

BLACKHORSE PLACE LTD

PROJECT CONSTRUCTION & ENVIRONMENTAL PLAN

PROJECT:	THE PADDOCK Construction of 3 Detached Houses with access road and landscaping
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PROJECT No:	1001
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INTRODUCTION

This Project Environmental Plan details the approach and actions we will be undertaking to manage the Environmental aspects on this project.

In section 3, we have reviewed all the construction work we will be undertaking in relation to their Environmental aspects. Resulting from this a number of specific action notes have been developed, which will be managed through the Environmental Management System.

1.0 PROJECT DETAILS

Project Title - **The Paddock**

Location – **Blackhorse Place Mangotsfield Bristol**

Client – **Blackhorse Place Ltd**

Site Manager - Mr **Richard Baker** -

Commencement Date – **TBC**

Completion Date - **TBC**

2.0 PROJECT DESCRIPTION

The Construction of 3 detached Houses, one 3 Bedroom and two 4 Bedroom along with access road, parking and Landscaping Scheme

3.0 PROJECT ENVIRONMENTAL ASPECTS AND IMPACTS

We have identified the following environmental issues which will be addressed within this Project Environmental Plan.

- **Use of raw materials** in construction activities.
- **CO₂ production** from site activities including plant, machinery and deliveries;
- **Energy consumption** arising from site activities including generators, welfare cabins, temporary electrical supplies and gas consumption;
- **Water consumption** on site arising from temporary connections made for the duration of the construction period;
- **Waste production** on site from construction and delivery activities;
- **Air pollution** arising from construction and delivery activities. This is specifically related to dust which can cause local air quality issues, public nuisance, odours and can affect safe use of public highway.
- **Water Pollution** to surface and ground waters as well as effects to local drainage systems (foul, storm or combined).

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- **Soil contamination** during construction activities.
- **Nuisance** issues of noise, dust, traffic, vibration, etc to local residents and other businesses.

- **Ecology** of the site to be considered, look to improve existing site and prevent damage / loss to existing habitats.
- **Control of Dust and Dirt.**
- The contractor will monitor the levels of dust and dirt during construction and if they are excessively present, they will arrange for the surfaces to be dampened down or cleaned
- **Refuelling.**
- All refuelling on site will be undertaken at designated refuelling points, spill kits will be deployed with all plant requiring on site refuelling. Only designated personnel are to refuel.

4.0 CLIENT OR PROJECT SPECIFIC CONTRACTURAL REQUIREMENTS

The following contractual requirements are specified:

- Using only reused / recycled timber for temporary site uses such as hoardings, covering holes, formwork or timber which is covered by a full chain of command which is sustainably sourced with certification from suppliers.
- Monitoring and reporting energy consumption from site activities
- Monitoring and reporting water consumption from site activities
- Monitor construction waste on site
- Sort and recycle construction waste on site – **up to 3 skip types being used during the project**
- Adopt best practice policies in respect to air (dust) pollution
- Adopt best practice policies in respect to water (ground and surface) pollution

5.0 ROLES & RESPONSIBILITIES

Project/Site Manager

The Project/Site Manager is responsible for the implementation of this plan throughout the project life-cycle by all levels of staff. They shall ensure that:

- all project staff are aware of, and comply with this plan and associated/referenced documentation;
- all project staff who have specific roles or responsibilities with this plan are aware of that responsibility and are competent and trained to fulfil this role;
- the project meets its legal and contractual obligations for the environment terms of legislation and
- all required measures for the reduction of environmental impacts are implemented and maintained;
- monitoring against the provisions of this plan is undertaken by nominated personnel, the results of which used to set objectives and targets and to continually improve upon these.
- environmental awareness and competence of the Project Team is maintained throughout the project life-cycle, arranging for briefings and training to be undertaken as roles and responsibilities require;
- all staff know what to do in the event of an environmental discovery or emergency;

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- The Site Manager is also nominated as the biodiversity champion, based on site and with the authority to ensure that the site's ecology is adequately protected and to ensure that all visitors to the site are aware of potential hazards or issues which may be relevant. Records will be retained on site detailing checks and measures taken to maintain the ecology of the site and prevent any damage.

6.0 PROCEDURES

This section describes how the site and associated operations aspects and impacts will be controlled, monitored and recorded.

6.1 CO₂ EMISSIONS / ENERGY CONSUMPTION

The Project/Site Manager will ensure that the electricity supply to site is metered. He will nominate a member of the site team to maintain an inspection regime for the electricity meter. Every month on 1st working day of the month, the nominated person will take readings from the meter. The readings will be taken and recorded in kWh and the conversion factor to CO₂ obtained from the utilities company will be applied and recorded electronically on a spreadsheet. The Project Manager will estimate projected electricity consumption for the remainder of the project and set targets to limit use of electricity on site.

These targets will drive efficient use of energy which will be achieved by the following:

- All communal lighting, task lighting, etc. to be switched off at the end of the working day;
- Tools and equipment to be unplugged and stored correctly;
- Standby mode for any piece of equipment not to be permitted. If not in use, it should be switched off;
- Charging of hand tools, electrical access platforms, etc. to be done overnight only. Unplug once charged and do not continue to 'trickle charge';
- Sensor switches for lighting to be in use in the office / welfare cabins;

Note: All emergency lighting, actuators, alarms, etc. must remain on at all times for safety reasons and therefore this circuit must remain live.

Monthly meter reading, conversion and plotting graphically will continue by the nominated person through to contract completion. The graphical representation will have included on it the following and will be displayed throughout the contract period on the notice board:

- Monthly meter readings converted to equivalent CO₂ emissions;
- Projected consumption based upon current data at the time of monthly review;
- Target monthly consumption;
- Labelled peaks and troughs in consumption with footnote identifying reasons for this.

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6.2 WATER CONSUMPTION

The Project/Site Manager is responsible for ensuring that all temporary connections to water supplies are metered. This is now a requirement of all water distribution companies. In order to monitor and set project targets for water consumption, meter readings must be undertaken and logged:

- A weekly water meter reading is required to be taken by a person nominated by the Project Manager.
- Values obtained must be input to a spreadsheet showing monthly consumption, cumulative consumption to date and projection for the remainder of the project. Figures will be expressed in m³.
- The above figures will be graphically represented and displayed on site.

After two months on site, the figures collated will be reviewed by the Project Manager and the Risk Manager and targets will be set for the remainder of the project. Water reduction measures may form part of the targets, for example, automatic shut off for taps in the welfare area and strict maintenance regimes for temporary water supplies to the structure thereby ensuring that any leakages are found early and rectified.

6.3 AIR POLLUTION

Blackhorse Place Ltd will encourage the use of equipment and methods that comply not only with legislation but also those that recognise best practice in the reduction of air pollution and potential for public nuisance from dusts, waste management activities, noise, and vibration. The following actions will be taken by members of the Site Team nominated by the Project Manager:

- Exhaust fumes and noise will be minimised by ensuring that plant and equipment brought to site by sub-contractors or directly hired in are of good quality and maintained in accordance with legal requirements where applicable and best practice.
- All loads of dry fine-grade granular materials prone to being affected by wind being brought to site must be sheeted. All loads of dry granular materials, soils or other excavated arisings being taken from site must also be sheeted. This is to prevent escape of the materials and cause local dust issues and accidental spillage onto the public highway or other property. This stipulation must be made via contract arrangements with the sub-contractors, suppliers and hauliers and is the responsibility of the Purchasing Manager / Quantity Surveyor to action this. Monitoring of this aspect will be undertaken by the Site Manager.
- Skips containing light materials prone to escape by being wind-blown must be sheeted or have hatches/doors closed when not in use or being transported. The responsibility for provision of these is with the Total Waste Management Company. Sub-contract operatives are responsible for the use of sheeting and/or closing doors.

6.4 WATER POLLUTION

Blackhorse Place Ltd always adopts best practice relating to prevention of pollution. For drainage systems, surface and ground water protection the Site Team are required to implement the following at applicable points during the contract:

- Direct disposal of any substance to land, drainage systems or watercourses of any description is prohibited and will lead to dismissal from site.
- All temporary connections made to drainage systems for the construction period must be notified to the local drainage authority or water company as applicable. Consent must be obtained in writing and kept on file.

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- Any bowsers/IBCs kept on site for the purposes of refuelling or decanting of substances to smaller containers must be kept in good condition and this is to be monitored. They must be stored on or in bunds of appropriate capacity (at least 110% of capacity of container) and their lids, caps and delivery points kept closed to prevent escape of fumes and odours. All containers including bowsers must be clearly marked with their contents with associated material safety data sheets available for reference in the event of spillage or release. Bunds must be inspected regularly to ensure that their capacity as a bund is not affected by rainfall. All waters from bunds are treated as contaminated and must be disposed of as hazardous waste.
- Run-off from hard areas of site must not be allowed to enter drains or watercourses nor must it be contaminated with other substances. Good housekeeping practice, substance storage, decanting procedures and well-maintained plant and equipment will contribute to ensuring that run-off remains uncontaminated. The uncontaminated run-off may be channelled into a specially constructed trench to allow water to drain away naturally through soils leaving silt behind or, subject to discharge consent from the sewerage authority / water company, into a foul or combined sewer. Large quantities of water from operations such as dewatering of excavations may require an application for discharge consents to sewers or watercourses.
- Stockpiling materials is not recommended as materials should be ordered in as required to prevent wastage or misuse. Material stockpiles may only be kept if they are covered and those covers weighted down. Sandbags or other similar system must be placed on uphill edge of stockpile to prevent erosion by water on the base of the stockpile. Water may be channelled around stockpiles as per above.
- Concrete wagons may only wash chutes on site and this must be done as far away from any drainage system or watercourse as possible. Site space pending, the use of a lined skip to settle out aggregate and cement particles may be appropriate, with measured quantities of water from the top of the skip being pumped out to foul sewer under a discharge consent. This can be done daily at the commencement of shift having allowed overnight settlement.

6.5 NUISANCE CONTROL

Blackhorse Place Ltd will encourage the use of equipment and methods that comply not only with legislation but also those that recognise best practice in the reduction of air pollution and potential for public nuisance from dusts, waste management activities, noise, and vibration. The following actions will be taken by members of the Site Team nominated by the Project Manager:

- Exhaust fumes and noise will be minimised by ensuring that plant and equipment brought to site by sub-contractors or directly hired in are of good quality and maintained in accordance with legal requirements where applicable and best practice.
- Environmental noise (statutory nuisance) generated by plant operations; site activities must be kept to a minimum. Poorly managed and maintained plant can become noisy over time so exercising the controls above for exhaust emissions will contribute to the reduction in unnecessary noise. Plant with exhaust silencers should be used for any external works if these are available. Noisy works will only occur between 8.00am and 6.00pm Monday to Friday and 10.00am to 4.00pm Saturday and Sunday (when worked), however, noise is not expected to be an issue as the majority of noisy works will take place within the existing building and local residents are over 500mtrs away.
- Operations generating dust will be contained within the envelope of the existing building. Wet operations are always preferred to dry operations in terms of health and safety; however, the wet waste from the

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operation must be collected and stored until dry enough to place in the solid waste skips provided that the mixing of the dust and water does not render the dry product hazardous.

- All loads of dry fine-grade granular materials prone to being affected by wind being brought to site must be sheeted. All loads of dry granular materials, soils or other excavated arisings being taken from site must also be sheeted. This is to prevent escape of the materials and cause local dust issues and accidental spillage onto the public highway or other property. This stipulation must be made via contract arrangements with the sub-contractors, suppliers and hauliers and is the responsibility of the Purchasing Manager / Quantity Surveyor to action this. Monitoring of this aspect will be undertaken by the Site Manager.
- Skips containing light materials prone to escape by being wind-blown must be sheeted or have hatches/doors closed when not in use or being transported.

6.6 CONTAMINATED LAND

Blackhorse Place Ltd were instructed to carry out a desk top study on the site and found there to be low likelihood of contamination. The development works will not require any major earthworks; therefore, the chances of direct contamination are very remote. Blackhorse Place Ltd will be adopting best practice policies in respect to water pollution to ensure that we do not allow any pollution to enter the land and as a subsequence, pollute the soil. As the vast majority of the works will take place within the existing building the land will be protected and externally, only minor alterations required.

6.7 RESOURCE USE

The client and design team have been concerned about resource use throughout the design and have insisted that this be replicated during the construction process, by minimizing the wastage levels as much as possible.

This is firstly achieved through considerate design and sourcing of suitable materials at the design and procurement stages and through good site storage, best practice management principles, workmanship and protection.

Timber Goods

The following requirements relate to any timber products purchased for this project:

- At least 80% of all timber products must be procured from sustainable sources which are independently certified by parties such as FSC, CSA, PEFC, MTCC, etc, as cited in Credit Requirements MW8.
- Any temporary timber should also be sustainably sourced by certified parties or could be sourced from another site, i.e., Reused or be from a recycled source. This would timber used for site set-up, hoardings, storage/lay-down, notice-boards, temporary works, temporary security doors, formwork, etc.
- Timber off-cuts of viable size must be stored for re-use. Non-viable size off-cuts must be stored for recycling in the appropriate container.

Non-timber Goods

Although there will not be a specific requirement to achieve credits under MW8, consideration should be given to the selection of non-timber goods where the manufacturer holds a valid ISO 14001 or EMAS certificate. Companies operating an Environmental Management System to ISO 14001 or EMAS are aware of their impacts and aspects and are operating in a manner whereas to prevent pollution, comply with all relevant legislation and make continual improvements year on year. Blackhorse Place Ltd already work with their supply chain on other similar issues and would welcome being able to influence the supply chain in this manner.

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6.8 WASTE MANAGEMENT

Blackhorse Place Ltd have produced a Site Waste Management Plan which aims to minimise waste and where appropriate divert waste sent to landfill through reuse on site and recycling.

Construction waste will be segregated into at least 5 different waste categories including concrete, metals, packaging, insulation, timber, pallets, liquids and oils and miscellaneous waste including canteen and office waste and small amounts of plasterboard as a segregated plasterboard skip will not be appropriate for the works (less than 10% plasterboard waste per skip to be maintained, many areas will be wet plastered). In addition, there will be one secure galvanised steel bin sited adjacent to the spill kit which will be for the storage of spill clean-up materials only.

Waste bins and skip labelling and their use will form part of the site induction procedure.

Contractors are required by the client to maximise reuse and recycling and minimise waste generated as a result of construction activities and as such have to report on waste management information on a regular basis. The project team are aware of the Industry Environmental KPI benchmarks and use these as an informal measure to target against.

6.9 NEIGHBOUR RELATIONS.

A pre commencement letter drop shall be carried out notifying all direct neighbouring properties of the site start date.

The site management team will communicate proactively with the local residents/ and any other members of the public that may be affected by construction activities.

The site management will notify neighbour's of any major deliveries that may affect access into or egress from Blackhorse Place.

Contact details for out of hours arrangements will be displayed outside the site, in the event that an incident occurs outside of the normal working hours (e.g. alarm sounds, or a break in is reported).

6.10 COMPLAINTS PROCEDURE.

All complaints received will be investigated and a response (even if pending further investigation) is to be given to the complainant as soon as reasonably possible.

Incidents relating to nuisance (e.g., complaints relating to noise, dust, vibration, mud on roads etc. made by the public or the EHO shall be reported internally and responded to as soon as reasonably possible.

6.11 COVID 19 – Site Procedures.

To be covered on the Construction phase plan based on latest guidelines

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7.0 APPENDIX

- **List here all drawings or documents.**
- CEMP Drawing 01 - Draft
- Existing & proposed layout
- Traffic Management Plan V1
- Traffic plan layout V1
- Construction Site Fire Plan
- Site Waste Management Plan