

Building Maintenance Scope of Work

Executive overview

The work covers General Building and Facilities Maintenance Services at Transmission Central Grid Substations situated throughout Gauteng.

The Employer plans to maintain and repair the buildings and infra-structure during the contract period of the project. The buildings at the Substation consist of brick buildings and require a good skill of maintenance.

Under the contract, the Contractor will perform General Building and Facilities Maintenance and Repairs Services including building modifications for the period of 36 months on an 'as and when required' basis.

Employer's requirements for the service

The Contractor shall perform maintenance and repairs as directed by the Employer, but not limited to, all buildings and facilities listed below including furnishings at the Transmission Central Grid on an "as when and needed basis":

- Control room
- Communications room
- Battery room
- Offices, Storerooms, Fire House, Kitchens and Toilets
- Entrance Guard House and Access Control Facilities
- CLN Depot Offices
- Driveways and Roadways
- GIS buildings (at Craighall substation and Croydon substation).

Such maintenance shall include, but not be limited to, the following:

A- Electrical:

The following is some of the work the service provider may be expected to execute.

1. Replace defective lightbulbs, fluorescent tubes and other lamps
2. Maintain light fittings and diffusors in clean condition, free of dust and any other sort of dirt.
3. Replace light fitting shades and diffusors as and when required.
4. Maintain/Repair/Replace defective light fittings, plug points, light switches other outlets, three phase socket outlets and wiring.
5. Replace/ Install/repair defective plug points and other power outlets like power skirting, power docks, power distribution units, etc.
6. Maintain electrical wiring in good working condition according of OHS Act, 1993 (Act No 85 of 1993), Electrical Installation Regulations.
7. Inspect/Maintain/Repair/Replace defective parts of switchgear and distribution boards and associated equipment
8. As and when required, carry out preventative maintenance at Employer's request and instruction by:
 - a. Perform Earth Leakage Tests by checking correct polarity, correct tripping earth fault current, operation of test button and maintain and or replace faulty earth leakage units as and when required.
 - b. Inspection and maintaining good and healthy earth connection and bonding to all installations in the building by physically testing continuity and checking for and repairing loose connections.

- c. Cleaning by means of vacuum cleaner all Distribution Boards including all switchgear in the Board.
- d. Checking for loose connections and tightening all connections in all the Distribution Board.
- e. Performing inspection for excessive heat in Distribution Boards by means of Infra-red or Thermographic camera and repairing where necessary
- f. Manually test circuit breakers for proper operation.
- 9. Provide record of all the inspections carried out as per request and instruction by Employer
- 10. Attend to and maintain High Mast Lights upon failure and malfunctions as and when required.
- 11. Attend to and maintain Outside and Street and Perimeter Lighting upon failures and malfunctions as and when required.
- 12. Inspect and maintain Distribution boards and Supply Cables from mini substations to buildings.
- 13. Do new installations of lights, socket outlets, water heaters, and replacement of water heater (Geysers, Hydro-boils, Boilers, elements, etc.).
- 14. Provision certificate of compliance (COC) as and when required as per OHS Act, 1993 (Act No 85 of 1993), Electrical Installation Rules.
- 15. Provision of specialized installations, inspections, assessments (including written report), maintenance, repairs in locations with electrical installations provided for
 - (a) Explosive atmospheres as contemplated in SANS1086-1;
 - (b) The petroleum industry as contemplated in SANS1089-2;
 - (c) Hazardous locations as contemplated in SANS10108;
 - (d) Medical locations as contemplated in SANS10142-1; where applicable and requested on an as and when required basis.
- 16. Installation of conduits, wires, wire ways, pull boxes, switchboards, and switches as needed to improve or modify electrical installations.
- 17. Install, maintain and replace electric watt-hour meters
- 18. Performs underground electric cable identification.
- 19. Participate in Energy Efficiency Initiatives as and when requested by Transmission Employer.
- 20. Provide advice with regards Energy Efficiency solutions for the complex.
- 21. Provision of Electrical Material as and when required by Employer.
- 22. Perform Scheduled Planned Maintenance as per plan provided by Employer.
 - a. Do inspections of all electrical installations including emergency lights, normal lighting, socket outlets and effect repairs where necessary on request and instruction by Facilities Department.
- 23. Repairs and maintenance of portable household kitchen stoves by replacing stove plates, switches, elements and rewiring of stoves and stove supply circuits.
- 24. Full inspection, service, maintenance, cleaning and repairs on main and sub electrical distribution boards, incl. written report.
Repairs, maintenance and alterations on all types of automated doors/controlled doors, gates, etc.
- 25. Repairs and maintenance of all electrical and electronic equipment.
- 26. Inspection, repairs, maintenance and issue of certificate of compliance for Lifting Gear/Cranes.

B- Plumbing and Drainage Service

- Repair and replacement of leaking taps and cisterns
- Replacement of galvanised, copper and PVC pipes
- Repairs and replacement of urinals, basins, sinks, tubs, troughs, runnel, shower trays, shower heads, tanks toilet.

- Water connection to hydro boilers, water tanks sewer system and buildings
- Unblocking of drainage structures, pumps including manholes
- Grease or replace gullies
- Replace aluminium glass shower door, manholes lids
- Replacement of threaded tubing and valve
- Supply and installation of geysers and other hot water systems, water tanks, hydro boilers
- Pressure jetting-ad hoc maintenance
- Attend to water leaks /blockages call outs
- Keep basic spares on site to address leaking taps and pipes (copper and PVC).
- Water tank maintenance, repair and replacement
- Septic /conservancy tank repair and maintenance
- Storage tanks, water filtration and purification systems.
 - a- Visual inspection, checks of tanks, piping and condition of insulation and repair/rectify defects
 - b- Test of pressure valves, float valve operations and repair/rectify defects
 - c- Clean out tanks and report on condition.
 - d- Inspection and Repair of filtration and pumps systems for water supply.
 - e- Supply and installation of new storage tanks, pumps systems, water filtration and purification systems.
- Provision certificate of compliance (COC) as and when required.

C- Civil and Building:

- Breakdown and removing drywalls including cutting off and removing reinforcement
- Break out and form openings through brick wall for window
- Necessary precast or concrete lintels, making good plaster or facings on one or both sides of reveals
- Taking out and removing doors, windows including thresholds and sills from brickwork to remain (build up or altering openings elsewhere).
- Fixing of existing doors, windows and fanlights (all fixtures including locks, etc).
- Repair of ramps and steps.
- Ground stabilization.
- Gabions: Repairs and maintenance and new installations
- Tiling, Painting and Glazing.
- Painter: Repairs, maintenance and alterations to: all types of roofs, ceilings, walls, floors, drive-ways, parking bays, doors, window frames, metal staircases, structural steel, all piping and tubing.
- Bricklaying, Plastering, Paving.
- Plaster: Repairs, maintenance and alterations to walls, ceilings, partitions and etc.
- Carpentry, Masonry, Joinery and Ironmongery (including metal trench covers, carports, burglar proofing & fabrication)

- Repairs, maintenance and alterations to lintels, roof trusses, stairs, balustrades, doors (incl. sliding & concertina doors), windows, skirting, shelving, formwork, worktops, desks, cupboards, dry walls, picture & curtain rails, all types of ceilings, partitioning and flooring. Perform structural and finishing carpentry work as and when required. Prepare formwork for structural items with timber.
- Repairs, maintenance and alterations of existing roof coverings complete with ridge and hip capping fittings and flashings, leaking roof and waterproofing (timber, metal, tiles, sheeting and fibre cement) Clean existing roof coverings using high pressure water and steel brushes removing all loose paint.
- Repairs, maintenance and alterations to any and all types of floor coverings including but not limited to vinyl floor coverings, carpeting, suspended floors and ceilings
- Repairs to existing structural steelworks including various types of safety fencing and gates.
- Repairs to burglar proofing for windows and entrance doors.
- Repairs, maintenance and alterations to all metal items: welding, including specialized welding.
- Supply and install new steel burglar proofing to windows and doors.
- Maintenance of drainage structures
- Maintenance of existing roadways and markings including cut, fill compact, primer, and tarmac on existing worn out roads.
- Paving and Kerbing: Lifting, Clean, repair, replace, re-instate and new paving and kerbing, tunnelling, trenching and excavations including re-instatement.
- Repair, clean, maintain and repair mainstream storm water systems (catchment areas, walls, piping and etc.
- Conduct all Building inspections and issuing of all certificates of compliances and the provision of Certificate of Occupancy as per local city requirements.
- Inspections, maintenance and repairs of oil dam walls and oil dam covers and plumbing – removal of weeds, waterbased mud, repairing dam walls.
- Repairs, maintenance and alterations to all brick walls, concrete, paving blocks, channels and etc.
- Repairs maintenance and alterations of stairs, balustrades, balconies, landings, paving, concrete walls/slabs/flooring, wall drain covers and etc.
- Sliding gates: Service on metal sliding gates, motors and access control including written report.
- Sliding doors: Service on all types sliding doors, motors and access control including written report.
- Swing doors: Service on all swing doors, motors and access control including written report.
- Emergency escape door alarms: Check on all door alarms including written report
- Revolving doors: Service on revolving doors, motors and access control including written report
- Smoke control doors: Check on all smoke shut doors including written report
- Roller shutter doors: Service on roller shutter doors, motors, shafts, gearboxes, springs, etc. and access control including written report.
- Repairs and alternations on all types of existing fencing, all types boundary walls, all types of retaining walls, all types of terrace blocks.

- Any and all demolition work, including removal of rubble and waste from site and safe disposal
- Repairs, maintenance and alterations to all types of water proofing systems.
- Erection and dismantling for all types Erection and dismantling for all types of scaffolds higher than 2 meters. Scaffolding shall be erected, altered or dismantled under the supervision of a competent person who has been appointed in writing for this purpose. Scaffolding for use of internal and external building.
- FAS: Contractor to refer to Eskom standard no:240-100979499 (attached as part of tender documents) for Fall Arrest System and working at heights specifications and safety requirements.
- Supply, erect, affix signages and notice boards as per Eskom requirements and standards.

The Contractor shall be required to provide personnel that will form part of the core team to be available on site, this team shall include the Site Supervisor with valid ORHVS certificate and authorisation, SHEQ Officer, Master Electrician (suitably qualified & to issue CoC), Electrician (Trade test and qualified to issue CoC), qualified Plumber (Trade test and qualified to issue CoC), qualified Carpenter, qualified Welder, Assistant Artisans. The Contractor will be required to have personnel readily available within four (4) hours to respond to emergencies.

The Contractor shall maintain a stock of spare parts and materials at his head office as required to perform the maintenance work specified herein and as directed by the Employer. The Contractor shall provide all labour, supervision, administration and management, equipment, tools, supplies and materials to perform the maintenance services complete as specified herein.

Any changes or modification undertaken, a record drawing must be produced and supplied to the Employer detailing the changes made in the Auto Cad or Micro station format.