

Bellway



Building homes,
building value



CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

**LAND NORTH OF GATEWEN ROAD,
WREXHAM**

REFERENCE: BH/NW/GR/CEMP/001

PREPARED BY: BELLWAY HOMES LIMITED (NORTH WEST)

DATE: OCTOBER 2021

TABLE OF CONTENTS

TABLE OF CONTENTS	II
1.0 INTRODUCTION	1
1.1 Proposed Development	1
1.2 Key Project Personnel and Involved Parties	2
2.0 SITE DESCRIPTION	3
2.1 Summary of Site Details	3
2.2 Contaminating Land Uses	3
2.3 Surrounding Land Uses	3
3.0 SITE MANAGEMENT	4
3.1 Health and Safety	4
3.1.1 Principal Contractor Requirements	4
3.1.2 Risk Assessment and Method Statements	4
3.1.3 Smoking Policy	5
3.1.4 Pest Control	5
3.1.5 Asbestos	5
3.1.6 Risk from Falls	5
3.1.7 Existing Services	5
3.1.8 Other Considerations	5
3.2 Public Community Strategy and Complaints Procedure	6
3.2.1 Complaints	6
3.3 Operating Hours	8
3.4 Site Welfare and Site Offices	8
3.5 Controls to Limit Noise and Vibration	8
3.5.1 Site Preparation, Design and Layout	9
3.5.2 Operations	9
3.5.3 Plant and Equipment	10
3.5.4 Piling	11
3.6 Lighting	11
3.7 Dust Suppression, Mitigation and Avoidance Measures	11
3.7.1 Construction Regulations	12
3.8 TV Signal	12
3.9 Toolbox Talks	13
4.0 EMERGENCY AND FIRE ARRANGEMENTS	14
4.1 Hospital	14
4.2 On-Site Emergency Response Procedures	14
4.2.1 Spill Action Check List	14
4.3 Fire safety	15
4.3.1 Fire Risk Assessment	15
4.3.2 Fire Precautions	15
4.3.3 Legal and enforcement responsibilities	16
5.0 TRAFFIC MANAGEMENT, TRANSPORT & SITE ACCESS	17
5.1 Site Access	17
5.2 Parking	18
5.3 Loading and Unloading of Plant and Materials	18
5.4 Storage of Plant and Materials	18

5.5	Preventative Measures for Highway Debris	18
5.6	Waste Management	19
5.7	Pedestrian Access	19
5.8	Vehicle Movements and Environmental Considerations	19
6.0	ENVIRONMENTAL CONSIDERATIONS	21
6.1	Protection of Existing Features During Construction	21

APPENDICES

Appendix A	BHNW130_PL01_Rev A – Site Development Plan
Appendix B	BH/NW/GR/CMP/01_Rev A – Construction Management Plan

COMMITMENT

Commitment to the Construction Method Statement and Logistics Plan	
Signed on behalf of the Project Owner:	
Date:	
Signed on behalf of the Principal Contractor:	
Date:	

Distribution

A Construction Environment Management Plan (CEMP) shall be kept on site and be readily available for inspection at the request of an Authorised Officer of the Council. This CEMP shall be reviewed as necessary and all revisions shall be signed and dated in an addendum format forming part of the original CEMP.

1.0 INTRODUCTION

To support a reserved matters planning application in respect of a residential development on land to the North of Gatewen Road, this Construction, Environment Management Plan 'CEMP' has been prepared by Bellway Homes Ltd. (Northwest). This document is to also be used to discharge planning conditions 8 & 9 of the appeal planning decision (ref. APP/H6955/A/19/3238474). The condition states the following: -

8) All works in relation to the implementation of this permission, including deliveries to and / or leaving the site, shall be undertaken only between the hours of 7.30 and 18.00 Monday to Friday, and 08.00 to 14.00 on a Saturday, and at no time on a Sunday or a Bank Holiday.

9) No part of the development shall commence until a Construction Traffic Management Plan including provisions for contractor parking has been submitted to and approved in writing by the Local Planning Authority and the Plan as is approved has been fully implemented.

Specific provisions for the following points have therefore been made to cover the above and other related activities:

- ▶ Measures for prevention, control and monitoring of noise, vibration and dust nuisances during construction including a dust management plan which provides details for daily dust risk assessment and targets which are related to relevant air quality standards;
- ▶ Traffic Management including the parking of vehicles of site operatives and visitors;
- ▶ Staff BS5228:2009 training records;
- ▶ Health, Safety and Environmental Management records (including Conversation Area features);
- ▶ Complaint register;
- ▶ Public safety, site security and community relations;
- ▶ Operating hours;
- ▶ Construction waste management plan to include pest control measures;
- ▶ Fire and Emergency Arrangements;
- ▶ Utility Services;
- ▶ The loading and unloading of plant and materials;
- ▶ The storage of plant and materials used in constructing the development;
- ▶ The erection and maintenance of security hoarding including decorative displays and facilities for public viewing, where appropriate; and wheel washing facilities

The CEMP is a live document through the construction phase and may require revision during the course of the development to reflect any changes in legislation, standards and guidance or other issues such as complaints. Any revisions will need to be agreed with the Local Planning Authority.

1.1 Proposed Development

The proposed development comprises the construction of 112 dwellings and associated infrastructure and landscaping; a new highway access junction from Gatewen Road; public open space and sustainable drainage infrastructure; a dedicated electricity substation and a foul water pumping station. A proposed development plan (ref. BHNW130_PL01_Rev_A) is included in Appendix A.

1.2 Key Project Personnel and Involved Parties

Project Owner	Bellway Homes Limited (North West)
Contact	Jane Aspinall
Address	2 Alderman Road, Liverpool, Merseyside, L24 9LR
Email	Jane.Aspinall@bellway.co.uk

Environmental Consultant	Leigh Ecology
Contact	Roy Leigh
Address	
Telephone No	01606 892 032
Email	roy@leighecollogy.co.uk

Project Architect	Astle Planning & Design
Contact Name	James Narsai-Lathom
Telephone No	01244 886 644
Email	james@astlepd.co.uk

Site Manager	Bellway Homes (NW) Ltd.
Contact Name	TBC
Telephone No	TBC
Email	TBC

2.0 SITE DESCRIPTION

The site is an irregular shaped parcel of agricultural land covering approximately 11.91 acres (Gross). The site is bound to the west by open fields comprising of play equipment, east by adjoining residential development and south by existing residential dwellings on Gatewen Road. To the North is more residential development, developed by Bloor Homes several years prior.

The site slopes heavily from East – West and is in active use for agricultural use (horse grazing).

2.1 Summary of Site Details

Site Address	Land North of Gatewen Road, Wrexham, LL11 6UY
National Grid Reference	SJ 312 515

2.2 Contaminating Land Uses

Following extensive site investigation works, the contaminant assessment found no presence of impacted materials in the immediate vicinity.

2.3 Surrounding Land Uses

Surrounding land uses are summarised below.

Surrounding Land Uses

Direction	Land Use
North	Existing residential development (Bloor Homes)
South	Existing residential dwellings served from Gatewen Road
East	Existing residential development (Bloor Homes)
West	Open fields (containing play equipment)

3.0 SITE MANAGEMENT

3.1 Health and Safety

From the commencement of the development site, the principal contractor will designate the person(s) who will have overall responsibility for Health and Safety on site. A designated person will be on site at all times while operations are taking place, and have the necessary authority to initiate changes to work practices and/or mitigation as appropriate.

The Health and Safety Executive (HSE) has issued Health and Safety requirements for all construction projects within the document The Construction (Design and Management) Regulations 2015. Reference will be made to this document prior to and during all construction activities.

This Health and Safety note is for pre-construction guidance and is not intended as a detailed Construction Phase Plan.

3.1.1 Principal Contractor Requirements

The Principal Contractor will ensure that all obligations identified by the Construction (Design & Management) Regulations 2015 and other applicable legislation are complied with, notably:

- ▶ To develop a Construction Phase Health & Safety Plan;
- ▶ Carry out site inductions to all contractors and operators. These will include both site specific and industry standard rules and regulations;
- ▶ Project safety information will be displayed at site access and egress points, as well as site offices and welfare areas. This will include PPE requirements and details of site Health and Safety managers;
- ▶ As required, restricted site access to allow only authorised persons in by use of site security;
- ▶ Obtain risk assessments and method statements from all contractors engaged to work on the project, particularly where they may impact on others;
- ▶ Maintain the Safety Notice Board and the display of all Statutory Notices;
- ▶ Procure the appointment of competent designers or contractors as far as is reasonably practicable through the use of the supply chain management process;
- ▶ Monitor the health and safety performance of persons and companies working on the project;
- ▶ Maintain adequate levels of welfare facilities for the work force, including contractors; and
- ▶ Encourage an open door policy and blame free safety culture in the reporting of hazards and useful work practices. The statutory requirement of all operatives to look after their own safety and not engage in activities which will put others at risk /cause them harm will be underlined.

3.1.2 Risk Assessment and Method Statements

The Principal Contractor will prepare Risk Assessment and Method Statements (RAMS) prior to commencement of any site works. All personnel who will be on site must be made aware of the RAMS through a formal induction. A copy of the RAMS will be available in the site office for anyone to access and refer to at any time.

All personnel on site must sign in and out of site at the beginning and end of each working day.

3.1.3 Smoking Policy

In accordance with current UK legislation, a 'no smoking' policy must be established. Any designated safe open air locations where smoking is allowed will be of a low fire risk design, away from any combustible or flammable materials and provided with metal ashtrays filled with sand.

Smoking rules will be brought to the attention of all workers and visitors to the site. Appropriate signs will be displayed, particularly in high-risk or communal areas such as canteens and site access points.

Contractors will be advised of the health risk associated with smoking and material will be displayed which encourages giving up smoking.

3.1.4 Pest Control

As well as being a threat to health and wellbeing, rats, mice and birds can have serious structural and financial impact on buildings such as damaging thermal insulation, electrical wiring, drainage systems and other structural components.

The Principal Contractor will produce a method statement on how pest control will be managed during the construction works.

3.1.5 Asbestos

Should asbestos be identified on site, appropriate asbestos mitigation measures (i.e. wearing appropriate PPE/RPE, damping down of soils during excavation and stockpiling, and covering open excavations and stockpiled soils with plastic sheeting) will be employed during demolition, groundworks and construction in order to ensure that workers are not exposed to asbestos fibres.

3.1.6 Risk from Falls

Falls from height are one of the biggest causes of workplace fatalities and injuries. The most common causes are falls from ladders and through fragile roofs. The Principal Contractor must make sure that the work is properly planned, supervised and carried out by a competent person before any works is undertaken including the use of harnesses should the contractors RAMS specify.

3.1.7 Existing Services

Existing services are located on site and will be diverted / disconnected as appropriate to remove them from the development site. A safe digging area from any services located will be established before any excavations are undertaken. All services on site will be treated as live unless they have been confirmed as dead.

3.1.8 Other Considerations

Materials which detail other aspects of personal health, safety and welfare will be made available to all site personnel. These could include:

- ▶ Mental health awareness and a contact number for Samaritans;
- ▶ Hydration level indication through urine colour;

- ▶ Recommendation to use adequate sun protection (sun cream); and,
- ▶ Promoting a positive health and safety culture, including incident reporting.

The HSE may attend site at any time and request to see all health and safety documentation, to verify that all safe working practices are being adhered to, and they are entitled to stop all works if their findings are unsatisfactory.

3.2 Public Community Strategy and Complaints Procedure

Liaison with local residents who may be affected by construction works is required. Local residents will be informed of the nature of the works, proposed hours of work and their expected duration.

Communication to local residents will include publicity, inconvenience letters, including the name and telephone number of the principal contractor. The principal contractor will be able to give further information to the caller and deal with any complaints or emergencies that may arise.

Additionally, the contact details of those accountable for environmental issues, the principal contractor and the contractor's regional/head office to assist in dealing with complaints if they were to arise during the works.

3.2.1 Complaints

Details of the contractor will be visible on the hoarding, allowing people to get in contact with them easily for any queries or complaints.

Should noise, vibration and dust complaints arise from the building works, these complaints must be recorded in a formal complaint's register and made available to the Local Authority, if requested. The complaint register shall provide information on the date, time, details of complaint and details of any monitoring carried out. The cause of the complaint will be identified/investigated in a timely manner and any mitigation works carried out will be recorded.

If complaints or activities with a high potential to cause complaints were/are to arise, additional environmental monitoring of noise, vibration and dust and setting of control targets/limits may be required. This would be the responsibility of the site operator and would need to be agreed with the Local Planning Authority and carried out by suitably trained personnel.

All site staff are to be briefed regarding the complaints procedure.

Elevated Noise Levels

Any elevated levels of noise identified by the complaints procedure should be mitigated as follows:

- ▶ The Site Manager will investigate the source of the noise and carry out a range of checks at the identified source of the elevated levels if it is found to be originating from within the Site. As part of these checks the Site Manager will consider the need for quantitative noise monitoring;
- ▶ All noise monitoring should be completed with due regard paid towards the methodology prescribed in British Standard 5228+A1 (2014) (BS5228): 'Code of practice for noise and vibration on construction and open sites – Part 1: Noise'. Noise monitoring locations should be agreed with

the Local Planning Authority;

- ▶ The results of any monitoring will determine whether construction activities are causing an unacceptable noise impact at the receptor location; and,
- ▶ The Site Manager will then ensure that construction activities are being undertaken in accordance with the manufacturers specifications, to the requirements set out in this Noise and Vibration Management Plan and ensure that any improvements required to minimise the noise levels are made.

To further mitigate the elevated noise levels, the following actions shall also be considered:

- ▶ The modification or replacement of equipment identified as generating excess noise;
- ▶ Installation of temporary barriers around the noise generating equipment/processes; and
- ▶ Once the improvements identified by the Site Manager have been completed, the manager will commission a further set of monitoring to ensure that the improvements have met the required standard. If the noise rating levels are still not being met then the manager will repeat the request for improvements and subsequent monitoring until the noise limits are achieved.

If operational failings are identified, the re-training of employees will take place to ensure that all employees operate to the required standards. The Site Manager will ensure a close liaison with the Local Authority throughout all stages of the process following a complaint related to elevated noise levels.

Elevated Vibration Levels

Any elevated levels of vibration identified by the complaints procedure, either through human perception or measurement, should be mitigated as follows:

- ▶ The Site Manager will investigate the source of the vibration and carry out a range of checks at the identified source of the elevated levels if it is found to be originating from within the Site. As part of these checks the Site Manager will consider the need for quantitative vibration monitoring;
- ▶ All vibration monitoring should be completed with due regard paid towards the methodology prescribed in British Standards 6472-1:2008 'Guide to evaluation of human exposure to vibration in buildings. Part 1: Vibration sources other than blasting' and 5228+A1 (2014) (BS5228): 'Code of practice for noise and vibration on construction and open sites – Part 2: Vibration'. Vibration monitoring locations should be agreed with the Local Planning Authority and should be as close as possible to the garden/building envelope of the complaints property;
- ▶ The results of any monitoring will determine whether construction activities are causing an unacceptable vibration impact at the receptor location. Real-time results will be required in the event of any structural damage criteria being met or exceeded during operations; and
- ▶ The Site Manager will then ensure that construction activities are being undertaken in accordance with the manufacturer's specifications, to the requirements set out in this Management Plan and ensure that any improvements required to minimise the vibration levels are made.

In the event of elevated levels of noise being identified, the event will be reported into an appropriate management system by a member of operational staff, i.e. the Construction Director. The completed

form should then be distributed for review at operational, management and health and safety meetings.

Reporting Measures

If any noise or vibration complaints are reported then these will be investigated immediately with the relevant contractor.

The results of the investigation, along with details of any mitigation methods implemented or work practice that has been modified and how complainants have been kept informed will also be sent to Environmental Protection Team as soon as possible.

All site staff are to be briefed regarding the complaints procedure.

3.3 Operating Hours

In line with planning condition No. 8 associated with the appeal planning decision, hours of work will be restricted as per the timings indicated below, including deliveries to and / or leaving the site:

- ▶ Monday – Friday: 07.30 – 18.00; and
- ▶ Saturday: 08.00 – 14.00.

No construction works will commence on Sundays or Public/Bank holidays.

The times incorporated in the CEMP are specific to the site and related to the type of work being carried out. There are some occasions (such as morning arrivals) where the times can vary, on the basis that residential occupiers will not be unduly affected by noise.

Any operations creating elevated levels of noise outside the standard hours cannot be undertaken without prior written approval of the Local Authority. The permitted times of working may be reduced in the case of noisy schedules.

The main contractor will be held responsible for ensuring these instructions are given to all drivers, including those delivering site materials.

3.4 Site Welfare and Site Offices

Welfare facilities and site offices with a toilet block and various storage containers will be located on site. The site welfare will include facilities for dining, heating of food and water, hand wash basins with hot and cold running water and toilet facilities in sufficient quantities to satisfy the complement of site staff in line with CDM regulations 2015.

3.5 Controls to Limit Noise and Vibration

3.5.1 Site Preparation, Design and Layout

It is important to consider the impact of the construction site on the local environment. This will include understanding where the nearest sensitive resource or residential receptor is, the general ambient noise level in the area and having an understanding of what the impacts will be, given the duration, scale and type of construction and demolition required.

Where practicable:

- ▶ Locate the site access and the material storage away from sensitive receptors;
- ▶ Position site huts to provide additional screening of works;
- ▶ Provide turning space within the site, or create a through road, avoiding the need to reverse and reducing the associated noise from reverse warning systems;
- ▶ Delivery routes and vehicle holding areas will be chosen to avoid diverting traffic;
- ▶ Establish an electricity supply to the site. This will limit the requirement for diesel generators which can have a localised noise and air quality impact; and,
- ▶ Ensure adequate planning within the project to prevent noise generating from double handling of materials and overlapping of high noise activities.

Noise Impact Assessment

Wardell Armstrong were commissioned by Bellway Homes (NW) to undertake a Noise Impact Assessment for the proposed development site. The assessment includes the use of noise monitoring data from survey works in October 2021, and traffic data provided by the appointed traffic consultant.

The report ultimately concluded that, existing noise levels across the site are predicted to be of a magnitude suitable for proposed residential development.

3.5.2 Operations

Any plant and equipment, including any on hire, is to be checked to ensure it is in good working order and conforms to the standards of the manufacturer. Equipment is to be properly silenced and meet statutory emission standards. Defective items are not to be used.

All large concrete pours are started within normal hours, to avoid overruns. Before works commence, the site workforce will be fully briefed on the need to keep all noise generated to a minimum. The opening and closing of the site access will be minimised through good coordination of deliveries and vehicle movements.

Consideration should be given to excavations close to neighbouring structures including roadways and pavements with respect to adverse effects from vibratory plant.

3.5.3 Plant and Equipment

Noisy plant or equipment will be sited as far away as is practically possible from sensitive receptors. The use of barriers such as site huts and acoustic sheds or partitions to deflect noise away from noise sensitive areas are to be employed wherever practicable.

Wherever practicable, all plant and equipment will be powered by mains electricity in preference to locally powered sources such as diesel generators. Hand tools will also be electrically powered rather than petrol or diesel driven.

Vehicles and mechanical plant used for the purpose of the works will be fitted with effective exhaust silencers, maintained in good and efficient working order and operated to minimise noise emissions. The contractor will ensure that all plant complies with the relevant statutory and manufacturers' requirements.

For works consented to occur outside of normal working hours, where practicable, a broad-band reverse warning system will be used on all vehicles and at any time where it is safe to do so, all sirens and alarms will be disengaged.

Machines in intermittent use will be shut down in the intervening periods between works or throttled down to a minimum. Noise emitting equipment that is required to run continuously may have to be housed in suitable enclosures.

Compressors will be "sound reduced" models fitted with properly lined and sealed acoustic covers that will be kept closed whenever the machines are in use.

Equipment which breaks concrete, brickwork or masonry by bending or by bursting will be used in preference to percussive tools as far as practicable.

Pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers.

During backfilling and ground compaction work, dead rollers will be used in preference to vibrating rollers where practicable in accordance with compaction capabilities.

Where practicable, rotary drills and bursters actuated by hydraulic, chemical or electrical power will be used for excavating hard or extrusive material.

Plant will be maintained in good working condition so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.

Care will be taken when loading or unloading vehicles, dismantling scaffolding or moving materials etc. to reduce impact noise.

The types of equipment are yet to be confirmed however the equipment to be used on site will be detailed within the construction phase plan.

3.5.5 Piling

Where piling is to be used as part of the development noise and vibration mitigation measures should be in place for the duration of the piling activities. These include:

- ▶ Control at the source (e.g. silencers, vibration dampers, enclosure, and the use of alternative piling methods such as press-in piling);
- ▶ Control along path of noise from source to receiver (e.g. barriers, screening and location of plant); and,
- ▶ Adequate maintenance of plant and equipment – ensuring inspection and records of inspections.

3.6 Lighting

Any artificial lighting provided on the site will be installed in such a way as to cause no light trespass beyond the site boundary or annoyance from glare at nearby sensitive receptors. Where appropriate, consideration will be given to light screening and directionality to achieve this. If complaints are received by the Local Planning Authority in relation to light nuisance from the site, immediate action should be taken to avoid any further light issues.

3.7 Dust Suppression, Mitigation and Avoidance Measures

A development may include all or some of the following phases which have the potential to generate dust:

- ▶ Earthworks;
- ▶ Construction; and
- ▶ Vehicle Movements and Trackout.

The Institute of Air Quality Management (IAQM) has produced a document '*Guidance on the Assessment of Dust*', which outlines the risks arising from each of these activities. It is recommended that this guidance and its risk assessment methodology be followed for each activity by the person accountable for environmental issues.

Potential impacts are described as annoyance due to dust soiling; health effects due to an increase in exposure to PM10; and harm to ecological receptors.

These impacts will be given a risk rating based on the scale and nature of the works taking place and the sensitivity of the site. Risk ratings will be described in terms of being low, medium or high and site-specific mitigation measures will be put in place, proportionate to the level of risk identified.

The IAQM document *Guidance on Monitoring in the Vicinity of Demolition and Construction Sites* details approaches to monitoring dust throughout the construction phase of a development and it is recommended that this be followed where able.

Where there is evidence of airborne dust from the building construction activities the site, the principal contractor should conduct inspections and assessment. When conditions likely to increase

the risk of dust release occur i.e. higher wind speeds and/or site operations with increased dust generation; the frequency of visual assessments should be increased and where necessary, monitoring should be undertaken. Once the source of the emission is known, site-specific mitigation measures must be undertaken. Observations and associated mitigation methods should always be recorded in a formal site log.

Consideration should be given to the siting of aggregate stockpiles, based upon such factors as the prevailing winds, proximity of site boundary and proximity of neighbours.

Areas where there is vehicular movement should have a consolidated surface which should be kept in good repair.

Activities that cause dust to be produced should not be undertaken during periods of high winds to avoid excessive mobilisation of particulate matter from the site.

The main principles for preventing dust emissions are containment of dust and suppression of dust using water or proprietary suppressants. Suppression techniques should be properly designed, used and maintained, in order to be effective.

Effective preventative maintenance should be employed on all aspects of the construction works including all plant, vehicles, buildings and the equipment concerned with the control of emissions to air.

Important management techniques for effective control of emissions include; proper management, supervision and training for process operations; proper use of equipment; effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and it is good practice to ensure that spares are available on site in order to fix breakdowns quickly.

3.7.1 Construction Regulations

Building construction regulations are legal requirements aimed at achieving good standards for the construction of domestic, commercial and industrial buildings. They are laid down by parliament and are supported by separate documents containing practical and technical guidance on compliance, which are known as 'approved documents'. The local Council website details all of the relevant Construction Regulations which will be relevant to this development.

3.8 TV Signal

To prevent interference of TV signals in the area, mobile phones will be used instead of handheld radios for distant communication. Due to the size of the development, there should not be a noticeable reduction in quality of satellite television signals. Temporary reductions in quality could arise from scaffolding and plant brought onto site.

Any reduction in quality should be able to be mitigated with an adjustment of the receiver dish or aerial. As part of the public community strategy, any reductions in the quality of the signal should be brought to the attention of the site management, and a remediation strategy put in place.

Remediation will most likely be in the form of a lateral or vertical movement of the receiver unit and information of such detailed to the affected community.

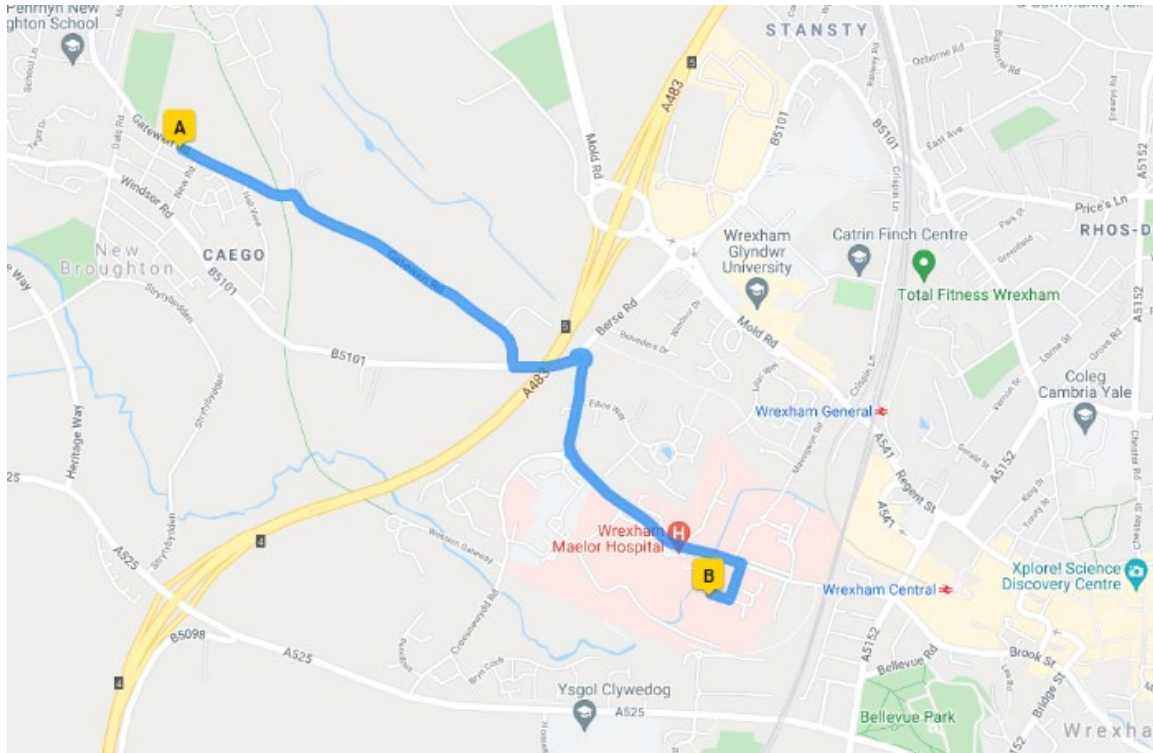
3.9 Toolbox Talks

All environmental control measures that have been highlighted within this plan are to be communicated at appropriate times to site operatives during toolbox talks. Talks will focus on a single topic and be held at regular intervals to have the greatest impact. Open questions will be asked to make sure the audience understands the talks rather than using the question 'Do you understand' as this can lead to people coming away from the talk without fully appreciating the topic discussed.

4.0 EMERGENCY AND FIRE ARRANGEMENTS

4.1 Hospital

The nearest hospital to the site is Wrexham Maelor Hospital, Croesnewydd Rd, Wrexham LL13 7TD (1.4 miles). Route plan shown below:



4.2 On-Site Emergency Response Procedures

4.2.1 Spill Action Check List

Quickly assess the nature and extent of the incident. If there is a fire or spillage which cannot be safely controlled:

- ▶ Evacuate the area and call the fire brigade. State the extent of the spill and chemicals involved;
- ▶ Only attempt to fight fires if appropriate equipment is available and it is safe to do so and the fire is small enough to safely tackle;
- ▶ Undertake a head count to ensure all staff and subcontractors are present and accounted for;
- ▶ Maintain a safe distance;
- ▶ Provide information to emergency services regarding the size and nature of material loss;
- ▶ Do not attempt lone rescues or rescues that may put you at harm; and
- ▶ Notify appropriate personnel as detailed within the RAMS.

If there is no fire and the spill can be safely controlled:

- ▶ Carefully assess the incident area for exact hazards present, information from signs displayed, extent of incident, danger from damaged buildings, explosions, gas, leaks etc.;
- ▶ Evacuate personnel and form a cordon to prevent persons entering the spill area;
- ▶ Prevent the spread of spilt substances using available spill kits;
- ▶ Do not attempted lone rescues or rescues that may put you at harm; and

- ▶ Notify appropriate authorities and personnel as detailed within the RAMS.

4.3 Fire safety

Each year there are hundreds of fires on construction sites, potentially putting the lives of workers and members of the public at risk. Fire safety in construction is about preventing fires from starting and ensuring people's safety if they do.

The HSE has published a **Fire Safety in Construction** document (Second edition, published 2010). This document explains how everyone involved in construction projects can comply with their legal duties relating to fire risks. It is aimed at all those with a role for developing and managing construction sites, including clients and designers, and is relevant to all construction projects.

4.3.1 Fire Risk Assessment

Legislation requires a suitable and sufficient fire risk assessment to be carried out by a responsible person (the employer or persons in control). The Regulatory Reform (Fire Safety) Order 2005 (FSO) places responsibility for compliance on the 'responsible person'. Article 3 defines the responsible person as:

- ▶ The employer (for a workplace to any extent under the employer's control); or
- ▶ A person who has control of a premises in connection with them carrying out any trade, business or other undertaking (for profit or not); or
- ▶ The owner, where the person in control of the premises does not have control in connection with the carrying on by that person of any trade, business or other undertaking.

As with assessments of risk from other hazards, the fire risk assessment will be based on the following approach:

- ▶ Step 1 – Identify the hazards;
- ▶ Step 2 – Identify people at risk;
- ▶ Step 3 – Evaluate, remove, reduce and protect from risk;
- ▶ Step 4 – Record, plan, inform, instruct and train; and,
- ▶ Step 5 – Review.

4.3.2 Fire Precautions

The Fire Safety in Construction document outlines a number of precautions that will be considered within the fire risk assessment. This will be reviewed and incorporated into the site RAMS.

- ▶ Emergency signs must be clearly displayed and exit routes must be kept clear;
- ▶ Fire alarms must be fully functional with routine (weekly) checks and tests by a nominated and competent person;
- ▶ Sufficient and appropriate firefighting equipment will be available on site to deal with all potential fire hazards presented by the site;
- ▶ For a typical spread of fire hazards, the following is considered to provide a reasonable level of cover per 200 m² of floor area, with no fewer than two each of (a) and (b) on each floor:
 - One 9 litre water or foam; and,
 - One CO2 extinguisher (at least 1.1 kg).

- ▶ Emergency escape lighting will be installed to illuminate escape routes, firefighting equipment and emergency signage; and
- ▶ Fire notices will be concise and clearly displayed across the site. Notices will include as a minimum:
 - Details of how to raise the alarm (e.g. “Shout ‘Fire’”);
 - Contact number for fire service (day and night);
 - Location of emergency assembly point; and,
 - Name of site Fire Safety Coordinator / Fire Warden.

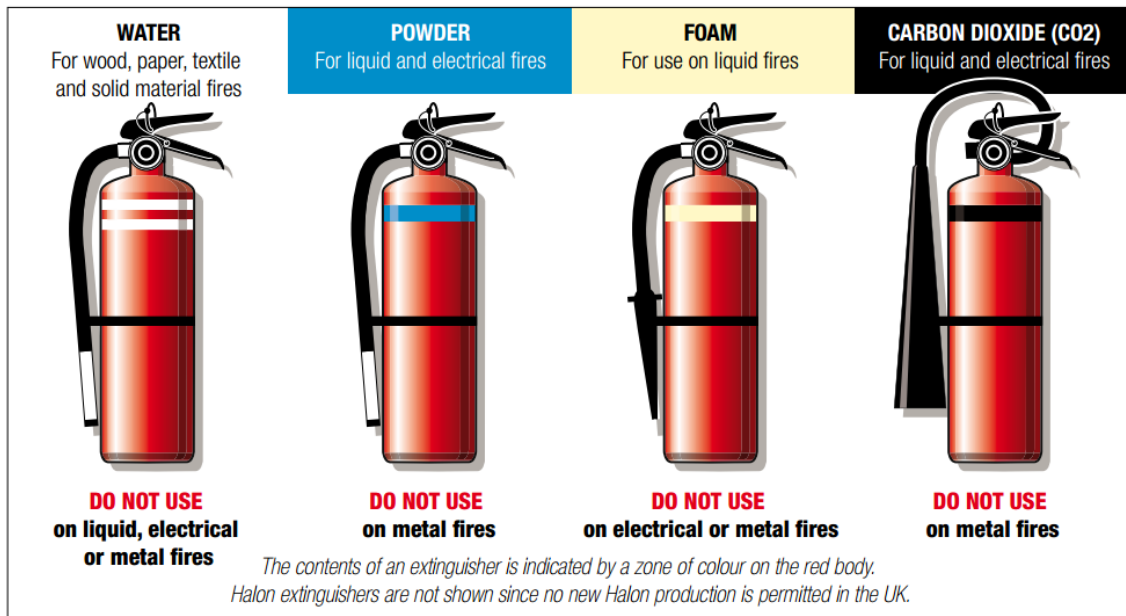


Figure 4.2 - A selection of fire extinguishers. Fire extinguishers complying with BS EN 3 are red with a coloured zone identifying the extinguishing agent (e.g. blue for dry powder)

4.3.3 Legal and enforcement responsibilities

Several pieces of legislation govern fire safety for construction sites and construction activities. The overarching health and safety requirements during construction work, which include fire safety, are provided by the Construction (Design and Management) Regulations 2015. Other legislation covering fire safety includes:

- ▶ The Regulatory Reform (Fire Safety) Order 2005 (FSO) in England and Wales;
- ▶ The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR); and,
- ▶ Fire Safety (Employee’s Capabilities) (England) Regulations 2010. (These Regulations require that employers must take account of an employee’s capabilities as regards fire safety in entrusting tasks to them).

These make detailed requirements for fire safety, which also apply to work incidental to the construction activity, e.g. provision of office and welfare facilities.

5.0 TRAFFIC MANAGEMENT, TRANSPORT & SITE ACCESS

This section outlines the strategy put in place to control the movement of materials to and from an active construction site. It is aimed at providing a plan of action to prevent hazards and control risks associated with the interface between the public and construction site traffic.

In line with planning condition No. 9 associated with the appeal planning decision:

9) No part of the development shall commence until a Construction Traffic Management Plan including provisions for contractor parking has been submitted to and approved in writing by the Local Planning Authority and the Plan as is approved has been fully implemented

The purpose of this section is to address the impact of construction traffic to the surrounding residential area. The plan includes details of the following:

- ▶ Parking for vehicles of site personnel, operatives and visitors;
- ▶ Loading and unloading of plant and materials;
- ▶ Storage of plant and materials;
- ▶ Provision of boundary hoarding behind any visibility zones; and,
- ▶ Measures to prevent the deposit of materials on the highway.

5.1 Site Access

Integrated Transport Planning Ltd. (ITP) were appointed to provide advice on traffic and transportation in relation to the proposed development. The following documents were issued in October 2021 as part of the application for reserved matters:

- ▶ Transport Assessment (TA)
- ▶ Travel Plan (TP)

The primary access to the site is to be taken via a newly constructed priority junction from Gatewen Road. It is expected that all site personnel, visitors and delivery vehicles will adhere to a stipulated speed limit on approach to the site.

Drivers are required to drive in a manner that minimises vehicle noise, emission and to be considerate of other road users. Appropriate signage should ensure that all drivers and pedestrians know and understand the routes and traffic rules on site. Use standard road signs where appropriate. Provide induction training for drivers, workers and visitors and send instructions out to visitors before their visit. All plant to be used on site will only be operated by suitably trained and qualified personnel (e.g. CPCS card holders).

It is recommended that a pre-works condition survey which will allow the contractor to determine the condition of any road ways and kerb sides pre-works. The same survey should be undertaken following the completion for site works so that any damage related to the construction can be replaced. It is recommended that a representative from the Local Authority is contacted prior to the survey to indicate if they would like to be in attendance.

5.2 Parking

Proposed areas for construction and sales parking are given on the Construction Management Plan Drawing (Ref: BH/NW/GR/CMP/01). The proposed parking areas avoid blocking intersections or side roads on the approach to the site. Priority will be given to local residents and any users of neighbouring facilities.

5.3 Loading and Unloading of Plant and Materials

Deliveries for plant and materials will access the site via the construction access off Neverstitch Road and be loaded/unloaded in the proposed area given on the Construction Management Plan Drawing (Ref: BH/NW/GR/CMP/01).

All materials will be on a just in time basis and loaded from the delivery vehicle onto the area it is required by means of lifting such as self-off load or forklift.

If site personnel are directing vehicle movement they must be sufficiently trained as a banksman/signaller. The need for vehicles to reverse out of site onto public highways will be avoided where possible as reversing is a major cause of fatal accidents.

There will be a strict no idling policy on site, all engines are to be shut off when the vehicle is safely parked on site. Deliveries should be done in a way to maximise available space on lorries, this can be achieved by using fewer suppliers and combining orders where possible.

5.4 Storage of Plant and Materials

A good standard of housekeeping is required across the site, particularly within plant and material storage areas.

Flammable materials must be stored away from other materials and protected from accidental ignition as detailed with the fire safety protocols. Deliveries will be planned to keep materials on site to a minimum (just in time protocols). This will aid in keeping the site clear and tidy, alongside increasing the ease of access to construction materials.

Storage of materials is to be kept inside locked containers for increased security. Movement of storage areas, and re-purposing of land throughout the development for use as storage is going to be likely considering the limited space available on site. Consideration will be given to the use of multi stage and/multi-storey temporary offices and stores, for maximum land use efficiency.

5.5 Preventative Measures for Highway Debris

Prior to construction a submission of the existing condition of the highway will be required, and a commitment is recommended to make good any damages to the highways during construction.

Public highways should be cleaned by a dedicated site operative and the use of road sweepers deployed as appropriate. Vehicles arriving on the site should be inspected before to check for debris that could fall on to the road. The site should contain a dedicated wheel washing facility with debris swept up and placed into appropriate waste containers.

Good housekeeping practice, if properly applied, will greatly reduce waste or debris littering the public roads. This in turn will reduce the need for cleaning of public areas.

5.6 Waste Management

The principal contractor should provide a waste management strategy for handling and disposing of construction waste. Rubbish should be removed at frequent intervals and the site kept clean and tidy.

It is recommended that separate waste sections are highlighted within the construction phase health and safety plan and within site inductions detailed to contractors where general waste, recyclables, hazardous wastes and liquids are to be disposed.

Fly-tipping will not be permitted. Loads should only be deposited at authorised tips or into designated barges. Deposition should be in accordance with the requirements of the Environment Agency, the current Environmental Legislation and Special Waste Regulations.

5.7 Pedestrian Access

From pre-construction site enabling works through to completion, pedestrian access will be restricted to safe areas protected by proper access control measures. There will be no public access to the site and this will be enforced through adequate full height timber hoarding.

Firm and level walkways will be in place on the site, with protective barriers ensuring pedestrians keep to the designated route. Clear crossings will be in place when a pedestrian route intersects a plant roadway.

5.8 Vehicle Movements and Environmental Considerations

Transport accounts for 10-20% of construction costs. Construction vehicles contribute to serious road congestion, and construction sites suffer with poor reliability of deliveries.

The Considerate Constructors Scheme (CCS) considers aspects of site transport. It rewards site managers who attempt to avoid on-street car parking, ensure routes to site are well identified and keep deliveries out of rush hours or other sensitive times. Using CCS to help manage a site may result in improved transport performance.

The Building Research Establishment (BRE) offer guidance on reducing site transport, and therefore cutting costs. Financial and productivity benefits of adopting a more efficient approach to transport and logistics include:

- ▶ Reduced fuel and delivery costs;
- ▶ Increased delivery efficiency and reliability;
- ▶ Reduced costs for parking; and,
- ▶ Increased profitability.

The Department for Transport (DfT) provides advice and information on staff travel plans and has recently launched industrial sector transport benchmarks.

Public Transport

Site personnel, operatives and visitors will be encouraged to use public transport as the site is close to bus routes.

Reducing Vehicle Emissions

As far as practicably possible, delivery vehicles and plant operating on site will be operating with low emission engines. Delivery drivers and plant operators will be strongly encouraged to switch off engines during periods where vehicles are not being used (including throughout loading and unloading operations).

Reducing Vehicle Movements

The BRE suggest a number of considerations which are designed to reduce the number of deliveries which are required on site. These are detailed below:

- ▶ Start considering transport during design and project planning:
 - Where possible, do not order surplus materials, equipment or machinery;
 - Schedule works to minimise total project time and thus reduce total number of travel days;
 - As far as is reasonable, do not hire and off-hire plant more than once per machine, thus reducing number of deliveries;
- ▶ Partnering and supply chain integration - formal or informal arrangements – can lead to multiple deliveries being condensed into one;
- ▶ For materials, use local suppliers, share deliveries and arrange with the supplier to send vehicles back full with off-cuts or other waste;
- ▶ Site waste will be disposed of as locally as possible;
- ▶ The site is in an area with other building projects ongoing. If reasonable, consider sharing deliveries with these other sites;
- ▶ Reducing waste reduces transport - for example packaging can be reduced through partnering between the contractor and supplier; and
- ▶ Offsite construction - reduced waste, reduced workforce, and reduced transport – can reduce numbers of movements.

Consideration will be made that for some items it may not be possible to reduce distances, and larger loads may cause more disturbance to neighbours.

6.0 ENVIRONMENTAL CONSIDERATIONS

6.1 Protection of Existing Features During Construction

To inform the site preparation and construction activities associated with the proposed development and the impact on local biodiversity, the following actions / measures will be sought to be implemented:

Lighting

Paragraph 180, bullet point 'c' in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should: *'Limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'*

Development Lighting Design

The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the retained habitats and woodland margins, as lighting overspill may deter use by wildlife such as foraging bats.

The lighting scheme will be designed with reference to current guidance, namely:

- a. Guidance Note 8: Bats and Artificial Lighting in the UK (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and
- b. Bats and lighting: Overview of current evidence and mitigation guidance (Stone, 2014).

Protection of Existing Vegetation

During the construction phase, temporary protective demarcation fencing will be used to protect the trees, hedgerows and shrubs to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.

The fencing will be in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations (BSI, 2012).

Protection of Badger

During the site preparation and construction operations it is essential that the following best practice is applied for the protection of badger (and other wildlife) which may visit the site:

- a) No machinery or construction operations must be carried out beyond the protective demarcation fencing. Ecological guidance must be sought if works are necessary beyond the fencing.
- b) No trenches must be left open overnight. Trenches or holes must be covered with a board or fitted with a means of escape (such as ramped edge or a sloping plank of timber). This will ensure that any inquisitive badger do not become trapped.
- c) Any pipes must be stored with caps on (to prevent badger entry).
- d) No fires must be lit at the site; and
- e) Any chemicals or harmful materials must be stored so that they cannot be accessed by inquisitive badger.

Precautionary Actions in Relation to Bats

Roosting Bats

It is likely that roosting bats are present within the bat boxes along the northern boundary of the site. Where impacts to these bat boxes cannot be avoided, the boxes should be checked by a licenced ecologist, or where this is not practicable, emergence surveys will be required.

Discovery of a Bat

If at any time during the works a bat is discovered or suspected all contractors must withdraw from the area and a suitably qualified ecologist or Natural England must be contacted for further guidance.

Protection of Nesting Birds

All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.

If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

APPENDIX A

SITE DEVELOPMENT PLAN

Disclaimer:
Do not scale from this drawing.
All dimensions must be taken from the plan and be responsible for taking and checking dimensions.
All construction information should be taken from the plan and be responsible for taking and checking dimensions.
Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
This drawing is for planning purposes only. It is not intended to be used for construction purposes. Whilst the responsible officer is not to be held responsible for any errors, the planning and design of the scheme is the responsibility of the applicant. It is the responsibility of the applicant to ensure that the scheme is in accordance with the relevant legislation and to ensure that the scheme is in accordance with the relevant legislation and to ensure that the scheme is in accordance with the relevant legislation.

GATEWEN ROAD, WREXHAM

PLANNING LAYOUT



OVERALL ACCOMMODATION SCHEDULE & AREAS

Name	Ref	Bed	Storey	Unit No's	Unit ft ²	Total
Open Market Dwellings @75% (24)						
Parkman	PA 5B	5 Bed	2	4	1677	6708
Forrester	FO 4B	4 Bed	2	9	1526	13734
Philosopher	PH 4B	4 Bed	2	8	1507	12056
Bowyer	BO 4B	4 Bed	2	11	1356	14916
Reedmaker	RE 4B	4 Bed	2	15	1309	19635
Milner	MI 4B	4 Bed	2	2	1288	2576
Firwood	FI 4B	4 Bed	2	11	1280	14080
Spinner	SP 3B	3 Bed	2.5	2	1220	2440
Scrivener	SC 4B	4 Bed	2	3	1214	3642
Sawyer	SY 3B	3 Bed	2	3	1093	3279
Fuller	FR 3B	3 Bed	2	2	1054	2108
Lymer	LY 3B	3 Bed	2	8	966	7888
Quilter	QU 3B	3 Bed	2	2	954	1908
Thespiian	TH 3B	3 Bed	2	2	921	1842
Tailor	TA 3B	3 Bed	2	2	802	1604

Affordable Dwellings @25% (28)						
Tailor	TA 3B	3 Bed	2	2	802	1604
Piper	LP 3B	3 Bed	2	1	870	870
Larder	LP 3B	3 Bed	2	1	855	855
Garthwaite Apartments						
Mandoline	GARTH	2 Bed	3	12	652	7824
Brochette	GARTH	1 Bed	3	12	512	6144

Total:	112 Units	125713 ft ²
Gross Site Area:	4.82 ha	11.91 ac

Site Statistics:		
SSR	0.17 ha	0.42 ac
POS/Greenspace	1.07 ha	2.65 ac
Extended Gardens	0.05 ha	0.12 ac

Nett Site Area:	3.53 ha	8.72 ac
Gross Density:	23.24 Un/ha	9.40 Un/ac

Nett Density:	31.75 Un/ha	12.85 Un/ac
Gross Footage:	2423.06 m ² /ha	10554.82 Un/ac

Nett Footage:	3310.41 m ² /ha	14420.14 ft ² /ac
---------------	----------------------------	------------------------------

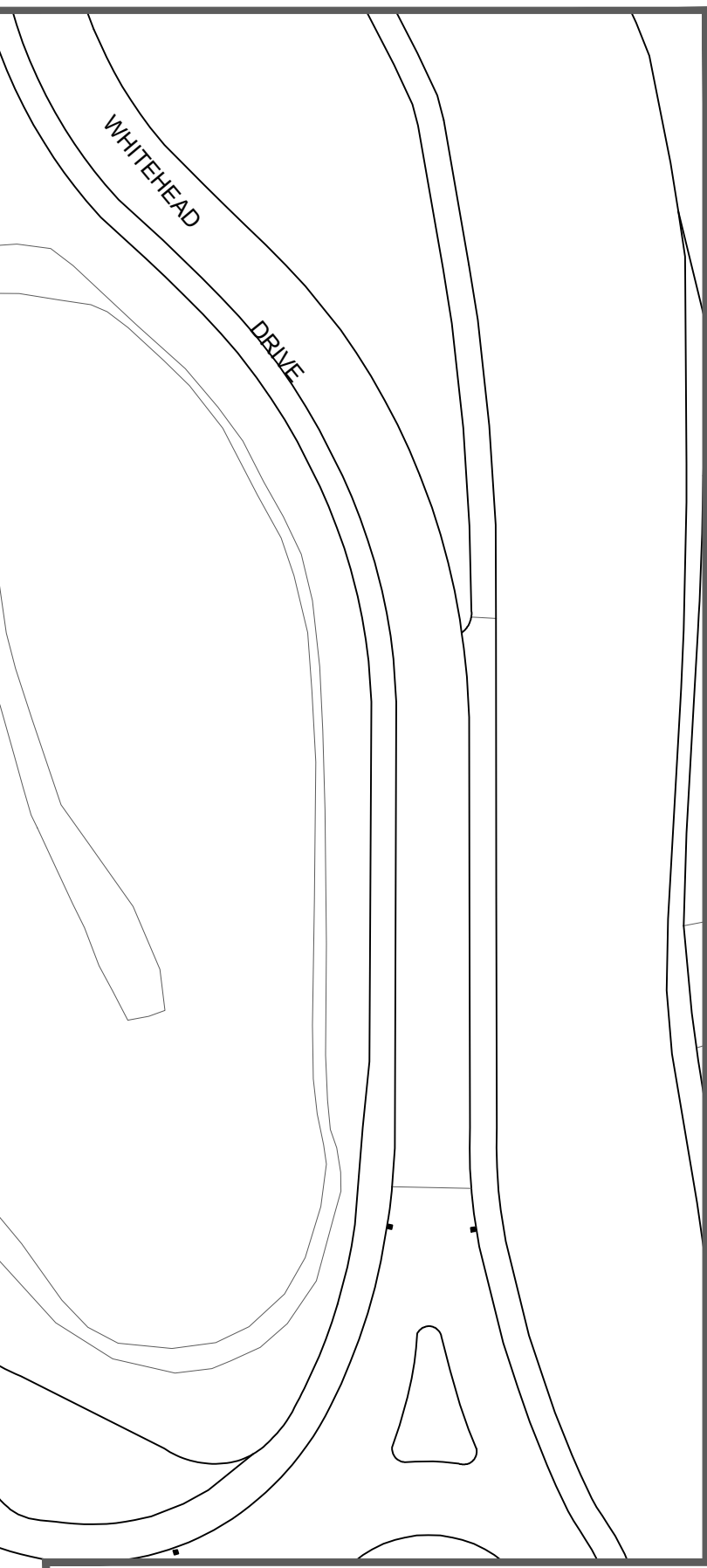
*Note - All Areas Approx.
Abbreviations
Ac = Acres | ha = Hectares | ft² = Square Feet | m² = square | Un = units Metres |
SSR = Single Sided Road | POS = Public Open Space | Det = Detached | Apt = Apartment | Int = Integral | Sgl = Single | Dbl = Double

Proposed Layout Key

- Planning Application Boundary taken from EBA Assessment map no. EBA01 Rev A
- Plot Number
- Denotes Existing Buildings
- Proposed Shared Private Drives. For details refer to landscaping layout for specification
- Proposed adoptable Highway to approved LA specification. Refer to landscaping layout and engineering drawings for specification
- Indicative landscaping - see landscaping proposals for further details
- Group Single Garage
- Denotes Access Points (Front)
- Denotes Access Points (Back)
- Denotes bin collection point

General Notes
This drawing needs to be read in conjunction with the following plans:
• Landscaping Layout
• Boundary Treatment Plan
• Hard Surfacing Plan

References
Highways - Prepared by CBO 0638 001 - 003
Topographical Survey - Prepared by Geomatics Surveyors 1 - 10
Plot Edge Boundary - Title plans MS 100112, 549551, 350551 & 188075
Tree Survey - Ascenda P1342.20.01



12/08/21

Layout prepared for Planning Application

JNL

1:500

Bellway

Gatewen Road

Wrexham

Planning Layout

Drawn by: AE

Checked by: JNL

Date: June 2021

Status: PLANNING

Scale: @ A1

1:500

Job no: BHNW130

Draw no: PL01

Rev: A

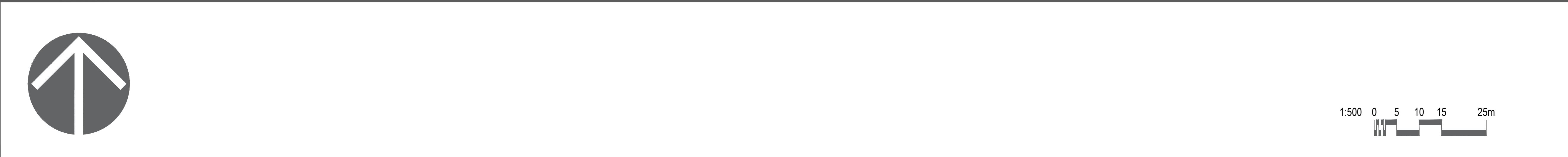
Aspie Planning & Design Limited

The Siam Mill, Siam Mill Street, Oswestry, CH3 5AN

01244 886644

info@aspietd.co.uk

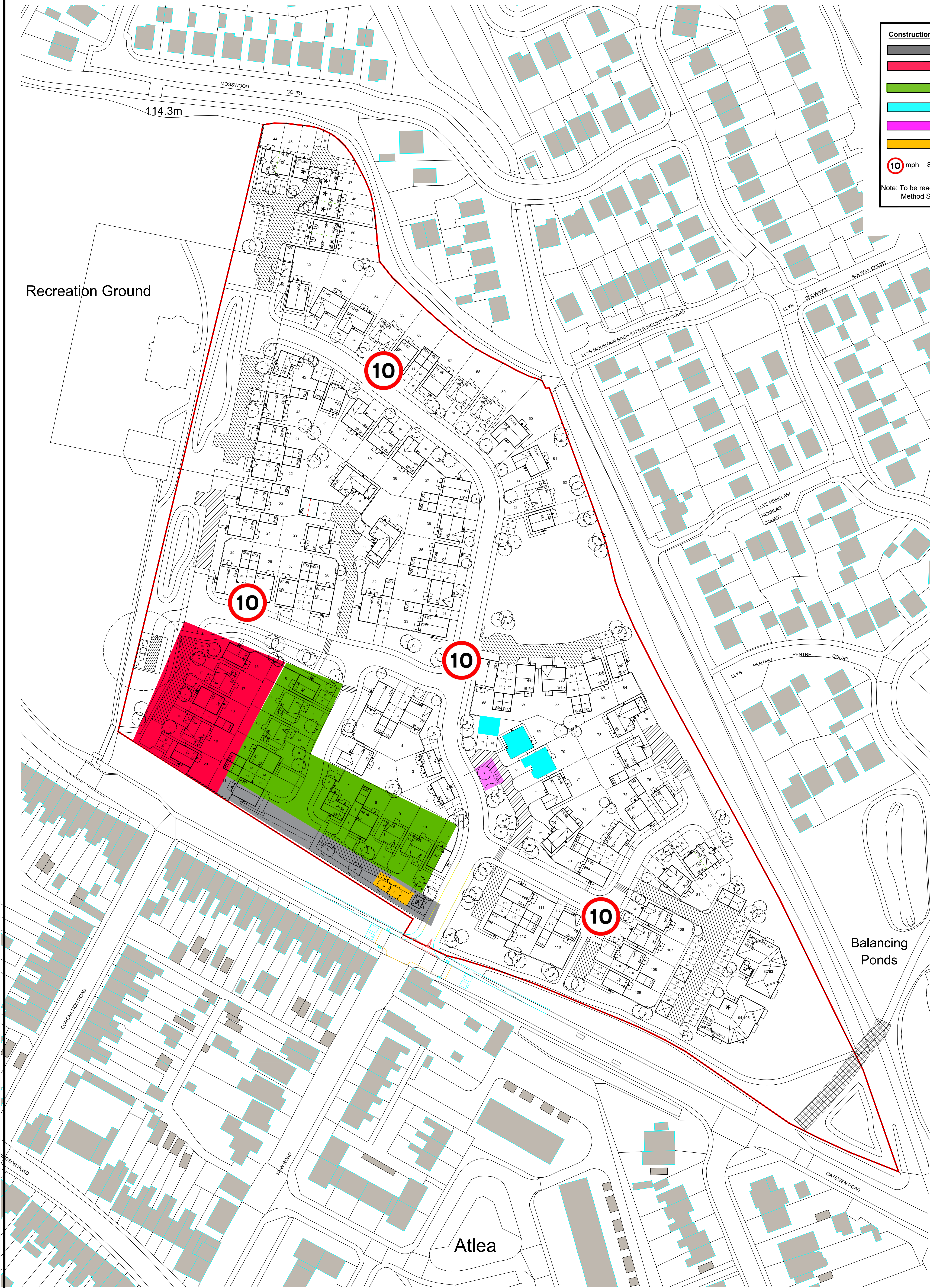
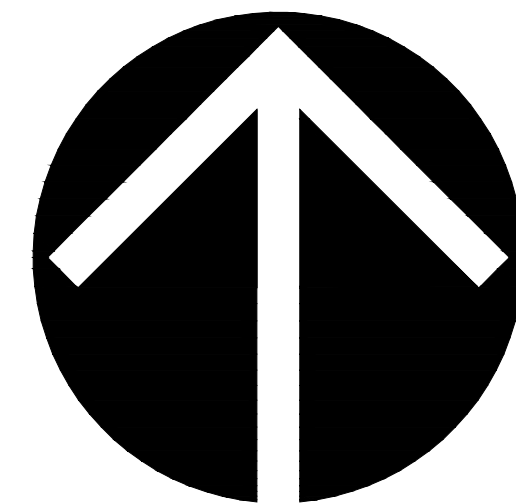
www.aspietd.co.uk



APPENDIX B

CONSTRUCTION MANAGEMENT PLAN

GATEWEN ROAD, WREXHAM



Construction Management Plan Key

- Temporary Haul Road
- Site Compound, Loading and unloading area
- Construction Parking Area & Material Storage Area
- Sales Marketing Suite & Show Homes
- Sales Parking Area
- Wheel Washing Facility
- 10 mph Speed Limit

Note: To be read in conjunction with Traffic Management Method Statement.

NOTES

1. No dimensions are to be measured from this drawing.

A 24.08.21 Updated to planning layout PLD rev A		35	
Rev	Date	Amendment	Drawn
Bellway			
(North West Division)			
(a member of Bellway Plc Group of Companies)			
Bellway Homes Ltd 2 Alderman Road, Liverpool Merseyside, L24 9LR Tel: 0151 4822600			
Project GATEWEN ROAD			
Subject CONSTRUCTION MANAGEMENT PLAN			
Scale 1:500 @A0	Date 02.08.21	Drawn IG	Checked
Drawing No. BH/NW/GR/CMP/01			Revision A
Note: All specifications, materials and workmanship to be in accordance with current NHBC and Building Regulations. Main drainage to comply with Sewers for Adoption current edition. Highways to be in accordance with Local Authority specification. Do not scale from this drawing. All dimensions to be verified with the drawing office. Original Sheet Size A1 Do Not Scale From This Drawing			