

**WYKHAM PARK FARM, BANBURY.****Infrastructure Works - Construction Management Plan, Part B (revision 2)**

April 2021

**QUALITY MANAGEMENT**

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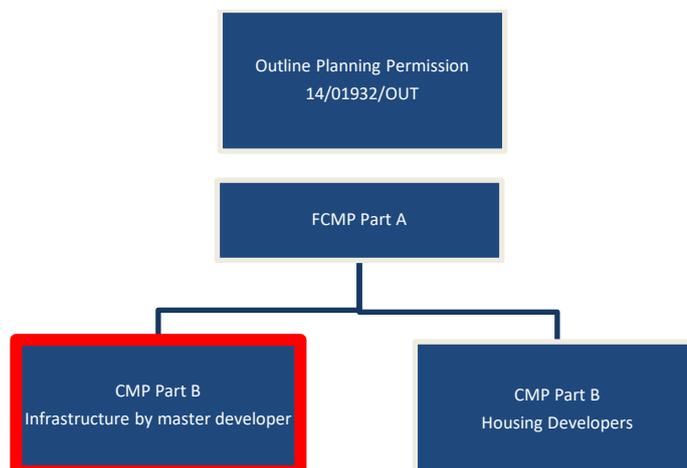
## 1 INTRODUCTION

This Contract Specific Construction Management Plan (CMP) – Part B relates to the construction of the on-site strategic infrastructure enabling the wider development of Wykham Park Farm, Banbury. See **Appendix A** for Site Location Plan.

The highway and drainage works as outlined on Extent of Works Drawing 8686-137, (**Appendix B**), will be undertaken under a S38 Highways Agreement and S104 Drainage agreement to the approval of Oxfordshire County Council and Thames Water respectively.

This CMP reflects construction industry best practice at the time of writing and incorporates the principles of sustainable construction and sound management of the environment.

Approval and implementation of this document is a requirement of Planning. Ref 14/01932/OUT - Condition 49.



## 2. RELEVANT PLANNING PERMISSIONS/CONDITIONS

Outline planning permission has been granted for the development of BAN 17 – Wykham Park Farm. The Conditions pertinent to this CMP are summarised below.

Planning Permission	Description
Outline consent 14/01932/OUT	<b>Outline - Development of up to 1,000 dwellings together with a mixed use local centre [including A1 retail up to 1,000 m2, financial services (A2), restaurants, pubs and takeaways (A3, A4, A5), community uses (D1)]; primary school and safeguarded additional primary school land; secondary school playing field land; green infrastructure including formal (including playing fields) and informal open space, landscape and amenity space; changing and sports facilities (including D2); sustainable drainage systems; highway, cycle and pedestrian routes; car parking; infrastructure (including utilities); engineering works including ground remodelling; demolition, site reclamation and removal of structures. Formation of a new roundabout access from the A361 together with associated alterations to alignment of Bloxham Road and provision of a section of link road through the site up to its eastern-most boundary</b>
Condition 9	No development shall take place on any phase including works of site clearance/preparation until that phase of the site has been thoroughly checked by a suitably qualified ecologist to ensure that no statutorily protected species which could be harmed by the development have moved on to the site since the date the previous surveys supporting the application were carried out. Should any protected species be found during this check, full details of mitigation measures to prevent their harm shall be submitted to and approved in writing by the local planning authority. Thereafter the development shall be carried out in accordance with the approved mitigation scheme unless otherwise agreed in writing by the Local Planning Authority
Condition 19	No development shall take place within 10m of an existing or new public right of way until the affected public right of way is protected during development to accommodate a width of a minimum of 5m in accordance with details to be first submitted to and approved in writing by the Local Planning Authority except where the affected public right of way has the prior authorisation of the local planning (or highway) authority to be diverted or extinguished. Thereafter, the public right of way shall remain protected and available for use at all times in accordance with the approved details throughout the construction of the development unless otherwise agreed in writing by the local planning authority.
Condition 22	Prior to the commencement of any development within an approved phase (with the exception of works undertaken in accordance with condition 50) on the site, details for the management, storage and/or disposal of spoil resulting from associated construction works within that phase shall be submitted to and approved in writing by the Local Planning Authority. The development shall thereafter only take place in accordance with the approved details.
Condition 23	Prior to the commencement of the development within an approved phase (with the exception of works undertaken in accordance with condition 50), a soil management plan relating to the soil arisings generated by development in that phase shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the development shall take place in accordance with the approved details.



Condition 32	No trees or hedgerows on the site (as existing at the date of this decision) shall be lopped, felled, uprooted or willfully damaged unless otherwise directly necessary to lay out either the approved new vehicular access from Bloxham Road (including visibility splays) or approved link road (as set out in plans listed in condition 5) or is otherwise directly necessary to facilitate the carrying out of the detailed elements of the development as approved within any subsequent reserved matters approval.
Condition 35	No removal of hedgerows, trees or shrubs shall take place between 1st March and 30 <sup>th</sup> August inclusive, unless the local planning authority has confirmed in writing that such works can proceed based on the submission of a recent survey (no older than one month) that has been undertaken by a suitably qualified ecologist to assess the nesting bird activity on site together with details of measures to protect the nesting bird interest on the site.
Condition 40	Prior to the first occupation of any building or dwelling on the site, details of measures controlling/restricting vehicular access between the application site and what is currently known as Wykham Park Farm to the south together with a programme for completion of the works shall be submitted to and approved in writing by the local planning authority. The approved measures shall be implemented in accordance with the approved details and shall be retained/maintained as such thereafter unless otherwise agreed in writing by the local planning authority.
Condition 41	No works shall be undertaken that result in the temporary or permanent need to divert an existing public right of way that runs through the site until details of a satisfactory alternative route have first been submitted to and approved in writing by the local planning authority. The existing public right of way shall not be stopped up or obstructed in any way until the new diverted route has been provided in accordance with the approved details and is fully available for public use. Any approved temporary diversion shall remain available for public use in accordance with the approved details until the works to the existing or diverted public right of way are completed and are fully publicly accessible
Condition 48	Prior to the commencement of the development, details of means by which any vehicular traffic would access Wykham Park Farm through the site during the construction of the development shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and during the construction phase of the development, vehicular access to Wykham Park Farm shall take place only in accordance with the approved details.
Condition 49	<p>Part A</p> <p>No development shall take place until a site-wide Framework Construction Management Plan has been submitted to and approved in writing by the Local Planning Authority. The Framework CMP shall include details relating to the following matters:</p> <ul style="list-style-type: none"> <li>- Measures to reduce noise, environmental nuisance and disruption for nearby residents;</li> <li>- Measures to avoid undue impact on ecology during construction work;</li> <li>- Construction traffic management (to include a restriction on construction vehicles using Wykham Lane);</li> <li>- Methods of working including site compound and contractor parking;</li> <li>- Contact details of the site manager and procedures for complaints as well as details of communication with neighbouring residents.</li> </ul>

	<p>Thereafter, the development on that phase shall be carried out in accordance with the approved Framework CMP at all times.</p> <p>Part B</p> <p>Prior to the commencement of development on any phase a Site Specific Construction Management Plan, which shall confirm compliance with the Framework Construction Management Plan (Part A) shall be submitted to and approved in writing by the Local Planning Authority. The Site-Specific Construction Management Plan shall include but not limited to the following:</p> <ul style="list-style-type: none"> <li>- Construction access including details of the measures to ensure that all construction vehicles can enter the site immediately upon arrival and also the method of segregating construction traffic from general traffic/pedestrians and cyclists (as required);</li> <li>- A scheme for parking of contractor's vehicles and details of the location of contractor's welfare/site office facilities;</li> <li>- A scheme for access and deliveries showing adequate space for vehicles to park, turn, load and unload clear of the public highway;</li> <li>- Details of the location and layout of all materials storage and plant storage compounds; and</li> <li>- Details of the means of enclosure of the application site for the construction phase including details of all types of fencing proposed and a plan showing the location of all the fencing.</li> </ul> <p>Thereafter the development shall be carried out in accordance with the Site Specific Construction Management Plan at all times.</p>
Condition 50	<p>Prior to the commencement of development, a strategy for preliminary earthworks shall be submitted to and approved in writing by the Local Planning Authority. The strategy shall include the following:</p> <ul style="list-style-type: none"> <li>- Details relating to the proposed grading and mounding of land areas including the indicative levels and contours to be formed.</li> </ul> <p>The development shall be carried out in accordance with the approved strategy unless otherwise agreed in writing with the Local Planning Authority</p>

### 3. PRINCIPAL CONSTRUCTION COMPONENTS

This CMP Part B relates to the construction of on-site strategic infrastructure facilitating the wider Ban17- Wykham Park Farm Development as outlined on Extent of Works drawing 8686-137. The works will be compatible with off-site S278 roundabout access constructed under an advanced enabling works contract.

The Strategic Infrastructure Works will comprise:-

- Tree and hedgerow clearance.
- Utilities Protection/Diversion works
- Bulk earthworks cut/fill to create surface water attenuation ponds, swales and development plateaus.
- Link Road LR-1A and LR-1B
- Estate Roads ER-1, ER-2, ER-3 and the roundabout arm to ER-4
- Allotment access track AL-1
- On-site Foul Water Pump Station and drainage infrastructure
- Off-site Surface Water outfall in Wykham Lane
- On-site Electricity Sub-Stations
- Primary and Secondary School Boundary Fencing.
- Diversion of Public Right of Way 120/47 and 120/49

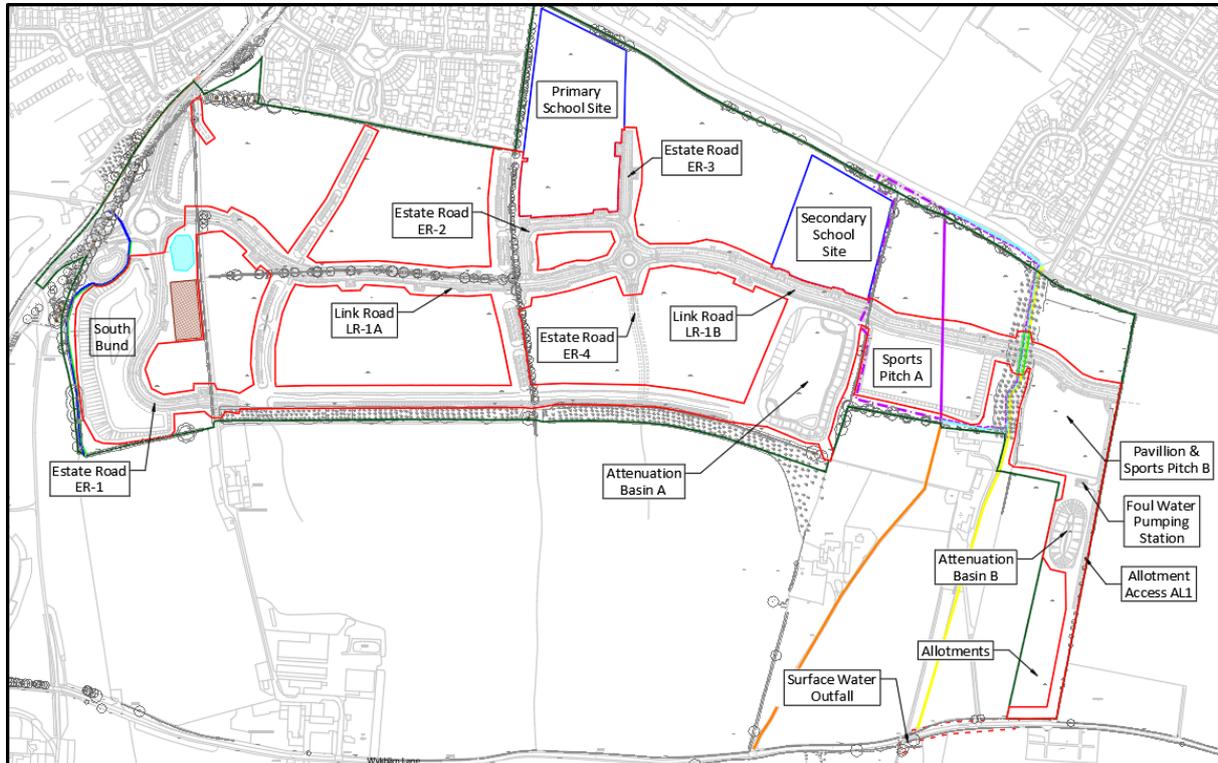


Fig 3.1

## 4. CONSTRUCTION MANAGEMENT

### 4.1 Construction routes and site access

Construction traffic entering or leaving the site may only use the newly constructed roundabout access off Bloxham Road. No access shall be taken from Wykham Lane other than for those works necessarily undertaken within Wykham Lane itself.

In order to minimise any impact on Wykham Lane, the existing farm access track shall be retained in-situ and be made available for use for farm deliveries until such time as Estate Road ER-1 has been constructed to binder course.

HGVs travelling to and from the site, within Oxfordshire, shall only use A routes and the M40.

A speed limit of 10mph will be established on site haul routes for safety and to reduce the risk of airborne dust arising from on-site construction traffic.

Routes will be planned to avoid, where practicable, the need to reverse lorries. Tailgates on tipper lorries shall be secured before departing off site to reduce the risk of noise and of depositing materials on the highways.

Non-construction traffic will not cross the site.

### 4.2 Mud on highways

The Contractor will undertake measures appropriate to the location and the nature of construction activities to ensure that mud, dirt and debris do not accumulate on the public highway or neighbouring properties. Included among these measures are the use of street sweepers and manual and mechanical wheel washing at site access/egress points. It should be noted that sweeping of the public highway shall only be considered as back-up measures should on-site protection measures fail. If deemed necessary, a wheel cleansing facility will be installed by the Contractor at the egress point for site plant and vehicles inspected prior to leaving the site. Appropriate drainage will be established where wheel cleaning activities take place.

All laden lorries leaving the site will be sheeted to prevent falling debris.

Hardstanding at the access and egress points shall be cleaned at appropriate intervals.

### 4.3 Site Fencing & Security Measures

Other than drainage works within Wykham Lane all construction activities are on private land with boundaries secured by existing fencing and mature tree/hedgerows. It is recognised that due to the size and open nature of the site and presence of existing public rights of way it is not possible to fully secure the boundary of the site. However, fencing shall be erected and maintained as appropriate to ensure the maintenance of a clean, tidy, safe and secure construction site. Whilst it would not be possible to fully secure such an extensive site boundary against a determined trespasser, any existing gaps with evidence of regular historic use will be fenced and signage erected directing persons to



controlled Rights of Way crossing points. For further details of Public Rights of Way management see Section 4.14 and Appendix E.

The site access will be via the dedicated spurs on the newly constructed roundabout on Bloxham Road. Security gates will be provided set back circa 15m from the highway, thus allowing vehicles to pull clear of the highway when closed. The gate will be open during normal working hours but be controlled by padlock during out of work hours. Keys will be held by key personnel including the farm and residential properties served off the track. It will be the responsibility of the Principal Contractor to maintain the track in a safe operational condition for the duration of the works or until such time as the alternative access via ER-1 is established. Contact details and a phone number will be posted at the entrance for emergency use. The existing farm access off Bloxham Road will be closed but retained for emergency use once the new roundabout is open to traffic.

#### **4.4 Work Compounds**

The Engineer will maintain a central base, which will remain in place throughout the Contract. The main compound is proposed to be located within the Site Boundary close to the access off Bloxham Road.

The compound area for the Onsite Works Contract is as outlined on drawing 8686-137 Onsite Infrastructure Works - Extent of Works. (See Appendix B).

The main compound is to be laid out as follows:

- Portakabin-type office compound, stacked a maximum of two cabins high, with external scaffolding access stairs. The office compound will include a reception area for visitors, meeting rooms, comfort and welfare facilities;
- ISO storage containers for smaller items of equipment and materials, stacked a maximum of two containers high, with external scaffolding access stairs;
- Open storage for bulk materials and large items (e.g. sand, gravel, precast concrete culvert sections, fencing, cable drums etc.); and
- Hardstanding or other appropriate surfacing for vehicle parking.

The main compound will be secured with Heras perimeter fencing or similar.

#### **4.5 Welfare Facilities**

Contractors will be required to coordinate arrangements for the provision and maintenance of welfare facilities to ensure that there are reasonable welfare facilities available at readily accessible places for all persons employed or engaged in supervision on the construction site.

Welfare facilities will include as a minimum sanitary and washing facilities and an adequate supply of drinking water; a place for warming up and eating food and facilities for changing, drying and storing clothes.

If during the works any specific contaminants are discovered, the Contractor shall provide appropriate decontamination facilities.



Localised welfare facilities outside of the Contractor's compound (e.g. toilets, decontamination units) will be provided around the Site as required by the phasing of the works.

#### **4.6 Mitigation of Noise Impacts**

In accordance with the outline planning consent, sensitive receptors such as nearby residential properties and schools will be taken into consideration in the detailed planning of works for this construction package.

Taking the foregoing into account, measures to be undertaken to mitigate or reduce the risk of noise and vibration impacts include the following:

- The worksite and storage compounds will be sited away from properties, reducing the risk of noise impacts either from activities within the compounds or from workforce and construction vehicles arriving and leaving the compounds.
- All equipment will be maintained in good working order.
- Where works are necessarily undertaken in close proximity to existing properties liaison will be undertaken with residents to mitigate impacts as far as is practicable.

#### **4.7 Mitigation of Dust**

Sensitive receptors such as residential properties will be taken into account in the detailed planning of works for this construction package, but the works for this package do not include construction of new sensitive receptor properties.

A speed limit of 10mph will be established across the site for safety and to reduce the risk of airborne dust arising from on-site construction traffic.

Routes will be planned to avoid where practicable the need to reverse lorries. Tailgates on tipper lorries shall be secured before departing off site to reduce the risk of noise and of depositing materials on the highways.

All laden lorries exiting the site must be sheeted and shall be suitably sealed to prevent debris and fugitive releases.

Where the contractor decides to install temporary haul roads across the site, these shall be damped down during dry weather periods to ensure dust is kept to a minimum.

#### **4.8 Works affecting watercourses**

There are no major watercourses on site however there are minor drainage ditches, and these will be retained and maintained to ensure viability.

Where interim or alternative drainage arrangements are required (e.g. any temporary attenuation / storage ponds), these will be agreed with the LLFA and the EA, as appropriate, prior to the commencement of the affected works.

Prior to any temporary discharges of water into sewers or watercourses, the Contractor shall gain written consent for the discharge from the relevant authority and ensure that all required conditions and best practice is complied with.

#### **4.9 Working Hours**

##### **Normal Working Hours**

The hours of working on any phase or part of the development during the construction period shall be restricted to 07:00 hours - 18:00 hours Mondays to Fridays, 07:00 hours to 13:00 hours on Saturdays and no working shall take place on Sundays and Public Holidays. The term 'working' shall for the purpose of clarification of this condition include; the use of plant or machinery (mechanical or other), the carrying out of any maintenance/cleaning work on any plant or machinery deliveries to the site and the movement of vehicles within the curtilage of the site. No deliveries shall be made during peak school pick up and drop off times 08.00 – 09.00 and 15.00 – 16.00 without the express approval of the Planning Authority.

No 'working' outside these hours on any phase or part shall take place without the prior written consent of the Local Planning Authority.

##### **Maintenance and Repair Activities**

Some repair and maintenance work may be required outside normal working hours which would be classified as emergency works.

If this situation arises, the contractor must inform the EHO at Oxfordshire County Council and Cherwell District Council to inform them of the reason, nature and likely duration of the works.

#### **4.10 Parking**

Staff and Contractor parking shall be located within the Contractor's compound. Construction vehicles, plant and equipment shall remain within the work site at all times during the period of works. An area of the site compound is to be allocated as a car park with sufficient spaces for all site operatives, the Contractor's staff, The Engineer, The Employers, Consultant Engineers and visitors. Car parking on existing or new carriageways shall not be permitted. The Contractor shall enforce a strict regime whereby any vehicle, parked on the site, but outside the designated compound shall be removed immediately.



#### **4.11 Site Management & Complaints Procedure**

The Engineer for the works will be :-

Gallagher Estates Ltd  
Gallagher House  
Gallagher Way  
Warwick  
CV346AF

The Contractor will be appointed with reference to his ability and experience to undertake works of a similar nature and will be responsible for the day-to-day operation of the site in full compliance with the Construction Design and Management Regulations 2015. Details of the Contractor will be confirmed to Oxford County Council/Cherwell District Council prior to commencement.

It is proposed that the Construction Management Team through the Engineer will encourage the development of Community Liaison Groups that will have regular meetings with local residents and ward councillors (the frequency will be dependent on the level of activity and any particularly controversial issues).

These events enable representatives from the community to be briefed on progress, to discuss any issues of common concern and to resolve any disputed issues.

Prior to commencement of development a planned Communications Programme will be put in place which shall include newsletters, community contact points (for emergencies and for general enquiries) and a feedback consultative process.

Contractors will be encouraged to use local sub-contractors during the construction phase of the project.

Contractors will implement measures to see that the behaviour of personnel on site does not cause offence to the public.

It is expected that all complaints are directed to the Engineer who will then be able to resolve with the relevant parties or take direct action. Information boards will be provided at the site entrance providing contact details.

#### **4.12 Protection of Ecological Resources**

Specific measures for the protection of ecological resources shall be undertaken in accordance with the requirements of Reserved Matters Conditions.

A walkover survey will be undertaken in advance of the works, to verify the knowledge base as to the presence of protected species with particular reference to Badgers, in accordance with Condition 9 of the outline planning permission. This survey will be undertaken over selected areas by suitably experienced ecologists and will seek to update surveys carried out in 2020/21. The survey will focus on identifying any change in presence, status, or levels of activity of these species across the site and any implications this might have for the progression of works, in terms of the legislation protecting them.



Appropriate protection measures for existing trees and hedgerows will ensure protection throughout the construction works. All trees and hedgerows to be retained will be protected prior to the commencement of any works in the vicinity of each area of trees and hedgerows. The Arboricultural Impact Assessment for the scheme is included in **Appendix F**.

The known badger sett constraint and associated exclusion zone is shown on drawing 8686-113 Constraints Plan. (**Appendix C**).

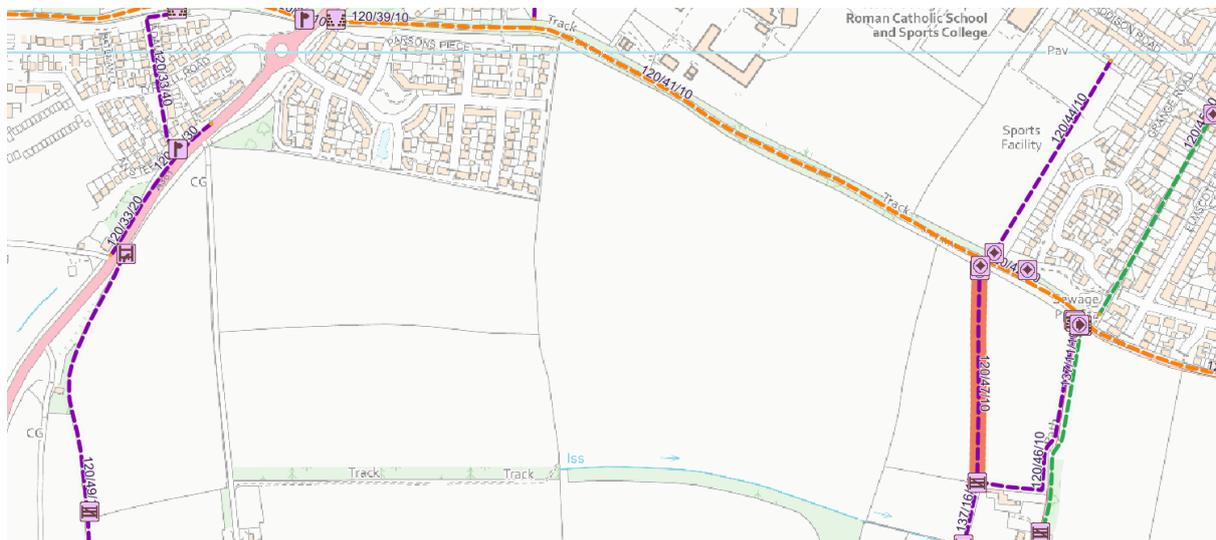
#### 4.13 Protection of Archaeological Resources

A Written Scheme of Investigation was agreed with the County Archaeologist and all areas investigated and cleared for development. Areas of investigation are outlined on drawing 8686-113 Constraints Plan and no further works are envisaged, however should an area of interest be identified the works shall be stopped and a plan of action agreed with the County Archaeologist.

There is an 'Archaeological Preservation In-Situ' area and any topsoil strip or excavation within this area is prohibited without the express permission of the County Archaeologist. The area shall be clearly demarked and protected on-site prior to the commencement of works.

#### 4.14 Protection of Public Rights of Way

The works boundary is in close proximity to the much used Right of Way 120/39, 120/41 (Salt Way) to the north, bounded by 120/49 to the west and is crossed by pedestrian routes 120/46, and 120/47 and bridleway 137/11.



Temporary diversion orders will be secured to ensure the safe controlled movement of the general public across the site prior to commencement of construction works.

It will also be necessary to permanently divert Public Rights of Way 120/47 and 120/49. PRoW 120/49 permanent diversion works will have been undertaken under the S278 advanced works and the route must be fenced and protected throughout the Onsite Infrastructure works with a minimum clear width

of 2m. The permanent diversion route for PRow 120/47 will be undertaken under the Onsite Infrastructure works. These orders will be progressed by Gallagher Estates contemporaneously with the delivery of permanent diversion routes.

Preliminary consultations have been undertaken with both Oxfordshire County Council and Cherwell District Council on both temporary and permanent diversions for PRow 120/47 and these have been agreed in principle. The routes are shown on drawing 8686-137 Onsite Infrastructure Works – Extent of Works. Route 120/47 will temporarily be diverted at the site boundary to follow the existing route 120/46 such that routes 120/46, 120/47 and bridleway 137/11 traverse the site in an existing protected green corridor substantially away from construction activities. All three routes will be brought together to best control the unavoidable conflict at the crossing of the proposed Link Road LR-1b at a single location with appropriate fencing and signage to direct the public as necessary.

During construction works additional short term temporary diversions of routes 120/47, 120/46 and bridleway 137/11 will be required to allow site clearance and construction of drainage, utilities, highway and earthworks. Drawing 8686-115 Temporary Footpath Diversions (**Appendix E**) shows the proposed signage and diversion routes for the temporary diversions which will be managed by the contractor to suit construction activities.

For the Onsite Infrastructure Works, all footpaths and footpath diversion routes within the Extent of Works area will be defined and protected from construction activities by means of high visibility plastic mesh fencing, supplemented by Heras fencing as necessary at any areas of potential conflict.

Consultees:

Andy Sylvester, - Communities [Andy.Sylvester@Oxfordshire.gov.uk](mailto:Andy.Sylvester@Oxfordshire.gov.uk)

Beth Rutterford, - E&E [Beth.Rutterford@Oxfordshire.gov.uk](mailto:Beth.Rutterford@Oxfordshire.gov.uk)

Judith Humphreys, - [Judith.Humphreys@Cherwellandsouthnorthants.gov.uk](mailto:Judith.Humphreys@Cherwellandsouthnorthants.gov.uk)

#### **4.15 Earthworks Spoil and Stockpile management**

Suitable material arising from the construction of the works will be retained on site in accordance with the wider Remediation/Materials and Earthworks Strategies submitted in accordance with Conditions 13 and 50 respectively.

The development has been designed on a balanced cut/fill basis with excavation from drainage and roadworks being retained on-site to create sports pitch development plateaus and landscape mounds as approved under Condition 50. All material will thus be deposited in its permanent position and be retained as part of the permanent works. The material will thus be placed in an engineered manner in anticipation of its retention with any marlstone material encountered being encapsulated to mitigate risk from naturally occurring high arsenic levels in accordance with the Remediation and Materials Strategy. The cut/fill strategy is outlined within the Earthworks Technical note: HYD-XX-XX-RP-C0002 Earthworks Strategy (**Appendix D**).



The handling of earthwork materials will be undertaken in accordance with guidance contained in the Department for Environment, Food and Rural Affairs' (Defra's) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites* (updated 14 June 2018).

### **General Principles of Soil Handling**

The main threats to soil resources at construction sites are trafficking of vehicles/plant and incorrect handling, which can cause damage to soil structure through compaction and smearing (both effects are sometimes referred to as deformation). These effects compromise the ability of the soil to perform its functions, such as providing adequate amounts of water, air and nutrients to plant roots. The risk of compaction and smearing increases with soil wetness. To minimise the risk of damage to soil structure, the following principles must be observed during all soil handling tasks:

- No trafficking of vehicles/plant or materials storage to occur outside demarcated working areas; No trafficking of vehicles/plant on reinstated soil topsoil
- Only direct movement of soil from donor to receptor areas (no triple-handling and/or ad hoc storage);
- Where soils are wet or damp, to minimise compaction, soils should be handled using appropriate plant;
- No handling of soils to be carried out during periods of prolonged, heavy rainfall;
- No mixing of topsoil with subsoil, or of soil with other materials;
- Soil only to be stored in designated soil storage areas;
- Plant and machinery only work when ground or soil surface conditions enable their maximum operating efficiency (i.e. when machinery is not at risk of being bogged down or skidding, causing compaction or smearing);
- All plant and machinery must always be maintained in good working condition to ensure that the topsoil is stripped correctly, for example to ensure that the depth of the strip can be accurately controlled, and to minimise the risk of contamination through spillages; and

### **Adverse Weather**

In certain weather conditions the handling of topsoil and subsoil should be effectively managed to prevent damage. Topsoil and subsoil handling must cease if the following criteria apply:

- If there is heavy rain (e.g. heavy showers, slow-moving depressions), the suspension of soil handling must be considered;
- If there is sustained heavy rainfall of more than 24 hours, soil handling must be suspended and not restarted until the ground has had at least a full day to dry;
- Soil shall not be handled or trafficked immediately after a heavy rainfall (or snow/hail) in a waterlogged condition, or when there are standing pools of water on the soil surface;
- Where a rainfall event requiring works to be suspended occurs when topsoil stripping is underway; and
- Soil should not be handled or trafficked when the ground is frozen or covered by snow.

## Soil Handling and Good Practice

The machinery used for soil handling will normally conform to the Department for Environment, Food and Rural Affairs' (Defra's) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites* (updated 14 June 2018) which includes:

- Pre-construction site preparation;
- Soil stripping;
- Soil storage;
- Maintenance; and
- Reinstatement (where required).

### Pre-construction site preparation

Pre-construction site preparation includes the removal of vegetation; minimising working areas and vegetation clearance within designated sites, areas of protected habitat and all other areas to remain undisturbed during construction activities. For protected habitat, the Contractor is to follow appropriate guidance by the Ecological Clerk of Works.

Soil storage areas for different types of topsoil, subsoil and mineral substrate will be identified prior to construction activities to avoid the mixing of these resources.

### Topsoil Stripping

The Topsoil stripping method should follow the guidance set out in Department for Environment, Food and Rural Affairs' (Defra's) *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites* (updated 14 June 2018).

Topsoil can be stored on either topsoil (of the same type) or on subsoil. Subsoil can only be stored on subsoil and therefore the topsoil must be stripped from subsoil storage areas in advance of subsoil stripping.

The size of the earthmoving plant to be used should be tailored to the size of the area to be stripped and the space available within the working area.

### Stockpiles

Whilst it is envisaged that excavated material will predominantly be placed directly into its permanent location, topsoil stockpiling may be required during construction activities in order to enable the reuse of the topsoil resource, limiting topsoil damage and loss from weather and other construction.

Stockpiled topsoil must not be vulnerable to compaction nor erosion; must not cause pollution to surrounding watercourses and must not increase flood risk to the surrounding area.

Topsoil will not be stockpiled within 8m of surface water features and will not block surface runoff pathways. In addition, sufficient gaps will be left in between stockpiles so as to not impede flood flow pathways.

Stockpiles must be appropriately marked out and clearly signed to ensure that they are easily identifiable for reinstatement.

Generally, topsoil stockpiles should not exceed 2m in height and subsoil stockpiles should not exceed 5m in height.

Topsoil should be stored in an area of the site where it can be left undisturbed and will not interfere with site operations. Ground to be used for storing the topsoil should be cleared of vegetation and any waste arising from the development (e.g. building rubble and fill materials).

Stockpiles are formed by loose-tipping followed by shaping to form a level surface on top of the pile and uniform gradients down the sides. During forming, the top and sides are smoothed with the bottom of the excavator bucket along the stockpile surface, so that they can shed water more easily. This ensures that entry of water into the stockpile is limited and that the stored topsoil remains dry; it also helps prevent erosion and ponding.

The natural angle of repose of a topsoil, and hence the maximum gradient of the stockpile sides, depends upon its texture and moisture content. The maximum achievable slope angle is 40°; however, shallower angles are often more appropriate.

### **Hardstandings**

Any stone/road planings arising from the works will be disposed off-site, or subject to commercial considerations may be retained on site for use in temporary works haul road/compound construction and removed upon completion of the works.