

Name of work: Special repairs to Electrical Installations in MCA Block in Presidency College, Chennai 5

| EMD: Rs. 26000/- | | | Date of Tender 29.04.22 | | |
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| Sl. No. | Approximate Quantity | Description of Work | Rate in Figure & in Words | Per | Amount |
| 1 | 136 pts (One hundred and thirty six points) | Re-Wiring with 2x1.5 sqmm (22/0.3) PVC insulated SC unsheathed Cu. Conductor of 1100V grade in suitable PVC rigid pipe on wall and ceiling with PVC accessories on wall with PVC Modular Junction and modular switch box and 6A modular FT switch (Higher End) with modular front plate in flush with wall and painting with suitable colour for Open PVC modular light / Fan Point (For electronic regulator) (5 Points Per Coil) | | 1 pt (One point) | |
| 2 | 125 Nos (One hundred and twenty five numbers) | Renewal by Supply and fixing of 4' LED Single box type fitting complete with TW round blocks on wall or ceiling with 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting. (Higher End) | | 1 No (Each) | |
| 3 | 81 Nos (Eighty one numbers) | Renewal by Supply and fixing of 4' LED Single box type fitting complete with conduit pipe suspension from the ceiling with 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting (Higher End) | | 1 No (Each) | |
| 4 | 30 Nos (Thirty numbers) | Renewal by Supply and fixing of 4' LED Twin box type fitting complete with conduit pipe suspension from the ceiling with 2nos of 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting.(Higher End) | | 1 No (Each) | |

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Contractor

Chief Engineer

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| 5 | 39 Nos (Thirty nine numbers) | Renewal by Supply and fixing of 4' LED Twin Mirror Optic suspension type fitting complete with louvers cover complete on conduit pipe suspension from the ceiling with 2nos of 18W LED tube with PVC unsheathed Copper leads from terminals to the fitting(Higher End) | | 1 No (Each) | |
| 6 | 3 Nos (Three numbers) | Renewal by Supply and fixing of 4' LED Single box type fitting complete with enamel reflector with electronic driver with suitable angle iron frame work on wall with 18W LED Tube with PVC unsheathed Copper leads from terminals to the fitting (Higher End) for Chalk board fitting. | | 1 No (Each) | |
| 7 | 1 No. (One number) | Renewal by Supply and fixing of 2'x2' 42W LED 4000K Square type Recessed Fitting (Philips /Havells PLUTO NEO 2X2 PL R42 W LED 840S /Equivalent) complete on chain with PVC unsheathed copper leads from terminals to the fittings | | 1 No (Each) | |
| 8 | 83 Nos (Eighty three numbers) | Renewal by Supply and fixing of 1200 mm (48") AC ceiling fan complete with 500mm down rod on the existing clamp with stepped electronic 300W regulator.(Higher End) | | 1 No (Each) | |
| 9 | 48 Nos (Forty eight numbers) | Renewal by Supply and fixing of 1400 mm (56") AC ceiling fan complete with 500mm down rod on the existing clamp with stepped electronic 300W regulator(Higher End) | | 1 No (Each) | |

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| 10 | 170 Nos (One hundred and seventy numbers) | Renewal by Supply and fixing of 3 Nos. 6A modular 3pin wall socket with 6A modular FT control switches(Higher End) on wall with suitable PVC modular Box covered with modular front cover plate with connection. | | 1 No (Each) | |
| 11 | 28 Nos (Twenty eight numbers) | Renewal by Supply and fixing of 1 No. 16A modular 3pin wall socket with 16A modular FT control switch(Higher End) in suitable PVC modular Box covered with modular Front cover plate on wall with earth connection. | | 1 No (Each) | |
| 12 | 21 Nos (Twenty one numbers) | Renewal by supply and fixing of 20Amps DP Plug and Socket in sheet enclosure with 32A DP MCB in flush with wall with earth connection.(For AC Plug) SD 140 | | 1 No (Each) | |
| 13 | 13 Nos (Thirteen numbers) | Renewal by supply and fixing of 32A 2P MCB 10kA along with sheet steel enclosure with suitable angle iron frame work on wall with earth connection. | | 1 No (Each) | |
| 14 | 3 Nos (Three numbers) | Renewal by supply and fixing of 32A 4P MCB 10kA along with sheet steel enclosure with suitable angle iron frame work on wall with earth connection. | | 1 No (Each) | |

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| 15 | 20 Nos (Twenty numbers) | Renewal by supply and fixing of 12 way Single pole and neutral MCB sheet steel enclosure Distribution board with IP 42 protection metal Double door type with 1No 32 Amps DP MCB as incoming and 10 Nos 6A to 32A SPMCB outgoing on angle iron frame with earth connection only. The MCB DB and MCB's should be with ISI mark (Higher End) | | 1 No (Each) | |
| 16 | 4 Nos (Four numbers) | Renewal by supply and fixing of 4 way TPN 7 Segment MCB DB with metal / acrylic door cover with IP 42 protection (Higher End) with 1 No. 63A FP MCB and 63A 30mA FP ELCB as incoming, 3nos. 63 A DP MCB Isolators for sub incomers and 12Nos. 6A to 32A SP MCB as outgoing on angle iron frame with MS cable entry boxes with earth connection. The MCBDB and MCB's should be with the ISI mark (Higher End) | | 1 No (Each) | |
| 17 | 6 Nos (six numbers) | Renewal by supply and fixing of 6 way TPN 7 Segment MCB DB with metal / acrylic door cover with IP 42 protection (Higher End) with 1 No. 63A FP MCB and 63A 30mA FP ELCB as incoming, 3nos. 63 A DP MCB Isolators for sub incomers and 18Nos. 6A to 32A SP MCB as outgoing on angle iron frame with MS cable entry boxes with earth connection. The MCBDB and MCB's should be with the ISI mark(Higher End) | | 1 No (Each) | |
| 18 | 1 No. (One number) | Renewal by Supply and fixing of Three Phase 8 way Vertical type MCB DB with IP 42 protection Double door type DB with 1No 63A 4P MCB 10kA as incoming and 6 Nos 32A TP MCB and 6 Nos 6-32A SP MCB as outgoing with cable entry boxes on angle iron frame with MS cable entry boxes with earth connection only. (The MCB DB and MCB's should be Like legrand make) | | 1 No (Each) | |

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| 19 | 2320 mts (Two thousand three hundred and twenty metres) | Renewal by Supply and run of 2 of 2.5sqmm (22/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection 14SWG TC wire with painting of suitable colour. | | 1 Mt (One Metre) | |
| 20 | 832 mts (Eight hundred and thirty two metres) | Renewal by Renewal by supply and run of 2 of 4 sqmm (56/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour | | 1 Mt (One Metre) | |
| 21 | 18 mts (Eighteen metres) | Renewal by supply and run of 4 of 4 sqmm (56/0.3) PVC insulated SC unsheathed Cu.Conductor of 1100V Grade in suitable PVC rigid pipe on wall and ceiling with continuous earth wire connection of 14 SWG TC wire with painting of suitable colour. | | 1 Mt (One Metre) | |
| 22 | 20 mts (Twenty metres) | Renewal by Supply and clamping of 31/2 x 120 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps. | | 1 Mt (One Metre) | |
| 23 | 2 Nos (Two numbers) | Renewal by Supply and fixing of brass cable gland for 31/2 x 120 sq.mm PVC armoured LTUG cable with earth connection. | | 1 No (Each) | |

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| 24 | 2 Nos (Two numbers) | Renewal by Supply and providing cable end termination of 3 1/2 x 120 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete. | | 1 No (Each) | |
| 25 | 12 mts (Twelve metres) | Renewal by Supply and clamping of 31/2 x 70 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps. | | 1 Mt (One Metre) | |
| 26 | 4 Nos (Four numbers) | Renewal by Supply and fixing of brass cable gland for 31/2 x 70 sq.mm PVC armoured LTUG cable with earth connection. | | 1 No (Each) | |
| 27 | 4 Nos (Four numbers) | Renewal by Supply and providing cable end termination of 3 1/2 x 70 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete. | | 1 Mt (One Metre) | |
| 28 | 25 mts (Twenty five metres) | Renewal by Supply and laying of 31/2 x 35 sq.mm PVC armoured LTUG cable in a trench to be excavated at a depth of 0.75 meter putting 0.15 mt. Layer of sand and covering the cable completely with bricks and sand and refilling the earth to make good. | | 1 Mt (One Metre) | |

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| 29 | 270 mts (Two hundred and seventy metres) | Renewal by Supply and clamping of 31/2 x 35 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps. | | 1 Mt (One Metre) | |
| 30 | 20 Nos (Twenty numbers) | Renewal by Supply and fixing of brass cable gland for 31/2 x 35 sq.mm PVC armoured LTUG cable with earth connection. | | 1 No (Each) | |
| 31 | 20 Nos (Twenty numbers) | Renewal by Supply and providing cable end termination of 3 1/2 x 35 sq.mm PVC LTUG Aluminum armoured cable with necessary aluminium cable sockets by crimping etc. with electrical connection complete. | | 1 No (Each) | |
| 32 | 1 No. (One number) | <p>Renewal by Supply, Erection, Testing and commissioning of 250A capacity Dust and Vermin Proof Cubical Panel Board made up of 16 SWG CRCA sheet steel with supply and fixing of the following interior mounting fuse switches with HRC fuses arranged in two Horizontal or vertical rows with one switch over the other with a central bus bar chamber and two nos of Horizontal or vertical cable chambers at the two ends one on each side next to the fuse switch chamber and confirming to IE rules.</p> <p>1. 250A TPN SDF unit interior only with HRC fuses Double break Switch - = 1 no</p> <p>2. 125A TPN SDF unit interior only with HRC fuses Double break Switch - = 4 nos</p> <p>3. 63A TPN SDF unit interior only with HRC fuses Double break Switch- = 5 nos</p> | | 1 No (Each) | |

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(All the TPN switches should be Higher end with front handle make only)

The bus bar chamber will consist of suitable size of copper flat (not below 30x6mm) for phase and neutral buses on epoxy moulded bus insulators at proper and sufficient spacing between the buses as per IE rules. This bus bar chamber should be segregated from the adjacent chambers by providing hylem sheet of suitable thickness as partisans suitable size of copper flats should be provided all round the panel for earth bus.

The fuse switches should be connected with the phase and neutral buses with suitable size of rigid copper rod or flat and each switch should be connected with 2 nos. 25x3 mm earth bus with 2 runs of No:8 SWG rigid copper rod with suitable lugs. Phase and neutral copper buses should be tinned properly.

The panel should have a separate metering chamber at the top side consisting of Digital Multifunction meter Model LT MFM 4405 LED meter CI 0.5/ like and 300/5 CTR CT arrangements LED indicator lamps should be provided with control switches and fuse units.

The panel should be painted with one coat of Red oxide as primer coat and two coats of enamel paint of approved colour, Approved by the site engineer and also the danger board. The capacity of fuse switches, size of the incoming and outgoing cables, the place to which the supply is fed shall be marked on switch chamber.

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| | | The panel board should be mounted on suitable MS channel provided all round at bottom of the panel. The whole arrangement should be erected on a masonry pedestal to be constructed with suitable foundation bolts and nuts such that the lowest switch handle is at the height of 0.75m from the ground level. | | | |
| 33 | 1 No. (One number) | Renewal by supply and fixing of 315A TPN Switch Disconnecter Fuse Units in Sheet Steel Enclosure with HRC fuses Double Break switch with suitable angle iron frame work with MS cable entry boxes with PWD earthing | | 1 No (Each) | |
| 34 | 21 Nos (Twenty one numbers) | Renewal by Supply and fixing of 12mm MS fan hook by chipping the ceiling, find the rod and fixing fan hook and redoing the ceiling well with rich cement mortar as directed by the site officer | | 1 No (Each) | |
| 35 | 50 Nos (Fifty numbers) | Renewal by Supply and fixing of Modular Surface Switch Box - 12 Module with 1nos of 6A 5pin modular socket and 6nos of 6A modular FT switch (Crabtree / Legrand / Hager / Equivalent) with modular front plate on wall as directed by the site officer | | 1 No (Each) | |
| 36 | 2 Nos (Two numbers) | Earthing as per the ISI specification with an earth electrode of 2.1mt class 'B' GI pipe of dia not less than 40mm, with copper earth plate of size 125mm x 50mm x 6mm, with necessary funneling arrangements with necessary masonry work and with 38mm RCC cover slab for the brick masonry. | | 1 No (Each) | |

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| 37 | 284 mts (Two hundred and eighty four metres) | Renewal by Supply and run of 1 of NO: 8 SWG Cu wire for earth connection. | | 1 Mt (One Metre) | |
| 38 | 26 Nos (Twenty six numbers) | Renewal by supply and fixing of 30W LED street light fitting complete with suitable dia GI pipe (class 'B') complete on the existing post / wall with PVC unsheathed Cu. Leads with MS clamps and aluminium painting. (Philips/ Havells/ Equivalent) | | 1 No (Each) | |
| 39 | 26 Nos (Twenty six numbers) | Renewal by Supply and fixing of SMC Junction fire Proof and shock Proof box with suitable clamp with 1 No 6A SP MCB on DIN rail and Cu wire connections Complete. | | 1 No (Each) | |
| 40 | 403 mts (Four hundred and three metres) | Renewal by Supply and clamping of 4 x 16 sq.mm PVC LTUG armoured LTUG cable on post or on wall with MS Clamps. | | 1 Mt (One Metre) | |
| 41 | 52 Nos (Fifty two numbers) | Renewal by Supply and fixing of brass cable gland for 4 x 16 sq.mm PVC armoured LTUG cable with earth connection. | | 1 No (Each) | |
| | | | TOTAL | | |
| | | 12% | GST | | |
| | | | GRAND TOTAL | | |
| | | 41 Items (Forty one items) | 10 | | |

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