

Housebuilding Central Construction & Environmental Plan

For

Infrastructure works at Royston

Project Name:	Land at Park Field
Address:	Royston Hertfordshire
Post Code:	SG8 7NJ
Telephone:	01992 367760

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18/11/2019	Initial issue	B D Green
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1.0 Site overview

The project is located in Newmarket Road, Royston, Hertfordshire.

This CEMP is to accompany the Full Infrastructure application. A separate Construction Method Statement, Construction Environmental Management Plan (Ecology) and Site Waste Management Plan will be submitted to discharge condition 6, 12 & 16 of the Outline Consent.

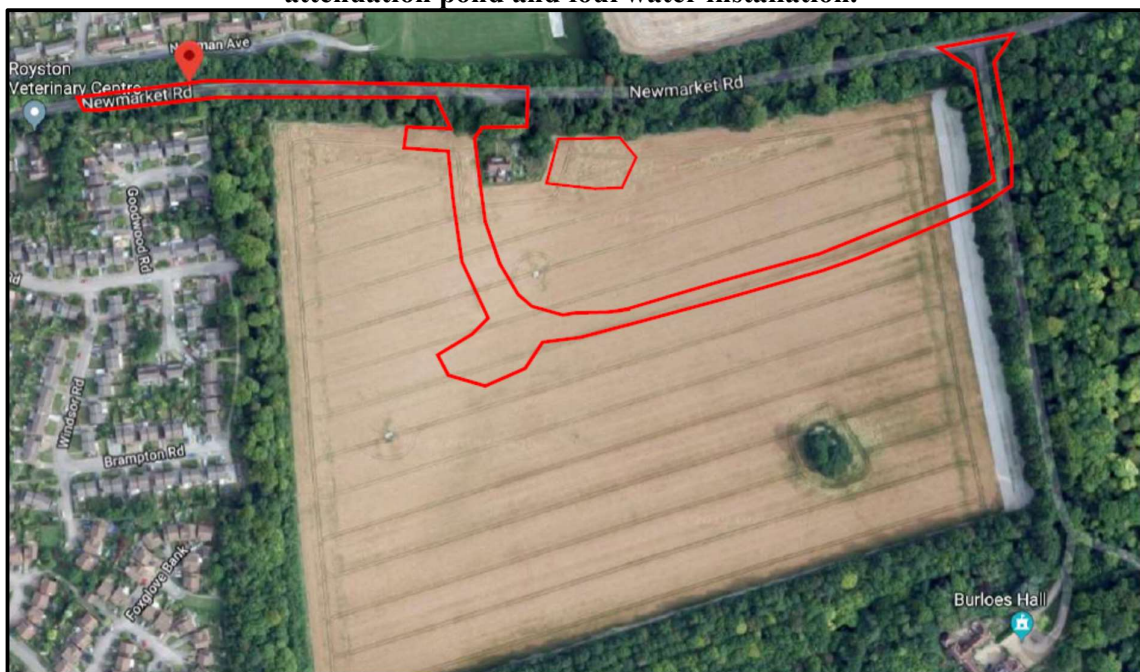
The site is located two miles to the east of Royston in the grounds of Burloes Hall, directly south of Newmarket Road, in North Hertfordshire. The proposed development area comprises a roughly rectangular parcel of land of approximately 14ha. The site is bounded by residential developments to the west, with a mature tree belt as a buffer zone. There are also some wooded margins to the east and south of the site.

An outline planning application was submitted to North Hertfordshire District Council for residential development of up to 325 dwellings with associated access roads, services and landscaping (Planning Ref: 17/00110/1).

To facilitate the new properties within all phases the following infrastructure works will be completed:

- 1) Construction of new entrance off Burloes Hall Lane including enhancement works and laybys for passing
- 2) Construction of electric Sub-station.
- 3) Construction of new entrance off Newmarket Road.
- 4) Installation of Foul water pipes along Newmarket Road.
- 5) Construction of a new Spine Road.
- 6) Construction of attenuation pond and buried attenuation cell.

Site location plan outlining the extent of the proposed secondary access, spine road, attenuation pond and foul water installation.



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Programme sequence

This is only a guide to the sequence and methods of work and therefore may be liable to change due to design.

A Construction Health and Safety Plan will be prepared for the project ensuring, as far as is reasonably practicable, the health and safety of all persons at work and those who may be affected by the works. All contractors employed on the project will be reminded that this document is not definitive and is a 'live' document and as such it should be treated as a tool for use in the development of procedures required by Law and other safety regulations that may apply to the type of work to be undertaken.

A careful programme of works will be prepared, and this will sequence both the on and off-site infrastructure works.

Phase 01 – construct and set up compound area

Phase 02 – construct new access off Newmarket Road

Phase 03 – construct a new access off the existing Burloes Lane access including enhancements work and passing laybys

Phase 04 – construct the new sub-station and access road

Phase 05 – construct the full Spine road construction

Phase 06 – construction of attenuation pond and buried attenuation cell

Phase 07 – installation of foul water (off site)

Countryside Properties propose to hand over the finished areas on a progressive basis, an exit strategy will be implemented to ensure safe access can be provided for the public. Heras panels will be installed around all live working areas during occupation.

Royston Infrastructure works **Phasing plan**



2.0 Site Accommodation and Welfare

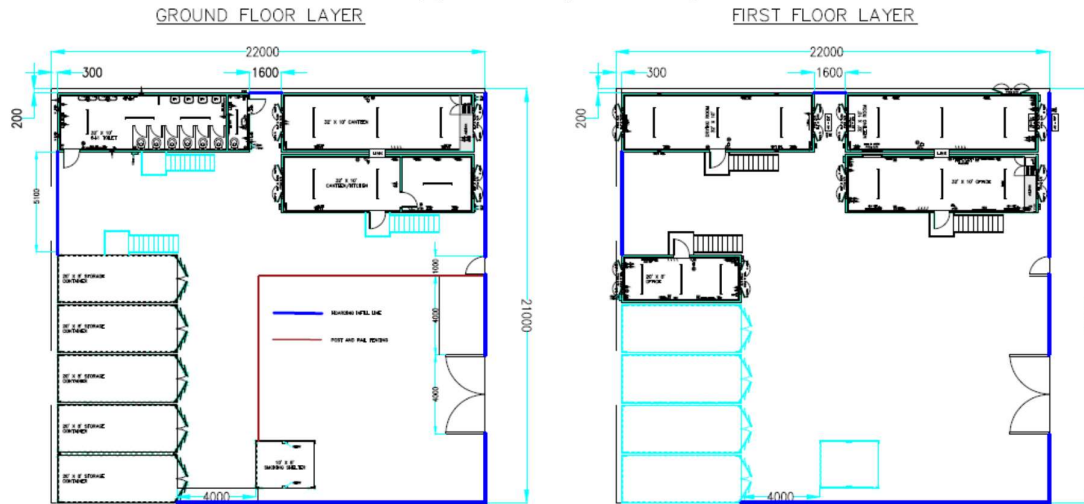
The Site Accommodation and Welfare Units will be established in north east boundary of the site, and on the last plots to be constructed. It is also adjacent to the temporary site access which will ensure that there is no requirement to access the site through the proposed residential development for the main construction works, except in an emergency. A construction access will be formed off the existing Burloes Lane access onto a new Spine road leading into the main site. A gate house will be provided to monitor and prevent unauthorised vehicles / pedestrians onto site. In the initial set up the compound will be self-sufficient, this will then be connected to live services including; BT, water, electric and a foul connection into the main drainage.

The Site Compound will typically consist of the following units:

- Countryside Site Offices
- Site Meeting Room
- Toilet Block (segregated for Male & Female)
- Drying Room
- Canteen / Kitchen
- Material Storage Containers
- Smoking / Vaping Area
- Cycle Storage Area
- Health & Safety Signage and Notice Area
- Subcontractor car parking (40-60 vehicles)
- Bulk Material Storage Area

These will be utilised for all future phases.

Typical Compound Layout



TYPICAL COMPOUND LAYOUT



3.0 Storage of materials

We can accommodate storage of perishable goods such as doors, kitchen units and timber mouldings within the Containers which will be located within the Site Compound.

The form of construction used for the buildings will be timber frame. This means a large volume of materials will be required, and as such a Materials Storage Area (*see Section 2.0 Site Compound Plan*) will be required. Where possible, the materials required will to be brought to site on an 'as required' basis, so reducing the requirement for storage, but this is not always possible due to extended lead-in times and availability of some materials.

The internal fit out of the dwellings will require materials for the timber studwork, lightweight metal studwork, rigid insulation and plasterboard etc. Again, these will be stored within the Material Storage Area due to the volume and size of the products. Kitchen and bathroom materials will be delivered on an 'as required' basis and will be direct to each plot, so reducing the storage are required.

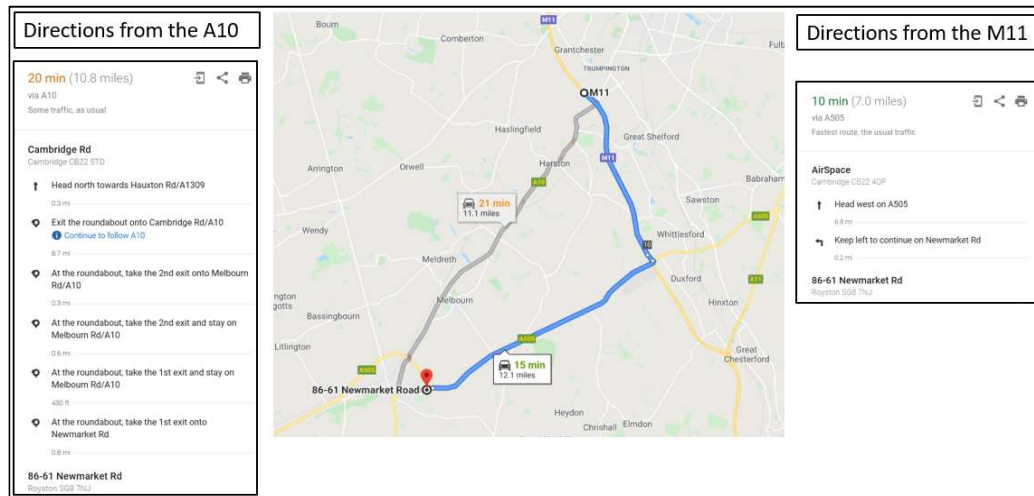
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Typical Storage areas



4.0 Access through the Development / Control of Deliveries

To avoid congestion of the development roads and being a nuisance to the occupied dwellings, all delivery vehicles will be instructed to access the site via temporary site access on Newmarket Road as shown on the Traffic Management Plans below.



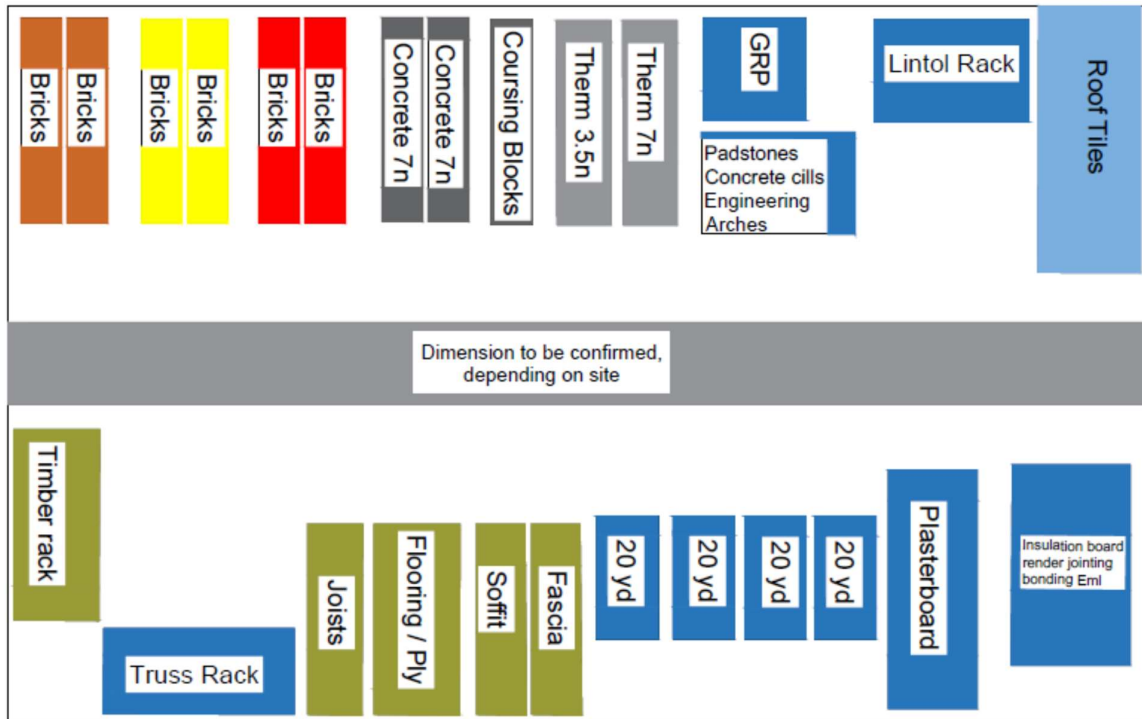
All suppliers will be instructed that deliveries are to be made between the hours of 08:00 to 18:00. It will be further recommended, that where possible deliveries are to be made between 09:00 and 15:00 in order to avoid peak hours. Given that deliveries are received from all around the United Kingdom and in some instances Europe, occasional deliveries outside of these hours may need to be accommodated but will be kept to an absolute minimum.

It is anticipated the Infrastructure construction process will take approximately six months to complete. At the peak of the construction process, we may well receive up to 20no deliveries per day. The size of these deliveries will vary significantly, from a courier delivering a single box, to a delivery of bricks or blocks via an articulated lorry. Traffic Marshals will be employed to guide/bank/instruct deliveries through the construction area when delivering direct to the plot where deemed necessary. Where possible, we will look for deliveries to be made by rigid small lorries which can turn on site and exit forwards. Longer vehicles will be able to reverse

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into the storage area to turn and exit forwards. We will look to establish the Spine road prior to commencing with the construction of the plots above DPC, which will reduce the needs to any vehicle to leave a tarmac'd surface.

Typical Material Storage area



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A pre-works inspection of the highway, accompanied by the HCC Officer and a Countryside Properties representative, will be carried out to from a baseline of condition prior to any works taking place. This will need to be photographed and recorded. Any damage to the existing road surface will be inspected upon the build completion of the development by all relevant parties and repaired by Countryside Properties (where agreed upon) prior to the finishes being applied.

Road sweeping of Newmarket road and the Spine road will be arranged for the duration of the works when required. Road Sweeping may happen on a more frequent basis during the initial groundworks phase of construction.

Strict measures to minimise the spillage of mud on roads arising from construction works will be implemented. These will include:

- The provision of easily cleaned hard standings for vehicles entering, parking and leaving the site at an early stage of construction.
- The provision of wheel washing facilities will be provided by the use of a pressure washer within the site prior to vehicles leaving the site.
- The use of a mechanical road sweepers and surface flushing apparatus to clean the hard standing and to remove any mud or debris deposited by site vehicles on roads, footpaths, gullies or drains in the vicinity of the Site.
- The complete sheeting of the sides and tops of all vehicles carrying mud or debris.
- Groundworks subcontractor to ensure that vehicles are loaded in such a manner as to prevent materials falling off during their journey.

Pedestrian access for the operatives will be via the existing roads and footpaths around the development as this is open to the general public.

Temporary Signage will be placed around the site to indicate that this is a 'No Waiting' area for construction traffic and to direct them to Construction Traffic Entrance. The frequency and locations of the signage is to be advised by the Highways Authority in order to meet their requirements.

Prior to the Construction Works commencing, a full and detailed Traffic Management Plan will be developed and implemented by Countryside Properties.

Royston Infrastructure works **Typical Pedestrian Access Routes**



5.0 Highway Safety Considerations

All building operations will be surrounded by secure boundary fence or hoarding, providing a single vehicular access point controlled by a Gateman/Traffic Marshall. The site boundary will be inspected during each working day as per Countryside Properties requirements. Any areas that are found to be in need of attention will then be addressed accordingly. A speed limit of 10mph will be enforced within the site for construction vehicles and they will be guided/banked/instructed through the build area where deemed necessary, by one of the Traffic Marshals.

Signage will be erected leading up to and around the phase of construction to advise all persons of the identifiable risks that they may encounter. Examples of this are identified below.



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There is a “No Parking within the build area or neighbouring residential area”, and a clause may well be included into our subcontractor orders. There will be a car park established on the site, and all persons driving to the site for works will be instructed to use this. Countryside Properties will be promoting the use of public transport and car sharing for all persons working on the site.

All the Suppliers will be issued with a copy of the Site Traffic Management Plan at the point of the order being placed with them. They will be instructed that all deliveries need to be made in accordance with this.

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6.0 Hours of Working

The site working hours are 08:00 to 18:00, Monday to Friday. On occasion, there will be a requirement to work on Saturdays. When this occurs, the working hours will be 08:00 to 13:00. It is not anticipated that there will be any working undertaken out of the hours specified above. The working hours will be adjusted to reflect those detailed within the Planning Permission Conditions should they differ to those above.

7.0 Site Operations & Control Measures

Countryside Properties employ experienced and responsible contractors that have been involved with our other developments and operations of a similar nature in Essex, Hertfordshire, Cambridgeshire and Suffolk.

The most inconvenience will be completed in the initial infrastructure and junction works.

The initial site set up includes construction of the estate roads onto site leading from Newmarket Road, which will be the sites only point of access and egress for all site traffic. During all operations, we will minimise disruption to the local community by following a simple rule of Eliminate – Substitute – Isolate – Control. Details on how Noise, Vibration and Dust relating to general house construction will be dealt with are also covered by site specific Method Statements. A copy of this plan and all attachments / appendices will be kept on site along with records of monitoring and complaints.

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8.0 Ecology

With regards to Ecological mitigation, countryside will seek to:

- Introduce Bat sensitive lighting in areas of close proximity to boundary habitats which have potential to be used by local bat populations.
- Maintain ecological connectivity through/around the proposed development.
- Undertake any necessary site clearance outside of bird nesting season or immediately after an ecologist has confirmed the absence of nesting birds.
- Adopt precautionary construction techniques sensitive to badgers.
- Provide log piles, bat and bird boxes where necessary.
- Retention of woodlands where possible and protection to common industry best practice.

8.1 Dust/Emissions to Air Management Controls

The provisions of the Air Quality Standards Regulations 2010, the Environment Act 1995, Environmental Protection Act 1990 and all other pertinent legislation will be complied with.

Compliance with the Control of Substances Hazardous to Health (COSHH) Regulation 2002 and with the HSE Construction (Design and Management Regulations) 2015.

The management and collection of Dust at source will be the preferred option. All power tools or cutting equipment will be fitted with either water suppression or dust collection devices. Where possible, vacuum collection systems will be used.

We will minimise creation of dust by Elimination – Substitution – Isolation – Control measures. Measures to control dust for the project also covers other emissions to air, including fumes and smoke.

The basic precautions that will be taken to minimise dust generated on the site include covering waste skips, water suppression, segregation and exclusion using impermeable barriers, and avoidance of allowing equipment to run dry whilst engaged in operation.

Haul and access roads will initially be hard-core/crushed material construction and will be sprayed to minimise dust when required.

Once surface bound, they will be swept on a regular basis, the Site Manager will decide the necessary frequency based on the conditions on site. This will allow delivery trucks to be kept clean to significantly reduce the likelihood of dust on roads outside the site.

Cleaning of surfaced site roads will be regularly carried out by a contracted road sweeper; however, frequency will increase or decrease as the Site Manager feels necessary. This would include site entrances and immediate highway. It is important to recognise that this needs to be monitored consistently throughout the contract, considering site operations and weather conditions, not just in the early stages.

The Site Manager must monitor dust protection at regular intervals during the day.

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All vehicles will be expected to enter and exit through the specified site access throughout the contract and this will be monitored.

Wheel wash facilities, as appropriate, will be available at the site entrance and the site compound (pressure washers).

In the event of a complaint however received, the Site Manager will be responsible for following the complaint through to resolution and initiating any necessary enforcement or corrective action.

Materials will be stored on site within designated areas. These will include reclaimed materials, and this will be closely monitored to reduce the potential for airborne dust. In prolonged periods of dry weather, measures will be taken to keep the material in a damp condition by water spraying, if or when required.

Cutting and Grinding on site will be kept to a minimum but where necessary; it should be carried using equipment fitted with silencers and water suppression devices with RPE to be worn by the operatives in accordance with their companies RAMS.

There should be NO waste burnt on site. All waste must be disposed of in skips or recycled as appropriate. All generated site waste will be controlled and segregated into the designated skips before removal from site and recycled where possible by the waste carrier. Plasterboard will be collected and removed from site in 1 tonne bags or in segregated skips for recycling.

Periodic Dust Monitoring will be undertaken along fixed points on the Site Boundary, with the results being recorded within a register. Any required remedial action will then be taken to reduce levels and the Site Manager will check and verify that the corrective action has been successful in reducing the dust levels.

8.2 Noise Management Controls

The site-specific Method Statements include general site procedures for reducing noise, detailing best practice that will be followed during the construction works all in line with the recommendations.

No noisy or otherwise disruptive activities will be carried out outside of the permitted / consented site working hours. Core working hours will be from 08:00 to 18:00 on weekdays (excluding bank holidays) and from 08:00 to 13:00 on Saturdays, subject to those determined by the Planning consent.

All plant will be well maintained to ensure it operates as quietly as possible and will be fitted with effective silencers jackets or shrouds where possible. Audible warning systems necessary for Health and Safety reasons will be set to the minimum setting (if they are adjustable) but that still satisfies the Health and Safety executive.

Countryside Properties or our subcontractors will monitor periodically, noise generated by the construction activities, to ensure that we maintain good working practices.

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The basic precautions that will be taken to minimise noise generated on the site include using silenced plant, segregation and exclusion through screening if operations are excessive, avoidance of leaving equipment running whilst not immediately engaged in operation.

If a justified complaint or concern is raised, an immediate review will be completed by the Site Manager in conjunction with the Local Authority, if applicable to remove the problem wherever possible or minimise the issue.

PPE is determined in the relevant risk assessments and is to be monitored, supervised, trained and communicated as necessary.

8.3 Vibration Management Controls

Contractors carrying out activities that could create vibration hazards such as vibration white finger, hand / arm vibration and whole body vibration, must provide a risk assessment / method statement to Countryside for vetting and approval, to ensure control measures are in place and where necessary, health surveillance arrangements are in place to protect their workers. Evidence that training has been received by those at risk must be provided and include:

- Symptoms of HAVS and Whole-Body Vibration
- How, why and when to report problems
- Control measures to be used
- Effects of cold and other factors affecting blood flow

8.4 Plant & Equipment Management Controls

Countryside Properties will comply with the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER), and in so doing will:

- Require the thorough inspection certificates for all plant on site;
- Will ensure all plant is visually inspected upon receipt and on a weekly basis;
- Will record the statutory weekly inspections in an appropriate register, which will be retained on site for the duration of the works and archived for 3 years thereafter.
- Will store all plant, equipment and fuel in designated areas when not in use.
- Will ensure the plant is serviced and maintained as determined by the competent operator, and this maintenance is recorded.
- Will quarantine any plant deemed to be unfit for use in an area which is made up of hardstanding materials. Any quarantined plant or equipment must be removed from site within 72 hours.

In addition to these measures, all plant is to be steam-cleaned off-site prior to being brought to site. All bunds will have enough capacity to store 110% of the fuel/oil it stores.

Oils, Fuels, and Chemicals

Countryside Properties standard compound requires hardstanding for plant and material storage, a double bunded fuel store, which is also located on hardstanding, and an emergency spill kit. Arrangements identified herein for the protection of the environment will also be

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identified on the traffic management plan, included in the site-specific induction, signed in line with the Health and Safety (Safety Signs and Signals) Regulations 1996.

The compound also includes storage in the form of lockable containers which are fire and vandal-proof. The site will be fully enclosed in accordance with either Heras fencing or hoarding, and visually inspected on a regular basis (the frequency being no less than weekly).

Any static oil storage containers will:

- Be no more than 2 years old at the time of installation.
- Be double skinned with integral bunding and be of sufficient strength and integrity as to ensure that they are unlikely to burst or leak.
- Be located on an impervious hardstanding.
- Be positioned so that they are not vulnerable to impact from vehicles.
- Not be positioned within 10 metres of any watercourse.
- Have valves and other ancillary equipment that can be locked and kept within the bund when not in use.
- Have hoses and fittings (for filling vehicles etc.) that have a valve or tap which closes automatically when not in use. This cannot be fixed in the open position.
- The bowser will be closed when not in use and locked at the end of each day
- A Spill Kit along with the instructions will be displayed adjacent to the bowser.
- Fire extinguishers to be located adjacent to storage area.

Plant refuelling and fuel deliveries must:

- Only be carried out by authorised and trained operatives
- Only be carried out within the designated compound, with a base surface in impermeable material.
- A Spill Kit along with the instructions will be displayed adjacent to the bowser.

All other chemicals, substances and hazardous materials will be documented within the Construction Phase Health and Safety Plan, their data sheets and COSHH assessments available, and locked in an appropriate container to prevent unauthorised discharge or use.

Countryside Properties may use and store LPG and flammable liquids on site. We shall ensure:

- Storage areas are appropriately signed.
- Containers of flammable liquids and LPG cylinders are in suitable cages in open compounds which are securely fenced and shaded from the sun.
- Flammable liquids and LPG are not stored together.
- The amount of flammable liquids and LPG cylinders is appropriate for their use and storage facilities available. Excessive quantities will not be stored on site.
- They are at least 10 metres away from any structure or temporary building unless it has a 30 minutes fire resistance.

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8.5 Waste Management

As a minimum waste will be segregated into the following waste streams:

- Hazardous waste
- Mixed Waste
- Timber
- Metal
- Concrete

The site management team will ensure sufficient receptacles are available for all site waste. All receptacles will be labelled to illustrate what wastes can be disposed of within them.

Standard waste minimisation and recycling practices will be implemented as detailed below:

- Avoid over ordering materials. Materials to be scheduled correctly
- Protect perishable materials from the elements, and to be called off on an as required basis
- Only print emails, drawings etc when necessary.
- Re-use materials until they are no longer fit for purpose
- Re-use office paper for rough work
- Re-use off cuts wherever possible
- Reduce packaging on materials delivered to site
- Ensure that waste segregation is set up on the construction area
- Ensure that waste segregation is set up within the Site Offices and Welfare Facilities
- Ensure materials are stored correctly and protected.

A typical waste segregation area on site

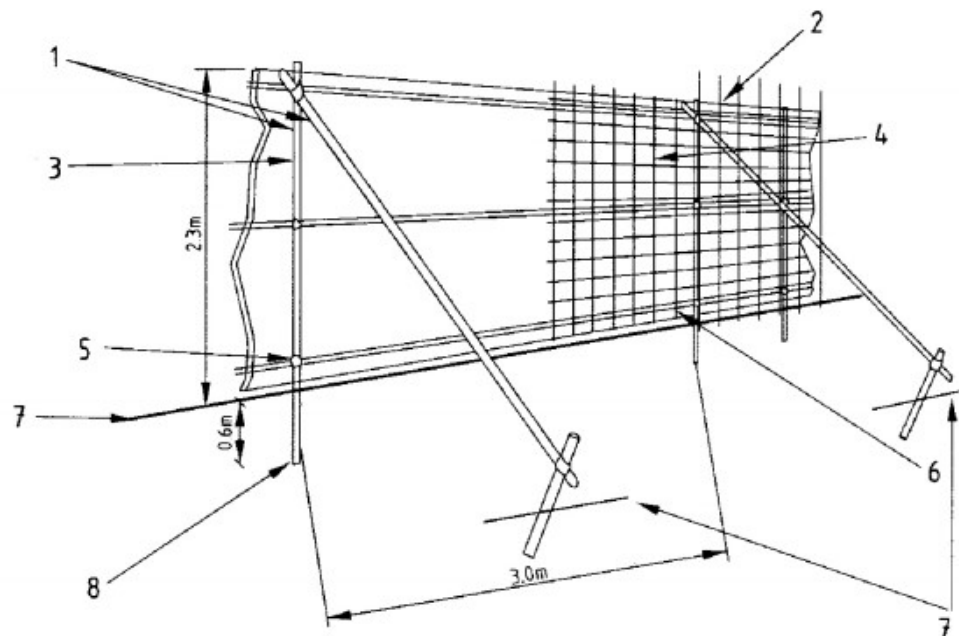


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8.6 Protection of Trees

The site is not located within a Conservation Area and nor are there any Tree Preservation Orders relating to the trees growing within this site. In order to facilitate the new junction off Newmarket Road and off Burloes Lane there are several trees that will need to be removed. Relevant tree protection measures will be implemented in accordance with the Tree Protection Plan and report by Ruskin's Group Consultancy Report Ref: 1216-2062 (December 2016) Dwg No. TRP1 as part of this application.

Should there be a requirement for any existing trees to be retained during the construction works, these will be protected by a "heras" fence covered in a monoflex material, and in accordance with the recommendations set out in BS5837:2012. A sample of the recommendation for the fencing is shown below.



- | | |
|--|--|
| <ul style="list-style-type: none"> 1. Standard scaffold poles 2. Uprights to be driven into the ground 3. Panels secured to uprights with wire ties and where necessary standard scaffold clamps 4. Weldmesh wired to uprights and horizontals | <ul style="list-style-type: none"> 5. Standard clamps 6. Wire twisted and secured on inside face of fencing to avoid easy dismantling 7. Ground level 8. Approx. 0.6m driven into the ground |
|--|--|

NOTE A: PROTECTIVE BARRIER

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9.0 Environmental Issues or Incidents

An environment incident is unplanned, undesired events that resulted in (or could have resulted in) harm to or damage to the environment or the potential for enforcement action relating to environmental legislation or significant disruption or reputational damage to the project.

Examples of environment incidents include:

- Spillage of oils, chemicals, or contaminated water that contaminates previously uncontaminated land or groundwater;
- Dripping oils or fuels from vehicles, plant or bowsters not captured in bunds/drip trays;
- Damage to known archaeology by allowing damaging activities to continue;
- Contaminated water or contaminants or silt entering a watercourse or drain;
- Windblown dust and waste causing, or with a potential to cause, a nuisance to neighbours;
- Debris/mud on local roads causing, or with a potential to cause a nuisance to neighbours and a hazard to road users;
- Damage to protected species; or,
- Damage to historic or archaeological features.

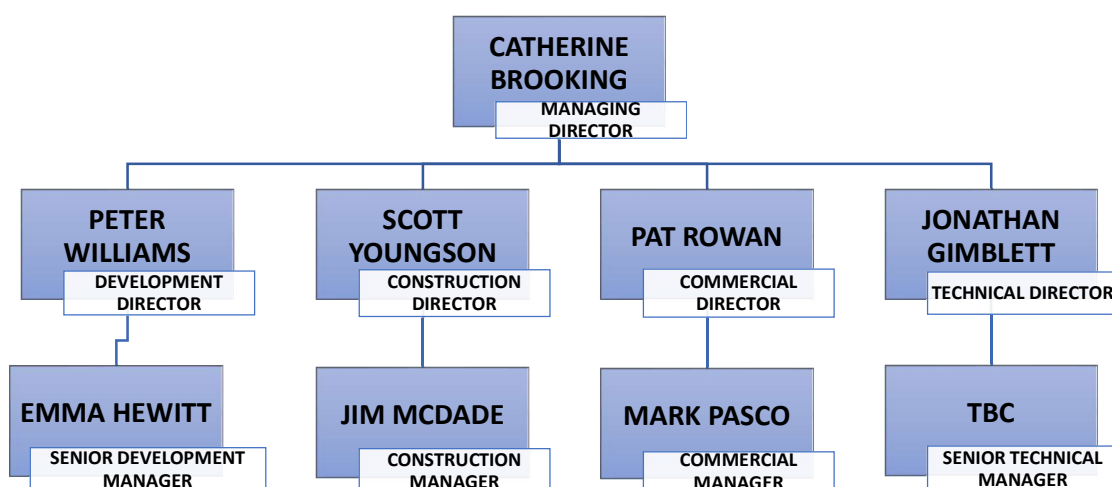
10.0 Archaeology

An archaeological evaluation report was issued in May 2017 by Archaeology South-East ASE Report No: 17/00110/1 it concluded the following. ‘There was total lack of any features, deposits or finds of any earlier periods. Some undated ditches, gullies, pits and possible postholes were recorded however, given the total absence of any earlier evidence, these are thought likely to also be of a post medieval/early modern date. The evidence suggests that the recorded archaeological activity is indicative solely of post-medieval/early modern agricultural boundaries and some possible quarrying. The findings are thought concurrent with the characterisation of the site in the desk-based assessment as ‘agricultural and unremarkable’.

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11.0 Organisation

A copy of Countryside Properties Housebuilding Central Division operational organogram is detailed below



12.0 Contact Information

The table below provides contact details for key personnel relating to quality and environment on this project:

Name	Position	Phone
Scott Youngson	Construction Director	01992 367760
Jim McDade	Construction Manager	01992 367760
Paul Rees	Health & Safety Operations Manager	01992 367760

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13.0 Training

All subcontractors will be required to carry out toolbox talks and briefings for their operatives. The following areas are recommended subject areas over the course of the year; some topics will be covered during the main site induction:

- General Environmental Requirements
- Noise Restrictions
- Implementing Best Practice Means (noise and dust)
- Waste Management and Storage
- Water Conservation and Management
- Contaminated Land

14.0 Health & Safety

The highest level of health, safety and environmental management will be maintained on the project with the Project Manager being responsible for all aspects of health, safety and environmental issues on the site. All company procedures will be adhered to and a regular monitoring procedure will ensure that standards are maintained and improved upon on a continual basis. All operatives working on the development must be individually registered with the CSCS accreditation. The environmental, health and safety plan will be finalised and agreed with all relevant parties prior to any works commencing on site and will include all necessary measures required to minimise the effect of the construction works on the surrounding buildings, roads and the public. A method statement will also be provided to give an outline summary of the proposed working systems and sequences to ensure that the common objectives of safety, quality and the timely completion are achieved. The site management team will prepare furthermore detailed statements, Risk assessments, and more detailed programmes prior to the commencement of the works, and throughout the works as they progress.