



3G ARTIFICIAL TURF PITCH (3G ATP)
QUEEN ELIZABETH GRAMMAR SCHOOL
CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN

S23-054
AUGUST 2023



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DOCUMENT CONTROL

Project Title	3G Artificial Turf Pitch (3G ATP)
Document Title	Construction Environmental Management Plan
Client	Queen Elizabeth grammar school
Project Number	S23-054
Note	This report has been prepared for the sole benefit of our client for the purposes set out in this report and instructions commissioning it
Note	Plans included in statement not to be scaled
Note	Please refer to scaled plans included with application pack

REVISION HISTORY

Revision	Description	Issued By	Date	Status
.00	Planning Issue	JO	15 08 2023	For Approval

1 REQUIREMENT

This document presents a Construction Environmental Management Plan (hereinafter referred to as 'CEMP') for the Construction of 1nr (97m x 61m) LED Floodlit 3G Artificial Turf Pitch (3G ATP) with associated floodlighting, fencing and infrastructure located at:

Queen Elizabeth Grammar School,
West Street,
Horncastle,
Lincolnshire,
LN9 5AD

This CEMP outlines our commitment to environmental management throughout the construction phase with the primary aim of reducing any adverse impacts from construction works on local sensitive receptors and the surrounding environment.

The development site is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the development (the 3G ATP). This includes areas required for access, temporary construction, and temporary storage.

Several potential environmental effects arising during construction of this development have been identified through design development and development control processes and these are subsequently reported in the planning application supporting this project.

This CEMP establishes responsibilities concerning compliance with legislation and management measures to minimise environmental impact from the construction phase of the development.

This CEMP collates the identified mitigation measures and describes how construction activities will be controlled to avoid or minimise potential adverse environmental impacts.

This CEMP is intended to be a practical tool for tracking environmental mitigation and managing measures and is designed to address the potential environmental effects that could occur because of constructing the development. It is a **dynamic document**, which will be regularly updated and revised as the construction phase progresses.

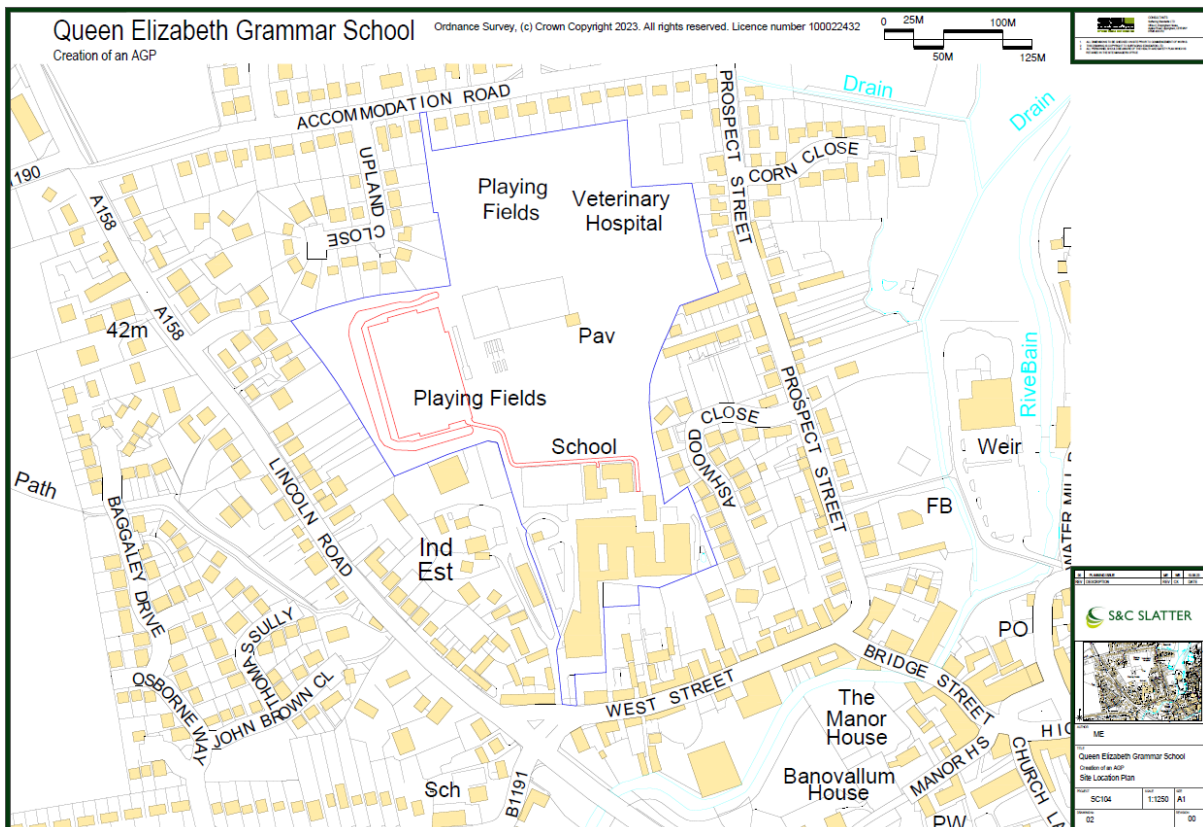
It will be reviewed as appropriate and approved versions of the document will become controlled documents, issued to members of the project team with a role or responsibility for environmental management.

This document should be read in conjunction with other plans prepared as reports in support of the construction phase for this project. These documents provide further information relating to the logistics of the demolition and construction activities, and how works will be undertaken during the demolition and construction phase whilst ensuring the safety and integrity of the local environment.

2 SITE CONTEXT

The proposed pitch location is in the west of Queen Elizabeth's Grammar School playing fields with a long jump along the eastern edge.

The school buildings are located in the south of the site (to the south east of the proposed pitch) with the playing fields to the north and north west. The playing fields extend further to the north east of the proposed pitch with a surfaced sports court, and some small buildings adjacent to the east of this, located centrally within the playing field adjacent to the north east corner of the proposed pitch.



3 ROLES AND RESPONSIBILITIES

The success of this CEMP will depend on its implementation, which will be achieved by good leadership, management, communication, and training.

Individuals responsible for commitments to this CEMP have been and will be involved in its preparation and, therefore, will be advocates for the process and measures included in this CEMP to be implemented.

An overview of S&C Slatter’s key roles and responsibilities is provided below:

DUTY / ROLE	KEY RESPONSIBILITIES
Managing Director	Responsible for the appointment and allocation of a Senior Contracts Manager and Health Safety Environmental Quality (HSEQT) Manager and holds overall responsibility for activities on-site and the implementation of this CEMP.
Senior Contracts Manager	The Senior Contracts Manager is responsible for directing the project construction phase and leads the responsibility on contractual appointments, including: <ul style="list-style-type: none"> - Checks that S&C Slatter has allocated sufficient resources to deliver the works in accordance with the requirements of this CEMP; - Assigns specific requirement / duties to competent members of the construction team; - Co-ordinates communication with key stakeholders and other third parties as required; and - Reviews the findings of the monitoring programme and directs the construction team and HSEQT Manager as required.
Contracts Supervisor	Responsible for the day-to-day management of construction activities on-site, ensuring that activities adhere to the actions set out in this CEMP, including: <ul style="list-style-type: none"> - Ensures that construction activities are carried out in compliance with this CEMP; - Checks the qualifications and competence of site workers / sub-contractors are appropriate for appointment; - Ensures that all site workers undertake environmental awareness training (including an induction for all site workers / sub-contractors to support the implementation of this CEMP) and are provided with sufficient supervision and instruction to fulfil this requirement; - Ensures that all site workers / sub-contractors allocated specific environmental responsibilities are notified during their appointment and confirms that their responsibilities are clearly understood; - Ensures that demolition and construction activities are undertaken in accordance with this CEMP;

	<ul style="list-style-type: none"> - Monitors the performance of site workers / sub-contractors and provides guidance as and when required; - With the HSEQT Manager, undertake a monthly audit of this CEMP; and - Undertake corrective actions in the event of non-compliances.
<p>Site Supervisor</p>	<p>Responsibilities of the Site Supervisor include, but are not limited to:</p> <ul style="list-style-type: none"> - Leads the practical construction activities of the development, including the day-to-day co-ordination of site workers / sub-contractors; - Co-ordinates with the Senior Contracts Manager and Contracts Supervisor the management of construction and demolition activities; - Implements all construction and demolition activities in accordance with this CEMP; - Liaises with the HSEQT Manager to ensure adequate resources are made available to undertake all works in accordance with this CEMP; - Ensures that the risk assessments for the control of substances hazardous to health regulations (COSHH), noise and environmental risks are prepared and effectively monitored, reviewed, and communicated on site; - Manages the preparation and implementation of method statement; - Ensures that the Senior Contracts Manager and HSEQT Manager review all method statements and that all relevant environmental protocols are implemented on site.
<p>Health Safety Environmental Quality (HSEQTT) Manager</p>	<p>The HSEQT Manager is responsible for the co-ordination, monitoring, and reporting of this CEMP, through liaison with the Senior Contracts Manager and other parties as appropriate and to ensure that the works are undertaken in accordance with the commitments provided in this CEMP.</p> <p>Responsibilities will include the following:</p> <ul style="list-style-type: none"> - Checks that this CEMP is audited and reported back to the client on a monthly basis; - Reviews this CEMP and other complementary plans and procedures to ensure they are compliant; - Monitors site worker / sub-contractor activities to ensure that all relevant legal consents, licences etc. are implemented prior to works commence, and that all mitigation requirements are adhered to; - Co-ordinates the technical and environmental specialists as part of the implementation of the monitoring schedule as required, to monitor and record the effects arising from demolition and construction activities; - Acts as the first point of contact for any environmental issues encountered during the construction phase; - Investigates all environmental incidents and ensures that they are recorded and reported, with corrective / preventative actions undertaken;

- Undertake the review of causes with the Senior Contracts Manager to prevent incidents recurring;
- Inputs into method statements and all environmental aspects of the project;
- Contributes to the communication on environmental matters between the Senior Contracts Manager and relevant consultees / stakeholders;
- Co-ordinates this CEMP review process;
- Ensures that the objectives of this CEMP are achieved and are not contrary to any relevant legal requirements.

All staff
(workforce /
site workers /
sub-
contractors)

All staff will have a pivotal role in implementing this CEMP and all staff have a duty to protect the environment from unnecessary damage.

All staff responsibilities include but are not limited to:

- Works in accordance with approved plans, method statements and procedures specified with this CEMP to minimise environmental impacts;
- Understands the importance of avoiding pollution on-site, including noise and dust, and how to act in response to an incident event;
- Reports all incidents immediately to their manager;
- Monitors the workplace for potential environmental risks and alerts their manager if any are observed.

4 ENVIRONMENTAL MANAGEMENT AND MITIGATION PLAN

The final section of this CEMP presents the environmental mitigation and management measures relating to the construction of the development.

It also details the monitoring strategy proposed and the responsible party.

The following management and mitigation plans are proportionate to the development and the complexity of demolition and construction activities, concerning:

TABLE 1	GEOLOGY, SOILS AND GROUNDWATER
TABLE 2	SURFACE WATER
TABLE 3	FLOOD RISK
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TABLE 5	AIR QUALITY
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TABLE 7	TRAFFIC AND TRANSPORT

5 ENVIRONMENTAL INCIDENT RESPONSE

In the event of an environmental incident, leak or spillage being discovered; we must:

ASSESS risks to personnel.

STOP the pollution at its source wherever possible. Spillages will not be washed into the ground or drains.

Use spill kits to **CONTAIN** the spillage and prevent it from entering surface or groundwater.

NOTIFY relevant parties. When notifying the relevant person, we must state clearly:

Name;

Organisation;

Site;

Description of the incident and its location;

Date and time;

Any injuries or harm to human health as a result of the incident; and

Any immediate actions taken to mitigate the causes of the incident.

CLASSIFY the significance of the incident.

CLEAN-UP / REMEDIATE the incident using appropriate spill kit and other equipment and personal protective clothing, as necessary. If necessary, this can include the use of a specialist spillage response contractor. Remedial actions to control and mitigate the incident shall be put in place. These will include actions to reduce the impact, damage, harm, and risk.

DISPOSE of contaminated absorbents and/or contaminated soils/waters as hazardous waste in accordance with waste management procedures.

INVESTIGATE AND REPORT on the nature, scale, and extent of the incident, together with emergency response actions taken and recommended corrective actions to prevent recurrence. Any consequent learning's following the incident will be managed in accordance with our continuous improvement procedures.

6 ENVIRONMENTAL INCIDENT REPORTING AND INVESTIGATION

In the event of an incident of an environmental nature, staff and sub-contractors must immediately notify their Manager in accordance with defined S&C Slatter procedures for managing non-conformances.

For environmental incidents, the staff and sub-contractors should complete an issue and an appropriate report within 24 hours of the incident taking place.

In the event that a substance has entered a drain, soaked into the ground, or been released to the atmosphere or ground in breach of permit conditions; or an unexpected discovery made of protected species, habitats, work in that location will cease as soon as it is safe to do so.

The incident will be reported immediately to the appointed HSEQT Manager, Senior Contracts Manager and Site Supervisor; who will consult with the relevant stakeholders on the appropriate course of action, including advice on further remediation and the need and responsibility for notifying the following regulatory bodies:

The Environment Agency: in the event of a pollution incident impacting upon water, land, or air.

Natural England: in the event of the identification and disturbance to a suspected protected species of animal, plant, or habitat.

The Local Authority: in the event of a significant uncontrolled release of pollution to air, ground and/or water and which have impacted upon third party receptors.

Emergency services will also be notified as appropriate to the nature and scale of the environmental incident.

7 ENVIRONMENTAL INCIDENT RESPONSE TRAINING

All site personnel must be provided with appropriate induction and ongoing training on the environmental impact of the work they are carrying out, including the necessary procedures for preventing and responding to a potential environmental incident.

Where appropriate to the contract, staff should be trained in environmental incident planning and response, including:

- Briefings on the procedures and incident plans that are in place at the site;
- Participation in emergency drills;
- Participation in post-incident investigations;
- Training in the use of pollution incident response equipment;
- 'Toolbox' talks.

Evidence of such training should be available for inspection in the form of completed test plans, training records of staff and completed post-incident investigation reports.

8 AUDITING AND REPORTING

Compliance with the requirements of this CEMP and statutory legislation will be monitored through routine inspections and audits.

- Periodic Checks – The environmental incident prevention arrangements will be inspected periodically to identify and address deterioration or inadequacies in the arrangements;
- Monthly Reporting – Performance in implementing practices and the occurrence of real incidents will be reported monthly to S&C Slatter, together with the lessons learned for incident prevention and control; and
- Periodic Audit – On a periodic basis, S&C Slatter will undertake an internal audit to monitor compliance with the requirements of this CEMP.

9 CONCLUSIONS

This CEMP provides a comprehensive list of mitigation measures and monitoring procedures for the construction phase of the development to create a 3G Artificial Turf Pitch (3G ATP) at Queen Elizabeth Grammar School.

At this stage, it includes mitigation measures committed to because of design development and development control processes; however, it is a **dynamic document**, which will be regularly updated and revised as the construction phase progresses.

As part of the monitoring process, the appointed HSEQT Manager, Senior Contracts Manager and Site Supervisor will be present on-site during key demolition and construction activities.

S&C Slatter's appointed Sports Construction Team will observe site activities and update this CEMP as and when necessary.

Project stakeholders will be informed of any deviations from this CEMP as soon as possible following identification of such issues and the Environmental Site Officer will act on any deviations as appropriate.

A brief report will be produced and submitted to relevant stakeholders at the end of each month during the construction phase and following completion monitoring programmes.

This report may take the form of a short memorandum, letter or e-mail and shall summarise the monitoring process, any observed deviations from this CEMP and the corrective actions taken.

TABLE 1 GEOLOGY, SOILS AND GROUNDWATER

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effect on existing offsite receptors and nearby properties from an increase in dust generated by on-site activities	<p>All construction works will be carried out in accordance with best practice and the Health and Safety at Work Act 1974 which provides guidance to minimise risks to site operatives, adjacent land users and the environment.</p> <p>Fuel storage on-site to be carried out under best practice i.e. integrally banded containers. Plant refuelling and maintenance to be carried out in designated areas using best practice techniques and any spills to be controlled with a spill kit.</p> <p>Use of water sprays to moisten construction material to prevent any potentially contaminated material from becoming airborne. This will only be undertaken where the site drainage is contained and where any contaminated runoff can be removed.</p> <p>Wheel wash facilities for site vehicles will be implemented on site to minimise the potential for contaminated material generated during construction activities being 'tracked out' onto public roads and potentially impacting on adjacent site users or local residents.</p> <p>The potential presence of contaminants and their associated risks will be detailed in toolbox talks which will be provided to all site staff during their site induction.</p> <p>Any potentially contaminated materials stored on site will be covered where possible.</p> <p>Road sweepers will be available as required to clean any track-out of material onto local roads.</p>	<p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>HSEQT Manager</p> <p>Senior Contracts Manager</p> <p>Site Supervisor</p> <p>All staff</p>
Potential effect upon construction workers from the potential exposure / activation of unexploded ordnance	<p>A preliminary desk top study was carried out, and based on the information available, the site is in an area considered to have a low risk of encountering Unexploded Ordnance UXO. No further surveys are required.</p>	<p>During key clearance and construction activities.</p>	<p>HSEQT Manager</p> <p>Senior Contracts Manager</p> <p>Site Supervisor</p> <p>All staff</p>
Potential effects upon construction workers from exposure to potentially contaminated soil and groundwater	<p>All construction works will be carried out in accordance with best practice and the Health and Safety at Work Act 1974 which provides guidance to minimise risks to site operatives, adjacent land users and the environment.</p> <p>Construction workers will wear personal protective equipment (PPE) such as gloves and face masks (where appropriate), and if necessary, disposable overalls to prevent dermal contact and the inhalation or ingestion of contaminated material. Standard hygiene measures will be taken by site workers (e.g., hand washing and only eating in designated areas).</p> <p>The presence of contaminants and the associated risks will be explained to ground workers before they</p>	<p>S&C Slatter will prepare a Health and Safety (H&S) Plan outlining the appropriate PPE to be worn.</p> <p>Toolbox talks / site inductions provided to all site workers.</p>	<p>HSEQT Manager</p> <p>Senior Contracts Manager</p> <p>Site Supervisor</p> <p>All staff</p>

	begin work in toolbox talks and during the site induction.		
Potential effect from contaminated land and materials	<p><u>Land</u></p> <p>If contaminated land is found at any time during the construction phase, the following measures will be completed:</p> <p>A. Immediately report in writing immediately to the Local Planning Authority;</p> <p>B. Characterise the soil contaminant;</p> <p>C. Conceive and submit a remediation scheme;</p> <p>D. Implement the approved remediation scheme;</p> <p>E. Prepare a submit a verification report to the Local Planning Authority for approval; and</p> <p>F. Implement any necessary monitoring and maintenance works.</p> <p><u>Imported fill materials</u></p> <p>Where it is necessary to import fill or engineering fill materials to site for either permanent or temporary works from recycled or reused sources, these shall have been produced in compliance with:</p> <p>BS EN 13285:2018 Unbound mixtures. Specifications.</p> <p>Prior to accepting delivery of the first consignment of approved materials, S&C Slatter will undertake visual inspections and / or physical sampling and chemical analysis (as necessary) of fill materials imported to site to ensure compliance with specification, including an assessment of any non-compliant constituents.</p> <p>Materials failing to meet the agreed specification on either engineering or contamination grounds will be quarantined onsite and returned to the supplier, subject to any health and safety or waste management requirements.</p>	<p>During key demolition and construction activities.</p> <p>If contaminated land is found, the Senior Contracts Manager will commission a suitably qualified organisation to undertake the ground investigation and prepare / implement a remediation strategy (if required).</p>	<p>HSEQT Manager</p> <p>Senior Contracts Manager</p> <p>Site Supervisor</p> <p>All staff</p>
Potential effect on aquifers from an increase in infiltration and leaching of potential contaminants	<p>Fuel storage on-site will be carried out in accordance with best practice i.e., integrally bunded containers.</p> <p>Plant refuelling and maintenance will be carried out in designated areas using best practice techniques and any spillages will be controlled with a spill kit.</p> <p>Guidance detailed in 'UK Water Industry Research (UKWIR): Risk Assessment for Water Pipes in Land Potentially Affected by Contamination' will be implemented (if contamination is identified) and appropriately protective pipes will be used.</p> <p>Trenches will be backfilled with clean imported material (if required).</p> <p>Imported materials and reused materials will be suitable for use in the development and subject to the required chemical analysis.</p>	<p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>Site Supervisor</p> <p>All staff</p>
Potential effect on surface water	<p>Refuelling of plant to take place off site if possible or only in a designated area at the site compound.</p> <p>Fuel storage on-site to be carried out under best practice. Fuel and other potentially polluting</p>	<p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>Site Supervisor</p> <p>All staff</p>

chemicals will either be in self-bunded containers, or will be stored in a secure, impermeable, covered and bunded area.

All fixed plant used on site to be fitted with integral bunding.

Plant refuelling and maintenance will be carried out using best practice techniques and any spills will be controlled using spill kits available on the site.

An Emergency Response Plan will be prepared and included in the detailed Construction Method Statement.

Spill kits and oil absorbent material is to be carried by mobile plant and located at high-risk locations on site.

Construction workers will receive spill response training.

Appropriate spillage management measures and disposal of any waste at a suitably licenced facility will be implemented.

TABLE 2 SURFACE WATER

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effects of surface water runoff contaminated with fine particulates as a result of construction works on-site	<p>Construction of the development will be in accordance with best practice as set out in the following guidance documents:</p> <p>BS6031:2009 Code of Practice for Earth Works (2009)</p> <p>Manual of Contract Documents for Highway Works Volume 1 - Specification for Highway Works Series 600 Earthworks</p> <p>Construction Industry Research and Information Association (CIRIA) reports:</p> <p>CIRIA Report 697 (2007) The SuDS Manual</p> <p>CIRIA Report 648 (2006) Control of Water Pollution from Linear Construction Projects – Technical Guidance</p> <p>CIRIA Report 650 (2005) Environmental Good Practice on Site</p> <p>CIRIA Report 532 (2001) Control of Water Pollution from Construction Sites</p> <p>Environment Agency (2013) Pollution Prevention Pays in England and Wales</p> <p>Environment Agency Regulatory Position Statement: Temporary Water Discharges from Excavations (2015)</p> <p>Environment Agency Pollution Prevention Guidelines (PPGs), the most relevant of which being:</p>	<p>During key demolition and construction activities.</p> <p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>Site Supervisor</p> <p>All staff</p>

PPG 1 - General Guide to the Prevention of Pollution (May 2001)

PPG 2 - Above Ground Oil Storage Tanks (August 2011) (

PPG 3 - Use and Design of Oil Separators in Surface Water Drainage Systems (April 2006)

PPG 6 - Working at Construction and Demolition Sites (March 2012)

PPG 7 - Refuelling Facilities (August 2004)

PPG 8 - Safe Storage and Disposal of Used Oils (February 2004)

PPG 13 - Vehicle Washing and Cleaning (July 2007)

PPG 18 - Managing Fire Water and Major Spillages (June 2000)

PPG 21 - Pollution Incidence Response Planning (March 2009)

PPG 22 - Dealing with Spills (April 2011) 2000)

Potential for groundwater within the superficial sand and gravel deposits although not anticipated to be shallow.

A temporary drainage system will be developed to prevent runoff contaminated with fine particulates from entering surface water drains onsite where these are not affected by earthworks, as necessary. Measures will include drain covers, sandbags, earth bunds, silt fences, grips, pumps, straw bales, or proprietary treatment.

Should water not be of a standard suitable for discharge to the combined sewers or to ground, it will be pumped into bowsers and taken off site for appropriate disposal at a suitably licensed facility.

If topsoil or subsoil is to be stockpiled for longer than a two-week period, material will be covered with geotextile mats. Should material be uncovered (present for less than two weeks) and there is indication of heavy rainfall, necessary measures will be implemented to manage any fine particulate laden runoff that is generated.

Mud deposits will be controlled at entry and exits to the site using wheel washing facilities and / or road sweepers.

Tools and plant will be washed out and cleaned in designated areas within the site compound where runoff can be isolated for treatment before discharge to ground or surface water drainage under appropriate consent and / or agreement with Environment Agency and / or LLFA as appropriate.

Debris and other material will be prevented from entering surface water drainage through maintenance of a clean and tidy site, provision of

	clearly labelled waste receptacles, grid covers and the presence of site security fencing.		
	When undertaking earth moving works, periods of wet weather will be avoided, if possible, to minimise the risk of generating runoff contaminated with fine particulates.		
Potential effect on water courses from spillages from redundant pipework / infrastructure, construction site welfare facilities	<p>There are no obvious ditches/drains surrounding the site with the nearest surface water feature the River Bain, located approximately 300m south and 500m east from the site.</p> <p>The site is to be secure to prevent any vandalism that could lead to a pollution incident.</p> <p>Construction waste / debris will be prevented from entering any surface water drains.</p> <p>Surface water drains on roads, or the compound area will be identified and where there is a risk that fine particulates or spillages could enter them, they will be protected (e.g. covers or sandbags).</p> <p>Concrete wash water will be adequately contained, prevented from entering any drain, and removed from site for appropriate disposal at a suitably licenced waste facility.</p> <p>In addition, any site welfare facilities will be appropriately managed, and all foul waste disposed of by an appropriate contractor to a suitably licenced facility.</p> <p>Any liquids exposed and / or spilt from redundant pipework / infrastructure will also be disposed of at a suitably licenced facility.</p>	<p>During key demolition and construction activities.</p> <p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>Site Supervisor</p> <p>HSEQT Manager</p> <p>All staff</p>

TABLE 3 FLOOD RISK

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effects on buildings and infrastructure (onsite and downstream of the site) from flood risk	<p>According to the governments flood risk map for planning the site is located within flood zone 1, indicating a low risk from flooding and indicating that a Flood Risk Assessment is not required in this instance.</p> <p>Low risk of surface water flooding recorded in the east of the proposed artificial pitch.</p> <p>Where appropriate, this detailed Construction Method Statement (CMS) will take account of best practice guidance such as:</p> <p>BS6031:2009 Code of Practice for Earth Works</p> <p>Manual of Contract Documents for Highway Works Volume 1 - Specification for Highway Works Series 600 Earthworks</p> <p>Construction Industry Research and Information Association (CIRIA) Reports, most notably:</p>	<p>During key demolition and construction activities.</p> <p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p>	<p>Site Supervisor</p> <p>All staff</p>

C697 The SuDS Manual (2007) (specifically Chapter 21 covering construction)

C692 Environmental Good Practice on Site (2010)

C648 Control of Water Pollution from Linear Construction Projects – Technical Guidance (2006)

C532 Control of Water Pollution from Construction Sites (2001)

Environment Agency Pollution Prevention Pays in England and Wales (2013)

Environment Agency Regulatory Position Statement: Temporary Water Discharges from Excavations (2015)

PPG 3 - Use and Design of Oil Separators in Surface Water Drainage Systems (April 2006)

PPG 6 - Working at Construction and Demolition Sites (March 2012)

Appropriate temporary construction site drainage measures will be installed to control water on-site as necessary.

Attenuation measures will be put in place during construction to ensure that the runoff from site is not increased.

A temporary drainage system will be developed for the site to ensure that this is met. The temporary drainage systems and systems of work will also take account of the potential for overland flow from outside of the site to cause flooding on site.

The temporary drainage system will use drain covers and sandbags to prevent site runoff entering any existing drains on the site where these are not affected by earthworks.

Silt fences, earth bunds, grips, and pumps will be used to contain, intercept, and convey runoff from across the site to dedicated areas for storage.

TABLE 4 ECOLOGY AND BIODIVERSITY

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effects on habitats and species within the site and adjacent to the site and species moving through the site during the demolition and construction works	Areas will be dampened down during demolition and construction activities as required to assist with preventing dust pollution (<u>detailed mitigation measures are set out in TABLE 5 Air Quality below</u>). Water-assisted dust sweeper(s) will be used on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being in frequent use.	During key demolition and construction activities. Daily inspections of activities. Corrective action where necessary.	Site Supervisor All staff
Potential effect from the degradation of habitats through air borne pollution during construction via construction /	Activities that may affect air quality or generate dust will be located away from sensitive ecological features whenever possible.	Maintain a watching brief for the presence of ecological and biodiversity receptors.	

<p>earthworks / demolition / tracking out.</p> <p>Potential effect from changes in air quality, resulting in habitat degradation due to nutrient deposition from exhaust emissions from on-site plant and vehicles (NOx).</p> <p>Potential effect on trees during the demolition and construction works</p>	<p>Dust screening and noise barriers installed to reduce effects upon the public would also reduce any temporary effects on breeding birds on and off site and change in habitat quality (<u>detailed mitigation measures can be found in TABLE 5 Air Quality below</u>).</p> <p>Noise related mitigation will include, but not be limited to, the avoidance of the unnecessary use of engines; use of rubber linings in, for example, chutes and dumpers; and screening will be used as appropriate. (<u>TABLE 6 Noise and Vibration below provides more detailed mitigation.</u>)</p> <p>If vehicles are left standing at the construction site for significant periods of time, their engines will be turned off.</p> <p>Appropriate pollution prevention measures will be implemented where necessary to minimise pollution risk.</p> <p>Oils and hazardous waste (if applicable) will be stored appropriately to minimise pollution risk including compulsory use of bunded fuel browsers, drip trays and spill kits on site.</p> <p>Lighting during construction is to be minimised at the site compound(s) and in the works area in order to avoid affecting bats and birds. If lighting is required, it is to be low level and hooded and not illuminate vegetation.</p> <p>All holes / trenches / excavations left open overnight are to be covered, where feasible, or if this is not possible an escape route must be provided e.g. sloping one side of an excavation to allow any animals to exit or provision of a ramp.</p> <p>Contractors will be briefed of the construction zone boundary and its importance and will not be permitted to go beyond this.</p> <p>Reasonable Avoidance Measures (RAMs) will be produced and supplied to contractors. This will describe best practice measures and inform contractors what they should do in the event that ecology and biodiversity are encountered during demolition and construction works.</p>	
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<p>Measures to protect specific Species</p>	<p>The ecological evaluation has shown that the site has minimal ecological value. Post Wood is the only area of importance for wildlife and the flood lighting could have an impact on sensitive species, in particular bats as dusk is when they start to forage and this needs to be taken into account. However, the design of the lighting to contain the maximum reflection.</p> <p><u>Amphibians</u></p> <p>Although the likelihood of harming amphibians during the works is considered to be very low, site workers should remain vigilant at all times and contact RPS – the ecological consultant – for advice should any amphibian be encountered during the works.</p>	<p>Awareness briefings / site inductions provided to all site workers.</p> <p>Signage / posters / information displayed in site compound / site office.</p> <p>Careful scheduling of any habitat clearance.</p> <p>Specialist ecologist support if necessary.</p> <p>Daily inspections of activities.</p> <p>Site Supervisor</p> <p>All staff</p> <p>(Potentially) ecologist</p>
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Any excavations should be ramped up or covered overnight and checked each morning for animals.

Reptiles

As no scrub or tall ruderal vegetation is to be removed, the likelihood of encountering reptiles during the works is very low.

However, site workers should remain vigilant at all times and contact RPS – the ecological consultant – for advice should any reptile be encountered during the works. Any excavations should be ramped up or covered overnight and checked each morning for animals.

Bats

It is recommended that no night work is undertaken during construction in order to prevent disruption to foraging and commuting bats that may be utilising the site.

Badger

No evidence to suggest badger activity on site. However, there is potential to harm commuting or foraging badgers during construction, and the following precautionary measures are therefore recommended:

any open deep excavations should be sloped to prevent entrapment;

any hazardous materials should be stored in a secure store.

If at any time prior to or during the works, a badger or badger sett is noted on site, RPS – the ecological consultant – should be contacted immediately to provide further advice.

Birds

The scheme does not directly affect the boundary trees but the construction of the proposed acoustic bund could affect the roots of these.

Suitable tree protection and root protection will be in place to avoid any damage to the existing treeline.

Work should be avoided, near the trees, in the breeding season (March-August), if the installation is proposed to take place over this period.

Birds also probably use the school grounds. As the scheme does not directly affect the vegetation of Post Wood it should therefore not be detrimental to working in the breeding season (March-August), if the installation is proposed to take place over this period.

It has been established no wildfire are probably currently using the school grounds. Therefore, the proposal will have no effect on overall biodiversity. However as the work is close to the adjacent proposed housing site, wildlife may move between these areas towards other habitats. On the

Contingency arrangement/s within construction programme if any reptile and amphibian relocation is necessary.

	<p>precautionary principle it is proposed that the following Precautionary Working Method Statement (PWMS) should be followed to ensure wildlife is not affected by the construction works.</p>		
Arboriculture	<p>No trees need to be removed to facilitate the development.</p> <p>Any trees / vegetation close to the construction zone (within the development site) are to be protected in line with BS5837:2012 Trees in Relation to Construction. Root Protection Areas (RPAs) will be fenced where it is safe to do so, and works traffic will avoid these areas, preventing tree damage and unnecessary loss.</p> <p>TREE PROTECTION FENCING (TPF):</p> <p>TPF to be in place as per the Tree constraints drawing. Protective fencing shall consist of a scaffold framework in accordance with figure 3 of British Standard 5837 (2012).</p> <p>Works will be undertaken in accordance with the Tree Protection Plan ref: AEL – 18491 – TPP.</p> <p>Excavation works that take place adjacent to construction exclusion zones, or Category A trees must be undertaken by hand, and under arboricultural supervision.</p>	<p>Daily inspections of activities.</p> <p>Corrective action where necessary.</p> <p>Specialist arboriculture support where necessary.</p>	<p>Site Supervisor</p> <p>All staff</p> <p>(Potentially) arboriculturist</p>

TABLE 5 AIR QUALITY

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
<p>Potential effects to residential receptors surrounding the development from emissions from demolition and construction activities at the site, construction traffic and non-road mobile machinery (NRMM).</p>	<p><u>General communication</u></p> <p>A stakeholder communications plan (that includes community engagement before work commences on-site) will be developed and implemented.</p> <p>The name and contact details of person(s) accountable for air quality and dust issues will be displayed on the site boundary.</p> <p>This may be HSEQT Manager, Senior Contracts Manager or Site Supervisor.</p> <p>S&C Slatter's head office contact information will also be displayed.</p> <p><u>Site management and monitoring</u></p> <p>All dust and air quality complaints will be recorded, and causes identified. Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence.</p> <p>Any exceptional incidents that cause dust and / or air emissions (either on or off-site) will be recorded, and the action taken to resolve the situation recorded.</p> <p><u>Preparing and maintaining the site</u></p>	<p>An accountable person will be appointed for the duration of the site works and will be available on-site to deal with any nuisance complaints.</p> <p>During key demolition and construction activities.</p> <p>Daily inspections of activities.</p> <p>This will also check for any dust tracking on local roads and visual dust plumes, which may require remedial action.</p> <p>All dust and air quality complaints will be recorded, and causes identified.</p> <p>Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any</p>	<p>HSEQT Manager</p> <p>Senior Contracts Manager</p> <p>Site Supervisor</p> <p>All staff</p>

Where practicable, solid screens or barriers will be erected around dusty activities or the site boundary that are at least as high as any stockpiles on site.

Where practicable, site or specific operations (where there is a high potential for dust production and the site is active for an extensive period) will be fully enclosed.

Where practicable, site runoff of water or mud will be avoided.

Site fencing, barriers and scaffolding will be kept clean using wet methods.

Where practicable, seed or fence stockpiles will be covered to prevent wind whipping.

Vehicle operation, NRMM and sustainable travel

The use of diesel- or petrol-powered generators will be avoided, and use will be made of mains electricity or battery powered equipment where practicable.

A maximum-speed-limit of 5mph will be imposed on all haul roads and work areas.

A Construction Logistics Plan (CLP) will be produced to manage the sustainable delivery of goods and materials.

General operations

Only cutting, grinding, or sawing equipment fitted with (or in conjunction with) suitable dust suppression techniques such as water sprays or local extraction will be used, e.g. suitable local exhaust ventilation systems.

Only enclosed chutes will be used, and skips will be covered.

Minimise drop heights from loading shovels, hoppers and other loading or handling equipment and use of fine water sprays on such equipment wherever appropriate.

Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Measures specific to earthworks

Hessian, mulches or trackifiers will be used where it is not possible to re-vegetate or cover with topsoil, as soon as practicable.

Where practicable, only the cover in small areas will be removed during work and not all at once.

Stockpile surface areas will be minimised to reduce the area of surfaces exposed to wind pick-up.

Where practicable, windbreak netting / screening will be positioned around material stockpiles and vehicle loading / unloading areas, as well as

additional measures put in-place to avoid reoccurrence.

Any exceptional incidents that cause dust and / or air emissions (either on or off-site) will be recorded, and the action taken to resolve the situation recorded.

exposed excavation and material handling operations, to provide a physical barrier between the site and the surroundings.

Where practicable, stockpiles of soils and materials will be located as far as possible from sensitive properties, taking account of the prevailing wind direction.

Measures specific to construction

Scabbling (roughening of concrete surfaces) will be avoided, if possible.

Bulk cement and other fine powder materials will be delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent the escape of material and overfilling during delivery.

For smaller supplies of fine powder materials, bags will be sealed after use and stored appropriately to prevent dust.

All construction plant and equipment will be maintained in good working order and not left running when not in use.

Measures specific to track-out

Water-assisted dust sweeper(s) will be used on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being in frequent use.

Vehicles entering and leaving sites will be covered to prevent the escape of materials during transport.

On-site haul routes will be inspected for integrity and necessary repairs to the surface will be instigated as soon as reasonably practicable. All inspections of haul routes and any subsequent action will be recorded.

A wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable) will be implemented.

Measures specific to off-site emissions

To minimise the impact of construction traffic, all construction vehicles will be Euro VI (6) compliant.

TABLE 6 NOISE AND VIBRATION

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effects on noise sensitive receptors during construction activities	Risk Assessment Method Statements (RAMS) will be scrutinised and authorised before work commences to ensure the requirements noise and vibration statutory nuisance are controlled under the Environmental Protection Act 1990 are understood and factored into working methods.	An accountable person will be appointed for the duration of the site works and will be available on-site to deal with any nuisance complaints.	HSEQT Manager Senior Contracts Manager Site Supervisor

<p>Construction works on the site will commence and finish at the following times:</p> <ul style="list-style-type: none"> Monday to Friday 08:00 – 18:00. Saturday 08:00 – 13:00; and, No Sunday, bank holiday or public holiday working. <p>The hours of operation of some plant items will possibly be limited (e.g. a two hours on / two hours off approach).</p> <p>Where necessary and feasible, temporary noise barriers will be positioned around noisy plant items or work areas, to reduce noise levels at the adjacent noise-sensitive receptors.</p> <p>Where reasonably practicable, low vibration working methods will be employed.</p> <p>Plant will be carefully selected to minimise the potential for vibration.</p> <p>As far as possible, vibration will be controlled at source and the spread of vibration will be limited.</p> <p>Where reasonably practicable, plant and / or methods of working likely to cause significant levels of vibration at sensitive receptors will be replaced by other less intrusive plant and / or methods of working.</p> <p>Any equipment that generates significant vibration will be, if possible, selected in terms of its vibration output characteristics. Preference will be given to equipment that generates vibration outside the 10-40 Hz frequency range.</p> <p>No amplified sound shall be generated at any time within the site or at any time in the course of carrying out any phase of works for the development. This constraint shall not apply in the event of emergencies or emergency drills to the extent necessary to deal with an emergency or drill, or other health and safety requirements. This constraint will also not apply to the amplified noise generated by construction plant as a reversing alarm.</p> <p>Electrical items of plant will be used instead of diesel plant where possible particularly in sensitive locations.</p> <p>Plant will be started up sequentially rather than simultaneously.</p> <p>Internal haul roads will be well maintained and avoid steep gradients where possible.</p> <p>Loading/unloading activities will be located away from residential properties and shielded from those properties where practicable.</p> <p>Drop heights of materials will be minimised.</p> <p>Continuous noisy plant will be housed in acoustic enclosures, where practicable.</p>	<p>During key demolition and construction activities and act on any deviations from this CEMP.</p> <p>Daily inspections of activities.</p> <p>Appropriate remedial action will be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence.</p> <p>Any exceptional incidents that cause noise and / or vibrations (either on or off-site) will be recorded, and the action taken to resolve the situation recorded.</p>	<p>All staff</p>
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Effective exhaust silencing and plant muffling equipment will be fitted and maintained in good working order.

Static plant known to generate significant levels of vibration will be fitted with vibration dampening features.

Equipment will be well maintained and where possible will be used in the mode of operation that minimises noise.

Plant and equipment will be shut down when not in use.

Semi-static equipment will be sited and orientated as far as is reasonably practicable away from occupied buildings and, where feasible, will be fitted with suitable enclosures.

Mobile construction plant will be located, as far as is reasonably practicable, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings to provide additional screening from sensitive noise receptors.

Materials will be handled in a manner that minimises noise.

Vehicles will not wait or queue on the public highway with engines idling.

Reversing alarms will incorporate one of the following features where practicable – directional sounders, broadband signals, self-adjusting sounders, or flashing warning lights. Alternative comparable systems may be used to minimise noise and nuisance from reversing alarms.

TABLE 7 TRAFFIC AND TRANSPORT

Potential Effect	Management / Mitigation Measure	Monitoring Requirement	Responsibility
Potential effect on the highway network and pedestrians from the movement of demolition and construction related traffic	A Construction Logistics Plan (CLP) will be implemented for this contract to provide detailed guidance how the proposed construction activities and associated transport requirements will be organised and managed.	During key demolition and construction activities and act on any deviations from this CEMP.	HSEQT Manager Senior Contracts Manager
	The CLP will contain measures such as (but not limited to):	Daily inspections of activities.	Site Supervisor All staff
	Local residents will be consulted regarding the management of construction and traffic.		
	Access routes to and from the site by heavy goods vehicles (HGVs) will be agreed with the local planning authority prior to works commence, with the strategic road network being used as far as possible.		
	The site entrance will be maintained and kept clean and clear. Water-assisted dust sweeper(s) will operate when required to ensure no mud is left on the highway network as a direct result of the works.		

Excavated material is to be retained on site and repurposed into landscaped bunds, reducing vehicle movements to and from the site.

Loading / unloading of materials and equipment will occur within the site boundary and no unloading of vehicles will take place on the surrounding road.

All deliveries will be pre arranged, with a set arrival / departure time, to prevent several vehicles arriving at the site simultaneously.

The system will manage circumstances such as vehicles being delayed on route and arriving after the allotted time.

In the event of an unplanned situation occurring on-site, an agreed contingency plan will be implemented, such as using the haul road to temporarily stack vehicles or delaying the arrival of a delivery by using the off-site designated temporary parking facility or ultimately cancelling a number of deliveries and rescheduling them.

Car parking for staff or operatives will be provided on-site, vehicles will be prohibited from parking on the surrounding roads.

Workers will be encouraged to use sustainable modes of transport including public transport, cycling or on foot whenever possible.

Wheel wash and jet wash facilities will be utilised throughout the various stages of the project. These facilities will be set up in the construction compound.

A 2m high fence will be installed to the perimeter of the work site to segregate the works from the adjacent land and to deter unauthorised access.

Safety notices will be erected on a frequent basis to notify pedestrians of the construction work. This signage will be both written and visual images to convey the dangers associated with construction sites.

The construction site will be monitored time-lapse video.

All project vehicles, including off-road vehicles, will hold current MOT certificates, where applicable and where required due to the age of the vehicle and that they will comply with exhaust emission regulations for their class.

The site compound will be secure from third party access. When compounds are not in active use (out of core hours), materials stores, and plant will be locked to prevent unauthorised use which could cause a pollution incident.

Mobile plant parked overnight within the site will also be locked to prevent unauthorised use.

S&C Slatter will work with the key authorities and stakeholders to ensure effective co-ordination with other developments as required, together with

comprehensive delivery and monitoring of construction activity.

A turning circle will be provided within the footprint of the site to ensure all vehicles exit the site in forward gear only.

Other methods to optimize deliveries and to reduce their impact on traffic and congestion include:

- Consolidating deliveries whenever possible
- Not accepting part loads unless essential
- Issuing notices to sub-contractors and delivery companies stipulating that deliveries that have not been booked in advance or happen outside agreed delivery slots may be turned back and re-scheduled.
- Following the “just in time delivery” principle for deliveries. This avoids congestion by ensuring that plant, machinery, and materials are not stored on site before they are required for the building works.

End of document.



S&C SLATTER

CONSTRUCTED WITH INTEGRITY

