

ELECTRICAL DRAWINGS AND SPECIFICATION FOR OLNEY MARKET PLACE:

Project:

Olney Town Council is seeking bids from suitably qualified electrical contractors for the supply and installation of 10 (ten) electrical supply feeder bollards and 2 (two) powermaster pop-up electrical supply points located around the market in Olney.

Location:

Market Place, Olney, MK46 4EA

Specification:

Supply and installation of Ten (10) Electrical Supply Feeder Bollards and two (2) Power Master pop up services in and around the car parking area.

All bollards to have 3 (three) 16 amp single phase sockets, pop up units to have 3 (three) 16 amp single phase sockets in each, individual sockets to be protected by a 10 amp MCB and 30 mA RCD protection in each unit.

An electrical supply is to be found in a service room of the council toilet block. A 3 phase and neutral supply each phase 100amps. The new work is to be wired completely independent from existing installation.

The supply and switchgear feeding existing external sockets is all to be removed.

Due to the electrical supply, there are limitations to the amount of sockets installed, and protection for the electrical supply will be required e.g 80 amp switched fuse isolator triple pole and neutral.

The switching requirement for bollards and ground units.

A double pole switch for market traders or others is required that will turn on all units and isolate after use, wired through a contactor this switch to be labelled and have an indicator light.

A time switch will also be required to override the market traders switch, for use on Christmas lighting etc. also wired through though the contactor. The units are all to be individually wired back to main end with time delay RCD protection due to marquees being used at times and spikes driven into the tarmac.

The electrical contractor is totally responsible for the design of the installation and voltage drop calculations on all the cables, also ensuring cables are laid in trench in the correct manner.

The appointed electrical contractor is responsible excavating trenches to the correct depth and specification, disposing of all arisings, and making good on completion.

Bollards to be round top Rolec Streetserv PSAA0220/10AMP.

Ground mounting base GHSS0010

Rolec Power Master PSCA0050/10amp pre built with 3 (three) 16 amp sockets plus 1 power Master lock.

Bollards and Power Master to be fitted to Rolec specifications.

Spare ways on the distribution board are required, minimum of 3.

EARTHING:

Total Installation to be earthed and bonded to comply with the 17th edition of the IEE BS7671 wiring regulations. All wiring and cable laying to comply with the 17th edition BS7671 wiring regulations.

It will be the responsibility of the trenching company to repair any damage caused to services, pipes etc., during work being done.

On completion, reinstatement of all ground work to tarmac , paths, gardens etc to be to a high standard, with a two year guarantee.

It would be preferable to use a groundwork contractor who is a member of an official body.

The electrical contractor must be NICEIC Approved Contractor and not a Domestic Installer.

On completion, an Electrical Certificate must be given to Olney Town Council, with wiring diagrams and plans showing cable runs for future excavation or other works.

A completion certificate must also be left at the Distribution Board with all recordings shown and be laminated.

All switchgear distribution boards, contactors, switches to be of a high standard eg: Eaton Electrical Ltd, Merlin Gerin Ltd.

During this project the Thursday Market will continue to run and consideration to this must be taken.

Risk assessment and a Method statement must be produced prior to commencement of the works.

INSPECTION AND TEST PROCEDURE:

Comply with BS 7671 (The IEE Wiring Regulations). Provide completion certificates in accordance with BS 7671 (The IEE Wiring Regulations). Provide information to fulfil BS7671 611.

Carryout site testing and inspection and provide test certificates.

Record all results and readings. Provide copies of any test and inspection result.

Check correct operation of devices. Confirm interlocks and sequences operate correctly.

DISTRIBUTION BOARDS IDENTIFICATION:

Identify every outgoing way with a renewable circuit chart in a transparent plastic envelope permanently fitted inside distribution board cover. Clearly indicate in typed script, circuit identification number, cable size, fuse or circuit breaker rating and description of item supplied and area supplied by circuit.

UNDERGROUND CABLE IDENTIFICATION:

Identify external underground cable routed by means of approved markers along their length at distances not exceeding 50m and where a change of direction occurs.

Provide cable markers to clearly indicate the following:

- reference of group of cables.
- reference number of cable.
- points of termination.
- size and number of conductors.
- type of cable and date installed.
- operating voltage of cable.

Provide key to any reference system used at switchgear.

Mark and protect direct buried cables with:

Plastic tape yellow printed black warning notice.

CABLE INSTALLATION – ARMOURED CABLE:

Handle and install carefully to prevent damage to sheath and armouring

Do not install if cable and ambient temperature are, or have been for the last 24 hours, 0°C.

Fit galvanized steel guards where cables are liable to mechanical damage.

Bond armour to equipment and main earthing system

Make moisture proof connections to apparatus using sealed glands and PVC shrouds.

CABLE INSTALLATION – PVC SHEATHED CABLES

Do not install when temperature is near or below freezing

Do not install in cavities of external walls

Fit insulating cable glands at entries to equipment.

Terminate cable sheaths within boxes

CABLES LAID DIRECTLY IN THE GROUND:

Before laying cables, ensure that bottom of trench is even and free from sharp stones, roots etc.

Lay cables on a 75mm bed of sand

Where two or more cables are laid in the same trench, Space as BS7671 (The wiring Regulations) and ERA reports.

Cover each cable with 150mm of sand overlaid with cable marker tape to BS EN 12613

CABLES ENTERING BUILDINGS/FROM BELOW GROUND:

Seal both ends of pipe duct, to a depth of not less than 150mm, with an approved non-hardening, non-cracking, water resistant compound a proprietary moulded duct sleeve seal.

TESTING BURIED CABLES:

Test continuity and insulation of buried cables immediately before and after back filling.

Test continuity and Insulation of buried cables prior to handover.

FUSES:

Supply fuses including fuse carrier, bases and associated components to BS EN_60269-1 and BS88.

CABLE SHEATH IDENTIFICATION- EXTERNAL:

Identify cable sheaths for various services in accordance with NJUG 7.

A One (1) year guarantee on all equipment will be required on the Electrical Installation.