

**DNIT for for Replacement of Old M.H Fitting , poles , Brackets With New 16 mt Highmast with LED Lighting system in New Grain Market Rakba Road Dakha ,M.C Dakha , Distt Ludhiana**

(W. Code - EEJE-SASN-812)

App. Amount Rs :- 1,58,63,000/-

Earnest Money Rs :- 3,18,000/-

Time Limit :- 06 Month

| S. No. | Description  | Csr /Nsr   | Qty      | B.Rate              | Prem. | Rate     | Amount |
|--------|--|------------|----------|---------------------|-------|----------|--------|
| 1      | S/E of aluminium conductor P.V.C. insulated unarmoured and PVC Sheathed cable to laid loose in the existing trench or Pipe working voltage 1100 V grade .  |            |          |                     |       |          |        |
| a      | Overall size 16sq.mm (2Core) Un-armoured (Loose)   | 34.10D.3   | 540 Mtr  | 68+5.35% 71.64      | 90%   | 136.11   | 73499  |
| b      | Overall size 16sq.mm (4Core) Un-armoured(Loose)  | 34.10.D.37 | 958 Mtr  | 100+5.35%105.35     | 90%   | 200.16   | 191753 |
| c      | Overall size 25sq.mm (4Core) Un-armoured(Loose)  | 34.10.D.38 | 1019 Mtr | 132+5.35%139.06     | 90%   | 264.22   | 269240 |
| d      | Overall size 50sq.mm (4Core) Un-armoured(Loose)  | 34.10.D.40 | 948 Mtr  | 221+5.35%232.82     | 90%   | 442.36   | 419357 |
| e      | Overall size 70sq.mm (4Core) Un-armoured(Loose)  | 34.10.D.41 | 116 Mtr  | 309+5.35%325.53     | 95%   | 634.79   | 73636  |
| 2      | Earthing with G.I. wire/ rope in G.I. pipe partly recessed and partly on surface complete with 150cm long 50mm dia. G.I. earth pipe (Cutting threads and 36 Nos. holes, 1cm dia. to make a mesh around the GI Pipe) with., up to 8 metre in length (including boring & refilling).   |            |          |                     |       |          |        |
| a      | Earthing with 7/14 S.W.G. (7/2.18mm dia.)G.I. rope in 20mm dia G.I. pipe with G.I. reducing socket 50mm x 20mm (upto 8Metre in length)   | 34.13.13.b | 29 No    | 2800+5.35% 2949.80  | 25%   | 3687.25  | 106930 |
| 3      | Earthing with electrolytic Copper Tape rivetted (with 5Nos. copper rivets)/Steel Nut & bolts (with 4Nos. 32mm long, 8mm thick with washer and double nut) to 30cm x 120cm x 2mm thick copper plate (made cylindrical) burried 4.50 metre (14.76 feet) below ground level in the hole of excavation having bore dia. 125mm and surrounded by salt & charcoal dust mixture (20 kg.) including fixing the Copper Tape recessed in wall and in floor etc., up to 8metre in Length (including bore Length). G.I. pipe 20mm dia. (A-class), 3metre long should be laid in the hole of excavation 1 feet below ground level and having GI Reducer 50mm x 20mm with PVC Cap (For pouring water) fixed on the top level of the pipe. 300mm x 300mm x 300mm deep haudi of First class bricks finished with 1:4 cement plaster and haudi covered with cast iron lid having size 300mm x 300mm (Heavy) around the hole of excavation:- |            |          |                     |       |          |        |
| a      | Earthing with 20mm x 3mm Copper Tape (upto 8Metre in Length)   | 34.14.2a   | 37 No    | 9309+ 5.35% 9807.03 | 70%   | 16671.95 | 616862 |
| 4      | Supply and Erection of 20mm x 3mm thick copper tape (As additional length).  | 34.14.5a   | 70 Mtr   | 351+5.35% 369.78    | 70%   | 628.62   | 44003  |
|        | Supply and erection of Miniature Circuit Breaker MCB's for circuit protection against overload and short circuit current fault suitable for 240/ 415 volts 50cycles AC supply with breaking capacity of 10kA, Curve-C and low watt losses as per IS/IEC 60898-1, energy limitation class-3, true contact indication, label holder facility in the existing MCB distribution board as per PWD General Specifications including connections with suitable size of thimbles/lugs:-  |            |          |                     |       |          |        |
| a      | MCB Single Pole 6-32amp. (10kA, Curve-C)   | 34.16.a.2  | 89 No    | 134+5.35% 141.16    | 50%   | 211.75   | 18846  |
| b      | MCB Double Pole 6-32amp. (10kA, Curve-C)   | 34.16.6    | 8 No     | 408+5.35%429.83     | 50%   | 644.74   | 5158   |
| c      | MCB Four Pole 50, 63amp. (10kA, Curve-C)   | 34.16.16   | 26 NO    | 1231+ 5.35% 1296.85 | 50%   | 1945.29  | 50578  |
| 6      | Supply and erection of sheet metal Double Door Distribution Boards IP 43- IK09 metal door (dust protected) as per IS 8623-1&3, IEC 61439-1&3 suitable for flush mounting with fully insulated copper busbars, shrouded neutral bars, earth bars, cement spill protector, color- coded interconnecting wire set, cable ties, blanking plates and circuit identifications label and of required no. of ways for mounting miniature circuit breakers/ RCBO's/ RCCB's in the distribution board (For SP&N distribution board with provision DP MCB's/ RCCB's/ RCBO's as incomer and SP MCB's as outgoing and for TP&N horizontal distribution board with provision TPN/ FP MCB's/ RCCB's/ RCBO's as incomer and SP MCB's as outgoing) as per PWD General specifications  |            |          |                     |       |          |        |

|    |   |            |      |     |                          |     |          |        |
|----|---|------------|------|-----|--------------------------|-----|----------|--------|
| a  | SP&N Double Door Distribution Board 4 way each  | 34.17.1    | 15   | No  | 909+5.35%957.63          | 15% | 1101.28  | 16519  |
| b  | TP&N Horizontal Double Door Distribution Board 4 way each   | 34.17.5    | 16   | No  | 2406+ 5.35%<br>2534.72   | 15% | 2914.93  | 46639  |
| 7  | Supply and erection of Double Walled Corrugated (DWC) HDPE pipe to be laid 1mtr. below ground level including excavation placing the pipe in position and back filling with excavated soil etc. of the required   |            |      |     |                          |     |          |        |
| a  | Double walled corrugated (DWC) HDPE pipe 50/38(outer/inner dia)   | 34.37.A.1  | 355  | Mtr | 127+5.35%133.79          |     | 133.79   | 47495  |
| b  | Double walled corrugated (DWC) HDPE pipe90/76mm (outer/ inner dia.)   | 34.37.3    | 2850 | Mtr | 189+5.35% 199.11         |     | 199.11   | 567464 |
| 8  | S/E of PVC insulated single core FR copper conductor cable ISI marked left bare in pipe or casting of suitable size excluding the cost of supply and erection of pipe   |            |      |     |                          |     |          |        |
| a  | Overall size 16sq.mm (Un-sheathed)  | 34.09.7    | 90   | Mtr | 137+5.35% 144.32         | 90% | 274.23   | 24681  |
| b  | Overall size 25sq.mm (Un-sheathed)  | 34.09.8    | 30   | Mtr | 216+5.35%227.55          | 90% | 432.35   | 12971  |
| 9  | Supply and erection of PVC insulated PVC sheathed (3 core) round flexible wire with copper conductor (FR) cable (ISI marked) confirm to IS:694/1990 left bare in pipe or casing of suitable size complete in all respect as desired by the Engineer-in-charge:-   |            |      |     |                          |     |          |        |
| a  | Overall size 1.0sq.mm (32/0.20mm), 3Core  | 34.09.13.A | 225  | Mtr | 36+5.35%37.93            | 80% | 68.27    | 15361  |
| 10 | S/E of Sheet metal cubical pedestal made from 50mmx50mmx6mm thick MS angle iron frame with 5 sides welded & covered with MS sheet 2mm thick & front side hinged with 4" hinges & locking system with single/ double door openable placed on MS strip of size 12.5mm x 2.5mm thick welded with MS sheet, 4Nos. legs of 50mmx50mmx6mm thick MS angle iron each of 600mm long with MS sheet 100mmx100mmx6mm thick at the bottom end of the legs. Front door welded x-sectionally with MS flat 25mmx5mm. The front side with MS sheet each 75mm wide & a bend of 75mm width outwards & inwards on all sides with tapered top 200mm high and pedestal with 4 Nos. supporting members each of MS flat 50mmx6mm thick according to cubical size duly welded & complete pedestal to be painted with 1 coat of red oxide & 2 coats of paint & bonding to the existing earth. The Pedestal platform should be filled with 1:2:4 cement concrete mixture and erected 150mm high from the top of the cement concrete platform. The job is to be completed as approved by Engineer-in-charge:- |            |      |     |                          |     |          |        |
| a  | Cubical Size 1400mm high, 1200mm wide and 500mm deep  | 34.38.1.d  | 8    | No  | 17673+ 5.35%<br>18618.50 | 40% | 26065.90 | 208527 |
| b  | Cubical Size 900mmx600mmx350mm deep   | 34.38.1.a  | 16   | No  | 8571+ 5.35%<br>9029.54   | 40% | 12641.35 | 202262 |
| 11 | Supply and erection of Moulded Case Circuit Breaker (Panel mounting Cubical type) in the existing Cubical Panel (confirm to IEC:60947-2) having Ics=100% Icu, 100% neutral with spreader terminal links, Extended rotary handle and relevant PWD general specifications complete with G.I. Bolts, Nuts & Connection on both sides of MCCB with  |            |      |     |                          |     |          |        |
| a  | MCCB Four Pole 63/80/100amp., 415volts, ≥25kA Fixed Magnetic and Adjustable Thermal   | 34.23b.2   | 18   | No  | 5251+ 5.35%<br>5531.92   | 50% | 8297.89  | 149362 |
| b  | MCCB Four Pole 250amp., 415volts, ≥25kA Fixed Magnetic and Adjustable Thermal Setting   | 34.23b.6   | 5    | No  | 10425+ 5.35%<br>10982.73 | 50% | 16474.11 | 82371  |
| c  | MCCB Four Pole 400amp., 415volts, ≥36kA Microprocessor Based Adjustable Thermal and Magnetic Setting  | 34.23b.8   | 5    | No  | 23901+ 5.35%<br>25179.70 | 50% | 37769.55 | 188848 |
| d  | MCCB Four Pole 630amp., 415volts, ≥36kA Microprocessor Based Adjustable Thermal and Magnetic Setting  | 34.23.b.9  | 1    | No  | 26020+5.35%<br>27412.07  | 50% | 41118.10 | 41118  |
| 12 | S/E of sheet metal bus-bar chamber (factory fabricated) duly powder coated on existing surface with required 4Nos. of tin plated copper bus-bar strips of suitable length and cross-sectional area mounted on DMC/ SMC moulds at sufficient distance, enclosure made of M.S. sheet 1.6mm thick with hinged cover and lock, fitted with dust excluding gaskets and secured with sufficient no. of cadmium plated iron screws and of given overall dimensions and to be fixed with G.I. bolts and nuts/ rag bolts and nuts etc. complete with all accessories including connections with suitable size of thimbles, bonding to the existing earth and painting etc. as desired by the Engineer-in-charge at site:   |            |      |     |                          |     |          |        |

|    |   |             |          |                        |     |           |         |
|----|---|-------------|----------|------------------------|-----|-----------|---------|
| a  | Bus Bar Chamber 200amp., 415volts Overall Dimensions (455mm x 455mm x 150mm) nominal  | 34.20.7     | 2 No     | 7598+ 5.35%<br>8004.49 | 30% | 10405.84  | 20812   |
| 13 | S/E of 16Mtr High Mast system as per IS: 875:1987(part-II) manufactured on CNC automated Machine, Automatic plasma cutting machine mechanism for steel cutting, onliner scan welding with same strength Arc as steel for welding continuous polygonal structure as per wind speed of 180 Km per hour tested from IIT with wind tunnel testing, single hot dip galvanizing for maintenance life of Minimum 25 years with all the other exposed parts, High tensile sheet steel confirming to BSEN-10025 with tensile strength 355 N/Sqm with special Latching Arrangement head frame, galvanized lantern carriage etc as per below mentioned specifications. Mast shaft shell be in two sections as per IS 875, lighting finial including foundation bolts manufactured from special steel along with nuts washers, anchor plate, templates and LED type single dome aviation obstruction light. The mast shall have intergal power tool installed inside th base compartment for its operation. Lumanire wiring materials not included in the mast supply prices. | NSR         | 16 No    | 493450.00              | 0%  | 493450.00 | 7895200 |
| 14 | S/E OF Light Emitting Diode (L.E.D.) Flood Light Fitting 240/250 W having sufficient lens complete with power supply and related accessories suitable for installing inside and outside cover shed for obtaining sufficient lux level as per BIS standards at a height of atleast 6/9 meter above the ground level Complete in all respects   | NSR         | 128 No   | 23012.00               |     | 23012.00  | 2945536 |
| 15 | S/E of Light Emitting Diode (L.E.D.) Street Light Fitting 90 W having sufficient lens complete with power supply and related accessories suitable for installing inside and outside cover shed for obtaining sufficient lux level as per BIS standards at a height of atleast 6/9 meter above the ground level Complete in all respects   | NSR         | 25 No    | 5144.00                |     | 5144.00   | 128600  |
| 16 | Labour for dismantling 3-stepped steel tubular pole upto 16m.   | 34.33.3     | 92 No    | 1439+ 5.35%<br>1515.98 | 0%  | 1515.98   | 139470  |
| 17 | Dismantling of Single Arm GI pipe bracket 50mm dia (34.29.C.2.B) Rate Errection/2 = Rate = 171/2=85/50  | 34.29c.2b   | 29 No    | 85.50                  |     | 85.50     | 2480    |
| 18 | Dismantling of Double Arm GI pipe bracket 50mm dia (34.29.C.2.F) Rate Errection/2 = Rate 226/2= 113/-   | 34.29c.2f   | 31 No    | 113.00                 |     | 113.00    | 3503    |
| 19 | Dismantling of Three Arm GI pipe bracket 50mm dia (34.29.C.2.r) Rate Errection/2 = Rate 451/2= 272/50=136/-   | 34.29.c.2.j | 14 No    | 136.00                 |     | 136.00    | 1904    |
| 20 | Dismantling of Six Arm GI pipe bracket 50mm dia (34.29.C.2.r) Rate Errection/2 = Rate 451/2= 225/50   | 34.29.C.2.r | 16 No    | 225.50                 |     | 225.50    | 3608    |
| 21 | Dismantling of 150/250wattM.H Fittings  | NSR         | 249 No   | 45.00                  |     | 45.00     | 11205   |
| 22 | Supply and erection of heavy duty aluminium thimbles/lugs for cable end termination duly crimped including making necessary connections   |             |          |                        |     |           |         |
| a  | Aluminium thimble cable Core size 25 -35sq.mm   | 34.38A.3    | 40 No    | 17.00+ 5.35%<br>17.91  | 0%  | 17.91     | 716     |
| b  | Aluminium thimble cable Core size 50sq.mm   | 34.38A.4    | 46 No    | 27.00+ 5.35%<br>28.44  | 0%  | 28.44     | 1308    |
| 23 | S/E of heavy duty Copper thimbles/lugs for cable end termination duly crimped including making necessary connections etc. completely.   |             |          |                        |     |           |         |
| a  | Copper cable core size 10 sq. mm - 16 sq. mm  | 34.38.b.2   | 150 No   | 22.00+ 5.35%<br>23.17  | 15% | 26.65     | 3998    |
| 24 | Construction of <b>Inspection chamber</b> of size 2'x2'x3'with bricks and plastering the same with precast RCC manhole cover /Slab as per approved by engineer-in charge.   | AOR         | 36 No    | 6247+ 5.35%<br>6581.21 |     | 6581.21   | 236924  |
| 25 | Dismantling of D.B Flooring and making it in original position  | AOR         | 735 Sqm  | 143+5.35%<br>150.65    |     | 150.65    | 110728  |
| 26 | Dismantling of Road Cut and making it in original position  | AOR         | 280 Sqm  | 332+5.35%<br>349.76    |     | 349.76    | 97933   |
| 27 | Dismantling of CC Floring and making it in original position  | AOR         | 148.8sqm | 1053+5.35%<br>1109.34  |     | 1109.34   | 164182  |
| 28 | S/E of Surge Protection device (SPD) 3 Phase, 4 pole, 4 Modules 40KA, Confirming to IEC 61643-1 in Main Piller box  | NSR         | 17 No    | 15686.00               |     | 15686.00  | 266662  |
| 29 | S/E of Surge Protection device (SPD) 3 Phase, 2 pole, 4 Modules 40KA, Confirming to IEC 61643-1 or equivalent make Hager, (SPD 440D), Schneider (A 9 L40600) ABB (2CTB803973R1500) in Main Piller box   | NSR         | 2 No     | 8011.00                |     | 8011.00   | 16022   |

|                                 |   |     |     |     |                   |        |           |
|---------------------------------|---|-----|-----|-----|-------------------|--------|-----------|
| 30                              | S/E of FR PVC insulated unsheathed indus Multistrand Cable ISI marked copper cable size 2.5mm <sup>2</sup> , 3core for connection of LED fittings from Junction box at Lantern carriage and to provide electricity supply to 3 Phase Motor from MCB TPN in sub main Piller box near High mast | NSR | 480 | Mtr | 114.00            | 114.00 | 54720     |
| 31                              | S/E of FR PVC insulated unsheathed indus Multistrand Cable ISI marked copper cable size 6mm <sup>2</sup> , 5 core for connection of main supply from MCB TPN in sub main Piller box near High mastto connector inside High Mast.  | NSR | 160 | Mtr | 422.00            | 422.00 | 67520     |
| 32                              | Trenchless Moiling using,drilling/moiling machine alongwith sensor to locate easi path without any roadf cut etc except making of chambers fro erection of HDPE DWC under ground etcinsluding cost fo all petty material required at site as per satisfesation of Enginner -inchagre.         | AOR | 226 | Mtr | 799+ 5.35% 841.74 | 841.74 | 190233    |
| Total                           |   |     |     |     |                   |        | 15836742  |
| <b>Less Old Material</b>        |   |     |     |     |                   |        |           |
| 1                               | Old 150watt /250watt MH Street Light Fittings   | NSR | 249 | No  | 500.00            | 500.00 | 124500.00 |
| 2                               | Old & Damaged Kit Kat   | NSR | 150 | No  | 15.00             | 15.00  | 2250.00   |
| 3                               | Old & Damaged Junction Box  | NSR | 80  | No  | 30.00             | 30.00  | 2400.00   |
| 4                               | Old & Damaged 25/35 mm 3/1/2 Core   | NSR | 250 | Mtr | 6.00              | 6.00   | 1500.00   |
| Total Cost of Old Material (Rs) |   |     |     |     |                   |        | 130650.00 |
| Total                           |   |     |     |     |                   |        | 15706092  |
| Add 1% Cultural Cess            |   |     |     |     |                   |        | 157060.00 |
| Total                           |   |     |     |     |                   |        | 15863152  |

Say Rs. 1,58,63,000/-

  
Executive Engineer (Elect)  
Punjab Mandi Board  
S A S Nagar

ਤਬਸੀਨਾ / ਡੀ.ਐਨ.ਆਈ.ਟੀ. / ਟੈਂਡਰ ਚੈਕ ਕੀਤਾ  
ਰੁਪਏ 1,58,63,000/-  
ਕੋ. ਇੰਜ ਕੋਰਡ ਮਾਫ਼ੀਕਾ ੨੫ ਤਰੀਕ ੨੦੨੬ ਜਾਗ ਸਿਰੇ  
ਖਰੜਾਕਾਰ ਮੁੱਖ ਖਰੜਾਕਾਰ

ਪ੍ਰਵਾਨਗੀ ਦੀ ਸਿਫਾਰਿਸ਼ ਕੀਤੀ ਜਾਂਦੀ ਹੈ।  
ਕਾ:ਇੰਜ:(ਦੱਖਣ) ਪੰ.ਮੰ.ਬੋ., ਐਸ.ਏ.ਐਸ. ਨਗਰ।

ਪ੍ਰਵਾਨਗੀ ਦੀ ਸਿਫਾਰਿਸ਼ ਕੀਤੀ ਜਾਂਦੀ ਹੈ।  
ਨਿਗਰਾਨ ਇੰਜੀਨੀਅਰ, ਪੰ.ਮੰ.ਬੋ., ਐਸ.ਏ.ਐਸ. ਨਗਰ।

ਕੋ. ਇੰਜ ਕੋਰਡ ਮਾਫ਼ੀਕਾ ੨੫ ਤਰੀਕ ੨੦੨੬ ਜਾਗ ਸਿਰੇ  
ਡੀ.ਐਨ.ਆਈ.ਟੀ ਰੁਪਏ 1,58,63,000/-  
ਪ੍ਰਵਾਨ ਕੀਤੀ ਜਾਂਦੀ ਹੈ।  
ਮੁੱਖ ਇੰਜੀਨੀਅਰ (ਦੱਖਣ)  
ਪੰ.ਮੰ. ਬੋਰਡ, ਐਸ.ਏ.ਐਸ. ਨਗਰ।