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TENDER SPECIFICATIONS

TENDER NO. BHEL: NR (SCT): TISHREEN: ENABLING WORKS: 735

FOR

**Construction & Development of BHEL Site Infrastructure
Complex at 2X200 MW TISHREEN TPS, SYRIA**

PART II – PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301 (INDIA)



ISO 9001, ISO 14001 and
OHSAS 18001 certified
company
SubContract and Purchase
Deptt.

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THIS TENDER SPECIFICATION ISSUED TO:

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RATE SCHEDULE CUM BOQ

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BILL OF QUANTITY FOR INFRASTRUCTURE WORKS AT 2X200 MW TISHREEN, SYRIA

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
	PART I				
	(A) DESIGN & DRAWINGS				
1	Planning,Preparation of scheme and design of all general, structural,architectural drawings , design calculations if required for permanent PEEGT & BHEL Site Office, Parking Sheds, Store Sheds, OpenYard and other facilities, submitting atleast three copies for BHEL/Customer approvals, incorporating changes/revisions, preparation of as built drgs after work execution, etc complete in all respects as per instructions of Engineer I/C	LS	1		
	(B) CIVIL WORKS				
	DISMANTLING WORK/SITE CLEARANCE				
2	Dismantling existing structural steel/masonry structures (permanent or temporary) including dismembering structural steel work in built up(welded/bolted/riveted) sections in rafters, purlins, angles, tees, flats, pipes and channels including debolting/dewelding/dismantling in reusable form without damage and at all heights and spans all gusset plates,cleats, joint plates,base plates, bolts, nuts, cutting rivets/bolts, welding/dewelding etc.in structural steel columns, purlins, trusses, door frames , removing doors, windows and clerestory windows (steel/wood/rolling) shutter of all sizes including chowkhats, architrave, holdfasts etc. complete , dismantling existing GS/Meta poly permanently colourcoated sheet roofing/sheet cladding including ridges, hips valleys and gutters etc., removal of J hooks, bitumen/GI washers, demolishing RCC/brick work/rubble masonry/block work in cement mortar manually/by mechanical means Removal of all Electrical fittings, wiring, DB's/Panels, switch/sockets, sanitary fittings,etc as per directions of Engineer I/C WITH STACKING OF REUSABLE MATERIALS WITHIN 200 MTRS LEAD(For measurement purposes, the permanent or temporary structures to be dismantled shall be counted numerically irrespective of the size of the structure)	Each	20		
3	Site Clearance and disposal of building/store rubbish, dismantled masonry, disposable scrap materials, CONCRETE BLOCKS of all sizes, cable/miscellaneous steel scrap etc within a lead of 2 km by mechanical carriage of materials including loading, unloading and disposal all by mechanical means. (Site area in sqm cleared of all debris shall be considered for measurement purposes)	Sqm	64000		
4	Dismantling existing rails by removal of bolts/cutting/dismembering or any other means as approved by BHEL, stacking within the plant premises complete in all respects	MT	55		
	EARTHWORK/ROADWORK				
5	Surfact dressing of the ground including uprooting of rank vegetation, grass, brushwood, trees and saplings and disposal of rubbish outside plant premises as per instructions.	sqm	64000		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
6	Earth work in excavation in all types of ordinary and hard soil by mechanical means (Hydraulic excavator)/manual means including stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as concreting form work etc. and disposal of surplus excavated soil outside plant premises as directed, disposed soil to be neatly levelled and dressed complete.	Cu.M	1000		
7	Back filling available excavated earth in trenches, plinth, slides of foundations etc., including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering complete	Cu.M	550		
8	Disposal of surplus excavated earth and debris including re-excavating the deposited soil earlier, transportation, loading, unloading, laying at all depths and heights, leveling and dressing both the area (viz. From where earth is transported and where it is deposited) to required levels and slopes, complete with all lifts as directed.				
	upto 1 km	Cu.M	210		
	1km to 2 km	Cu.M	190		
9	Preparation and consolidation of site area with power road roller of 8 to 12 tonne capacity after levelling, grading, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth outside plant premises.	sqm	50000		
10	Supply and Laying water bound macadam with specified stone aggregate stone screening and binding material including screening, sorting, spreading to template and consolidation with power road roller of 8 to 10 tonne capacity etc. complete with supply for stone aggregate, screenings, coarse sand and red fine aggregates etc.				
a)	Base course with 53 mm to 22.4 mm size aggregate including stone screening 13.2mm size.	cum	5360		
11	Providing and tilling of 1" compacted thickness 11.2 mm and down stone aggregate/rounded pebble mixed with red/white coarse sand as levelling course compacting the same with 8 to 10 ton road roller complete in all respects as directed by Engineer-in Charge	cum	1250		
12	Supplying the good earth from outside the site including the cost of filling the same within the site in layer not exceeding 20cm in depth & consolidating each deposited layer by ramming and watering including all leads & lifts etc. complete.	cum	530		
13	Providing approved quality white/red coarse sand as levelling course and filling the same where required under floors etc., watering, ramming, consolidating, grading and finishing to final levels and slopes for all lifts and leads involved, complete as directed (Payment to be made for solid measure of the consolidated filling).	Cu.M	178		
	PCC				
14	Plain cement concrete of mix 1:3:6 (1 cement : 3 coarse sand and 6, 20 mm down graded stone aggregate) for column footing, levelling, floors etc., including cost of all materials, lead, lift, labour charges, consolidation, shuttering, curing etc. complete.	Cu. M	440		
14A	Providing and laying 10 mm thick bitumen/asphalt based sheet membranes above PCC/lean concrete for waterproofing/insulation of foundations wherever required.	sqm	600		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
15	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top with 50 mm thick anti skid precast interlocking concrete pavers of approved shape	sqm	510		
16	Providing and laying and laying damp proof course 40 mm thick with concrete grade 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size and applying a coat of residual petroleum of penetration 80/100 of approved quality using 1.7 kg per sq. metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in KEROSENE OIL.	Sq m	105		
17	Providing and fixing at ground level precast 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) cement concrete in kerbs,RCC sleepers, edgings,drains,etc. as per approved pattern and placed in position including complete with all inserts, lifting hooks, anchors, shuttering and reinforcement with atleast 2 mm thk wire mesh as per instructions of Engr I/C.	cum	50		
	BLOCK MASONRY				
18	Hollow Block work masonry with class designation 75 in cement mortar 1:6 (1 cement : 6 coarse sand) in foundation, plinth and super structure in thickness of 200 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification and direction of Engineer In-charge.	Cu. M	315		
19	Hollow Block work with brick of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) in super structure in thickness of 150 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification. 2 nos. MS rods of 6 mm dia are to be provided after every 3rd layer for which no additional payment will be made.	Sq. M	665		
	RCC				
20	Reinforced cement concrete of mix 1:1.5:3 (1 cement, 1.5 coarse sand and ,3 :20 mm down graded aggregate) for column footing, sunshades, shelves, lintels etc. including cost of materials, lead lift, labour charges for concreting, curing etc. complete.	Cu. M.	360		
21	Centring and shuttering including providing all shuttering material , strutting, propping etc. and removal of form work for : Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	1970		
22	Providing and placing mild steel/ tor steel reinforcement for RCC work including cost of all materials, labour for cutting, bending, binding and placing in position complete as per drawing and instruction of Engineer.	MT	28.5		
23	Supplying,Fabricating and fixing in position, M.S.Holding down bolts with sleeves and washers, nuts and lock nuts etc. including threading of required length and type as per instructions of Engineer I/C				
	Upto 20 mm dia. bolt	kg	1600		
	ROOFING				
24	Supply fabrication and erection of structural steel beams,channels,plates,steel tubular trusses, purlins,gates, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and one coat of primer and two coats of approved enamel paint for finished products at site complete as per technical specifiction and direction of engineer.				
a)	Trusses (medium grade pipes),Purlins, bottom ties	MT	50.1		
b)	structural steel for columns, side runners,crane girders,etc	MT	18		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
c)	Wind ties (Flats) 50 x 6 mm thick, angles, box sections, solid bars for rails etc	MT	2		
25	Steel work in built up section/framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel for gates, railings, frames, gratings, stairs etc.	kg	2200		
26	Supplying, fitting & fixing steel rolling shutter , profile type in 18 B.G of approved type of steel lathe section 75 mm wide fitted with coil wire spring to necessitate the fitting of required nos of C.J pulley's on heavy type solid drawn gearless steel tube complete with locking arrangements bothside and outside specially built up side guide channels including, providing a hood for the rolling shutter painting with two coats of approved brand of aluminium paint over a coat of red lead primer complete.				
a)	Electrically Operated	Sq.M	50		
b)	Mechanically and manually Operated	Sq.M	50		
27	Providing and fixing corrugated sheet of approved profile, atleast .6 mm thick permanently colour coated metal Sheet roofing and side cladding including vertical/curved surface fixed with polymer coated J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete including plain permanently colour coated sheets for ridges and valleys of suitable width as per directions of Engineer I/C	Sq.M	3815		
28	Providing and fixing 2mm thick corrugated Transluscent FRP sheet roofing fixed with GI J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	205		
	WATER PROOFING				
29	Providing, laying and fixing water proofing including all labour, material, equipment, handling, mixing, scaffolding, transporting, testing, etc complete as per manufacturers specifications, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.				
a)	Providing, laying & fixing light concrete over concrete roofs made of Borgani/volcanic Sand and cement with minimum thickness of 70 mm with a minimum slope of 1:200 etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	600		
b)	Providing, laying & fixing roof water proofing treatment using plastic paper (HDPE/equivalent) or bituminous membrane of minimum thickness of 4mm etc. all complete including fixing, all materials, making groove in parapet wall, embedment in groove with Bitumen compound as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	600		
c)	Providing, laying & fixing roof water proofing treatment using bitumen roofing (Aspal bitumen of suitable grade) of minimum 4mm thick, etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	600		
d)	Providing & laying fine grained white gravel (minimum 5 mm thick) over Aspal bitumen layer for roof water proofing treatment all complete as per relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	400		
e)	Providing, laying & fixing white roofing tiles of 5mm minimum thickness, etc. all complete for roof water proofing treatment as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	200		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
f)	Providing & laying three coats of bitumen painting and two layers of burlap for bathroom, toilet surface etc. all complete for proofing treatment as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq.M	50		
g)	Providing and fixing PVC pipe (2.5 kg/cm ²) of 110 mm dia. as rain water pipe in above item complete in all respect including required shoes, bends, etc	RM	60		
CEILING					
30	Providing and fixing at all height false ceiling of 12.5mm thick tapered edge gypsum board as per standard providing and fixing of frame work made of special sections power pressed from M.S. sheet and galvanised in accordance with zinc coating 350 as per standards and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastner 12.5 mm dia x 40mm long with 6 mm dia bolts to the angle hangers of 25x25x.55 mm of reqd. length, and other end of angle hanger being fixed with nut and bolts to G.I.Channels 45x15x0.9 running at the rate of 1200 mm centre to centre to which the ceiling section 0.5 mm thick bottom wedge of 80mm with tapered flanges of 26mm				
	each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. Channel with connecting clips made out of 2.64mm diax230mm long G.I. Wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick 27mm high having flanges of 20mm and 30mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450mm centre to centre with 25mm long drive-all screws @ 230mm interval including jointing and fixing to a flush finish of tapered and square edges of the gypsum board with recommended filler, paper tapes, finisher and two coats of primer suitable for gypsum board as per manufacturers specification and also including the coat of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed all complete as per drawing and specification and direction of the Engineer -in-charge but excluding the cost of painting.	sqm	450		
31	Providing and fixing 15mm thick Mineral Fibre False Ceiling Tiles or equivalent of size 600x600 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanied steel sections (galvanized @ 170 gsm/sqm.) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet spaced at 1200mm center to center and cross "T" of size 24x25mm made of 0.30mm thick (minium) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600mm and size 24x25mm made of 0.30 mm thick (minium) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and laying 15mm thick mineral fibre false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats fixed to ceiling with 6 mm dia and 50mm long dash fasteners, 4mm GI adjustable rods with galvanised level clips spaced at 1200m center to center along main T, bottom exposed width of 24mm of all T-sections shall be pre-painted with polyester paint, all complete at all heights as per specifications drawings and as directed by Engineer-in-Charge.	sqm	200		
FINISHING					

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
32	Providing and laying 50 mm thick heavy duty cement concrete in flooring with metallic hardener pigmented topping 12mm thick uniform graded treated iron particles in flooring. Under layer of 38mm thick cement concrete mix 1:2:4 (1 cement: 2 sand : 4 stone aggregates 12.5mm well graded) and top layer of 12mm thick metallic concrete of mix 1:2 (1 cement hardner mix with approved quality metallic hardening compound :2 stone aggregate 6mm nominal size) by volume including cement slurry, rounding off edges etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq. M	3020		
33	Providing and fixing glass strips in joints of terrazo / cement concrete floors 40mm wide and 4mm thick	RM	2420		
34	Providing and laying Ceramic glazed floor tiles 300 x 300 mm (thickness to be specified by the manufacturer) of 1st quality make in all colours , laid on 20 mm thck cement mortar 1:4 (1 cement : 4 coarse sand) including the joints with white cement and matching pigment etc. complete.	Sq.M	125		
35	Providing and laying vitrified floor tiles in 60x60 cm size (thickness to be specified by the manufacturer) of reputed equivalent make with water absorptions less than 1% and flexural strength not less than 30N/mm ² , in all colours and shades, laid on 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete	Sq.M	200		
36	Providing and laying of PVC flooring & skirting of minimum thickness 3 mm anti static flexible tiles foxed with adhesive etc. etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	25		
37	Providing and laying polished italian marble of minimum 18mm thickness in flooring, concrete staircases, skirting, window & door/window/ventilator peripheral frames over minimum 20 mm thick underbed of 1 part cement and 4 parts coarse sand by weight mixed with sufficient water to form a stiff workable mass. The marble stone slabs laid over under-bed, pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, making corners, granite polishing etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	300		
38	Providing Italian marble stone of minimum 12mm thickness in skirting/window edge wall lining projecting minimum 6mm from adjacent plaster etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	50		
39	Providing and laying White/Black Natanz polished Granite stone of approved color and texture of minimum 18 mm thk in flooring over under bed of minimum 20mm thickness of 1 part cement and 4 parts coarse sand by weight mixed with sufficient water to form a stiff workable mass. The granite stone slabs/tiles is laid over pressed and tapped down with wooden mallet to the proper level, lifted and pressed again with thick cement slurry spread over the surface with fine joint finished including pigments, curing, grinding, granite polishing etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	50		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
40	Providing and laying White/Black Natanz polished Granite stone of approved color and texture of minimum 12 mm thk in skirting, facia, slab top and dado including pigments, curing, grinding, granite polishing etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	100		
41	Providing and laying Red Yazd polished Granite stone of approved color and texture of minimum 12 mm thk in skirting, facia, slab top and dado including pigments, curing, grinding, granite polishing etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	50		
42	Providing and fixing 18 mm thick granite/Italian Carrara/Turkish marble slab top on kitchen pantry, toilet, counters including making cutouts for wash basins, sinks fixed over 20 mm thick 1:3 cement mortar (1 cement : 3 coarse sand) complete including rubbing, polishing, grinding edge formation as per Architect's drawings (from South Indian quarries).Black colour	Sqm	5		
43	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M30 Grade made by block making machine with strong vibratory compaction and of approved size/design/shape alid in required colour and pattern and including 50 mm thick compacted bed of coarse sand, filling the joints with coarse sand etc. all complete as per directions of Engineer I/C	Sqm	120		
44	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 12 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	Sq. M	2250		
45	6 mm ceiling plaster of 1:3 (1 cement:3 fine sand) mix	Sq. M	600		
46	Plastering work with cement mortar 1:6 (1 cement : 6 fine sand) 15 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	Sq. M	2070		
47	Providing and fixing Powder coated (thickness 40-50 microns)/anodised colour dyed as per standards Al work for doors, windows, ventilators and partitions with extruded built up standardsection of approved make conforming to standards , powder coated to reqd. shade, fixed with rawl plugsand screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with reqd PVC/ NEOPRENE felt etc. AL sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever reqd including cleat angle, Aluminium snap beading for glazing (single/double)/panelling, security grills wherever required,C.P. brass/ stainless steel screws, all complete ads per drawings/Engr. I/C				
a)	For fixed portion	kg	200		
b)	For shutters of doors, windows and ventilators including providing & fixing hinges/pivots and providing and fixinf of fittings wherever reqd. including the cost of PVC/neoprene gasket reqd. complete in all respects.	kg	150		
c)	Providing and fixing fly wire mesh/screens windows with Aluminium frames as per above specifications inclusive of all materials	sqm	20		
	All Aluminium sections shall be Technal/Aluki or equivalent make,The doors/windows/ventilators shall sliding type/normal openable/fixed inclusive of louvers whereevr required as per instructions of engineer Incharge.				
48	Providing Main Entrance 12 mm thick toughened clear glass door of approved profile with BHEL/Customer logo provided with frosting/etching/strips as approved complete with stainless steel handles, door closers, stoppers, locking arrangement, pivoted/hinged leaves as per directions of Engineer I/c	Sq. M	6		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
48a	Providing and fixing steel single or double door shutters. Shutters shall be 45mm thk flush design comprising of two outer sheets of 18 gauge steel sheets rigidly connected and reinforced inside with continuous vertical 20 gauge stiffeners, spot welded in position at not more than 150mm c/c. Side, top, bottom edges of shutter shall be of pressed steel channels of 1.2mm thk voids to be filled with mineral wool (48 kg/cum density) including all fittings like tower bolts, handles, stoppers, aldrops etc. and painting with minimum 2 coats of synthetic enamel paint on primer etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Sq. M	6		
49	Providing and fixing glazing in Al work for doors, windows, ventilators and partitions etc. with PVC/ neoprene gasket complete including glazing and panelling with plain/black glass panes of min 5.5 mm thick (wt not less than 13.75 kg/sqm) (for double glazing wherever required the glazing area shall be measured twice)	Sq. M	70		
50	Providing and fixing double action hydraulic floor spring of approved brand and manufacture or equivalent for doors including cost of cutting floors as reqd. , embedding in floors and cover plates with brass pivot and single piece M.S sheet outer box with slide plate.etc. with stainless steel cover plate as per direction of Engr. I/C	No.	6		
51	Providing and fixing standard marked Aluminium die cast body tubular type universal hydraulic door closer with necessary accessories and screws etc. complete.	each	17		
52	Providing and fixing steel glazed windows and ventilators of operable standard rolled steel section joints mitred and welded with 15 x 3 mm lugs, 10 cm long, with steel lugs embedded in cement concrete blocks 15 x 10 x 10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 approved graded hard stone aggregate 20 mm nominal size) or with wooden plugs and screws or raw plugs and screws or with fixing clips or with bolts and nuts as required including providing and fixing of glass panels with glazing clips and special metal sash putty of approved make complete including painting with two coats of approved quality synthetic enamel paint over a base coat of red oxide zinc chromate primer including the cost of minor repair work, if required. Windows and ventilators will be provided with horizontal steel bars (8 mm x 8 mm) , welded to the frame @ 150 mm ncluding supply of MS frames, bars glazing etc. all complete	Sq. M	38		
53	Providing, fitting and fixing decorative type solid core flush door shutter as per relevant Syrian/BS standards and as approved by PEEGT/BHEL, 35 mm thick homogeneous water proof block board bonded with phenol formaldehyde synthetic resin conforming to relevant Syrian/BS standards and as approved by PEEGT/BHEL, 35X12 mm thick teak wood beading all around including preparation of working drawings, butt hinges, tower bolt, sliding bolt handles, knobs, door stoppers (all fitting shall be anodised aluminium color dyed), including primer and finish painting / polishing with glossy finish laquer polish of high quality/lamination as approved all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	34		
54	Providing and fixing wooden frame made of best quality seasoned Canadian wood free from large or loose knots, cracks or other defects inclusive of sand paper smoothening, hold fasts, beading, primer including primer and finish painting / polishing with glossy finish laquer polish of high quality etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL with proper wood joinery, accurately set to required lines or levels and rigidly secured in place.	Cudm	1100		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
55	Providing, fitting and fixing panel door shutter of high quality canadian wood with (35 mm thick, 150 mm wide vertical rail & 125 mm wide horizontal rail) Canadian wood shutter frame and (12 mm thick) interlocked panels of teakwood including beading, preparation of working drawings, godrej or equivalent make mortice lock with approved SS fittings like door stopper, 300mm long tower bolts, 16x300mm long aldrops, 125mm long handles on both sides etc. brass butt hinges, sliding bolt, knobs, (all fitting shall be anodised aluminium color dyed), screws, primer and finish painting / polishing with glossy finish laquer polish of high quality etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	10		
56	Providing and fixing PVC doors of sintex or equivalent make including all fitting & fixtures etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	18		
57	Providing and fixing 6 mm thick veneered panneling of approved design and veneer on hardwood framework 50 x50 mm not more than 600x600 mm c/c complete including applying fire retardent paint/polish on woodwork and polishing/staining ply to approved colour as per instructions of Engineer I/C	SQM	200		
58	Providing and fixing of approved glazed ceramic tiles of approved color and design of approved size 200x300mm / 300x300mm in dado projecting 6mm uniformly from adjacent plaster or wall finish. The mix for underbed plaster shall consist of 1part cement and 3 parts sand by weight. fairly moist but firm, tiles shall be pressed over under bed by applying cement slurry including pigments, curing etc all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL. Tile shall be of very good quality and approved make by PEEGT/BHEL and of thickness not less than 5mm.	SQM	140		
59	Providing three coats of white wash to give a smooth and even shade including cost of materials, cleaning and preparation of surface, scaffolding etc. complete.	sqm	880		
60	Finishing walls/ surfaces with water proofing cement paint of approved brand and manufacture and of required shade to give an even shade.	sq.M	1060		
61	Distempering with Oil bound washable distemper of approved brand and manufacture and of required shade to give an even shade on new wall (2 or more coats) over and including priming coat with cement primer.	sq.M	2700		
62	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade in two or more coats on new work	sqm	250		
63	Providing " Tieroleit " dash coat on concrete block walls and projections for exterior finish over blockwork etc. including first coat of high cement content spray with trowel, curing, rough plaster of minimum thickness 15mm and final coat of pigmented white cement spray etc. all complete to give a permanent finish as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	450		
64	Providing and making float coating (surface layer) with about 50mm thickness on walls, columns with 1:1:3(cement:powder:stone chips mortar) all complete to provide a permanent finish as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	100		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
65	Providing Plaster of Paris/white putty 2 mm thick punning over finished plaster surface and finished with smooth surface etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	2000		
66	Providing and making decorative interior plaster of heritage finish over existing plastered surface of all types and design on walls, ceilings, arcs, columns including finishing etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	2000		
67	Providing and applying two or more coats of acrylic emulsion paint of approved brand like Hempel/equivalent, shade and manufacture to give smooth, hard, durable & glossy finish over a coat of primer over prepared plaster surface or plaster of paris punning etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	2500		
68	Providing and applying Resin bonded granular textured finish, for external applications shall consist of granular textured paint/ Synthetic plaster composed of synthetic fibre and petroleum based chemical similar to RENOVO or equivalent of approved natural color/shade applied on cured and dried plaster surface. The final finish shall have UV resistance, fungus, bacterial resistance properties all complete with grooves filled with poly sulfide sealant of matching color and shade etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL. The make shall be approved by PEEGT/BHEL.	SQM	250		
SANITARY/SEWAGE					
All sanitary fittings shall be high quality of reputed make like Grohe/TOTO as per instructions of BHEL/PEEGT					
69	Providing and fixing factory made, siphon jet action, elongated bowl, white vitreous china, 40 mm top spud, flush valve with vaccum breaker and of good quality western type water closet with bidet of approved colour with valveless fittings, necessary C.P connections, all chromium plated brass fixtures of Grohe or equivalent make, all accessories like hand jet etc with cutting and making good the walls where required etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.				
a)	Floor mounted	Each	4		
b)	Wall mounted	Each	2		
70	Providing and fixing factory made, good quality Syrian type water closet of approved colour with siphon, open front solid plastic seat and plastic cover, low level 12.5 litre glazed stone water flushing cistern with valveless fittings, necessary C.P connections, all chromium plated brass fixtures of approved make with cutting and making good the walls where required etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	1		
71	Supply and fixing factory made, good quality glazed vitreous china ware Wash Basin of approx. size 560mm x450mm of approved shape with Aluminium or Cast iron brackets painted white, 15mm chromium plated brass hot & cold faucets of Grohe/Equivalent make with nylon washers, chromium plated brass chain with rubber plug, 32mm chromium plated brass bottle trap and waste of standard pattern, 32mm dia chromium plated brass trap unions, plastic connection pipe with chromium plated nuts, fittings etc. of approved brand including cutting and making good the walls where required etc all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and make as approved by PEEGT/BHEL.				

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
a)	White	Each	5		
b)	Colored	Each	3		
72	Providing and fixing approved stainless steel sink with integrated drainboard complete including painting the fittings, cutting and making good the wall where required as per specification. The work to be complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	2		
73	Providing and fixing factory made, good quality white vitreous china ware washout urinals with 20 mm top spud, 50 mm outlet connection wall hung, flush valve/sensors, lead pipes, gratings, CP bottle traps and necessary C.P fittings, all chromium plated brass fixtures of approved make with cutting and making good the walls where required etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	4		
74	Providing and fixing 100 mm sand SS grating for gully, floor trap.	each	14		
75	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	sqm	6		
76	Providing and fixing 600x120x5mm glass shelf with edges round of supported on anodised aluminium angle frame with C.P brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete	each	7		
77	Providing and fixing 20mm dia chromium plated M.S. pipe wall mounted towel rod towel rail (600X20mm) with C.P. (Chromium plated) brackets etc. including fittings all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	7		
78	Providing and fixing C.P. soap holder mounted with C.P. (Chromium plated) screws etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	7		
79	Providing and fixing C.P. liquid soap dispenser . Dispenser shall be round and easily revolving with removable threaded nozzle and mounted on C.P. brackets etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	7		
80	Providing and fixing glazed vitreous wall mounted paper holder with suitable cover cum cutter fitted with CP screws etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	7		
81	Providing and fixing chromium plated brass shower rose with 15 or 20 mm inlet etc. all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	6		
82	Providing and installing approved brand single tap water cooler of 50L cooling capacity all complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	2		
83	Providing and fixing white vitreous urinal partitions all complete as per instructions, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	Each	4		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
84	Providing and fixing 20mm thick glass fibred sectional pipe covering with aluminium foil covering, wire net securing and fixing in chased walls by necessary clamps etc. over hot water pipe line in concealed location or exposed location of following diameter including covering the pipes, fittings, providing & fixing necessary adhesives, etc. complete as per specification. The work to be complete as per drawings, specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.				
a)	15mm Nominal diameter	RM	100		
b)	20mm Nominal diameter	RM	50		
c)	25mm nominal diameter	RM	50		
85	Providing, laying and jointing PVC PIPES including testing of joints etc., complete 100 mm dia pipe for drainage	RM	120		
86	Providing, laying, fitting and jointing medium grade GI pipes/PPR pipes conforming to IS 1239 for water lines at various elevations with all fittings stop cock, valve bends, elbows, tees, reducers., etc. making grooves in the brick wall, etc. (Internal work), trenching, refilling etc. (external work) including cost of all materials, labour charges etc. complete as per specifications and drawings.				
a)	25 mm dia G.I. Pipe (External work)	RM	70		
b)	20 mm dia G.I. Pipe (Internal work)	RM	70		
c)	15 mm dia G.I. Pipe (Internal work)	RM	120		
87	Providing and fixing GM full way valve with C.I wheel of approved quality etc. complete.				
a)	25 mm nominal bore	No.	5		
88	Providing and fixing C.P. brass 15 mm stop cock of approved quality of weight not less than 250 gms.	NO	10		
89	Providing and fixing C.P. brass 15 mm bib cock of approved quality of weight not less than 250 gms.	No.	8		
90	Construction brick masonry manholes of inside size 90x80 cm and 45-60 cm deep with 75 class designation bricks in cement mortar 1: 5 (1 cement : 5 fine sand), RCC top slabs with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm size), foundation concrete 1:1:8 (1 cement : 4 coarse sand : 8 graded stone aggregate of 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded aggregate of 20 mm nominal size) neatly finished complete as per standard design excluding CI manhole cover.	NO.	7		
91	Construction of 2.0x0.90x1.60 size Septic tank in all types of soil with 250 mm thick brick masonry in cement Mortar of 1:6 15 cm thick cement concrete 1:4:8 grade in bed, 75 mm thick 1:2:4 grade cement concrete flooring and 100 mm thick over RCC slab of 1:2:4 grade, 75 mm thick partition wall, 15 mm thick plaster on brick wall finished with neat cement providing M.S. rugs etc., complete as per drawing including excavation, disposal of surplus earth with a load of 50 Mtr. item includes all material, labour, leads, lifts etc., complete but excluding C.I manhole cover.	NO.	2		
92	Providing and fixing square mouth stone ware gully trap grade'A' conforming to IS:651 complete with G.I. Grating, brick masonry chamber with bricks of class designation '50' and water tight C.I. Cover with frame of 300 x 300 mm size (inside), the weight of cover to be not less than 4.5 kgs and frame to be not less than 2.70 kg as per specification. 100X100 MM P TYPE	NO.	6		
93	Construction soak pit of 2.5Mtr dia and 3 Mtr depth filled with brick bats including S.W. drain pipe 100 mm dia and 1.2 meter long complete as per standard design.	NO.	2		
94	Providing and laying soil, waste and vent pipes, centrifugally cast (spun) iron S&S pipes				
a)	100mm	RM	70		
b)	125 mm	RM	50		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
95	Supplying and installation of HDPE cylindrical and vertical water tank with closed top of undermentioned capacity with all necessary fittings including supplying and fixing input and out putlines including support of brick pillars of height of 3 Mtrs each complete				
a)	Upto 2000 Ltr. Capacity tank	per litre	4500		
96	Providing and Laying of non-Pressure NP2 class (light duty) RCC Pipe with collar of 250 mm dia jointed with stiff mixture of cement motar in proportion of 1:2 (1 cement :2 fine sand)including testing of joints etc complete	RM	20		
97	Construction of brick masonry road gully chamber 50 cm x 45 cm x 60 cm with MPS Brick of class 75 kg in cement motar (1 cement : 6 fine sand) including 500 , 450 mm RCC precast horisontal with frame completed as per standard specification	EACH	4		
	FENCING				
98	Supplying and erecting in position 1.5 m high GI chain linked fencing of minimum 3 mm dia of mesh size 25x25 mm and strengthening with 2 mm dia wire or nuts, bolts & washers complete as per specifications, manufacturer's recommendations, relevant Syrian/BS standards and/or as approved by PEEGT/BHEL.	SQM	1500		
99	Supplying and erecting at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite directionfor 10 cm length and drilling holes upto 10 mm dia. Etc. complete including a priming coat and two coats of enamel paint	kg	3500		
100	Cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as rquired including minimum reinforcement, consolidation finishing and tamping complete including laying in position bitumen hot sealing compound for expansion joints	cum	15		
	HORTICULTURE				
101	Renovating lawns by grassing'grass seeds' including weeding, cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forked soil, watering and maintaining the lawn for 30 days or more till the grass forms a thick lawn free from weeds and fit for mowing and dis-posal of rubbish as directed, including supplying good earth if needed but excluding the cost of sludge or manure (the good earth shall be paid for separately).	sqm	200		
102	Preparation of beds for hedging and shrubbery and plation of hedges by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, levelling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and levelling as directed, within a lead of 50m lift upto 1.5 m complete including cost of sludge, manure or extra earth	cum	100		
103	Landscaping area with assortment of local flowering plants/shrubs/hedges and maintaining the landscaped area till the duration of this contract.	sqm	100		
	(C) ELECTRICAL WORKS				
	All Electrical Fitting shall be high quality of reputed make like Philips/Crompton/Legrand/Havell's or equivalent				
104	Planning,Designing, Supplying, Erection , testing & commisioning Electrical supply and distribution including all transformers, isolators, breakers, fuse,etc, from Customer Single point source, in form of overhead/under ground 20/11KV grid network to substation and further distribution upto 1000/400 A PDB's to office, residential camp, closed / semi-closed / open storage yards and general illumination and street lighting including masts.	No.	1		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
104A	Supplying, Erection , testing & commisioning of LT panel, 440 V, outdoor type, Electrical panel comprising of 400A Switch fuse unit as incomer with 2 no each of 200A , 100A & 63A switche fuse unit as outgoing as the common main panel complete with switch fuses, bus bar chamber, adoptor box with stand,etc making good & ready for commisioning, grouting in the floor, and commisioning is under contractors scope.	No.	2		
104 B	Supplying, Erection , testing & commisioning of LT panel, 440 V, outdoor type, Electrical panel comprising of 1000A Switch fuse unit as incomer with 1 no. 315A , 5 no. 200A & 1 no. 100A switche fuse unit as outgoing as the common main panel complete with switch fuses, bus bar chamber, adoptor box with stand,etc making good & ready for commisioning, grouting in the floor, and commisioning is under contractors scope.	No.	4		
105	Supplying, installation, connecting, testing and commisioning of following fixtures / luminaires including making hanging/fixing arrangements in false ceiling / ceiling with lamps copper ballast, capacitor etc. as required at site.				
a)	Recess mounted direct/indirect high performance decorative luminaire designed for metric false ceiling type Armstrong or similar-fbs 470/236 D6 2x36 W Philips make or eq	Nos.	40		
b)	Recessed accent downlithing luminaire with matt finish with reflector inclusive of gear box- FDN 622 1x9W Philips make or equivalent	Nos.	10		
106	Providing and fixing 1 x 40 Watt Batten type fluorescent tube fitting fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like fluorescent lamp,copper wound polyster choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	Nos.	94		
107	Providing and fixing 2 x 40 Decorative type fluorescent tube fitting fabricated from CRCA sheet steel and finished with stove enamel paint complete with Accessories like fluorescent lamp,copper wound polyster choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof tusties with clamps as required	Nos.	10		
108	Providing and fixing 1 x 250 W HPSV out door type fittings complete with lamp, ballast control gear box, fixing clamp etc.	Nos.	18		
109	Providing and fixing of following sweep exhaust fan/ceiling fan/wall mounted fan (Khaitan / Crompton make) single phase alongwith gravity louvers, frame / tripod for holding the motor including making necessary opening in wall, supply & fixing of assembly with grouting bolts, making connections, loop earthing etc.				
a)	230 mm sweep	Nos.	4		
b)	300 mm sweep	Nos.	2		
c)	Wall mounted fan	Nos.	24		
d)	Ceiling fan of min size 48"	Nos.	8		
110	Providing & fixing of 240 V, 5 / 15 Amp 6 Pin Power socket outlet point (with 15 A switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet	Nos.	35		
111	Providing & fixing of 240 V, 5A 3 Pin Power socket outlet point (with switch). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet along with the piano switches and fan regulator	Nos.	40		
112	Providing & fixing 5A piano type switch for Light / Fan Control (Anchor make)	Nos.	150		
113	Providing and Fixing of 20/25 mm PVC Conduit (including fittings) for telephone / LAN Connection / Call bell System	mtr	200		
114	Supplying and drawing 2 pair, 0.5 sqmm FR PVC insulated copper conductor, unarmoured telephone cable in the existing surface/recessed steel/ PVC conduit as required.	mtr	300		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
115	Supplying and fixing modular telephone socket outlet including connections, modular boxes, cover plate/base plates, etc complete as required.	Nos.	30		
116	Providing & fixing of 240 V, 20 Amp INDUSTRIAL Power socket outlet point (with 20 A MCB). Switch / socket to be fitted in suitable size 20 SWG metal type box .	Nos.	21		
117	Wiring of above power sockets with 2X4 Sq. mm FR PVC insulated Copper Conductor wires as per IS, 650 / 1100 V grade including 1 no. 4 sq mm FR PVC insulated Copper Conductor extra cable for loop earthing in medium grade conduit including supply of items.				
a)	For 15/16/20 AMP Power sockets	Points	31		
118	Circuit/Sub main wiring in 20/25 mm PVC conduit including supplying of all conduits, clamps, wires, complete				
a)	2x1.5 sq. mm + 1x1.5 sqmm earth wire	RM	650		
b)	2x2.5 sq. mm + 1x2.5 sqmm earth wire	RM	340		
c)	2x4 sq. mm + 1x4 sqmm earth wire	RM	240		
119	Point Wiring of the following points (including supply of Wires, conduits, clamps, boards, other misc. items) with 1.5 sq.mm colour coated FR PVC insulated copper conductor wires as per IS- 650/1100 volts grade in surface/recessed PVC conduits (medium grade) including laying of 20 SWG GI wire, conduit fitting, fixing of piano type control switches (Anchor make) in suitable sized 20 SWG metal box with 3 mm phenolic laminated sheet having provision for fan regulator, 5 Amp switch socket (supplied above) included in scope)				
a)	Light Point	Points	84		
b)	Twin control light point	Points	30		
c)	Wiring for 5/6 amps socket points	Points	42		
d)	Wiring for ceiling fan and regulator	Points	32		
e)	Wiring for exhaust fan.	Points	6		
f)	Call bell points	Points	30		
g)	1 x 250 W HPSV out door type fitting. One number 10 A DP switch to be used for controlling 2 fittings. D.P Switches to be fixed on outside of the store shed wall	Points	18		
120	Providing and fixing of 32 Amp TPN with HRC fuses along with earth wire. The TPN to be provided on one side of the central shed with rain protection cover.	Nos.	4		
121	Supply and burying of earths electrodes GI Pipe 40mm dia 4.5 mtrs. Long, including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe complete with salt, charcoal and including earthing upto switch board with 8 SWG GI wire.	Set	4		
122	Installation and commissioning of 3-ph 4W 1000 / 400 A Electrical Switchboard (appx size 1600 x 1000 x 2000 mm) . (Foundation will be paid in civil works)	set	1		
123	Providing , Installation and commissioning of 24 W Lighting Panel with 10 no 20 A MCB and 14 nos 16 A MCB with 125 A SFU incomer in Sheet metal housing with double door arrangement , including all earthing and statutory requirements .	Nos.	1		
124	Providing , Installation and commissioning of 18 W Lighting Panel with 18 nos 16 A MCB with 63 A SFU incomer in Sheet metal housing with double door arrangement , including all earthing and statutory requirements .	Nos.	3		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
125	Laying of following type of PVC Insulated, PVC armoured standard Copper conductor cable confirming tas per standards, glanding with single compression gland, termination of both end in DB & SFU. The cable has to be laid underground on sand cushion including backfilling, susitable clamp, clamping on surface including all materials etc. complete.This includes road crossing for which suitable GI Pipe to be provided by the contractor.				
a)	3 1/2 core x 150/ 240 Sq.mm armoured cable	RM	50		
b)	3 1/2 Core x upto 70 Sq.mm armoured cable	RM	300		
c)	2c/3c/4c upto 16 sq.mm armoured cable	RM	100		
125A	Supply & Laying of following type of PVC Insulated, PVC armoured standard Copper conductor cable as per standards, glanding with single compression gland, termination of both end in DB & SFU. The cable has to be laid underground on sand cushion including backfilling, susitable clamp, clamping on surface including all materials etc. complete.This includes road crossing for which suitable GI Pipe to be provided by the contractor.				
a)	3 1/2 core x 240 Sq.mm armoured cable	RM	130		
a)	3 1/2 core x 150 Sq.mm armoured cable	RM	160		
b)	3 1/2 Core x 70 Sq.mm armoured cable	RM	310		
b)	3 1/2 Core x 35 Sq.mm armoured cable	RM	310		
c)	4c upto 16 sq.mm armoured cable	RM	410		
126	Earthing Flat 25 x 6 for Earthing 0.5 mtr below ground as strip earth electrode including soldering as required.	RM	100		
127	Supply Erection & commisioning of 20 Mtr height mast lighting system of reputed make as approved and as per manufacturers specifications including civil works for the same through specilised agency (duly approved by BHEL) doing similar nature of work.	Set	5		
	(D) FURNITURE & FURNISHING				
128	Preparation of sitting layout,providing, erecting in position standard and modular furniture for high quality Beechwood/Teakwood/Walnut/Mahogany/OAK/maple wood or Metal shades and approved upholstery shades for office setup as per the following:				
A	Office Desks				
A1	Super Executive suites: including Executive Desk, LH&RH Side Unit,Return desk, Book case Unit, Back Unit, Mobile pedestal	Set	2		
A2	Sr Executive suites: including Executive Desk, Side Unit,mobile pedestal, Cabinet	Set	8		
A3	Executive 5'x5' workstations 4' high with drawers	Set	16		
A4	Reception desks	Set	2		
A5	Normal desks	No	14		
B	Office chairs				
B1	Super Executive chairs: Cushioned black leather,mobile/swivel chairs	No	2		
B2	Premium executive swivel chairs	No	10		
B3	Economy executive chairs	No	32		
B4	Visitor Chairs	No	80		
B5	Task/multipurpose chairs	No	12		
C	Lounge Furniture				
C1	Sofa sets (3+2+2)	Set	2		

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
C2	Centre tables	No	4		
D	Storage Units				
D1	Plain Cupboards- 1800x1200x600 mm	No	22		
D2	Verticle Filing Cabinets-4 drawer	No	12		
D3	Locker Units-2 door	No	10		
D4	1200 mm high glass hinged door Units-min. 750 mm wide	No	5		
E	Conference room table(4 mtrsx1.5 mtrs) with chairs- 20 seater	Set	2		
F	Computer tables	No	29		
129	Providing & fixing following type of window curtains complete with all hooks, guides, pelmets & other operating accessories:				
a)	Verticle blinds of approved shade, make & profile profile	Sqm	30		
b)	Roller Blinds of approved shade, make & profile profile	Sqm	30		
c)	Cloth curtains of approved texture, material, pattern & shade.	Sqm	28		
130	Providing & fixing modular kitchen with prelaminated MDF cabinets, drawers, heating elements/plates, exhaust and including the following:				
a)	Min 250 ltrs Refrigerator of approved make	No.	2		
b)	RO water purification setup of min 8 ltrs per hour capacity	No.	2		
c)	Utensils/Crockery set sufficient for 25 office working staff	Set	2		
d)	Water Cooler- 80 ltrs capacity	No.	2		
d)	Dishwasher/Oven and other accessories complete as per requirements	Set	2		
131	Providing and installing following office stationary and work equipments				
a)	Flat screen PC with latest specifications as per instructions	No	32		
b)	Colour PRINTERS	No	6		
c)	Fax cum copier cum scanner machines	No	2		
d)	Landline telephone instruments	No	30		
e)	White laminated writing/projection boards	No	7		
f)	Psuede fabric wrapped Notice boards of appropriate size	No	5		
g)	Photo Copier Machines	No	2		
h)	Miscellaneous items like Electronic Calculators, trays, waste bins, coat hooks,etc in adequate nos.	Set	1		
i)	Intercom Exchange/panel Setup	Set	1		
132	Providing & Installing split type Air Conditioners with operating range: Cooling: + 18 to 45 deg C & Heating: - 10 to 25 deg C of reputed make like Carrier/Hitachi/Samsung/LG etc of following types				
a)	2 Ton capacity	No	13		
b)	3 Ton capacity	No	7		
133	Providing and installing Firefighting Equipment as follows:				
a)	Providing, installing and commissioning Fire alarm system with 30 no. Ionization smoke detectors, 8 loop addressable Main Fire alarm panle, adequate fault isolator units and 2 no. addressable hooters, etc inclusive of all accessories complete	Set	1		
b)	4.5 kg CO2 type Fire Extinguishers including insataltion at specified locations	No	7		
c)	Sand Bucket stand of standard specifications with min. three 15 litres buckets	Set	2		
				SUB TOTAL (PART I)	

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
	PART II				
	Residential Camp:				
1	Providing Residential Accomodation in phased manner for BHEL Staff in Damascus and nearby Tishreen TPS Extension (all accomodations in Tishreen should be in one campus and as agreed by BHEL) with all facilities including electricity & water, severage system etc. furnished with following good quality items:				
	a) one air-conditioner (1.5 Tons), one 14" colour TV, Electric Iron with ironing table & Intercom in every bedroom				
	b) Single bed with side table, mattresses, sheets & pillows, study table with chair, cup-board, dressing table, two guest chairs, blanket/quilts as per requirement. Each item shall be 2 sets for double occupancy & 1 set for Single occupancy. Room Size for single occupancy shall be minimum 3.5x4.0 mtrs and for double occupancy it shall be minimum 3.5x5.0 mtrs or as decided by BHEL				
	c) Necessary arrangement for providing cable TV connection, with upto 15 channels as per BHEL requirement, power backup whenever required in each room is also included into the scope.				
	d) Bath/Wash rooms with all water supply and sanitary fittings, buckets, mugs, showers, curtains, WC jets, soap dispensers, towel rails, etc				
	e) Common Room, Dining area with kitchen facility, minimum area (8x5 mtrs), attached kitchen & laundry with items listed below				
	i) Air conditioner 2T as per requirement				
	ii) Refrigerator 350 L-2 nos.				
	iii) Reverse Osmosis Unit/Water Purifier of atleast 15 ltrs/hr capacity				
	iv) Colour TV with 29" dish antenna- 1no.				
	v) DVD Player- 1no.				
	vi) Computer Pentium 4 with laser printer- 1no.				
	vii) Water cooler 90 lit capacity- 1 no.				
	viii) Washing Machines- 2no.				
	ix) Desert coolers as per requirement				
	(x) Dining table (10-persons)- 1 no.				
	(xi) Dining chairs- 10 nos.				
	(xii) Sofa sets with central table- 2 sets				
	(xiii) Utencils, cooking gadgets, crockery, Gas Stove/Heating Plates for 10 persons				
	(xiv) Telephone for internet connection- 1 set				
	(xv) Deep freezer 450 L- 1no.				
Note	The above facilities from a) to e) shall be provided, maintained in operable condition (till the facilities are used by BHEL) & repaired by the contractor at his own cost but on the instructions				
		UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
1.1	5 BedRooms with double occupancy facilities at a),b),c),d)&e) with atleast 3 Bath /Wash rooms nearby Site/Haran Alawabi	Facility Months	60		
1.2	5 BedRooms with single occupancy facilities at a),b),c),d)&e) (Dining facility at e-ii/e-ix/e-x)/e-xi to be halved) with atleast 2 Bath /Wash rooms nearby Site/Haran Alawabi	Facility Months	40		
1.3	3 BedRooms with single occupancy facilities at a),b),c),d)&e) and mini-refrigerator100-120 ltrs in each room(Dining facility at e-ii/e-ix/e-x/e-xi to be halved) with attached 3 Bath /Wash rooms nearby Site/Haran Alawabi	Facility Months	40		
1.4	3 BedRooms with single occupancy facilities at a),b),c),d)&e) and mini-refrigerator100-120 ltrs (Dining facility at e-ii/e-ix/e-x/e-xi to be halved) with attached 3 Bath /Wash rooms in Damascus	Facility Months	33		
		SUB TOTAL			
	PART III				
	Conveyance/Transport:				

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
1	The contractor shall provide in phased manner as per requirement of BHEL fleet of air conditioned vehicle consisting of car, Van and Bus with driver, fuel and maintenance for exclusive use of BHEL,the vehicle shall be under control of BHEL.				
(I)	Car	Vehicle Month	66		
(ii)	Van - 8 seater	Vehicle Month	30		
(iii)	Bus - 18 seater	Vehicle Month	25		
		SUB TOTAL			
	PART IV				
	Manpower Supply:				
1	Provide round the clock security arrangement (in phased manner as per requirement of BHEL) at plant, office, stores, storage yard and residential area by deputing Security Guards trained in fire fighting System.	Manmonth	600		
2	Providing services of following personnel, in phased manner as per requirement of BHEL				
(i)	Supervisor -- Diploma Holders (Electrical / Mech./ Civil / C&I)	Manmonth	100		
(ii)	Interpreter	Manmonth	33		
(iii)	Computer operator/Store Keeper	Manmonth	66		
(iv)	Skilled manpower including cooks, drivers (other than included in PART III),technical manpower, etc	Manmonth	150		
(v)	Unskilled manpower including office boys, house keeping staff at office and residential camp, kitchen help, laundry boys, etc	Manmonth	250		
		SUB TOTAL			
	GRAND TOTAL OF PART I+PART II+ PART III+ PART IV				

NOTES:	
1	In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.
2	The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two

SI No	DESCRIPTION OF ITEM	UNIT	TOTAL QTY	RATE (SYP)	AMOUNT (SYP)
3	The bidders shall enter both 'Unit Rate' & 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' & 'Total Amount as quoted', the higher of the two shall be considered for evaluation and the lower of the two shall be considered for award.				
4	The quantities indicated against each item above are tentative and are liable to vary depending upon the site requirement. The contractor has to supply / install actual quantities as per advice of BHEL Engineer and accordingly the final contract price shall be worked out.				
5	Evaluation of the bids shall be done based on total price against this BOQ.				