

PUBLIC WORKS DEPARTMENT

TECHNICAL EDUCATION DIVISION,VELLORE.

NAME OF WORK : Providing compound wall and security room arrangements for construction of Girls hostel building in Thiruvalluvar University Campus at Serkadu village of Katpadi.

SL NO	QUANTITY	DESCRIPTION OF WORK	TNBP NO	NBC NO	RATE IN FIGURE & WORDS	UNIT	AMOUNT
1	752.00 M ² [Seven hundred and fifty two square metre]	Clearing the site for scrub jungle etc., complete complying with standard specification and as directed by the departmental officers.				1 m ² [One square metre]	
2	248.90 M ³ [Two hundred and forty eight point nine zero cubic metre]	Earthwork excavation for foundation in all soils and sub soils to full depth as may be directed except in hard rock requiring blasting inclusive of shoring shuttering, bailing out water wherever necessary refilling the foundation with excavated earth other than sandy soil in layers of not more than 15 cm thick layers well rammed and depositing the surplus earth within compound in place shown by the departmental officers with an initial lead of 10 metre and initial lift of 2 metre and clearing and leveling the site etc., complete complying with standard specification and as directed by the departmental officers.	31C	V2 VI S.4 VII 3.4		1 m ³ [One cubic metre]	
3	26.50 M ³ [Twenty six and point five zero cubic metre]	Cement concrete 1:5:10 (one cement, five M-sand and ten aggregate) using 40mm gauge hard broken blue granite stone jelly for foundation and basement including dewatering if found necessary and laid in layers of not more than 15cm thick and compacted etc., complete complying with standard specification and as directed by the departmental officers.	31C	V2 VI S.4 VII 3.4		1 m ³ [One cubic metre]	
4	17.00 M ³ [Seventeen cubic metre]	Filling basement with excavated earth in layers of not more than 15 cm thick well watered , rammed and consolidated etc., complete as per standard specification.	23	3.1.3.4 11		1 m ³ [One cubic metre]	
5	15.65 M ³ [Fifteen point six five cubic metre]	Supplying and filling in foundation and basement with filling gravel in layer of 15cm thick well rammed and consolidated including watering complying with standard specification.	23	3.1.3.4 11		1 m ³ [One cubic metre]	

6	243.15 M ² [Two hundred and forty three point one five square metre]	Supplying and erecting steel centering including necessary supports for plane surfaces in foundation and basement for reinforcement concrete works such as column footing, plinth beam, grade beam, staircase step, bed block etc., which require only normal strutting using M.S. sheets of size 90cmx60cm BG 10 gauge of stiffened and welded with mild steel angles of size 25mmx25mmx3mm for boarding laid over silver oak joists of size 10cmx6.50cm spaced at about 90cm centre to centre and supported by the casurina props of 10cm to 13cm dia spaced at 75cm centre to centre at suitable intervals etc., complete complying with standard specification.	1 m2 [One square metre]
7		Providing form work for centering, shuttering etc., for all RCC works including strutting upto 3.29m high in all floors using mild steel shutters of size 90cmx60cm of BG 10 stiffened with mild steel angles of size 25mmx 25mmx3mm laid over silver oak (Country wood) Joists of size 10cmx6.5cm spaced at about 90cm c/c and supported by casurina props of 10cm to 13cm dia. (spaced at 75cm c/c) etc., complete complying with standard specification and as directed by the departmental officers.	
a	41.50 M ² [Forty one point five zero square metre]	For Plane surface such as RCC floor slab, roof slab, rectangular, square Tee or Ell beam, lintel, bed block staircase waist slab, landing slab, landing beam, portico slab, portico beam etc.,	1 m2 [One square metre]
b	262.80 M ² [Two hundred and sixty two point eight zero square metre]	For Plane surface such as RCC square or rectangular column, top and bottom slab of sunshade, boxing sill slab etc., complete as directed.	1 m2 [One square metre]

c	96.00 M ² [Ninety six square metre]	Providing rigid and smooth centering for vertical RCC concrete wall of supply channels retaining wall etc., for following height with necessary supply support below ground level & various height above ground level using MS sheets of size 90cm x 60cm x& BG 10 gauge stiffened with MS angle of size 25x25x3mm laid over silver oak joists of size 7.5cmx5cm spaced at 90cm center to center supported by casurina props of size 10 to 13 cm dia spaced at 75cm center to center etc., complete as directed by the engineer as per the technical specification 0 to 180cm height (Veritcal centering)			1 m2 [One square metre]
8		Providing and laying in position, standardised concrete Mix M-20 grade in accordance using 20mm with IS:456-2000 and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content of 325 kg/ms and maximum water cement ratio of 0.55, including admixture (plasticiser/super plasticiser) in recommended proportions as per IS:9103 to accelerate, setting of concrete, improve workability without impairing strength and durability with about (5 cu.m.) 7730 kg. of 20mm machine crushed stone jelly and with about (3.3 cu.m) 5156 kg. of 10-12mm machine crushed stone jelly and with about (4.79 cu.m.) 7670 kg. of M.sand, 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 standard specification and as directed by the departmental officers. The coarse and fine aggregates to be used should comply with thr requirements of IS standards. (No seperate payment will be made by the Department for the excess usage of materials).			
a)	47.35 M3 [Forty seven point three five Cubic metre]	For Foundation and Basement	31C	V2 VI S.4 VII 3.4	1 m3 [One cubic metre]
b)	15.00 M3 [Fifteen]	For Ground Floor	31C	V2 VI S.4	1 m3 [One

	Cubic metre]		VII 3.4		cubic metre]
9	57.80 Qtl [Fifty seven and eight zero quintal]	Supplying fabricating and placing in position of steel reinforcement using MS (or) RTS rods for all RCC item of works including cost of steel and binding wire in all floors etc. complete complying with standard specification and as directed by the departmental officers. (The contractor will have to make his own arrangements for the supply of M.S.plain rod / RTS rod and black binding wire).	97	VI	1 Qtl [One quintal]
10		Brick Work in Cement Mortar 1:6 (one Cement & six m.sand) using II Class Ground Moulded Chamber burnt Bricks of size 9 "x4 3/8"x 2 3/4" including curing etc., Complete Complying with standard specification and as directed by the Departmental officer. (masonry projections Whereever necessary for obtaining required elevation shall be done without extra cost)			
a)	20.90 M3 [Twenty point nine zero Cubic metre]	For foundation & Basement	31C	V2 VI S.4 VII 3.4	1 m3 [One cubic metre]
b)	19.60 M3 [Nineteen point six zero Cubic metre]	For Ground floor	31C	V2 VI S.4 VII 3.4	1 m3 [One cubic metre]
11		Brick partition wall 11.10 cm thick using IInd Class Ground Moulded Chamber Burnt Bricks 9"x43/8"x2 3/4" in cement mortar 1:3 (One cement and three sand including fixing hoop iron reinforcement if found necessary, laying, finishing and curing and including plastering in CM 1:5 (One cement and five sand) 12mm thick on both sides etc., complete complying standard specification.			
a)	378.40 M ² [Three hundred	For Superstructure in Ground floor	S 61	V(S4)3	1 m2 [One

	seventy eight point four zero square metre]				square metre)
12	1032.50 M2 [One thousand and thirty two point fifty square metre]	Plastering with cement mortar 1:5 (one cement and Five P-sand) 12mm thick in all floors including finishing neatly curing etc., complete complying with standard specification.	Spl		1 m2 [One square metre]
13	375.00 M2 [Three hundred and seventy five square metre]	Special Ceiling plastering and finishing the exposed surface of RCC items of work such as slab, beam sunshade, facia, canopy slab, staircase waise slab,landing slab etc., with cement mortar 1:3,(one cement and three M-sand) 10mm thick including hacking the surfaces and providing cement mortar nosing, beading for sunshade, staircase step landing slab neatly finishing and curing, etc., complete	Spl		1 m2 [One square metre]
14	1407.50 M2 [One thousand four hundred and seven point five zero square metre	Painting two coats of newly plastered wall surface with ready mixed plastic emulsion paint of first class quality and of approved colour over a priming coat including thorough scrapping, clean removal of dirt, and including necessary plaster of paris putty, wherever required etc., complete complying with standard specification.	Spl		1 m2 [One square metre]
15	27.30 M2 [Twenty seven point three zero square metre]	Providing the top of flooring with granolithic floor finish of 40mm thick with cement concrete 1:2:4 [One cement two sand & four HBG 10 - 12mm size machine curshed chips including curing & finishing etc., complete complying with standard etc., complete complying with standard specification as directed by the departmental officers at site.	Spl		1 m2 [One square metre]
16	2.30 M2 [Two point three zero	Providing expansion joint of 20mm width in between RCC twin columns from top of pedastal to full height including filling the inner space with suitable non - absorbent flexible and well	Spl		1 m2 [One square

	square metre]	inner space with suitable non-absorbent, flexible and well compressible filler materials of approved quality and brand; finishing the sides of RCC columns with polysulphide sealants for a depth of 7.5mm on either side covering the inner space filled with filler materials as above etc., complete complying with standard specifications and as directed.			metre]
17	607.40 Kg [Six hundred and seven point forty Kilograms]	Supplying and fixing of approved M.S Grills for doors,windows,open courtyard, grill gate etc., using necessary mild steel flats for inner and outer members which should be fixed on edges including priming coat of best approved quality red oxide primer etc., complete complying with standard specifications	Spl		1 Kg [Kilo grams]
18	51.20 M2 [Fifty one point two zero square metre]	Painting new iron works with two coats of best approved first quality and colour of synthetic enamel paint over the existing red oxide priming coat in all floors excluding cost of priming coat etc., complete complying with standard specification and as directed by the departmental officer. (The make quality and colour of paint should be got approved by the Engineer before use on work).	Spl		1 m2 [One square metre]

19	2.10 M2 [Two point ten square metre]	Manufacturing supplying and fixing of MILD STEEL DOOR made out of 40 x 40 x 6 mm M.S angle for outer frame, 35 X 35 X 6mm M.S.Angle for outer frame of shutter. Bottom 1/3rd portion of the shutter area shall be covered with CRC sheets (18 G) and provided with required locking facilities, hinges etc., Top 2/3rd portion will be covered by M.S.Grill at 9Kg/ Sqm. and the section will confirm to IS: 7452 OF 1982. The 1No, of stiffeners using M.S.Flats of size 25 X 6mm at equal intervals horizontally. The corners of the frames and shutter with CRC sheets shall be welded by adopting flash butt welding or any other suitable method. Provision towards 3Nos, of Hinges incase of single shutters / 6Nos, of Hinges incase of Double shutters of 125 X 31 X 1.25mm size placed at appropriate intervals and provisions shall be made for Tower bolts 2Nos, Aldrop 1No. The frame shall be provided with 6Nos, of Hold fast of 200mm length using 50 X 6mm M.S.Flat. The entire frame and shutter shall be provided with one coat of red oxide primer including cost of hold fasts, hinges, locking arrangements, handles etc., complete. Single leaves	Spl	1 m2 [One square metre]
20	0.72 M2 [zero point seventy two square metre]	Supplying and fixing in position steel glazed louvered ventilator with side central hung shutter (two Leaves) frame and made shutter frame made out of steel section conforming to IS 7452/1990. The outer frame made out of Z section (F7D) of size 33x22x3mm conforming to IS 7452/1990. The mullions are made out of (F4B) section of size 46x25x3mm and conforming to IS7452/1990. The shutter are individual and each of them can be operated separately. Each welded with the frame at appropriate point MS square bar of 12mm dia is welded to the inner face of the ventilator at equal intervals not exceeding 10cm spacing 3mm pin headed glass is used for glazing with good quality and fixed with 15x12mm teak wood beading with screws for fixing . the shutter are to open outside etc.,	Spl	1 m2 [One square metre]

21	3.64 M2 [Three point sixty four square metre]	Manufacturing, Supplying and Fixing in position of M.S steel window with following specifications. The outer frame of window made out "Z" section (F7D) of size 33x25x3mm at 1.419 Kg/m and mullion of "J" section (F4B) of size 45x25x3mm at 2.28 Kg/m. Shutter made out of (F7D) section of size 33x22x3mm at 1.419 Kg/m. Each openable shutter should not be exceeded a width 600mm to enable separate operations and easy maintenance. 2Nos. of sturdy hinges and one number of handle cum latch of special type make with 18x5 MS flat are revetted to the shutters of an appropriate height in each window shutter. between them. All members are painted with one coat of anticorrosive red oxide primer as directed by the departmental officers. All sections used should confirm to IS 7542 / 1990. The rate includes cost of all materials, labour charges, transportation to taxes and incidental charges etc. complete. Two Leaves	Spl	1 m2 [One square metre]
22	3.15 M2 [Three point one five square metre]	FRP door shutter with FRP door frames made out of FRP sheets of 3 mm thick of over size 65mm x 50 mm with rebate suitably reinforced using MS Angle / Flats, cost of holdfasts and soild core FRP shutter Panel of 5 mm thick and hollow core frames of 3mm wall thickness 5 mm thick and hollow of 3m wall thickness for styles and rails etc., of sizes specified by Engineers.	Spl	1 m2 [One square metre]
23	2.00 Nos [Two Numbers]	Supplying and fixing inposition Indian water closet oriya type of size 580x440mm white glazed earthenware of approved quality with 'P' trap or 'S' trap confirming to IS:2556 Part XII with sand cushion and forming flooring alround the closet using 40mm broken brick jelly in lime concrete 1:2:5[one part of lime, two part of sand & five part of brick jelly] 100mm thick and finishing the top to required slope & including giving necessary connection to PVC pipes by dismantling brick masonry,reinforced cement concrete roof/floor slab & making good the disturbed portion to original condition without leakage etc.,complete complying with standard specification and as directed by the departmental officers	Spl	1 No [One Numbers]

24	2.00 Nos [Two Numbers]	Supplying & fixing in position 15mm dia Chromium Plated brass screw down tap (heavy type) of approved make conforming to ISS and including cost of shellac, thread etc., complying with standard specification and including cutting and threading wherever necessary (Taps should be got approved by the Departmental officers before use on works]	Spl		1 No [One Numbers]
25		Supplying, laying and joining UPVC pipes (Handle higher pressure)of approved quality and best variety conforming to ISS with ISI mark, of the the following size below Ground level laid properly to alignment including cutting, threading and fixing the required PVC specials but excluding the cost of such specials etc., complete.	Spl		
a)	30.00 Rm [Thirty Running metres]	25mm dia UPVC pipe	31C	V2 VI S.4 VII 3.4	1 Rm [One running metre]
26		Supplying and fixing in position of the following UPVC specials best approved quality conforming to ISS and providing leak proof joints with UPVC adhesive etc., including fixing to walls with necessary teak wood plugs screws etc., and giving connections to the UPVC pipe dismantling the brick masonry RCC floor or roof slab and redoing the disturbed portion to original conditions etc., complete complying with standard specifications. -The UPVC specials should be got approved from the Executive Engineer before use on works -.	Spl		
a)	6.00 Nos [Six numbers]	UPVC Elbow 25mm	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
b)	4.00 Nos [Four Numbers]	UPVC Tee 25mm	31C	V2 VI S.4 VII 3.4	1 No [One numbers]

c)	6.00 Nos [Six Numbers]	UPVC Coupler 25 mm dia	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
d)	2.00 Nos [Two Numbers]	UPVC Reducer 25 x 20mm	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
27		Supplying and fixing in position best quality PVC Soil/ Waste pipes(6 kg/cm2) of various size having ISI mark and providing leak proof joints including fixing to the wall with special PVC /MS clamps, etc., and making connection to all sanitary fittings, dismantling masonry etc., complete complying with standard specification. (Below Ground level)	Spl		
a)	29.00 Rm [Twenty nine Running metre]	110mm dia PVC Soil Pipe	31C	V2 VI S.4 VII 3.4	1 Rm [One running metre]
28		Supplying and fixing in position PVC specials of the following dia and types of approved quality confirming to BIS and providing leak proof joints including fixing to the walls and giving connection to the PVC soil stacks, dismantling the masonry or RCC works and re-doing the dismantled portion to original condition etc., complete complying with standard specifications. (The PVC specials should be got approved by the Executive Engineer before use on works).	Spl		
a)	4.00 Nos [Four Numbers]	110mm dia Elbow	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
b)	2.00 Nos [Two Numbers]	110mm dia Tee	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
c)	4.00 Nos [Four Numbers]	110mm Bend	31C	V2 VI S.4 VII 3.4	1 No [One numbers]
29	9.30 Rm [Nine point	Providing and fixing rain water downfall pipe of 110mm dia with including cost of PVC pipe with necessary shoes, bends,	31C	V2 VI S.4	1 Rm [One

	three zero Running metre]	clamps, teak wood plugs bars screws etc., complete complying with standard specification. 160mm dia PVC rainwater down fall pipe	VII 3.4		running metre]
30	10.30 Rm [Ten point three zero Running metre]	Fabricating supplying and fixing inposition C.R.C.A Pressed steel box section 18 gauge or 1.25mm thick for door frames of section size 105mm x 60mm x 1.25mm thick with necessary rebate of size 35 x 15mm for housing door conforming to IS specification frames shall be fabricated according to the door size with joints properly welded and grinded. Stiffeners with 25 x 3mm M.S. Flat shall be provided around the frame at 60 cm intervals. The cost of shall also include for providing 3 Nos., of M.S. clamps with 25 x 3 flats each on either sides of door frame, Providing bottom tie, with 10mm dia MS rod, providing necessary holes for receiving tower bolts with stiffeners on inner side providing holes in the frame for fixing the required number of I.O.hinges of size 125 x 30mm for shutters properly welded to the frames.	31C	V2 VI S.4 VII 3.4	1 Rm [One running metre]
31	3.99 Rm [Three point nine nine Running meter]	Supplying and fixing in postion of 35mm thick solid core flush door shutters double leaf with TW ply on both sides and with TW lipping of size 35x12mm on all edges with necessary adhesives and C.P. Screws. Alu. Butt Hinges (6 nos. 250 x 16 mm Size), Alu. Aldrop 1 No. 250 x 16 mm Size, Alu. Tower Bolt 2 No. 250 x12 mm size, alu. Tower Bolt, 1 No. 200 x 12 mm size, D type alu. Handle 2 Nos, 2 Nos. of 200mm length alu. door stopper with rubber bush shall be provided, as directed by the departmental officers etc., complete.	Spl		1 Rm [One Running metre]
32	8.78 M2 [Eight point seventy eight square metre]	Painting new wood works two coats with best approved first quality and colour of synthetic enamel paint over a priming coat of approved quality and colour in all floors etc., complete complying with standard specification and as directed by the departmental officers. (The make quality and colour of paint should be got approved by the Engineer before use on work	Spl		1 m2 [One square metre]
33	68.70 M2 [Sixty eight	Paving the floor with fully polished Rajasthan Kotta stone of size 600mm X 600mm X(18/20)mm thick (average) and base	Spl		1 m2 [One

	point seven zero square metre]	layer of cement mortar 1:3 (One cement and three M-sand), 20mm thick and applying cement slurry & pointed with white cement and colour pigments to the colour of stones and polished neatly etc., complete complying with standard specification and as directed by the Departmental officers. (The Kotta stone slab should be got approved by the Executive Engineer before use on works)		square metre]
34	3.60 M2 [Three point six zero square metre]	Paving the flooring with colour design ceramic tiles of approved quality and colour of size 305 x 305 x 6mm for flooring in all floors over a base layer of cement mortar 1:3 (one cement and three M-sand) 20mm thick and pointing with white cement using 0.30kg/m2 of white cement including adding suitable colour pigments to suit the colour of tiles finishing perfectly and curing as directed by the Departmental officers including cost of tiles, all materials and incidental charges, transportation charges and labour charges for laying tiles etc., complete complying with standard specification and as directed by the Departmental officers .	Spl	1 m2 [One square metre]
35	14.00 M2 [Forteen square metre]	Dadoing walls with best approved quality, white / colour glazed tiles of 300 mm x 200 x 6 mm sizes set in Cement Mortar 1:2 (One Cement and Two M-sand) 10mm thick and pointing the joints with white cement mixed with colouring pigments at the rate of 0.40 Kg. / sq.m. neatly in all floors, curing, etc., complying with standard specification and as directed by the departmental officers.	Spl	1 m2 [One square metre]
36	3.30 M2 [Three point three zero	Casting and fixing of R.C.C. PRECAST SLABS of following thickness in cement concrete 1:2:4 (One cement, two M-sand and four metal) using 20mm gauge hard broken granite stone	Spl	1 m2 [One square

	square metre]	and rear metal) using 20mm gauge hard broken granite stone metal excluding cost of reinforcement grill in position but including cost of moulding and plastering the top side with cement morotr 1:3 (One cement and three sand) 10mm thick curing, finishing, etc., complete. 50mm thick .		metre]
37	3.60 M2 [Three point six zero square metre]	Supplying and fixing Granite slab of size 1200 X 600mm and above (8 X20mm thick) in all floors in CM 1:3, 20mm thick Granite slab (Ruby Red/Raw Silk/Jet Black) 20mm thick for work table etc., complete complying with standard specification and as directed by the departmental officers.	Spl	1 m2 [One square metre]
38	6.60 Rm [Six point six zero Running metre]	Labour charge for finishing the top of working table and staircase step portion with Nosing arrangements in Granite Slab / tiles including cutting the edges and polishing including cost of polishing material	Spl	1 Rm [One Running metre]
39	25.20 M3 [Twenty five point twenty cubic metre]	Plain Cement concrete 1:2:4 (One cement two m-sand and four aggregate) using machine crushed 20mm gauge hard broken granite stone jelly excluding cenetering, shuttering and, but including laying, curing and finishing for road works etc., complete complying with standard specification and as directed by the departmental officers	Spl	1 m3 [One cubic metre]

Total Items : 39 (Thirty nine items only]

GST 12%
Total

Estimate Amount : 36,00,000/-

Executive Engineer, PWD.,
Technical Education Division,
Vellore - 632 002.

Department Value put to tender :