant may be delivered via a specialist movement order and may deviate from our proposals Prior notification will be given to residents ahead of these events.

We shall use our best endeavours to schedule deliveries between 9:30 am and 3:15 pm thus avoiding rush hour and school times and we will liaise with residents and the school should any specific deliveries occur outside of these proposed times.

We shall endeavour to install as much hard standing as early as possible onto site for vehicles and storage .We shall also ensure that we reuse as many arising's as possible from the demolition phases to reduce vehicle movements. All vehicles leaving site will have their loads suitably sheeted and secured. All vehicles will also comply with any low emission zones.

Materials will be delivered on a just in time basis including a daily delivery schedule being drawn up one week in advance, and in liaison with the sub-contractors and Higgins Staff with deliveries giving adequate notice on planned deliveries and any specialist deliveries obtaining the sufficient certification and notification .

Bricks will be delivered to site on a flatbed rigid vehicle on a call off basis. Staging of deliveries will be arranged where required.

Our supply chain will be advised of our delivery proposals and all delivery drivers are asked to call site ahead of arrival. If vehicles turn up too early they may be asked to leave site or park up away from the site depending on the vehicle and timings there are no provisions for any large vehicle holding areas in the vicinity all suppliers will be advised of this in their orders.

A delivery schedule will be maintained on site which details what is due to arrive on a daily basis and what type of vehicle and size of load. The majority of heavy side deliveries will be on rigid vehicles due to the limited access on the surrounding roads. Swept drawings showing vehicle movements into site will be produced. Any required highways works relating to the site will be carried out under the appropriate licences and approvals.

The site will be self-contained and there will be no access through the site for residents or members of the public (on foot or otherwise) during construction works as per the logistic plans.

We are aware of a proposed development in Baldwins Gardens (Hatton Square) and will liaise with the developer regarding their forthcoming works and proposed access routes and timings.

Cyclist safety will be paramount on the adjoining roads and reversing vehicles entering or leaving the site will either be banked or have reversing aids.

The site management team will be responsible for:

- Establishing delivery schedules
- Arranging just-in-time deliveries
- Supervising deliveries and unloading
- Ensuring efficient storage and distribution on site
- We plan to install a tower crane on each site to aid the material distribution as per the attached plans.

Typical Vehicles

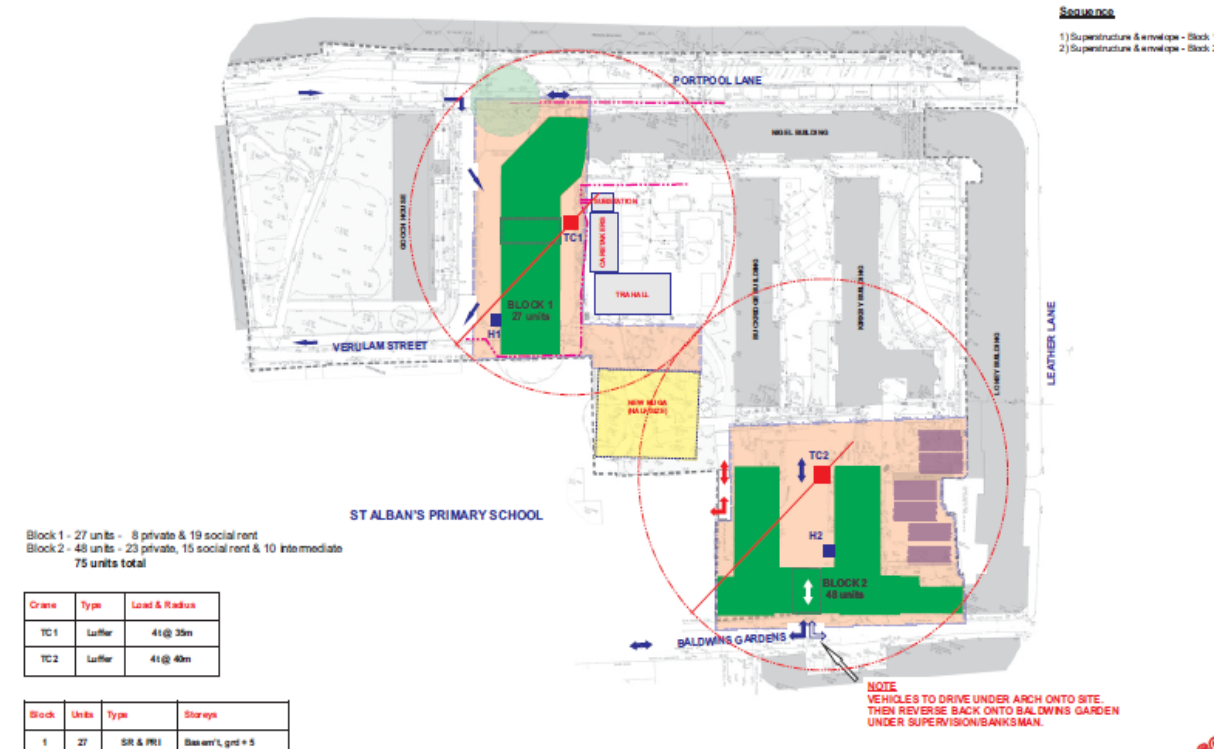
- Waste lorries: eg roll on roll off skips, approx. size 7.7m long x 2.3m wide
- Muckaway lorries: approx. size 8.5m long x 2.4m wide
- Ready mix concrete: approx. size 8m long x 2.4m wide
- Rigid vehicles (flat bed) for majority of deliveries: approx.. size 8.4m long x 2.4m wide

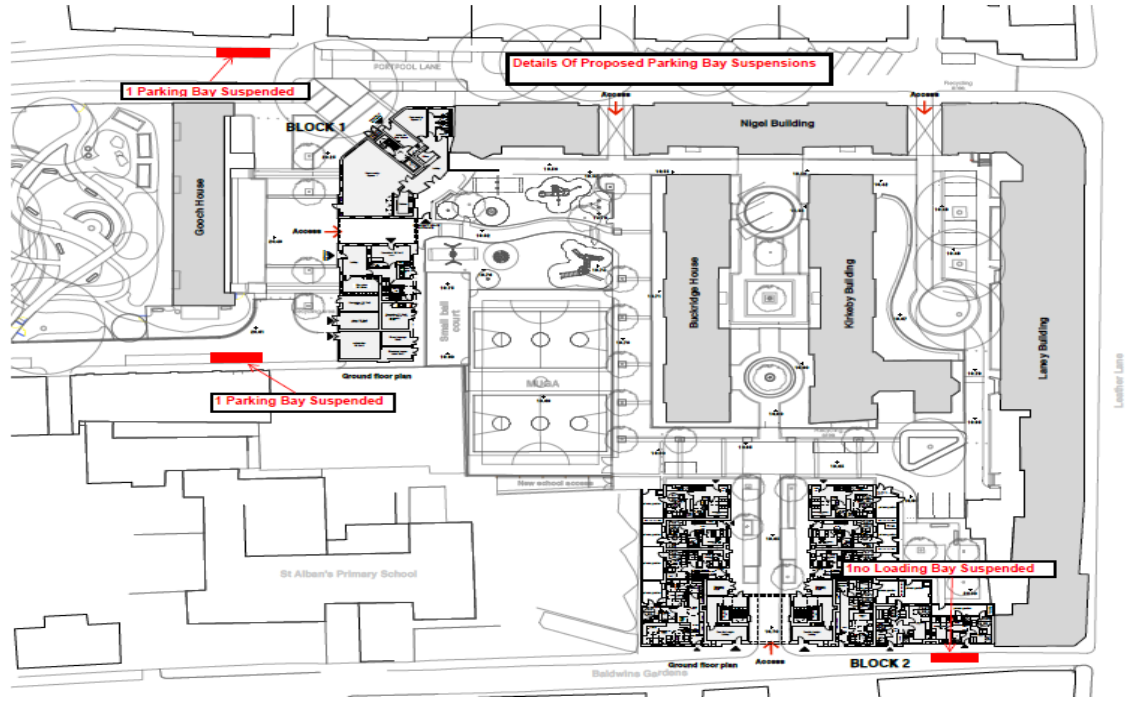
Projected vehicle movements will be updated as the project progresses but we estimate 12 to 15 vehicles maximum vehicles per day during the main contract works.

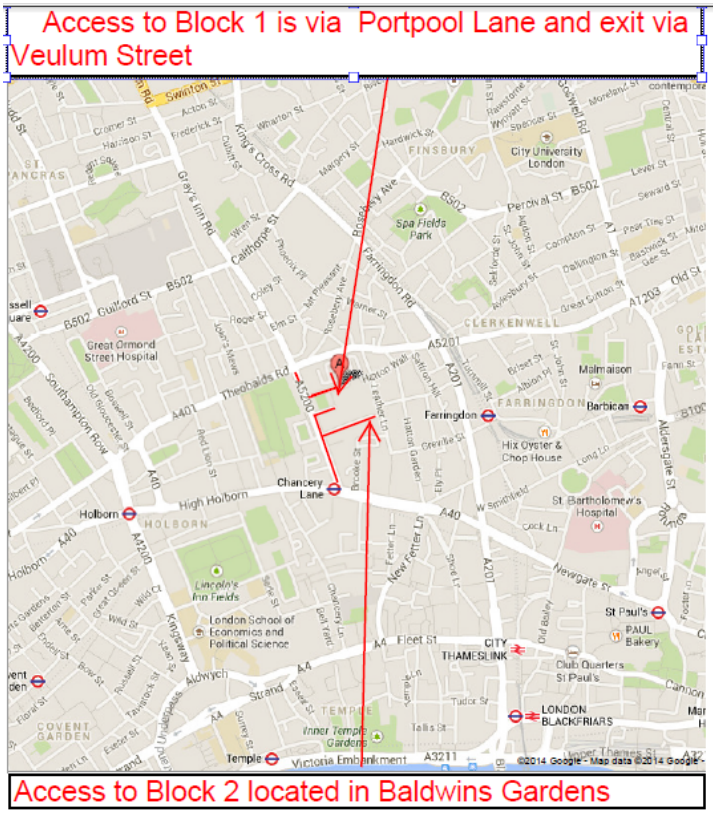
Fleet Operators Recognition Scheme (FORS)

We will be requiring Bronze level of FORS as a minimum standard for all subcontractors or suppliers working on this project, unless orders have already been placed with suppliers who do not have this or the supplier or contractor is a specialist.

A plan showing TC1 on Block 1 and TC2 on Block 2







Delivery Requirements

Access to Block 1 and Block 2 will be via Grays Inn Road A5200

Deliveries will need to avoid school times and should be scheduled to avoid the following School Term Times Monday to Friday inclusive
8:45 am to 9:15 am
and 3:15 pm and 3:45 pm

Waste removal

Higgins Construction takes waste management seriously and have internal EKPI's on waste, in addition to the targets set by Code for Sustainable Homes. The waste contractor that is appointed will be one that can offer a high diversion from landfill, and they will only be allowed on site once we have checked their waste carrier licence and the permit for the waste disposal site.

Waste figures are monitored monthly and if the waste generated is higher than anticipated this will be reviewed with the Environmental Manager and a strategy put in place to try and control this.

Where possible any waste arising during the demolition period will be reused on site under the WRAP Quality Protocol where required.

Rubbish will not be allowed to accumulate and cause a fire hazard; therefore all rubbish will be collected at a central position and removed by wait and load Lorries or skips and deposited at approved licenced locations.

Waste contractor info & EKPI's CfSH etc.

Resident Parking Strategy

We do not envisage major disruption during the construction works as due to the lack of parking in the area the use of public transport will be encouraged and there are good bus and rail links nearby the site. We shall encourage employment of local labour to limit the number of sub-contractors vehicles on site and shall also encourage shared driving or the use of bikes where possible.

There will be consultation with the residents as the project progresses and detailed plans will be produced to ensure that residents with special parking requirements have their needs adhered to. This will also ensure that basic services such as refuse collection are addressed. Higgins will have a permanent liaison officer based on site to carry out regular consultations with residents regarding regular updates during the construction phase this will be in various forms eg drop in sessions ,meetings, letters ,flyers with contact details. Camden will approve information circulated to local residents prior to circulation and will be invited to attend all proposed residents meetings.

5 CONSTRUCTION ACTIVITES THROUGHOUT THE PROJECT

The main activities can be summarised into the following:

- Demolition
- Substructure works
- Superstructures
- Finishing Trades

The main environmental impacts can be classified as NOISE, DUST and AIR QUALITY, NUISANCE, EMISSIONS and VIBRATION.

These can be controlled by the implementation of the following techniques.

- Noise assessments will be carried out. The site will remain fully segregated by a solid barrier hoarding. Acoustic screens may be deployed where noise assessment record action levels

- Dust suppression techniques such as damping down and collective techniques on individual plant and machinery. Covered waste Lorries used

- Access routes will be clearly displayed. Congestion in locality will be minimised by Just in Time delivery strategy.

- Partnered supply chain will provide information concerning

emissions and no vehicle idling will be allowed.

- Main sources of vibration will be from the demolition works and the grubbing out existing foundations and piling works.

- When a scaffolding contractor is appointed then a detailed scaffold plan will be produced for discussion.

6 NOISE AND HOURS OF WORKING

Regulatory Overview

The principal legislative controls on noise which includes vibration are contained within the Control of Pollution Act 1974. In addition, statutory nuisance provisions contained within the Environmental Protection Act 1990 also apply to noise.

Noise Control – General

Higgins will carry out predicted noise levels for each operation, in reference BS 5228-1:2009. To prevent adverse noise to the nearest sensitive facade (residents or business owners) the ambient and backgrounds noise levels (measurements) should be compared against the predicted noise levels of the plant. Where there is a significant increase of the predicted plant levels to the measured background, the contractor shall implement BPM to reduce the noise accordingly to achieve 75dB (A).

and/or

Where the measured noise levels are more than 3 dB (A) above the predicted noise levels or in the event of a complaint of noise an investigation shall be carried out to ascertain the cause of the exceedance or the complaint and to check that Best Practicable Means are being used to control the noise. Noise levels shall be reduced further if it is reasonably practicable to do so.

All machinery to comply with the current legislation of 80 dB (A).

Noise assessments will be carried out as per Control of Noise at Work Regulations 2205

Noise readings will be taken where possible on a weekly basis at the site boundary and recorded in a register. If a specific noisy task is being scheduled then additional monitoring will be undertaken as required during this time.

Careful selection of plant to reduce noise ensuring that plant is relatively new and regularly maintained.

Anyone who has a daily or weekly exposure to noise exceeding 80dB(A) or a peak pressure reading of 135dB (A) will be warned of the dangers of working in a noisy environment advised of the systems being used by the company to reduce noise levels and issued with and trained in the use of ear protection.

Health surveillance and enforced ear protection is compulsory if weekly noise levels of 85 dB (A) or above or a peak sound pressure reading of 137 db is reached.

All sub-contractors will provide full risk assessments and method statements detailing how they will be managing noise on site and this will be approved by the site team before they commence on site

Ready mixed mortar will be used reducing noise levels through preventing on site diesel cement mixers.

Noise Control / Monitoring – Detailed Provisions

All sites shall be totally surrounded by fencing or hoarding to the required height and density appropriate to the noise sensitivity of the location concerned.

All worksite gates will be controlled to give the minimum amount of time open for passage of vehicles, in order to minimise stray noise to the external surrounding area.
Vehicles and mechanical plant used for the purpose of the works shall be fitted with effective exhaust silencers, will be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions.

On site where environmental disturbance may arise, compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers which must be kept closed whenever the machines are in use, and pneumatic percussive tools must be fitted with shrouding or silencers of the type recommended by the manufacturers.

Equipment that breaks concrete by munching or similar, rather than by percussion, shall be used as far as is practicable.

Noisy plant or equipment will be sited as far away as is practicable from noise sensitive buildings. The use of barriers, e.g. Soil mounds, site huts, acoustic sheds or partitions to deflect noise away from noise sensitive areas will be employed wherever practicable.

Care shall be taken when loading or unloading vehicles or dismantling scaffolding or moving materials, etc. to reduce impact noise.

It is proposed that a single long-term noise monitor be stationed at the site for the duration of the demolition.
The proposed location would be at the south east corner of Buckridge House, just inside the hoarding at a height of 3-4m above ground level. This location is closest to the nearest noise sensitive locations. The results of this monitoring will be downloaded remotely and reported in summary on a weekly basis.
Numerical noise predictions at this location are also shown in Attachment 4 of the Spectrum Report dated 16 August 2014. This can be used for comparison purposes with actual on-site measurements.
Attended monitoring will also occur on 3-4 occasions, typically 2 weeks apart at nearby noise sensitive locations such as:
☐ Outside residences in Baldwin Gardens
☐ Outside residences in Kirkebey Building
☐ Outside residences in Laney Building
This will comprise 15 minute attended measurements with overall and octave band LAeq noise levels over 15 minute periods at each location. The locations are shown in Attachment 5. A short summary report of the measured levels will be prepared following each site visit.
In addition, vibration monitoring will be carried out near the long-term monitoring location when the concrete breaker is being operated closest to Buckridge House.

Hours of Working

In general the hours of working for any construction and demolition site will be:-

Monday to Friday – 08:00 to 18:00
Saturdays – 08:00 to 13:00
No Works on Sundays, Bank or Public Holidays without prior consent.

If required we shall obtain any relevant certification or approval if we propose to work outside of these hours. (Section 61 notice)

No work and ancillary operations, which are audible at the site boundary, outside these hours unless fully justified to the Local Authority on the grounds of engineering necessity or for reasons of health and safety. Any such works will be kept to an absolute minimum.

During normal working hours, as defined above, the maximum LAeq, period noise levels measured 1 metre from the facade of any occupied or other building used for residential purposes, generated by construction

plant and equipment, including the movement of vehicles to and from the site should not exceed the following limits :-

Monday to Friday – 08:00 to 18:00 – Residential / Commercial Premises – 75 dB (A)
Saturday – 08:00 to 13:00 – Residential / Commercial Premises – 75 dB (A).

7 VIBRATION

General

We shall ensure that measures are taken to:-

i Protect the residents, users of buildings close by and passers-by from nuisance or harm and
ii Protect buildings from physical damage.

Upon determining appropriate vibration levels, we shall consider:-

i Human exposure
ii Protection of structures

Demolition and construction activities will be carried out in such a way that vibrations arising will not cause significant damage to adjacent structures.

Subcontractors are asked to use new plant where possible to ensure that we are using the most modern techniques and equipment. All equipment that is used will be required to be regularly serviced.

Human perception to vibration is considered within BS6472:1992 and vibration levels that represent satisfactory magnitudes of building vibration with respect to human response are provided in Appendix A of the standard in terms of both PPV's and VDV's (Vibration Dose Values). The table below summarises a range of vibration levels in terms of VDV, and the associated human perception. More specifically, it indicates various degrees of 'adverse comment' expected in residential buildings due to vibration during the daytime and night-time. BS 6472 introduced the concept of VDV. This is a measure of the amount of vibration which is experienced over a given period. The standard contains VDV levels which are considered acceptable for daytime or night time periods and are as follows;

Indication of response to vibration in terms of VDV ($m/s^{1.75}$)

Time Period	Low probability of adverse comment VDV ($m/s^{1.75}$)	Adverse comment possible VDV ($m/s^{1.75}$)	Adverse comment probable VDV ($m/s^{1.75}$)
16 hr day in residential building	0.2 to 0.4	0.4 to 0.8	0.8 to 1.6
8 hr night in residential building	0.13	0.26	0.51

8 DUST AND AIR QUALITY

Regulatory Overview

The main regulatory controls over dust are the 'statutory nuisance' provisions contained in the Environmental Protection Act 1990. Dust can give rise to a statutory nuisance if it is considered to be 'prejudicial to health or a nuisance'.

Smoke, for example from burning waste on site, can also result in a statutory nuisance and is also controlled by the Clean Air Act 1993.

Dust

Dust is defined as particles up to 75 μm in diameter and is produced through the action of crushing and abrasive forces on materials. A wide range of activities, including traffic movement, construction/demolition, mineral workings and general industry, generate nuisance dust.

Large dust particles can cause eye, nose and throat irritation, whilst the smaller fraction of particles with an aerodynamic diameter of 10 μm or less (PM10) is more of a health concern as the particles can enter the lungs causing breathing and respiratory problems.

Dust Movement

In order to establish the effects of dust release on locations around the proposed development site, research referenced in the DETR publication 'The Environmental Effects of Dust from Surface Mineral Workings' (1995) was consulted. A study of coal particles referenced in this guidance

concludes that small particles of 10 μm diameter can travel for up to 1,000 m or further, larger particles of around 20 μm in diameter can travel 500 m, and 30 μm particles can travel 300 m. Particles with a diameter of 50 μm were found to fall out of the air within 100 m of release. Although this research was carried out on coal particles, it is considered to be relevant to particle release from the construction and demolition process.

For a dust nuisance to arise, the following factors must be present:

- Finely divided, dry material is present on site as a dust source;
- Wind blowing from the site to the receptor;
- Wind speed sufficient to entrain the particles.

The prevailing wind direction is therefore important in establishing the areas that are most likely to experience any dust nuisance during the construction process.

The UK Meteorological Office classification notes that a wind speed of greater than 6.7 m/s 'raises dust and loose paper, small branches are moved'.

In recognition of the distances travelled by various sized particles, Part 1 of the research 'The Environmental Effects of Dust from Surface Mineral Workings' (1995) refers to zones around a mineral working area where a dust nuisance is likely to occur. It concludes that the most likely zone is an average 200 m from the perimeter of the source.
Although under unusual circumstances dust nuisance may occur outside this area.

Mitigation of Potential Dust Nuisance

Guidance on the mitigation of potential dust nuisance has been published by the Greater London Authority in the 'Best Practice Guidance for the Control of Dust and Emissions from Construction and Demolition (2006)'.

Guidance is also contained within the GLA's Control of Dust and Emissions during Construction and Demolition SPG, which can be found here: https://www.london.gov.uk/priorities/planning/publications/the-control-of-dust-and-emissions-during-construction-and

The contents of this document provide a comprehensive management and mitigation strategy targeted at the construction process and aimed at minimising dust generated from these processes. The ethos behind the guides and the methodologies proposed within them should be used to

formulate a mitigation and control strategy employed to control any impacts that may arise from the Development.

Relevant procedures include:

- Any instances where there will be mechanical cutting or chasing of masonry or concrete materials such as brickwork , block work , roof tiles ,lintels and floor beams then dust suppression will be controlled by the use of wet cutting each mechanical cutter will be fitted with a water attachment to control any dust .

- When mechanical cutting of materials such as timber is required dust control will be via the means of all plant being fitted with appropriate dust extraction bags.

- Any sanding of surfaces such as plasterboard walls and timber surfaces again the use of dust extraction bags will be fitted to the appropriate item of plant.

- When any internal hard surfaces are swept water will be used to control the arising's of any dust.

- Each sub-contractor working on site will be required to produce a risk assessment and a method statement specific to their task that will highlight any control measures they propose to control dust.

- Higgins Staff will ensure that arising's of materials are cleared as work proceed this will minimise any large volumes of debris and also reduce any potential fire risk.

- Sweeping and spraying all site roads with water in prolonged spells of dry weather to prevent dust causing a nuisance off-site.

- Subjecting all vehicles leaving the site to ensure that no arising's from site activities are carried onto local roads , this will be minimal due to the footprint of the site and there is limited access for vehicles onto site and this may only occur during the demolition and groundwork's phase.

- Covering all loads entering and leaving the site.

- Regular sweeping of roads to remove accumulations of dust and mud.

- Identifying haulage routes through consultation with the council. These roads are to be selected to minimise any environmental effect arising from additional lorry movements on the road network.

- Enclosing skips wherever possible.

- Minimising drop heights to control the fall of materials.

- The enclosure of material stockpiles at all times and damping down of dusty materials using water sprays during dry weather.

- Control of cutting or grinding of materials on site. Dust-generating machinery e.g. Disk cutters must be fitted with vacuums.

- During demolition operations, watering at rubble chutes, covering skips and screening of buildings with debris screen/sheets, as appropriate. Materials should be stored away from the site boundary wherever possible.

- Un-surfaced haul routes and verges to receive regular damping down and cleaning where located close to sensitive locations.

- Establishment and enforcement of appropriate speed limits over all unmade surfaces.

- Completed earthworks to be sealed and/or re-vegetated as soon as reasonably possible. It is considered that given the adoption of the mitigation measures detailed above that any potential effects from dust from construction works would be minimised to such an extent as to be insignificant.

- We will be employing a company to install 2 real-time particulate monitors, which provide data online and link back to a site management alert system (text messages to the site manager)

Air Quality

The burning of materials on the site will not be permitted. All necessary precautions shall be taken to prevent the occurrence of smoke emissions or fumes from the site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas. Plant shall be well maintained and shut down in the intervening periods between work or throttled down to a minimum.

Air quality is generally not a concern due to modern construction methods but should a problem arise we will arrange for air quality monitoring.

Special Precautions for Asbestos

Special precautions shall be taken if materials containing asbestos are

encountered. We will comply with the Control of Asbestos at Work Regulations 2002 along with the new approved code of practice accompanying this, providing guidance on the new duty to manage the risks from asbestos and on implementation of the chemical agents directive. We will adhere to the exposure limits and measurement methods for asbestos, which are set out in the Health and Safety Executive Guidance.

9 DISPOSAL OF WASTE AND CONTAMINATED MATERIALS

Regulatory Overview

The Environmental Protection Act 1990 imposes a duty of care on any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. The Duty of Care – Code of Practice March 1996 sets out how to comply through the use of registered waste carriers to transport the waste and the use of waste transfer notes.

Definitions contained within the Contaminated Land Regulations 2000, indicate conditions which are deemed to be contaminated and which must be developed in accordance with the Environmental Protection Act.

The Pollution Prevention and Control Regulations 2000 are designed to prevent, reduce and eliminate pollution at source through the efficient use of natural resources. Implementation is intended to help operators move towards greater environmental sustainability and the regulations contain guidelines for the storage and transfer of contaminated material under a system designed to minimise the impact of contamination.

Waste

We shall carry out the works in such a way that as far as is reasonably practicable the amount of spoil and waste to be disposed of is minimised, and that any waste arising from the site is classified, transported and disposed in accordance with the Controlled Waste Regulations 1998 and any amendments, also the European Waste Catalogue, Environmental Protection Regulations 1991, and the Hazardous Waste Regulations 2005.

The waste stream will be managed so far as is reasonably practicable to maximise the re-use of surplus materials and, in circumstances where off-site disposal to licensed landfill is unavoidable, minimise any adverse environmental effects resulting from disposal.

Contaminated Land

A desk study will identify the history of the site and surrounding land and

any potential contaminants of concern. A walkover survey will also identify any potential on-site or off-site sources of contamination. Further to this any intrusive site investigation works can be undertaken as deemed appropriate. Any intrusive site investigation works will be sufficient to determine as far as is reasonably practicable the ground conditions and the nature and extent of any contamination within the substrate. The results of any investigation will then form the basis of a Remediation Method Statement, which will outline the proposals for mitigating the risks posed by any contamination identified at the site. A validation report will be completed following any remediation works.

Demolition Materials

We shall comply with HSE Guidance Note – Health and Safety in Demolition Work:-

Part 1 Preparation and Planning
Part 2 Legislation
Part 3 Techniques
Part 4 Health Hazards

And we shall ensure that contaminated materials are handled and disposed of safely and properly.

If the works involve the removal of asbestos or the demolition of premises containing asbestos, we shall comply with the Control of Asbestos at Work Regulations 2002, and the HSE Approved Code of Practice and Guidance Note "Work with Asbestos Insulation, Asbestos Coating and Asbestos Insulating Board".

Asbestos waste shall be double sealed in receptacles, which prevent the escape of dust. In the case of crocidolite the receptacles shall be marked in bold "Blue Asbestos – Do Not Inhale Dust".

The disposal of waste materials containing asbestos shall be arranged in advance, to a licensed disposal site. We shall obtain a licence from HSE to remove asbestos insulation or coating.

If materials containing lead are encountered, we shall comply with the Control of Lead at Work Regulations 2002 and the Health and Safety Commission Approved Code of Practice 2002 "Control of Lead at Work" to ensure that contaminated materials are handled and disposed of safely and properly.

Re-use of Construction Materials

We shall endeavour to reuse and recycle construction and demolition

waste from site. Demolitions arising's and waste provide a significant opportunity to reclaim, recycle and segregate materials on site. The following measures, where practicable, shall be implemented in respect of demolition activities on site:-

i Concrete, brick from walls, foundations, terraces, bases etc. shall be crushed (subject to the appropriate licenses) and reused where possible.

ii We shall endeavour to reuse some of the facing bricks from the demolition.

iii Suitable inert earth spoil should be stockpiled for reuse in landscaping or general fill.

iv All metal components shall be segregated for recycling.

v And existing strip-out materials shall be segregated for resale/reuse off-site.

The reuse of materials will also reduce the number of vehicle movements to site.

Measures to reduce waste arising during construction shall include the following, where practicable. We shall:-

i Allocate sufficient storage space for materials which can be reused to avoid disposal;

ii Avoid over-ordering of materials;

iii Avoid damage on delivery by using a well laid-out storage and off-loading area;

iv Use prefabrication, if feasible;

v Avoid repetitive handling;

vi Segregate materials for recycling, such as timber and cardboard wrapping;

vii Salvage top soil for reuse; and

viii Recycle municipal waste from temporary welfare accommodation on site.

10 PUBLICITY, PROMOTION AND COMPLAINTS PROCEDURE

Information boards will also be erected containing information on the progress of the works and instructions for reporting complaints of public interest. These will give details of the scheme, emergency numbers and current progress.

Higgins Construction operate a community liaison department who will be directly involved in the scheme. This will include regular resident consultation meetings which will also be attended by site staff. These are designed to address residents' concerns and keep them informed as to progress and key aspects of the works which will have an impact on their lives. Complaints procedures will be clearly shown on the sign boards and more detailed procedures will be circulated in letter drops. In addition to the above outline the following detailed community liaison is in place

- A bespoke Bourne Newsletter with Frequently Asked Questions
- A flyer to advertise a Consultation Event entitled "Meet the Contractor"
- A consultation letter informing the residents that Higgins Construction PLC were the successful contractor to carry out the works

Comprehensive liaison with:-

- Residents of Gooch House
- Members of TA Hall
- All Sakeholders (Nigel, Kirby, Buckridge and Buildings)
- The Head Teacher at St Albans School (I will send a copy of the covering letter under separate cover)
- Commercial Units on Verulam Street
- Commercial Units on Baldwin Gardens

This is in addition to the day to day Liaison carried out with all stakeholders by Hazel Reilly (Higgins Construction PLC - Liaison and Administration Co-ordinator); this would include the market stall holders, leaseholders, residents and the estate caretakers.

In terms of the demolition; Hazel Reilly would have liaised with residents/school ahead of the works and secured notices to the site hoarding.

Future consultation; Hazel Reilly and the CSR Department are planning activities with the School when they resume in September plus there are the formal meetings to take place with Gooch House and other Residents which are scheduled to take place every two months commencing September as agreed with LB Camden and the Employers Agent

A flyer/letter issued to the School re Child Safety and our works has been issued for information

11 SITE BOUNDARIES / HOARDINGS

Fencing and Hoardings

All work-sites shall be completely fenced from public ingress using the Standard 2.4m height hoarding, plywood faced, timber framed, of a surface density of not less than 7kg/m2 for normal security and noise limitation requirements or heras fencing and sheeting.

A scaffold plan and schedule will be produced with special requirements to ensure areas such as the school are going to be managed.

The provisions of the Health and Safety at Work Act 1974 will be followed in all cases.

Hoardings erected causing poorly lit walkways will have bulkhead lights fitted. Assessments are made on the lighting conditions once the hoarding has been erected and additional lighting will be put into place as required, this will also be addressed to take into account the time of year. Gates in the hoarding will, as far as is practicable be positioned and constructed to minimise the noise transmitted to nearby noise sensitive buildings from the worksite or from plant entering or leaving the site.

Adequate security will be exercised to prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site activity and site security provisions will be set in motion. Provision of alarms may follow subject to a risk assessment.

MORE DETAIL TO BE ADDED ON LOCKS ETC & DETAILS ON EMERGENCY CONTACT DETAILS AND ANY DETAILS ON SITE SECURITY OVER NIGHT

12 CONSIDERATE CONSTRUCTORS SCHEME AND DEMOLITION PROTOCOL

The project has been registered as part of the Considerate Constructors Scheme. This scheme is recognised by industry and the government and encourages firms to be sensitive to the environment by considering aspects such as:-

- Consideration – Positive consideration of neighbours at all times and recognising needs
- Environment – Minimising disturbance from dust, noise or traffic congestion and sustainable use of materials
- Cleanliness – Keeping sites clean and tidy

- Good Neighbour – Regular communication with the local community and businesses nearby

- Respectful – Not tolerating rude behaviour / language

- Safe – Activities must be carried out with care and consideration to workers and general public

- Responsible – All personnel need to understand and operate within the code

In addition to the Considerate Contractors Scheme we will also be working in accordance with Camden's Considerate Contractors Manual.

13 SITE ACTIVITIES

Good Housekeeping

We will follow a "good housekeeping" policy at all times. This will include, but not necessarily be limited to, the following requirements:-

- Smoking areas will be provided.
- Open fires will be prohibited at all times.
- Rubbish will be removed at frequent intervals, and the site kept clean and tidy.

Hoardings will be frequently inspected, repaired and re-painted as necessary to comply with the conditions of the licence.

- Toilet facilities will be kept clean.
- Food waste will be removed frequently.
- Welfare areas will be regularly maintained and inspected.

Site Inspections

Worksite inspections will be carried out on a regular basis.

Weekly site safety inspections are undertaken by the site manager and the safety advisor will be visiting sites at regular intervals, which are generally not longer than two weeks. These inspections take into account not just the site but the area immediately surrounding it.

Living Accommodation

No living accommodation will be permitted on site except with approval of the local authority. Mess rooms, toilets and showers will be provided.

Clearance of Site on Completion

On the completion of the works we will clear away and remove from the site all plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and satisfactory condition.

Pest Control

We will ensure that the risk of infestation by pest or vermin is minimised by adequate arrangements for disposal of food waste or other material attractive to pests. If infestation occurs we will take such action to deal with it as required by the Environmental Health Officer.

Pest Control Job receipts will be received by QuicKil Pest Control Services and kept on site for review

QuicKil to visit site Monday 18th August 2014 to place external Rat Boxes as opposed to placing poison in the inner part of the box Rat Traps to be placed

When Rats enter the box then the trap will be activated with immediate effect taking place

A daily return will take place to check on the boxes whilst traps are still inside

Once demolition has been completed QuicKil will revert back to baiting

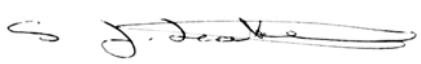
Appendix A HIGGINS CONSTRUCTION PLC - ENVIRONMENTAL POLICY

Higgins Construction PLC is one of the leading names in community regeneration and affordable housing for London and the South East. In addition to providing sustainable solutions to the region's housing shortages, we are acknowledged as one of the leading names for quality and value in education and healthcare construction.

Higgins Construction PLC is committed to protecting the environment and recognises that some of the operations and processes involved in delivering our projects will have an environmental impact. We aim to minimise these and ensure the continual improvement of our environmental performance through compliance with all environmental legislation and standards relevant to the industry sectors in which we operate, the prevention of pollution, and the following commitments;

1. To employ an Environmental Management System in accordance with BS EN ISO 14001:2004 on all of our projects, and use this system to influence our business decision making processes.
2. To develop environmental objectives at the Management Review Meetings which can be supported by measurable performance indicators, to manage all potentially significant environmental aspects including resource use, waste, emissions and nuisance with a view to reducing the carbon footprint on our construction sites.
3. To work with our supply chain partners to promote the sustainable sourcing of products and materials and to reduce waste at source.
4. To maintain a consistent and transparent dialogue with all interested stakeholders in order to identify and address key environmental issues affecting our business.
5. To seek out and apply innovative solutions to the delivery of our projects.
6. To regularly publish information on our environmental performance.
7. To the ongoing and structured training of our staff, clients, suppliers and sub-contractors with the aim of enhancing their awareness of relevant environmental issues and securing their effective participation in helping to minimise our environmental impacts.
8. To the reduction of the environmental impact of our final constructed product through improved specification and design.
9. To the promotion and demonstration of efficiency in the use of energy, water and materials, including the use of defined measures/processes to minimise waste and re-use and recycle wherever possible.
10. To adopt The Construction Commitments: Halving Waste to Landfill and work to adopt and implement standards for reducing waste, recycling more and increasing the use of recycled materials.

This policy is subject to periodic review in order to ensure its continued relevance and strategic fit with both our environmental and business values and objectives and fully complies with all current legislation.



For and on behalf of the Board of Directors
Steve Leakey
Managing Director
August 2013

Appendix B Pollution Control Policy (Air)

Higgins Construction PLC is one of the leading names in community regeneration and affordable housing for London and the South East. In addition to providing sustainable solutions to the region's housing shortages, we are acknowledged as one of the leading names for quality and value in education and healthcare construction.

Higgins Construction PLC recognises that Climate change, smog, acid rain and ozone depletion are all created by air pollution and post a serious threat to the environment and our health. Air pollution on site can have a detrimental impact on the environment in which we live and work and on the health of local residents. It is therefore our responsibility to take control measures to minimise the pollution our sites produce. The Local Authority has a responsibility under Part IV of the Environment Act 1995 and the UK Air Quality Strategy to work towards achieving national air quality objectives[1], we must therefore demonstrate that our policies are in place to reduce any nuisance dust and fine particle emissions arising from our works without the need for legal intervention from the Local Authority.

With this in mind, our environmental policies reflects how we will identify and address the main causes of air pollution such as carbon dioxide, chlorofluorocarbons (CFC)s, ozone, nitrogen oxide, sulphur dioxide, benzene, lead, volatile organic compounds..

Implementation of Water Pollution Control Measures

All operatives must be aware of our policy to control and prevent dust and air pollution on site to ensure the procedures that we have set in place are followed. The below measures must be explained to all operatives on site during their initial site induction and a copy of our Pollution Control Policy presented to them for their records.

All sub-contractors are provided with our Pollution Control Policy along with our Environmental Policy, both of which must be adhered to as part of our contract conditions.

It is the responsibility of our Contract Management to ensure these measures are being followed wherever practicable. If procedures are not being followed tool box talks should be held to re-emphasise the importance these procedures have on not only reducing the impact our construction works have on the environment, but also the legal obligations we have under the Environment Protection Act. Consistent failure or refusal to follow these measures will result in the operative or sub-contractor being asked to leave site

Site Procedures to reduce Dust

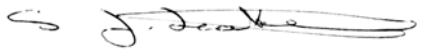
Demolition

- A check meter, stand pipe and hose is to be made available at all times on site to damp down arising dust from the demolition process. Particular attention must be paid to damping down procedures during periods of dry and hot weather.
- All skips must be covered with a suitable cover i.e. tarpaulin or plastic dust sheets.
- During internal strip any waste arising must be placed in the skip or a chute used from first floor and above. A suitable sheeting must be placed on the skip and around the chute to reduce dust arising from impact.
- Any lorries removing waste from site must be suitably covered prior to leaving site.
- A wheel wash will be provided where practical.

- Generally housekeeping on site should be in good order with changing facilities provided to reduce the travel of dust from operatives' clothes.
- In addition to the above site specific Method Statements must be provided demonstrating sub-contractors' own measures for dust reduction during each demolition process.

Construction

- A water point must be provided for dampening down the site during periods of dry weather.
- All skips must be covered with a suitable cover i.e. tarpaulin or plastic dust sheets
- Dust sheets must be laid prior to commencement of works and removed at the end of each day. Plastic dust sheets that can be wrapped up and disposed of after use would be ideal. Cloth dust sheets must be washed down over the skip and **not** shaken to remove dust.
- Cutting tools for timber should ideally be equipped with an extractor for safe removal of arisings.
- Any materials such as cement, lime and sand should be covered using a suitable plastic covering at the end of use each day or in periods of high winds.
- Bulk materials should be delivered and stored in bulk bags and covered using a suitable plastic covering at the end of use each day or in periods of high winds.
- In addition to the above site specific Method Statements must be provided demonstrating sub-contractors own measures for dust reduction during each construction process.



For and on behalf of the Board of Directors
Steve Leakey
Managing Director

Appendix C Pollution Control Policy (Water)

Higgins Construction PLC is one of the leading names in community regeneration and affordable housing for London and the South East. In addition to providing sustainable solutions to the region's housing shortages, we are acknowledged as one of the leading names for quality and value in education and healthcare construction.

As water pollution damages rivers, lakes, beaches, seas and drinking water and consequently human health and the environment, it is vital that we make efforts to reduce water pollution.

The policy is designed to supplement Higgins Construction PLC's Environmental Policy and makes the following commitments:

Higgins Construction PLC recognise in planning and carrying out any works, precautions must be taken to ensure the complete protection of watercourses and ground water against pollution. These should include an investigation of past use of the site to ensure that the operations will not disturb contaminated land and a survey of the siting and contents of all storage tanks and pipelines. The Industry profiles published by DEFRA will assist in identifying potential contamination and ways to reduce their impact, based on former industrial uses of the site. If there is any contaminated land on site, the Local Authority and local Agency Officer should be consulted on its remediation or disposal.' [1]

Implementation of Water Pollution Control Measures

All operatives must be aware of our policy to control and prevent water pollution on site to ensure the procedures that we have set in place are followed. The below measures must be explained to all operatives on site during their initial site induction and a copy of our Water Control Policy presented to them for their records. All sub-contractors are provided with our waste water policy along with our Environmental Policy, both of which must be adhered to as part of our contract conditions.

It is the responsibility of our Site Management to ensure these measures are being followed wherever practicable. If procedures are not being followed tool box talks should be held to re-emphasise the importance these procedures have on not only reducing the impact our construction works have on the environment, but also the legal obligations we have under the Environment Protection Act. Consistent failure or refusal to follow these measures will result in the operative or sub-contractor being asked to leave site.

Surface

- All surface water must discharge into a surface water drain
- All foul water must discharge into the foul water drain
- All oil and diesel drums must be stored on an impervious base with oil-tight bund with no drainage outlet. All drill pipes, fill pipes and sight gauges must also be stored on this bund[2].
- Leaking or empty oil drums must be removed from site and disposed of via a licensed waste disposal contractor
- Water containing Silt should never be pumped directly into surface water drainage but be disposed of into a foul water connection

- Site roads must be regularly scraped or brushed to prevent the build up of mud and dust
- Mobile plant should be refuelled in a designated area on an impermeable surface away from drains or watercourses. A spill kit should be available at all times
- All skips should be covered by a suitable water tight cover or tarpaulin

Ground

- Excavations must be kept clear of ground and surface water where possible. One corner of each excavation should be used as a sump pit to pump water from excavations into a suitable foul water drain. This water should remain undisturbed by plant or personnel.
- All soil and materials such as sand must be covered at all times when not in use and covered by a tarpaulin. Where possible, loose materials must be delivered and stored on site in bulk bags.
- Concrete and concrete mixing plant should me cleaned on an impermeable surface and any arising waste water must not be allowed to flow into any drain or watercourse

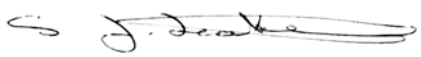
EMERGENCIES

As stated in the Environment Agency's publication for Working at Construction and Demolition the following procedures must be followed in the event of an emergency spillage on site:

'In the event of a spillage on site, the material should be contained (using an absorbent material such as sand or soil or commercially available booms) and the Agency notified immediately using the emergency hotline number [below].

Environment agency emergency hotline for reporting all environmental incidents relating to air, land and water in England, Wales, Scotland and Northern Ireland.

Emergency Hotline Tel: 0800 80 70 60



For and on behalf of the Board of Directors
Steve Leakey
Managing Director

Appendix D Pollution Control Policy (Noise)

Higgins Construction PLC is one of the leading names in community regeneration and affordable housing for London and the South East. In addition to providing sustainable solutions to the region's housing shortages, we are acknowledged as one of the leading names for quality and value in education and healthcare construction.

One aspect of meeting our environmental objectives is our commitment to pollution prevention; we recognise that some of the operations and processes involved in delivering our projects will have an adverse impact in relation to noise pollution.

We recognise that noise and vibration can:

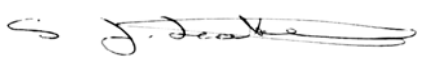
- Cause disturbance to processes and activities in neighbouring buildings;
- Noise and vibration can cause serious disturbance and inconvenience to those exposed to it;
- Noise and vibration can be a hazard to health.

Higgins Construction PLC make the following commitments:

- To promote good health and a good quality of life through the effective management of our operational noise and vibration.
- To avoid significant adverse impacts on health and quality of life.
- To mitigate and minimise adverse impacts on health and quality of life.
- Where possible, to contribute to the improvement of health and quality of life.

Higgins Construction PLC is committed to sustainable development and working to secure a healthy environment in which we and future generations can prosper.

This policy fully complies with all current legislation and is subject to periodic review in order to ensure its continued relevance to both our environmental and business values and objectives.



For and on behalf of the Board of Directors
Steve Leakey
Managing Director

Appendix E Considerate Contractor

CONSIDERATE CONSTRUCTORS

ASSOCIATE

Certificate of Associate Membership

Higgins Construction plc

is an Associate Member of the
Considerate Constructors Scheme

Associate Members:

- Register all their sites with the Scheme.
- Ensure compliance with the Scheme's Site Code of Considerate Practice on all their sites.
- Promote the Scheme and its aims.

Norman Reed

Norman Reed, CEng(Hons) MICE,
Chairman, Considerate Constructors Scheme Ltd.

Issue date: November 2009

Improving the image of construction

Appendix F ISO 14001:2004

Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2004

This is to certify that:

Higgins Construction Plc
1 Langston Road
Loughton
IG10 3SD
United Kingdom

Holds Certificate No: **EMS 523670**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2004 for the following scope:

The construction, maintenance, extension and repair of residential, commercial and industrial buildings for private organisations and local government bodies in accordance with both 'design and build' and conventional forms of contract. This includes the management of procured design services under design and build forms of contract.

For and on behalf of BSI:

Managing Director, BSI EMEA

Originally registered: **22/07/2008** Latest issue: **23/08/2011** Expiry Date: **22/09/2014**

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