



## INSTALLATION OF ADDITIONAL PLUGS FOR UJ LIBRARIES

### Technical Specification for Installation of additional plug points for all UJ Libraries

#### **Technical Standards**

The following standards are particularly relevant to the scope of works. This is not a fully comprehensive listing of all relative standards and normative references but rather a list of the more notable standards.

- IEC/TR 61439-0: Guidance to specifying assemblies
- IEC 61439-1: General rules
- IEC 61439-2: Power switchgear and control gear assemblies
- IEC 61439-3: Distribution boards intended to be operated by ordinary persons (DBO)
- IEC 61439-4: Particular requirements for assemblies for construction sites (ACS)
- IEC 61439-5: Assemblies for power distribution in public networks
- IEC 61439-6: Bus bar trunking systems (busways)
- IEC 60947: Low-voltage switchgear and control gear
- SANS 156: Moulded Case Circuit Breakers
- SANS 1019: Standard voltages, currents, and insulation levels for electricity supply
- SANS 1186-1: Symbolic safety signs Part 1: Standard signs and general requirements
- SANS 1195: Bus bars
- SANS 10142: The wiring of premises (all parts)

#### **1 APK, APB, DFC and SWC Libraries**

The request is to supply and install additional plug points in designated areas within all the UJ libraries in a form of power skirting and single mounted socket outlets that are connected to UPS/Generator emergency power. There will be a new wiring which will be integrated to the existing main power system that feeds various areas of the UJ libraries where the student's seat and the installations must comply with applicable standards such as SANS and SABS. The work will be done in a live environment, therefore safe working procedures and caution must be adhered to at all times.

## **Installation of Additional Plugs at All UJ Libraries Scope of Work**




### **Scope of work:**

- Inspection and detailed assessment of the existing electrical infrastructure at all UJ libraries and prepare a high-level progress report of condition of infrastructure.
- Performance of load assessment from the existing back up power systems within the libraries to ensure there is enough capacity to connect additional plugs.
- Supply and installation of Sub Distribution Boards that will be connecting the new additional plug points,
- Supply and installation of Mains Low Voltage Feeder Cables (600/1000V PVC/PVC/SWA/PVC/CU 4mm<sup>2</sup> x 4c, 10mm<sup>2</sup> x 4c, 16mm<sup>2</sup> x 4c) cable in ceiling and under the desks and not visible for students as per applicable standards.
- Supply and installation of copper earth conductor on racking steelwork or strapped to cable (10mm<sup>2</sup> B.C.E.W).
- Supply and installation of Trunking PVC and cable trays for strapping of cable neatly.
- Supply and installation of 110X 50 Single compartment power skirting/ 2 or 3M.
- Supply and installation of End caps in 2 compartment power skirting.
- Supply and installation of 16A 3 pin switched socket outlet in power skirting.
- Supply and installation of Twin and Earth cable (2.5m).
- All other electrical equipment, materials and work not explicitly mentioned but nevertheless required to fulfil the following minimum requirements shall be deemed to be included in the scope of supply with no additional cost and time implication.

NB! The provisional bill of quantities is attached as **Annexure A**

1. Achieving the plant process requirements.
2. To meet equipment and personnel safety.
3. To suit site facilities and environmental conditions.
4. To meet the requirements of statutory approving authorities.
5. To coordinate with other contractors and agencies involved at site for other works required

**As applicable and in accordance with the signature mandate:**

Role	Name	Signature	Date
Project Manager: Central Technical Services	Mbambeleli Masala		5 October 2023
Director: Central Technical Services	Greg James		02 Oct 2023
Acting Executive Director: Facilities Management	Dr Joe Manyaka		11/10/2023