

Design & Access Statement:

Emergency lighting at Cudjamoor Farm, East Putford

Overview:

The proposed development involves the installation of lighting equipment that will provide *emergency lighting* for Devon Air Ambulance at a 'community landing site'. The lighting will help reduce the risks associated and time taken when landing at a site and will help paramedics when assessing and loading a patient into the aircraft (i.e. providing both safety and practical benefits).

The lighting is controlled by a 'GSM switch' which is operated via a mobile phone SIM card. The remote switching unit is activated via call-in / call-out from designated phone numbers. In practice, once the Air Ambulance has been tasked to a patient, the lighting will be activated by telephone call from the Helicopter Emergency Medical Services team, prior to the aircraft arriving at the site. Once the emergency is over, the lighting will be de-activated using another call.

This approach is unique to Devon Air Ambulance and will enable the charity to extend its emergency service provision into the hours of darkness up until midnight every day. The lighting will be used in emergencies and will be operational for the minimum time required to deliver this emergency service.

Lighting design:

The lighting design consists of:

- 10m steel column (hinged to enable lowering/raising for maintenance)
- 2 x 150 Watt LED Floodlights (dimensions 220mm H / 250mm D / 330mm W)
- 'T' shaped bracket for floodlights (700mm W)
- GSM switch (to remotely operate the lights)
- Low voltage PVC armoured cable
- Assorted electrical fittings

Lighting installation:

a) Trenching:

- Before carrying out any groundworks the area is checked for existing services.
- A trench min. depth of 450mm is excavated from the power source to the location of the column. The trench has fine sand bedding material laid in it.
- A length of low voltage PVC armoured cable is laid in the trench with a further layer of fine sand. Yellow marker tape inscribed with "Electric Cable Below" is laid along the length of the trench, above the cable and within 200mm of the top of the trench.
- The trench is backfilled with spoil.

b) Column installation:

- Depending on the soil type the column will be set into a concrete base dimension of up to 1m³.
- The excavation depth will be max. depth of 1500mm, with a slab laid on the bottom of the excavation, for the column to rest upon.
- A length of 50mm min. internal diameter alcatheene pipe is installed from the cable trench, and into the column cable entry slot prior to pouring of the concrete, to allow for the cable.
- The concrete base is made up to a depth of 1000mm (ST3 mix or M90 rapid set cement).
- After the concrete base has set, the remaining 450mm will be covered with backfill of excavated materials. All spoil is to be used on site or taken to registered landfill site.
- Lastly, there will be a 50mm make up surface of grass turf around the base of the column.