## Tamil Nadu Police Housing Corporation Limited (A Government of Tamil Nadu Undertaking) (An ISO 9001: 2015 Certified company)



No. 132, E. V. R. Salai, Kilpauk, Chennai – 600 010 Email: tnphcl@tn.gov.in Ph: 044-2836 4755

Lr. No. CE / Plg/Renovation of MIDS Chennai/2023 Dated: 31.08.2023

To

The Director,
Madras Institute of Development Studies,
No-79, Second Main Road,
Gandhi Nagar, Adyar,
Chennai – 600020.

Sir,

**Sub:** TNPHC – Plg – H.O – Retrofitting, Repairing and Renovating the Madras Institute of Development Studies Building at Adyar in Chennai city – Revised Estimate proposal – Furnished – Approval requested - Regarding.

**Ref:** The Officiating Director/ Madras Institute of Development Studies, Chennai, Lr.No. MIDS/Admn.,/TNPHC/142/2023, dtd: 14.08.2023.

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With reference to the above ref. cited, the TNPHC higher officials have inspected the building of Madras Institute of Development Studies (MIDS) and submitted the revised estimate proposal for Retrofitting, Repairing and Renovating the Madras Institute of Development Studies (MIDS) Building at Adyar in Chennai city.

- 2. Accordingly, the estimate is prepared based on the PWD SR rates for the year 2023-24 rates. The Estimate value works out to ₹ 1,20,00,000/- including GST at 18%, Labour Welfare Fund at 1%, Contingencies @ 2.5%, supervision charges @ 7.5% and overhead charges.
- 3. It is informed that the Tamil Nadu Police Housing Corporation is willing to execute the work with the supervision charges @ 7.5%.
- 4. The total estimate value shall be deposited to the TNPHC before commencement of the work.

5. The payment shall be released in the form of crossed Cheque or Demand Draft in favour of "Tamil Nadu Police Housing Corporation Limited".

6. Hence, it is requested that your acceptance may be communicated to us for taking further necessary action.

Encl: As above.

Chief Engineer

## TAMIL NADU POLICE HOUSING CORPORAION LTD.

Name of work: Retrofitting, repairing & renovating the Madras Institute of Development Studies building at Adyar in Chennai City.

## **ABSTRACT**

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
1	20.30	Removing the damaged AC sheet roof sheets including cost of Galvalume sheet, J bolts and nuts, bitumen washers etc, and labour for removing and refixing the sheets etc all complete as directed by the departmental officers.	17.66	m <sup>2</sup>	358.50
2	40.00	Supplying and fixing of Galvalume Colour Sheet of size 0.47mm including cost of sheet, bolts, bitumen washers etc complete as directed by the departmental officers.	1048.56	m <sup>2</sup>	41,942.40
3	246.10	Clean removal of the old cement plastering both inside and outside from the existing walls of brick masonry and racking out joints to 20mm deep without damaging the existing structure and surroundings and clearing the debris away from the site including cost of required tools and plant and necessary scaffolding if necessary etc., all complete in all respect and as directed by the departmental officers.	11.22	m <sup>2</sup>	2,761.24
4	354.10	Plastering with CM 1:4 (one of cement and four of sand) 12mm thick finished with neat cement including providing band cornice, ceiling cornice, curing, scaffolding etc complete in all respects and complying with standard specifications.	279.20	m <sup>2</sup>	98,864.72
5	370.00	Applying Three coats of exterior grade cement based special wall putty to finish all the visible surfaces of the column including all cornices and column pedestal and as directed by the departmental officers	305.95	m <sup>2</sup>	1,13,201.50
6	110.30	Special ceiling plastering in cement mortar 1:3 (One of cement and three of sand) 10mm thick for bottom of roof, stair, waist, landing and sunshades in all floors finished with neat cement including hacking the areas, providing band cornice, scaffolding, curing etc., complete	313.01	m <sup>2</sup>	34,525.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
7	51.10	Dismantling the damaged brick works of cement mortar in all floors without affecting	283.14	m <sup>3</sup>	14,468.45
		the adjacent structures including the cost of			-
-		required tools and plants and scaffolding, if			
		necessary and clearing the debris 2 km away			
		from the site etc., all complete and as directed			
		by the departmental officers			
8		Brick work in Cement Mortar 1:6 (One of			
		cement and six of sand) using Chamber			
		burnt bricks of size 9"x4½"X3"			
		(23x11.4x7.5cm) for super structure in the			
		following floors including labour for fixing			
		the doors, windows and ventilator frames in			
		position, fixing of hold fasts, scaffoldings,			
		curing etc., complete in all respect complying with relevant standard specifications and			
		drawings.			
	14.00	a. Ground Floor	6979.45	m <sup>3</sup>	97,712.30
	14.00	b. First Floor	7154.57	m <sup>3</sup>	1,00,163.98
	1.20	c. Second Floor	7329.69	m <sup>3</sup>	8,795.63
	6.30	d. Third Floor	7504.81	m <sup>3</sup>	47,280.30
9		Brick partition wall in Cement Mortar 1:4			
		(One of cement and four of sand) 114mm			
		thick for super structure in the following			
		floors using chamber burnt bricks of size			
		9"x41/2"x3" (23x11.4x7.5cm) including			
		labour for fixing the doors, windows and			
		ventilator frames in position, fixing of hold			
		fasts, scaffoldings, curing etc., complete in all			
		respect complying with relevant standard specifications and drawings			
	24.00	b. Ground Floor	890.89	m <sup>2</sup>	21,381.36
	24.00	c. First Floor	910.85	-	21,860.40
	24.00	d. Second Floor	930.81		22,339.44
	24.00	e. Third Floor	950.77	_	22,818.48
10	925.80	Dismantling the damaged pressed tiles and	45.98	-	42,568.28
		weathering Course in cement mortar without			
		affecting the adjacent structures in all floors			
		including the cost of required tools and plants		- 1	
		and clearing the debris away from the site			
		etc., all complete and as directed by the			
		departmental officers.			

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
11	0.90	Weathering Course with concrete broken brick jelly 20mm gauge in pure burnt lime stone slaked and screened (No Sand) over RCC Roof Slab with proportion of brick jelly to lime (fat lime) being 32: 12 1/2 by volume well beaten with wooden beaters for giving the required slope and thickness complying with relevant standard specification and as directed by the departmental officers.	4020.14	m <sup>3</sup>	3,618.13
12	10.00	Labour charges for removing the tree saplings / green grasses in terrace floor, water tank slabs, sunshades and side walls by cutting, removing and clearing the trees without affecting the adjacent structures and applying Reebaklens RR Fosrok chemical at dilution ratio 1:1 for avoiding future growth	1340.00	Job	13,400.00
		including the cost of required tools and plants and clearing the debris away from the site etc., all complete and as directed by the departmental officers.			
13		Providing precast concrete slab for cupboard ward robes shelves, cover slab for chambers, Baffle walls side slabs of boxing around windows and other similar works in cement concrete 1:2:4 (One of cement, two of sand and four of stone jelly) using hard broken stone jelly of size 10mm and less for the following thickness excluding the cost and fabrication of reinforcement grills but including precasting, moulding, curing, finishing and fixing in position complying with relevant standard specifications etc., complete in the following floors (Measurement will be taken including bearing in wall also)			
	1.70	II. 40mm thick in FF	1810.45		3,077.77
14	7.80	Dismantling the existing damaged RCC works without affecting the adjacent structures, including the hire charges of tools and plants, and scaffolding if necessary, and clearing the dismantled materials away from the site etc., all complete and as directed by the departmental officers.	4308.70	m <sup>3</sup>	33,607.86

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
15		Providing Form work and centering for reinforced cement concrete works including supports and strutting up to 3.30m height for plane surfaces as detailed below with all cross bracings using mild steel sheets of size 90cm x 60cm and MS 10 gauge stiffened with welded mild steel angles of size			
		25mmx25mmx3mm for boarding laid over silver oak or country wood joists of size 10cmx6.5cm spaced at about 90cm centre to centre and supported by casurina props 10cm to 13cm dia spaced at 75cm intervals and			×
		removing the same after a specified period without damaging the R.C.C works etc., complete complying with standard specification and as directed by the departmental officers.			
	128.20	b.Plain surfaces such as Roof slab, floor slab, Beams, lintels, lofts, sill slab, staircase waist, portico slab and other similar works	1027.42	m <sup>2</sup>	1,31,715.24
	5.70	c.For Square and rectangular columns and small quantities such as sunshade, parapet cum drops window boxiing, fin projection and other similar works.	1232.90	m <sup>2</sup>	7,027.53

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
16	Q.y.	Providing and laying in position, Standardised Concrete Mix M-30 Grade in a accordance with IS:456-2000 using 20mm and down graded hard broken granite stone- jelly for the all RCC items of works with minimum cement content of 400 Kg/m3 and maximum water cement ratio of 0.45, including admixture (plasticiser/super plasticiser) in recommended proportions as per IS:9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability with about (5.0 cum) 7730Kg of 20mm machine crushed stone jelly and with about (3.3 cum) 5156 Kg of 10-12mm machine crushed stone jelly and with about (4.79 cum) 7670Kg of sand (for making 10 cum) but excluding cost of reinforcement grill and fabricating charges, centering and shuttering and also including laying, vibrating with mechanical vibrators, finishing, curing etc., and providing fixtures like fan clamps in the RCC floor/roof slabs wherever necessary without claiming extra etc., complete complying with relevent standard specification and as directed by the	XX		
	1.00	departmental officers. The coarse and fine	0066.22	3	16 120 20
	1.80	GF	8966.33	m <sup>3</sup>	16,139.39
	1.80	FF	9226.04	444	16,606.87
	0.60	SF	9485.75	m <sup>3</sup>	5,691.45
	7.50	TF	9745.46	***	73,090.95
17	2.723	Supplying, fabricating and placing in position of Mild steel Grills/Ribbed Tor Steels for reinforcement for all floors including cost of binding wire, insulated with PVC, bending, tying etc., all complete and as directed by the departmental officers.	92055.30	MT	2,50,666.58
17(a)	2.723	Anticorrosive treatment for Steel	4865.50	MT	13,248.76
18	3.20	Plain cement concrete 1:2:4 (One of cement, two of sand and four of hard broken stone Jelly) for foundation using 20 mm gauge broken stone jelly inclusive of shoring, strutting and bailing out water wherever necessary ramming, curing etc., complete in all respects complying with relevant standard specifications and as directed by the Departmental officers.	6602.42	m <sup>3</sup>	21,127.74

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
19	213.80	Supplying and providing <b>petty iron works for Truss works</b> like replacing the bolts, nuts, gusset plates, cleats and any other damaged portion of the truss including cost of welding etc., conveyance charges of materials and labour charges for erection and hire charges for required tools and plants etc., all complete in all respects and as directed by the departmental officers.  (=51.15+10%+53)	109.27	Kg	23,361.93
19(a)	0.214	Anticorrosive treatment for Window grill	3067.00	MT	656.34
20	24.50	Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Windows of casement type (open) from the profile the size of outer frame 60mm x 58mm and shutter profile are reinforcement with GI/1mm 125GSM and 100% corrosion free, the profiles are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with over all the edges of frame and shutter the shutter will be provided with Espag multi power point locks and also it operates as handle. The corners and joints should be welded and cleaned. Radiations free pin headed plain or brown colour glass 4mm thick should be provided to the shutter and it should not allow leakage of water even at most ranging storms and should have key lockable action, security protective hinges, strong locking systems and as per size for arresting noise and energy loss. The connecting mechanism between sash and outer frame that enables opening of the window. The window should be fixed to the wall with 100% acking with screws and silicon packing all round the frames. The	7482.00		1,83,309.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
21	13.90	Supplying and fixing UPVC (Un-Plasticized Polyvinyl Chloride) Louvered Ventilators of from the profile the size of outer frame 60mm x 58mm and shutter profile size of 60 x 78mm both profiles are reinforced with GI/Imm 125GSM and 100% corrosion free, the profile are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with all over the edges of frame and shutter. The corners and joints should be welded and cleaned. Radiations pin headed glass 4mm thick should be provided in the louvers. The window should be fixed to the wall with 100% packing with screws and silicon packing all-round the frames. The ventilator should be got approved from the Executive Engineer before use on work	8106.00	m <sup>2</sup>	1,12,673.40
22	5.10	Labour charges for Removing the door /Window shutter or other similar joinery works without affecting the adjacent structures and refixing the same in position including labour charges for fixing the furniture fittings etc., all complete in all respect and as directed by the departmental officers	153.56	m <sup>2</sup>	783.16
23	23.70	Finishing the top of flooring with cement concrete 1:3 (One of cement and three of blue granite chips of size 10mm and below) 20 mm thick Ellispattern Flooring (No Sand) and surface rendered smooth including 150mm wide skirting, providing proper slopes, thread lining, curing etc complete in all floors complying with relevant standard specifications.	479.76	m <sup>2</sup>	11,370.31
24	68.40	Providing silicon sealant expansion joint treatment for the vertical wall, roof top sides using approved sealant material including labour charges etc, all complete and as directed by the departmental officers.  CER.No: 126/2021-22	145.00	m	9,918.00
25	1.00	Dismantling the existing damaged IWC and dismantling the lime concrete without damaging the existing structures etc., and removing the debris 2 km away from the site etc., all complete and as directed by the departmental officers.	2116.00	Nos	2,116.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
26	1.00	Supplying and fixing of Indian Water Closet white glazed (oriya type) of size 580 mm X 440 mm of approved make with ISI mark (to be got approved from EE before use) with P or S trap confirming to IS 2556 part 12,, including concrete filling the sunk portion with brick jelly lime concrete proportion of brick jelly to lime being 32:12½ by volume (32 cft of 20mm gauge brick jelly and 12½ cft of slaked lime) (No sand) and top 75mm thick brick jelly concrete in CC 1:8:16 (one of cement, eight of sand and sixteen of broken brick jelly) using 40mm size brick jelly including plastering the sides of sunk portion in Cm 1:3 (one of cement and three of sand) 12mm thick mixed with water proofing compound at 2Kg / m2 and top left rough to receive the floor plastering but including antisyphonage connection, one coat of bitumen for the sides, bottom and curing etc., complete in all floors.  (Other than ground floor)	5541.19	Nos	5,541.19
27		Supplying and fixing the following dia PVC (SWR) pipe with ISI mark confirming to IS 13952:1992- type 'B' for soil line with relevant specials confirming to IS 14735 including jointing with seal ring confirming to IS 5382 with leaving a gap about 10mm to allow thermal expansion, fixing the pipes into walls with necessary wooden plug, screws, holding wherever necessary and making good of the dismantled portion with necessary connections to sanitary fittings etc., complete in all respects and as directed by the departmental officers.			
	78.00	a) 110mm dia PVC SWR pipe including all required PVC specials etc., all complete.,	758.37	Rmt	59,152.86
	48.00	b) 75mm dia PVC SWR pipe including all required PVC specials etc., all complete.,	641.07	Rmt	30,771.36

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
28	1.40	Supplying and fixing of colour Ceramic Tiles Anti skid without corrugated design for flooring and other similar works (Best approved quality, colour and shade shall be got approved from the Executive Engineer before using) over cement mortor 1:3 (One of cement and three of sand) 20mm thick including fixing in position, cutting the tiles to the required size wherever necessary, pointing the joints with Grout (Tile joint filler), curing, finishing etc., all complete and as directed by the departmental officers. (The brand quality of tiles should be got approved from EE before use).	1283.35	m <sup>2</sup>	1,796.69
29	1.40	Dismantling the existing damaged flooring tiles & Glazed wall tiles without affecting the adjacent structures and cleaning the debris away from the site and etc., all complete and as directed by the departmental officers.	61.27	m <sup>2</sup>	85.78
30	144.90	Supplying and fixing of 110mm dia PVC SWR pipe with ISI mark confirming to IS 13952:1992- type 'A' for Rain water down fall pipe with relevant specials such as gratings, shoes, bends, offsets confirming to IS 14735 including jointing with seal ring confirming IS 5382 with leaving a gap about 10mm to allow thermal expansion with necessary clamps, teak wood plugs, etc., of approved quality and including fixing C.I. gratings at the junction of parapet and floor or roof slab etc., including finishing etc., complete complying with relevant standard specifications.	361.96	m	52,448.00
31	28.80	Supplying and fixing of 160mm dia PVC SWR pipe with ISI mark confirming to IS 13952:1992- type 'A' for Rain water down fall pipe with relevant specials such as gratings, shoes, bends, offsets confirming to IS 14735 including jointing with seal ring confirming IS 5382 with leaving a gap about 10mm to allow thermal expansion with necessary clamps, teak wood plugs, etc., of approved quality and including fixing C.I. gratings at the junction of parapet and floor or roof slab etc., including finishing etc., complete complying with relevant standard specifications.	691.63	m	19,918.94

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
32	909.30	Finishing top of roof with one course of Hydraulic Pressed Tiles of approved superior quality of size 23cmx 23cmx20mm thick laid over weathering course in cm 1:3 (One of cement and three of sand) 12mm thick mixed with crude oil at 10% by weight of cement used and pointed neatly with the same oil mixed mortar, curing etc., as per standard specifications. (The quality of tiles shall be got approved from the EE before use)	1274.07	m <sup>2</sup>	11,58,511.85
33	938.90	Plastering with CM 1:3 (one of cement and three of sand ) 12 mm thick mixed with water proofing compound (CICO) at the rate of 2 kg / 10 sq.m including curing etc., all complete complying with relevant standard specification.	297.88	m <sup>2</sup>	2,79,679.53
34	932.90	Labor charges for chipping the spalled and old concrete of the column, beam, slab and other elements. Check for the phenolphthalein test and if there is no change in color, chip the same further down until, reaching the good or uncontaminaterd concrete. Clean the surface and make sure that surface is clean and free from loose particle.	40.37	m <sup>2</sup>	37,661.17

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
35	160.00	Making Anchoring in the existing damaged R.C.C. works which has been cleaned by surface preparation and drilling 20 mm dia holes in the concrete columns/beams /slabs using electrically operated hammer drilling machine without much vibration so as not to disturb the adjacent concrete/damaging the existing building structure and clean the hole wash the same with good quality potable water and allow it to dry completely cut of the 12mm dia R.T.S. rods to the required length and kept it ready for anchoring, and mix the base and hardener of the polyester anchor resin of approved make and as specified by	277.00	Nos	44,320.00
		the manufacturer in the Annexure mechanically using a slow speed mixing machine to prepared holes to the 1/3 of the depth and push the anchor rod gently into the holes and finish the end, with excess resin and allow it to set for 20 to 30 minutes etc., including cost of Anchor rod, labour charges, solvent, tools tackle and electrical charges etc., complete and as directed by the departmental officers.  CER.No: 126/2021-22			

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
36	24.00	Providing Galvanic anodes or sacrificial anode or galvanic cathodic protection system for protecting the metal structures from corrosion. Galvanic anodes anode units should be installed after placement of reinforcing steel. The location and spacing of the units shall be as specified. The units are placed in the center of the reinforcing grid to provide even current distribution to the steel. The minimum concrete cover over the anode units should be 1 inch (25mm). Securely fasten the anode units by wrapping the two individual steel tie wires multiple times around the reinforcing steel in opposite directions. Using a rebar tie wire tying tool or pliers, grab the loop ties and twist the anode tie wires tight. Anode-to-steel and steel-to steel continuity should be verified with an appropriate meter prior to concrete placement. A value between 0 and 1 ohm should be achieved. Discontinuous steel should be tied to continuous bars using steel tie wire and retested. For targeted protection along construction (cold) joints, install two lines of Galvanic anodes, one on each side of the joint a maximum of 8 inches (200mm) away from	2400.00	Nos	57,600.00
37	48.00	Providing Shear Connectors for providing composite action between the existing RCC slab and the newly added concrete layer. The works should comply the Indian Standard code for retrofitting of structures is IS 13935:1993. The shear connectors should be provided at a spacing not exceeding 300 mm c/c and should be capable of resisting a minimum shear force of 0.5 times the design shear force at the section where they are provided. The procedure for retrofitting with shear connectors involves drilling holes in the existing RCC slab and inserting steel bars into them which are then welded to steel plates on top of which fresh concrete is poured including cost and labour charges etc., all complete as per the relevent standard specification and as directed by the departmental Officers. (Quotation)	225.00	Nos	10,800.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
38	58.40	Providing anticorosive zinc painting priming for the existing exposed reinforcement in the R.C.C Structures by exposing the existing corroded reinforcement bars fully in the repair area and remove all loose scale and corrosion deposits steel should be cleaned to a bright conditions and tested using phenlophthalin and silver nitrate solution paying particular attention to the back of the exposed steel bars, mechanically scruping using the wire brush recommended for this process .(The zinc primer should be of approved make and qulality ). The cost includes cost of zinc primer and labour charges centering, sturtting, scaffolding etc., complete as per the relevent standard specification and as directed by the deparmental Officers.  CER.No: 126/2021-22	1853.25	Ltr	1,08,229.80
39	932.90	Applying <b>Epoxy jointing compound</b> for providing bonding to the new and old concrete for the damaged RCC repair area by mixing the base and hardener to the Epoxy jointing compound of approved make. The proportionate of mixing should be of the manufacture specification as per annexure and applying the same with 4" brush including cost and labour charges concreting, strutting, scaffolding etc., complete as per the relevent standard specification and as directed by the departmental Officers. CER.No: 126/2021-22	709.00	m <sup>2</sup>	6,61,426.10

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
40	167.10	Micro concreting for the damaged RCC BEAM works using sufficient quantity of micro concrete mix of approved make/quality with following mix combination as specified by the manufactures and 12mm down glazed chips to enable completion of pouring in continuous operation with approved grout concrete mixer of low speed heavy duty drill fitted with suitable paddle and adding exact quantity of water as recommended by the manufacture should be poured into mixing vessel and add the micro concrete mix and chips slowly and mix the same thoroughly in a forced action and placing the micro concrete for the required thickness of 75mm immediately to positioned slurry tight form work continuously etc., all complete as directed by the departmental officers. CER.No: 126/2021-22	3536.04	m <sup>2</sup>	5,90,872.28
41	150.30	Reinforced cement concrete 1:1.5:3 (One of cement, one and half of sand and three of HBS chips jelly) for bracketing the damaged RCC columns in superstructure works using 3mm to 12mm gauge hard broken stone jelly mixed with Self compacting admixure of Auromix 400 at 3.00 litre per 100 kg of cement to enable completion of pouring in continuous operation with approved grout concrete mixer of low speed heavy duty drill fitted with suitable paddle and adding exact quantity of water and admixure shoud be poured into mixing vessel and add the cement , sand, chips jelly and admixure slowly and mix the same thoroughly in a forced action and placing the concrete for the required thickness of 100mm immediately to positioned slurry tight form work continuously etc., all complete as directed by the departmental officers.excluding shuttering and centering but including laying, curing and finishing with relevant standard specifications as directed by the departmental officers.	1575.00	m <sup>2</sup>	2,36,722.50

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
42	426.50	Repair of RCC isolated locations for the damaged RCC slabs beams and columns by applying a bonding coat of Polymer modified cementitious liquid of approved make with CM 1:3 or as per the ratio specified by the manufacture per bag of cement and fixing in a position in a layer of chicken mesh of 22/24 SWG with 12mm opening and applying the prepared mortar by five layers when the bonding coat is tacky as directed by departmental officers. The rate inclusive of cost of all materials, labour, load, lift, shuttering using plywood if required and scaffolding, thickness of application should not be less than 50mm thickness and plastering in five layers etc.complete as per the relevent standard specification and as directed by the departmental Officers. CER.No: 126/2021-22	4737.58	m <sup>2</sup>	20,20,577.87
43	200.00	Pressure grouting by injecting plasticised expanding grout admixture of approved make and non shrink cementitious grout using the electrically operated grouting pump by drilling holes in the core concrete of coloumn, beam and slab to increase the strength of column before proceeding with the repair methodology drilling can be done using 14mm dia drill bit and fixing nozzle to the holes with plugging material of approved quality etc., including machinaries and fuel charges etc., complete as per the relevent standard specification and as directed by the departmental Officers.  CER.No: 126/2021-22	231.00	Nos	46,200.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
44		Providing two legged scaffolding using 15cm diameter bluegum posts or pocasurina props or best quality bamboo posts of 4m overall length (3m height + 0.50m projection + 0.50m into the ground) the distance between the two rows being 1.25 m and the spacing of posts being 2m in both rows with two horizontal posts with 0.5m overlap on either side and braces at 2mc/c including longitudianal and transverse middle braces to step up and providing a platform with country wood planks of 40mm thick and 1 m width etc., complete with firm using coir and nails 1m run, complete as per the relevent standard specification and as directed by the			
	77.40	departmental Officers.	721.20		55 929 (2
	94.00	a. for an over all height of 5.5m b. for an over all height of 13m	721.30 1075.68	m m	55,828.62
	90.00	c. for an over all height of 15.5m	2138.82	m	1,92,493.80
45	743.90	Special curing immediately after removing the form work or after completion of the repair work, the surface should be sprayed with bonding polyester modified cementitious liquid with curing compound as per the ratio 1:1 of the manufactures diluted with potable water as a curing using sprayer etc., complete as per the relevent standard specification and as directed by the departmental Officers. CER.No: 126/2021-22	150.00	m <sup>2</sup>	1,11,585.00
46	11.60	Providing slurry tight form work which should not deform (or) leak due to pressure of micro concerete shall be fabrication and erected in position using 6mm thick commerical plywood, M.S. angle 25 x 25 x 3mm and casurina props and suitable feed hopper for pouring micro concrete the form work should be coated with the mould released agent prior to final fixing in position proper supporting arrangments to be made for keeping the shutter in correct line and length etc., complete as per the relevent standard specification and as directed by the departmental Officers.  CER.No: 126/2021-22	1064.19	m <sup>2</sup>	12,344.60

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
47	144.00	Drilling of 50mm dia 200 mm depth hole for inserting the 16mm dia longitudinal bar for columns including labour for inserting the rods and plugging the gap with chemical group etc all complete as per relevant standard specification and as directed by the departmental officers.  CER.No: 126/2021-22	90.00	Nos	12,960.00
48	264.00	Drilling of 40mm dia hole to a depth of 80mm over the column surfaces after chipping the column surface and clean the hole and plugging the hole with chemical grout and inserting the connector rod 10mm dia and 300mm long inside the grout to a depth of 50mm and tying the connector rod to the main longitudinal reinforcements etc all complete as per relevant standard specification and as directed by the departmental officers.  CER.No: 126/2021-22	85.00	Nos	22,440.00
49	517.00	Drilling of 30mm dia hole horizontally in the beam width wise to insert the 10mm beam stirrups and plugging the hole with chemical grout and bend the 10mm dia rod to form the beam stirrups including cost of chemical labour for drilling inserting the rods tools and plants for drilling but excluding the cost of steel etc all complete as per relevant standard specification and as directed by the departmental officers.  CER.No: 126/2021-22	65.00	Nos	33,605.00

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
50		Supplying and fixing of single leaf Soild core flush door shutters using boiled water resistance (BWR) teak wood ply as per IS 303-1989, the cross band and face veneers are to be banded with phenol formaldehyde synthetic resin in hot press both sides and manufacturing the shutter by using quality timber of termite proof and seasoned to moisture content not more than 10%, hot pressed with hydraulic press at a temperature of 1500 to the norms as per IS 2002-1983 and TW Ply on Both side with teak wook lipping around, 35mm thick including cost and fixing of Aluminium furniture fittings such as 5 nos 5" hinges, 2 Nos 6" Towerbolt, 2 Nos 6" Handle, 1 no Aldrop 250mm long and 16mm dia, 1No 40mm dia & 60mm long rubber bush, 1 no Aluminium Door stopper with rubber bush with required Brass screws, labour charges for wrought and putup and fixing in position of flush shutters and as directed by the departmental officers. (The quality and brand of materials should be got approved from the Executive Engineer before use.)			
	7.40	c) D - 1.00x2.10 (Single leaf)	3033.96	m <sup>2</sup>	22,451.30
51	22.70	Painting the new wood work with two coats of approved first class synthetic enamel ready mixed paint in addition to one coat of primer of approved quality and shade, the paint should be supplied by the contractor at his own cost (The quality and the shade of paint should be got approved by the Executive Engineer before use) complying with relevant standard specifications.	248.88		5,649.58
52	2744.50	Painting the old wall surface with two coats of water proof chemical paint of best approved quality and colour over a priming coat, including clean removal of dirt and dust etc., complete including cost of necessary brushes, labour charges, putty etc., complying with relevant standard specification. (The paint should be supplied by the contractors at his own cost. The quality and shade of the paint should be got approved by the Executive engineer before use.)	364.66	m <sup>2</sup>	10,00,809.37

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
53	220.40	Painting the old iron work two coats with of ready mixed first class synthetic enamel paint of approved quality and brand, the paint should supplied by the contractor at his own cost (the quality and the shade of paint should be got approved from the Executive Engineer before use) etc., complying with relevant standard specification.	150.00	m <sup>2</sup>	33,060.00
54	1208.30	Painting the false ceilling / walls two coats with 1st class ready mixed plastic emulsion paint of best approved quality colour and shade over a priming coat, including clean removal of dirt and dust etc., complete including cost of necessary brushes, labour charges, putty etc., complying with relevant standard specification. (The paint should be supplied by the contractors at his own cost. The quality and shade of the paint should be got approved from the Executive engineer before use.)	248.97	m <sup>2</sup>	3,00,830.45
55	362.90	Painting the old wood work with two coats of approved Ist class synthetic enamel ready mix paint in addition to one coat of primer of approved quality and shade including thorough scrapping the old paint using sand paper as required by the departmental officers including cost of material, labour for painting, supplying etc., all complete as directed by the departmental officers. (the paint quality and shade should be got approved from the Executive Engineer before using.)	170.00	m <sup>2</sup>	61,693.00
56	63.00	Supply and Run off main with 2 wires of 1.5 sq.mm. PVC insulated single core multi strand fire retardant flexible copper cablewith ISI mark conforming to IS: 694/1990,1.1 kv grade cable with continuous earth by means of 1x1.5 sq.mm PVC insulated single core multi strand fire retardant flexible copper cable with ISI mark conformuing to IS: 694/1990,1.1. k.v. grade cable in fully concealed 19mm/20mm dia rigid PVC conduit pipe heavy dutywith ISI mark cost of all materials, specials etc., all complete and as directed by the departmental officer.	214.90	m	13,538.70

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
57	80.00	Supply and Run off main with 2 wires of 2.5 sq.mm. PVC insulated single core multi strand fire retardant flexible copper cablewith ISI mark conforming to IS: 694/1990,1.1 kv grade cable with continuous earth by means of 1x2.5 sq.mm PVC insulated single core multi strand fire retardant flexible copper cable with ISI mark conformuing to IS: 694/1990,1.1. k.v. grade cable in fully concealed 19mm/20mm dia rigid PVC conduit pipe heavy dutywith ISI mark cost of all materials, specials etc., all complete and as directed by the departmental officer.	233.00	m	18,640.00
58	36.00	Supply and Run off main with 2 wires of 4 sq.mm. PVC insulated single core multi strand fire retardant flexible copper cablewith ISI mark conforming to IS: 694/1990,1.1 kv grade cable with continuous earth by means of 1x2.5 sq.mm PVC insulated single core multi strand fire retardant flexible copper cable with ISI mark conformuing to IS: 694/1990,1.1. k.v. grade cable in fully concealed 19mm/20mm dia rigid PVC conduit pipe heavy dutywith ISI mark cost of all materials, specials etc., all complete and as directed by the departmental officer.	273.00	m	9,828.00
59	20 400	Supplying, laying, fixing and jointing the following PVC pipes (10 Kg/cm2) suitable for plumbing by threading of wall thickness including the cost of suitable PVC/GI specials /GM specials like Elbow, Tee reducers, Plug, union, bend, coupler, nipple/ GM gate valve, check and wheel valve etc., wherever required above the ground level including the cost of teflon tape, special clamps, nails, etc., fixing on wall to the proper gradiant and alignment and redoing the chipped of masonry etc., as directed by the departmental officers. (Above GL)			
	173.00	a. 32mm dia	271.54	m	46,976.42
	100.00	b. 25mm dia	253.25		25,325.00
60	5.00	Supplying and fixing of C.I. manhole cover with locking arrangements of approved quality and brand of size 0.45x0.45 metre (20 Kg) including cost of material labour charges for fixing etc., all complete and as directed by the departmental officers.	967.50	Nos	4,837.50

S. No	Qty.	DESCRIPTION OF WORK	Rate	Per	Amount
60	5.00	Supplying and fixing of C.I. manhole cover with locking arrangements of approved quality and brand of size 0.45x0.45 metre (20 Kg) including cost of material labour charges for fixing etc., all complete and as directed by the departmental officers.	967.50	Nos	4,837.50
61	115.40	Stucco Plastering 12mm thick using hard broken stone chips of size 10mm and below using 86.50 kgs of cement and 0.15 m3 blue metal chips for every 10m2 area over the existing plastered surface including curing etc., complete complying with relevant standard specifications and as directed by the departmental officers.	342.74	Sqm	39,552.20
		Sub Total A			91,72,126.79
62		GST 18%			16,50,982.82
		Sub Total B		1	1,08,23,109.61
63		Labour Welfare Fund @ 1%			91,721.27
64		Contingencies and Unforeseen Expenses @ 2.5%			2,73,435.89
65		Supervision Charges @ 7.5%			6,87,909.51
66		GST for Supervision Charges @ 18%			1,23,823.71
		Grand Total			1,19,99,999.99
		SAY		Rs.	1,20,00,000.00

Chief Engineer
Tamilnadu Police Housing Corporation Ltd
Chennai - 600 010.

