



DEENDAYAL PORT AUTHORITY

ISO 9001:2008 | ISO 14001 | ISPS Compliant Port



Office of Executive Engineer(Electrical), Ground
Floor, Nirman Building, New Kandla, Kutch, Pin Code
370210.

No.: EL/WK/

Date: 18/06/2025

Expression Of Interest (EOI)

DPA intends to invite Expression of Interest for the work of "**Extension of A.O Building**".

(This EOI is issued to elicit Expression of Interest from the parties and does not constitute any binding commitment from the Deendayal Port Authority to proceed with the work or invite any or all the parties in the subsequent bidding process.)

Executive Engineer (Electrical), DPA invites the Expression of Interest for the work of "**Extension of A.O Building**" from the reputed firms from those who have executed similar work in Government/public sectors and other leading private organizations. The Expression of Interest documents containing details of Scope of Work and Technical Specifications are enclosed herewith.

The interested firms are requested to submit their Expression of Interest for the said work in BOQ format as enclosed at Annexure I. The completed Expression of Interest (EOI) shall be submitted to the office of the undersigned on or before 25/06/2025. A soft copy of EOI is also acceptable through e-mail Id. anantrao.kumthekar@deendayalport.gov.in & deepak.hazra@deendayalport.gov.in

-sd/
Executive Engineer (E)
Deendayal Port Authority

Annexure - I

S/N	Description	Qty	Unit	Rate	Amount
1	Providing and fixing concealed wiring for modular light /tube /bell point with PVC insulated single core standard copper conductor wire, as per Tech. Spec. No:-01	240.00	NOS		
2	Providing & fixing following concealed wiring for single phase sub-circuit from the main switch /meter/DBs /MCBs to the switch board w as per Tech. Spec. No:-02				
(a)	with 2 X 2.5 sq.mm. copper conductor (single phase and neutral	1000.00	Mtr.		
(b)	2 X 4 sq.mm. copper conductor (single phase and neutral)	700.00	Mtr.		
3	Providing and fixing concealed wiring for modular FAN point with PVC insulated single core standard copper conductor wire & modular step cut electronic fan regulator as per Tech. Spec. No:-03	40.00	NOS		
4	Providing and fixing 5 pin 5/6 A X 250 Volt modular half plug point as per Tech. Spec. No:-04	55.00	NOS		
5	Providing and fixing concealed wiring for 15/16 A X 250 Volt Modular Power point as per Tech. Spec. No:-05	60.00	NOS		
6	Supply of following type of Pelmet light 3feet 20/22 Watt, as per Approved Make list. as per Tech. Spec. No:-06 a) 21 Watt 3 Feet Length	20.00	NOS		
7	Fixing of supplied commercial down lighter Luminaries with all accessories as per Tech. Spec. No:-07 a) 21 Watt 3 Feet Length	20.00	NOS		
8	Supply of Ceiling mounted LED light 40 Watt 2X2ft 4000k, as per Approved Make list.as per Tech. Spec. No:-08	12.00	NOS		

9	Fixing of supplied Ceiling mounted light 40 Watt 2X2ft 4000k as per Tech. Spec. No:-09	12.00	NOS		
10	Supply of Recessed downlight for false ceiling with all material and accessories as per Tech. Spec. No:-10 a)19 Watt LED Recessed Down light for false ceiling, as per Approved Make list.	80.00	NOS		
11	Fixing of supplied Recessed downlight for false ceiling with all material and accessories. as per Tech. Spec. No:-11 a)19 Watt LED Recessed Downlight for false ceiling	80.00	NOS		
12	Supply at site following type of decorative ceiling fan with all accessories , as per Approved Make list as per Tech. Spec. No:-12 a) 1200 mm sweep ceiling fan with electronics regulator.	36.00	NOS		
13	Fixing of following type of decorative ceiling fan with all accessories as per Tech. Spec. No:-13 a) 1200mm sweep ceiling fan with electronics regulator.	36.00	NOS		
14	Supply & installation of following type distribution board complete with nos TP, DP,SP MCCB's & ELCB , TPN DB, IP42 degree of protection The DB shall be made from special grade of CRCA sheet and powder coated. The DB shall be fitted with Bus bar, DIN Rail and neutral link as per Tech. Spec. No:-14				
(a)	16 Way Double Door Distribution Box with providing, 01 Nos.MCB 63 amp. TPN, 02 Nos. 32 Amps DP, 10 nos. SP up to 6-10 amps, 12 nos, 01 Nos. ELCB.	4.00	NOS		
(b)	32 Way Double Door Distribution Box with providing, 02 Nos.MCB 63 amps. TPN, 04 Nos. 32 Amps DP, 15 nos. SP up to 6-10 amps 12 nos. , 01 Nos. ELCB.	4.00	NOS		

15	Supply and Preparation earthing station, chemical treated back filled compound earthing system with Pipe-In-Pipe 30-40 mm Dia GI type 3 Mtr Depth, Maintenance free as per Tech. Spec. No:-15	6.00	NOS		
16	Providing & connecting following type earth wire for earth station to equipments as per requirement as per Tech. Spec. No:- 16 a) 8 SWG GI earthing wire	150.00	MTR		
	b) 25X3 Hot Dip GI Strips.	60.00	MTR		
17	Supply at site 4 Core, LT armoured aluminium conductor XLPE cable of 1.1KV grade of the following type & size as per Tech. Spec. No:-17				
a)	4 Core, 35 sq.mm.	200.00	MTR		
b)	4 Core, 50 Sq.mm	100.00	MTR		
c)	4 Core, 150 Sq.mm	400.00	MTR		
d)	4 Core, 16 Sq.mm	200.00	MTR		
18	Laying of cable at site, through various route up to 150 sq.mm, LT armoured aluminium conductor XLPE cable of 1.1KV grade of the following type & size as per Tech. Spec. No:-18 a) Hard/soft soil by providing & putting Brick & Sand, by excavating the 800 Mtr Depth, 600 mm width, after laid cable redone the surface area	150.00	MTR		
b)	Through RCC/CC/Payvot by Cutting/Breaking by putting suitable diameter HPDE / DWC Pipe, after laid cable redone the surface area.	250.00	MTR		
c)	Cable laid, by providing & erection Box type FRP Tray 150 mm width.	500.00	MTR		
19	Providing and fixing concealed wiring for 4 x 5/6A X250 Volt modular plug point with 4 Nos. SP switches for computer as per Technical Specification No. 19.	24	No.		
20	supply and fixing of 300mm wall mouting fan of 230V, 50Hz AC and as per tech. spec. no.20	20	Nos		

21	Supply, installation, testing and commissioning of 10w cylindrical type LED,height 80cm with IP65 garden light of 220-240 V, 50Hz and as per tech. spec. no.21	26	Nos		
22	Supply, installation, testing and commissioning of 60w flood light type LED with pipe-in-pipe with all hardware adjustment for height adjustment with IP65 garden light of 220-240 V, 50Hz and as per tech. spec. no. 22	6	Nos		
23	Removal of existing fixtures, pole along with its foundation from the existing side as per tech. spec. no. 23	26	Nos		
24	Supply at site 4C x 16sqmm LT armoured aluminium conductor XLPE cable of 1.1KV grade of the following type & size as per Tech. Spec. No:- 24	200	MTR		
25	Supply Installation testing commisioning of FRP box with 1Nos- astronomical timer, 1Nos-63A 3-Phase contactor 4-Nos SP MCB 32A and 1Nos- 63A MCCB 10Ka, 440, 50Hz AC DIN type as per tech spec. no 25.	2	Nos		
26	Supply & fixing of profile light as per tech. spec. no. 26	50	MTR		

Total

In words Rupees_____only)

(NOTE: The rates should be inclusive of all taxes, duties, fees, cess etc. and all incidental charges;but exclusive of GST).

Signature & Seal of Firm

-/sd
Executive Engineer (E)
Deendayal Port Authority

SCOPE OF WORK

The Specification is intended to cover the “Extension of A.O Building”. The work includes associates service like civil & structural work, handling at site, insurance, erection, testing and commissioning of Building wiring and garden landscaping as directed by Engineer in charge after successful completion of the work. contractor has to complete the work with best standard of materials, The work shall be executed to the satisfaction of the Engineer in charge for Building Wiring & Garden landscaping. The contractor is directed to put the rate keeping in mind that the above work will be executed within three months, also arrange all types of tools & tackles with arrangement of temporary power for installation & testing at his own cost. The contractor shall submit as made layout drawing of Building Wiring & Garden landscaping complete in four set after completion of work.

Technical Specification for Item No. 1:

The item includes providing & fixing concealed wiring for light/tube/bell point from switchboard with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 1.5 sq. mm. for phase & neutral wire and 1.0 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32 mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, Junction box, bends, etc. of approved make. The proper size of groove shall be prepared by contractor on wall/false ceiling as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe, the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/ceiling. The work also includes providing & fixing of Bell Push/modular type Fancy heavy duty SP switch 6A x 250V confirming to IS. The PVC/metallic box shall be embedded properly in the wall and the switches shall be fixed on modular plate of the embedded box. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No. 2(a):

The item includes providing & fixing concealed wiring for single phase sub-circuit from the main switch/meter/DBs / MCBs to the switchboard with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 2.5 sq. mm. for phase & neutral wire and 1.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32 mm Diameter of Medium Mechanical Strength (MMS) type/PVC conduit pipe of 25/32 mm as per site requirement along with its accessories such as Tee, junction box, bends etc. of approved make as directed by Engineer-in-Charge. The proper size of groove shall be prepared by contractor on wall/false ceiling as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe, the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/ceiling. Complete work consists of necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No. 2(b):

The item includes providing & fixing concealed wiring for single phase sub-circuit from the main switch/meter/DBs / MCBs to the switchboard with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 4.00 sq. mm. for phase & neutral wire and 2.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32 mm Diameter of Medium Mechanical Strength (MMS) type/PVC conduit pipe of 25/32 mm as per site requirement along with its accessories such as Tee, junction box, bends etc. of approved make as directed by Engineer-in-Charge. The proper size of groove shall be prepared by contractor on wall/false ceiling as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe, the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/ceiling. Complete work consists of necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No. 3:

The item includes providing & fixing concealed wiring for Fan point from switchboard with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 1.5 sq. mm. for phase & neutral wire and 1.0 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32 mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, junction box, bends, elbow etc. of approved make. The proper size of groove shall be prepared by contractor on wall/false ceiling as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/false ceiling. The work consists providing & fixing of modular type SP switch 6A x 250V modular equivalent with ISI mark and to meet specifications of IS: 3854, Step cut electronic fan regulator with rotary steps & 3 plate Ceiling Rose made from polycarbonate on suitable size of PVC box with modular plate. The PVC/metallic box shall be embedded properly in the wall and the switches shall be fixed on modular plate of the embedded box. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No. 4:

The item includes providing & fixing concealed wiring for plug point for computers (With 3nos. 2 in 1 socket 6A x 250V & 3 nos. modular type SP switch 6A x 250V) with Flame Retardant, 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 2.5 sq. mm. for phase & neutral wire and 1.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32 mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, junction box, bends, elbow etc. of approved make. The proper size of groove shall be prepared by contractor on wall/false ceiling/wooden partition as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/false ceiling. The work consists providing & fixing of 3 nos. Modular type SP switch 6A x 250V modular type with ISI mark and to meet specifications of IS: 3854, and 3 nos. 2 in 1 socket 6A x 250V made from polycarbonate on suitable size of PVC box with modular plate. The PVC box shall be embedded properly in the wall and the switches & Sockets shall be fixed on cover of the embedded box. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No. 5:

The item includes providing & fixing concealed wiring for 20 A, 230 V Modular Power point with Flame Retardant. 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 4.0 sq. mm. for phase & neutral wire and 2.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, junction box, bends, elbow etc. of approved make. The proper size of groove shall be prepared by contractor on wall/false ceiling/wall partition as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe in prepared groove the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/false ceiling/wooden partition. The work consists providing & fixing of 5 in 1 combined unit suitable for 20 A x 230 Volt with switch, socket, fuse & indicator with ISI mark. The PVC/metallic box of suitable size shall be embedded properly in the wall and the combined unit shall be fixed on modular plate. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No.6:

Supply at site environmental friendly energy efficient 20-22Watt LED fixture (suitable in pelmet) 3feet length. The fixture should be of low power consumption & having high efficiency. The housing provided for the above luminary should be of Epoxy powder coated white extruded aluminium channel housing for efficient heat dissipation. With cover having milky white special polycarbonate diffuser for glare free light distribution and end caps made of elegantly designed white coloured ABS end caps to enhance the aesthetic view for fixture. The luminary should be suitable to be mounted on wall/ceiling/wooden pelmet by means of mounting SS clips provided in the fixture. The luminary should

be, short circuit and surge protection and should be provided with suitable connecting terminal for electrical connection as per technical description given below:

Technical Requirement for LED 20-22 Watt

Sr no	PARAMETER	VALUE
1	Operating Voltage	100-250V However, Condition for voltage fluctuation should be considered and the system should be robust enough to withstand such variation in supply source
2	Total Harmonics Distortion	Should be less than 10%
3	Lamp efficiency	$\geq 70/w$
4	Power consumption	Minimum 20-22 W
5	Power factor	≥ 0.90
6	Life Expectancy	About 50,000 burning hours at a ambient temp 45degree centigrade
7	Surge Protection (KV)	$\geq 10KV$
8	LED Driver	Constant Voltage and current
9	Control Circuit	Compatible to LED
10	Input Frequency	50+/-1Hz
11	Colour Rendering Index	Minimum CRI of 70
12	Colour Temperature	Minimum 3000K
13	Make LED	The LED chip shall be Osram/ Cree/ Bridge lux/ Nichia/ Samsung/ Philips Lumidia make. (The Contractor should produce the certificate of LED make in the particular luminary used.)
14	Certification preferred/essential	LM 79/LM 80
15	Warrantee/Guarantee	3 years from the date of supply against manufacturing defect
All tests shall be carried out as per IS/BIS/IEC standards and all certificates shall be submitted at the time of supply of material, in absence of any certificate material shall not be accepted by DPA.		

Technical Specification for Item No.7:

This includes fixing & commissioning of supplied commercial (pelmet light) 3feet length. Luminaries 20/22W LED fixture complete with batten on wall/ceiling/wooden partition at suitable height as per site situation on cemented wooden gutties as directed and connections with 3 core, 1.5sqmm flexible copper cable from nearest source of supply/ceiling rose & necessary connections with all material and labour and as directed by Engineer-In-charge.

Technical Specification for Item No.8:

Supply at site slim compact 40watt ceiling mounted LED, 2X2ft. 4000k edge LED down lighter having housing of aluminium channel & aluminium sheet back cover with white powder coated after phosphochromate treatment or Extruded aluminium frame easy detachable clips & separate drivers for easy installation along with milky or polycarbonate diffuser in opal finish for glare free light distribution. The LED of the luminary should be low heat generating mid power LED of latest generation SMD technology, built by high heat diffusivity MPCB as per technical description given below. The luminary should be short circuit and surge protection and should be provided with suitable connecting terminal for electrical connection. The rate shall be firm and inclusive of all taxes, excise duty, octroi, packing and forwarding. Insurance, loading at supplier's depot. transportation and unloading at site of work:

Technical Requirement for slim compact 40 watt 2x2 feet LED.

Sr no	PARAMETER	VALUE
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1	Input Voltage	100-250V However, condition for voltage fluctuation should be considered and the system should be robust enough to withstand such variation in supply source.
2	Total Harmonics Distortion	Should be less than 15%
3	Lamp efficiency	$\geq 70/w$
4	Power consumption	Minimum 40 W
5	Power Factor	≥ 0.90
6	Life Expectancy	About 50,000 burning hours at a ambient temp 45degree centigrade
7	LED Driver	Constant Voltage and current
8	Control Circuit	Compatible to LED
9	Input Frequency	50+/-1Hz
10	Input Frequency	Minimum CRI of 70
11	Colour Temperature	Minimum 4000K
12	Make LED	CREE PHILIPS LUMILED / NICHIA / OSRAM /SEOUL SEMICONDUCTOR/EPISTAR
13	Input Protection requirement.	Over current. Over Voltage.
14	Certification preferred/ essential	CE/ROHS/ERTL/UL & ERDI

Technical Specification for Item No.9:

This includes fixing & commissioning of supplied 40W LED 2X2ft. 4000K ceiling mounted in proper align way, mounted fixture complete with batten or clip on false ceiling/ceiling at suitable height on cemented wooden gutties as directed, and connections with 3 core, 1.5sqmm flexible copper cable from nearest source of supply/ceiling rose & necessary connections with all material and labour and as directed by Engineer-In-charge.

Technical Specification for Item No.10:

Supply of 19 Watt LED Recessed Down light for false ceiling Supply at site Round/square as per existing site matching. Having housing of powder coated white PDC aluminium or powder coated die cast aluminium, easy detachable clips & separate drivers for easy installation. The LED of the luminary should be low heat generating mid power LED of latest generation SMD technology, built by high heat diffusivity MPCB as per technical description given below as per make approved. The luminary should be short circuit and surge protection and should be provided with suitable connecting terminal for electrical connection. The rate shall be firm and inclusive of all taxes, excise duty, octroi, packing and forwarding. insurance, loading at supplier's depot. transportation and unloading at site of work.

Technical Requirement for 19 Watt LED Round recess mounted down lighter

Sr no	PARAMETER	VALUE
1	Input Voltage	100-250V However, condition for voltage fluctuation should be considered and the system should be robust enough to withstand such variation in supply source.
2	Total Harmonics Distortion	Should be less than 15%
3	Lamp efficiency	$\geq 70/w$
4	Power consumption	Minimum 19 W
5	Power Factor	≥ 0.90
6	Life Expectancy	About 50,000 burning hours at a ambient temp 45degree centigrade
7	LED Driver	Constant Voltage and current
8	Control Circuit	Compatible to LED
9	Input Frequency	50+/-1Hz
10	Input Frequency	Minimum CRI of 70
11	Colour Temperature	Minimum 4000K
12	Make LED	CREE PHILIPS LUMILED / NICHIA / OSRAM /SEOUL SEMICONDUCTOR/EPISTAR
13	Input Protection requirement.	Over current. Over Voltage.

14	Certification preferred/ essential	CE/ROHS/ERTL/UL & ERDI
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Technical Specification for Item No.11:

This includes fixing & commissioning of supplied 19W LED. Recessed downlight in proper align way, clip on false ceiling/ceiling at suitable height on cemented wooden gutties as directed, and connections with 3 core, 1.5sqmm flexible copper cable from nearest source of supply/ceiling rose & necessary connections with all material and labour and as directed by Engineer-In-charge.

Technical Specification for Item No.12:

Supply at site decorative type 1200 mm sweep ceiling fan fitted with heavy duty grease filled double ball bearing that ensures noiseless performance and long lasting smoother life of fan suitable upto 230V AC supply. The Fan blades aerodynamically balanced to ensure air delivery 230 M³/Minute at 310 RPM & 70 Watts power consumption with 3.28 Service Value. The blades shall be made of 'heavy gauge' aluminium sheet so as to retain the blade's angel over a longer period. The Fan motor made of superior grade copper wire and impregnated in special varnish for long life operation. The motor shall be totally enclosed and low-loss-silicon steel stampings ensure minimum power consumption with high optimum output. The Fan coated with a special anticorrosive enamel paint that makes them rust free and ensures a classic appearance and longer life. The supplied fan conforming to ISI specifications. The fan shall be supplied with rotary step cut electronic regulator all accessories such as down rod 30/60/120cm long. PVC Bobbin. Stainless Steel Nut Bolt with cotter pin, capacitor etc. of approved make and as per IS: 374 specifications as directed by Engineer-in-charge.

Technical Specification for Item No. 13:

This includes fixing & commissioning of supplied decorative type 1200 mm sweep ceiling fan with rotary step cut electronic regulator with all accessories in existing /new hook including necessary wiring and connection from nearest point / Ceiling rose through PVC flexible copper conductor wire and earth linking etc. The rotary step cut electronic regulator shall be fixed and screwed rigidly on switch board including wiring and connection etc. with all material and labour as directed by Engineer-in-charge.

Technical Specification for Item No.14(a):

Supply & installation of following type distribution board complete with TP, DP, SP. MCCB's & ELCB, TPN DB. IP42 degree of protection The DB shall be made from special grade of CRCA sheet and powder coated. The DB shall be fitted with Bus bar, DIN Rail and neutral link. The rates shall be excluding the cost of MCB as directed by Engineer-in-charge.

a) 16 Way Double Door Distribution Box with following:

MCB 63-amp C-curve, 10KA TPN - 02 Nos.

DP MCB 32 Amps, 10KA - 04 Nos.

SP MCB 6-32 amps, 10KA - 6 Nos.

ELCB 3phase-63A 100miliamp sensitivity - 2 Nos.

Technical Specification for Item No.14(b):

Supply & installation of following type distribution board complete with TP, DP, SP. MCCB's & ELCB, TPN DB. IP42 degree of protection The DB shall be made from special grade of CRCA sheet and powder coated. The DB shall be fitted with Bus bar, DIN Rail and neutral link. The rates shall be excluding the cost of MCB as directed by Engineer-in-charge.

a) 32 Way Double Door Distribution Box with following:

MCB 63-amp C-curve, 10KA TPN - 02 Nos.

DP MCB 32 Amps, 10KA - 04 Nos.

SP MCB 6-32 amps, 10KA - 6 Nos.

ELCB 3phase-63A 100miliamp sensitivity - 2 Nos.

This includes fixing & commissioning of supplied double door TPN DB on wall /concealed as directed. The DB shall be fixed rigidly on wall through suitable size of nut bolt / anchor fastener / cemented wooden gutties as directed. This includes necessary wiring, connections, and earth linking with all material, labour tools & tackles as directed by Engineer-In-Charge.

Technical Specification for Item No. 15:

This includes Supply and preparation of earth station with chemical treated back filled compound Corrosion protection by hot dip 30-40 mm dia Pip-In-Pipe GI Type 3Mtr Depth. Maintenance free including all accessories & Masonry work Enclosure with cover plate. After completion of work contractor has to give the test of the earth pit by proper earth meter. This also includes complete labour and material.

Technical Specification for Item No.16:

The works include providing & fixing the following size earth strip and wire from earth station to equipment / Main DB or as per requirement. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

- a) 8 SWG Hot DIP GI wire.
- b) 25x3 Hot DIP GI strips, having minimum 80 Micron galvanized coating.

Technical Specification for Item No.17:

Supply at site 4 Core, LT armoured aluminium conductor XLPE cable of 1.1KV grade of the following type & size

- a) 4 Core, 35 Sq.mm aluminium conductor armoured cable.
 - b) 4 Core, 50 Sq.mm aluminium conductor armoured cable.
 - c) 4 Core, 150 Sq.mm aluminium conductor armoured cable.
 - d) 4 Core, 16 Sq.mm aluminium conductor armoured cable.
- a) This includes supply at site 1.1 KV grade. 4 Core. 35 Sq. mm Aluminium conductor. XLPE insulated armoured cable confirming to IS: 7098 (Part-1) 1985 with up to date amendments and of approved make with ISI mark. The cable shall have marking/embossing at the interval of every meter showing its progressive length. The contractor shall produce the routine test certificate during supply of cable at site. The rate shall inclusive of all taxes, duties, packing, forwarding, insurance, transportation and unloading at site of work etc.
- b) This includes supply at site 1.1 KV grade, 4 Core, 50 Sq. mm Aluminium conductor. XLPE insulated armoured cable confirming to IS: 7098 (Part-1) 1985 with up to date amendments and of approved make with ISI mark. The cable shall have marking/embossing at the interval of every meter showing its progressive length. The contractor shall produce the routine test certificate during supply of cable at site. The rate shall inclusive of all taxes, duties, packing, forwarding, Insurance, transportation and unloading at site of work etc.
- c) This includes supply at site 1.1 KV grade. 4 Core, 150 Sq. mm Aluminium conductor, XLPE insulated armoured cable confirming to IS: 7098 (Part-1) 1985 with up to date amendments and of approved make with ISI mark. The cable shall have marking/embossing at the interval of every meter showing its progressive length. The contractor shall produce the routine test certificate during supply of cable at site. The rate shall inclusive of all taxes, duties, packing, forwarding, Insurance, transportation and unloading at site of work etc.
- d) This includes supply at site 1.1 KV grade. 4 Core. 16 Sq. mm Aluminium conductor. XLPE insulated armoured cable confirming to IS: 7098 (Part-1) 1985 with up to date amendments and of approved make with ISI mark. The cable shall have marking/embossing at the interval of every meter showing its progressive length. The contractor shall produce the routine test certificate during supply of cable at site. The rate shall inclusive of all taxes, duties, packing, forwarding, insurance, transportation and unloading at site of work etc.

Technical Specification for Item No.18:

Laying of cable at site, through various route up to 150 sq.mm. LT armoured aluminium conductor XLPE cable of 1.1KV grade of the following type & size.

a). In Hard / soft Soil

The cable shall be laid through excavation in soft/hard soil. The trench to be excavated 0.6 Mtr. Wide and 0.8 Mtr. deep. The bed of 50mm of river sand shall be provided in the bottom of the excavated trench. The cable shall be laid over

the bed of river sand. This includes providing & laying of Bricks and sand 1.e. parallel to the cable and the gaps shall be filled by fresh river sand. The cable shall be covered by keeping half round heavy duty RCC NP 2 Pipe. The filling of the trench shall be done with by provided Sand cover (at least 50mm from cable surface) completely & followed by excavated stuff & should be watered and rammed properly to its original position. The excess excavated stuff shall be disposed off from the Site of work and spreaded in low laying area as directed. The contractor shall provide heat shrinkable straight through joint of relevant size of approved make if the laying of cable shall be more than standard drum length. This includes all labour and material as directed by Engineer-in-Charge.

b). In RCC/ CC/ paver/ interlocking block

Cable shall be laid Through RCC/CC and Paver/interlocking block by cutting /Breaking and removing by through suitable tools & plants after that trench 600mm depth & 300 mm width trench shall be prepare, and by providing & laying HDPE pipe. Cable shall be laid through suitable diameter heavy duty HPDE Pipe. After laid cable resurface the area as per its original positions. This includes all labour and material as directed by Engineer-in-Charge.

b). In RCC Trench

The cable shall be laid after opening of RCC trench by removing the RCC Covers & cable trench shall be cleaned properly including removal of garbage, stones, bricks & old unused cables etc from the trench line without damaging the other cables laying in the trench. After laying of the cable, cable trench shall be properly covered with removed RCC covers as per original. The contractor shall provide heat shrinkable straight through joint of relevant size of approved make if the laying of cable shall be more than standard drum length: This includes all labour and material as directed by Engineer-in-Charge.

C). Cable lied by providing and erection of box type FRP tray 150mm Width

This providing and fixing of 150mm potent FRP cable tray on wall, structre with suitable support / clamp, hardware's nut bolt, coupler plate, tee, bend, elbow and other require tools and tackles with erection of site requirement as directed by Electrical-In-Charge. Wall and ceiling area cable tray laid maintain proper level to the end. Make approved FRP tray required at site. Balance cable tray return to DTP. The rate shall be firm and inclusive of all taxes, excise duty, octroi, packing and forwarding, insurance, loading at supplier's depot, transportation and unloading at site of work. All materials and labour as directed by Engineer-In-charge.

Technical Specification for Item No.19:

The item includes providing & fixing concealed wiring for computer point of 6A, 230 V 4Nos set in Modular Plug point with Flame Retardant. 1100 Voltage grade, single core stranded copper conductor wire with IS: 694/1990 of size 2.5 sq. mm. for phase & neutral wire and 2.5 Sq.mm continuous stranded copper conductor wire for earth to be laid through PVC Round Pipe with IS: 9537 (Part-III) of size 25/32mm Diameter of Medium Mechanical Strength (MMS) type and other accessories such as Tee, junction box, bends, elbow etc. of approved make. The proper size of groove shall be prepared by contractor on wall/false ceiling/wooden partition as case may be & the conduit pipe shall be laid through prepared groove and in case of new construction the pipes shall be laid during reinforcement work. After laying of pipe in prepared groove the groove shall be closed with mixture of cement & sand and to match with existing surface of wall/false ceiling/wooden partition. The work consists providing & fixing of 3 in 1 combined unit suitable for 6A x 230 Volt with ISI mark. The PVC/metallic box of suitable size shall be embedded properly in the wall and the combined unit shall be fixed on modular plate. The complete work consists necessary wiring connections and earth linking at both the ends with all materials and labour as directed by Engineer-in-charge.

Technical Specification for Item No.20:

This includes supply and fixing of 300mm new wall mounting fan of 230V, 50Hz polycarbonate fan blade at suitable height for staff working in the offices. This includes complete labour and material and as directed by EIC.

Technical Specification for Item No.21:

Supply, installation, testing and commissioning of 10w cylindrical pipe bollard of height 80cm with IP65 garden light of 220-240V AC. This also includes its civil foundation of size 150x150x300 mm or as per site requirement with 4-number GI anchor bolt of size 100mm long and 10mm dia M10 grade along with its nuts and washer and also includes hollow pipe of 25mm for IN and OUT of LT cable

Technical Specification for Item No.22:

Supply, installation, testing and commissioning of 60w flood light type LED of 220-240V AC, 50Hz with pipe-in-pipe adjustment pipe shall be of C-class GI of 2inch dia outer side and 1inch dia inner side which shall be adjustable to required height and flood light fixtures shall be clamped as per site requirement for illumination. Also includes duly epoxy painted with base plate of 6mm thickness and of size 150x150mm along with its 4 number anchor bolts of size 100mm long and 10mm dia to be grouted in cement concrete foundation. This includes all hardware's adjustment for height adjustment with IP65 garden light.

Technical Specification for Item No.23:

This includes removal of all existing fixtures, pole along with its foundation from the existing side and same as to be deposited as desired by engineer in charge at AO building area. This also includes safety disconnecting any utilities, excavating. The site must be restored to its original condition with all holes backfilled and area cleaned after removal.

Technical Specification for Item No.24:

Fixing of 4C x 16sqmm armoured LT cable to all the bollards, spike lights, flood lights, mains same should be dressed and glanding at both the end along with lugging should be done in a precise manner for all the lights. This also includes supply, connection by connecting suitable connector with 1.5sqmm Flexible 3core wire connection complete with labour and material.

Technical Specification for Item No.25:

The work includes Supply, installation, testing and commissioning of FRP meter box of size 400x300x200mm on existing wall or by providing MS angle support for free standing along with cable entries from bottom end and following electrical accessories are to be fixed inside the same for controlling garden light ie: 1Nos-astronomical timer, 1Nos-63A 3-Phase contactor, 4-Nos SP MCB 32A C-curved and 1Nos-63A MCCB 10Ka C-curved, 440, 50Hz AC DIN type. The work includes complete labour and material and to the entire satisfaction of EIC.

Technical Specification for Item No.26:

This includes supply and fixing of Led profile lights used for decorative purpose of 10w to 30w, 230V AC as per site requirement with a driver and associated item in running Mtr with 900 lumens to 2500 lumens in warm white/cool white. Complete with labour and material and to the entire satisfaction of EIC.

Seal & Sign of contractor

Executive Engineer (E)
Deendayal Port Authority

Approved Make List for Electrical Items

Sr. No.	Description	Recommended Makes
1	HT VCB	SIEMENS / CROMPTON GREAVES/ABB/Schneider/JYOTI
1(a)	HV Gas Insulated Breakers	SIEMENS /Schneider/ABB
2	POWER TRANSFORMERS	VOLTAMP/CROMPTON GREAVES /BHARAT BIJLEE/ BHEL/ SIEMENS/ ABB/ Schneider/T&R
3	DISTRIBUTION TRANSFORMERS	EMCO/KIRLOSKAR/PATSON/VOLTAMP/ ABB / Schneider / T&R
4	RESIN CAST TRANSFORMERS	
	A) RESIN CAST IMPREGNATED	VOLTAMP / KIRLOSKAR / EMCO
	B) DRY CAST	VOLTAMP/KIRLOSKAR/EMCO
5	HT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ /GLOSTER/ UNISTAR/ UNISTAR/KEI/FINOLEX/HAVELS
6	LT XLPE CABLES	POLYCAB/TORRENT/RPG ASIAN/ / RALLISON/PRIMECAB/ HAVELLS/ UNISTAR/AVOCAB / ADCAB
7	LT ACB	SIEMENS/L&T/SCHNEIDER/C&S
8	PROTECTION RELAYS	AREVA/L&T/SIEMENS/ABB/C&S
9	LT PANEL	CPRI APPROVED
10	CHANGE OVER SWITCH	SIEMENS/L&T/ABB/C&S/SCHNIDER/ LEGRAND / INDOASIAN
11	SFU FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB/C&S
12	SFU FOR DISTRIBUTION PANELS & FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/HAVELLS
13	MCCB FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/L&T/ABB
14	MCCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNIDER/ LEGRAND/ INDOASIAN/HAVELLS
15	MCB/ELCB/RCCB/ RCCBO FOR MAIN LT DISTRIBUTION PANELS	SIEMENS/HAGER L&T/ABB
16	MCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS	SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/ HAVELLS/ STANDARD
17	MCB DISTRIBUTION BOARD	STANDARD / HENSEL/LEGRAND / INDOASIAN / HAVELLS
18	MULTI FUNCTION DIGITAL METER FOR MAIN LT DISTRIBUTION PANELS/DIGITAL KWH METERS/ABT METER	L&T/ENERCON/SECURE/L&G/ RISHABH or APPROVED BY PGVCL Make.
19	ANALOG VOLT/AMPARE METER	RISHABH/AE/ENERCON/L&T

	FOR DISTRIBUTION PANELS AND FEEDER PILLERS	
20	SLECTOR SWITCH FOR VOLTMETER/AMPARE METER	L&T/SIEMENS/C&S
21	POWER CONTACTOR & OVER LOAD RELAYS	L&T/SIEMENS/ABB
22	QUARTZ TIME CLOCK SWITCH	L&T/INDOASIAN/SIEMENS
23	PVC WIRE WITH COPPER CONDUCTOR	RR KABEL / KEI / POLYCAB/MILEX/GUJCAB/ STANDARD / FINOLEX / ANCHOR
24	FLUSH TYPE SWITCHES, SOCKETS, HOLDERS AND CEILING ROSES & ELECTRONIC REGULATORS	ANCHOR/MK/NORTHWEST/VINAY /PANAMA / HAVELLS
25	DOOR BELLS/CALL BELLS	ANCHOR/LEGEND/MK/NORTHWEST
26	MODULAR SWITCHES, SOCKETS, PLATES & BOXES	ANCHOR / MK / NORTHWEST / LEGRAND /HAVELLS / INDOASIAN / SIMENS.
27	PVC CONDUIT/OVAL CONDUIT & CASSING CAPPING AND ACCESSORIES	PRECISION/VULCAN/FINOLEX/ GARWARE/ RESTOPLAST/ SWASTIK / BPI
28	GLS LAMPS & FLUORESCENT LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
29	HPSV, HPMV & METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
30	IGNITORS FOR HPSV, METAL HELIDE LAMPS	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE
31	LUMINARIES	PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE/C&S
31a	LED LUMINARIES	Philips /Bajaj/Wipro/CG/Surya/Pyrotech/Syska/Nessa/C&S having surge Protection $\geq 10KV$ for fittings & internal Surge Protection for Driver of $\geq 4KV$, LED Chip only OSRAM/CREE/Philips Lumileds/Citizen/ with LM-79,80 CERTIFICATION
32	CEILING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
33	WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
34	EXHUAST FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC
35	HEAVY DUTY INDUSTRIAL WALL MOUNTING FANS	BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC or its equivalent
36	WATER COOLER	VOLTAS/SHRIRAM USHA/BLUE STAR
37	AIR CONDITIONERS	VOLTAS/CARRIER/BLUESTAR/USHA/ HITACHI/LG/ SAMSUNG/ONIDA
38	REFRIGERATORS	VOLTAS / CARRIER / BLUESTAR / USHA / HITACHI / LG / SAMSUNG / WHIRLPOOL

39	VOLTAGE STABILIZER	VEELINE / CAPRI
40	INVERTERS	SUKAM / MICROTEK
41	D.G. SETS	
	A) ENGINE	CUMMINS/GREAVES/KIRLOSKAR/ CATERPILLAR /ASHOK LEYLAND /VOLVO
	B) ALTERNATOR	STAMFORD/CROMPTON GREAVES /JYOTI/ KIRLOSKAR ELECTRIC
42	ELECTRIC MOTOR	ALSTOM/CROMPTON GREAVES /SIEMENS/ KIRLOSKAR/ABB
43	WATER PUMPS	SWASTIK / KSB
44	WATER GEYSER	BAJAJ/USHA / CROMPTON GREAVES / SPHEREHOT / RACOLD
45	LUGS & CABLE GLANDS	DOWELLS / JAINSON / BRACO

Note:

In case of supply of Make of material which is not in the DPA approved Make list, the said material should be supplied as per the latest GETCO approved Make list.

In case of supply of Make of material which is neither available in the DPA approved Make list not in the latest GETCO approved Make list, the said material should be supplied as per the Make decided by EIC for which written intimation will be given to the contractor.

Before procurement of material, the Make of the material should be approved by EIC in writing.

Signature & Seal of Firm

-/sd
Executive Engineer
Deendayal Port Authority