(Including accomodation works, soils management and land drainage)



Agricultural Land: Is to include all privately owned land occupied or accessed by the Contractor for the purposes of the project excluding private gardens, public highways and registered sports pitches which are referred to in C08, S08 and UUCESWI.

Landowner Meetings, Landowner Liaison and Agreements: All references to landowner meetings, landowner liaison and landowner agreements shall be facilitated and arranged by the A&A Surveyor in conjunction with the Contractor unless specified otherwise.

Note: Reference to land parcels within this document incudes any land in private third-party ownership and any land owned by UU, whether that land was owned prior to the project or purchased for the project. References to *Landowner* shall include UU insofar as they are an owner, any occupier of land and any appointed agents.

In accordance with the Code of Practice for Pipelaying in Private Land (CoP), the overriding principle is that land parcels affected by any construction activities should be reinstated back to the condition that it was in prior to commencing the works. All comments in this document should be cross-referenced and referred to the CoP as appropriate.

This document assumes that no access will be permitted to private land unless the relevant statutory notices, consents or agreements are in place with the Landowner or if a temporary licence agreement is agreed (for example for a remote temporary compound).

The aim of this document is to provide clear advice to all parties carrying out work on agricultural land parcels. This document is intended to advise and guide activities as 'best practice'. Where planning permission is needed, there may be specific conditions applied which may override the recommendations outlined below.

Pre-Entry Phase

Whilst establishing land ownership and occupation details prior to the service of Statutory Notices, certain information e.g. land type, the presence of pre-existing land drainage and outfall locations, contaminated land and the presence of buried services etc., will be requested as part of the Pre-Entry process by the United Utilities' (UU) Access & Acquisitions Team (A&A) working in conjunction with the Contractor

The Contractor should undertake a detailed video and / or photographic Schedule of Condition to provide a baseline of the pre-entry condition of each land parcel, ensure adequate mitigating measures are undertaken and to assist A&A with validating any future compensation claims. These records should be maintained on a field-by-field basis to show the key phases of construction and to allow for easier referencing in future years. In particular photographs should be taken and retained of the areas likely to be impacted by construction and thereafter the significant reinstatement phases and any drainage work that is carried out. The use of project specific aerial photography or drone surveys should also be considered where appropriate. Photographs are recommended to be taken of hardstanding surfaces (including driveways), proposed access points, farm tracks, buildings, walls, hedges, trees, troughs, ditches, culverts and headwalls, gates, low or wet areas and crops growing before work starts. Upon request, land reports / photographic records should be sent to the appointed A&A representative.

Consultation with the Landowner is the key to a successful project. It is important that early contact occurs with the Landowner and that they are regularly updated regarding work and progress on their land parcels; in conjunction with A&A, the Contractor shall provide a single point of contact to provide continuity.

The Contractor should consider minor design changes such as route alignment, points of access, temporary working areas (to avoid severing small area of land) or enabling works which can have significant benefits to the working of the land or in the avoidance of problem areas. A proactive approach in this area is likely to be of significant benefit in reducing potential problems, simplifying land reinstatement and minimising the compensation due as a result of the construction works.

Cropping & Livestock

(Including accomodation works, soils management and land drainage)



The Contractor along with the A&A Surveyor shall discuss cropping and livestock with the Landowner. The Contractor must have an awareness of and undertake steps to mitigate of the impact of the proposed works (where possible) on the existing crops, stocking, stewardship margins within the field and, depending on the season / rotation, the future crop. Some crops are higher value than others. Perennial crops, such as cane or bush fruits or orchards will require site specific mitigation. The Contractor should take into account the impact of the proposed works when considering utilising land close to farm buildings, as this can disrupt livestock movements between pasture and the buildings. Generally, planning in advance and landowner engagement will reduce the risk of impacting farm businesses and resulting compensation.

The presence of organic farming practices must be specifically identified and appropriate mitigation measures proposed. The Contractor must complete any works on organic land in accordance with guidance available from the Soil Association.

Landowners may have committed to site-specific Agri-environment schemes that are grant funded or subsidised. It is important to understand which schemes are relevant, the associated funding in place and to discuss the potential impact of the works on these schemes with the Landowner. A lack of engagement could result in significant financial losses being incurred by the landowner and claims for compensation.

Contaminated Land

Contamination of land can be either physical, chemical and / or biological. The Contractor should consult with the Local Authority and Environment Agency to assess whether any contamination is known or registered and whether any special conditions apply. Historical maps may also show earlier land use, such as old collieries, quarries, areas of infill and old field boundary systems etc. For more complex sites with a history of known industrial use, a Phase I desk top survey assessment or Phase II intrusive contaminated land investigation may be required.

Flooding

Prior to any works being undertaken, the Contractor should take into account a detailed flood risk assessment undertaken according to Environment Agency guidance. Soil stripping, storage and re-instatement also need to consider the flood risk in adjacent land parcels, sensitive agricultural catchments or on the urban fringe.

Private Water Supplies

In some areas there may be privately fed troughs, drinking bays / ponds or domestic water supplies. Where these are present, the Contractor along with the A&A Surveyor should undertake steps to identify each supply, their users and their sources (geological or piped) and map and monitor these prior to, during and post construction. Where there are spring supplies there is the potential to disrupt the supply by cutting through piped systems or by altering natural water flows within the geology via deeper excavations and pipe laying. It may be necessary to calculate flows, monitor water quality or install groundwater monitoring boreholes for the duration of the project.

Injurious and Invasive Weeds

Certain types of weed such as Japanese knotweed, Himalayan balsam, giant hogweed, ragwort, thistles and docks can cause problems to both the construction process and subsequent land management. There is a statutory responsibility to ensure that injurious or invasive weeds are not allowed to spread through Contractor activity and care should be taken to prevent the spread of these weeds via the construction process. This may require, for example, washing machinery to remove soil deposits or weed control on soil bunds and other uncropped areas.

The Contractor along with the A&A Surveyor should also undertake steps for the identification of injurious and invasive weeds based upon discussions with the landowner. If injurious or invasive weeds are present, specialist advice should be sought and mitigation measures put in place to prevent the spread.

Plant Pests and Diseases

(Including accomodation works, soils management and land drainage)



Prior to the works, the Contractor must confirm the presence of notifiable and recorded instances of plant pests and diseases that may be within their construction area. Further details of these can be obtained from Defra's Animal and Plant Health Agency (APHA) or any such other relevant body. The Contractor, together with the A&A Surveyor should have discussions with the Landowner to identify crops where disease may be an issue. For example, rhizomania in sugar beet is soil borne and will require specific measures to avoid transfer. Similarly, soil borne pests such as potato cyst nematode will be of importance to potato growers and may require specific control measures.

The movement of any soil (subsoil and topsoil) between ownership boundaries should be avoided. In some instances, this may necessitate a cleaning and/or disinfection protocol of plant and equipment when moving between boundaries. This will be relevant in areas of known plant health issues or for intensive vegetable or root crop production.

The Contractor should implement measures to avoid the potential spread of agricultural weed species, e.g. blackgrass, during construction. It is recommended that this issue be discussed with Landowner at the pre-entry stage and consideration must be given to regular weed control of soil bunds or unused areas of occupation throughout the construction works.

Animal Diseases

The impact of notifiable diseases (such as foot and mouth and Bovine Tuberculosis) on restricting access to farmland is well known. The Contractor is required to follow the current DEFRA guidance such as 'Biosecurity Guidance to Prevent the Spread of Animal Diseases'.

The most appropriate management for mitigating against animal disease is to separate farm animals from construction works. Larger and longer-term projects are likely to require Accommodation Works, including more robust stock proof fencing together with gated crossing points, to allow the continued use of the adjacent severed land. For smaller projects including temporary works or repairs this may be possible to agree with the Landowner to remove animals from the working area for the duration of the works.

Maintaining the separation of livestock from different land ownerships during the works is essential. It is important that livestock from different land ownerships are not allowed to mix as this could have serious commercial consequences. The Contractor must manage gates to prevent livestock straying between land ownerships.

Any sub-contractors, for instance drainage or agricultural contractors, should be made aware of the need for bio-security controls and appropriate disinfection or cleaning of machinery brought onto a site.

Historical livestock burial pits may be located on land affected by the works. Information can be obtained from Defra's local Animal and Plant Health Agency (APHA) office in advance of construction to allow early identification of any known notifiable diseases or livestock burial pits. The Landowner should be consulted by the Contractor and the A&A Surveyor on the presence of smaller / informal burial pits. In the event that an unknown burial pit is encountered during excavations, work must cease immediately and the Duty Veterinary Officer at APHA informed.

Timing of the Works

Where possible, the Contractors proposed construction programme should take into account likely ground conditions that will be experienced during the project. Soils should not be trafficked / handled when they are above their lower plastic limit or wet as this will lead to soil structural damage and potentially the loss or mixing of soils.

Whilst weather patterns cannot be guaranteed, construction on agricultural land, and in particular bulk soil movements, should ideally be planned to take place between April and September where possible, giving the best opportunity to mitigate any damage to the land parcel and minimise subsequent compensation claims.

ACCOMMODATION WORKS FOR AGRICULTURAL LAND

(Including accomodation works, soils management and land drainage)



General

Accommodation Works include, but are not limited to; temporary stock-proof fencing around the perimeter of the temporary working area, crossing points for livestock, people and wildlife with gate arrangements as appropriate, gates, steps or stiles, stoning up gateways or other areas to ease access or prevent over poaching of the ground, maintaining agricultural, forestry, sporting or recreational access rights in appropriate condition, relocating or providing new drinking troughs.

The Contractor and the A&A Surveyor shall agree Accommodation Works with the landowner. The Contractor shall install the Accommodation Works in advance of commencement of the construction works. Accommodation Works requests agreed with the landowner must be reasonable and a clear need must arise for the Accommodation Works to be undertaken in order to mitigate the impact of the project on the landowner.

The Contractor shall maintain access to land and property severed by the construction working areas during the life of the project and enable the landowner to access severed land or property with livestock and/or farm machinery by providing temporary access tracks where required and safe to do so.

The Contractor shall produce a Schedule of Accommodation Works bespoke to the landowner requirements, nature of the land and the farming use, including type of livestock.

Accommodation Works Site Meeting

In order to agree the required Accommodation Works, the Contractor and the A&A Surveyor shall arrange a site meeting with the landowner together with their Land Agent. As part of this meeting, the land shall be inspected and the need for any Accommodation Works shall be discussed, noted and fully documented, including photographically and in plan form.

The Contractor and the A&A Surveyor shall mark up a copy of the Statutory Notice drawing(s) with the agreed Schedule of Accommodation Works, their location, materials and dimensions and provide hard copies to the landowner. The Contractor shall hold a copy of the agreed Schedule of Accommodation Works in paper format within their site offices, including version-controlled copies updated where variations are agreed with the landowner during the project.

Schedule of Accommodation Works

The Contractor and the A&A Surveyor shall prepare a schedule of Accommodation Works for agreement and communication with the landowner.

A schedule for installing, maintaining, repairing and removing the Accommodation Works shall be prepared, documented and shared by the Contractor via the A&A Surveyor and agreed with landowner and their Land Agent.

Installation & Maintenance of Accommodation Works

The Contractor shall carry out and install all Accommodation Works to the appropriate British Standard specifications, with reference to CO8 where relevant. This includes accurately delineating the working area as shown on the s.159 Notice plan. All fencing to delineate the working area must be suitable for the livestock (where applicable) using the adjoining land at that location.

The Contractor shall appoint competent specialist sub-contractors for the installation of Accommodation Works, its maintenance, reinstatement and/or removal.

The Contractor shall secure agreement from the landowner and their Land Agent, via the A&A Surveyor, that the Accommodation Works have been provided as agreed and that they are fit for purpose. The Contractor shall take a photographic record of the Accommodation Works upon their installation and throughout the project including any damage, interference or repairs undertaken by the Contractor or landowner, and to record any maintenance or renewal works carried out.

(Including accomodation works, soils management and land drainage)



The Contractor shall document the frequency of routine inspections of the Accommodation Works within their Schedule and ensure this regime is carried out throughout the project, to check, maintain and carry out any necessary repair or replacement works.

Where a landowner raises a complaint in connection with the Accommodation Works, the Contractor shall document it and remedy the matter within an agreed period. Where damage occurs or an emergency repair is necessary, the Contractor shall ensure rectification within 24hours and shall put in place arrangements with suppliers for delivery of materials to enable such response.

Removal of Accommodation Works

At the end of the project, the Contractor shall remove the Accommodation Works, as waste or for suitable reuse, and fully reinstate the land back to the condition that it was in beforehand, unless other terms are agreed as a variation between the Contractor and Landowner via the A&A Surveyor, to leave any Accommodation Works in situ where these would not impinge or contravene rights of others including external stakeholders expectations such as Planning Conditions and Highways Authority requirements.

The Contractor shall not seek to reduce stakeholder constraints to retain temporary Accommodation Works in situ and must ensure they comply with highways and planning condition requirements. In which case, any Accommodation Works that are in breach of planning conditions must be removed in full. As a consequence, failure to comply with and remedy of any breach of planning conditions or highways requirements will be the full responsibility of the Contractor.

Where a landowner requests that any Accommodation Works are left in situ at the end of the project that have a clear monetary benefit they shall be deemed as 'betterment'. The A&A Surveyor shall take this into consideration when assessing the landowners claim for compensation.

The Contractor and the A&A Surveyor shall document any local arrangement to leave any Accommodation Works in situ in writing with the landowner and their Land Agent.

General

All private land, including any land owned by UU and land purchased for the project, together with any land occupied on a temporary basis under Statutory Notice, lease or licence arrangements is to be fully reinstated in accordance with the UU's **Code of Practice for Pipe laying in Private Land** and to the reasonable satisfaction of the affected landowner. This includes all land affected by site investigation and survey works unless that land is imminently affected by the start of construction work in which case the condition is to be agreed with A&A and the landowner.

The Contractor shall appoint suitably qualified and experienced soils and land drainage experts to provide a Soil Resource Survey and Soil Management Plan (SMP) as defined by Defra and detailed in SO8 and CO8 for each land parcel and landowner. The Contractor, via their suitably qualified and experienced soils and land drainage experts, shall produce pre and post construction land drainage designs based upon pre-entry surface water, land drainage and soil surveys for each land parcel and landowner. The Contractor shall produce proposals (schedule of accommodation works and reinstatement plan) which include but not limited to a reinstatement plan, surface water management, pre- and post-entry drainage design, treatment of field boundaries and accesses for each land parcel and landowner. These proposals shall reflect the specific conditions for each land parcel and include drawings and timescales for each landowner affected by the project and these must be carried out.

The Contractor shall appoint a suitably qualified and experienced landscape, agricultural and land drainage contractor as sub-contractors to implement and deliver the reinstatement of all land, soil, drainage and boundaries back to the condition that they were in prior to entry, unless otherwise agreed. The Contractor shall complete the reinstatement of each land parcel within a 24-month period following completion of the construction phase of the works and in accordance with their agreed schedule of reinstatement for each land parcel.

(Including accomodation works, soils management and land drainage)



The Contractor shall appoint a suitably qualified and experienced contractor(s) for the reinstatement of any sports pitches and facilities and residential property gardens.

Whilst the reinstatement of land typically occurs after the completion of the construction phase of the project, successful reinstatement requires the consideration of the management and handling of soils throughout the project and suitable land drainage installations, both pre and post construction. This document provides details that the Contractor shall comply with for the successful reinstatement of land, including soils management and land drainage in a timely manner.

The Contractor shall comply with the following publications and shall comply with the relevant BS numbers contained therein (or with any subsequently updated versions of those BS numbers as appropriate): -

ADAS Technical Note on Workmanship and Materials for Land Drainage Schemes, 1995,

DEFRA's Protecting our Water Soil and Air, 2009.

Code of Good Agricultural Practice for the Protection of Soil (MAFF, 2001).

DEFRA guidance Land use planning - good practice guide for handling soils, MAFF 2000.

Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (Defra publication PB13298).

Temporary Working Area

Sufficient temporary working area must be included at Design Stage to ensure that site works have enough room to allow separate soil storage and prevent the mixing or contamination of different soil horizons. Significant variability in sub-soil texture and stone content require careful management and excavation to avoid mixing and dilution which can affect the quality of re-instatement.

Soils Management Plan (SMP)

The Contractor, via their suitably qualified and experienced soils and land drainage experts, shall prepare a SMP for each land parcel. This shall set out the management and handling of the soils during the project.

In addition to the requirements of the SMP, the Contractor shall undertake the following surveys.

- topographical surveys of the surface levels pre-construction
- topographical surveys shall also to be undertaken of the subsoil layer after topsoil stripping
- survey of soil quality and depth for each land parcel affected by the project
- existing land drainage survey including the location of any outfalls
- topographical surveys of the surface levels post-construction

The output of these surveys shall form the basis for the SMP which shall set out the specific soil characteristics and identify how the Contractor shall manage all topsoils and sub soils affected by the project. The list below sets out the contents that are expected to be included in the SMP. This is not intended to be an exhaustive list and additional location-specific content may be required on a case-by-case basis.

- Site preparation
- Topsoil stripping
- Topsoil storage
- Subsoil stripping and excavation
- Stoning areas

Site Preparation

(Including accomodation works, soils management and land drainage)



This shall include the installation by the Contractor of agreed Accommodation Works, pre-construction drainage, disposal or spreading of surplus soils and the location and size of any siltation control lagoons.

All crops in excess of 15cm (6 inches) in height shall be removed prior to soil stripping to ensure accuracy of stripping depth and help to prevent the formation of anaerobic conditions in the stored soils.

Topsoil Stripping

All soils shall be stripped under the driest conditions as practically and reasonably possible. This shall ensure that soil smearing, and compaction is minimised and shall enable the soil resources to be recovered both accurately and in their entirety. The Contractor shall ensure that sufficient scope is built into the construction programme to allow for flexibility when carrying out soil handling operations and allow for delays due to wet weather and the capacity for soils to dry at different rates.

A soil stripping log for each land parcel shall be kept, which includes a topsoil quality and depth assessment and to record any variations to these parameters.

Tracking of topsoil with construction machinery prior to stripping shall be kept to a minimum. Site operations prior to topsoil removal, e.g. fencing and drainage shall be undertaken within the proposed working area using low ground pressure equipment.

Topsoil shall be stripped from the area of the proposed construction works with the exception of those areas which are to be used for topsoil storage mounds and therefore would remain undisturbed. The movement of topsoil across land ownership boundaries shall be avoided.

Topsoil and subsoil shall be striped and stored separately and not mixed.

Topsoil boundaries are often irregular which can result in difficulties when stripping with heavy machinery. The removal of all of the topsoil resource with a slight contamination of up to 5% subsoil shall be regarded as acceptable, as opposed to leaving topsoil on the working areas.

Topsoil Storage

Stripped topsoil shall be stored on topsoil only at the edge of the working area. Topsoil bunds shall be carefully sited and take account of the proximity of ditches/watercourses and other features such as hedges/fences/walls and overhead powerlines. The location of the topsoil bunds in relation to the levels both outside and within the temporary working area shall be carefully planned to avoid excessive diversion of surface water flows to low areas.

Topsoil and subsoil bunds shall be stored separately to avoid cross contamination and mixing of soil materials.

Topsoil bunds shall be kept no higher than 2m, to allow maximum aeration of the stored soils. Topsoil bund batters shall have gradients which minimise the risk of slumping.

Topsoil bunds shall be kept weed free. All topsoil bunds that will remain in situ over winter periods shall be sown with appropriate grass seed following agreement with the landowner. This will assist with weed control, reduce soil erosion through grass rooting, speed up drying of the topsoil and improve the aesthetics of the site. The topsoil bunds shall be sprayed with appropriate weedkiller at least twice per year as well as appropriate maintenance of the grassed areas.

Subsoil Stripping and Excavation

During construction, careful monitoring of subsoil characteristics is required. Significant variability in texture with depth may necessitate separate storage of markedly different materials. Sufficient space shall be allowed within the proposed temporary working area to allow the different subsoils to be stored in such a way that they can be replaced in the order of extraction. If these materials are allowed to contaminate the upper layers of the subsoil or become intimately mixed, this may have an adverse effect on the long-term quality of the land parcel affected.

(Including accomodation works, soils management and land drainage)



Stoning Areas

A terram type membrane shall be installed on all stoned working areas and access routes prior to the placement of stone to ensure adequate segregation of stone from subsoils when stone is removed post construction.

Control of Surface Water

During the construction works, the Contractor shall not use agricultural land drains to outfall standing surface water from the construction areas. This presents a danger that opening up a drain will allow silty water or contaminates into the pipe system which could cause a blockage further down the system or lead to pollution. It could also lead to the need to carry out subsequent re-drainage of land outside of the construction area. Where off-site pumping is considered necessary, the Landowner should be consulted and a system to reduce the possibility of silt entering the system should be used.

Any works or over-pumping required outside the working area must be agreed with the landowner unless already included in the Land Entry Notice (S.159 and S.165 of the WIA 1991). Discharge to a watercourse or to land may require Environment Agency or Internal Drainage Board consent under S.166 of the WIA 1991). Measures may be needed to reduce the risk of silt entering a watercourse through water running off construction sites.

Land Drainage

Once the existing drainage systems, topography, soils and rainfall are known appropriate mitigation can be planned. It should be noted that most arable and many grassland fields will contain land drains. In some cases, there will be more than one system as previous landowners may have installed new pipes to replace older and less effective systems.

The Contractor, via their suitably qualified and experienced soils and land drainage experts, shall carry out an existing land drainage survey for each land parcel including any existing outfall locations. The Contractor shall prepare, via their suitably qualified and experienced soils and land drainage experts, pre and post construction land drainage designs for each land parcel. These surveys and land drainage designs shall set out the requirements for the land drainage works to be implemented by the Contractor, via their suitably qualified and experienced landscape, agricultural and land drainage contractors during the project.

- The Contractor shall produce a full design of the pre- and post-construction drainage, including suitably scaled drawings, preferably at A3 size. Drainage designs shall require the approval of the landowner, via the A&A Surveyor. This will involve the Contractor and the A&A Surveyor meeting with the landowner to establish details of the existing drainage systems that are in place and request copies of as-laid drainage plans. This may involve intrusive investigation along the proposed route to establish the locations and depth of existing drainage systems where no records are available.
- The Contractor shall agree the design of any pre and post construction land drainage scheme in writing including drawings with the landowner via the A&A Surveyor.
- The Contractor shall include any land required for land drainage works including connections to any existing
 drainage systems and any new outfalls on the Section 159 Notice drawings within the temporary working area
 edged in red.
- In accordance with the prepared land drainage drawings, the Contractor shall install sufficient pre-construction drainage to ensure that any new or existing drainage systems continue to operate during construction, both within and outside of the temporary working area.

(Including accomodation works, soils management and land drainage)



- The Contractor shall carryout all land drainage works in accordance with the publication known as *ADAS Technical Note on Workmanship and Materials for Land and Drainage Schemes (1995)*, and shall comply with the relevant BS numbers contained therein (or with any subsequently updated versions of those BS numbers as appropriate).
- During construction, if any existing land drains are encountered within the temporary working area, the Contractor shall ensure the location of these is measured by GPS, plotted on a suitable drainage drawing and photographs taken. If requested, the Contractor shall provide a copy of the drawing(s) to show the existing land drains and photographs to the landowner via the A&A Surveyor. As part of the reinstatement works, the existing land drainage shall be cross connected correctly with appropriate support.
- In accordance with the prepared land drainage drawings, the Contractor shall install sufficient post-construction
 drainage to ensure that all affected land is effectively drained after construction to the same standard as it was
 pre-construction, both within and outside of the temporary working area. The Contractor shall be responsible for
 maintaining the function of and reinstating existing land drainage and making good any damage caused to existing
 culverts, ditches, drains and channels.
- The Contractor shall obtain temporary and permanent permits for drainage outfalls from statutory bodies as required.
- The Contractor may need to obtain consents for appropriate drainage connections and outfalls which may include from statutory bodies, in relation to statutory designations or third-party landowners.
- The Contractor shall produce as constructed land drainage drawings for each land parcel and shall forwarded these drawings to the landowner, via the A&A Surveyor.

Reinstatement

The Contractor shall reinstate all land, soil structure, surface features and boundaries back to the condition that they were in prior to entry and to the reasonable satisfaction of the landowner, following best practice agricultural operations where relevant. If it is not entirely possible to return the land to its original condition, then agreement shall be reached in advance by the Contractor with landowner, via the A&A Surveyor, regarding the extent of reinstatement proposed.

The Contractor shall prepare a reinstatement plan for each land parcel, and which shall be agreed in advance with each landowner and occupier (or their Agent, where appropriate), via the A&A Surveyor, in writing, including drawings, dates for delivery and handover. The plan shall take into consideration the site location and general topography as well as including details of the agricultural operations required, appropriate time of year and weather conditions to carry out successful reinstatement of land and shall comply with all Planning Obligations and Conditions.

The Contractor shall ensure that the agreed reinstatement plans are implemented fully to the reasonable satisfaction of the landowner and include for monitoring, inspecting, recording and reporting on the preparations for and progress of reinstatement with the landowner and obtaining written landowner acceptance at the earliest opportunity via the A&A Surveyor.

If it is not possible to return each land parcel back to its original condition in full, the Contractor shall make a binding agreement with the landowner, via the A&A Surveyor to document the level of reinstatement works to be carried out by the Contractor, detail how the land is to be left, what further reinstatement works are required to reinstate the land back to its original condition and whether this is to be carried out by the landowner and accounted for within the landowners compensation claim.

The Contractor shall ensure that where any longer-term aftercare responsibilities imposed on the project as a constraint of consent for same, these are commuted as responsibilities to the landowner, via the A&A Surveyor. The

(Including accomodation works, soils management and land drainage)



Contractor shall confirm, in writing to the Employer (UU) that the landowner is fully aware of any ongoing requirements.

The Contractor shall ascertain whether the land has organic status or not with the landowner via the A&A Surveyor, prior to application of any sprays/fertilisers.

Reinstatement shall include all CO8 requirements, and other required activities to reinstate the land, including but not be limited to, the following.

- Subsoil reinstatement
- Post construction land drainage.
- Subsoil ripping
- Subsoil stone picking.
- Subsoil grading
- Subsoil approval
- Topsoil re-instatement.
- Shallow subsoiling
- Final Reinstatement Plan

Subsoil reinstatement

Prior to any soil replacement, all nonindigenous none soil materials shall be removed from site as waste by the Contractor.

Reinstated land shall be made good back to its pre-entry levels with a 38-50mm allowance for post reinstatement settlement. In exceptional circumstances and where they can confirm there will be no detriment to use, environment or planning constraints and in agreement the landowner the Contractor may seek to adjust final finished levels, but where wanting to do so must ensure all necessary considerations are agreed as required before undertaking such works.

For deep excavations >2.5m lower layers shall be re-compacted in layers not exceeding 300mm on replacement to avoid settlement in the restored soil profile.

Rutting and compaction shall be levelled into an even surface following re-spreading of subsoils compatible with local levels and falls.

Subsoil levelling shall take account of topsoil re-instatement depths and the fall of land along and across the temporary working areas and shall return the subsoil to the same profile as recorded in the topographical surveys undertaken after the topsoil was stripped.

Post construction Land Drainage

The Contractor shall install post construction drainage in accordance with the agreed land drainage design.

Land drains shall be installed into the subsoil prior to topsoil re-instatement using equipment suitable so to not compact the prepared subsoil.

Surplus subsoil from the installation of the land drainage shall be re-spread evenly across the temporary working area and care shall be taken to avoid contaminating the permeable fill over the drains.

Vehicular access to the drained temporary working area shall be kept to a minimum.

Subsoil ripping

(Including accomodation works, soils management and land drainage)



All subsoils subject to trafficking and compaction shall be loosened to an appropriate depth using equipment specific to the task of sub-soil ripping. The exact depth of sub-soil ripping shall be pre-defined in the SMP.

Subsoiling operations shall not be undertaken when the soil is frosted, frozen, snow covered, waterlogged or baked dry more than 25mm deep.

Subsoiling shall be parallel to the direction of main underdrains and should not damage any post construction drainage. If any drainage is impacted by the subsoiling, the Contractor shall enact appropriate measures to ensure the drainage system continues to run.

Subsoil stone picking

Subsoil shall be stone picked to remove stones greater than 75-100mm in any dimension. In the case of naturally stony subsoils where stone is a naturally dominant soil characteristic the Contractor shall consult with the landowner via the A&A Surveyor to agree the reasonable extent of stone picking to be undertaken. Land parcels with stony characteristics shall be a specific reference within the pre-construction SMP so that appropriate agreements can be made about its use and limitations before the project commences.

Subsoil grading

Subsoil shall be blade graded to provide an even surface for topsoil placement and prepared to receive topsoil to enable reinstatement to pre-Construction field levels.

Subsoil approval

Prior to topsoil replacement, the subsoil surface shall be approved by the Contractors suitably qualified and experienced soils and land drainage experts in consultation with the landowner via the A&A Surveyor. A GPS photographic record of the Subsoils condition prior to topsoil being replaced shall be taken. Trafficking of the ripped, drained and stone picked subsoil shall not be allowed.

Topsoil re-instatement

The Contractor shall maintain and manage agricultural and other weeds indigenous to the topsoil appropriately including mechanical cutting and limiting the application of pesticide. For registered organic land, appropriate vegetation protection and control shall be undertaken. The Contractor shall ascertain whether each land parcel has organic status or not with the landowner via the A&A Surveyor, prior to application of any sprays.

Topsoil shall be replaced using appropriate equipment and shall be spread evenly to 'feather' into existing levels at the edges of the temporary working area. The levelled surface of the replaced topsoil shall be consistent with the topographical surveys undertaken prior to the project commencing. The Contractor shall confirm this by carrying out a post construction topographical survey.

The Contractor shall supply the landowner with a written and photographic record of reinstated topsoil depth in each land parcel via the A&A Surveyor.

The Contractor shall ensure that surface apparatus is graded into the surrounding land profile.

Stone picking shall be carried out where appropriate.

Excavated and Imported Soils and Materials

Topsoil and sub soil shall remain under the ownership of the landowner and shall not be removed from the land parcel, off site without approval of the landowner via the A&A Surveyor.

The use of imported topsoil shall not be necessary as topsoil shall be stripped, stored within the same land parcel, adequately protected from erosion and conserved. However, if the importing of topsoil does become necessary, the

(Including accomodation works, soils management and land drainage)



Contractor shall ensure that it complies with BS3882:2015 and the replacement top soil is of a similar nature, structure and quality of the existing subsoil and from a reputable source which shall be approved by the landowner and to their reasonable satisfaction prior to importation. This must be documented in writing and include the corresponding tickets/receipts for the topsoil by the Contractor and landowner via the A&A Surveyor.

The Contractor shall take away any surplus excavated material (excluding topsoil and sub soil) from site unless the landowner requests the Contractor not to and the Contractor is legally able to comply with such a request. This shall be documented in writing by the Contractor and landowner via the A&A Surveyor. The Contractor shall limit the need for removal of subsoil as waste and seek beneficial re-use within the project environment where possible. The Contractor shall include in the "Detailed proposals for Re-use of Excavated Material and/or Importation of Material for Use in Construction" report details of soil quality, structure and depth for each land parcel, topsoil management, sub-soil treatment, and management of surplus excavated material during construction.

Shallow subsoiling

Following topsoil replacement, all soils shall be subsoiled to below the topsoil depth and at an oblique angle to the land drains. This shall relieve compaction and provide interconnectivity between the topsoil, ripped subsoil and permeable fill over post construction surface water land drains.

Final Reinstatement Plan

The reinstatement plans prepared by the Contractor shall be unique to each land parcel.

Some landowners may wish to undertake the reinstatement works themselves and be compensated accordingly. This approach shall be agreed in advanced and in writing by the Contractor with the landowner via the A&A Surveyor. The Contractor shall make a binding agreement with the landowner, via the A&A Surveyor to document the level of reinstatement works to be carried out by the Contractor, detail how the land is to be left, what reinstatement works are required to reinstate the land back to its original condition to be undertaken by the landowner and accounted for within the landowners compensation claim.

Typical reinstatement activities to be undertaken by the Contractor shall include, but not be limited to:

- The removal of any Accommodation Works and timings to be agreed with the landowner, via the A&A Surveyor. This shall include provision for the removal of the temporary fencing and filling in of post holes with materials suited for the land.
- Reconnection of all water troughs previously disconnected and ensure they are working properly.
- Repair of damage to fences, gates, stone walls, stone faced banks, tracks, trees and access routes. This shall
 include items within the temporary working area as well as along access routes and in any parts of the holding
 where the construction works have affected the land either intentionally or otherwise.
- Where possible, the original stone from stone walls or stone-faced banks shall be used to reconstruct the feature using traditional construction methods and specialist sub-contractors.
- Replacement of stretches of fencing (wire and straining posts) adjacent to the construction works which has
 lost tension as a result of severance of the fence-line.
- Planting and maintaining hedges and trees including appropriate box fencing and protective tree guards and at the appropriate time of year.
- Final stone pick of the full temporary working area.
- Seed bed preparation and reseeding operations carried out using specialist agricultural sub-contractors and appropriate agricultural, sports field or landscape equipment.

(Including accomodation works, soils management and land drainage)



- Where grass seeding is required, the grass seed mix shall be agreed in advance between the Contractor and the landowner, via the A&A Surveyor.
- The Contractor shall source and spread at the recommended rate for the product, fertiliser and/or lime if required and as appropriate to support the reinstatement of the land and establishment of the grass sward back to the same condition prior to the project.
- The Contractor shall spray (or spot spray) at the recommended rate for the product, weed killer if required and as appropriate to support the reinstatement of the land and establishment of the grass sward back to the same condition prior to the project.

Quality Assurance

- The Contractor shall provide UU with the appropriate templates for the SMP, land drainage designs and drawings and reinstatement plans.
- The Contractor shall keep detailed records of all relevant stages of the Accommodation Works, Soils Management, Reinstatement and Land Drainage works, including but not limited to the follow:
 - Photographs
 - Use of 'day sheets' to record what activities had been undertaken on each day, including details of the date the works are completed and the weather conditions.
 - Keeping GPS records of the land drainage
 - o Any written agreements with the landowner
- The Contractor shall undertake topographical surveys after topsoil has been replaced to ensure the surface levels are the same as prior to the construction works.
- The Contractor shall ensure all pre-existing drainage and drainage installed as part of the project is functional, fit for purpose and that outfalls are clear of obstructions and are feeding into suitable water courses or ditches.
- The Contractor shall ensure that the agreed reinstatement plans are implemented correctly and in full. This shall include monitoring and inspecting the process of reinstatement with the landowner and obtaining written sign-off as necessary.
- The Contractor shall compare and contrast the reinstatement of the land once complete with the post
 construction topographical survey and the pre-construction photographic and/or video record of condition
 for each land parcel to ensure that the land is reinstated back to the same condition prior to the project and
 to the reasonable satisfaction of the landowner.
- The Contractor shall monitor the success of the reinstatement process. A snagging list is to be prepared and the Contractor shall return to carry out the required operations within the 24 month period following the completion of the constructions phase of the works within each land parcel (or within a reasonable timescale to be agreed between the parties) where defects are identified.
- The Contactor shall attend a final site meeting with the landowner together with the A&A Surveyor to formally hand the land back to the landowner.
- The Contractor shall obtain written acceptance from the landowner to formally hand the land back to their reasonable satisfaction via the A&A Surveyor.
- The Contractor shall frequently upload all relevant soils, land drainage and reinstatement documents, drawings, plans, reports to the Employer's (UU's) Track Record and Project Mapper system or equivalent system if requested.
- The Contactor shall complete the Employer's e-learning module on the Code of Practice for Pipe laying in Private Land if requested.

Copyright © United Utilities Water Limited 2025

(Including accomodation works, soils management and land drainage)



Copyright © United Utilities Water Limited 2025