



Construction Environmental Management Plan

Site Name	Standen Estate Phases 2,3 and 4	
Site reference	Standen Estate	
TW Company	Manchester	
Authorised by		Date:
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Figure 1: Site Location Plan

Figure 2: Build Route

Figure 3: Permanent Sales Area

1 INTRODUCTION

This Construction Environmental Management Plan (CEMP) is intended to form the basis for the management of the main environmental aspects associated with Phases 2, 3 and 4 of the Standen Estate development in Clitheroe and the proposal of units.

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 site is located north and west of Four Ends Lane, southwest of Pendle Road, east of Littlemoor Road and south of Clitheroe, the nearest postcode is BB7 1PR. The coordinates on National Grid are 374810, 440710. The proposed site area is 49.23 hectares in total.

To the southwest of the site is the A59 which is the main route from Blackburn to Skipton and gives access to the M65 where main towns such as Preston and Burnley can be accessed.

To the northwest of the site is an area of existing residential development. They are mainly two storey red/brown brick or rendered dwellings. There is a mixture of mews, detached and semi-detached dwellings.

To the far north/northwest of the site is Higher Standen and Pendleto Brook.

Please see figure 1 for the Site Plan.

The surrounding land use is as described:

North: Wooden fencing and hedgerows, immediately beyond are residential properties and an area of playing fields

North East: Pendle Road with agricultural fields beyond

East and South East: Four Ends Land and agricultural fields with the A59 circa 200m beyond

South: Main farm-house immediately beyond the farm buildings, with Four Ends Lane approx. 45m beyond. Agricultural land and 300m beyond is the A59 road.

South West: Immediately adjacent are a cluster of residential dwellings and 125m beyond is Standen Hall and associated buildings and grounds

West: A number of residential properties. 150m beyond is the A671 Whalley Road, immediately adjacent is a builder's yard.

Site History

The site was formerly agricultural land and farm buildings predominantly used for grazing and mowing. There are existing hedgerows running through the site, running from northeast to southwest and southeast to northwest, which have been retained in the scheme where possible.

The hedgerows meet in the centre of the site where there is an existing barn ruin which will be retained and become a focal point of the scheme with the idea of young children using it as a maze.

2 ENVIRONMENTAL CONSENTS

Planning conditions associated with the site are derived from the Outline Consent 3/2015/0895. The planning condition(s) with respect to the environment are:

Condition 24

No works shall take place within a phase until the applicant, or their agent or successors in title, has secured the implementation of a programme of archaeological investigation for that phase. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and agreed in writing by the Local Planning Authority.

Condition 25

No works shall take place within a phase until the applicant, or their agent or successors in title, has secured the implementation of a programme of building recording and analysis for that phase. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and agreed in writing by the Local Planning Authority.

Condition 27

Notwithstanding the provision of Condition 4 above no development shall take place on any part or phase of the development until full details of both hard and soft landscaping works relating to such part or phase have been submitted to and approved by the LPA in writing. These details shall include:

- planting details (including species, numbers, planting distances/densities and plant sizes);
- within the planting details - express identification of all supplementary and compensatory planting of native trees and hedgerows which shall be over a greater area than any trees or hedges to be lost (as a minimum of ratio of 3:1);
- surfacing;
- street furniture;
- signage;
- boundary treatments;
- a programme for the implementation of the landscaping works including all boundary treatments.

The development shall be implemented in accordance with the approved details .

Condition 31

No site clearance, site preparation or development work shall take place within a phase until a Long Term Landscape and Ecological Management Plan to include long term design objectives post completion management responsibilities and maintenance schedules for all landscaped/habitat areas (other than privately-owned domestic gardens) including any areas of public open space not covered by condition 30 and the buffer zones in conditions 20 and 21 such as grasslands, hedges, trees, swales, reed beds and other sustainable drainage features within that phase has been submitted to and approved in writing by the Local Planning Authority. The Long Term Landscape and Ecological Management Plan shall include (but not be limited to):

- monitoring of the establishment of all landscape planting and habitat planting;
- aftercare of all landscape planting and habitat enhancement in accordance with conservation and biodiversity objectives;

- monitoring and treatment of invasive species;
- monitoring of condition of and maintenance of footpaths to encourage use and avoid the creation of informal footpaths that may damage other habitats;
- monitoring and maintenance of bat and bird boxes;
- maintenance of SUDS; and appropriate timings of management works to ensure avoidance of bird nesting seasons etc

The Long Term Landscape and Ecological Management Plan shall be informed by the details contained within Chapter 7 Volume 1 of the Environmental Statement (October 2012) lodged with the planning application prepared by Amec. The Long Term Landscape and Ecological Management Plan shall be carried out as approved.

Condition 32

No part or phase of the development shall begin until full details of the following, where relevant to a particular Phase, have been submitted to and approved in writing by the Local Planning Authority:

- A vegetated buffer zone no less than 8 metres wide between Pendleton Brook and any construction activities.
- A vegetated zone no less than 5 metres wide between any other watercourse or ditch to be retained within a Phase.

The width of the buffer zones shall be measured from the top of the banks of the watercourses and shall be kept free of structures, hard standings and fences and shall be planted with locally native plant species of UK generic provenance.

Condition 35

No development shall take place within a phase until details of the provisions to be made for bat roosts on suitable trees, plots and building elevations within that phase and details of artificial bird (species) nesting sites/boxes on suitable trees, plots and building elevations within that phase have been submitted to and approved in writing by the Local Planning Authority. The approved works shall be implemented before the development in that phase is first brought into use.

Condition 36

No part or phase of the development shall begin until a Construction Environmental Management Scheme relating to such part or phase has been submitted to and approved in writing by the Local Planning Authority.

Where relevant, the Construction Environmental Management Scheme for each Phase shall contain (but not be limited to): -

- Tree and hedgerow protection measures in accordance with BS5837:2012;
- Measures to be applied to protect nesting birds during tree felling/vegetation clearance works, or other works that may affect nesting birds (including buildings or other suitable breeding bird habitat which are to be removed as part of the proposals);
- Watercourse and ditch protection measures including location and type of protective demarcation fencing along Pendleton Brook (and the calcareous grassland) and other important habitats identified in Volume 3 of the Environmental Statement (October 2012) lodged with the planning application such as Ditch 1;
- A method statement for the protection of bats at the trees and buildings identified in Volume 3 of the Environmental Statement (October 2012) lodged with the planning application including licensing requirements;

- Construction lighting scheme;
- A method statement for the protection of Brown Hare (particularly during the breeding season);
- Pollution Prevention Guidelines (PPG) and protocol including surface water monitoring along the Ditches and Pendleton Brook; and
- Eradication Management Plan for Japanese Knotweed

The Construction Environmental Management Scheme shall be carried out as approved.

Condition 37

No part or phase of the development shall begin until an Arboricultural Method Statement, Tree Protection Plan and Tree Protection Monitoring Schedule relating to such part or phase has been submitted to and approved in writing by the Local Planning Authority before the site works are begun within that phase.

The development shall be implemented in accordance with the approved details.

Condition 40

Before development begins within a phase a scheme (including a timetable for implementation) to secure at least 10% of the energy supply of the development hereby permitted within that phase from renewable or low carbon energy sources or a scheme that demonstrates that alternative measures will achieve at least 10% less energy consumption than similar development constructed in accordance with the current Building Regulations Standards shall be submitted to and approved in writing by the Local Planning Authority. The approved scheme/details shall be implemented as part of the development/as approved and retained as operational thereafter.

Condition 67

Prior to commencement of any phase or part of any phase of the development hereby permitted, full details of the foul drainage scheme for that phase including full details of any connections to the foul sewer network and any necessary infrastructure shall be submitted to and approved in writing by the Local Planning Authority. The details for each part or phase must be consistent with the Foul and Surface Water Drainage Strategy submitted and approved pursuant to condition 65 above and with the principles of the Flood Risk Assessment prepared by Amec Environment and Infrastructure dated October 2012 and the Foul Water and Surface Water Management Strategies for the whole site produced by Amec in January 2013. No housing or other development shall be occupied for that phase until the approved foul drainage scheme for that phase has been completed in accordance with the approved details and written notice of this fact has been sent to the Local Planning Authority.

Condition 68

Prior to the commencement of each phase or part of the development hereby permitted, full details for a surface water regulation system and means of disposal for that phase or part phase, based wholly on sustainable drainage principles and evidence of an assessment of the hydrological and hydrogeological context of the development for that phase (inclusive of how the scheme shall be maintained and managed after completion and any necessary infrastructure) shall be submitted to and approved by the Local Planning Authority in writing. The drainage scheme shall demonstrate that the surface water run off generated up to and including the 1 in 100 year critical storm will not exceed the run-off from the existing undeveloped site and following the corresponding rainfall event. The details for each phase

must be consistent with the Foul and Surface Water Drainage Strategy submitted and approved pursuant to condition 65 above and with the principles of the Flood Risk Assessment prepared by Amec Environment and Infrastructure dated October 2012 and the Foul Water and Surface Water Management Strategies for the whole site produced by Amec in January 2013. The development shall be completed, maintained and managed in accordance with the approved details.

Condition 69

No part of phase of the development shall begin until full details of the method to delay and control surface water discharged from that part or phase of the development; and the measures taken to prevent pollution of the receiving ground waters have been submitted to and approved in writing by the Local Planning Authority.

Condition 70

Prior to the commencement of each phase or part phase of the development hereby permitted, a Sustainable Drainage, Construction, Maintenance and Management Plan (CMP) for the lifetime of that phase or part phase of the development shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include arrangements for permanent adoption by a SuDs approving body (SAB), Statutory Authority or other relevant party of any sustainable drainage features including any outfalls into local water courses, structures, ponds and bridges. Each phase shall be completed maintained and managed in accordance with the approved details.

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 bowsers;
- 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:
Steve Birch Site Manager	Taylor Wimpey		
Tom Heaps Project Manager	Taylor Wimpey		
Danny Pickup Production Manager	Taylor Wimpey		
Steve Mann Technical Manager	Taylor Wimpey		
Andy Dainton Engineer	Taylor Wimpey		
Environmental Advice Line	RSK		
Environment Agency Incident Hotline	Environment Agency		uk
Environmental Health	Ribble Valley Borough Council		

3.3 Site Communication

Communication Method	Frequency	Attendees	Environmental Points for discussion
Contractor Site Meetings	Weekly	TBC	Any pertinent environmental issues.
Subcontractor Meetings	Weekly / Fortnightly / 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

On XXXX 2015 Taylor Wimpey sent consultation flyers to...

On XXXX 2015 Taylor Wimpey held a community consultation meeting at...

Any further concerns raised by the public or local community can be brought to the attention of the Site Manager or reported to Head Office.

Alongside the engagement activities for the local community the pre-planning process has required liaison with a range of local and specialist stakeholders including, XXXXXX.

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 of phases 2, 3 and 4 will consist of 426 residential units ranging from 1 bed apartments to 5 bedroom houses. 128 of the dwellings will be allocated for affordable housing and 298 for private sale.

5.2 Construction program

Works are scheduled to commence Summer 2021.

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 Ribble Valley 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 Ribble Valley 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. In addition, periodic testing will ensure that noise levels during construction do not exceed 65db LAeq 12hr at properties outside of the development as per condition 42.

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

It is considered very unlikely that the proposed development would result in negatively impacting the designated sites that are located within 2km of the site. However, working measures are to be completed through the construction phase have been detailed to minimise potential impacts on common amphibians, badgers, bats, nesting birds, barn owl and hedgehogs.

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 majority of the site lies within Flood Zone 1 as defined by the Environment Agency. A small area located on the very south western edge of the site boundary lies within Flood Zone 2 and Flood Zone 3. Due to the site being greater than one (1 No) hectare in size, a standalone Flood Risk Assessment and Drainage Management Strategy should be undertaken with consideration to surface water drainage management.

7.2.2 Mitigation

To protect groundwater 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

The Phase 2, 3 and 4 and Spine Road Area was subject to a filed survey on 17th June 2019, which was undertaken by Ecologist Jessica Flanagan GradCIEEM.

It is considered very unlikely that the proposed development would result in negatively impacting the designated sites that are located within 2km of the site due to:

- Large distances between the designated sites and the proposed development site
- A lack of ecological or hydrological connectivity between the designated sites and the proposed development site and,
- The presence of physical barriers, such as the residential housing areas to the north and the A59 road to the east, between the designated sites and the proposed development site

Habitats

The majority of the habitat is to be lost within Phases 2, 3 and 4 and the Spine Road Area. This habitat is an intensively managed grassland with low species diversity and thus the ecological impact resulting from its loss is considered to be very low.

Badgers

There is a possibility for badgers or badger setts to be damaged or disturbed during the proposed development.

Bats

The proposal is to remove trees T44 and T45 and retain the remaining trees in this area. T44 and T55 are classified as having low suitability for the use by roosting bats.

As the majority of existing linear features, such as mature trees, hedgerows and ditches, are to be retained on site it is considered that the proposal will not likely have a significant impact on bat commuting and foraging.

Spine Road

Current plans indicate that a small section of trees at ditch D1 will be removed within this area. As these trees are classified as having negligible suitability for roosting bats, it is considered very unlikely that the removal will impact any bats negatively.

Nesting Birds

Nesting birds may be negatively affected by the removal of vegetation within this area if undertaken at the incorrect time of year.

Brown Hare and Hedgehog

Whilst both species are present on site, the habitat currently constitutes a small fraction of the overall habitat within the wider landscape. As such, it is deemed that the loss of this area would not have a significant impact on the overall local brown hare and hedgehog populations.

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.

Protection of protected species on the site is to be achieved through the following measures:

- Wildlife friendly planting is implemented within the proposed development
- A pre-construction check for badger presence and setts should be carried out on and within the 30m of all phases and establish if any setts have been established since time of survey
- If plans are altered and additional tree removal which are suitable for bats, for actions will be required
- Any lighting schemes to be implemented must be designed in accordance with Guidance note08/18 issued by the Bat Conservation Trust and Institute of Lighting Professionals, to reduce the likelihood of causing disturbance to bats
- Vegetation removal should be carried out outside of the bird nesting season. If not possible, an ecologist should check suitable habitats before removal.
- It is recommended that hedgerow/scrub removal should be carried out within the autumn months of September – October.

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. It is likely that any archaeological deposits found on site, will not be of national significance. Clitheroe Castle (SAM 27744, Registered Park and Garden 1001361) lies over 1km to the northwest.

The site has been the subject of an archaeological Desk-Based Assessment (Durham University Archaeology Service 2011). The following has been summarised from this assessment and is augmented with recent data obtained through phases of archaeological work undertaken on the site by ARS Ltd.

In 2018 an excavation was undertaken across a Bronze Age ring ditch within the Phase 1 area of the Higher Standen Farm development area. The excavation identified a total of nine cremation burials in a central position within the monument. There is also evidence that the surrounding area was further exploited in prehistory. Six Neolithic stone axes have been reported from the Clitheroe area, a stone mace head and a bronze flanged axe head dating from the Bronze Age have also been found in Clitheroe.

The Barker House Farm site was a Romano-British native site with a 'later prehistoric' morphology. It is possible that similar remains may exist at Higher Standen Farm, but have not yet been encountered by evaluation trenching.

The line of the Roman road linking the forts at Ribchester and Ilkley runs south-west to north-east close to the western edge of the Phase 2 development area, and is crossed by the proposed course of the spine road further to the south-west. The course of the road is known in several places, where there have been investigations, and projected in others. Between Ribchester and Lidgett Flatt Farm the road has been recorded and between Lidgett Flatt Farm and Eller Gill the line of the road is projected. The road appears to be well preserved in a pasture field at Dinckley where limited investigations have taken place. On the Whalley Road and Clitheroe Road to the south of the study area, a house building project exposed the road and a Roman inhumation. Geophysical survey at the quarry site at Bellham Park revealed a series of ditches to the north of the road. At Higher Standen Farm a Roman coin of Tetricus II (AD270-273), half of a Roman seal box, part of a lock pin and a terret ring for a harness were recovered during metal detecting within the proposed

development area. Artefacts from the Medieval Period have been found on the site: a medieval spindle whorl was found in the south-western part of the proposed development area and another was found just south-west of the Pendleton Brook. Field boundaries, drainage ditches and agricultural field drains dating to the post-medieval period were identified during evaluation trenching undertaken in the Phase 1 area in 2017 (Dyson 2017) and it is likely that similar features have survived over the Phase 2-3 and spine road areas.

Historic maps show that the development area has remained as open farmland since the post-medieval period.

A geophysical survey (magnetometry) was undertaken in July-August 2012 (Durham University Archaeological Services 2012b). A few features of potential archaeological origin were identified in the Phases 2-3 development areas, comprising probable field boundaries and drainage ditches, whilst the course of the Roman Road and a circular feature were identified along the course of the spine road close to the cut/valley of a stream course c.500m west of Higher Standen Farm.

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 will 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.

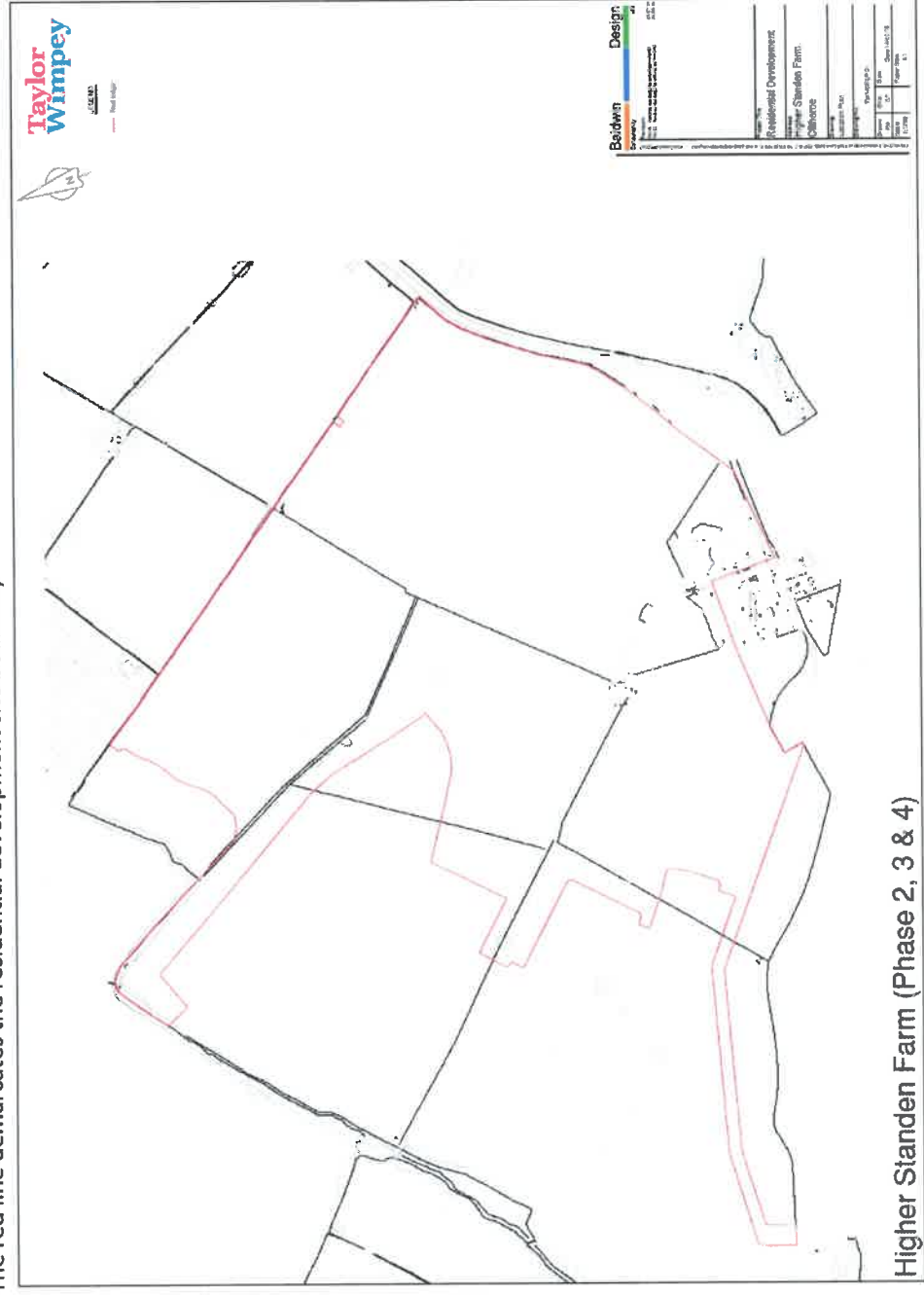
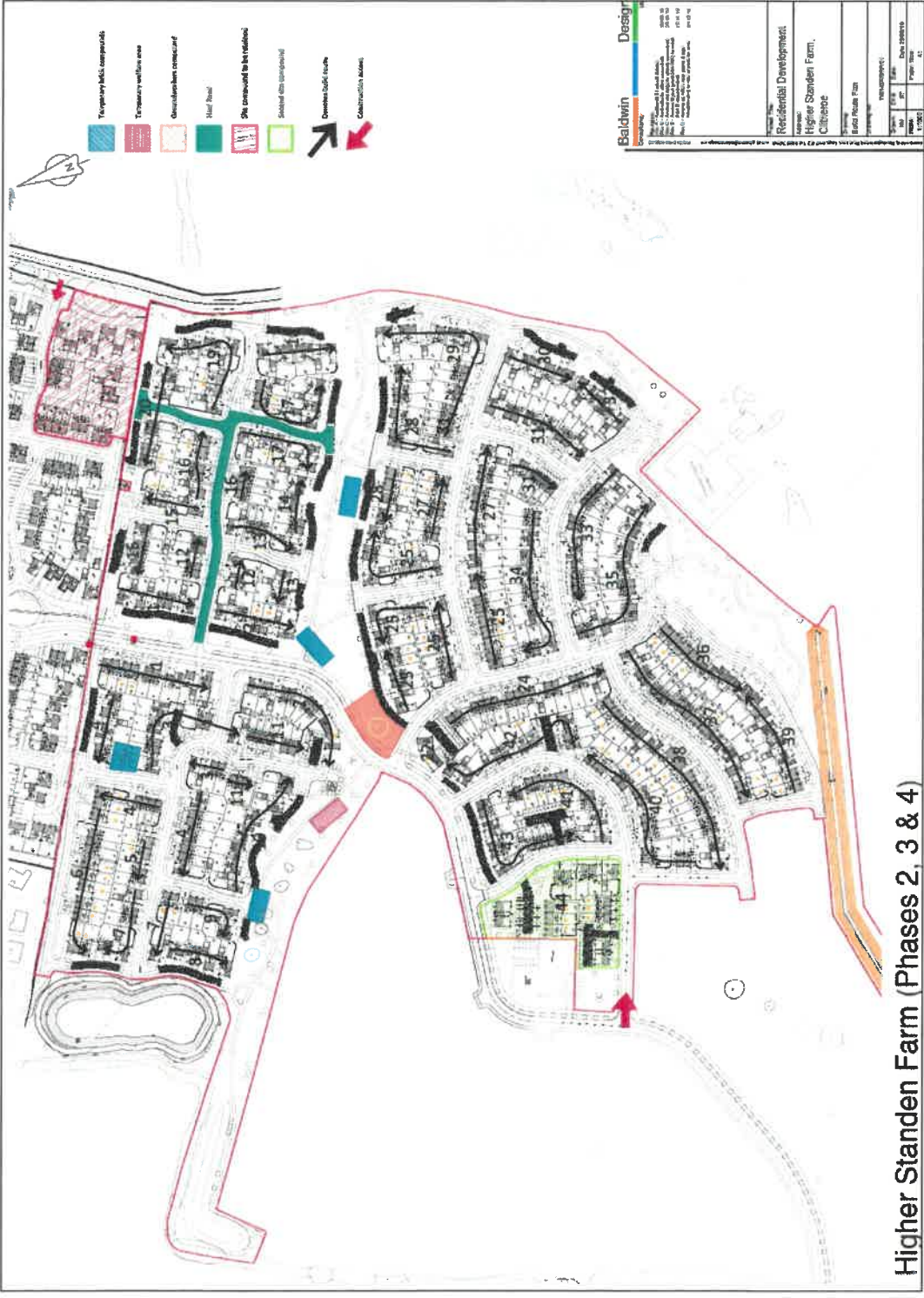


Figure 2: Build Route



Higher Standen Farm (Phases 2, 3 & 4)

Figure 3: Permanent Sales Area