South Holland Health and Wellbeing Hub, Spalding

Construction Environmental Management Plan

Outline Construction Environmental Management Plan for Submission to Local Planning Authority in discharge of planning conditions (TBC)

Development/Project Name:	South Holland Health and Wellbeing Hub
Landowner/Client:	Alliance Leisure Services Limited, Bridgewater
Site Address:	Castle Leisure Centre & Swimming Pool Albion Street Spalding
Site Postcode:	PE11 2AJ

CEMP Produced by (Developer/Major Contractor): Willmott Dixon		
Name:	**Signature:**	**Date:**
Adrian Coleman		May 2024
CEMP Accreditation Date:		
CEMP Reviewed by (Local Authority):		
Name:	**Signature:**	**Date:**

Revision	Date	Summary of amendments	Amended by
1	May 2024	Initial draft	Adrian Coleman
2	May 2024	Initial review	Simone Codrington (EM)
3	20th May 24	Draft submission for planning	Simone Codrington (EM)

Glossary of Terms

Several Acronyms are used within this document. The following Schedule is included to briefly explain their meaning.

Acronym	Unabbreviated	Meaning
CLP	Construction Logistics Plan	Provides the framework for understanding and managing construction vehicle activity into and out of a proposed development and gives the planning authority an overview of the expected logistics activity during the construction programme
TBT	Toolbox Talk.	A 'toolbox talk' is a short presentation to the workforce on a single aspect of health and safety.
SSoW	Safe systems of work (SSOW)	Structured processes designed by health and safety experts to reduce the risk of harm when employees face unavoidable hazards at work. SSoW are an extremely powerful way to protect your staff from unnecessary risks to their health.
HDPE	High Density Polyethylene.	High Density Polyethylene is a polyethylene thermoplastic.
CCS	The Considerate Constructors Scheme	An independently managed, not-for-profit organisation that works side-by-side with the construction industry and the public to raise standards and build trust in construction.
CLOCS	Construction Logistics and Community Safety	A national Standard that requires all stakeholders in construction to take responsibility for health & safety beyond the hoardings. It demands collaborative action to prevent fatal or serious collisions between vehicles servicing construction projects and vulnerable road users: pedestrians,

		cyclists, and motorcyclists.
FORS	The Fleet Operator Recognition Scheme.	(FORS) is a voluntary accreditation scheme for fleet operators. FORS aims to drive up standards within fleet operations and demonstrate which operators are achieving exemplary levels of best practice in safety, efficiency, and environmental protection.

1. Introduction

Willmott Dixon Construction Ltd. has been appointed by Alliance Leisure Services Limited to remodel and extend the existing Castle Sports Centre and Swimming Pool in Spalding.

The site is located off Albion Street and Pinchbeck Road, Spalding (Postcode PE11 2AJ) and comprises of both the Castle Sport Centre and the Castle Swimming Pool complex (Including the existing playing field and disused cinder running track) which is Northeast of Spalding town centre.

The remodelling works comprise of a new entrance, changing facilities, activity zones, viewing/café area, community health office and fitness studio refurbishment. The new build element of works comprises of a 6 lane 25 M pool with adjustable floor and a 20M training pool with associated plant rooms. The works also include a changing village for the pool and a changing room for external pitch use. Externally the works compromise of an artificial turf pitch (ATP), informal outdoor games area , splash pad, and outdoor play with various landscaping schemes.

On the site of the Castle Swimming Pool there will be an Extra Care housing facility constructed, which is included in the masterplan for the site but form part of a separate planning application.

Willmott Dixon Construction will maintain overall responsibility for the project throughout planning, design, and construction.

Willmott Dixon has prepared this 'Construction Environmental Management Plan' for the purposes of submitting to the local planning authority as part of the overall planning application for the project.

This document assumes that any pre-commencement planning conditions in relation to any environmental issues have already been carried out and discharged prior to works commencing on site.

1.1 Construction Environmental Management Plan Objectives

This Construction Environmental Management Plan (CEMP) has been developed for the project and will be subject to further development in response to changing constraints, methodologies, and variations.

The CEMP sets out the methods and procedures that will be adopted with consideration to minimise the impact of the development on the local community, residents, businesses, the public and environment. It will also address the potential environmental impact of the construction methods and provide details of the measures to mitigate the specific environmental disturbances such as noise, vibration, dust, and waste disposal.

***The overall objectives of this Outline CEMP are to**:*

- *Optimise the efficient delivery, collection and storage of goods and materials to site.*
- *Show a scheme for recycling of waste.*
- *Lower the emissions caused by our Supply Chain Partners vehicles.*
- *Enhance safety by improving both vehicle and road user safety.*
- *Reduce congestion by reducing the overall number of trips required, especially during peak time periods*.
- *Measures to control the emission of dust and noise pollution during construction.*

To support the realisation of this objective, several sub-objectives have been agreed to and include:

- *Encouraging our direct and indirect employees including Supply Chain Partner site operatives to travel to site using publicly available transport or where there is a requirement to bring their own vehicles to site, often during the first few days to transport tools and materials, that vehicles are shared wherever possible.*
- *Promote smarter operations that reduce the need for construction travel or that reduce or eliminate travel during peak time periods.*
- *Encourage the use of greener vehicles.*
- *Manage the ongoing development and delivery of the CLP with our Supply Chain Partners.*
- *Enable the smooth and practicable communication of site delivery and servicing facilities to workers and suppliers.*
- *Encourage the most efficient use of construction vehicles.*
- *Mandate the CLOCS Standard* (Construction Logistics and Community Safety) *across all Willmott Dixon construction operations, and throughout our Supply Chain.*
- *Enforce a minimum of FORS (Fleet Operators Recognition Scheme) Silver Membership to be gained for all UK operating centres.*
- *The use of dust screens and water suppression when needed, aim to control at source.*

1.2 Site Location

The site is located off Albion Street and Pinchbeck Road, Spalding (Postcode PE11 2AJ) and comprises of both the Castle Sports Centre and the Castle Swimming Pool (Including the existing playing field and disused cinder running track) which is Northeast of Spalding town centre.

1.3 Development Proposal

The project will be delivered in three phases – firstly any pre-commencement works, then enabling works phase and then a main works phase. The principal activities associated with each of these phases is given below.

Pre commencement planning activities

Any works required as per the Ecological surveys. E.g., Site Clearance works (March to September) Extra surveys; reptiles, water voles, badgers (inc. set closures), great Crested Newt etc.

Planning Condition pre-commencement activities:

Any works that are identified through the planning process that are needed at pre-commencement.

Enabling Works Activities

Initial site hoarding works and associated temporary site accommodation, initial earthworks to regrade site including formation of initial piling mats, existing service, and drainage terminations/diversions (If required), Site compound set up including tarmac access roads, storage and parking. Permanent external fencing, Site access road works, Mains services incoming works. Car Par remodelling

Main Works activities:

Piling works, sheet piling, de-watering, sheet piling, Reinforced concrete bases and floors and pool tanks. Structural steel for roofing works. Roofing works. External facade works inc. Brickwork, cladding curtain walling etc. Internal blockwork and plasterboard works, externals works. All associated internal fit-out and building services. Completion of all external landscaping

Expected high risk activities:

Earthworks, piling, de-watering, lifting activities, works at height, services diversions, new service connections. Working near the pumping main

Working near to the Drainage ditch to the Northern site Boundary and the River Welland:

The drainage ditch (Cemetery Drain) on the northern site boundary and the river running near the eastern boundary of the site have been identified as sensitive receptors and Willmott Dixon will make all the necessary arrangements to avoid impacts on them e.g., correct fuel, COSHH (Control of Substances Hazardous to Health) and waste storage and management.

Willmott Dixon will include information in the site inductions and conduct TBTs (Toolbox Talks) regularly etc. and ensure all correct permits and documents are in place for working near to the river.

2.0 POLICY CONTEXT

This section of the CEMP references policies we have considered in the preparation of this document.

2.1 NATIONAL POLICY

The Traffic Management Act (2004)

The act makes 'provision in relation to the management of road networks; to make new provision for regulating the carrying out of works and other activities in the street'. It acknowledges that highways may be occupied due to construction activities and identifies appropriate changes levied for any extended occupation.

Designing for Deliveries, Freight Transport Association (2006)

This provides specifications for the size of delivery vehicles, turning radii and clearance requirements and should be used to ensure that delivery vehicles can safely and efficiently access the construction site.

Fleet Operators Recognition Scheme

FORS is a unique, industry led, membership (bronze, silver, gold) scheme to help van and lorry operators to become safer, more efficient, and more environmentally friendly. Its requirements will be relayed to all operators engaged during the development.

CLOCS (Construction Logistics and Community Safety)

CLOCS brings the construction logistics industry together to revolutionise the management of work-related road risk (WRRR) and ensure a road safety culture is embedded across the industry. By working together, we can help protect pedestrians, cyclists, motorcycles, and other users who share the roads with construction vehicles.

Willmott Dixon Group is now a registered CLOCS Champion and will be mandating the CLOCS Standard across all its construction operations, and throughout the Supply Chain. This standard enforces specific safety requirements for all vehicles over 3.5 tonnes gross vehicle weight.

We believe that death and injury on the road is avoidable and therefore complying with the CLOCS Standard and adopting an 'All Safe on the Move' culture will enable a fair and consistent approach to managing safety beyond the site gate and boundary.

Dependent on the location of the project, or contractual agreements, this may be a client requirement and must be discussed with contractors and suppliers during the packages and contract award proposals and before deliveries commence on site.

2.2 WILLMOTT DIXON POLICIES

The following Willmott Dixon Group Procedures and requirements must be met.

- Main Contractor Health & Safety Conditions Appendix C2
- RMS-PR-023 – Vehicles and Plant
- RMS-PR-024 – Highways and Off-Site Works
- RMS-DR-024 – Duties and Responsibilities of transport Drivers

3.0 Site Logistics & Deliveries

3.1 Hours of Operation

Planned working days and hours at this stage are Monday-Friday: 07:30-18:00 (any other hours to be agreed).

3.2 Site Accommodation and Welfare Facilities

To ensure most personnel, stay on site between the periods of their arrival and departure at the end of the working day, thereby minimising the impact of pedestrian traffic movement on and off the site, satisfactory site accommodation and welfare facilities will be provided on site. This will include the provision of main contractor offices, toilets, drying room, canteen, and storage units.

3.3 Site Access and Security

The site will be accessed from the southwestern entrance off Pinchbeck Road.

Willmott Dixon will ensure the erection and maintenance of security hoarding including decorative displays and facilities for public viewing.

Hoarding will be erected around the perimeter of the site and will act as the site boundary. This will protect people from site dangers and the site from vandalism and theft. This hoarding will be a standard 2.4m height hoarding, constructed in a plywood faced, timber framed, of a surface density of not less than 7kg/m2 for normal security and noise limitation requirements or a reusable/recyclable plastic hoarding supported on concrete blocks.

- Minimum is a solid 2.4m high hoarding, timber / blockade.
- Carry out a Personal Risk Assessment on our site staff considering the risks involved with the location of the project.
- The default standard enforced on all projects (unless signed off by the Operations Director) is that all sites have a working turnstile installed at the earliest practicable time.
- Due to the nature of the project, gatemen will be employed to manage the site traffic to and from the site.
- The site will have in place a signing in/out process of all site deliveries. Subcontractors expecting deliveries must notify the site team to facilitate logistics planning.
- Subcontractors will be notified when a delivery arrives; they will then take control of the vehicle and offloading to ensure the safety of both driver and vehicle whilst on and upon leaving site.

Willmott Dixon Construction will have a security plan for the development and as a minimum; it will cover and allow for the following:

- Perimeter site security
- Accommodation and welfare facilities
- Materials storage and management
- Protection of completed works.
- Protection of the site outside of normal hours
- Site rules and procedures
- Emergency call out numbers.

3.4 Loading/Unloading of plant and materials.

Delivery and removal of materials (including waste) and work equipment taking account of any risks to the public, for example during access to or egress from the site.

a. Wherever practical the layout of the site will include separate routes for vehicular traffic and pedestrians with priority given to safe access and egress to pedestrians.
b. This principle will include for the elimination of reversing vehicles wherever possible. The traffic plan is to be made available to all suppliers and contractors working on site.
c. A site entrance will be formed as detailed on the logistics drawings to provide access to the site compound.
d. Construction Logistics and Community Safety (CLOCS) is something that is coming to the fore within the UK and the industry. Willmott Dixon is committed to protecting vulnerable road users and our logistics plans will take into account the CLOCS standards and guides that are available online.

Due to space restrictions on site, all deliveries will need to be booked in advance of their arrival. Necessary arrangements need to be in place for the offloading of the delivery using appropriate means.

Deliveries will be offloaded either by hand or via cranes or forklifts. Any deliveries being off loaded by hand need to have suitable edge protection in place and ensure materials are moved to the allocated storage area immediately to prevent site being congested.
Any crane off-loading will be completed by a competent slinger/signaller and will be under permit.

3.5 Parking Strategy

Dedicated onsite parking will be provided for use throughout the duration of the scheme.

We shall encourage employment of local labour to limit the number of supply chain partner vehicles on site and shall also encourage shared driving, cycling and the use of public transport. (Where available)

3.6 Storage of plant and material used in constructing the development.

Willmott Dixon Construction will designate space for supply chain partners' storage. Material stored outside of a lockable container will be in designated areas and monitored by site management for Health & Safety purposes. All material will be stored with weather protection to prevent excess waste.

A philosophy of 'just in time' deliveries will be adopted where materials will be given a delivery date/time and recorded and controlled by Willmott Dixon Construction site management via MSite or similar system. Deliveries will be controlled by a gate person and delivered/loaded out direct to the appropriate workplace.

The gate person will also maintain the site entrance/exit so it will always be kept clean and tidy and control pedestrians crossing the sites vehicle access routes. Presentation of the site is of paramount importance to Willmott Dixon Construction and daily checks will be made to ensure that dirt, dust, weeds, graffiti etc. are removed from site perimeters and the surrounding estate daily.
Principal storage areas will be displayed on a site layout and unloading will be supervised by a trained operative/manager who will have a clear understanding of our material control process.

- Detail and mark up where bulk excavation material will go.
- All crane operations will be suitably planned in advance, with lifting schedules in place with material loads.

Storage of Materials (particularly Hazardous Materials) and Work Equipment

The following specific legislation contains requirements to be complied with:

- The Control of Substances Hazardous to Health Regulations 2002 (as amended)
- The Management of Health and Safety at Work Regulations 1999

No material or substance shall be used on site until suitable COSHH risk assessments and Material Safety Data Sheets are available in the workplace, and that all concerned are aware of, and are taking the necessary precautions to comply with the assessment and regulations.

All COSHH related material and substances are to be stored in suitable containers, boxes, or secure chests, etc., which should be suitably marked, clearly visible and preferably located externally. The location of extensive COSHH material is marked up on fire plans, in order that emergency services can be informed of their location.

3.7 Delivery Vehicles

Any vehicles leaving site will be checked by the gate person to ensure that any remaining loads on the vehicles are correctly loaded and sheeted (where appropriate) and any empty trailers have been cleaned prior to leaving site.

3.8 Wheel Washing

To try to minimise any debris getting onto the highway a robust wheel washing process will be in place. The wheel wash will be installed at the site entrance onto Pinchbeck Road This will be predominantly used during the Enabling phase of the works whilst we install the tarmac hardstanding's (Both temporary and permanent). Any vehicles leaving site with dirty wheel will need to use the facility.

In the unexpected event of any mud getting onto the public highway operatives and road sweepers will be used to ensure the debris are removed. (This will also remove the need for 'Muck away' vehicle movements.)

4.0 Environmental Mitigation/Construction Control Measures

4.1 Noise Control

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

Section 72 of the Control of Pollution Act 1974 requires that 'Best Practicable Means' (BPM) is employed at all times when controlling noise and vibration on construction sites. This means that the measures must be taken to control environmental impacts and the recommendations and good practice that is outlined in British Standard 52281&2:2009+2014 Code of practice for noise and vibration control on construction and open sites shall be followed and reference to Lincoln County council and refer to Code of Practice for Construction for the Local Authority. It is the responsibility of Willmott Dixon Construction that all activities adhere to current codes of practice and environmental law.

Detailed Provisions

Working hours will be limited to 07:30am to 18:00pm.

As part of our continued discussions with the supply chain we will make sure every avenue is looked in to the find the least noisy/intrusive way of doing the operation. Part of this is that the delivery timings above will be in every sub-contract order and that plant employed is well maintained and in good condition always. Also, we'll explore the use of electric plant which eliminates the noise from a combustion engine. If we have to undertake noisy operations and a noise assessment has identified as necessary to mitigate the effects of noise on sensitive receptors, we will employ localised acoustic screens/measures to cut down the impact to the surrounding area.

Plant and equipment in intermittent use shall be switched off or throttled back.

Noise and vibration must be kept to its lowest possible levels, using all appropriate and practicable control measures.

As part of our H&S management, high risk activities will be signed-off by the Regional Safety Manager and noise control is part of this.

If acceptable levels are ever exceeded, then current activities will be halted immediately, and the operations will be reviewed to ensure the noise levels are decreased before works continue.

The Site Manager is to ensure that the following safe systems are incorporated as required/ necessary and applied by contractors:
- Noise and vibration assessments must identify exposure to the workforce
- Re-design activities to eliminate or reduce noise and vibration
- Reduce the number of people exposed
- Limit the time persons are exposed
- Provide information, instruction and training
- Ensure that health surveillance is provided where necessary and records retained.
- Monitor and review

4.1.2. HIERARCHY OF NOISE AND VIBRATION NUISANCE CONTROL

Eliminate or Avoid risk of Noise and Vibration by:

- Prioritise off-site manufacture or fabrication.
- Reviewing construction phase activities and changing practice to complete task.
- Displaying permitted working hours at the site entrance and sticking to them.
- Conducting noisy activities off-site whenever possible (e.g., If half bricks are required have a pallet pre-cut off site, so avoiding environmental noise / dust and safety risks).
- Planning a traffic route that reduces the need to reverse, so avoiding the reverse siren, using one-way route in and through site, also ensuring vulnerable road-user protection.

Reduce risk of Noise and Vibration by:

- Constructing the boundary fence from timber/HDPE rather than using Heras fencing, so creating a noise barrier (also sustain good corporate image and prevent windblown dust/debris nuisance). The cabins can also be used to create a noise barrier.
- Using acoustic barriers/covers at source of noise or surrounding noisy activity work area.
- Maintaining plant and equipment and turning off when not in use – soil/stone haulage wagons are to turn off engines while waiting to be loaded / unload; utilise rubber linings on beds of tipper wagons, where necessary. Encourage use of plant in economic mode so mute's engine when machine goes to idle.
- Maintain temporary haul roads to reduce noise and vibration from plant and vehicles.
- Using silencers / acoustic screens on plant where possible.
- Using silenced generators (particularly if they're running through the night) and switch to mains power as soon as possible.
- Change piling technique to prevent compaction noise or ground vibration conveyance, especially in heavy ground conditions where reverberation risk is greater.

Manage risk of noise and vibration by:

- Screening off noisy activities into acoustic protection zones (e.g., create a screened off block/timber/metal cutting area).
- Locating noisy activities away from any neighbours (e.g., locate crusher away from neighbouring properties or in centre of the site, or leave build frame up as acoustic barrier for as long as reasonably practicable).
- Planning noisier activities for less sensitive times of the day (e.g., avoid first thing and allow time for public worker/night shift workers to recuperate, with late morning/early afternoon higher noise activity periods).
- Ensure that a key holder is nominated for sites/offices so that alarms are opened for works to begin within approved work periods and alarms can be silenced if required.
- Addressing in the site orientation and delivering trade specific TBTs.
- Removing radios from the work area and ensuring van/car radios cannot be heard outside vehicle confines.
- Promoting CCS principles and avoiding shouting, foul-language and anti-social behaviour on and around site, maintaining standards in the work area and on the move.
- Establishing baseline levels, taking regular noise and vibration readings at set locations near sensitive receptors and maintaining records.

General

All machinery is to comply with the current legislation.

Noise assessments will be carried out as per Control of Noise at Work Regulations 2005, if required.

There will be careful selection of the plant to be used to reduce noise.

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 supply chain partners will provide full risk assessments and method statements.

The Willmott Dixon Environmental Plan for the project will demonstrate that the measures identified will protect both the workforce on site as well as neighbouring site occupiers including those in the nearest residential properties from noise nuisance. Weekly consideration of environmental risks associated with key construction activities, coupled to checks by a competent member of the team will ensure best practice and assurance of good environmental practice in relation noise and dust emissions. The resultant daily records take due account of prevailing weather conditions and mitigation risk to all affected interests and will provide a regular and accountable system of monitoring and act as a trigger for remedial action as necessary.

5.0 Dust & Air Quality

This CEMP has been prepared with reference to the relevant regulatory guidance and controls and takes account of all levels of risk, including those associated with construction workers on the site as well occupiers at the nearest residential receptors.

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 '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 - General

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.

Detailed Provisions

Risk Assessment

Please See BWB Willmott Dixon Construction Ltd South Holland Health & Wellbeing Hub Spalding Air Quality Assessment April 2024 (Pages Section 4 Construction Phase Dust Assessment)

Mitigation of Potential Dust Nuisance

Impact from Construction Activities a qualitative assessment of dust levels associated with the proposed development has been carried out. The impact of dust soiling and PM10 can be reduced to negligible through suggested appropriate mitigation measures, which are listed in Table 12 and are applicable to a medium risk site. Implementation of these Best Practice Measures will help reduce the impact of the construction activities.

Mitigation of Dust Risk

When agreeing control measures with the subcontractors in regard to dust control, the use of Respiratory Protective Equipment (RPE) is to be considered a last resort. Other options that should be taken before the use of Personal Protective Equipment (PPE) include:

- Ordering the size of material that you need, rather than cutting on site.
- Off-site prefabrication
- Capturing dust at source with adequate extraction/vacuum systems
- The use of spray guns or dust suppression systems
- Skips and chutes shall be covered and if necessary enclosed to ensure that dust does not escape.
- Stored materials liable to dust generation shall be dampened down or covered with tarpaulins.
- All vehicles carrying dusty materials shall be securely covered.
- Drop heights from loading shovels and other loading or handling equipment will be minimised, and fine water sprays will be used on equipment where necessary.

5.1 Action

Each project team will:

- From the Construction Programme, identify each operation that will generate dust during activity.
- Using the dust mitigation plan and in conjunction with the subcontractor responsible for the activity consider:
- The initial risk level/potential for creating dust?
- Whether the dust can be reduced or eliminated by off-site cutting/machining etc?
- What engineering controls will be put in place to give collective protection to the workforce?
- Deal with any residual risk and consider whether Respiratory Protective Equipment is to be worn?

Main Works
Throughout the scheme there are several areas where dust risk can be identified and below shows these against the mitigation used to remove or reduce the risk.

Activity/Risk	Mitigation
Core drilling through concrete frame for builders works	Design to have all builders' works coordinated and pre-cut into the frame removing the need to core drill on site. Where design change after frame manufacture, dust suppression and collection techniques will be used.
Drilling for edge protection	Use of a proprietary edge protection that uses friction between floor and soffit to fix edge protection to. Removes the need to drill temporary fixings into the soft/floor.
Mixing cement-based products on site	By planning works effectively, the aim is to order in as much pre-mixed products such as concrete and screed to reduce the on-site risk of inhalation of silica.
Timber shuttering	To remove the amount of timber formwork, the use of proprietary formwork systems were possible. This reduces the cutting of timber on site. All cutting of timber will be controlled in designated cutting zones where FFP3 masks will be utilised, and extraction will be fitted to all cutting tools. This area will be clearly signed.
Dust on vehicle routes.	Regular dampening down as and where required to maintain levels of dust produced by moving plant and

	delivery vehicles. We will also be treating any stone up areas with a towable dust suppression as necessary.
Dry lining & Plasterboard	Fixing head & base track into concrete surface & all other operations which dust is produced operatives must utilise FFP3 masks and appropriate extraction. All cutting will be controlled in designated cutting zones.
Timber Frame.	Minor site adjustments where required. Use of FFP3 masks required with Type H extractors.
Balustrade in staircase.	Side fixing balustrades into pre-cast concrete staircase. Dust extraction required & FFP3 face fit masks to be worn.
Cutting permanent woodwork.	Cutting to size all skirting board, door frame & other joinery items. To be done within a designated cutting area, Type H extractors in place & the use of FFP3 masks with face fit certificate for operatives.
Demolition Works	Works to be carefully considered to try to mitigate generation of dust. Where this is not possible, water suppression using suitable equipment. E.g., Mist Cannons, Jet washes, hoses etc.

Continuous visual assessment of the site will be undertaken, and a complaints log maintained in order to determine the origin of a dust nuisance. Keeping an accurate and up to date complaints log will isolate site activities to a nuisance dust episode and help prevent it from reoccurring in the future.

Dust Movement

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 enough 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.

5.2. Environmental Risk from Dust procedures include:

Good housekeeping and control of waste dusts and silt at source will prevent windblown debris accumulating and, with prevailing weather, create mud or dust carriage from site. Mud and Dust pollution risk and community nuisance can be avoided by employing the Safe Systems of Work (SSoW) controls but also through:

- Hard landscaping / laying sub-base, base coat or stoning up access roads and parking facilities, preventing exposure of soil/stone to wind-blown/runoff risk.
- Locating stockpiles away from site boundaries, use of wind-fences or seeding to limit dust and maintaining stockpile levels below hoarding levels to prevent lift. Risk of dust and silt from site may be managed by:
- Covering dust generating loads and piles of materials, such as sand and topsoil.
- Providing wheel wash facilities on site or use a hose to wash down all vehicles before leaving site.

- Using suitable water suppression
- Employing a road sweeper to remove mud / dust from the roads on and around site (remember to ensure that waste documentation is obtained).
- Address in pre-enrolment, site orientation and delivering trade specific TBTs.
- Keeping plant / vehicles on site to the site speed limit.
- Using dust capture / suppression equipment on tools and plant.
- Use of a Dustless Binding System on all unsurfaced hard standings (See WD External Site Dust Control Document attached)
- Topsoil will be stored in correctly formed bunds that will be seeded to prevent weeds and erosion. A maximum side slope of 1 in 2 (25°) will be achieved.
- Housekeeping, housekeeping, housekeeping. Removing dust risk at source and maintaining robust housekeeping. Sweep and pick-up dust (not to be left in piles to be kicked or blown by wind.
- Control of cutting or grinding of materials on site. Dust-generating machinery e.g., Disk cutters must be fitted with vacuums and water suppressions will be adopted.

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.

There will be an Environmental Plan and Environmental Risk Assessment developed in the pre-construction phase of the project that will identify measures that will protect both the workforce on site as well as neighbouring site occupiers including those in the nearest residential properties from dust or air quality nuisance. Weekly consideration of environmental risks associated with key construction activities, coupled to checks by a competent member of the team will ensure best practice and assurance of good environmental practice in relation dust emissions. The resultant daily records take due account of prevailing weather conditions and mitigation risk to all affected interests and will provide a regular and accountable system of monitoring and act as a trigger for remedial action as necessary.

It is considered that given the adoption of the mitigation measures detailed above that any potential effects from dust from construction works either to construction workers on site or to wider interests would be minimised to such an extent as to be insignificant.

5.3 Environmental Monitoring of Dust

All applicable environmental mitigation and control measures will be recorded through. Daily diary records and environmental weekly inspection. Site specific checks will be conducted in line with the above for both noise and dust controls. Monthly environmental inspections are undertaken by our environmental manager who also checks against all specific environmental controls and mitigation measures. Details of these records will be included in a Willmott Dixon internal audit recording system.

It is clear from these that all affected interests are monitored to ensure both construction workers as well as the wider residential neighbourhood are protected.

5.4 Waste Management

Waste is managed in the most efficient way by encouraging re-use and re-cycling on-site and maximising segregation. Rubbish will not be allowed to accumulate and cause a fire hazard; all waste will be collected from site in skips and/or wheelie bins. These shall be emptied regularly.

Though site waste management plans are no longer a legislative requirement, we continue to use them to help us create resource efficiency action plans for our construction projects.

We also have a Sustainable Development Strategy including targets for construction waste volumes. We upload our waste monitoring data onto the BRE SmartWaste portal, and we use the system to report the waste generated on the project, and the quantity diverted from landfill through recycling and recovery can be reported.

The site team will include a waste champion, and there will be a visiting Environmental Manager to audit and support operations and ensure procedures to minimise the environmental impact of operations. They also review the site's energy and water data.

Recycled content

We are working towards a 100% landfill diversion rate, so we recognise the need to 'close the loop' by specifying materials with higher recycled content, since this will support markets for the materials we and others send for recycling. This also helps to reduce the quantities of materials we send to landfill, and the amount of virgin materials we use.

Working with suppliers

We work with product suppliers to apply the waste hierarchy to the management of waste materials and encourage re-use ahead of recycling and recovery, for example making use of discarded furniture and the repair and repatriation of pallets. These initiatives are improving our management of waste and increasing diversion from landfill, as well as helping us reduce costs.

Where re-use is not possible, we work with suppliers to develop and identify take-back schemes, and we keep a comprehensive list of these for our site teams to use. The list and accompanying guidance help our design teams understand where 'closed loop' takeback schemes are available and gives our project teams an understanding of which products and materials they can send directly back to manufacturers. A suite of toolbox talks posters and guidance notes are available within our Environmental Management System.

Our SmartWaste portal allows us to identify waste streams that are still difficult to divert from landfill, and we work with manufacturers to trial alternatives and implement takeback schemes when no alternative has been identified.

Waste contractors

All our waste contractors must complete a pre-qualification questionnaire to assess that they meet our standards before they can become approved and listed within our Supply Chain System. This asks that they report their performance in accordance with PAS 402 (a specification for performance reporting for waste management organisations) in accordance with our Sustainable Procurement Policy. We carry out a detailed on-site audit on their premises, so we can be sure that they have the right segregation capabilities and can meet our data return requirements. We check their documentation for duty of care compliance and view working conditions for their employees.

6.0 Community Engagement

Willmott Dixon are committed to community engagement as part of this project and will work in conjunction with the Council's own community liaison team to sustain communications with neighbours and other affected parties. Willmott Dixon will install a site notice board on the hoarding to ensure regular communication with the local residents on the site's environmental performance. For communication purposes, newsletters advising on progress and up and coming activities will be distributed to our neighbours monthly.

Site contact details, including telephone numbers will be displayed on the hoardings, of all relevant site staff. This will be in addition to emergency contact details which will also be posted on the site hoardings.

Engagement with neighbours will be managed in a professional manner with the utmost courtesy with responses being dealt with promptly by the project lead. Any complaints received will be investigated and any findings communicated promptly to the individual concerned, and specific measures are being put in place to ensure that any environmental impacts on these neighbours (in relation to noise and dust emissions) are managed effectively.

The notification of neighbours regarding specific works

Willmott Dixon Construction recognise the importance of minimising the impact of our construction activities on the communities in which we operate. We follow a procedure of early and sustained community liaison to avoid causing nuisance to our neighbours and maintain a good relationship. Prior to us starting on site our Community Team along with our Project Manager Lead, has started to develop a Social Value Account, within the plan will be a nominated liaison person to engage with residents and to handle complaints.

First impressions of the project are considered from the outset in order to maintain a positive image of the company and the industry. Willmott Dixon Construction is an early founder of the Considerate Constructors Scheme (For which the Project will be registered), and we embody the ethos of constantly seeking to improve the image of the construction industry through respecting the community around us.

7.0 Site Environmental Protection

7.1 Biodiversity Net Gain

Willmott Dixon's environmental policy requires a Biodiversity Champion to be appointed within the on-site team.

The protection of trees and tree roots will be taken into consideration to ensure that trees are not damaged or otherwise adversely affected by the building operations. A method statement and tree protection plan will be produced and will be followed to manage the trees within the construction area.

Full and specific Project Environmental Plans will be developed and approved by Willmott Dixon's internal Environmental Manager.

We place a great deal of importance on the ecological aspects of the scheme and, following recommendations from the Preliminary Ecological Appraisal and other Protected Species Surveys, we are mitigating the following:

- Deterioration of habitats as a result of light spill – Minimise light spill in hours of darkness in accordance with ILE's Guidance Notes for the Reduction of Obtrusive Light
- Accidental damage to retained trees – Tree root protection
- Encroachment on bat community activity – Identification and awareness through induction and toolbox talks
- Impact on nesting birds –Avoid nesting season or employing a certified ecologist to survey the areas in question prior to removal.

A Biodiversity Net Gain Assessment has been completed. The baseline habitat units on site are 35.09 and hedgerow units are 1.03. The assessment currently shows that with the implementation of the habitats within the Post Development Habitat Plan, and achievement of the conditions as set out in the report, development proposals would result in a net loss of habitat units. This will be reviewed throughout the design development process, but the required 10% is currently unachievable on site, therefore offsite offset will be required

7.2 Managing Surface Water and Dewatering During Construction

Due to the high water table on site and the requirement for excavating to depths of around 3m for the swimming pool, a large volume of water will need to be dewatered. Options for pumping this water are currently being investigated and will be detailed ahead of commencing on site, with consideration for any necessary treatment, permits and licences.