



CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)

(Deptt. of Energy, Govt. of Chhattisgarh)

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No. 19141...../CREDA/HOR/RE-III/OM-829/2019-20

Date: 20./02/2020

TENDER AMENDMENT NOTICE

Amendment Notice to the Tender Document bearing Ref. No. Tender No.17737/CREDA/HOR/RE-III/PDN FAB & Civil Works/2019-20 issued on 15th Jan,2020 titled **“Standardization of rates for supply and installation of various fabrication items used in PDN works , PDN civil works, miscellaneous electrical items/equipments for new & operation and maintenance work in CREDA anywhere in the state of Chhattisgarh”**

Following the pre-bid meeting that was held on 28th Jan, 2020, the amendments are hereby notified. Kindly refer the sheet attached with this letter for details.

Note:-

1. The Bidders are requested to take note of the following changes made in the tender documents, which are to be taken in to account while submitting the tender. They shall be presumed to have done so and accordingly submitted the tender.
2. All other specifications, terms and conditions of the original tender document shall remain unchanged.
3. This amendment shall be the part of the tender documents and becomes effective immediately in supersession to the earlier corresponding version.

Enclosed:-As above

(Rajeev Khare)
Chief Engineer(RE-III)
CREDA HO Raipur

Corrigendum for Tender no. 17737 dtaed 15.01.2020

"Standardization of rates for supply of various fabrication items used in PDN works, PDN civil works, miscellaneous electrical items/equipments for operation and maintenance in CREDA anywhere in the state of Chhattisgarh"

Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Financial Clause			
Page no 07 ,point no 1 C	The Bidder who is bidding for "PRICE BID C" must have an "A" class electrical contractor valid license at time of bidding	1.Requested to permit consent of "A/B" class Electrical Contractor 2.Requested to relax the complusion of "A" class electrical contractor and allow Class "D" registration of PWD with Class "B" License of electrical contractor	The Bidder who is bidding for "PRICE BID C" must have a Valid Minimum "B" class electrical contractor license at the time of bidding
Page no 8,Point 3D	Price Bid shall be submitted online only at http://www.cspc.co.in however technical bid will have to be submitted in hard copy	Requested to consider offline submission of PRICE BID along with technical Bid	Considering the complexity and quantity of items in price bid the request of offline submission of PRICE BID along with technical bid is now allowed. Envelope (E) of price bid should be clear marked as PRICE BID and submitted along with main tender document.
Page no 07 ,point no 1 A	The bidder who is bidding for "PRICE BID A" must be the original fabricator of the items. The bidder shall have to submit the proof of being original fabricator of items for which he wants to bid	Requested to allow consent/MAF of authorised fabricator in the name of vendor of CREDA	1.The bidder who is bidding for "PRICE BID A" must be an authorised manufacturer/fabricator for the fabrication of respective fabrication items (except item no. 02 & 03 of price bid A) for which he wants to bid.The bidder shall also have to submit the DIC Production certificate/BIS cerificate/License issued by competent authority for the fabrication of items. 2. Only in case of fabrication of octagonal poles (item no. 02 & 03 of price bid A)valid authorisation certificate(MAF) from original fabricator is allowed.
Page no 07 ,point no 1 B	The Bidder who is bidding for "PRICE BID B" shall be the original manufacturer of items. In case any dealer or distributor of any company the bidder shall have to submit the certificate of authorisation i.e. MAF (Manufacturer authorisation Form).	Clarification	The bidder shall be a manufacturer or its authorised distributor/dealer.In case of authorised dealer/distributor the bidder shall have to submit authorisation certificate of dealership/distributorship.
Page no 07 ,point no 1 B	Minimum 03 years experience in PDN and O&M related works in CREDA	Requested to consider experience of similar work(PDN & Electrical related)under previous year and also experience in spv project	Minimum 03 Year Experience in PDN and O&M related works in CREDA Till 2019-20.
Page no 08,point no 11	Only one authorised dealer/distributor of a manufacturer on behalf of manufacturer itself shall be allowed to participate in the tender	Requetsed to allow more than one dealer or distributor of a manufacturer on behalf of manufacturer itself	Authorised dealers/distributors of a manufacturer on behalf of manufacturer itself shall be allowed to participate in the tender. In case of multiple distributor/dealer of a manufacturer participates in the tender then the all the bidder shall have to submit Dealership certificate along with MAF(except in case of Price Bid A)

Corrigendum for Tender no. 17737 dtaed 15.01.2020

"Standardization of rates for supply of various fabrication items used in PDN works, PDN civil works, miscellaneous electrical items/equipments for operation and maintenance in CREDA anywhere in the state of Chhattisgarh"

Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Page no 01 and all other places in the tender documents	TENDER FOR STANDARDIZATION OF RATES FOR SUPPLY AND INSTALLATION OF VARIOUS FABRICATION ITEMS USED IN PDN WORKS,PDN CIVIL WORKS .MISCELLENEOUS ELECTRICAL ITEMS/EQUIPMENTS FOR OPERATION AND MAINTENANCE WORKS IN CREDA ANYWHERE IN THE STATE OF CHHATTISGARH		TENDER FOR STANDARDIZATION OF RATES FOR SUPPLY AND INSTALLATION OF VARIOUS FABRICATION ITEMS USED IN PDN WORKS,PDN CIVIL WORKS .MISCELLENEOUS ELECTRICAL ITEMS/EQUIPMENTS FOR <u>NEW WORK & OPERATION AND MAINTENANCE</u> WORKS IN CREDA ANYWHERE IN THE STATE OF CHHATTISGARH

Technical Clause

Page no 41,Laying of cable in trench	Use of bricks in the bed of send is specified in the diagram	Requested for providing relaxation in compulsory use of bricks considering the site of works	As the main work of CREDA is in dense forest and naxalite area hence it is proposed to allow laying of cable between two layers of sand .Drawing Has been changed accordingly.
Annex -04,Page no 35,Serial no 14	All the galvanized material must be hot dipped galvanized (120 micron).	Clarification regarding the galvanisation thickness	All the galvanized material must be hot dipped galvanized (80 micron).
Price Bid A,Page no 19,Item no 2	Supply of hot dipped galvanized (in single dip to average 70 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia foundation bolts (EN8 grade). 5 meter high, minimum dia 130 mm at bottom and 70 mm at top.	Foundation bolt will be hot dipped or MS	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole of 5 meter height, minimum dia 130 mm at bottom and 70 mm at top made of 3mm thick steel sheet plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia <u>hot dipped GI foundation</u> bolts (EN8 grade). Approx Min weight-50-52Kg Bare pole
Price Bid A,Page no 19,Item no 3	Supply of hot dipped galvanized (in single dip to average 70 micron) Octagonal pole made of 3mm thick steel plate having bases plate 200x200x12mm, window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia foundation bolts (EN8 grade). 6 meter high, minimum dia 130 mm at bottom and 70 mm at top.	Foundation bolt will be hot dipped or MS	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole of 6 meter height, minimum dia 130 mm at bottom and 70 mm at top made of 3mm thick steel plate having bases plate 200x200x12mm, window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia <u>hot dipped GI foundation</u> bolts (EN8 grade).Approx Min weight - 60-62 kg bare pole

Corrigendum for Tender no. 17737 dtaed 15.01.2020

"Standardization of rates for supply of various fabrication items used in PDN works, PDN civil works, miscellaneous electrical items/equipments for operation and maintenance in CREDA anywhere in the state of Chhattisgarh"

Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Price Bid A,Page no 19,Item no 4	Fabrication and supply of 5.70 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium Paint of standard brand 12" x 12" base plate (10 thickness) foundation in MS Pole with stiffner and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Lenth. Nut bolt arrangement in 4 feet from the bottom of pole.	Clarification on weight	Fabrication and supply of 5.70 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium Paint of standard brand 9" x 9" base plate (10 mm thickness) foundation in MS Pole with stiffner and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Lenth. Nut bolt arrangement in 4 feet from the bottom of pole. Approx <u>Min weight - 40-42 kg bare pole</u>
Price Bid A,Page no 20,Item no 5	Fabrication and supply of 7.50 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium/Enamel Paint of standard brand. 12" x 12" base plate (10 mm thickness) foundation in MS Pole with stiffner and 4 Nos. T-bolt with double nuts (200 mm. Dia & 900 mm. Lenth. Nut bolt arrangement in 4 feet from the bottom of pole.	Clarification on weight	Fabrication and supply of 7.50 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium/Enamel Paint of standard brand. 9" x 9" base plate (10 mm thickness) foundation in MS Pole with stiffner and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Lenth. Nut bolt arrangement in 4 feet from the bottom of pole. Approx <u>Min weight -80-82 kg bare pole</u>
Price Bid A,Page no 20,Item no 6	Fabrication and supply of ISI mark G.I. cable fixtures Type A	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. cable fixtures Type A. Hot Dip Galvanised,Approx <u>Min Weight:-4.5Kg</u>
Price Bid A,Page no 20,Item no 7	Fabrication and supply of ISI mark G.I. cable fixtures Type B	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. cable fixtures Type B. Hot Dip Galvanised,Approx. <u>Min Weight:-3.00Kg</u>
Price Bid A,Page no 20,Item no 8	Fabrication & Supply of ISI mark G.I .pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud(Welded at specified height) as per specifications and drawing (Height of poles - 5.7 meter)	Clarification on weight & specification	Fabrication & Supply of ISI mark G.I .pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud(Welded at specified height) as per specifications and drawing (Height of poles - 5.7 meter) Approx. <u>Min Weight:-45-48 Kg bare pole</u>
Price Bid A,Page no 20,Item no 9	Fabrication & Supply of ISI mark G.I. pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud (Welded at specified height) as per specifications and drawing (Height of poles - 7.5 meter)	Clarification on weight & specification	Fabrication & Supply of ISI mark G.I. pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud (Welded at specified height) as per specifications and drawing (Height of poles - 7.5 meter) Approx.<u>Min Weight:-62-65Kg bare pole</u>
Price Bid A,Page no 20,Item no 10	Fabrication and supply of ISI mark G.I. decorative pole as per drawing with two sided G.I. street light bracket (8 Mtr)	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. decorative pole of height 8 Mtr as per drawing with two sided G.I. street light bracket and base plate 9"x9"x6 mm Thickness (8 Mtr), Approx. <u>Min Weight:-110-113Kg bare pole</u>

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A	B	C	D
Price Bid A,Page no 20,Item no 11	Fabrication and supply of ISI mark G.I. decorative pole as per drawing with one side G.I. street light bracket (5.75 Mtr)	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. decorative as per drawing with one side G.I. street light bracket and base plate 9"x9"x6 mm Thickness(5.75 Mtr) <u>Approx. Min Weight:-90-95Kg bare pole</u>
Price Bid A,Page no 20,Item no 12	Fabrication and supply of ISI mark G.I. special type pedestrian pole as per drawing with 25 watt street light luminary warm LED (4.5 Mtr)	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. special type pedestrian poles as per drawing with 25 watt street light luminary warm LED and <u>PU painting as per CREDA requirement</u> (Height-4.5 Mtr). <u>Approx Min Weight:-35-38Kg bare pole</u>
Price Bid A,Page no 20,Item no 13	Fabrication and supply of ISI mark G.I. pedestrian pole as per drawing with street light bracket (6 Mtr)	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. pedestrian pole as per drawing with street light bracket and <u>PU painting as per CREDA requirement</u> (Height-6 Mtr). <u>Approx. Min Weight:-45-48 Kg including bracket</u>
Price Bid A,Page no 20,Item no 14	Fabrication and supply of ISI mark G.I. street light pole as per drawing with street light bracket (9 Mtr)	Clarification on weight & specification	Fabrication and supply of ISI mark G.I. street light pole as per drawing with street light bracket and <u>PU painting as per CREDA requirement</u> (Height-9 Mtr) <u>Approx. Min Weight:-86-89 Kg including bracket</u>
Price Bid A,Page no 21,Item no 17	Supply of, pipe earthing coil with perforated pipe charcoal, salt, etc& 6 SWG Earth wire giving earth values suitable for pipe earthing	Clarification on weight & specification	Supply of <u>earthing coil</u> with perforated pipe charcoal, salt, etc& 6 SWG Earth wire giving earth values suitable for pipe earthing
Price Bid A,Page no 201Item no 18	Fabrication & supply of ISI mark G.I. pipe "B" Class street light bracket for mounting Street Light fittings as per specifications and drawing.	Clarification on weight & specification	Fabrication & supply of ISI mark G.I. pipe "B" Class street light bracket for mounting Street Light fittings as per specifications and drawing, <u>Min approx. weight:-Min 2.75-3.5 KG</u>
Price Bid A,Page no 21,Item no 19	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given with all required material, drilling work and two coat steel primer zinc chromate of standard quality	Clarification on specification	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given by CREDA with all required material, drilling work
Price Bid B,Page no 22.Item 01	Supply of ABC cable of Size as per ISI specification of Size	Clarification on specification	Supply of ABC(Aerial Bunched Cable) cable of Size as per ISI specification(IS:14255/1995,IS:8130/1984,IS:398/pt IV/1994,IS:10418/1982) of Size
Price Bid B,Page no 22.Item 02	Supply of Lightning Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal,Air terminal,Round conductor,Insulator,Tape Etc.	Clarification on specification	Supply of Lightning Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal,Air terminal,Round conductor,Insulator,Tape,Earthing Etc.
	Digital clamp meter ,Fluke,Metravi,Meco	Clarification on specification	Digital clamp meter

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Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Price Bid B,Page no 24.Item 12	Average, 3 3/4 digitals (4000 Counts), Auto / Manual ranging, 1000V AC/DC & Up to 1000A AC ,55mm Clamp Jaw Size , Capacitance / Diode Continuity /Frequency Testing, Auto Power off / Data hold / Zero Adjustment Make : Fluke or Equivalent	Clarification on specification	Average, 3 3/4 digitals (4000 Counts), Auto / Manual ranging, 1000V AC/DC & Up to 1000A AC ,55mm Clamp Jaw Size , Capacitance / Diode Continuity /Frequency Testing, Auto Power off / Data hold / Zero Adjustment <u>Make :</u> <u>.Motwane,Metravi,Meco</u>
Price Bid B,Page no 24.Item 13	Digital Earth tester as per specification stated below, Fluke ,Metravi,Meco	Clarification on specification	Digital Earth tester as per specification stated below,
	3 & 1/2 Digit LCD display with Max Reading 1999, Earth Resistance Ranges of 0.01Ω to 1999Ω, Rechargeable Internal Ni-MH Battery, 4 Wire Soil Resistivity Measurement , Measurement Method-3 terminal & 4 Terminal with test kit Model DET-20 Make : Motwane or Equivalent	Clarification on specification	3 & 1/2 Digit LCD display with Max Reading 1999, Earth Resistance Ranges of 0.01Ω to 1999Ω, Rechargeable Internal Ni-MH Battery, 4 Wire Soil Resistivity Measurement , Measurement Method-3 terminal & 4 Terminal with test kit <u>Make : Motwane,Metravi,Meco</u>
Price Bid B,Page no 24 ,Item 16	Digital multi meter 20A SSC Fluke ,Metravi,Meco make	Clarification on specification	Digital multi meter 20A SSC Motwane,Metravi,Meco make
Price Bid B,Page no 24.Item 17	Digital Thermometer for temperature Measurement as per ISI standards Fluke ,Metravi,Meco	Clarification on specification	Digital Thermometer for temperature Measurement as per ISI standards <u>Motwane</u> <u>.Metravi,Meco,Temp Range -50 To 380 C</u>
Price Bid B,Page no 25.Item 22	Supply of Electrical Rubber Insulating Hand Gloves for Electrical Purposes IS:4770,IEC:60903	Clarification on specification	Supply of Electrical Rubber Insulating Hand Gloves for Electrical Purposes IS:4770,IEC:60903, <u>Make :-</u> <u>Honeywell,3M,Karam</u>
Price Bid B,Page no 25.Item 23	Supply of Helmets as per (IS: 2745-1983)	Clarification on specification	Supply of Helmets as per (IS: 2745-1983) <u>Make :-</u> <u>Honeywell,3M,Karam</u>
Price Bid B,Page no 26.Item 27	Supply of full body nylon safety belt for solar dual pump technician	Clarification on specification	Supply of full body nylon safety belt for solar dual pump technician <u>Make:- Honeywell,3M,Karam</u>
Price Bid B,Page no 26.Item 28	-	New Item added	Power cable - 1100 Volts Grade, Armoured with Aluminium Conductor PVC Insulated & PVC Sheathed(Heavy Duty) As per IS :1554-1988,PART -1,Four Core MAKE- Havells,Finolex,Polycab,KEI
			1)35 SQMM
			2)50 SQMM
			3)70 SQMM
			4)95 SQMM
5)120 SQMM			
Price Bid B,Page no 26.Item 29	-	New Item added	AC MCB as per IS Breaking Capacity 6 kA, B Series,400 Volts Four Pole Make - Schnieder,Legrand,L&T,Havells(Without Enclosure)
			1) 16 A,400 V
			2) 32 A,400 V
			3) 40 A,400 V
4) 63 A,400 V			

Corrigendum for Tender no. 17737 dtaed 15.01.2020

"Standardization of rates for supply of various fabrication items used in PDN works, PDN civil works, miscellaneous electrical items/equipments for operation and maintenance in CREDA anywhere in the state of Chhattisgarh"

Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Price Bid B,Page no 26.Item 30	-	New Item added	Copper Busbar Chamber wall mounted type ,3 Phase,415 Volts,6 WAY FOUR POLE Make- Havells,L&T,BENLO,C&S 1) 63 A, 415 V 2) 100 A, 415 V 3) 200 A,415 V
Price Bid B,Page no 26.Item 31	-	New Item added	Residual Current Circuit Breaker for AC Power Supply,3 Phase,Four Pole 400 Volts, Make - Schneider,Seimens,Legrand,L&T(Without Enclosure) 40 A, 100 MA 63 A, 100 MA
Price Bid B,Page no 26.Item 32	-	New Item added	Digital Time Switch Specifications Theben make single channel digital time switch with weekly program and 56 memorylocations with minimum switching time of one minute. Timer should have Lithium battery with 10 years power reserve. Timer should have douFix spring terminals for easy connection. Timer should be fully operable without mains connection. Timer should have Zero-cross switching. Timer should have automatic Summer Winter Switching.Make: Theben(Germany) or Equivalent
Price Bid B,Page no 26.Item 33	-	New Item added	Solar Earthing Kit consists of 14.20 mm diameter 250+ Micron copper coated rod of 1250 mm length with 05 kg earth enhancing compound & connecting clamp comply with IS 3043-1987(Code of practice for earthing) Make: OBO,EXCEL,CAPE ELECTRIC.
Price Bid B,Page no 26.Item 34	-	New Item added	Equipotential Bonding rail outdoor type for the end termination of Earthing wires/Strips tested as per IEC Standard Make -OBO,HAKEL,SIEMENS.
Price Bid B,Page no 26.Item 35	-	New Item added	Galvanised steel flat conductor Zinc Coating 500 g/m2 (Apporximate 70 Micron) size 25x3 mm for connecting Solar Structure,Invertors LA etc.Make - OBO DEHN,ERICO
Price Bid B,Page no 26.Item 36	-	New Item added	Cross Connector for flat conductor with intermediate plate for interconnecting GI Strip Make - OBO,DEHN,ERICO
Price Bid B,Page no 26.Item 37	-	New Item added	Spacer clip for flat conductor with polyamide base suitable for 25X3 MM size strip. Make - OBO,DEHN,ERICO
Price Bid B,Page no 26.Item 38	-	New Item added	LED Street lighting Luminaire of ccapacity 35W ,0.90<PF,IP65 & 66 protection,External voltage surge protection,copper Earth wire conductor 2 feet,Separate Heat Sink,Separate driver compartment(>30Watt Luminaries) Make Havells or equivalent
nnex-07,Page no 4	Pole Drawing		Amended Drawing Attached (Annex-07)
New addition	Grouting of pole Drawing		Amended Drawing Attached (Annex-11,12,13)

Corrigendum for Tender no. 17737 dtaed 15.01.2020

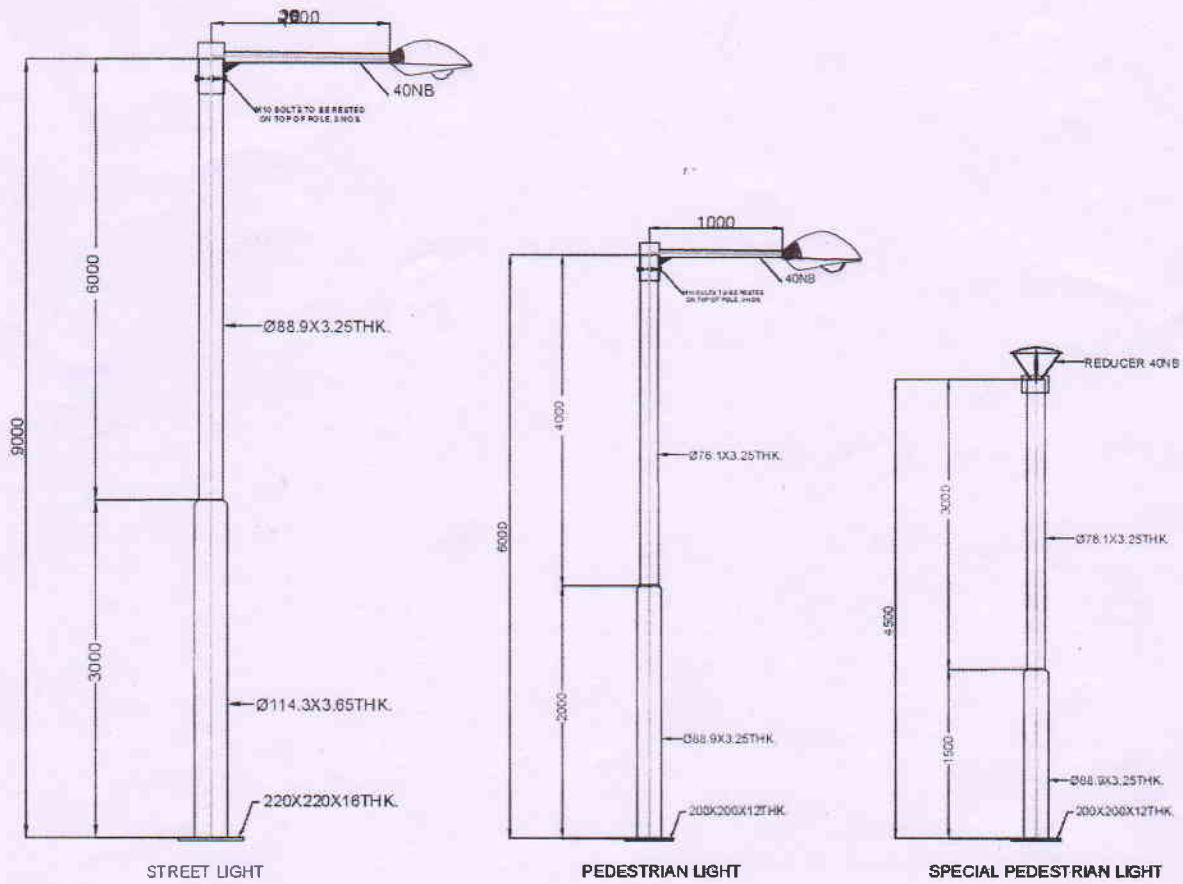
"Standardization of rates for supply of various fabrication items used in PDN works, PDN civil works, miscellaneous electrical items/equipments for operation and maintenance in CREDA anywhere in the state of Chhattisgarh"

Point and page number of tender documents	Clause of tender	Submission of Agency	Amendment/clarification
A	B	C	D
Annex-08,Page no 4	Cable Laying Drawing		Amended Drawing Attached (Annex-08)
New addition	Pole Drawing for MS poles		Drawing attached(Annex-10)
Date Extension	-	-	1.Date of Inspection of all fabrication items :- 22.02.2020 2.Offline Submission of price bid and technical Bid:- 22.02.2020 3.Opening of Technical bid and Price Bid:- 25.02.2020

DRAWING OF ISI MARK G.I. POLE STREET LIGHT, PEDESTRIAN STREET LIGHT, SPECIAL PEDESTRIAN LIGHT WITH STREET LIGHT BRACKET, HEIGHT 4.5 Mtr, 6Mtr, 9Mtr ABOVE GL

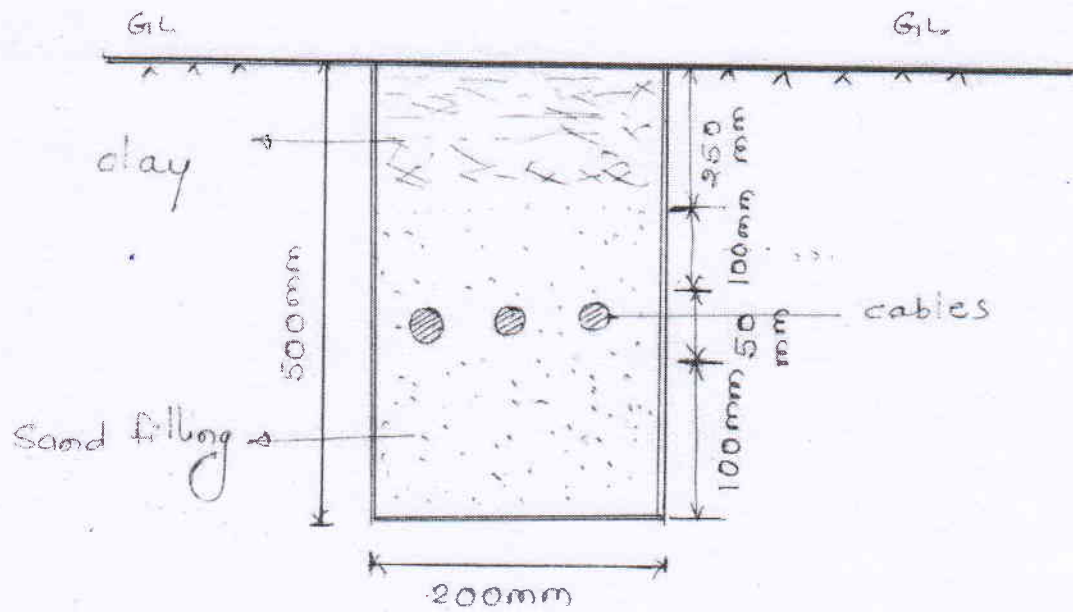
ALL DIMENSIONS IN MM

Annex-07



Laying of cable in a trench

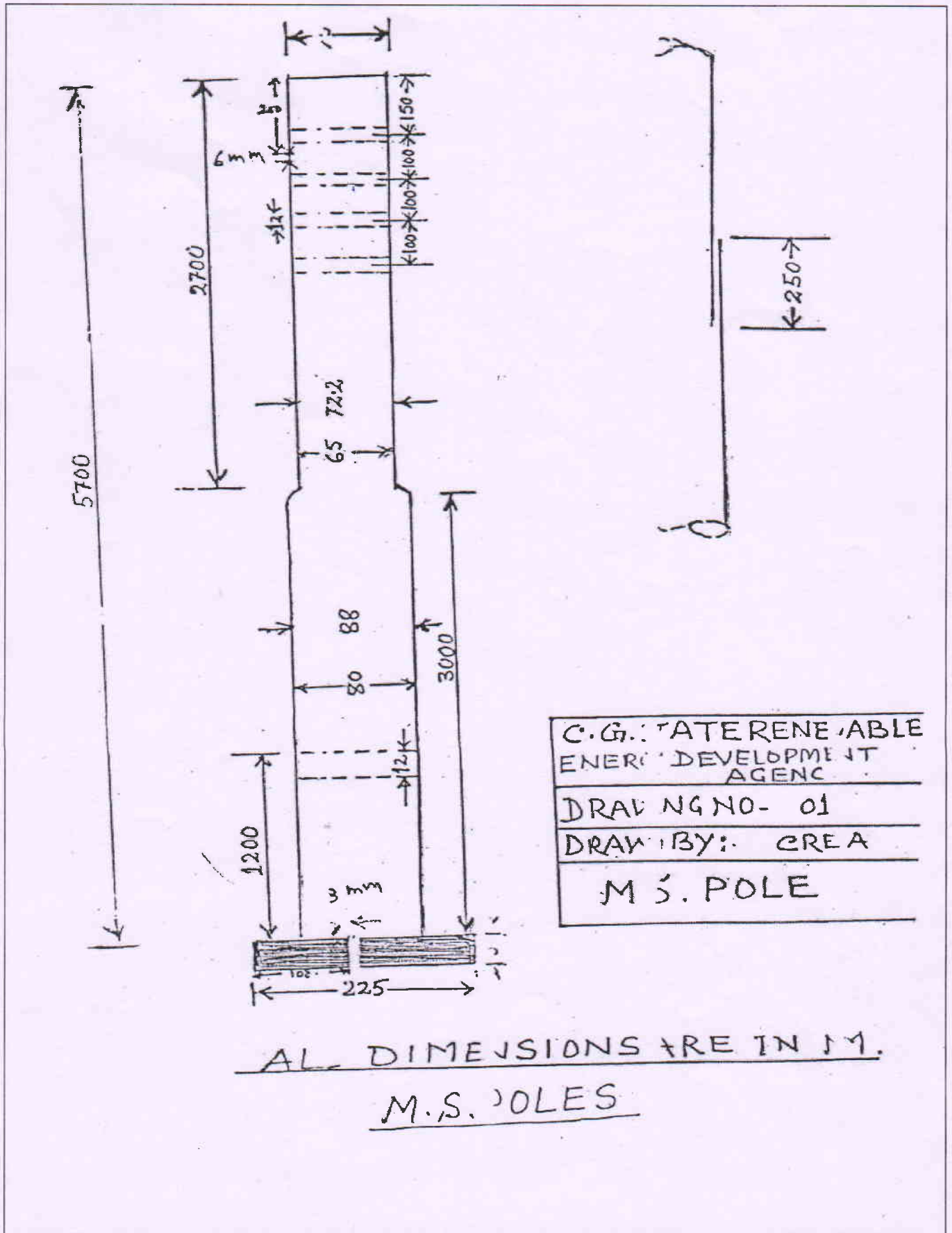
Indicative Drawing:-



Approved by CREDA

DRAWING OF ISI MARK MS POLE HEIGHT 5.7 Mtr, ABOVE GL

ANNEX -10

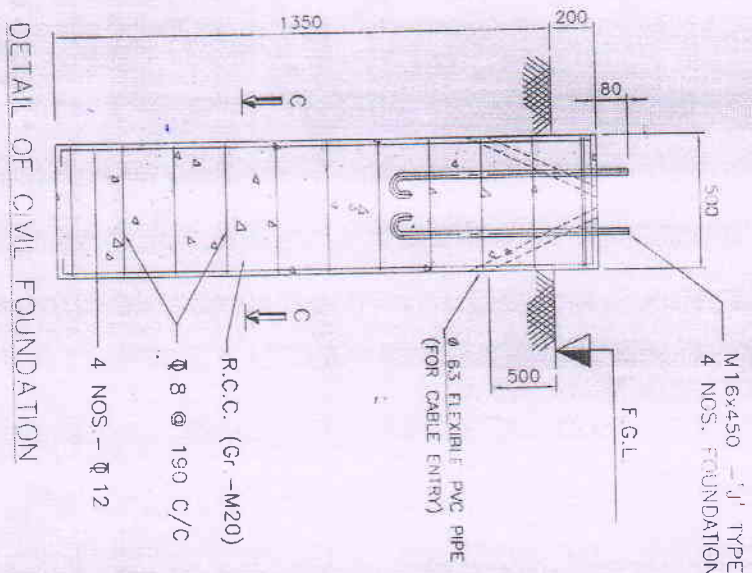


Drawing of foundation for 4.5Mtr length pedestrian pole and 5Mtr , 6 Mtr octagonal poles

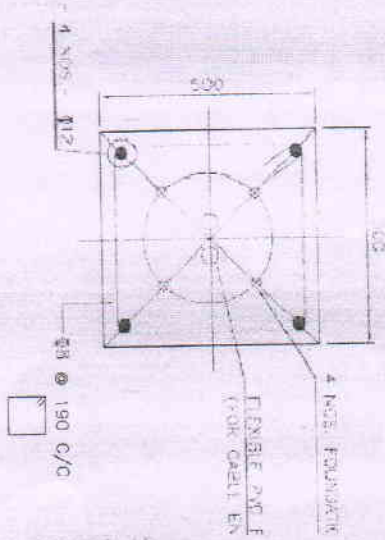
ANNEX -11

RANGE IN DIMENSIONS ARE AS PER IS-2102 EXCEPT FOR BENDING RADII.

ALL DIMENSION



DETAIL OF CIVIL FOUNDATION



SECTION C-C

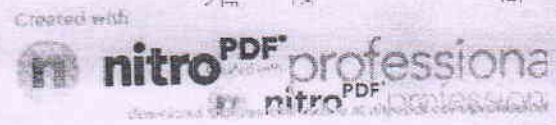
NOTES:

1. Grade of steel reinforcement (for R.C.C.) - Fe 415
2. Clear cover to reinforcement - 50 mm
3. Assumed S.B.C. - 10 T/Sqmt. (minimum)
4. CONCRETE VIBRATED
5. USE SHUTTERING

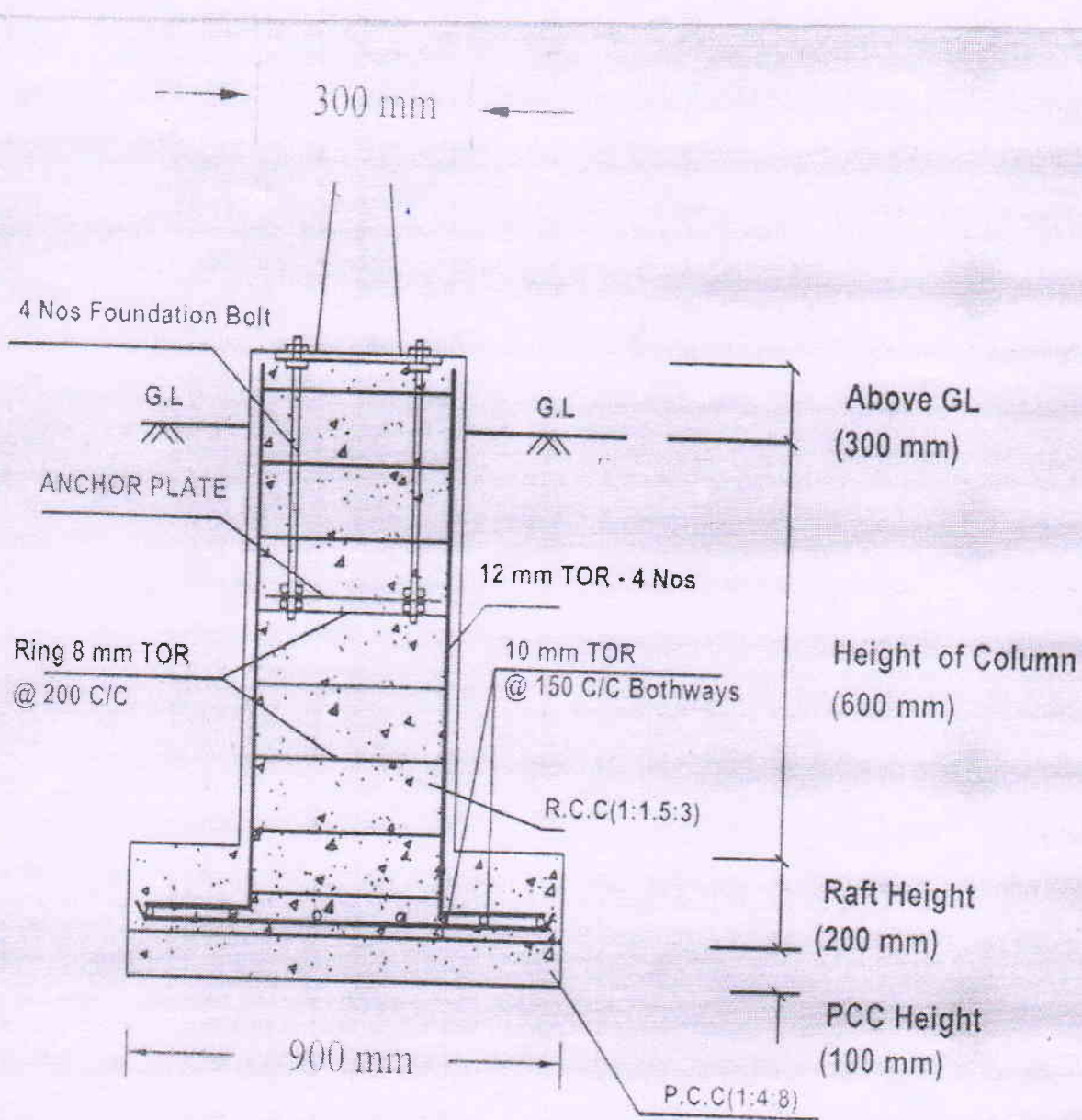
REV	DATE	BY (PROJECT ENGINEER)	CLIENT
1			
2			
3			
4			

CAT	DATE	BY	CLIENT
1	YM		
2	VM		
3	AM		
4	SM		

TITLE	CAT NO.	SCALE
FOUNDATION DRAWING FOR 5 M OCTAGONAL POLE	REVISIONS	1:100

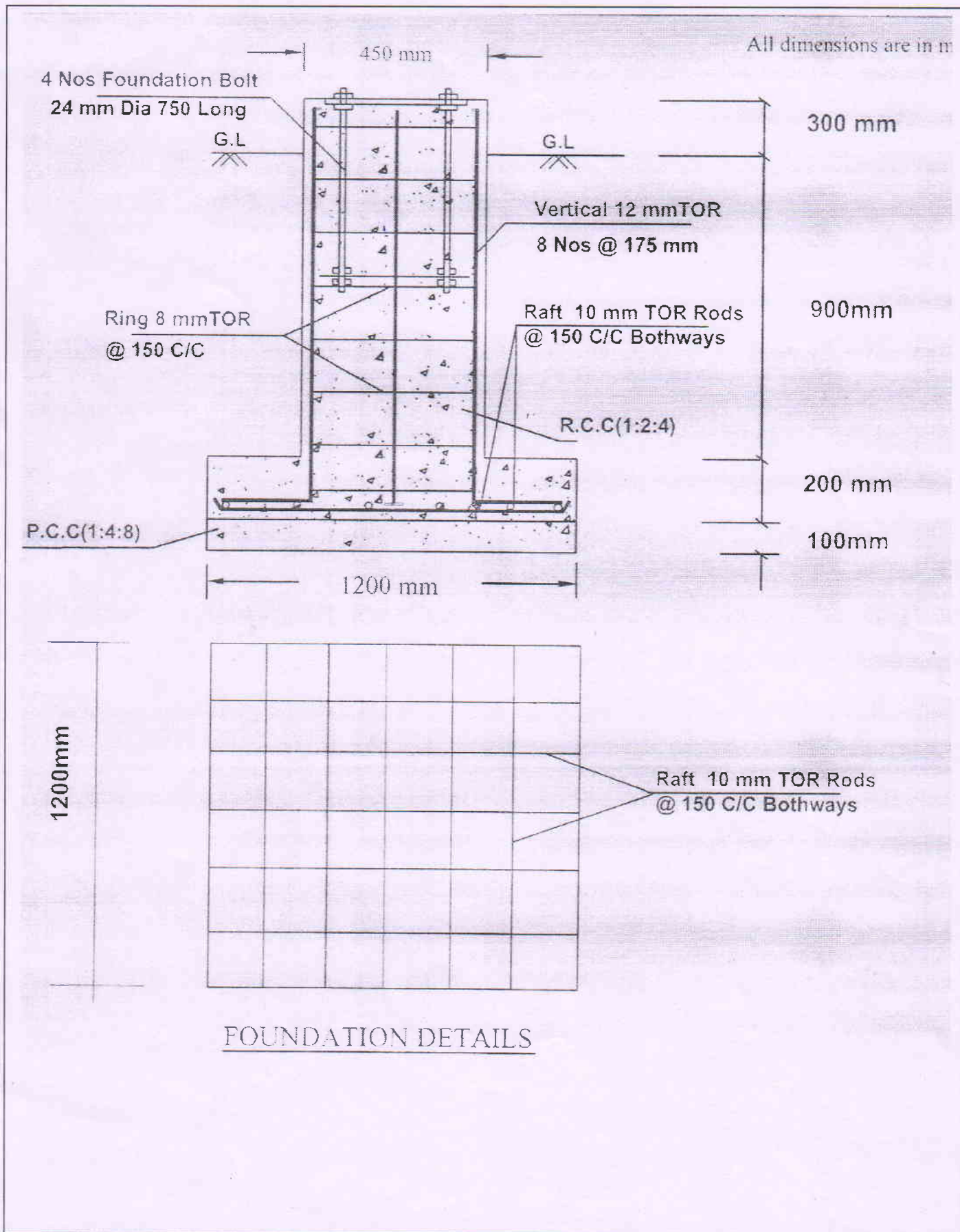


DRAWING OF FOUNDATION OF 6 Mtr PADESTRIAN POLES ANNEX -12



FOUNDATION DETAILS

DRAWING OF FOUNDATION OF 9 Mtr PADESTRIAN POLES ANNEX -13



Section-04

1.e-Price Bid

**(For supply and installation of various fabrication items used in PDN works ,
PDN civil works, miscellaneous electrical items/equipments)**

PRICE BID –A

Schedule of Rates for supply of Fabrication and Earthing Items

*(e-bidding as per Specifications & Scope of Work of No.17737/CREDA/HOR/RE-III/AEAS/PDN LABOUR &
CIVIL WORKS/2019-20 Dated : 15.01.2020)*

S. No.	Description of Item	Unit	Rate(In Rs.) Exe.GST	GST as applicable
1	Fabrication and supply of fencing of 10 gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2.5 mtr & 35X35X5 mm horizontal M.S. Support. Every set of fencing will have one M.S. Angle framed gate with same chain link wire mesh with locking arrangement and two extra posts. Three lane barbed bolts, washer and nut as per enclosed design drawing and specification with two coat steel primer zinc chromate silver/ aluminium paint of standard brand with installation and fitting of fencing with grouting the poles in for 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. given requirement with complete civil material	per running mtr		
2	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole of 5 meter height, minimum dia 130 mm at bottom and 70 mm at top made of 3mm thick steel sheet plate having bases plate 200x200x12mm, Window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia hot dipped GI foundation bolts (EN8 grade). Approx Min weight-50-52Kg Bare pole	Nos		
3	Supply of hot dipped galvanized (in single dip to average 80 micron) Octagonal pole of 6 meter height, minimum dia 130 mm at bottom and 70 mm at top made of 3mm thick steel plate having bases plate 200x200x12mm, window and flush cover with hacking arrangement at height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with 4 nos. 450 mm long, 16mm dia hot dipped GI foundation bolts (EN8 grade). Approx Min weight - 60-62 kg bare pole	Nos		
4	Fabrication and supply of 5.70 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zinc Chromate primer and two coat Silver/Aluminium Paint of standard brand 9" x 9" base plate (10 mm thickness) foundation in MS Pole with stiffener and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Length. Nut bolt arrangement in 4 feet from the bottom of pole. Approx Min weight - 40-42 kg bare pole	Nos		

5	Fabrication and supply of 7.50 mtrs. M.S. Pole, with ISI "B" Class M.S. Pipe as per drawing and specification enclosed with all material and with two coat Zink Chromate primer and tow coat Silver/Aluminium/Enamel Paint of standard brand. 9" x 9" base plate (10 mm thickness) foundation in MS Pole with stiffner and 4 Nos. T-bolt with double nuts (20 mm. Dia & 900 mm. Lenth. Nut bolt arrangement in 4 feet from the bottom of pole.Approx Min weight -80-82 kg bare pole	Nos		
6	Fabrication and supply of ISI mark G.I. cable fixtures Type A,Hot Dip Galvanised,Approx Min Weight:-4.5Kg	Nos		
7	Fabrication and supply of ISI mark G.I. cable fixtures Type B,Hot Dip Galvanised,Approx. Min Weight:-3.00Kg	Nos		
8	Fabrication & Supply of ISI mark G.I .pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud(Welded at specified height) as per specifications and drawing (Height of poles - 5.7 meter)Approx. Min Weight:-45-48 Kg bare pole	Nos.		
9	Fabrication & Supply of ISI mark G.I. pipe poles made of "B" class making necessary hole for cable entry and providing earthing stud (Welded at specified height) as per specifications and drawing (Height of poles - 7.5 meter)Approx.Min Weight:-62-65Kg bare pole	Nos		
10	Fabrication and supply of ISI mark G.I. decorative pole of height 8 Mtr as per drawing with two sided G.I. street light bracket and base plate 9"x9"x6 mm Thickness (8 Mtr),Approx. Min Weight:-110-113Kg bare pole	Nos.		
11	Fabrication and supply of ISI mark G.I. decorative as per drawing with one side G.I. street light bracket and base plate 9"x9"x6 mm Thickness(5.75 Mtr)Approx. Min Weight:-90-95Kg bare pole	Nos.		
12	Fabrication and supply of ISI mark G.I. special type pedestrian poleas per drawing with 25 watt street light luminary warm LED and PU painting as per CREDA requirement (Height-4.5 Mtr),Approx Min Weight:-35-38Kg bare pole	Nos.		
13	Fabrication and supply of ISI mark G.I. pedestrian pole as per drawing with street light bracket and PU painting as per CREDA requirement (Height-6 Mtr),Approx. Min Weight:-45-48 Kg including bracket	Nos.		
14	Fabrication and supply of ISI mark G.I. street light pole as per drawing with street light bracket and PU painting as per CREDA requirement (Height-9 Mtr)Approx. Min Weight:-86-89 Kg including bracket	Nos.		
15	Fabrication and Supply of ISI mark G.I .pipe "B" Class arrangement(850 mm length and 50 mm dia)for underground cabling in pole near foundation with suitable G.I. clamp for holding ISI mark G.I. pipe "B" Class	Nos.		
16	Fabrication & Supply of G.I. stay sets as per specifications and drawing	Nos.		

17	Supply of earthing coil with perforated pipe charcoal, salt, etc & 6 SWG Earth wire giving earth values suitable for pipe earthing	Nos.		
18	Fabrication & supply of ISI mark G.I. pipe "B" Class street light bracket for mounting Street Light fittings as per specifications and drawing. Min approx. weight:-Min 2.75-3.5 KG	Nos.		
19.	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given by CREDA with all required material, drilling work	Nos.		
20	Fabrication and supply of hot dipped galvanised structure for mounting of solar modules or any other structure as per specification, size and design given with all required material, drilling work and two coat steel primer zinc chromate of standard quality	Kg		

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the tender document. Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted)

Signature of Bidder

Name _____

Seal _____

Signature _____

PRICE BID -B

Schedule of Rates for supply of Electrical items/Equipments and Earthings

(e-bidding as per Specifications & Scope of Work of No.17737/CREDA/HOR/RE-III/AEAS/PDN LABOUR & CIVIL WORKS/2019-20 Dated : 15.01.2020)

S. No.	Description of Item	Unit	Rate(In Rs.) Exe.GST	GST as applicable
01	Supply of ABC(Aerial Bunched Cable) cable of Size as per ISI specification (IS:14255/1995,IS:8130/1984,IS:398/pt IV/1994,IS:10418/1982) of Size			
1.1	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X16mm ² +1X16mm ² +25mm ² With Street light and bare messenger	Per Meter		
1.2	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X10mm ² +1X10mm ² +16mm ² With Street light and bare messenger	Per Meter		
1.3	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X25+1X16+1X25 With Street light and bare messenger	Per Meter		
1.4	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X35+1X16+1X25 With Street light and bare messenger	Per Meter		
1.5	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X50+1X16+1X35 With Street light and bare messenger	Per Meter		
1.6	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X70+1X16+1X50 With Street light and bare messenger	Per Meter		
02	Supply of Lightning Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal,Air terminal,Round conductor, Insulator, Tape,Earthing Etc.			
2.1	Radius of protection 8 mtr with all accessories	Nos		
2.2	Radius of protection 10 mtr with all accessories	Nos		
2.3	Radius of protection 12 mtr with all accessories	Nos		
2.4	Radius of protection 16 mtr with all accessories	Nos		
2.5	Radius of protection 18 mtr with all accessories	Nos		
2.6	Radius of protection 20 mtr with all accessories	Nos		
03	Cable tie, black, UV and weather-resistant, Polyamide material :-			
3.1	2.5x100 SWUV	Nos		
3.2	2.5x150 SWUV	Nos		
3.3	2.5x200 SWUV	Nos		

3.4	3.6x100 SWUV	Nos		
3.5	3.6x150 SWUV	Nos		
3.6	3.6x200 SWUV	Nos		
3.7	3.6x250 SWUV	Nos		
3.8	3.6x290 SWUV	Nos		
3.9	3.6x365 SWUV	Nos		
4	Quick Clip for holding PVC pipe :-			
4.1	M16	Nos		
4.2	M20	Nos		
4.3	M25	Nos		
4.4	M32	Nos		
4.5	M40	Nos		
5	Quick Pipe :-			
5.1	M20 20mm Dia x2000mm Length x1.5mm thickness	Nos		
5.2	M25 25mm Dia x2000mm Length x 1.6mm thickness	Nos		
5.3	M32 32mm Dia x 2000mm Length x1.6mm thickness	Nos		
6	90 Degree Quick Pipe Bend :-			
6.1	M20	Nos		
6.2	M25	Nos		
6.3	M32	Nos		
7	Quick Pipe Connecting Sleeve :-			
7.1	M20	Nos		
7.2	M25	Nos		
7.3	M32	Nos		
8	Quick Pipe TEE :-			
8.1	M20	Nos		
8.2	M25	Nos		
8.3	M32	Nos		
9	High Voltage Class "C" Insulating mat as per IS:15652-2006 3 mm Thikness,ISI marked upto 33KV Grade.Make Honeywell,PPL,Zenith	Mtr.		
10	Wall Supported Aluminium Ladder manufactured from high tensile aluminium alloys :-			
10.1	Single ladder closed type 12 Feet Height	Nos		
10.2	Single ladder Extended type 20 Feet Height	Nos		
10.3	Folding Plat form Aluminium Ladder 20 Feet Height	Nos		
10.4	Single Ladder Extended Type 35 Feet Height	Nos		
11	PVC Earth Pit Chamber :-			
11.1	Top dimension 180x180mm, Bottom Dimension 250x250mm, Height 210mm	Nos		
11.2	Top dimension 230x230mm, Bottom Dimension 320x320mm, Height 230mm	Nos		
11.3	Top dimension 300x300mm, Bottom Dimension 405x405mm, Height 300mm	Nos		

12	Digital clamp meter			
	Average, 3 3/4 digitals (4000 Counts), Auto / Manual ranging, 1000V AC/DC & Up to 1000A AC ,55mm Clamp Jaw Size , Capacitance / Diode Continuity /Frequency Testing, Auto Power off / Data hold / Zero Adjustment Make : ,Motwane,Metravi,Meco	Nos		
13	Digital Earth tester as per specification stated below, 3 & 1/2 Digit LCD display with Max Reading 1999, Earth Resistance Ranges of 0.01Ω to 1999Ω, Rechargeable Internal Ni-MH Battery, 4 Wire Soil Resistivity Measurement , Measurement Method-3 terminal & 4 Terminal with test kit Make : Motwane,Metravi,Meco	Nos		
14	Mechanic Tool kit set GSB 550 -Watt Impact drill kit(Blue range,122 pieces) Make: Bosch,Hilti or Equivalent.	Nos		
15	TDS Meter for water quality measurement	Nos		
16	Digital multi meter 20A SSC Motwane,Metravi,Meco make	Nos		
17	Digital Thermometer for temperature Measurement as per ISI standards Motwane ,Metravi,Meco,Temp Range -50 To 380 C	Nos		
18	Vernier callipers ,Mitutoyo make Measuring Range (0-150)MM	Nos		
19	Screw guage ,Mitutoyo make of equivalent Measuring Range(0-25)MM	Nos		
20	For Solar Home light system installed under Saubhagya Scheme <u>Specification as per CREDA tender 18982 Dtd 20.11.2017</u>			
20.1	Lifepo4 Battery capacity 80AH/12.8VDC of reputed make conforming to IS 16046(Part 2) :2018/IEC 62133-2:2017	Nos		
20.2	BLDC Fan capacity 15watt,Five star rating(09V-15V,1.5Amp Max current consumption,03 Nos blades)	Nos		
20.3	LED Baton Capacity 8 W(5500-6500°K,Min 20 Lux)	Nos		
20.4	Connector	Nos		
20.5	Charge controller(12V,10Amp,MPPT Integrated DC charge controller)	Nos		
21	Solar High Mast Light			
21.1	Wire rope of Grade AISI 316 grade , 7/19 construction, with two SS ropes continues 8 mm diameter and braking load capacity 2400 kg x 2. The breaking load test report obtained from govt. laboratory of the wire rope should justify the desired the breaking load capacity.	Mtr		
21.2	The LED should be SMD LED Chip of Nichia/ CREE/ Osram / Philips/ LG /Samsung /Refond/ Everlight Seoul/ Bridgelux or equivalent. The LED efficacy should be minimum 140 lm/W (as per LM 80) CCT			

	5500 - 6500 K, CRI Minimum 70 & LED wattage minimum 01W. The Luminous flux should be minimum 4000 lumens & Luminary Must be LM-79 certified from MNRE/NABL Lab. The colour temperature of White LED used in the system should be in the range of 5500K-6500K. LEDs should not emit ultraviolet light. (strictly as per IS 16101, IS 16102, IS 16103 and IS 16107)			
21.21	30W	Nos		
21.22	40W	Nos		
22	Supply of Electrical Rubber Insulating Hand Gloves for Electrical Purposes IS:4770,IEC:60903,Make :- Honeywell,3M,Karam	Per Pair		
23	Supply of Helmets as per (IS: 2745-1983)Make :- Honeywell,3M,Karam	Nos		
24	Charge Controller as per IEC and BIS standards			
24.1	10Amp/12Volt	Nos		
24.2	20Amp/24Volt	Nos		
24.3	20Amp/12V	Nos		
25	Supply of Digital coating thickness gauge, Measuring Range 6mm, 0.1<20 Microns, 1>20 Microns,Metravi or equivalent make	Nos		
26	Supply of crimping tool for crimping of wire Ranging from 01 Sq mm to 16 Sq mm Stanley,Taparia,Bosch or equivalent make	Nos		
27	Supply of full body nylon safety belt for solar dual pump technician Make:- Honeywell,3M,Karam	Nos		
28	Power cable - 1100 Volts Grade, Armoured with Aluminium Conductor PVC Insulated & PVC Sheathed(Heavy Duty) As per IS :1554-1988,PART - 1,Four Core MAKE- Havells,Finolex,Polycab,KEI			
28.1	35 SQMM	Per Mtr.		
28.2	50 SQMM	Per Mtr.		
28.3	70 SQMM	Per Mtr.		
28.4	95 SQMM	Per Mtr.		
28.5	120 SQMM	Per Mtr.		
29	AC MCB as per IS Breaking Capacity 6 kA, B Series,400 Volts Four Pole Make - Schnieder,Legrand,L&T,Havells(Without Enclosure)			
29.1	16 A,400 V	Nos		
29.2	32 A,400 V	Nos		
29.3	40 A,400 V	Nos		
29.4	63 A,400 V	Nos		
30	Copper Busbar Chamber wall mounted type ,3 Phase,415 Volts,6 WAY FOUR POLE Make- Havells,L&T,BENLO,C&S			
30.1	63 A, 415 V	Nos		
30.2	100 A, 415 V	Nos		

30.3	200 A,415 V	Nos		
31	Residual Current Circuit Breaker for AC Power Supply,3 Phase,Four Pole 400 Volts, Make - Schneider,Seimens,Legrand,L&T(Without Enclosure)			
31.1	40 A, 100 MA	Nos		
31.2	63 A, 100 MA	Nos		
32	Digital Time Switch Specifications			
	Theben make single channel digital time switch with weekly program and 56 memory locations with minimum switching time of one minute. Timer should have Lithium battery with 10 years power reserve. Timer should have douFix spring terminals for easy connection. Timer should be fully operable without mains connection. Timer should have Zero-cross switching. Timer should have automatic Summer Winter Switching.Make: Theben(Germany) or Equivalent	Nos		
33	Solar Earthing Kit consists of 14.20 mm diameter 250+ Micron copper coated rod of 1250 mm length with 05 kg earth enhancing compound & connecting clamp comply with IS 3043-1987(Code of practice for earthing) Make: OBO,EXCEL,CAPE ELECTRIC.	Nos		
34	Equipotential Bonding rail outdoor type for the end termination of Earthing wires/Strips tested as per IEC Standard Make -OBO,HAKEL,SIEMENS.	Nos		
35	Galvanised steel flat conductor Zinc Coating 500 g/m ² (Approximate 70 Micron) size 25x3 mm for connecting Solar Structure,Invertors LA etc.Make - OBO DEHN,ERICO	Mtr		
36	Cross Connector for flat conductor with intermediate plate for interconnecting GI Strip Make - OBO,DEHN,ERICO	Mtr		
37	Spacer clip for flat conductor with polyamide base suitable for 25X3 MM size strip. Make - OBO,DEHN,ERICO	Mtr		
38	LED Street lighting Luminaire of capacity 35W ,0.90<PF,IP65 & 66 protection,External voltage surge protection,copper Earth wire conductor 2 feet,Separate Heat Sink,Separate driver compartment(>30Watt Luminaries) Make Havells or equivalent	Nos		

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the tender document. Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted)

Signature of Bidder

Name _____

Seal _____

Signature _____

PRICE-C

Schedule of Rates for PDN labour/Civil works

(e-bidding as per Specifications & Scope of Work of No.17737/CREDA/HOR/RE-III/AEAS/PDN LABOUR & CIVIL WORKS/2019-20 Dated : 15.01.2020)

S. No.	Description of Item	Unit	Rate(I n Rs.) Exe.G ST	GST as applicab le
1	Installation of fencing of 10 gauge chain link wire mesh of 75X75 mm opening, fitted with 50X50X5 mm vertical M.S. Angle at spacing of 2.5 mtr & 35X35X5 mm horizontal M.S. Support. Installation and fitting of fencing with grouting the poles in 1:2:4 P.C.C. of size 0.45X0.45X0.60 mtr. for given requirement with complete civil material.	per running mtr		
2	Grouting work of Octagonal pole with civil material as per drawing (size 1550 x 500 x 500 mm.). in 1:3:6 concrete mix. (5 meter Pole)	Nos		
3	Grouting work of Octagonal pole with civil material as per drawing (size 1600 x 500 x 500 mm.). in 1:3:6 concrete mix. (6 meter Pole)	Nos		
4	Grouting work of pole with civil material as per drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (5.7 meter Pole)	Nos		
5	Grouting work of pole with civil material as per drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (7.5 meter Pole)	Nos		
6	Fixing of ISI mark G.I. cable fixtures Type A	Nos		
7	Fixing of ISI mark G.I. cable fixtures Type B	Nos		
8	Installation & Grouting of ISI mark G.I. pipe poles with civil material as per specifications and drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (Height of poles - 5.7 meter)	Nos		
9	Installation & Grouting of ISI mark G.I. pipe poles with civil material as per specifications and drawing (size 1.5 x 1.5 x 3.0 ft.). in 1:3:6 concrete mix. (Height of poles - 7.5 meter)	Nos		
10	Installation of ISI mark G.I. decorative pole and fitting of two sided G.I. street light bracket (8 Mtr)	Nos		
11	Installation of ISI mark G.I. decorative pole and fitting of one side G.I. street light bracket (5.75 Mtr)	Nos		
12	Installation of ISI mark G.I. special type pedestrian pole (4.5 Mtr)	Nos		
13	Installation of ISI mark G.I. pedestrian pole (6 Mtr)	Nos		
14	Installation of ISI mark G.I. pedestrian pole (9 Mtr)	Nos		
15	Fixing of stay set and grouting of stay rod with civil material in 1:3:6 concrete mix (size 1.5 x 1.5 x 3.0 ft.).	Nos		
16	Fixing & grounding of pipe earthing coil	Nos		

17	Fixing of ISI mark G.I. pipe "B" Class Street Light Brackets as per specifications and drawing.	Nos.		
18	Fixing of ISI mark G.I. pipe "B" Class Wall Mount Brackets as per specifications and drawing	Nos.		
19	Pole to pole Underground cabling	Mtr.		
20	Pole to house underground cabling	Mtr		
21	Pole to pole Overhead cabling	Mtr		
22	Pole to house overhead cabling	Mtr		
23	In house wiring with fixing and fitting of all connection point	per point		
24	Installation of 20Watt fan as per ISI specification.	Nos		
25	Installation /fitting of LED lamp/ tube light as per specification	Nos		
26	Fixing and installation/fitting of Compact Street lighting weather proof Luminary with LED Lamp with suitable wires as per specification.	Nos		
27	Grouting work of module mounting structure as per drawing (size 1.5 x 1.5 x 2.5 ft.) in 1:3:6 concrete mix including civil material required for the grouting of four legs of each frame structure.	Each frame		
28	Grouting work of module mounting structure as per drawing (size 1.5 x 1.5 x 2.5 ft.) in 1:3:6 concrete mix including civil material required for the grouting of two legs of each frame structure.	Each Frame		
29	Reorganization of Pole including shifting, Construction of Pedestals/ welding of base plate etc. and reinstallation and grouting	Per pole		
30	Painting Work and Wall writing			
31	Pole Painting Work, Single coating of Primer and double coating of Oil Paint. including cleaning and rubbing with emirc paper	Per pole		
32	Painting of fencing with 02 coat of primer and 02 coat of zinc chromate including cleaning and rubbing with emirc paper	Per running Sq Mtr		
33	Wall writing in the control room	Per Sq feet		
34	Control Room Painting Work, Interior wall with Distemper and external wall with Distemper.	Per Running Sq Meter		
35	Control Room Painting Work, Interior wall with Distemper and external wall with Snow sem paint.	Per Running Sq Meter		
36	Dismantling & reinstallation and commissioning of SPVPP including Installation of MMS, Installation of Modules, AJB, MJB, Control Panel, PCU, BOS, Earthing Kit, Lightening Arrester and other equipments and their interconnections and synchronizing, welding of MMS for safety of Modules, all civil works required for foundation and grouting of various components such as MMS, PCU, Batteries, Control Equipments etc and including testing and commissioning of SPVPP.	Per KW spvpp		

37	Installation of Lightning Protection System as per the IS/IEC 62305-PART 3:2010.with all accessories such as connection terminal,Air terminal,Round conductor,Insulator,Tape Etc.			
37.1	Radius of protection 8 mtr with all accessories	Nos		
37.2	Radius of protection 10 mtr with all accessories	Nos		
37.3	Radius of protection 12 mtr with all accessories	Nos		
37.4	Radius of protection 16 mtr with all accessories	Nos		
37.5	Radius of protection 18 mtr with all accessories	Nos		
37.6	Radius of protection 20 mtr with all accessories	Nos		
38	Overhead Laying of Ariel bunched Cable With all accessories (Distribution box, connectors, Steel Straps, buckles, piercing connector for distribution box, service connection, Tee connection, joining kit for cables)	Per (35-40 Meter distance) pole		
38.1	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X16mm ² +1X16mm ² +25mm ² With Street light and bare messenger	Per (35-40 Meter distance) pole		
38.2	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X10mm ² +1X10mm ² +16mm ² With Street light and bare messenger	Per (35-40 Meter distance) pole		
38.3	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X25+1X16+1X25 With Street light and bare messenger	Per (35-40 Meter distance) pole		
38.4	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X35+1X16+1X25 With Street light and bare messenger	Per (35-40 Meter distance) pole		
38.5	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X50+1X16+1X35 With Street light and bare messenger	Per (35-40 Meter distance) pole		
38.6	LT 3 phase 5 Wire Aerial Bunched Cable Of Size 3X70+1X16+1X50 With Street light and bare messenger	Per (35-40 Meter distance) pole		

Certified that rates quoted above are as per the requirement, specifications, and terms & condition mentioned in the tender document. Above rates are FOR anywhere in the State of Chhattisgarh inclusive of roadworthy packing, loading, unloading, all types of incidental expenses, insurance, duties and any other job required to properly execute the work. The GST payable on the bill produced for payment to CREDA shall be paid in addition to above quoted price as per rate of GST applicable at the time of billing.

(No other cost will be claimed above the price quoted)

Signature of Bidder

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