



WREXHAM CABLE ROUTE

Surveys Conducted

The proposed cable route has been surveyed visually on site by a qualified NRSWA supervisor.

A desktop survey has also been undertaken by a qualified NRSWA supervisor.

Both surveys have been conducted with stats plan obtained by the asset owners.

Both surveys have indicated that a traditional open cut trench can be achieved to lay the required ducting for the cables.

A full ecological survey at this stage has not been undertaken only a visual check by the environmental team.

Bedwell Link

Surveys have indicated there is capacity in the in the verge and carriageway for the proposed cable route.

The proposed route can be further quantified prior to construction with trial holes.

The works will be undertaken with an agreed TM management plan approved with the appropriate licensing requirements to the Highways Authority.

Sesswick Way

Surveys have indicated that the traditional open cut method can be achieved with an approved TM plan with multi phases for crossing the lanes to achieve the correct direction of travel during construction. The TM plan will need to be approved by the HA with the appropriate licensing requirements.

Trial holes prior to construction will give certainty to the direction of travel for the open cut method minimising the impact to the network.

Sesswick Way/ Welsh Water land

Surveys have indicated Two sections of hedgerow (of 2m width each) would require removal to enable the open cut cable route works. The hedgerows would be assessed to confirm whether they are designated as "Important Hedgerows" via the Local Authority. If they are classified as important, we would submit a removal request to the Local Authority, if refused and an alternative method would be to replant with the existing native hedgerow mix upon completion of the works. Plant/ machinery would access the works location via existing gaps, rather than requiring further hedgerow removal.

There are two options for cabling on this section of the route. Directional Drill which would pass underneath the hedge, with no requirement of the hedgerow being removed, and subsequently there would be no impact on the hedge with this method. Alternatively, if directional Drilling isn't possible then there is the option to open cut trench, which would require removing a section of the hedgerow with root balls intact. However, if open-cut trenching works are undertaken outside of winter months then a section hedgerow could be removed and then replaced with whips. Surveys have indicated Two sections of hedgerow (of 2m width each) would require removal to enable the open-cut cable route works. The hedgerows would be assessed to confirm whether they are designated as "Important Hedgerows" via the Local Authority. If they are classified as important, we would submit a removal request to the Local Authority, if refused and an alternative method would be to replant with the existing native hedgerow mix upon completion of the works. Plant/ machinery would access the works location via existing gaps, rather than requiring further hedgerow removal.



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Level change Sesswick Way/ Welsh Water land

Surveys have indicated ground level changes along the route. The works to be undertaken with the traditional open cut method would achieve the minimum depth cover throughout the entirety of the route. The minimum depth of the apparatus to be achieved will be inclusive of the ducted preformed bends, used for construction taking into account the change in the ground levels. This will be achieved with a wide tracked excavator to negotiate the gradients of the ground level changes. Any works outside of the perimeter fence onto the highways will require a TM plan with appropriate licensing to be approved by the HA.

Installation Methodology

Apply to necessary Highways authority via sec 50/permits licensing to be agreed prior to starting work.

- . JSM to provide Full Barrier/ Heras Fencing and Signage in Accordance with Chapter 8.
- . Operatives will be NRSWA/EUSR accredited and trained.
- . Scan inside and outside of working Area with CAT and Genny.
- . Mark out identified utilities inside and outside of the excavated area with waterproof Spray.
- . Excavate as per HSG 47 to expose all existing utilities present.
- . Installation of ducts/ pipes to be installed as per DNO/IDNO approved specification design.
- . Joint bays to be excavated along the route with approved TWD.
- . Ducts will be tested and cleaned before cable installation.
- . Cables to be installed from joint bay to joint bay.
- . Cables to be sheaf/continuity tested then jointed.
- . JSM Close board TW drawings to be used when installing shuttering along the trench.
- . Back Fill and Reinstate to approved design/HAUC specification.
- . Clear Site.

The soil thermal resistivity of the ground will form part of your cable rating/sizing calculations. This can be achieved by performing tests prior to design submission.

CBS cement bound sand is the typical material to be used for the installation of cables.

Cables can be directly buried although it is better practice to have the cables installed in ducts for added protection, this will also form part of the design approval.



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