

**Name of the Work: Construction of TICL Regional Office at PhuntshoLing- Civil**

SL. No.	Description	Qty	Unit	Rate		Amount
				In Figure	In Words	
1. Clearing and Earth Work						
i	Clearing jungle including uprooting of vegetation & trees of girth < 300mm & disposal within 50m of the site	1,703.40	sqm			
ii	Excavation in foundation trenches & drains including dressing & ramming, disposal of surplus soil within 50m lead, all levels. All types of soil, rock with or without blasting. All types of soil and rocks.	282.24	cum			
iii	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5 m	226.59	cum			
iv	Providing & laying lean concrete(1:3:6) over stone soling, including watering, ramming, dressing-50mm thick	55.25	cum			
v	Providing and laying Hand packed stone filling or soling with stones.-under floor	230.95	cum			
2. Concrete work (excluding centering and shuttering)						
i	PCC 1:3:6 under floors, aggregate 20mm and down	189.41	cum			
ii	PCC 1:2:4 in doors and in window sills with 20mm aggregate	3.52	cum			
3. RCC work aggregate 20mm and down (excluding form work and reinforcement)						
i	RCC 1:1.5:3 in footing, columnss & beam upto plinth.	104.43	cum			
ii	RCC 1:1.5:3 in columns above plinth upto roof	38.21	cum			
iii	RCC 1:1.5:3 in lintels & beams above plinth up to roof	67.08	cum			
iv	RCC 1:1.5:3 in floors, balconies, landing, stairs	26.59	cum			
4. R.C.C Traditional Cornices						

	Bhutan type Traditional Cornices in R.C.C 1:1.5:3, 20 mm aggregate including cost of formwork including finishing with 6mm thick plaster on the exposed surface with cement mortar 1:3, excluding reinforcement & decorative painting cost as per standard design (Measurement to be taken along the cornice and wall junction)- For door & Window Cornice					
i	Bho including Pem dung at lintel level	18.30	mtr			
ii	Bho & phana, including Pem dung at Roof level	67.48	mtr			
<b>5. Steel reinforcement (providing &amp; fixing Including cutting, bending, binding and placing in position)</b>						
i	Cold twisted deformed bars Fe500	29,219.30	Kgs			
<b>6. Form work (Providing &amp; fixing, centering &amp; shuttering incl. Strutting, propping etc.)</b>						
i	Foundation and plinth	925.91	sqm			
ii	Lintels and beams all levels	1,069.95	sqm			
iii	Columns and pillars all levels	301.92	sqm			
iv	Suspended floors and landings, stairs	97.89	sqm			
<b>7. Brick work: (Providing and laying brick work all complete as per the dwg and approval from the client engineer)</b>						
i	In CM 1:4, 250mm thick, all levels	219.35	cum			
ii	In CM 1:4, 125mm thick all levels	128.56	sqm			
<b>8. Components:</b>						
i	P/F eaves board as per design	166.12	mtr			

ii	Providing and fixing designer fiber cement board (595X595), 6mm thick including GI powder coated grid system with all accessories(main tee ,wall angle etc) complete.	35.84	sqm			
<b>9. Door &amp; Window</b>						
i	Providing & fixing window frame dressed in hard wood including MS hold fast with 5.5mm clear glass and anodised aluminium fitting all complete as per drawing					
	W1	1.00	Each			
	W2	1.00	Each			
	W3	3.00	Each			
	W4	2.00	Each			
	W5	1.00	Each			
	W6	3.00	Each			
	W7	2.00	Each			
ii	Providing & fixing anodised aluminium window & partitions frame including 5.5mm clear glasswith all necessary fitting & accessories all complete as per drawing.					
	W8	1.00	Each			
	V1	1.00	Each			
	V2	1.00	Each			

	V3	7.00	Each			
	D1	1.00	Each			
	D8	1.00	Each			
iii	Providing & fixing Door frame dressed in hard wood including hold fast with 40mm Shutter and all necessary fitting all complete as per drawing.					
	D2	1.00	Each			
	D3	1.00	Each			
	D4	2.00	Each			
	D5	1.00	Each			
	D6	1.00	Each			
	D7	1.00	each			
iv	Providing & fixing fixed rolling shutters with all necessary fitting all complete as per drawing.	16.94	sqm			

v	Supply and fittings of single electric gantry crane to lift 7.5 Ton load fixed on rcc corbel with necessary nut and bolts as specified on drawing.	1.00	Each			
<b>10. Steel Works</b>						
i	Steel work welded, in built up sections, trusses, frame-works including cutting, hoisting, fixing and applying priming coat of red - In Tubular sections	13,877.38	Kgs			
ii	Providing & fixing stell fastener M.S. round hold-down bolts with nuts and washer plates	505.20	kgs			
iii	Providing, making and fixing M.S. straps, flats, sole plates etc.	3,134.98	Kgs			
iv	Steel work in single section including cutting, hoisting, fixing and applying priming coat of red lead paint. In Tees, angles and channels, etc - ISMB 300X125X10MM and base plate	732.07	kgs			
v	Steel work in single section including cutting, hoisting, fixing and applying priming coat of red lead paint. In Tees, angles and channels, etc - 35x35x5mm MS angle as a cleat for purlin and 40x40x3mm MS angle for designer cement board	515.16	kgs			
<b>11. Roofing:</b>						
i	Providing & fixing PPGL sheeting, including bolts, hooks and nuts 8mm dia. with bitumen and G.I limpet washers filled with white lead for connection, excluding the cost of purlins, rafter and trusses. -21g (0.84mm)	1,317.33	sqm			
ii	Providing & fixing 600mm ridges or hips in plain G.I. including bolts, hooks and nuts 8mm dia G.I limpet and bitumen washers for connection. -21g	43.00	mtr			
iii	Providing & fixing 450mm over all semi-circular plain G.I gutter, 21g sheet including brackets, bolts, nuts, washers & rain water pipes connections, excluding the cost of pipes	156.60	mtr			
iv	Providing and fixing on wall face single socketed rigid PVC ( Working Pressure 4kgf per sq.cm) rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion- complete-110mm	42.00	mtr			
v	Providing and fixing on wall face PVC bend for rigid rain water pipes including jointing with seal ring leaving 10 mm gap for thermal expansion - complete. -110 mm	16.00	Each			

12. Flooring and Tiling works: All tiles, marbles and granite shall be superior quality, approved brand & colour and texture shall be as per client requirement.						
i	P/L glazed tiles in dado in toilet, bath and kitchen in CM 1:3 finished with flush pointing with white cement size 300x300mm	50.74	sqm			
ii	P/L glazed tiles in floor & skirting all office floor CM 1:3 finished with flush pointing with white cement size 600x600mm	250.00	sqm			
iii	Providing & laying granite stone flooring -20mm thick in floor & skirting over 20mm thick base of cement mortar 1:4, jointed with grey cement slurry mixed with pigment where necessary, rubbing & polishing complete-texture as per client requirement	58.39	sqm			
iv	Providing and laying cement concrete flooring 1:2:4, finished without any undulations and cavities( no floating coat of neat cement) -12mm aggregates, 40mm thick	1,056.30	sqm			
13. Finishings:						
i	P/L cement plaster 20mm thick 1:4	839.35	sqm			
ii	P/L cement plaster 15mm thick 1:4	1,888.83	sqm			
iii	P/L cement plaster 12mm thick 1:4 in ceiling (slab)	168.30	sqm			
iv	Vinyl plastic emulsion paint, for cement, masonry, plaster, two or more coats on new work including primer as approved by client Engineer.					
	External wall	839.35	sqm			
	Internal wall	1,888.83	sqm			
	External ceiling	18.00	sqm			
	Internal Ceiling	168.30	sqm			
v	Provide & apply Synthetic enamel, for steel & wood work, two coats on as approved by client Engineer.	108.36	sqm			

vi	Providing and applying clear wood coating glossy finish 1 KPU or superior quality including surface preparation such as smoothening surface with different grade of sand paper, applying multi sealer, wood filler, sanding sealer on new work two or more coats on new work on internal doors, windows and other wood work.	37.04	sqm			
vii	Provide & apply Bhutanese painting with synthetic enamel paint (yellow decoration over chocolate background) - Rab					
	Windows (External face)-measurement will be taken whole area of the window including open space	35.78	sqm			
	Door & Window Cornices	46.30	mtr			
	Cornice at roof level	144.30	mtr			
viii	Supply and fitment of CARC WIND TURBO VENTILATOR 16" ALUM WITH frp BASE 1700MM X 1200MM X 2NN WITH ITS COMPLETE ACCESSORIES on roof.	6.00	each			
ix	Providing & fixing anodised aluminium kicking plate, 4mm thick with necessary aluminium screws etc. complete	2.39	sqm			
<b>14. External Works</b>						
i	Providing and laying Plinth Protection and grouted with fine sand mix including well rammed, finishing the top smooth With 50mm thick cement concrete 1:3:6, 20mm aggregates, laid over 75mm thick layer of compacted gravel	287.70	sqm			
ii	Const. brick masonry open surface drain in cement mortar 1:4 including earth work in excavation 100mm thick concrete bed 1:5:10, 40mm aggregate and 25mm thick cement concrete 1:2:4, 12mm aggregate for filling haunches - 300 x250mm depth	147.00	mtr			
iii	Const. brick masonry valve chamber in C.M 1:5, RCC top slab with 1:2:4 20mm agg, fdn. PCC 1:3:6 40mm agg.12mm cement plaster 1:4. Inside dim.450x450 mm C.I. cover with frame	2.00	Each			

iv	Const. Brick masonry inspection chamber in CM1:5, RC top slab with 1:2:4 20mm agg. fdn. PCC 1:3:6 40mm agg. 12mm CP 1:3 finished with floating coat & making channels in PCC 1:2:4. Inside dim. 600x600 mm incl. C.I. cover with frame	1.00	Each			
v	Constructing Septic Tanks, in R.R Masonry in cement mortar 1:6, including fittings, C.I cover with frame, 40mm thick concrete flooring (40mm aggregates) cement plaster concrete base in C.C 1:4:8 etc. complete as per standard design-50 user	1.00	Each			



vi	Constructing Soak Pit Size 2500 dia. x 3000mm depth including 450x450mm dry brick honeycomb shaft	1.00	Each			
vii	Providing and fixing of 2 nos. MS grating and applying priming coat of red lead paint in front of drop-off platform- 75x75x8mm ms angle and 50x 8mm flats	1,387.20	kgs			
<b>15. Boudry Wall</b>						
i	Excavation in foundation trenches & drains including dressing & ramming, disposal of surplus soil within 50m lead, all levels. All types of soil, rock with or without blasting. All types of soil and rocks.	68.40	cum			
ii	Providing and laying 100mm thick Hand packed stone filling or soling with stones.-under RRM wall	8.55	cum			
iii	Providing and laying 75mm thick PCC 1:3:6 under floors, aggregate 20mm	6.41	cum			
iv	Providing & laying Random Rubble Masonry with hard stone in foundation & plinth in cement mortar 1:4 with tuck or beaded pointing	199.16	cum			
v	Providing and Steel work in single section including cutting, hoisting, fixing and applying priming coat of red lead paint. In Tees, angles and channels, etc	489.67	kgs			
vi	Providing, Laying and fixing of barbed wire for boundary work all complete as per drawing					
	i) barbed wire	565.01	m			
	ii) Concertina Barbed wire- measurement will be taken along the length of barbed wire	188.34	m			
vii	Providing & Fixing of ms sliding gate with roller accessories including necessary fitting all complete as per the Dwg- the plain round ms bar should be provided instead of ms angle for rolling wheel.	2.00	Each			
<b>16. Plumbing Works</b>						
i	P/F CPVC pipe incl fittings & repair walls 15mm	14.00	mtr			
ii	P/F CPVC pipe incl fittings & repair walls 20mm	11.00	mtr			
iii	P/F CPVC pipe incl fittings & repair walls 25mm	12.50	mtr			

iv	P/F GI pipe incl fittings & trenching, refilling-25mm	12.50	mtr			
v	Providing & fixing European-type vitreous china w.c pedestal including seat and lid with c.p brass hinges, 15 lit white vitreous china low level cistern, fittings, brackets, repair walls as approved by client Engineer	2.00	Each			
vi	Providing & fixing white vitreous china wash basin(630*450mm), including C.I brackets, 15mm C.P. brass pillar taps, c.p. chain & rubber plug, 32mm pvc waste, 32mm dia. trap & union, repair walls as approved by client Engineer	2.00	Each			
vii	Providing & fixing Kitchen Sinks including all connections and fittings Stainless steel, 940 x 460 x 160 mm, single bowl & drain-board as approved by client Engineer	1.00	Each			
viii	P/F CP brass stop cock 15mm, concealed	3.00	Each			
ix	P/F CP brass stop cock 15mm, angular, concealed	6.00	Each			
x	P/F CP brass showere fitting,bibcock 15mm long body CP knob	3.00	Each			
xi	Providing & fixing c.p. brass mixers, 15mm for wash basin	10.00	Each			
xii	Providing & fixing c.p. brass mixers, 15mm for sink	1.00	Each			
xiii	P/F toilet paper holder C.P. brass heavy duty	2.00	Each			
xiv	Providing & fixing 1200x600mm bevelled edge mirror (superior glass) incl.4mm plywood base fixed to wooden cleats with champ wood bead 30mmx40mm as approved by client Engineer	2.00	Each			
xv	Providing & fixing c.p. towel rail 750 x 20mm with c.p brass brackets fixed to wooden cleats	1.00	Each			
xvi	P/F soap dish, CP brass heavy duty including brass screws, cleats complete	3.00	Each			

xvii	Provide and fix CP grating 100mm, with hole for waste pipe	2.00	Each			
xviii	P/F brass stop cock 25mm	1.00	Each			
<b>17. Sanitary works</b>						
i	Providing & fixing P.V.C waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 50mm dia	3.50	mtr			
ii	Providing & fixing P.V.C waste pipes, single or double socketed in floors, (excluding the cost of PVC fittings) - 75mm dia	6.00	mtr			
iii	Providing & fixing P.V.C soil waste and vent pipes, single or double socketed, including pipe clip and repair walls complete (excluding the cost of PVC fittings) - 110mm dia	6.00	mtr			
iv	Providing and fixing PVC Nahni / Multi Floor trap 100x75mm (one , two or three way)	3.00	each			
v	Providing & fixing P.V.C plain bend - 110mm dia	2.00	Each			
vi	Providing & fixing P.V.C plain bend - 75mm dia	2.00	Each			
vii	Providing & fixing P.V.C door bend - 110mm dia	4.00	Each			
viii	Providing & fixing P.V.C door bend - 75mm dia	4.00	Each			
ix	Providing & fixing P.V.C Single Tee with door - 110mm dia	4.00	Each			
x	Providing & fixing P.V.C Single Tee with door - 75mm dia	4.00	Each			
xi	Providing & fixing P.V.C plain Tee - 75mm dia	4.00	Each			
xii	Providing & fixing P.V.C Double Y, with door-110mm	2.00	Each			

xiii	Providing & fixing P.V.C Double Y, with door-75mm	2.00	Each			
xiv	Providing & fixing PVC vent cowl-110mm dia	2.00	Each			
xv	Providing and fixing PVC storage tank including all accessories complete-2000 lit capacity	2.00	Each			
xvi	Providing & fixing water pump 2Hp kiloskar make including all accessories and locking facilities with steel chamber etc. as per the instruction of the client	1.00	Each			
<b>Total (Civil Works)</b>						

**Name of the Work: Construction of TICL Regional Office at PhuntshoLing- Electrical**

Sl. No.	Item Descriptions	Unit	Qty	Rate		Amount
				In Figure	In Words	
<b>A</b>	<b>Switch Gears, DBs &amp; Busbar chamber</b>					
1	Supplying, installation, testing & commissioning of pre-fabricated MS busbar chamber with copper busbar complete with all accessories etc. as required; 4 strips, 300mm bar, 200A	No.	1			
2	Supplying & Installation, testing & commissioning of panel moulded case circuit breaker (MCCB) with electronic release, breaking capacity 36KA, 3 pole 415 volt A.C complete with all accessories etc. as required; 250A	No.	1			
3	Supply & Installation, testing & commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din bar etc. as required; 10A	No.	25			
4	Supply & Installation, testing & commissioning of miniature circuit breaker (MCB) single pole, 230 volt A.C complete with all accessories suitable to fix on a din bar etc. as required; 16A	No.	31			
5	Supply & Installation, testing & commissioning of residual current circuit breaker (RCCB) 4 pole, sensitivity 30mA, 415 volt A.C complete with all accessories suitable to to fix on a din-bar etc. as required;63A	No.	4			
6	Supply & Installation, testing & commissioning of miniature circuit breaker (MCB) double pole, 230 volt A.C complete with all accessories suitable to fix on a din bar etc. as required; 16A	No.	1			
7	Supply & fixing of TPN distribution board (DIN type, horizontal/Vertical) with metal door, 415 volt A.C complete with all accessories without MCB/isolator/RCCB out going or incoming etc. as required					

8	TPN DB 12 ways	No.	1			
9	TPN DB 8 ways	No.	1			
10	TPN DB 6 ways	No.	1			
11	TPN DB 4 ways	No.	2			
B	<b>Supplying &amp; fixing of metal boxes for switch/socket outlet/switch socket combined/ gang switches, recessed in walls including painting etc as required</b>					
12	1 Module	No.	2			
13	2 Module	No.	2			
14	3 Module	No.	2			
15	4 Module	No.	5			
16	6 Module	No.	17			

17	8 Module	No.	1			
18	12 Module	No.	3			
C	<b>Supplying &amp; fixing of plates &amp; frame for switch/socket outlet/switch socket combined/ gang switches, etc as required</b>					
19	Plate 1-module with frame	No.	2			
20	Plate 2-module with frame	No.	2			
21	Plate 3-module with frame	No.	2			
22	Plate 4-module with frame	No.	5			
23	Plate 6-module with frame	No.	17			
24	Plate 8-module with frame	No.	1			
25	Plate 12-module with frame	No.	3			

<b>D</b>	<b>Supplying &amp; fixing of 6A switch on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc. as required;</b>					
26	6A switch SP 1-way	No.	148			
27	6A switch SP 2-way	No.	2			
28	Supplying & fixing of socket/regulator on existing metal box with fibre sheet cover (recessed or surface) including necessary cutting, connection testing etc. as required; Dimmer / regulator (100W)	No.	13			
29	Supplying & fixing of switch/socket on existing metal box with fibre sheet cover (recessed or surface), including necessary cutting, connection testing etc. 5/6 pin, 6/16A socket outlet, with shutter	No.	31			
30	Ceiling Rose, 2 plate (PVC) 6A	No.	16			
31	3Phase PowerPoint	No	1			
<b>E</b>	<b>Luminaries &amp; Fans</b>					
32	Supplying, installation, testing & commissioning of ceiling fan 240 volt A.C 1400 rpm with all accessories such as down rod, sweep 3 Nos.,canopy 2 Nos. condenser and fan body etc. complete as required; 1400mm sweep	No	13			



33	Supplying, installation, testing & commissioning of exhaust fan 240 volt A.C 900 rpm with all accessories such as frame with arm 3 Nos., sweep 3 Nos., condenser and fan body etc. complete as required; 300mm sweep	No	3			
34	Supplying & fixing of Aluminium louvers for exhaust fan complete all accessories as required; 300mm sweep	No	3			
35	Supplying & fixing of prewired indoor recessed ceiling mounted Square sleek panel LED luminaires of 3000/4000/6000k, complete with all accessories with necessary testing & commissioning & cutting & painting as required; 42W (2ftx2ft)	No	135			
<b>F</b>	Provide & Draw Multistrand 1.1KV grade PVC insulated copper conductor cable in existing conduit (any types of conduit)					
36	1 sq.mm	m	675.05			
37	2X1.5 sq.mm	m	1201.99			
38	2X2.5 sq.mm	m	656.15			
39	2X4 sq.mm	m	675.05			
40	Supplying of 2- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables; 2.5 sq.mm	m	15			
41	Supplying of 4- Core 1.1KV grade PVC insulated and sheathed Aluminium conductor armoured power cables					

42	6 sq.mm	m	271			
43	10 sq.mm	m	15			
44	16 sq.mm	m	15			
45	50 sq.mm	m	50			
46	Laying of one number PVC insulated and sheathed power cable copper/aluminium,armoured/un-armoured 1.1KV single core to four core direct in the ground including excavation, sand cushioning, protective covering and refilling the trenches etc. as required					
47	6 sq.mm	m	271			
48	10 sq.mm	m	15			
49	16 sq.mm	m	15			
50	50 sq.mm	m	50			
<b>G</b>	<b>HDPE Pipe pressure class 4kg/sq.cm</b>					
51	Supplying and fixing of HDPE pipe on recessed including all accessories such as screws, bends,elbows, Tees, corners, etc. complete as required 25 mm	m	692.54			
<b>H</b>	<b>Compound Lighting</b>					

52	Supplying & fixing & testing of prewired post top lantern lighting suitable for LED lamps (3000/4000/6000k) with self ballasted lamp luminaires housing of cast aluminium 50/60/80mm OD, double conical /elliptical/spherical/similar HDP cover (with lamp holders, copper wound ballast, condenser, terminal block etc. but without lamp, suitable for compound/lawns or outdoor lighting; 60 W (BC/ES)	No	4			
<b>I</b>	<b>Street Lighting</b>					
53	Supplying, fixing, testing & commissioning of prewired outdoor LED street light luminaires with 3000/4000/6000K, complete with all accessories; 70W	No	4			
54	Supplying of Swaged type Street Light Steel Tubular Pole (410 MPa) with base plate 250x250x5.4mm, entry hole of 40mm dia 1.1m from bottom and strude bolt as earth terminal complete as required; 11 m, 141kg	Set	4			
55	Supplying & fixing of pole cap with arm 1.1m long having inner pole & outer tightened bolt etc. complete as required for the top section of street light pole; Single arm	Set	4			
56	Supplying & fixing of junction box fabricated with 14SWG MS sheet, removal cover plate with gasket for dust and vermine proof, 2 earthing terminals with nut, bolts and spring washer, 2 entry holes 16mm dia at bottom, 32mm dia for cable entry at back , including 4 way terminal block & HRC fuse unit with fuse of 6A with locking arrangement and finish coat painting complete with all accessories as required as per standard drawing; MS junction box out door duty	EA	4			

57	Erection of swaged type street light steel tubular pole 5.5/8.5/9/11 m length with 40mm dia MS sleeve as inlet of power cable in cement concrete 1:3:6, 40mm stone aggregate foundation with cement concrete base 0.47mx0.47mx75mm thick 1:4:8 including excavation, centering & shuttering, and refilling,providing props for pole etc. complete as required	each	4			
<b>J</b>	<b>Earthing</b>					
58	Providing and fixing of earthing including all accessories, machinery enclosure, C.I cover plate having locking arrangement, watering pipe with excavation and refilling work including charcoal or coke and salt complete as required as per standard earthing drawing; With copper earth plate 600x600x3mm	each	1			
	<b>Total Amount for Electrical Works(Nu)</b>					
	<b>Grand Total ( Civil + Electrical)</b>					