



Construction Environmental Management Plan

Site Name	Little Lever, Bolton	
Site reference	20247	
TW Company	Manchester	
Authorised by	Paul Myall	Date: 12.07.2024
Prepared by	Sophie Clarke	Date: 12.07.2024
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1 INTRODUCTION

This Construction Environmental Management Plan (CEMP) is intended to form the basis for the management of the main environmental aspects associated with the development of 132 plots.

The CEMP sets out how the commitments will be translated into actions in the field and the means by which they will be monitored and verified. It outlines the environmental commitments that are to be delivered by the Principal Contractor. Taylor Wimpey UK Ltd is the principal contractor (PC) for this development.

Throughout the construction phases of the project, Taylor Wimpey UK Ltd (Taylor Wimpey) will also be following the mitigation measures outlined in their Environmental Management System (EMS) and associated documents.

Site location

The development area is located in the settlement of Little Lever, in the Metropolitan Borough of Bolton, Greater Manchester. Whilst the site falls within Bolton Council's authority, the eastern site boundary marks the administrative boundary between Bolton and Bury Councils. Therefore, the existing entrance into the development site is off a junction of Stopes Road which falls within the boundary for Bury Council. The site boundaries are generally formed by open land to the North, East and West. To the South the site is bound by the rear of existing properties on Stopes Road. The site encompasses both a northern undeveloped greenfield portion of land that falls within the designated Greenbelt Land, whilst the southern part of the site was previously utilised by the company Tarmac.

The surrounding land use is as described:

North: Open grassland until it reaches the Bury Council boundary and existing residential properties

East: Comprises of open grassland, existing residential properties and commercial units.

South: Existing residential properties backing on to the development together with a tree group bound with TPOs

West: Woodland/grassland area with a PROW.

Site History

The site is currently vacant land which was last developed by Tarmac who utilised the land for concrete block manufacturing, aggregate recycling and storage. A number of buildings and structures reflective of the former use were scattered across the sites, these included industrial sheds, workshops and shelters, all of which have now been cleared, demolished and remediated. The previous remediation works, carried out by the vendor, have resulted in a relatively flat topography, as the site slopes gently from north-east to south-west.

The site have a number of constraints which have influenced the proposed design of the layout:

- The tree group along the southern boundary benefits from Tree Preservation Orders (TPOs), that will require extra protection to safeguard their integrity.

- The locations of existing mineshafts have been located close to the entrance of the site. It must be ensured that no building footprint falls within these exclusion zones.
- A replacement culvert and its easement run across the site, which requires careful consideration of the road layout and parcel configuration. Both of which have been considered in the design of our proposed layout.

2 ENVIRONMENTAL CONSENTS

Outline planning permission (ref: 09616/20) was granted on 12th August 2021 by Bolton Council for the following development:

“Outline planning application for demolition of existing structures and erections of up to 132 no. residential dwellings with associated public open space (access details only)”

A S.73 application (ref: 13374/22/) to vary the outline was granted on 12th January 2023 for variation of conditions 3 (Design Parameters), 5 (Landscaping), 11 (Arboricultural Method Statement) and 13 (Tree Protection Measures).

The following planning conditions with respect to the environment are:

Bolton Consent – 13374/22

5 LANDSCAPING

The landscape scheme to be submitted with the reserved matters application shall incorporate the principles of the Landscape Strategy Plan, ref:

13010/P15e, March 2022, to include:

- Village green - details of play equipment to be incorporated shall be included in the submitted details.
- Street trees.
- Strengthened boundary planting of native trees and hedgerows.
- Green infrastructure network.
- Treatment of the northern 'green fringe' area of the site.
- Landscaping details of the linear park area (southern and western boundaries) and links to the PROW network to the west of the site.

Reason

To reflect and soften the setting of the development within the landscape and in order to comply with Core Strategy policies CG1 and CG3.

6 BIODIVERSITY ENHANCEMENT

The development shall be carried out in full accordance with the biodiversity enhancement measures detailed in the Ecology Impact Assessment by Tyler Grange, 7th Sept 20. The reserved matters submission in relation to design, layout and landscaping shall include provision for:

- Retention and enhancement of semi-natural habitats (grassland to the north and boundary trees/hedgerows around the site);
- Management of grassland for biodiversity, use of locally native species and protection and enhancement of green infrastructure;

- Creation of wildlife networks within the developed area, notably creation of permeable barriers between gardens to allow hedgehogs to move through.
- Bat roosts and enhancements;
- Enhancements for bird nesting, both within the proposed new buildings (as per 4.16 of the submitted Ecology Impact Assessment), but also for other species of birds by encouraging wet grassland/ponds in the area of the site to the north.
- Additional native tree/hedgerow planting and provision of species rich grassland.

Reason

To safeguard on site biodiversity and encourage biodiversity enhancement and in order to comply with Bolton's Core Strategy policy CG1.

8 CULVERTED WATERCOURSE

Prior to, or alongside, the reserved matters submission a detailed survey shall be submitted to and approved in writing by the local planning authority, showing the route, depth, size and material of the existing culvert at the site. The reserved matters layout shall provide a minimum 3 metre easement (either side of the pipe) between the proposed dwellings and the line of the culverted watercourse. Should the submitted survey require a diversion of the culvert, then details of the proposed culvert diversion including plans, the route, size, materials, depth, levels, flow rates, capacity and method of construction should be submitted to and approved by the Local Planning Authority for approval in writing prior to commencement of the development. The culvert diversion shall be completed in accordance with the approved plans and within 12 months of the date of the commencement of development and retained thereafter.

Reason

To minimise the risk of flooding by ensuring the pipe is not put at risk through the location, layout and design of the proposed development and to comply with policy CG1.5 of Bolton's Core Strategy.

Pre-commencement reason

The position of the culvert will have a bearing on the final site layout of the proposed residential development. If the proposal is to divert the culvert details will need to be approved prior to the commencement of development

as the works will need to commence during groundworks.

11 ARBORICULTURAL METHOD STATEMENT

The development hereby permitted shall be carried out in full accordance with the Arboricultural Method Statement by Tyler Grange, 13010_R08c_11th March 2022_RA_NC. Prior to the commencement of the construction phase of development a further Arboricultural Method Statement detailing how the following elements of the site will be constructed without causing harm or damage to the trees and hedgerows to be retained, shall be submitted to the local planning authority. The specified areas are:

- Cross sections and detail in respect to finished floor levels where these are to change in the proximity to root protection zones of retained trees.
- New site boundary treatments or retention of old site boundary treatment confirmed and method statements for implementation where required.
- Surface water drainage works in relation to the existing pipe located on the western boundary of the site.
- Details of service and utility routes.

No development shall take place until the Local Planning Authority has agreed the measures in writing, and these measures shall then be implemented fully in accordance with the approved details.

Reason:

To ensure the safe development of the site and favourable retention of trees and in order to comply with Bolton's Core Strategy policies CG1 and CG3.

Pre-Commencement Reason:

Any groundworks could impact detrimentally on the trees and would be contrary to Bolton's Core Strategy policies CG1 and CG3.

13 TREE PROTECTION MEASURES

The demolition and remediation of the site shall be carried out in accordance with the tree protection measures detailed on drawing: Tree Protection Plan (Remediation) Condition 13, reference 13010_P18 revision E.

The construction phase shall not commence unless and until the following has been complied with:

1. The trees and hedgerows within or overhanging the site which are to be retained/or are subject of a Tree Preservation Order (TPO) have been

surrounded by fences of a type to be agreed in writing with the Local Planning Authority prior to such works commencing.

2. The approved fencing shall remain in the agreed location (in accordance with BS 5837:2012) until the development is completed or unless otherwise agreed in writing with the Local Planning Authority and there shall be no work, including the storage of materials, or placing of site cabins, within the fenced area(s).

3. No development shall be started until a minimum of 14 days notice has been given to the Local Planning Authority confirming the approved protective fencing has been erected.

Reason

To protect the health and appearance of the tree(s) and in order to comply with Bolton's Core Strategy policies CG1 and CG3

Reason for Pre-Commencement Condition:

Tree protection measures must be implemented prior to the commencement of works to protect the health and appearance of the tree(s) during the construction phase.

14 BADGERS

The development hereby approved shall be carried out in full accordance with the approved document: Badger Briefing Note by Tyler Grange dated 10th August 2021 (13010_R07_AS_CW) (submitted with DOC application 12174/21). The appropriate mitigation measures and contingency plans shall be implemented in accordance with the approved details.

Reason

To identify and ensure the survival and protection of important species and those protected by legislation that could be adversely affected by the development, having regard to policy CG1 of Bolton's Core Strategy and the National Planning Policy Framework.

20 GREAT CRESTED NEWTS

The development hereby approved shall be carried out in full accordance with the Great Crested Newt Reasonable Avoidance Measures as outlined in Appendix 4 of the Ecological Impact Assessment Report by Tyler Grange,

dated 7th Sept 2020.

If the development has not commenced within 3 years of the first great crested newt survey (May 2020), then the eDNA survey should be repeated and the findings submitted to and approved in writing by the local planning authority. The development shall then be carried out in full accordance with the updated approved details.

Reason

To ensure a satisfactory form of development and to afford appropriate protection of protected species and to comply with policy CG1 of Bolton's Core Strategy and the National Planning Policy Framework.

Bury Consent – 70350

3 No development other than demolition, site investigations, groundworks and remediation, shall take place unless and until full details of the following highway aspects have been submitted on a topographical survey of the site and adjacent adopted highways to the Local Planning Authority:

1. Identification of all areas of existing adopted highway within the Bury Borough boundary affected by the proposed access to the development site;
2. Formation of the proposed site access onto Stopes Road in a revised position relative to the westerly/northerly kerbline to be formed on the bend in Stopes Road following the undertaking of a full swept path analysis of the bend;
3. Provision of a level/1 in 40 plateau at the junction onto the existing adopted highway;
4. Scheme of works to a scope to be agreed to reinstate the areas of redundant access/block paved hardstanding to adjacent footway levels, incorporating all reconstruction/accommodation works on both approaches to the site access and the proposed secondary emergency access to the residential site onto Stopes Road;
5. Scheme of measures/bollards to prevent vehicular access onto/use of the footway areas to be created;
6. Alteration of/improvements to the existing pedestrian refuge at the junction of A6053 Stopes Road/Stopes Road junction;
7. Scheme of works to a scope, specification and in a position to be agreed to provide the proposed remote secondary emergency access at the easterly end of the unclassified section of Stopes Road incorporating fixed and removable bollards

and all associated highway remedial works, as shown indicatively on the submitted plans;

8. Scheme of works to a scope, specification and in a position to be agreed to provide the proposed remote secondary emergency access at the easterly end of the unclassified section of Stopes Road incorporating fixed and removable bollards and all associated highway remedial works, as shown indicatively on the submitted plans;

9. Proposals for the introduction of waiting restrictions to scope to be agreed at and in the vicinity of the junction of the proposed site access to be formed with Stopes Road, following a review of on-street parking at, and on the approaches to, the bend;

10. Demarcation of the limits of the existing/future adopted highway and all associated highway and highway drainage remedial works required as a result of the construction of the proposed development, boundary treatment removal and statutory undertakers connections;

11. White lining scheme for the proposed junction onto Stopes Road, the proposed estate roads and on the bend, to a scope to be agreed, incorporating all necessary alterations to existing road marking/lining required as a result of the proposed development.

The highway works subsequently approved shall be implemented to an agreed specification and programme.

Reason. To secure the satisfactory development of the site in terms of highway safety, ensure good highway design and maintain the integrity of the adopted highway, all in the interests of highway safety pursuant to Policies EN1/2, JP-C5 and JP-C6

4 No development shall commence unless and until a 'Construction Traffic Management Plan' (CTMP) has been submitted to and agreed in writing with the Local Planning Authority and shall confirm/provide the following:

1. Dilapidation survey of the footways and carriageways leading to and abutting the site in the event that subsequent remedial works are required following the demolition works and construction of the development;
2. Access route for vehicles from the highway network;
3. Access point(s) to the site including any temporary works required to facilitate vehicular access;
4. Hours of operation and number of vehicle movements;

5. Proposed site hoarding/gate positions clear of appropriate visibility splays onto Stopes Road;
6. A scheme of appropriate warning/speed limit signage in the vicinity of the demolition/construction site access;
7. Arrangements for the turning and manoeuvring of vehicles within the curtilage of the site;
8. Parking on site of demolition, operatives' and construction vehicles together with storage on site of demolition and construction materials;
9. Measures to ensure that all mud and other loose materials are not carried on the wheels and chassis of any vehicles leaving the site and measures to minimise dust nuisance caused by the operations.

The approved plan shall be adhered to throughout the demolition and construction periods and the measures shall be retained and facilities used for the intended purpose for the duration of both periods. The areas identified shall not be used for any other purposes other than the turning/parking of vehicles and storage of construction materials.

Reason. To mitigate the impact of the construction traffic generated by the proposed development on the adjacent highways, ensure adequate off street car parking provision and materials storage arrangements for the duration of the construction period and that the adopted highways are kept free of deposited material from the ground works operations pursuant to Policies EN1/2 - Townscape and Built Design and JP-C5 and JP-C6

3 ROLES AND RESPONSIBILITIES

3.1 Roles

3.1.1 *TW Production Manager*

The TW Production Manager shall be responsible for:

- Appointing a Site Manager; and
- Reviewing the monthly Site Environmental Checklist audit completed by the Site Manager.

3.1.2 *TW Site Manager*

The TW Site Manager shall be responsible for:

- Undertaking weekly Site Compound Checks, and persons to supervise refuelling of tanks and bowers;
- Ensuring the required consents are in place before work starts;
- Ensuring environmental and waste requirements are included on requisitions and in subcontracts and orders;
- Ensuring oil, including diesel is stored in properly bunded tanks / inc use of drip trays for plant and equipment / refuelling;
- Ensuring Waste Transfer Notes / Hazardous Waste Consignment Notes are checked against invoices before payment;
- Liaising with statutory authorities and TW as required and ensuring records of communication (including verbal communication) are kept. Statutory authorities should always be accompanied on site visits;
- Ensuring employees, contractors and subcontractors implement the controls set out in this CEMP;
- Ensuring employees, contractors and subcontractors receive Induction Training (including project environmental issues) and Tool Box Talks, as appropriate;
- Ensuring personnel needed for audits are available when required;
- Verifying actions resulting from Corrective Action Requests and Observations raised during audits are completed by the deadlines;
- Ensuring environmental training is provided;
- Reporting incidents to the Taylor Wimpey Production Manager immediately (inc. use of the TW advice line), and to statutory authorities where required;
- Logging and monitoring incidents and non-conformances;
- Disseminating information, including changes to legislation, and relay to relevant contractor's employees;
- Identifying employees who require environmental training and maintain training records in line with the contract for the works;
- Providing advice and dealing with queries and correspondence on environmental issues;
- Identifying significant environmental impacts for the project and assist in setting up contracts to include the necessary controls;

- Monitoring the progress in closing out Corrective Action Requests and Observations raised during audits;
- Ensuring all records are retained and readily available; and
- Carrying out monthly Site Environmental Checklist audit.

3.1.3 All Staff

All operatives have responsibility for the environment; responsibilities include but are not limited to:

- In the case of an incident, stopping work, implementing control procedures and reporting it to the Taylor Wimpey Site Manager;
- Contacting the Waste Representative when waste needs collecting;
- Passing any queries or correspondence on environmental issues to the Taylor Wimpey Site Manager; and
- Working in accordance with environmental procedures, the CEMP and Method Statements.

The lists of contacts currently appointed for this project are as follows. The remaining positions shall be filled once planning permission for the development has been granted. Taylor Wimpey is supported by environmental specialists at RSK.

Name & Position:	Company	Contact no:	Email address:
Andrew Matthews Site Manager	Taylor Wimpey	0161 864 8900	andrew.matthews@taylorwimpey.com
Will Allman Production Manager	Taylor Wimpey	0161 864 8900	will.allman@taylorwimpey.com
Nichola Burns Technical Director	Taylor Wimpey	0161 864 8900	nichola.burns@taylorwimpey.com
Rob Allen Engineering Manager	Taylor Wimpey	0161 864 8900	rob.allen@taylorwimpey.com
Environmental Advice Line	RSK	0845 0038752	N/A
Environment Agency Incident Hotline	Environment Agency	0800 807060	N/A
Environmental Health			N/A

3.3 Site Communication

Communication Method	Frequency	Attendees	Environmental Points for discussion
Contractor Site Meetings	Weekly	TBC	Any pertinent environmental issues.
Subcontractor Meetings	Monthly	TBC	Waste Management, Nuisance, Environmental Incidents
Toolbox Talks	As required	All site personnel, including subcontractors	Toolbox Talks will be used to inform all site personnel of key information concerning the management of the site, procedures to be followed and expected conduct when working on the project. The toolbox talks will cover a broad range of topics including those related to best practise environmental management.

4 STAKEHOLDER ENGAGEMENT

4.1 Stakeholder Consultation

The planning process required liaison with local and specialist stakeholders including Highways, the Local Lead Flood Authority, the Greater Manchester Ecology Unit, and the Greater Manchester Police, amongst others.

4.2 Complaint Procedure

Any concerns the public or local community wish to raise can be brought to the attention of the Site Manager. Any complaints received by other site operatives shall be immediately reported to the Site Manager. Site operatives will be informed about the process to deal with complaints from members of the public; should they be approached whilst working on site, through toolbox talks.

When a complaint is reported the following information shall be recorded:

- Details of the issue leading to the complaint;
- Details of the complainant;
 - Name;
 - Address;
 - Contact number;
 - Preferred contact method; and
- If a complaint has been previously made, any details of the previous incident.

Alternatively complaints can be reported to Taylor Wimpey UK Ltd through the Customer Service Department of the Manchester Business Unit. Those wishing to make a complaint should call 0161 864 8926 or email manchestercustomerservices@taylorwimpey.com.

On receipt of a complaint, Taylor Wimpey UK Ltd shall:

- Acknowledge all complaints within 2 working days; and
- Either reply fully within 7 working days of receipt, or reply within 7 working days to advise you of the steps we are taking and to give a date by which we will be able to reply fully.

Taylor Wimpey UK Ltd aims to resolve all complaints following the above procedure. However, this may not always be possible and there are additional procedures documented within the Taylor Wimpey UK Ltd EMS.

5 PROJECT DESCRIPTION

5.1 Description of the development

The development has been designed in line with the approved parameters plan. The detailed site plan comprises of residential use only with 132no residential dwellings, associated parking, and landscaping including a LEAP on the front POS area. The storey heights of the dwellings are 2 and 2.5 storeys throughout the proposed development. The house types range between 2, 3 and 4 bedroom properties, designed as detached, semi-detached and mews types. The scheme also compromises of 15% affordable properties in line with providing an essential contribution to the affordable housing stock in the Little Lever area.

5.2 Construction Programme and General Construction Information

The Build Route Plan is in line with the current internal build programme procedures, that also have been provided to the NHBC. These programmes are to be monitored weekly throughout the duration of the development.

A Compound Layout including on-site operative parking provisions together with materials and waste storage locations are attached to this document for reference. (Figure 4).

Remedial works are currently scheduled to commence towards the start of 2025 and construction of the whole development should take approximately three years to complete.

Construction Traffic within the first phase of the development will be controlled by a one-way only system as we move further into the site the proposed road structure and turning heads will be constructed in accordance with the S38 Layout (Figure 5) and approved Swept Path Analysis plans (Figure 6) for the turning of construction vehicles.

The development has one proposed site access, which is located off Stopes Road together with an emergency access link. A General Arrangement Plan for the S278 Highway Works are attached to this document for reference. (Figure 7).

The site entrance will be clearly indicated for site visitors with the appropriate construction signage, segregation of pedestrians and vehicles/plant and speed limitations. Current access arrangements for the development are provided by MV Kelly, Principal Contractor on site, the site entrance barrier/gates, pedestrian access, and fencing do not interfere with visibility splays onto Stopes Road. Pictures attached to this document for reference. (Figures 8 and 9).

Taylor Wimpey plan to become Principal Contractor in July, these same site access arrangements will be in place until Sales Opening in September, when the main access will be open and site access will be relocated to restrict non-site personnel from entering any areas of live construction.

6 ENVIRONMENTAL CONSTRAINTS AND RECEPTORS

The site “core hours” will be Monday – Friday 08:00- 18:00; Saturday ‘core hours’ will be 08:00 – 13:00. There will be no works programmed at any other time including Bank Holidays unless otherwise agreed.

Operations such as earthworks can be seasonal and weather dependant, and as is customary in the construction industry the working day and or days may be extended to take advantage of extended daylight hours during the period April to October. Any extended working hours permitted will be approved in writing by Bolton Metropolitan Borough Council.

Additional weekend, Sunday and Bank Holiday working may be required for certain types of activities such as work that entails the possession of a road, works for reasons of public safety, site logistics operations or work within buildings. This will be agreed beforehand with the Bolton Metropolitan Borough Council before works are undertaken.

6.1 Noise Limits

In accordance with good practice, construction activities that elevate noise levels, measured as LAeq (1hr) by more than 1dB above ambient level at the front of any noise sensitive premises, may not take place outside of normal hours of work.

6.2 Vibration Limits

In accordance with BS 5228, prior explanation shall be given to all potentially affected residents of vibration generating activities to place at site likely to cause vibration up to and in excess of the limit $1.0\text{mm}\cdot\text{s}^{-1}$. If any activities are likely to cause in excess of this level they shall only be undertaken for brief periods, to prevent the vibration impact from becoming intolerable to local residents.

A review of the likely vibration effects from construction works will be undertaken once a detailed schedule of equipment, processes and durations are known. This review could indicate a requirement for vibration monitoring at the vibration sensitive receptors whilst certain activities are taking place on site. Monitoring results could subsequently indicate requirements for further mitigation.

6.3 Ecologically Sensitive Area

The Northern part of the development site falls within the designated Greenbelt and is to be persevered as green open space within the proposed layout, which is inline with the previously approved scheme.

The site also consists of a tree group along the southern boundary of the site which benefits from TPOs and require extra protection during the construction phase.

6.4 Construction Site Layout and Good Housekeeping

In planning the construction site layout, Taylor Wimpey will ensure that a good housekeeping policy is applied at all times, and as far as reasonably practicable; that amongst other things:

- Existing hedges and tree screens and the topography will be utilised to screen construction sites; temporary earth mounding or other temporary screening will also be included where appropriate, within the confines of the construction site;

- All site hoardings will be regularly inspected, repaired and repainted as necessary;
- All working areas will be kept in a clean and tidy condition;
- Adequate toilet facilities will be provided for all site staff;
- Rubbish will be removed at frequent intervals and the site kept clean and tidy;
- Food waste will be removed at frequent intervals;
- Any waste susceptible to spreading by wind or liable to cause litter will be stored in enclosed containers;
- Open fires will be prohibited at all times;
- All necessary measures will be taken to minimise the risk of fire and the contractor will comply with the requirements of the local fire authority;
- Storage sites, fixed plant and machinery, equipment and temporary buildings will be located to limit adverse environmental effects;
- All external lighting and illumination associated with the construction process will be in accordance with the guidance issued by the Institution of Lighting Engineers: "Guidance Notes for the Reduction of Light Pollution" and the CIE (International Commission on Illumination) Report: "Guide on the Limitation of the Effects of Obtrusive light from Outdoor Lighting Installations";
- To ensure that construction lighting does not affect the amenity of residents or create a statutory nuisance under the Environmental Protection Act 1990 (as amended), external lighting will be designed and positioned to:
 - Provide the minimum levels necessary for safe working;
 - Avoid disturbance to adjoining residents and occupiers;
 - Avoid creating dazzle or distraction for drivers using adjacent highways or the railway;
 - Seek to minimise light spillage or pollution;
 - Ensure that excess light does not fall on sensitive ecological habitats;
- Energy efficient options for site facilities will be incorporated wherever possible. They may include energy efficient light bulbs and automatic controls, which will supplement good housekeeping such as switching off equipment when not in use;
- Adequate security will be exercised by the principal contractor to protect the public and prevent unauthorised entry to or exit from the site. Site gates will be closed and locked when there is no site activity and site security measures will be implemented; and
- Any site cameras will be located and directed so that they do not intrude into occupied residential property.

6.5 Environmental Receptors

These are the environmental receptors that could potentially be impacted by associated environmental aspects from this project during construction:

- Air quality:
 - Dust (particulate matter, i.e. PM₁₀); and
 - Fumes (i.e. NO₂).
- Ground and groundwater:
 - Pre-existing contamination mobilised through development works;
 - Pollution spills;
 - Vibration;
 - Dust (particulate matter, i.e. PM₁₀); and
 - Litter.
- Water bodies, streams, reservoirs, rivers and lakes:
 - Pollution spills;
 - Litter; and
 - Dust;
 - silt.
- Ecology (i.e. animals, birds, aquatic life, trees and plants):
 - Pollution spills;
 - Litter;
 - Noise;
 - Fumes (i.e. NO₂);
 - Vibration;
 - Silt; and
 - Dust (particulate matter, i.e. PM₁₀).
- Humans (i.e. neighbours and construction workers):
 - Pre-existing contamination;
 - Noise;
 - Dust (particulate matter, i.e. PM₁₀);
 - Fumes (i.e. NO₂);
 - Litter; and
 - Vibration.
- Surrounding land:
 - Pre-existing contamination mobilised through development works;
 - Pollution spills;
 - Litter;
 - Noise;
 - Fumes (i.e. NO₂);
 - Vibration; and
 - Dust (particulate matter, i.e. PM₁₀)

- Silt.

7 KEY ENVIRONMENTAL IMPACTS

7.1 Ground Conditions

7.1.1 Impacts

Ground conditions can be impacted by

- Fuel and liquid spillages;
- Dust;
- Vibration;
- Windblown waste / litter; and
- Contaminated land.

7.1.2 Mitigation

All fuel will be stored in a double skinned tank or a tank in a suitable bunded area, designed to hold 110% of the tank's capacity, in compliance with the Control of Pollution (Oil Storage)(England) Regulations 2001. All connections shall be situated within the bund. All fuel and chemical stores and refuelling activities shall be situated at least 30 meters from any given watercourses, where practicable.

Re-fuelling activities will only be undertaken in designated areas, by suitably qualified persons. Toolbox talks will be communicated to site staff and contractors so that they are fully informed of refuelling procedures.

Pumps and generators used on the site will have integral drip trays where possible. All items of plant without an integral drip tray shall be stored over a portable drip tray. Drip trays shall be inspected and kept free of accumulated rainwater as necessary. Any oily water shall be disposed of at an appropriate licensed facility. Any cleaning/arising from drip trays etc. is to be disposed of as hazardous waste in accordance with Environment Agency guidance and current legislation.

All hazardous liquids e.g. oils, lubricants, chemicals and tins of paint are to be stored in a segregated area in a suitable locked COSHH container and in accordance with the products Safety Data Sheet. COSHH assessments will be available nearby for information in the event of a spillage.

A spill response kit will be available onsite and accessible to all to control pollution incidents. These spill kits will contain absorbent pads, absorbent granules and methods of disposal of materials and used kit. These kits will be located at appropriate points around the site which are considered to be at a higher risk of pollution (e.g. refuelling area and next to fuel tanks). Further spill kits and supplies will be located in the stores within the site, where replacements for used kits will be found. Spill kits will need to be regularly inspected and immediately replaced if used.

7.2 Water Resources and Flood Risk

7.2.1 Impact

The entirety of the site is confirmed to be within Flood Zone 1, and at low risk of flooding from all sources. However, a potential 'residual' flood risk has been identified in the form of shallow overland surface water 'sheet flows' north-eastwards across the site.

There are no watercourses within the boundaries of the site and none within 250m of the site boundary. A review of the Environment Agency's flood risk maps/a Flood Risk Assessment has been

completed and found the site is located in Flood Zone 1 i.e. land having a less than 1 in 1,000 annual probability of fluvial or tidal flooding.

Whilst the site has been assessed as being at low risk of flooding, in order to afford the site additional protection from any potential 'residual' flood risks, such as shallow overland surface water 'sheet flows', finished floor levels, where possible, will be set a minimum 150mm above adjacent infrastructure thoroughfare levels. It is also noted that the proposed drainage system will act to intercept and manage rainfall within the site, and therefore reduce the risk of surface water flooding/'ponding'.

7.2.2 Mitigation

All options are to be considered for occurrence of silt runoff into the mains sewer and the surrounding environment. These include:

- Leaving grassy areas as catchment or settlement areas;
- Battering or sheeting oil stockpiles and locating them away from the watercourses and drains, where possible;
- Protection of drains;
- Use of grips and straw bales;
- Silt fencing; and
- Dewatering.

7.3 Ecology and Nature Conservation

7.3.1 Impact

There are not any nationally designated wildlife sites (i.e. SSSI, SPA, etc.) within close proximity to the site.

No other evidence of protected species (i.e. plant or animal) was found on site during the survey.

There are trees covered by a Tree Protection Order located on site. The trees at site are located on the southern boundary of the site and are to be protected during the construction period on site.

Construction activities have the potential to damage root systems and to above ground parts of the tree. This could occur through excavations (i.e. during groundworks) and compaction of the soil within close proximity of the tree. Mobile plant has the potential to cause accidental damage through collision. Also, accidental spills of polluting substances (i.e. hydrocarbons) have the potential to cause damage and poison trees.

The site does not contain any protected hedgerows.

Consideration shall also be given to the following likely significant effects, which may spread beyond the application site:

- Disturbance to populations within hearing range during the construction phase due to noise or vibration;
- Disruption to habitats / populations within receiving range of dust or other air quality considerations during the construction and operation phase;
- Disruption to the normal diurnal patterns for species during construction and operation due to lighting;

- Disturbance to habitats / populations within walking distance during the operation phase; and
- Pollution to watercourses and potential effects on sensitive habitats further downstream during the construction and operation phases.

7.3.2 Mitigation

All site personnel, including sub contractors, are to be given the Taylor Wimpey Environmental Management Toolbox Talk. This will enable the workers to recognise protected species and invasive species and to know their responsibilities.

The potential for breeding birds at the has not been identified. Breeding birds are protected under the general provisions of Section 1 of the Wildlife and Countryside Act 1981 as amended. Whilst the nest is being built or is in use, the eggs, young and nests are protected against intentional and reckless taking, damage and destruction. Regardless of location, if any nesting bird is found on site the Site Manager is to be contacted immediately.

Trees that have been chosen to be retained/covered by the Tree Protection Order shall be protected from damage during construction activities. Protective fencing shall be erected around the Root Protection Area with appropriate and visible signage. Storage areas for liquids such as oils, fuels and paints shall not be within 10m of any trees to prevent contamination.

7.4 Air Quality

7.4.1 Impacts

Air quality within the vicinity of the site and along haulage routes will be impacted by fumes (i.e. particularly NO₂), dust and particulate matter (PM₁₀) during construction activities. The main sources of these pollutants include:

- Haulage routes, vehicles and construction traffic,
- Materials handling, storage, stockpiling, spillage and disposal,
- Exhaust emissions from site plant, especially when used at the extremes of their capacity and during mechanical breakdown,
- Construction and fabrication processes, and
- Internal and external finishing and refurbishment.

Receptors prone to impacts from decreased air quality include:

- Local ecology (i.e. animal and plant species, watercourses),
- Human receptors both on and off site through inhalation of pollutants,
- Settlement of dust and particulate matter on local and surrounding area causing nuisance.

7.4.2 Mitigation

Fumes from vehicles will be minimised by the following measures:

- Engines of all vehicles and plant on site will not be left running unnecessarily;
- Low carbon vehicles and plant fitted with catalysts will be used where possible;

- Ultra low sulphur diesel fuel will be used in plant and vehicles;
- Ensuring that plant and vehicles are well maintained and hold a valid MOT;
- All commercial road vehicles and construction plant, including stationary plant must comply with any legislative requirements including the European Emission Standards. It is good practice for contractors to aim to meet the highest Euro standards for emissions for all HGVs and LGVs accessing the site; and
- Wherever possible, use of electrical powered tower cranes.

The potential to produce dust and particulate matter (PM₁₀) will be minimised by implementing Best Practical Means (BPM) measures. These will include:

Site Planning:

- Dampening of exposed soil and material stockpiles using sprinklers and hoses when necessary to prevent dust and particulate matter becoming mobile;
- Stockpiles of soils and materials would be located as far as possible from sensitive properties, taking account of prevailing wind directions and seasonal variations in the prevailing wind;
- Surface areas of stockpiles would be minimised (subject to health and safety and visual constraints regarding slope gradients and visual intrusion) to reduce area of surfaces exposed to wind pick-up; and
- Where appropriate, windbreak netting/screening should be positioned around material stockpiles and vehicle loading/unloading areas.

Demolition activities:

- Water shall be utilised as a dust suppressant;
- Any cutting equipment employed shall have a dust suppressant system or suitable local extract ventilation;
- Enclosed chutes and covered skips shall be used at site to control dust generation from the waste handling activities; and
- If a crusher is to be used at site the contractor shall:
 - Notify the local authority if a crusher is to be used ;
 - Keep a copy of the permit on-site and adhere to the conditions therein at all times; and
 - Refer to Process Guidance note PG 3/16 (04)12 and use best available techniques (BAT) according to the guidance at all times.

General construction activities:

- Visual inspection of the site perimeter to check for dust deposition (evident as soiling and marking) on vegetation, cars and other objects, and the implementation of remedial measures would be carried out, if necessary;
- Construction operatives will use appropriately designed vehicles when handling material and design controls for the use of construction equipment and vehicles. Additionally it will be ensured that all construction plant and equipment is maintained in good working order;

- Short-term releases may also occur during start up of diesel engines, etc. Regular visual checks and routine maintenance would be applied in accordance with the plant specification, to minimise releases. Faulty site plant will be decommissioned until repairs are carried out and it has been tested and found to be operating satisfactorily;
- On-site cement and concrete batching (if required) will be undertaken in enclosed areas, with suitable water dowsing and wind shielding measures applied as appropriate;
- Dust-suppressed tools will be used for all operations; and
- No unauthorised burning of any material will be carried out anywhere on site.

Earthwork activities

- Take into account the predominant wind direction when siting stockpiles to reduce the likelihood of affecting sensitive receptors;
- Dampening of exposed soil and material stockpiles using sprinklers and hoses when necessary to prevent dust and particulate matter becoming mobile; and
- Completed earthworks should be covered or vegetated as soon as is practicable.

Construction traffic:

- Surfaced and un-surfaced site access roads will be watered as necessary using a water bowser and surfaces kept in good order;
- Regular inspection of local highways and site boundaries to check for dust deposits shall be carried out. A road sweeper shall be employed to ensure site road and local highways are kept free of deposits; the frequency of visits shall be varied depending on the condition noted during the inspections. All road sweeper collections will be disposed of in accordance with current waste management legislation;
- Vehicles carrying loose aggregate and workings should be sheeted at all times;
- Construction traffic shall be routed to avoid sensitive roads (i.e. residential areas, etc.); and
- Speed limit around site of 20 mph.

7.5 Noise and Vibration

7.5.1 Impact

Noise and vibration will be caused during construction activities by:

- Traffic movements;
- Plant movements;
- Demolition operations;
- Excavating operations
- Piling operations; and
- General construction activities.

7.5.2 Mitigation

To mitigate the potential impacts of noise and vibration the following measures shall be adopted for the general construction activities and site management:

- All activities with the potential to cause noise and vibration will be limited to the “core hours” will be Monday – Friday 08:00 – 18:00 and Saturday 08:00 – 13:00;
- Where there is a requirement to undertake works on a Sunday or Bank holiday; written approval shall be sought from the Local Planning Authority in advance of the works;
- General induction training for site operatives and specific training for staff having responsibility for particular aspects of controlling noise from the site shall be delivered;
- Where generators are operated overnight, measures shall be taken to minimise noise levels at the nearest dwellings;
- Care will be taken when erecting or striking scaffolds to avoid impact noise from banging steel. All operatives undertaking such activities will be instructed on the importance of handling the scaffolds to reduce noise to a minimum; and
- Contractors must use “best practicable means” (BPM) to minimise the nuisance from noise and vibration; this is to include compliance with BS 5228, Noise Control on Construction and Open Sites.

Specific mitigation measures shall be adopted to control the potential impact from each site activity, as detailed below.

Traffic Movements:

- All visitors to site shall be required to adhere to the Traffic Management Plan for the development. The Traffic Management Plan shall be displayed in prominent locations to ensure all visitors are aware of how to navigate the site; and
- Deliveries will be programmed to arrive during permitted hours only. Care will be taken when unloading vehicles to minimise noise. Delivery vehicles would be routed so as to minimise disturbance to local residents. Delivery vehicles will be prohibited from waiting on the highway or within the site with their engines running.

Plant movements and operation:

- Use of most environmentally acceptable and quietly operating plant and equipment appropriate to the works with emission levels limited to relevant EC Directive/ UK Statutory Instrument levels and the levels quoted in BS5228;
- Intermittently operating plant will be shut down in the intervening periods between operations (including during breaks and down time of more than 30 minutes);
- Any compressors brought on to site would be silenced or sound reduced models fitted with acoustic enclosures;
- All pneumatic tools will be fitted with silencers or mufflers;
- Where possible, noisy plant shall not be used simultaneously and/or in close proximity to each other, to avoid cumulative noise impacts; and
- Site inspections shall be undertaken and will include checks to ensure that plant is being operated with any specified acoustic covers in place. Excessively noisy plant

shall be removed from site for repair or maintenance. Quieter construction methods will be used, where required and where considered reasonable and feasible.

Demolition operations:

- Adherence to noise and vibration limits, and operating hours, shall be included in contractual agreements with contractors;
- Contractors shall be required to ensure that plant is operated with all specified acoustic covers in place. Regular inspections of plant shall be undertaken to ensure this measure is being followed;
- Equipment will be switched off when not in use (including during breaks and down times of more than 30 minutes);
- Compressors should be fitted with properly lined and sealed acoustic covers which should be kept closed whenever in use;
- Pneumatic percussive tools should be fitted with mufflers or silencers of the type recommended by the manufacturers;
- Equipment which breaks concrete, brickwork or masonry by bending or bursting or “nibbling” shall be used in preference to percussive tools where practicable. Avoid the use of impact tools where the site is close to occupied premises;
- Where practicable, rotary drills and bursters activated by hydraulic, chemical or electrical power shall be used for excavating hard or extrusive material;
- Where practicable, equipment powered by mains electricity shall be used in preference to equipment powered by internal combustion engine or locally generated electricity; and
- Plant shall be maintained in good working order so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.

Piling operations:

- Adherence to noise and vibration limits, and operating hours, shall be included in contractual agreements with contractors;
- Contractors shall be required to ensure that plant is operated with all specified acoustic covers in place. Regular inspections of plant shall be undertaken to ensure this measure is being followed;
- Equipment will be switched off when not in use (including during breaks and down times of more than 30 minutes); and
- Where possible, piling activity shall not be undertaken in close proximity to or at the same time as other loud or vibration generating equipment.

Excavation operations:

- Adherence to noise and vibration limits shall be included in contractual agreements with contractors;
- Equipment and excavation work sites shall be oriented, where possible, to reduce noise emissions to sensitive receptors;
- Excavation operations will, wherever possible, be undertaken without the use of pneumatic breakers; and

- Where it is necessary to use pneumatic tools, all items will be fitted with silencers or mufflers.

7.6 Waste

7.6.1 Impacts

The construction works are likely to produce the following wastes:

- Mixed construction waste;
- Light mixed and compactable waste;
- Mixed inert waste;
- Timber;
- Plasterboard;
- Mixed metals;
- Paper, cardboard & plastics; and
- Hazardous waste – small quantities of part full paint tins, mastic tubes and aerosols.

7.6.2 Mitigation

Taylor Wimpey has developed a Site Waste Management Plan (SWMP) for the phase(s) of the development. The SWMP details how each waste stream will be managed; the projected waste volumes and the Duty of care checks on all waste carriers and permitted disposal/ treatment sites. The details of the Duty of care checks shall be recorded within the sites Waste Management Matrix (WMM) contained within the SWMP and displayed within the site office. Site operatives shall undertake checks of the Waste Transfer Notes and Hazardous Waste Consignment Notes supplied against the details of the WMM to ensure waste is being managed in line with current waste legislation.

Waste will be segregated into individual front end or rear end loaders (metal, hardcore, timber, inert etc.) and monitored in relation to type and weight, enabling the onsite recycling of materials to be maximised. Taylor Wimpey also have an internal scheme called ReUSE which allows the company to source soils and aggregates from within the business and to use them on sites under the CL:AIRE Code of Practice. A Materials Management Plan (MMP) may be utilised to manage arisings from excavations and services. In addition there is the opportunity for Taylor Wimpey to include the import of Clean Naturally Occurring topsoil to cap the site under the MMP.

Taylor Wimpey has appointed Reconomy to act as the Waste Broker for the development. Reconomy automatically update the SWMP with waste arising data, for collections under their contract. Reconomy will log all the materials removed from site and the method in which it has been dealt with. Taylor Wimpey provides supplementary information for all services outside of the Reconomy contract. Overall responsibility for the maintenance and review of the SWMP remains with Taylor Wimpey. A copy of the most up to date SWMP will be held within the site office.

All waste materials should be stored appropriately on site, including:

- Segregating wastes using appropriate storage containers,
- Using suitable containers for waste types and labelling containers appropriately (i.e. gypsum/plasterboard, timber, etc.),
- Use covered skips to prevent spread of wind-blown wastes,

- Hazardous wastes are stored in suitable containers away from sensitive receptors and site traffic,
- Avoiding the mixing of hazardous and non-hazardous materials.

7.7 Transport

7.7.1 Impact

Traffic may cause the following impacts:

- Noise;
- Dust;
- Traffic congestion resulting in extra travel time for local residents;
- Vibration;
- Nuisance; and
- Additional hazards to local residents of moving vehicles.

The impacts of construction traffic have been assessed during the planning process for the development.

7.7.2 Mitigation

The movement of heavy good vehicles associated with the transportation of material to and from the site shall be restricted to the hours of Monday – Friday 08:00- 18:00; Saturday ‘core hours’ will be 08:00 – 13:00. No activities will take place outside of these times, including Bank Holidays.

Taylor Wimpey shall prepare and implement a Traffic Management Plan (TMP) outlining procedures to follow and prescribed routes when working on the site. The TMP shall incorporate any restrictions imposed by the planning consents, Highways Authorities and/or the Police Authority. The TMP will include specific routeing for construction traffic to the site.

The TMP shall be circulated by the Taylor Wimpey Production Manager to all parties who are employed or have a legitimate interest in the works.

The Taylor Wimpey Site Manager shall ensure that Construction Traffic Routeing Signs are erected prior to works commencing, and that these are maintained in good and clean condition throughout the duration of the works.

Taylor Wimpey shall apply the following additional measures to control any potential impacts arising from site traffic:

- Appropriate authorisation of any temporary road closures or diversions;
- Measures to prevent off-site parking of HGVs and employees’ cars and to ensure vehicles use designated routes;
- Maintenance of traffic and pedestrian safety at all times (including, for example, provision of ramps, barriers, uniform surfaces, signage etc); and
- Measures to avoid mud being deposited on roads (i.e. road sweeper).

7.8 Archaeology and Cultural Heritage

7.8.1 Impacts

There are no listed buildings, scheduled ancient monuments or conservation areas on site or within close proximity to it. It is likely that archaeological deposits found on site, if any, will not be of national significance.

The following activities associated with the proposed development could impact on potential archaeological remains:

- Excavation work for footings;
- Pre-construction drainage works and fencing;
- Movement of heavy machinery; and
- Installation of services, drainage and cabling.

7.8.2 Mitigation

Any unexpected archaeological discoveries shall be reported to the Council Archaeology Advisor, English Heritage and Taylor Wimpey Environmental Advice Line. Expert knowledge will be sought before continuing works.

7.9 Landscape and Visual Impacts

7.9.1 Impact

During the development stage there are likely to be some minor visual impacts to surrounding areas. This will include stockpiles of soils and aggregate materials, mobile plant and movement of heavy goods vehicles and temporary site offices.

7.9.2 Mitigation

The impact of the development itself has been assessed as being positive and no further landscape mitigation measures are proposed. During the construction phase, keeping the welfare areas, inclusive of hoardings, clean and tidy, shall mitigate the impact on the visual amenity. These areas will be monitored on a daily basis by site operatives from Taylor Wimpey.

All lighting of the site compound and welfare facilities will be directional and non-polluting (i.e. not pointing into the sky) and will either be set on timers or activated by passive infrared system to minimise their operation.

Existing trees and tree groups, especially those of moderate to high value, are to be retained where possible. Also, new planting within gardens and alongside residential streets to provide extra tree cover, increasing the visual amenity of the site.

8 MONITORING AND AUDITING

8.1 Introduction

Appropriate monitoring of the environmental effects of construction enables the effectiveness of environmental mitigation to be evaluated. It also allows environmental problems to be identified and responded to at an early stage. Monitoring will also help Taylor Wimpey to identify and implement environmental improvements, which will contribute to the overall environmental performance of the project.

8.2 Environmental Audits

Taylor Wimpey will carry out appropriate environmental inspections and monitoring of environmental performance in the form of monthly audits. Formal audits will be against an audit checklist, which will provide a mechanism to monitor and assess compliance against all Taylor Wimpey's requirements and standards.

Where problems are recognised, the corrective action will be identified by the inspector and subsequent corrective action undertaken within a defined time frame.

8.3 Environmental Monitoring

Environmental monitoring shall be carried out as necessary and requirements for environmental monitoring shall be reviewed as consents are received and consultations completed.

Key parameters that will require environmental monitoring include:

- Energy use arising from construction site activities;
- Water use arising from construction site activities;
- Waste generation during construction; to be monitored as part of the Site Waste Management Plan to ensure the appropriate treatment, handling, management and disposal measures are applied. Records shall be kept of quantities and types of waste handled;
- Dust pollution arising from construction site activities.

Documentation from environmental monitoring shall be maintained and made available as appropriate.

8.4 Environmental incident and corrective action reporting

Taylor Wimpey has an emergency response system documented within Section 4 of the Taylor Wimpey HSE Manual. All environmental incidents and near misses shall be reported and investigated by Taylor Wimpey.

The incident must then be reported to the Taylor Wimpey Environmental Advice Line (0845 003 8752) where an Environmental Consultant shall provide additional advice and support. Where relevant, the appropriate statutory authority (e.g. Environment Agency) shall be informed immediately. For Environmental Incidents the Taylor Wimpey procedure requires the site operatives to prevent the continuation of the incident, where safe and possible to do so. Copies of incident investigation reports shall be kept by Taylor Wimpey and action taken to prevent recurrence.

9 MANAGEMENT OF CONTRACTORS

All sub-contractors are required to provide Method Statements and Risk Assessments for all their proposed working methods as per Taylor Wimpey UK Ltd procedures. These will contain methods of activities, potential environmental receptors and are required prior to commencement on site. Copies of all these documents are to be held within the Site Office.

Method statements obtained by the contractor from their subcontractors should include, as a minimum:

- A description of the works being undertaken;
- Descriptions of the impacts to the environment caused by their works based on a review of surveys and information available for the development. The impacts should consider areas such as landscape and visual; transport, waste and noise and vibration;
- Details of the activities to be undertaken; equipment to be used; hours of operation; site access arrangements and likely vehicle movements and details of waste and emissions expected to be generated;
- Management and Mitigation measures;
- Monitoring and measurement responsibilities; and
- Emergency preparedness and response procedures.

The method statements of Taylor Wimpey and all the subcontractors will include the following environmental control measures:

- All waste to be segregated and placed in a suitable waste container;
- All fuel to be stored in suitable double skinned bowsters, tanks or within a bunded area;
- Drip trays or absorbent blankets to be placed under all static plant;
- All hazardous chemicals to have an up to date COSHH assessment, be appropriately labelled and be stored in a locked container;
- Emergency arrangements for spill response;
- Spillages to be reported immediately;
- Core working hours;
- Vehicle and plant engines to be turned off when not in use; and
- For excavations, works to stop immediately if unknown remains found.

10 TRAINING & COMPETENCE

Taylor Wimpey procedures for ensuring the correct levels of training and competence include:

- All operatives are informed at the induction stage of all sensitive ecological areas and are issued with an ecological document stating the reasons and locations of all the relevant areas;
- All operatives are inducted by Taylor Wimpey before work commences and informed that they are required to 'sign in' before the operative commences work;
- Taylor Wimpey works to their Taylor Wimpey HSE Manual and Taylor Wimpey CDM/EMS Manual, where individual operatives have specific Induction Sheets. These documents are read to the relevant operatives, where a signature is required on completion and a record kept in the site file;
- There are also procedures in place that any issues raised in relation to Environmental Health & Safety and work ethics, whether highlighted by Taylor Wimpey staff or site operatives, are relayed via 'Tool Box Talks' and are noted on an individual form, allowing site management to resolve the issues raised.
- A record of Tool Box Talks will be kept on site, stating date, description of non-conformance, potential implications, proposed corrective actions, individual responsible and target date.

10.1 Inductions

All project personnel and sub-contractors shall receive an Environmental Induction Presentation, prior to commencement of works onsite. No personnel, including subcontractors, shall be permitted to commence employment on site without prior attendance at an induction.

Environmental topics covered in the induction shall include but will not be limited to:

- Water resources;
- Pollution prevention;
- Emergency response procedures;
- Waste management and housekeeping;
- Management structure;
- Duties and responsibilities;
- Relevant procedures;
- Ecologically sensitive areas;
- Incident reporting;
- Consents and licenses;
- Legislation; and
- Environmental best practice.

10.2 Toolbox Talks

Regular 'Tool-Box Talks' on specialised topics will supplement the induction course. Toolbox talks shall be used to highlight issues of concern and to disseminate new information not previously provided. They will also offer site personnel with the opportunity to provide feedback.

Tool Box Talks shall include, but will not be limited to, instances where:

- There is a change to existing legislation, which requires an operational change;
- Site inspections or audits have identified corrective actions which require rolling out;
- Work is being undertaken in environmentally sensitive areas;
- There are significant changes in environmental conditions, i.e. heavy rainfall.

The frequency and topics of the Toolbox Talks shall depend upon the phase of construction. They shall be provided as often as necessary to address site-specific environmental requirements.

Toolbox talk topics for environmental management shall include, but will not be limited to:

- Ecologically sensitive areas.
- Environmental incident and reporting.
- Invasive weeds.
- Protected species.
- Silt and water management.
- Waste management and segregation.

Records of all 'Tool-Box Talks' and attendance shall be kept in the site offices.

10.3 Specialist training

Specialist training for specific members of the construction crews will be provided as required.

This may include but will not be limited to:

- Emergency environmental crews.
- Waste representatives.
- Fuel tanker drivers.

11 CHANGE MANAGEMENT

This CEMP will be reviewed following:

- A major environmental incident;
- A major change in the construction methods to be used on site;
- Change of environmental regulations that affect the works; and
- Change to the environmental aspects and impacts of the works.

12 FIGURES

Figure 1: Site Location Plan

The red line demarcates the residential development site boundary.

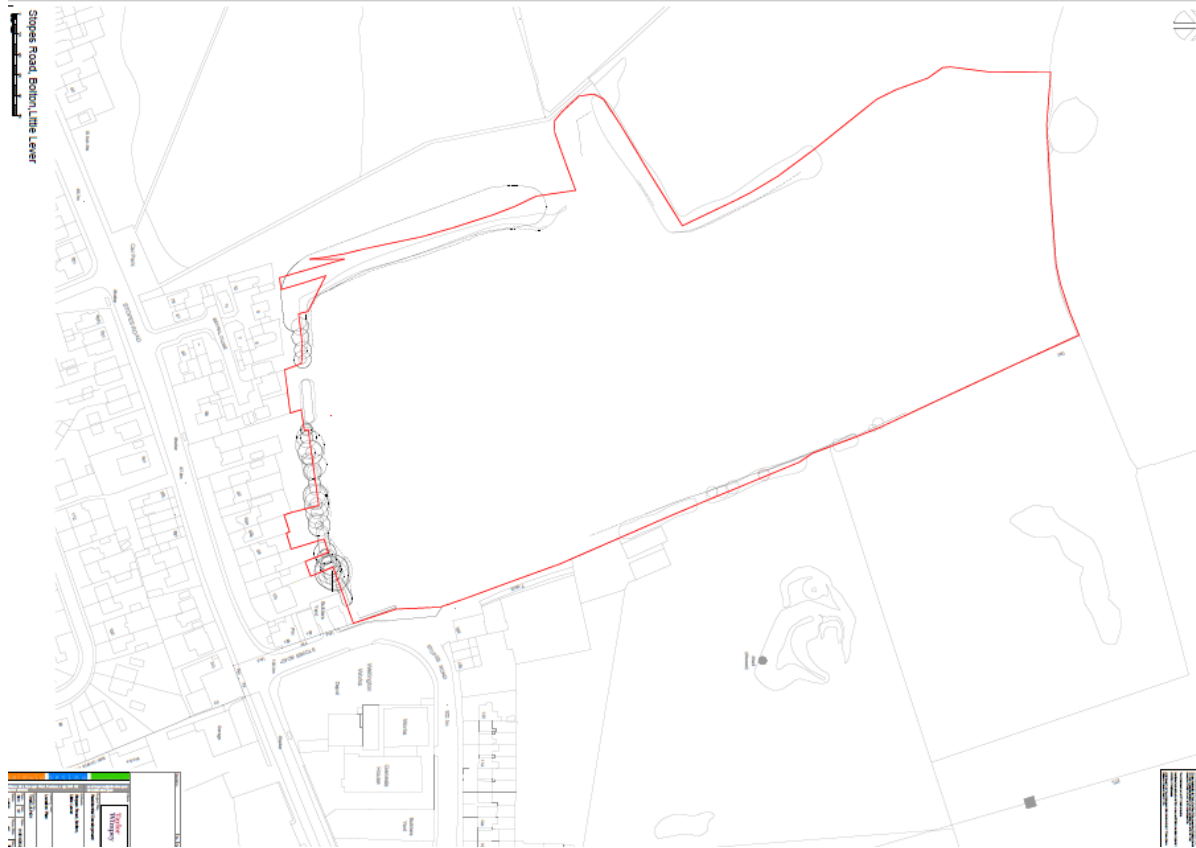


Figure 2: Planning Layout



Figure 3: Build Route



Figure 4: Compound Layout



[illegible]

Figure 7: S278 General Arrangement Plan

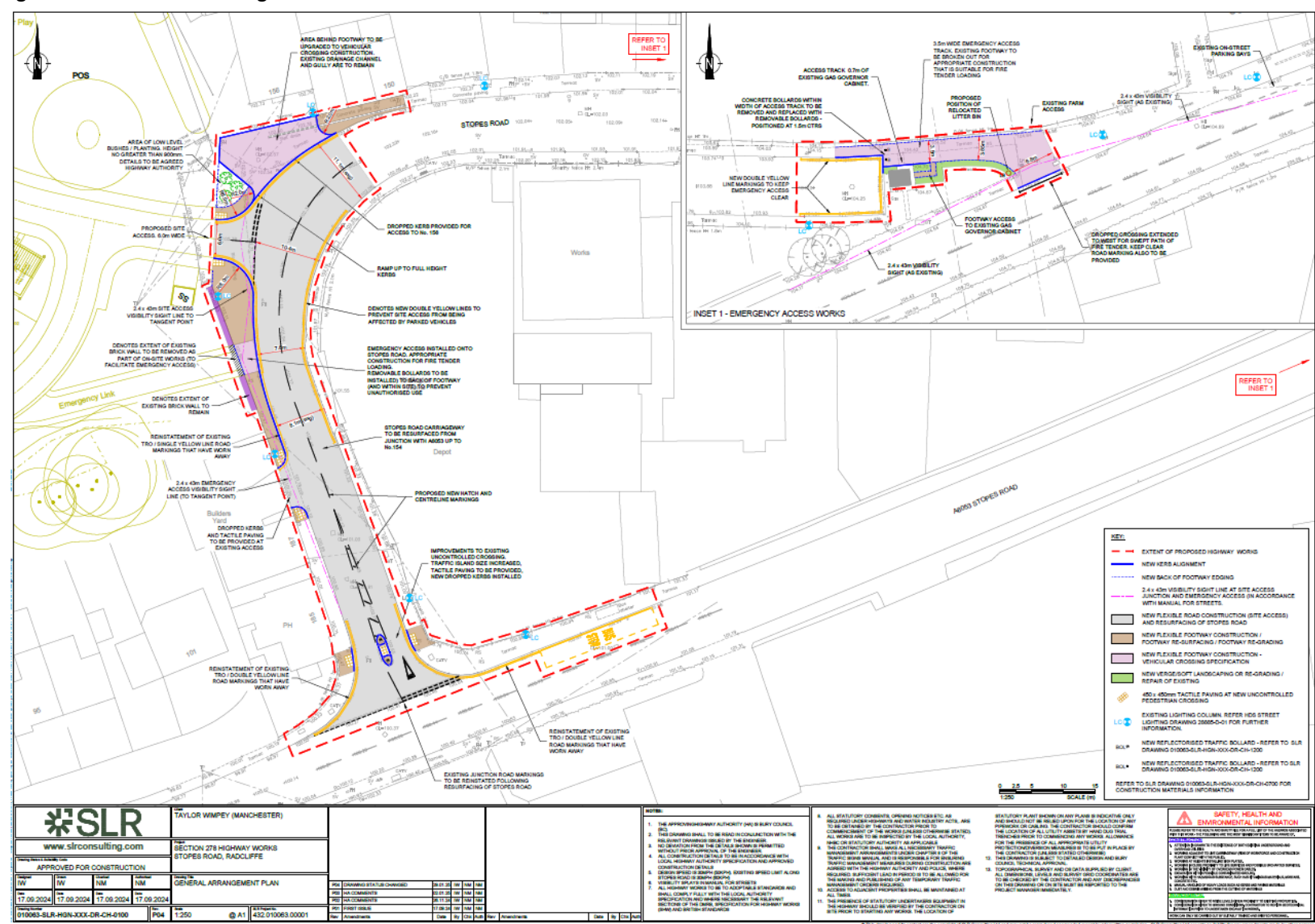


Figure 8: Current Site Access Photograph



Figure 9: Current Site Access Photograph 2

