

Name of Work:- Development of sports facilities at Kandi campus of IIT Hyderabad.

SH : Construction of Shed to accommodate indoor Badminton and Table Tennis games near eastern side of boy's hostel at proposed land for Permanent Campus of IITH at Kandi.

SCHEDULE OF QUANTITIES

SI No	Description of Item	Unit	Qty	Rate in Rupees		Amount (Rs.)
				In Figures (Rs.)	In Words (Rs.)	
	<u>SH :-Earth Work</u>					
1.1)	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.					
1.1.1)	All kinds of soil	Cum	312			
1.2)	Filling available excavated earth (excluding rock) in trenches, plinth,sides of foundations etc. in layers not exceeding 20cm in depth,consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	420.00			
	<u>SH :-Concrete Work</u>					
2.0)	Centering and shuttering including strutting, propping etc. and removal of form work for :					
2.1)	Foundations, footings, bases for columns	Sqm	154			
3.0)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
3.1)	1:4:8 (1 cement : 4 coarse sand (Zone-III) : 8 Grade stone aggregate 40 mm nominal size)	Cum	52			
4.0)	Providing and fixing up to floor five level precast cement concrete solid block, including hoisting and setting in position with cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering complete :					
4.1)	1:1 1/2:3 (1 cement : 1 1/2 coarse sand (Zone-III): 3 graded stone aggregate 20 mm nominal size)	Cum	70			
	Upto Plinth Level.					
	above plinth level					
	For steps					
	<u>SH :-RCC Work</u>					
5.0)	Centering and shuttering including strutting, propping etc. and removal of form work for :					

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5.1)	Columns, Pillars, Piers, Abutments, Posts and Struts.	Sqm	228			
	Upto Plinth Level.					
	above plinth level					
5.2)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	Sqm	96			
6.0)	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :					
6.1)	1:1.5 :3 (1 cement : 1 coarse sand : 1.5 coarse sand (Zone-III) : 3 graded stone aggregate 20 mm nominal size)	Cum	128			
	RCC Footings					
	RCC Columns Upto Plinth Level.					
	RCC beams upto plinth level					
6.2)	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :					
6.2.1)	1:1.5 :3 (1 cement : 1 coarse sand : 1.5 coarse sand (Zone-III) : 3 graded stone aggregate 20 mm nominal size)					
	Columns above Plinth	Cum	13			
7.0)	reinforcement of R.C.C. work including sraighttning, cutting, bending, placing in position and binding all complete.					
7.1)	Thermo-Mechanically Treated bars.	Kg	16755			

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8.0)	<u>SH: FINISHING</u>					
8.1)	12mm Cement Plaster finished with a floating coat of neat cement of mix :					
	1:3 (1 cement: 3 fine sand)	Sqm	64			
8.2)	15mm cement plaster on rough side of single or half brick wall of mix					
	1:4 (1 cement: 4 fine sand)	Sqm	329			
8.3)	12mm cement plaster of mix					
	1:4 (1 cement: 4 fine sand)	Sqm	329.00			
9.0)	Finishing walls with water proofing cement paint of required shade :					
9.1)	New work (Two or more coats applied @ 3.84 kg/10 sqm) sqm 57.85	Sqm	329.00			
10.0)	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.					
	Hot finished welded type tubes	Kgs	24391			
11.0)	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling / self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	1161			

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12.0)	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.					
	Using M.S. angels 40x40x6 mm for diagonal braces	Sqm	24.00			
13.0)	Providing and fixing 15 cm wide, 45 cm overall semi-circular plain G.S.sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc., including making necessary connections with rain water pipescomplete.					
	0.80 mm thick with zinc coating not less than 275 gm/m ²	Metre	51.00			
14.0)	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.					
	25mm dia HS bolts for fixing of vertical post	Kgs	168.00			
15.0)	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying priming coat of approved steel primer all complete.					
	16mm thick base plate	Kgs	563			
16.0)	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					

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	Hard drawn steel wire fabric	Kgs	298			
17.0)	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :					
17.1)	Providing and fixing powder coated aluminium sections (63.4 mm x 38.1 mm x 2.00 MM thick (minimum thickness of powder coating 50 microns).	Kgs	391			
18.0)	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge.					
	With float glass panes of 5.50 mm thickness	Sqm	102			
19.0)	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.					
	0.63 mm thick with zinc coating not less than 275 gm/m ²	Sqm	25.00			
20.0)	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	365.00			
21.0)	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					

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	1:4:8 (1 cement : 4 coarse sand (Zone-III) : 8 Grade stone aggregate 40 mm nominal size)	Cum	37.00			
22.0)	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in charge).	Cum	5			
23.0)	Construction of cement concrete drain 30cm wide and 23cm deep in cement concrete 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) 10cm thick on sides and bottom and plastering on all exposed surfaces with 12mm thick cement mortar 1:3 including shuttering complete.	Per Meter	159.00			
Sub Total Amount of SH-1						

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SH-2: SERVICES						
	Internal Electrical Installations					
SH-01	WIRING:					
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.					
1.1.1	Group C	Point	6.00			
1.2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.					
1.2.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Meter	1180.00			
1.2.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Meter	490.00			
1.2.3	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Meter	36.00			
1.2.4	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Meter	36.00			
1.3	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
1.3.1	5/6 A switch	Each	56.00			
1.3.2	15/16 A switch	Each	8.00			
1.3.3	3 pin 5/6 A socket outlet	Each	16.00			
1.3.4	6 pin 15/16 A socket outlet	Each	8.00			
1.4	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	20.00			

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1.5	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in surface/recess etc. as required.					
1.5.1	8 Module (125 mmX125 mm)	Each	8.00			
1.5.2	12 Module (200 mmX150 mm)	Each	4.00			
1.6	Supply, Installation, testing and commissioning of 30W LED Floodlight Luminaire with high pressure die cast housing and IP66 Protection of Surface panel , complete with all accessories etc. connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing directly on ceiling/ wall, including etc. as required.(Similar to Make: Bajaj, Model: BJFL 30W LED. Type: Surface panel)	Each	6.00			
1.7	Supply, Installation, testing and commissioning of 80W Mid Bay Light LED pre-wired, LED light , complete with all accessories etc. connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing directly on ceiling/ wall, including etc. as required.(Similar to Make: Bajaj, Model: BTS 80W WH LED. Type: Suspended down panel)	Each	39.00			
1.8	Supply, Installation, testing and commissioning of 60W LED Floodlight Luminaire with high pressure die cast housing and IP66 Protection of Surface panel , complete with all accessories etc. connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing directly on ceiling/ wall, including etc. as required.(Similar to Make: Bajaj, Model: BJFL 60W LED. Type: Surface panel)	Each	8.00			
SH-02	MCCB, MCB & DB'S:					
2.1	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.					
2.1.1	125 A, 36kA, FPMCCB	Each	1.00			
2.2	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					

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2.2.1	4 way (4 + 12), Double door	Each	2.00			
2.3	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A, tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCCBs and incomer) as required.					
2.3.1	8 way (4 + 24), Double door	Each	1.00			
2.4	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
2.4.1	Single pole	Each	24.00			
2.5	Supplying and fixing following rating, four pole, (three phase and neutral), 415 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
2.5.1	40 A	Each	1.00			
2.6	Supplying and fixing following rating, 3 pole, 415 V, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following current rating in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
2.6.1	63 A MCB	Each	8.00			
2.7	Supplying and fixing following rating, four pole, 415 V, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following current rating in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
2.7.1	63 A MCB	Each	4.00			
External Service Connections						
Sub-Head I (MV CABLE)						
1	Supply, loading, transportation, unloading at site, storage at site, shifting from storage place to site of following size of XLPE Insulated PVC Sheathed, FRLS, Aluminium Conductor armoured power cable of 1.1 KV grade conforming to IS amended upto date and as per specifications					

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1.1	3.5 C x 95 sqmm	Meter	415.00			
Sub-Head II (MV CABLE LAYING & END TERMINATION)						
2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc. as required.					
2.1	Above 35 sq. mm and upto 95 sq. mm	Meter	415.00			
3	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 kV grade as required.					
3.1	3½ X 95 sq. mm (45 mm)	Each	2			
Sub Total Amount of SH-2						
TOTAL AMOUNT IN RUPEES (SH-1) + (SH-2)						
SIGNATURE WITH SEAL OF CONTRACTOR						