## Name of work: Renovation of Bhupen Hazarika Hostel (Teachers Flat) at NIT Silchar. Execution Method: Through Agency. Completion period: 60 days. CR:

OM:

## **Schedule of Rate**

SI. No.	Description of Item	Unit	Quantity
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. All kind of soil	Cum	20.00
2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	Cum	5.00
3	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	Cum	3.00
4	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sq. metres and below	Each	15.00
5	Grading roof for water proofing treatment with Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Cum	10.00
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:		
	1:1½:3 (1 Cement: 1½ coarse sand: 3 graded stone aggregate 20 mm nominal size)	Cum	5.00
	1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size)	Cum	3.00
7	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	Cum	4.00
8	Centering and shuttering including strutting, propping etc. and removal of form for all heights: Foundations, footings, bases of columns, etc. for mass concrete	Sqm	25.00
9	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	15.00
10	Centering and shuttering including strutting, propping etc. and removal of form for : Weather shade, Chajjas, corbels etc., including edges	Sqm	70.00
11	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above. Thermo-Mechanically Treated bars of grade Fe-500 D or more.	Kg	500.00
12	Providing and fixing sheet covering over expansion joints with iron screws as per design. Aluminium fluted strips 3.15 mm thick. 200 mm wide	Rmt	80.00
13	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	5.00

SI.	Description of Item	[	
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14	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	80.00
15	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to steel windows by welding	Kg	500.00
16	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Sal wood	Cum	0.50
17	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters: 30 mm thick including ISI marked Stainless Steel butt hinges with	Sqm	20.00
18	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete. 300 mm weighing not less than 200 gms	Each	60.00
19	Supplying, fitting, fixing anodised aluminium fittings of approved make, resonably smooth, free from sharp edges and corners, flaws and other defects and with counter sunk holes for screws including necessary aluminium screws etc. complete.( anodised to bright natural matt & satin finished )		
	a) Sliding door bolts - 300x16 mm	each	25.00
	b) Tower bolts - 250x10 mm	each	25.00
	c) Tower bolts 150mm x 10mm	each	25.00
	d) Door handles iii) 125mm	each	25.00
20	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	400.00
21	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 ( thickness to be specified by the manufacturer ) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-charge in skiriting, risers of steps and dados over 12mm thick bed of cement mortar 1 : 3 ( 1 cement : 3 fine sand ) and jointing with grey cement slurry @ 3.3 kg per sqm including pointing in white cement mixed with pigment of	Sqm	75.00
22	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS: 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.		
	75 mm diameter	Rmt	20.00
	110 mm diameter	Rmt	30.00
	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS: 5382, leaving 10 mm gap for thermal expansion		
	(a) Coupler	Each	2.00
	75 mm diameter	Each	3.00

SI. No.	Description of Item	Unit	Quantity
	110 mm diameter	Each	3.00
23	(b) Single tee with door		
	75x75x75 mm	Each	3.00
	110x110x110 mm	Each	3.00
	(c) Single tee without door		
	75x75x75 mm	Each	3.00
	110x110x110 mm	Each	3.00
	(d) Bend 87.5°		
	75 mm diameter	Each	3.00
	110 mm diameter	Each	3.00
24	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete		
	75mm	Each	10.00
1	110mm	Each	15.00
25	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix : 1 : 4 ( 1 cement : 4 fine sand )	Sqm	100.00
26	Neat cement punning.	Sqm	20.00
27	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge. With cement mortar 1:4 (1cement: 4 coarse sand)	Sqm	150.00
28	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	Sqm	4320.00
29	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface : Water thinnable cement primer	Sqm	4320.00
30	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade: Old work (one or more coats)	Sqm	2150.00
31	Finishing walls with Acrylic Smooth exterior paint of required shade: Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	Sqm	2170.00
32	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work	Sqm	300.00
33	Applying priming coat: With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	Sqm	100.00
34	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	Sqm	60.00
35	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	Sqm	100.00
36	Re-lettering with black Japan paint of approved brand and manufacture	Per letter per cm height	350.00

SI. No.	Description of Item	Unit	Quantity
37	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	Sqm	100.00
38	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes within 50 metres lead as per direction of Engineer- in-Charge. (a) Internal Work - Exposed on wall	Rmt	171.00
39	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge	Each	5.00
40	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS: 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required: White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	Each	6.00
41	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Circular shape 450 mm dia	Each	12.00
42	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall		
	15 mm nominal outer dia Pipes	Rmt	5.00
	20 mm nominal outer dia Pipes	Rmt	92.00
	25 mm nominal outer dia Pipes	Rmt	40.00
	32 mm nominal outer dia Pipes	Rmt	30.00
	40 mm nominal outer dia Pipes	Rmt	60.00
43	50 mm nominal outer dia Pipes  Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Rmt Each	30.00

SI. No.	Description of Item	Unit	Quantity
44	Providing and fixing PVC Door Frame of size 50x47 mm with a wall thickness of 5 mm (± 0.2 mm), made out of single piece extruded PVC profile, with mitred cut joints and joint with 2 nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15 mm & self driven self taping screws, the vertical door profiles to be reinforced with 40x20 mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5 mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100 mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	Meter	25.00
45	30 mm thick factory made Polyvinyl Chloride (PVC) door shutter made of styles and rails of a uPVC hollow section of size 60x30 mm and wall thickness 2 mm (± 0.2 mm), with inbuilt decorative moulding edging on one side. The styles and rails mitred and joint at the corners by means of M.S. galvanised/plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25x20 mm and 1mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x30 mm and 2 mm (± 0.2 mm) wall thickness fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge.	Sqm	10.00
47	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty: Float glass panes of thickness 4 mm	Sqm	35.00
48	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	Each	5.00
49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931:15 mm nominal bore	Each	18.00
50	Providing and fixing brass stop cock of approved quality: 15 mm nominal bore	Each	18.00
51	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used. With G.I. barbed wire	Rmt	950.00

SI.	Description of Item		
No.	Description of Item	Unit	Quantity
52	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., Kitchen and the like consisting of: i) Ist course of applying cement slurry @ 4.4 Kg / sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. ii) IInd course of 20 mm cement plaster 1:3 (1 cement:3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg per sqm of area. iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each	Sqm	25.00
<b>ELECT</b>	RICAL WORK		
53	Wiring for light/ fan/ call bell point with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 6 Amp flush type switch/ bell push (Anchor Penta/Gold medal /Kolor kany.Kom/ Havells or equivalent make as approved by the Deptt.) GI/ MS switch board (ISI marked) half conceal on wall with phenolic laminated sheet cover ,ceiling rose (Anchor/Gold medal /Kolor kany.Kom / Havells or equivalent make as approved by the Deptt.) etc. complete as directed and specified by the Deptt.		
	Short point up to 3.00 metre. length.	Each	12
	Medium point up to 6.00 metre. Length.	Each	
54	Long point up to 10.00 metre. Length.  Wiring for drawing sub-main line with P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface flat ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system including earth continuity.	Each	15
а	With 2 x 2.5 sq. mm. + earth continuity with 1x2.5 sq. mm. cable in flat 19 mm ISI marked casing 'n' capping system.	Meter	80
b	With 2 x 4 sq. mm. + earth continuity with 1x2.5 sq. mm.	Metre	110
55	cable in flat 19 mm ISI marked casing 'n' capping system. Wiring for drawing sub-main line with P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) in surface with flat ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) system including earth continuity.		

SI.	Description of Item	Unit	Quantity
No.	·	Unit	Quantity
	Supplying and fixing of 6 Amps Switch/Socket flush type		
	(Anchor Penta PC CHERRY /Gold medal /Kolor		
56	kany.kom/Havells or equivalent make as approved by the	Each	374
	Deptt.) on the existing PVC/ MS board including connection as		
	approved by the Deptt.)complete as required.		
	Supplying and fixing of 6 Amps Switch/Socket flush type		
	(Anchor Penta PC CHERRY /Gold medal /Kolor		400
57	kany.kom/Havells or equivalent make as approved by the	Each	108
	Deptt.) on the existing PVC/ MS board including connection as		
	approved by the Deptt.)complete as required.		
	Supplying and fixing of 16 Amps Switch/Socket flush type		
	(Anchor Penta PC CHERRY /Gold medal /Kolor		2.2
58	kany.kom/Havells or equivalent make as approved by the	Each	23
	Deptt.) on the existing PVC/ MS board including connection as		
	approved by the Deptt.)complete as required.		
	Supplying and fixing of 16 Amps Switch/Socket flush type		
F0	(Anchor Penta PC CHERRY /Gold medal /Kolor	F	2.4
59	kany.kom/Havells or equivalent make as approved by the	Each	24
	Deptt.) on the existing PVC/ MS board including connection as		
	approved by the Deptt.)complete as required.  Supplying and fixing of batten holder (Anchor Penta PC CHERRY		
	/Gold medal /Kolor kany.kom/Havells or equivalent make as		
60	approved by the Deptt.) including connection as approved by	Each	128
	the Deptt. las required Without Lamp		
	Supplying with fitting and fixing SPN 10 KA 240/415V 50Hz		
61	MCB of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.B		
01	Series		
	(Schneider MG, legrand, Hager, make)		
a	63A	Each	16
	Supplying with fitting and fixing single Pole 10 KA 240/415V		
	50Hz MCB of the following capacity complete with making necessary connection as approved, specified and directed by		
	the deptt.B Series		
62	(Schneider MG, legrand, Hager, make)		
а	6 to 32 A	Each	33
	Supplying with fitting and fixing sheet steel, phosphatised, powder painted Single door surface mounting MCB enclosure		
	incorporated with bas-bar, Neutral link, Earth bar and din rail		
63	etc fitted on wall with grouting nuts & bolts as reqd. complete		
	with making necessary connection as approved, specified and		
	directed by the deptt. ABB, Schneider MG, legrand, Hager		
a	2 way single door	Each	12
u	Supplying with fitting and fixing sheet steel, phosphatised,		- <del>-</del>
	powder painted Single door surface mounting MCB DB		
	incorporated with bas-bar, Neutral link, Earth bar and din rail		
64	etc fitted on wall with grouting nuts & bolts as reqd. complete		
	with making necessary connection as approved, specified and directed by the deptt. Schneider neo break, C&S, Havells,		
	INDOASIAN, HPL or equivalent as approved by the		
	Dontt Imako)		
a	8 way SPN single door	Each	4

SI. No.	Description of Item	Unit	Quantity
	Supplying with fitting and fixing sheet steel, phosphatised, powder painted Single door surface mounting MCCB enclosure of the following rating MCCB fitted on wall with grouting nuts & bolts as reqd. complete with making necessary connection as approved, specified and directed by the deptt. ABB, Schneider MG, legrand, Hager make) for 100A 3P/4P MCCB	Each	3
66	Supplying with fitting and fixing panel mounting open execution 25KA 415V 50Hz 4P MCCB (Ics=Icu, adjustable Ir setting 0.7) without enclosure) of the following capacity complete with making necessary connection as approved, specified and directed by the deptt.25 KA 415V 50 Hz 4P MCCB. (Schneider, legrand, Siemens, Indo Asian make)100A	Each	3
67	Supplying including fitting and fixing bus bar chamber (HPL/GECO / or equivalent make) with 4 strips bus bar of length 350/450/600/900 mm made of aluminium alloy or wrought aluminium suitable for 100 amp capacity complete with all accessories including connection etc. as required complete	Each	3
68	Installation, testing and commissioning of pre-cabled fluorescent fitting of all types, complete with all accessories and LED tubes/bulbs etc. directly on ceiling/wall /angle holder including connection as approved by the Deptt.)with 1.5 sq mm PVC insulated copper cables as required.	Each	215

Total Estimated Cost: Rs. 22,44,969.00 over DSR 2016 with 55.88% cost Index and 1% labour cess (for Civil work) & APWD SOR 2013-14 with 49.02% cost index after adjusted VAT @ 5% & 1% labour cess (for Electrical work).

Quoted Rate in percentage (%) over estimated cost (In word & fig)	
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